

BETTER HEALTH CARE AT HALF THE COST!

Third Edition

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A Single Payer that provides free basic health care to all U.S. residents could rapidly expand nationwide by offering all competent, qualified and interested health care workers a decent salary plus practice costs. Quality of Care might initially be assessed through electronic health records and patient feedback.

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insurance. Then we could all promote Better Health Care without worrying about health
care bills, or maxed-out-on-health-care credit cards!
See Commonwealth Fund Report on Single Payer right after Table of Contents

CHAPTER FIFTEEN

How a Single Payer might provide Better Health Care at Half the Cost

- 1) All American residents could get free basic health-care services including mental and dental care as offered to Congress, the Judiciary and Executive Branch
- 2) SP can negotiate discounts or subsidies for drugs of proven efficacy as seems rational and indicated
- 3) SP will regulate health-care monopolies, effectively monitor health care outcomes as indicated, and order ineffective health care providers to retrain or retire "for cause". Providers could appeal such SP orders to regional Medical Oversight Boards or to designated Courts.
- 4) SP could subsidize effective Substance-Abuse Treatment Programs
- 5) SP shall issue public reports upon, and appropriately regulate, harmful contaminants in US air, water and food
- 6) SP shall carefully evaluate manufactured items commonly considered food, such as Genetically Modified Monsanto Soy (often misidentified on food labels as "hydrolyzed vegetable protein"). Monsanto GM Soy may not be digestible as sold, so it could be a major contributor to the growing US pancreatic cancer epidemic
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- 8) Although it sounds impossible, Single Payer's total expenditures might easily exceed Single Payer's total income *without SP requiring additional taxpayer financial support, as long as every future **Government subsidy** (either as a loan or a gift) to any Business or Corporation, or future Government **tax rebate** (either as a loan or a gift) to any Business or Corporation is balanced by an equal current value, reversed loan or gift to Single-Payer (as Public Ownership Shares in all Businesses and Corporations that our Government supports by any loan and/or any gift)!*

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Enough money is a comfort. Too much money easily becomes an unrecognized burden. Huge incomes rarely improve a physician's career, practice outcomes or peace of mind. In contrast, Complementary Currencies help entire communities become richer and happier through the development of their Social Capital!

OVERVIEW

Durable organizations need roles and goals. Nations gain respect and wealth by improving the health and prosperity of their own citizens, or by helping poor folks in foreign lands advance toward those same goals

Corporations often "reorganize", *change their name, and move far away to avoid being held responsible for pollution or other environmental damage they have caused, or perhaps to avoid paying retired workers their long-promised retirement benefits for which no money was ever set aside! It should be a serious crime for Corporate money or other assets to be taken, possessed, retained, diverted or hidden by a Corporation or any representative thereof before all current and former workers receive the full salary and retirement packages they were promised.*

"A Sample Single Payer List of *Ways to improve American Health Care Outcomes at a far lower cost.*" You may wish to make further suggestions after a Single Payer has been organized.

AFTERWORD

1) *Big Oil Leaders at the time should face trial along with the entire Bush-2 Administration for initiating that Iraqi (Oil) War under obviously false pretenses. For without Bush-2's Born-Again Christian Crusader-attacks on Muslims, ISIS would not even exist.*

2) As the 21st Century began, the Republican Medical-Industrial Complex redesigned America's Health Care System for maximum enrichment of the top 1%. Bush-2 (and his greedy born-again Congressional cohort) were obviously not concerned by the resulting growth in credit card balances that forced countless ordinary Americans into bankruptcy from excessive medical costs and overcharges.

3) *Corporations lose their edge when they loot rather than compete as a business!*

4) *Elections rarely resolve health care issues!* But under Bush-2, Corporation lobbyists carefully adjusted **your** wages, your taxes and your health costs!

5) *Must we continue to make those unfair, unaffordable payments to the Medical-Industrial Complex?* Or can all American residents finally cooperate to create a fair Single-Payer Health Care System despite any/all the protests and threats by these health-related-profiteers?

5) *I am solely responsible for all errors, misleading ideas and truly annoying truths that might be found herein.*

AvH

The Commonwealth Fund Discussion of Single Payer for the United States of America (from Wikipedia)

"A number of proposals have been made for a universal single-payer healthcare system in the United States, most recently the [United States National Health Care Act](#), (popularly known as H.R. 676 or "Medicare for All") but none has achieved more than 20% congressional co-sponsorship.

"Advocates argue that [preventive healthcare](#) expenditures can save several hundreds of billions of dollars per year because publicly funded universal healthcare would benefit employers and consumers, that employers would benefit from a bigger pool of potential customers and that employers would likely pay less, would be spared administrative costs, and inequities between employers would be reduced.

"Advocates also argue that single payer could benefit from a more fluid economy with increasing economic growth, aggregate demand, corporate profit, and quality of life.^{[30][31][32]} Also, for example, [cancer](#) patients are more likely to be diagnosed at [Stage I](#) where curative treatment is typically a few outpatient visits, instead of at [Stage III](#) or later in an [emergency room](#) where treatment can involve years of hospitalization and is often terminal.^{[33][34]} Others have estimated a long-term savings amounting to 40% of all national health expenditures due to [preventive health care](#),^[35] although estimates from the [Congressional Budget Office](#) and *The New England Journal of Medicine* have found that preventive care is more expensive due to increased utilization.^[36]

"Any national system would be paid for in part through taxes replacing insurance premiums, but advocates also believe savings would be realized through preventive care

and the elimination of insurance company overhead and hospital billing costs.^[37] An analysis of a single-payer bill by [Physicians for a National Health Program](#) estimated the immediate savings at \$350 billion per year.^[38]

"The Commonwealth Fund believes that, if the United States adopted a universal health care system, the mortality rate would improve and the country would save approximately \$570 billion a year.^[39] Recent enactments of single-payer systems within individual states, such as in [Vermont in 2011](#), are seen as possible routes to enacting single-payer on the federal level.^{[40][41]} In December 2014, Vermont cancelled its plan for single payer healthcare.^[42]

"National policies and proposals

[Medicare in the United States](#) is a single-payer healthcare system, but is restricted to only senior citizens over the age of 65, people under 65 who have specific disabilities, and anyone with [End-Stage Renal Disease](#).^[43] Government is increasingly involved in [U.S. health care](#) spending, paying about 45% of the \$2.2 trillion the nation spent on individuals' medical care in 2004.^[44] However, studies have shown that the publicly administered share of health spending in the U.S. may be closer to 60% as of 2002.^[45]

"According to [Princeton University](#) health economist [Uwe Reinhardt](#), U.S. Medicare, [Medicaid](#), and [State Children's Health Insurance Program \(SCHIP\)](#) represent "forms of '[social insurance](#)' coupled with a largely private health-care delivery system" rather than forms of "[socialized medicine](#)." In contrast, he describes the [Veterans Administration healthcare system](#) as a pure form of socialized medicine because it is "owned, operated and financed by government."^[46]

"In a peer-reviewed paper published in the *[Annals of Internal Medicine](#)*, researchers of the [RAND Corporation](#) reported that the quality of care received by Veterans Administration patients scored significantly higher overall than did comparable metrics for patients currently using United States Medicare.^[47]

"The United States National Health Care Act, is a perennial piece of legislation introduced in the [United States House of Representatives](#) by Representative [John Conyers](#) (D-MI) every year since 2002.^[48] The act would establish a universal single-payer health care system in the United States, the rough equivalent of [Canada's Medicare](#), the United Kingdom's [National Health Service](#), and Taiwan's [Bureau of National Health Insurance](#), among other examples.

Under a single payer system, all medical care would be paid for by the [Government of the United States](#), ending the need for private health insurance and premiums, and probably recasting private insurance companies as providing purely supplemental coverage, to be used when non-essential care is sought. The bill was first introduced in 2002,^[48] and has been reintroduced in each Congress since. During the 2009 health care debates over the [bill that became the Patient Protection and Affordable Care Act](#). H.R. 676 was expected to be debated and voted upon by the House in September 2009,^[49] but was never debated.^[50]

"The [Congressional Budget Office](#) and related government agencies scored the cost of a single payer health care system several times since 1991. The [General Accounting Office](#) published a report in 1991 noting that "If the US were to shift to a system of universal coverage and a single payer, as in Canada, the savings in administrative costs [10 percent of health spending] would be more than enough to offset the expense of universal coverage.

”^[51] The CBO scored the cost in 1991, noting that "the population that is currently uninsured could be covered without dramatically increasing national spending on health" and that "all US residents might be covered by health insurance for roughly the current level of spending or even somewhat less, because of savings in administrative costs and lower payment rates for services used by the privately insured."^[52]

"A CBO report in 1993 stated that "The net cost of achieving universal insurance coverage under this single payer system would be negative" in part because "consumer payments for health would fall by \$1,118 per capita, but taxes would have to increase by \$1,261 per capita" in order to pay for the plan.^[53]

"A July 1993 scoring also resulted in positive outcomes, with the CBO stating that, "as the program was phased in, the administrative savings from switching to a single-payer system would offset much of the increased demand for health care services. Later, the cap on the growth of the national health budget would hold the rate of growth of spending below the baseline."^[54]

"The CBO also scored Sen. Paul Wellstone's *American Health and Security Act of 1993* in December 1993, finding that "by year five (and in subsequent years) the new system would cost less than baseline."^[55] A 2014 study published in the journal *BMC Medical Services Research* by James Kahn et al, found that the actual administrative burden of health care in the United States was 27.4% of all national health expenditures.

"The study examined both direct costs charged by insurers for profit, administration and marketing but also the indirect burden placed on health care providers like hospitals, nursing homes and doctors for costs they incurred in working with private health insurers including contract negotiations, financial and clinical record-keeping (variable and idiosyncratic for each payer). Kahn, et al. estimate that the added cost for the private insurer health system in the US was about \$471 billion in 2012 compared to a single payer system like Canada's. This represents just over 20% of the total national healthcare expenditure in 2012. Kahn asserts that this excess administrative cost will increase under the Affordable Care Act with its reliance on the provision of health coverage through a multi-payer system.^[56]"

FOREWORD

The Early Years

I was born in Gottingen, Germany in 1932, the second child of Dagmar Franck (a Jew) and Arthur von Hippel. We left Nazi Germany for Turkey in 1933 as Ataturk was replacing Turkish teachers with refugee scientists like our father. But former Turkish teachers who became interpreters for Germans really wanted their jobs back! Therefore they frequently inserted remarks about "Stupid Turkish Students" into German lectures they translated: Father's students became increasingly angry!

In 1934 we moved to Copenhagen, where Arthur and James Franck (Dagmar's father) worked in Niels Bohr's Laboratory while awaiting job offers from America. Eventually MIT wanted Arthur, and University of Chicago needed James Franck, so in 1936, we entered New York Harbor aboard the *Scanstates* from Copenhagen!

We saw the Statue of Liberty, rode an elevator to the top of the Empire State Building, then boarded the train for Boston. Arthur's initial MIT "Office" was half a desk (a graduate student occupied the other half). *But being admitted to the USA was a huge*

step forward for our family, as Jewish refugees were unwelcome in most Christian Lands because so many Christians had become extremely antisemitic.

*How antisemitic? Well, before Germany surrendered in 1945, Hitler's **soldiers** murdered over 6 million ordinary Jewish fathers, mothers and children; some of whom had no way to flee, while others who fled were refused entry into Christian lands and shipped right back to Europe!*

From Wikipedia: "Antisemitism" is prejudice against, hatred of, or discrimination against Jews as an ethnic, religious or racial group. A person who holds such positions is called an antisemite." "The history of antisemitism – defined as hostile actions or discrimination against [Jews](#) as a religious or ethnic group – goes back many centuries; [antisemitism](#) has been called "the longest hatred."^[1] [Jerome Chanes](#) identifies six stages in the historical development of antisemitism:

1. Pre-Christian anti-Judaism in ancient Greece and Rome was primarily ethnic in nature
2. Christian antisemitism in antiquity and the Middle Ages *was religious in nature, and it extended into modern times*
3. Traditional Muslim antisemitism ... was, at least in its classical form—nuanced, in that Jews were a protected class
4. The political, social and economic antisemitism of "Enlightenment and post-Enlightenment" Europe was initiated and sustained by strident Lutheran and Catholic leaders whose persistent hatred for Jews laid the groundwork for racial antisemitism
5. Racial antisemitism arose in the 19th century and culminated in Nazism
6. Contemporary antisemitism ... has been labeled by some ... the [New Antisemitism](#)^[2]

In practice, it is difficult to differentiate antisemitism from the general ill-treatment of nations by other nations before the [Roman](#) period, but since the dominance of [Christianity](#) in [Europe](#), antisemitism has undoubtedly been present. The [Islamic](#) world has also seen the Jews historically as outsiders. The coming of the scientific and industrial revolution in 19th-century Europe bred a new manifestation of antisemitism, based as much upon race as upon religion, culminating in the horrors of Nazi extermination camps of World War II. The formation of the state of [Israel](#) in 1948 created new antisemitic tensions in the Middle East."

Thoughts on Anti-Semitism (AvH)

Anti-Semitism came naturally to Christians as Christianity was initially a struggling offshoot of Judaism (just as the Muslim faith was initially an offshoot of the Hebrew and Christian faiths a few hundred years later). For not only did early Christians revere Jesus (a Jew), but their entire faith was initially based upon the Hebrew Scriptures (Hebrew Bible).

Of course, the Hebrew Bible then underwent multiple Christian revisions including various tales being rearranged in sequence to make it appear that a great wave of religious excitement had built up just before the birth of Jesus! So revised and rearranged, the Hebrew Bible became the Christian "Old Testament!"

The Jesus Story underwent endless iterations between competing and even battling groups of Christians during Christianity's early years. Eventually, many incoherent or

mutually incompatible remarks attributed to Jesus were reclassified as "Mysteries for devout Christians to ponder."

After splitting from Judaism, Christians anointed themselves "God's Chosen People!" But since Hebrews still viewed themselves as "God's Chosen", the dominant Christian sect released "God's New Rules and Regulations *for everyone!*"

After upgrading Catholic Pageantry and issuing all sorts of new rules, the newly dominant Christians allegedly discovered that, as some had long-suspected, Eternal Heaven and Eternal Hell really existed! Then Church-confirmed eternal human souls empowered Popes thereafter to direct all souls of believers who behaved properly to Heaven, while nonbeliever's souls and all Jewish souls went straight to God's Eternal Torment Station. Thus *any "Go to Hell" directive suggests a) that you have ongoing contact with a real but invisible soul, which b) is ready to go to Heaven or Hell as directed by a Pope!*

Pascal's wager

Pascal's Wager is relevant here: It was based upon mathematical calculations that *concluded it was in one's own best interest to act as if God truly exists*, since the alleged risk of **eternal** punishment in Hell clearly outweighs any advantages in believing otherwise. Pascal was a late Middle-Ages scientist whose repeatedly failed calculations about Christianity eventually led him to conclude that eternal Christian Heaven and eternal Christian Hell were *conceivable as described!*

For *eternity* then held a special allure for imaginative mathematicians and scientists who were unsuccessfully trying to deal numerically with eternities and infinities. Pascal's argument summarized: "Humans have invented countless religions to worship innumerable gods. Religions come and go, and their alleged benefits and theologies differ wildly. However, as no religion has ever supplied convincing evidence in support of even one magical claim, adherents of any religion could logically conclude that *all the others were false!*"

On the other hand, if we grant any religion even an infinitesimal possibility of being true - and then test it over an infinite length of time - even the least likely religious propositions *might* eventually come to pass! However, Pascal did not then understand that eternity lacked any mathematical relevance to our clearly 'non-eternal' Universe, nor to ordinary human affairs therein: As a result, *implausible* religious claims based upon eternity are now seen as *logically impossible!*

In contrast, the routinely demonstrated power of Evolution Theory to explain the world as we see it, arises in a truly simple fashion from very large real numbers. So while religious conclusions - for practical purposes - come true "Only in your dreams!" or "When Hell freezes over!" - the credibility of Evolution Theory neither rests upon eternity nor infinity nor any religion.

Rather, life's variety and random processes drive evolution through endless concurrent competitions between consequences of countless inconceivably unlikely events taking place in ordinary time. A modern version of Pascal's wager goes "Why not believe in God (or Heaven or Jesus or Christian Science or Mohammed or souls or the Devil or the Saints or the Prophets or Billy Graham or the Ayatollah Khomeini or Prayer or Human Sacrifice or Witchcraft)? What have you got to lose?"

Obvious answers include: Freedom. Independence. Privacy. Truth. Time. Money. Intelligence. Self Esteem! Essentially, life itself! Yet Pascal was not just a religious con-man seeking to to control people and extract their money. Rather, he was an

accomplished mathematician and philosopher who ruminated obsessively about religion in general and Christianity in particular. Therefore, Pascal's wager on the existence of God represented a legitimate mathematical effort to evaluate religious probabilities during the late Middle Ages.

The fact that mathematicians of Pascal's time (1623-1662) were not equipped to handle infinities would not have been relevant for determining the odds in any ordinary wager. However, Christianity had (without the slightest evidence) made the astounding claim that it now owned God's franchise for awarding "Eternal happiness or eternal torment!!!"

So when Pascal accepted those eternal propositions for the sake of his mathematical argument, the outcome in favor of believing was inevitable. We can reasonably conclude that Pascal would never have accepted Christianity had it merely guaranteed six hundred and sixty-six years of uninterrupted bliss, as the equal improbability of that claim was not overwhelmed by infinities.

Regarding mathematical judgments, William James wrote "They are all 'rational propositions' ... for they express the results of comparison and nothing more. The mathematical sciences deal only with similarities and equalities, not with coexistences and sequences."

Point 1) Incredible claims (religious or otherwise) only become credible when supported by overwhelming evidence.

Point 2) A mathematical calculation of potential yield is often mistaken for overwhelming evidence.

May the odds be with you!

When Pascal, the math whiz, saw himself growing old
he gambled on Heaven o'er a grave still and cold
With his formula strong and mathematics most rigorous
he figured the odds on those Church tales ambiguous

Though likelihoods little gave small confidence,
when tied to "forever" they made far more sense
So the obvious choice - that death is the end -
was forced to give way to infinity's trend

Since Pascal, the math whiz, was undaunted by facts,
on formulas strong he did base all his acts
And when death finally came Pascal quickly did call
"Eternity's infinite, which outweighs them all!"

But if you become trapped between fact and belief
and the latter doth promise a whole lot less grief,
you should disregard choices that seem quite untrue,
let the life that you lead be the best you can do

For why base your life on a sale incomplete

when no guarantee holds that the contract they'll meet?
Would you give all your cash to a car salesman clever
for an auto unseen that "Should last you forever!"

Far better to purchase the old Brooklyn Bridge,
at least you can cross it to reach the far ridge
Then return as you like, to seek those that you paid
if the product itself is not quite as portrayed

Wikipedia: About Dr. Martin Luther (1483-1546)

"Martin Luther, a German theologian and religious reformer, initiated the Protestant Reformation through his controversial writings. His theology and writings not only challenged the authority of the Roman Catholic Church, but as his writings reached France, England and Italy, that Reformation eventually split Western Christianity and forever weakened the power of the Catholic Church. Luther's influence extended beyond religion to politics, economics, education and language. In 1505, after receiving a bachelor's and master's degree, he suddenly abandoned his studies, entered the Augustinian monastery in Erfurt and became a monk.

"In 1517, Luther became a controversial figure by publishing his Ninety-Five Theses, opposing "indulgences" (the release from all penalties for sin through payment of money to the Catholic Church). His refusal to retract his writings at the demand of the Pope led to his excommunication. And his influence resulted in Lutherans becoming a Protestant denomination that still reveres Luther's name. Protestant Christians so admired Martin Luther that he stands as a respected "Patron Saint" to their beliefs and morals. Christians often quote him, theologians write books on him, and many good people even use his name as theirs (Martin Luther King Jr., for example).

"Unfortunately, few popular books or television documentaries on Luther get into Luther's anti-Jewishness, nor mention his hatred for Jews at all. This has resulted in a biased view of Martin Luther and of Christianity. Such a widespread unawareness of Luther's sinister side, while honoring his "righteousness" allows a ratcheting promotion of Luther's "good" public image while transporting his anti-Jewish beliefs to those who then passed on the seeds of anti-Semitism.

"This is an unwanted dilemma for many Christians as Luther represents both the birth of Protestant Christianity and the genesis of that special brand of hatred for Jews that primarily flourished in Germany and nearby Christian States. Although Luther did not invent anti-Jewishness, he promoted it to a level never before seen in Europe. Luther bore the influence of his upbringing and from anti-Jewish theologians such as Lyra, Burgensis, (and John Chrysostom, before them).

"But Luther's 1543 book, "On the Jews and their lies" took Jewish hatred to a new level when he proposed to set fire to their synagogues and schools, to take away their homes, to forbid them to pray or teach, or even utter God's name. Luther wanted to "be rid of them" and requested that the government and ministers deal with the problem. He requested pastors and preachers to follow his example of issuing warnings against the Jews.

"He went so far as to claim that "We are at fault in not slaying them" thus avenging the death of Jesus Christ. Hitler's Nazi government in the 1930s and 40s fit Luther's desires as he had repeatedly expressed them. Thus as Luther spoke so vehemently against the Jews - and given the fact that Luther is represented as an honorable and admired

Christian to Protestants, his written words carried the "mimetic" seeds of anti-Jewishness up until the 20th century and into the Third Reich. Luther's Jewish eliminationist rhetoric virtually matches beliefs held by [Hitler](#) and much of the German populace in the 1930s.

"Luther unconsciously set the stage for the future of German nationalistic fanaticism. William L. Shirer in his "[The Rise and Fall of the Third Reich](#)," puts it succinctly: Norman Roth describes how Good Friday-Easter week in medieval Europe was a time of dread for the "perfidis Judæis" (the faithless Jews) who would often come under attack.^[2] He reports Msg. Oesterreicher as arguing, with some support from others, that the term "pro perfidis judaeis" in the Good Friday liturgy did not mean perfidious but rather "unfaithful, non-believer". Roth concludes however, that "one cannot deny" that the term attributes to Jews willful obstinacy in the face of truth.^[3]

"In the early 1920s, the missionary organization [Society of Friends of Israel](#) requested that the phrase "perfidious Jews" be removed from the liturgy.^[4] [Pope Pius XI](#) was reportedly strongly in favor of the reforms and asked the Congregation of Rites to review the matter. Cardinal Schuster, who was among the Friends of Israel, was appointed to monitor this issue. The [Roman Curia](#), however, is reported to have reacted very negatively to the proposal on the basis that one change made to the old liturgy would open the door to other such proposals. The Congregation for the Doctrine of the Faith decided to dissolve the association (25 March 1928).^[5]

"After [World War II](#), [Eugenio Zolli](#), the former [Chief Rabbi](#) of Rome and a convert to Roman Catholicism, asked [Pope Pius XII](#) to excise from the Good Friday liturgy the adjective "perfidus" in relation to the Jews. The Pope responded with a public declaration that in Latin "perfidus" means "unbelieving", not "treacherous". He could do no more at that time.^[6] Fifteen years later, that change was made by [Pope John XXIII](#).^[4]

"Catholic historian [Warren H. Carroll](#) asserts: The word "perfidious" in the old Good Friday liturgy referred to the rejection of God's Son the Messiah by the Jews who called for his crucifixion. He had given them proofs of who He was, but they closed their eyes and ears to them. Though it may be counter-productive to make this point in today's age, this willful blindness to the truth is spectacularly evidenced... They must have known or at least guessed the truth, and yet refused to believe. In any case, the expression "perfidious" cannot logically apply to Jews apart from the circumstances of the crucifixion, except under a theory of collective guilt..."

Yet surprisingly, destroying as many Jews as possible became a major focus of World War II. And Catholic and Lutheran leaders of the predominantly Catholic and Lutheran populations of Germany and nearby lands remained on remarkably good terms with Hitler while he still lived and encouraged everyone to exterminate all accessible Jews just as Luther and the Popes had long demanded.

Consider the centuries-old Good Friday Catholic Prayer about the perfidious Jews (based upon the likelihood that several Jews may have agreed with or even recommended to blameless Roman Soldiers that they kill Jesus (if he even existed, as described in those conflicting tales).

Or consider Martin Luther's vow to hang every Jew twice as high as ordinary criminals because a few of their remote ancestors possibly refused to relinquish their "God's Chosen" status to that new and growing Christian Faith!

But how might Jews definitively relinquish anything that vague? Was the Christian's real problem with Jews existing just an ordinary worry (as Pascal had) about the validity

of their own religion? For discussions of souls and death during Church Services are quite different from really dying. And no one - even Mother Theresa - can die (other than instantly, or dementedly) without having serious doubts about *postulated* eternal souls in the *alleged* hereafter.

So Mother Teresa expressed her grave doubts about God's existence and her pain over her lack of faith: "Where is my faith? Even deep down ... there is nothing but emptiness and darkness ... If there be God—please forgive me. When I try to raise my thoughts to Heaven, there is such convicting emptiness that those very thoughts return like sharp knives and hurt my very soul."

So when over six million Jews were unable to escape Europe's devout Christian Lands, these ordinary Jewish fathers, mothers and children *were efficiently killed by ordinary church-going Germans and their fellow Christian believers*. So ask yourself, Why did Christians so hate the Jews that they simply shot any vagrant child who admitted to being Jewish? Did every Jew killed somehow vindicate Christianity? Or did those multi-million murders just incriminate all Christians?

Was it perhaps simpler? That after killing quite a few Jews, those Christians saw no way to simply stop killing Jews without also admitting they had done great harm to defenseless fellow humans based entirely upon unreliable tales from ancient times without even trying to confirm some/or any/serious allegations! Similarly, how *could the creation of the State of Israel, which so infuriated Palestinians and Arabs in all neighboring lands, ever have been achieved peacefully?*"

Sixteen years have now passed since the highly anticipated Second Christian Millennium proved un-Godly and unexciting. Now many Christians appear to be losing their fervor for the "End Times". Yet when our family reached Alaska in 1965, the few Jewish physicians then in practice were reluctant to publicly admit their Hebrew heritage, as being Jewish was such a strong negative.

However, our family never encountered such problem, possibly because we were non-religious, so a name like von Hippel couldn't lead a friendly Christian stranger to fear that we might be Jews still claiming to be God's Chosen People!

In my view, one of the biggest causes for *anti-Semitism's post-millennial decline* was what we all saw happen when tiny Israel was attacked by the surrounding Muslim nations. For despite repeated serious Muslim attempts to exterminate Israel and its Jewish people, those massively outnumbered Israeli soldiers repeatedly conquered additional territory from those un-neighborly neighbors.

A good friend who had served as a U.S. military doctor (and was not Jewish), was so impressed with those Jewish underdogs that he considered enlisting to help them, "but these wars ended too quickly."

So for the next thousand years, perhaps truly stupid anti-semites should shut up! Indeed, true-believing Christians could now ponder why God seemingly sided once again with His Chosen People!

At Home

In 1938, our parents purchased a comfortable older home in then rural Weston (15 miles west of Boston), for about \$4,500. Warren, our friendly next-door neighbor, was part owner of the small dairy behind our house. His day job was crafting carburetors in a Waltham factory, and he enjoyed chatting with us kids as we helped him collect our

neighborhood's organic garbage with his Model A Ford Flatbed Truck. That garbage then went over the fence of a nearby pig farm, while combustible rubbish was burned behind each home in small backyard incinerators.

Four siblings from the subsistence farm of a nearby Estate (a half-mile away through the woods), became our best friends. A small stable under their hay barn remained comfortably warm all winter - heated by microbes digesting fodder inside one cow and two work horses (their three "hayburners"). *And about fifteen like-new horse-drawn carriages rested quietly for decades in that Estate's Carriage House.*

Infectious Diseases

By the late 1930's, most children were vaccinated against tetanus, smallpox and diphtheria. But we all remained susceptible to measles, mumps, whooping cough, chicken pox, poliomyelitis and many other "childhood diseases". With increasing age, all children and adults developed new immunities by surviving additional epidemic diseases. An illness when I was four left me crawling but unable to stand or walk for several months. My favorite spot then was "under the dinner table" where no one would stumble over me.

In those days, sulfa drugs suppressed a few microbes but infections "ruled". For example, Warren's mother died of bacterial "blood-poisoning" just a few days after pricking her finger with a sewing needle as she "darned holes in the family's socks."

By then, Tuberculosis was a scourge in slow decline, as more people got better food and lived in newer, less crowded homes with running water and in-house toilets! Nonetheless, TB Hospitals and the TB Wings of General Hospitals remained full of patients being treated by "bed rest". And many signs, especially in subways, warned, "No expectorating on these premises!" (trying to reduce TB transmission).

There were also Heart Hospitals that offered prolonged bed rest and therapies for younger persons who developed Rheumatic Heart Disease after surviving then-untreatable Streptococcal infections.

From Wikipedia: Untreated strep throat or other infections with strep bacteria that progress to rheumatic fever can cause heart valve disease. When the body tries to fight the strep infection, one or more heart valves may be damaged or scarred in the process. The aortic and mitral valves most often are affected.

And during Polio epidemics, entire Hospital wards were emptied to make room for the mostly young and often desperately ill poliomyelitis patients. Larger polio wards rented Iron Lung Respirators or borrowed these from the March of Dimes, a charity initiated by Franklin Delano Roosevelt, whose legs had been permanently disabled by polio (or possibly by [Guillain-Barré syndrome?](#)), a decade before he won the first of his four U.S. Presidential elections.

Roosevelt eventually died in office, and Vice-President Truman became President. Thereafter, only two terms as President were permitted (a new law).

The Iron Lung Respirator

When acute muscle weakness left a polio victim unable to breathe effectively, a patient-enclosing metal respirator known as the Iron Lung still saved many lives by delivering effortless breaths, night and day, until that patient regained sufficient strength to breathe unaided, or died.

Each desperately breathless polio patient was inserted into the opened foot-end of an Iron Lung on a thin litter, then pushed forward until her or his head entirely emerged through the soft respirator collar (that collar was then fastened snugly about the patient's neck to prevent air leaks *into or out of that otherwise fully sealed respirator tank*).

Thereafter, each slow reduction of *in-tank air pressure* pulled new air *into the patient's lungs*, until the next slow increase of *in-tank air pressure pushed the oxygen-depleted lung air back out*. For with the respirator closed and activated, a large external piston alternately pulled slowly, and then pushed slowly on the flexible rubber foot-end of the Iron Lung.

Summary: Each long slow piston **pull** on the flexible tank bottom gradually expanded in-tank air trapped around a patient, slowly reducing the air pressure around the soft and expanding patient to draw outside air into the patient's lungs via their mouth and/or nose.

The long slow piston **push** that followed then gradually increased "Inside of *Iron Lung air pressures* above-atmospheric" thus squeezing the soft patient to expel "used" air from her/his lungs via nose or mouth (into the room air around the Iron Lung). Patients often found it easier to speak audibly during those slow exhalations.

External Respirators like the reliable old Iron Lung were often safer and more comfortable for alert, oriented patients than modern respirators that intermittently just shove more air into a patient's endotracheal tube (and see the end of Chapter Three). But as long as an Iron Lung remained open to the atmosphere (for hygiene or other purposes), *it could not contribute at all to that patient's breathing*.

This was an era of major public health activities. Every town had health officers who fastened temporary quarantine signs onto many front doors including ours. With so many serious infectious diseases being treated mostly by bed rest, we saw "Hospital Zone, Quiet!" signs all over Boston.

Therapeutic bed rest often continued for years in a Heart Hospital or TB Sanatorium. But increasingly ill and breathless Pneumococcal Pneumonia patients often had only 4 or 5 days until "The Crisis" when their maximally stimulated immune systems finally counter-attacked against invading lung pneumococci with effective antibodies, or else that patient usually died.

With young or elderly patients especially at risk, Pneumococcal Pneumonia was widely referred to as "The old man's friend," as toxic older folks soon became comatose and died without distress.

When I was about four, a Belmont neighbor's kid got pneumococcal pneumonia and our entire neighborhood became very quiet to help him recover. I heard that he did, but cannot be certain, as we soon moved and adult conversations with kids are not always truthful.

By the early 1940's, our father, Arthur von Hippel, ran MIT's largest Materials Research Laboratory on a wartime footing with over forty scientists working long hours on important advances in all sorts of fields relevant to warfare such as materials and communications. Later in the 1950s Arthur had up to eighty scientists in his Laboratory - some of whom were also completing higher degrees.

During this time, our mother's father (James Franck, a Nobel physicist), worked on the Manhattan Project at the University of Chicago, where the world's first Atom Bombs were designed and created. After the Second World War, Franck resumed his own

research on chlorophyll energetics but also became a widely respected as a spokesman for scientists who were trying to minimize the role and risks of nuclear weapons. More recently, our brother, Frank Niels von Hippel, has devoted much of his own physics career to that same, ever more complex task.

Early School

Our oldest brother Peter was always an outstanding student, so teachers were often pleased to see my name on their "incoming class list". But from second grade on, I was regularly sent to the Principal's office for minor misbehaviors such as a quick slide down our huge school bannister (much faster than walking if no teacher saw me).

Our mother, Dagmar, decided I was bored and managed my midterm jump into third grade - where Miss Morrissey disciplined with a yardstick. Eventually it was Miss Brochie (a retired teacher and tutor), who helped me uncover the wonders of efficient reading: So my school performance gradually improved. But still I often noticed that my thinking seemed different from that of most classmates.

Basically, I found many things they considered obvious to be puzzling, while a lot of things they found puzzling seemed obvious and simple to me.

World War II ended in 1945

So in 1947, after considerable planning, Arthur activated his life-long dream of building a family log cabin, and chose to do it in then remote Passaconaway Valley, New Hampshire. As Peter and I were in our mid-teens and highly unskilled, we became "Go-Fers" during that first summer as our log cabin was slowly created from spruce trees growing in the surrounding forest by two to four skilled men *using hand-powered tools!*

Peter and I both learned a lot, especially from Cliff Pratt, our gruff but kindly contractor, and Bob Beals, a jovial man-of-all-trades and the "semi-official" Passaconaway Valley Historian! Soon Bob explained that this entire large, remote, fully forested valley had been entirely logged and actively farmed during the 19th century. But by 1947, there were plenty of straight, good-sized secondary-forest spruce trees nearby with which our two-story cabin was built.

During that summer's construction season, we lived with Cliff and Mabel in their cozy log cabin, over a mile by road from our log cabin project. Cliff usually drove us to the cabin site and back over local muddy or dusty but always bumpy dirt roads. His ancient Dodge coupe "comfortably seated" two men, so Peter was jammed between Cliff's cigarettes and Bob's pipe smoke, while I straddled Cliff's spare tire that was firmly bolted to the sloping rear-trunk lid of his Dodge. Those slow car trips occurred long before seat belts were ever discussed.

Nailed

One day, as we were taking down staging, I stepped upon a nail that penetrated my shoe sole and went far into my right foot. Cliff inquired if I was up-to-date with my tetanus shots, but I did not know. Cliff had often given first aid to injured horses and people, so with no telephones in the entire Valley, he elected to repeatedly irrigate my nail hole with a large glass syringe full of boiling (salt?) water in order to prevent tetanus or another infection.

My foot did not get infected. And I later learned my tetanus shots were current. But that boiling water treatment did me no harm, leaving just a barely detectible stiffness upon fully extending my foot. And I had never been competent at high school dancing anyhow.

At that time, Cliff had a few pigs fenced in behind his home, while two nice Weimaraner hunting dogs mostly slept inside his cozy log cabin. Cliff's two milk cows spent their nights in his log garage, where I hand milked them every evening, and again in the morning before staking them out to graze all day on fresh roadside grass (a common sight in those days along most country roads).

We skimmed their unpasteurized milk after letting it separate overnight in Cliff's small and relatively cool underground cellar. Then his pigs drank skimmed milk while we four enjoyed the amazing flavor of fresh cream so thick that we had to spoon it onto our oatmeal and coffee.

Regarding Broad Axes and Adzes

Through the early 1900's, many rural New Hampshire folks built their own homes and barns. That process usually began as strong men with sharp broad axes and adzes chopped - or chipped-off redundancies to reshape local logs into sturdy beams.

Cliff's woodworking skills were called upon soon after Japanese forces attacked Pearl Harbor, Hawaii, Dec. 7, 1941. On the very next day, the United States officially joined **the Allies** already fighting World War II against **the Axis** (*Japan, Germany and Italy*).

Soon Cliff became night-shift Wood-Framing Supervisor for The New England Shipbuilding Corporation in South Portland, Maine, where they built 441 foot long wooden Liberty Ship frames out of great pine logs being delivered night and day by train or truck. Larger structural pieces were held in position by huge cranes until properly shaped and firmly fastened into yet another Great Ship Frame.

Those early wooden Big Ships were essential for moving men and materials "to the Front" in a timely fashion. By the time WWII ended in 1945 (in May for Europe, in September for Japan), those Liberty Ships were being built far more rapidly out of metal with machine tools by very different crews that may possibly have included the legendary "Rosie the Riveter".

Anyhow, those sturdy men and women working day and night in all eighteen American shipyards along our Atlantic, Pacific and Gulf Coasts, eventually built and delivered *over 5000 of these large (wood frame or metal) Ships!*

Overexerting young muscles for three days can cause hypertrophy

When Peter and I finally finished peeling and trimming our "Spring-cut" (more sap = looser bark) spruce logs, a farmer from North Conway trucked in two large horses to drag our peeled logs to the cabin site. But first we had to find and drag all those logs out of the forest to the side of our long and rough dirt driveway.

So on Wednesday, Thursday and Friday, Mr. Dinsmore and I each worked with one horse dragging individual peeled logs out of the woods. Then, intermittently, both horses were harnessed together to drag several peeled logs at a time to the cabin - after we carefully loaded and chained them onto Dinsmore's log-skid -.

Each time we prepared another batch of large logs to be hauled down the driveway, we carefully coordinated our lift and positioning of the extremely heavy butt ends onto Dinsmore's log skid, making sure that our carefully opposed "cant dog" hooks lifted in unison so the logs didn't roll out of control. Then as soon as each heavy log butt end was properly positioned, that latest butt-end was firmly chained onto the skid with the others.

For had even one of those long heavy logs escaped our control during a lift or while being dragged, that would not only have wasted time and effort, but it might also have caused injuries as we strained to reposition and re-secure those log butts onto the skid.

Recently, I have seen a modified hand-tool that apparently simplifies "log lifting without rolling" by placing two permanently aligned and opposed cant dog hooks on the middle third of a longer, sturdier, two-man lifting tool with grip handles at each end (thus a more efficient, single purpose, dedicated butt-end log-lifter that also minimized the likelihood of logs rolling out-of-control).

An Aside: An old book and my limited experience both suggest that exercise *duration* and *intensity* may have quite different impacts on teen-age muscle development. For example, in "Rickshaw Boy", a 1940's book about the "Exotic Orient", the author briefly described a training regimen for novice rickshaw boys.

It was something like "Overdo to exhaustion for several days, by pulling a loaded rickshaw as long as possible". Then, after your over-strained muscles completely recover, you should be able to pull a rickshaw easily for hours. For these folks realized that severe over-loading of specific task muscles for several days would revise and rebuild those overtaxed muscles to the higher standards of a skilled rickshaw boy.

I was already a strong lad, so Dinsmore and I coordinated our lifting well enough that butt-ends rose smoothly without becoming unbalanced or rolling. We worked steadily for three full days. Saturday was our final half-day of skidding logs, and I felt fine as we stooped into our first lift of the morning. But to my dismay, I could not even budge my side of the smallest log! Indeed, simply placing my muscles under tension made them feel and behave as if they had become jelly!

When consulted, Cliff said I would "soon be fine", and put me on light duty for a few days. After my full recovery, I was obviously stronger than any other student in our small high school. But while I had run easily as a child, now I could only run a few dozen yards inefficiently (Conclusion: Log-lifting is not appropriate training for an ambitious rickshaw boy!)

Newer Is often better, but how quickly we forget the old ways

When we built our family log cabin, New Hampshire State Law allegedly still permitted police to stop any auto and order all men out to help fight forest fires or to clear fallen trees off the roads. This was probably sensible when most automobiles still carried axes and men who knew how to use them.

But not long after our family's log cabin was completed (it took two long summers of hard work by sturdy men using only hand tools), motorized chain saws were developed, and before long they became increasingly useful and available at a reasonable cost.

Although the first chain saws were heavy (over 25 pounds), costly and risky to use (as "kick-back" could cause serious injuries); within a decade or two, skilled men (and even small women!) were using lightweight chain saws to quickly create attractively carved logs.

Then about three decades ago, I visited a small "fly-in" fish-laden Alaskan lake where two or three sturdy friends had built a small bear-proof, weatherproof log cabin (using modern chain saws to cut down, smooth and fit those local logs snugly together). Allegedly that little new one-room hut was started and completed in slightly over a day!

Anyhow, soon after the chain saw era began, the law allowing New Hampshire police to stop cars and put men to work, pretty much lost all its value. For during a

decade when those expensive chain saws were still mostly handled by experts, the saws had been carefully stored in a centrally located warehouse - *which then became inaccessible for several days because so many trees were toppled by yet another major storm!* But by then, automobiles rarely carried axes or chain saws anymore, nor were most of the men traveling those roads still skilled in their use.

How I got a perfect score on a practice "College Aptitude Test!"

When I was in tenth grade, a teacher suggested I take an early "College Aptitude-type" test for practice. But while the first twenty or so questions in this formal National Test were straightforward, later questions were mostly on topics I had not yet encountered. Therefore, having noticed that a regular sine wave pattern was created on my answer sheet during the easy earlier answers, I simply continued that sine wave pattern across my entire answer sheet and handed-in my completed test an hour or so after beginning this major, three or four hour examination.

I should add that such grading patterns surely are no longer used or useful with modern computer-scored exams. But in this case, *I got a perfect score without even understanding many of the questions!* Several high school teachers - dumbfounded by my implausible score - still accepted it. Thereafter they considered my honest efforts to explain my perfect answers as "A dumb juvenile joke" or "False modesty!"

I got into MIT despite being expelled from our mandatory Latin Class

Latin was still a standard pre-College requirement when I got expelled from our high school's only Latin class (after three weeks). That expulsion seemed sensible to me as Latin Class dealt mostly with grammar, a topic that I never found interesting nor even tried to understand.

Fortunately, Thora Ludy, our outstanding English teacher (who was then dying of a liver disease), decided I had "a good ear" and decent language skills for my age, possibly due to - or despite - English having been my fourth language by age four (after German, Turkish, and Danish).

MIT dropped its Latin requirement before I applied. And later I easily passed MIT's "Advanced Foreign Language" requirement *only because our German cousin, Ursula, then staying with us, enjoyed explaining my German-reading assignments to me (in English)!*

Other High School problems: I got kicked out of Orchestra when the Conductor realized I could not read music.

My unearned "A" in Math plus two great summer jobs

On a lovely spring day, when I was 14 or 15, our Math teacher (BB), became so annoyed at my lack of attention in Math Class that he decided to give me a personal boxing lesson (he also taught sports). He declared our simple rules of engagement:

- 1) "Every time I knock you down, your Math grade goes down too (from **C** to **D**)
- 2) But if you are lucky enough to knock me down, your grade goes up a letter."

As a former "Golden Gloves State Champ," he kindly warned me that he usually broke the noses of his opponents. So to minimize the pending mayhem, he selected the most heavily padded boxing gloves for each of us.

There were no onlookers in the gym as we put on our gloves per his order. Then he began to weave and jab while I kept my arms at my sides except when needed to block his blows. He began by jabbing at my face. But it immediately became clear that my young reflexes were far swifter than his in his fifties. Thus I merely raised a fat glove on whichever side he attacked, and easily blocked his every blow.

He got increasingly irritated and several times yelled "Try to hit me!"

Each time my response was "I will not hit my teacher!"

So I got an unearned "A" in high school math, we two became friends and during our last chat (at my class of 1949 graduation) - I told BB my father had finally agreed to let me seek a summer job 'out West' in 1950, if I first rode my war-surplus Indian Scout motorcycle carefully on our local roads for a year, despite all my practice motorcycle riding thru nearby forests and fields before I became 16.

But father also added that if I ever had a motorcycle accident, he would immediately sell my motorcycle for me! And that lovely (but underpowered and overpriced) bike with a new 'war surplus' engine installed - had just cost me over \$200 - which was essentially all the money I had earned by hand-mowing large neighborhood lawns (including ours) for about 25 cents each time!

Upon hearing this, BB suggested that if I ever did go 'Out West' I should definitely visit his sister and brother-in-law who owned a huge sheep and cattle ranch near Rawlins, Wyoming. And about a year later, I motorcycled up to the rancher's house as he was backing out of his garage to go on another three-day inspection tour of their ranch.

When I said "Hello", he gruffly told me "Toss your gear in the back and get in! And off we went. After I had lived and worked with these hospitable and truly friendly folks for several weeks, I discovered I had been their employee all along (as a ranch hand) making \$40/wk! But no one even mentioned I was hired until I told them I was heading to Rock Springs, Wyoming for a coal mine job as I had only \$5 left of the \$100 our dad gave me 'to leave home for the entire summer'.

MIT

Without further tests or lessons, I entered MIT in 1949, where classes were mainly taught by overworked and poorly prepared graduate students or bored professors. For example, our youngish Statistics Instructor simply stood at the blackboard with his back to the students for the entire duration of each class, writing out his notes in longhand so we could copy them.

And when I urged him to provide us with mimeographed copies of those notes and spend our class time clarifying what the Hell those notes meant, he responded that we would learn more by writing them out ourselves, and kept writing. An Asperger?

This was yet another dismal example of how a lecturer's notes can become the student's notes "without passing through the minds of either". Having failed most of the weekly exams, I was delighted to get a "D" in Statistics so I didn't need to repeat.

In contrast, I truly deserved F's I got in Organic and Physical Chemistry (In both cases, my interest had been creating loud but harmless explosions). But those F's meant I had to repeat both courses in summer to graduate.

There was a random quality to Teaching at MIT "back then"

Some years after Peter and I both graduated, our next younger brother Frank returned to MIT after his Rhodes Scholarship in England. He was eager to register for a particularly difficult graduate seminar on some poorly understood topic, so he came in

early to ensure he would get into that seminar - only to be told that he could not register for that course, as he was scheduled to teach it! Allegedly, Frank spent that entire term working very hard to stay just ahead of "his students".

Monopoly Power has many advantages!

Paul Samuelson, MIT's long-time Economics Professor, showed incoming freshman classes of our era how real monopolies worked! For nearly every year he put out *costly new Editions* of his Economics textbook *that all 900 incoming MIT undergraduates were forced to buy*. Yet when I compared our class's new-in-1949 edition with my older brother Peter's new-in-1948 edition, those two editions were basically the same except that the study questions ending every Chapter were *entirely renumbered!*

So not only were all 900 students in MIT's Class of 1953 forced to take Samuelson's simplistic Economics Class, but they also had to purchase Samuelson's latest \$50 annual edition just to answer his truly boring, annually renumbered Chapter-end questions! Naturally we detested his renumbering ploy as it rendered each year's "extremely expensive New Economics edition" worthless for future use at MIT.

Please consider that when we purchased these "MIT-required" books for over \$50, a gallon of gasoline or a decent hamburger often sold for 19 cents. Nonetheless, Samuelson's annually renumbered (thus allegedly New) Editions sold well nationally and internationally (greatly discounted or not), which boosted Samuelson's world-wide book sales and thus his Nobel potential in Economics (see Wikipedia quote below)!

Clearly, his Economics Nobel was Samuelson's reward for doing frequent "Keynes rehashes" (*or less*), rather than for explaining and proving his own original thoughts on Economics, as had always been required for real scientists earning a true (henceforth "a non-Economics") Nobel.

Summary: Samuelson's Annual New Edition of his Economics book was surely the most expensive book anyone in our class had ever purchased, or most had even seen! So it undoubtedly caused fiscal annoyance to all 900 students of our class, and surely caused serious stress and missed meals for poorer MIT students every year! *For at that time, the total annual tuition paid for attending MIT was around \$800. But Peter and I went through at half price because our father was an MIT professor. Thus a year's tuition at MIT cost us less than twenty copies of Samuelson's Stupid Prize-Book!*

According to Wikipedia, Samuelson was "likely the most influential economist of the later 20th century. He was author of [*Economics: An Introductory Analysis*](#), first published in 1948 and ...*the best selling economics textbook of all time!*" (though his book was actually the *second* American textbook to re-explain basic principles of [Keynesian economics](#)).

Nonetheless, *"it was the first economically successful American economics book, and by its 19th edition, it had sold nearly 4 million copies in 40 languages (though Keynes was certainly a far more original thinker and writer on Economics than Samuelson would ever be)*. We entering MIT students often referred to his Economics textbook as **Samuelson's "get rich quick scheme"**. Perhaps he taught a bit to our class himself, but I cannot recall ever seeing the man, nor hearing him speak.

Yet Samuelson had surely heard that a 300 year-old Swedish Bank was lobbying vigorously for permission to support a Nobel Prize in Economics. In which case, Samuelson obviously realized that he would require all the annual student payments he could possibly extract, simply to ensure that his **Best Seller** went through more iterations and made more money than that first book on Keynes by another American economist.

Wikipedia points out that Samuelson got his huge Nobel payout despite [Alfred Nobel](#) having specified just five prizes in 1895 in his Will: [Chemistry](#), [Literature](#), [Peace](#), [Physics](#) and [Physiology or Medicine](#) - all of which were first awarded in 1901.

Furthermore, Samuelson's [Nobel Memorial Prize in Economic Sciences](#) was promoted by Sweden's Central Bank in 1968 *despite solid Nobel family opposition to this new prize* "which could too easily be awarded for Causes That Only Benefited Top Earners" *(as Samuelson's unnecessary over-priced annual editions with their annually revised question numbers surely did!)*

Reserve Officers Training Corps

During my freshman year at MIT - because MIT was a *Land-Grant College* - I had to attend ROTC classes because "The Reserve Officers' Training corps was a College-based Officer Training program for training commissioned officers of the United States Armed Forces". I also had to choose a sport. But I had missed the first ROTC "meeting and marching" session where the other students apparently learned how to reverse course.

Not surprisingly, therefore, the first "About Face!" command I ever heard, caused me to collide with and totally disrupt our entire column as they turned when I didn't or vice versa. So surely ROTC wanted to be rid of me as much as I wanted ROTC out of my life!

Later that day, as I walked through the MIT gym, I encountered several weight lifters doing their thing. So I inquired about that "sport". And they urged me to try out. So I said "Put some weights on the bar and I'll see if I can carry them. They asked, "How much weight would you like to try?"

In my youthful arrogance I said, "Put them all on!" So I lifted those weights and walked about trying to look nonchalant, but soon enough I returned those truly heavy weights to their stand.

When I asked "How many pounds did I carry", someone said "350 pounds!"

So I confessed, "That was too hard! I'm looking for something easier!"

At that point, it was time to try my last real option, given that I had apparently been rebuilt as a "non-running lifter" by lifting logs opposite Dinsmore. So I tried out for the wrestling team, and for a while that "*sport*" seemed OK, as only one other MIT student (allegedly a real wrestling champion) was in my "heavyweight and unlimited" category. And though I had never wrestled, we both had different schedules so we never met to wrestle each other.

Since I lacked other opponents of my size, our practice sessions meant my usual task was to wrestle lighter blighters who could not knock me over and were easily tossed aside. Then one day our coach brought in his Big Surprise! That **large** friend with cauliflower ears was clearly a professional wrestler as well as a pal of the coach.

We were briefly introduced and coach explained that his friend had offered to drop by so I could practice with someone larger. Soon we were grunting and trying to heave each other around in an entirely non-verbal encounter without any prior instructions. After a few minutes, coach returned and softly told his friend "Rough him (Me!) up!"

And immediately his professional wrestler pal began to throw and twist me about in a truly rough flurry of activity apparently meant to cause concern about every bone in my body! But when he did a headstand on my spine, this seemed far too risky for me to tolerate, so I bit him! At which point our fight (my punishment for not fitting in?) abruptly ended!

My opponent seemed undamaged by the bite, and coach complimented me on my endurance - telling his wrestler buddy that I had proved to be "More than just a fatty!"

Coach then said he saw a bright future in wrestling for me. I thanked them both and headed back to class - and thereafter to the MIT dispensary, where a kindly young doctor wrote me a note *stating that due to "Being allergic", I could not engage in sports nor marching" (as in Whew!)*

The summer prior to entering MIT, I had worked as the more *junior* (inexperienced, 16 years old) of two young fellows working at the Appalachian Mountain Club's "Lonesome Lake Hut". Our duties there were "Cook and Packer." I liked to eat and soon learned to cook passably, but only after causing an entire girl scout troop grief (diarrhea) due to my faulty recollection of how mother made those wonderful pancakes.

Our AMC Packer duty was the near-daily toting of heavy packs or 100 pound bags of food up our 1,000 foot hill, which initially seemed like hard work, but at summer's end I strolled up Mt. Washington without ever stopping or feeling tired!

The following two summers, I worked as a ranch hand near Rawlins, Wyoming, where I became "the butt" of many jokes. For despite being fast, strong and not obese, I no longer fit into a standard Western saddle. So the ranch boss dug up an ancient English saddle and tossed me some clothesline for reins: It was a good rig in that it worked well and also made every experienced cowboy who saw it laugh! But even my allegedly intelligent cowpony *disrespected* me every day during Round Up by tossing me into various local shrubs, some of which felt thorny.

But credit was also due, for at least my horse never abandoned me. Indeed, it always waited patiently for me to remount - an excellent idea, as our ranch was dozens of miles away. Although I worked hard and learned a lot from our small group of ranch hands, my truly intelligent cowpony clearly viewed me as a "total fraud and an embarrassment". That I was over 200 pounds and usually descending into the saddle as horse and saddle were rising, surely contributed to this good horse's disdain for my post-log-lifting agility". It truly seemed to have a sense of humor!

Actually, I had been a decent rider until my back got all muscled up! And regardless of my riding, that cowpony took care to stay safely under me as we chased straggler cattle or it slid on its butt down into, then scrambled up and out of the other side of incredibly tall steep canyons (from my inexperienced perspective).

While working in Wyoming I decided to apply early to the Utah State Medical School, so during a couple of quiet days I took a Greyhound Bus to Salt Lake City to try for an interview. So I walked in on the dean and we chatted a bit about my interest in becoming a doctor, as well as my grades at MIT.

Then he excused himself, saying I should certainly change my plans as I was "the worst candidate for medical school he had ever met." He even predicted that no medical school in the whole country would accept me! But that was no big deal for me as I wasn't too impressed with what I glimpsed of his Medical School either!

The Class of 1953 at MIT

Only 1% of our 1953 MIT class was female. And many of our 900 initial classmates (mostly all my friends) *flunked out each term*. Some had devised unusual ways to earn their tuition. For example, one classmate performed abortions. Another raced jalopies. A third volunteered for several radioactive tracer studies *simultaneously*, hoping thereby to panic the various professors doing those newfangled studies by becoming increasingly radioactive over time rather than less so.

And one classmate bid for MIT's contract on the disposal of radioactive waste, which by his telling and photos consisted of tossing radioactive barrels overboard in Boston Harbor; then shooting holes in them from his skiff until they sank.

After a couple of miserable years in MIT, I married Mary - another biology student, only to find that my misery times her misery was miserable-squared. Both Mary and I barely managed to graduate in 1953, with the generous support of my parents plus the cheery assistance of Professor Myles Maxfield.

Maxfield became my boss and life-long hero after we worked together during the summers of 1952 and 1953, when I regularly drove a Navy-owned, flat-bed truck bearing MIT's 500 gallon refrigerated squid-tank to Sakonnet Point, Rhode Island in order to obtain the live squid that MIT's nerve researchers were then studying. On those trips, I left home at 4 AM to join these lifelong Fish Trap Fishermen on a 38 foot fishing boat towing an open workboat and smaller skiff that also enabled us to empty those fish traps carefully the old-fashioned way so various MIT biologists could study live squid giant-nerves.

I had some awkward moments one morning as I drove the truck rapidly South on Route 128 (then a paved 2 lane road). For in the predawn blackness, I suddenly spotted a dim lantern just ahead in my lane - from which a man leaped away as he saw me coming. Clearly, he had killed a stray horse with his big semi-trailer rig, and had just placed a warning lantern on its body.

So in order to avoid the fleeing trucker, I rammed that dead horse at high speed with my left front tire. Fortunately, the horse was laid out facing me, and I hit its head with a strong enough bump to boost my truck's left side onto its neck and then over its body. Thereafter, Route 128 became my biggest problem, as it had entered a long smooth curve to the left. So with deep forest on my right, and an empty 500 gallon steel water tank on top of my truck, I had to bear left through that entire curve at increasing speeds (for a half mile or so) without over-turning - with my right-side wheels barely holding the pavement's edge and my left side wheels "dead horse-high" - until finally the road straightened and my badly tilted truck's left-side tires finally returned to Earth with a bump, undamaged.

At which point I decided to go fishing rather than return for a casual chat with that uninjured but possibly over-excited trucker. Not long thereafter, I got a speeding ticket for driving the squid truck too quickly during another mid-summer refrigeration failure. So after delivering my live! squid, I returned to the relevant police station near Boston, with a new bottle of whiskey in a paper bag "to fix my ticket".

The station shift was just changing, so I asked for Officer X who soon came bounding up the steps as over a dozen other policemen gathered around asking "What did you get?" and commenting about his good fortune. Naturally, in those pre-inflation days, I did not wish to spend my personal \$5 for this job-related whiskey gift, so I turned in the whiskey bill to the Biology Department Secretary, who merely asked what I had purchased. She seemed satisfied when I told her it was "Fixing fluid" - hoping she might think it was something for our photo lab.

But later, the Big Boss tracked me down. So I explained, pointing out that it was a matter of life or death for His Squid! that had forced me to speed. He thought for a bit; then said, "OK! This time!! But Not Again!" (I quickly agreed!)

Anyhow, despite my obviously bad attitude and miserable grades, I was turned down by only one of the ten or twelve medical schools to which I applied. Several totally puzzled MIT classmates who all made fine grades, were *still hoping for a single positive*

reply from any medical school. So in the meanwhile, on a daily basis, they carefully calculated how much my forthcoming move from MIT to Harvard Medical School would raise the average student IQ *in both places!*

Two years later, Mary abandoned Boston and me for modern dance in New York City with Martha Graham's group. Our divorce vastly improved my life and studies.

In my first two years at Harvard Medical School, my personal *student number* was often displayed on a screen (Harvard's subtle way of informing students they had done badly on the test under discussion). However, bad grades had never bothered me. And grades seemed doubly irrelevant at Harvard, which at that time still boasted about "*Never having flunked out any of their carefully selected Medical Students!*"?

Then one day, A Big Professor soundly berated one of my classmates in private - which sorely puzzled that Honor Student, who responded that he had carefully studied all of the material in question, and pointed out that he "usually did very well, so if indeed he had flunked this test as alleged, it would likely never happen again!"

Which caused the exasperated Professor to lose all patience! "*Now listen here, von Hippel! Don't you try to bullshit Me!*"

That same Honor Student eventually married Dorothy Waelder, a classmate with whom I regularly worked (we were alphabetically close). But in Chemistry Lab, Dorothy was the unique sort of person whose mere presence caused nearby glass columns, bottles and test tubes to shatter preemptively! So by mutual agreement, we decided it would be easier on both of us if I did all of her lab work as well as my own.

Nonetheless, whenever she was nearby, lots of glass still broke, and often splattered nasty liquids across our Laboratory tables as well as on her legs. So in addition to doing her lab work and mine, I also had to clean up those ongoing messes (while our lab instructor and the above-mentioned Honor Student raced each other from afar to help clean her nice legs).

Interestingly, despite my doing her lab work as well as my own, Dorothy always got straight A's for "her" work (that I did), while I never received a grade above C for my identical work. And Dorothy became Summa Cum Laude in our class before she married the above-mentioned Honor Student (who had been supremely relieved to confess to the Big Professor that he was an **honor student** - and definitely not AvH).

My first date with my second wife, Marianne - Dorothy's younger sister - came when Dorothy begged me to invite Marianne to our Graduation Dinner Dance. I had not planned to attend as my divorce was still pending . The next day, Dorothy apologized profusely to Marianne for having fixed her up with me - explaining pitifully "No one else was available!"

In 1959, after completing two of my five-plus years of mandatory training in General Surgery (as required before I could apply for a Chest Surgery Residency), I married Marianne Waelder, then a student at Vanderbilt Medical School, who soon became a Board Certified Pediatrician and remains "*The light of my life!*"

Chapter One

Medical reality in Twillingate, Newfoundland

During the late-summer and early fall of 1956, (before my monthly senior medical student rotations through the various clinical specialties), I volunteered to serve three months as an unpaid “extern” at the former Mission Hospital on Twillingate Island in Notre Dame Bay, off Newfoundland’s northern shore.

I shared duties with another Medical School classmate who also volunteered and brought along his wife. As our work schedules all split us between the duties that we shared, we rarely even met. This was smart scheduling as it maximized our work-load and medical experiences while also encouraging us to interact with the local population rather than with each other. It was also served as a recruitment opportunity for Twillingate Hospital Health Care.

At the time, Twillingate Hospital served 35,000 inhabitants of small villages hidden along the deeply indented coastline. Their near invisibility from the sea helped local fishermen evade British tax collectors until 1949, when Newfoundland (with Labrador) joined Canada.

Our supervisor was John Olds, a slender, brusque, Johns Hopkins Medical School graduate, whose small white house perched on a mini-hill just above the Hospital. Twillingate Hospital was our first exposure to the rewards and tribulations of personally delivering health care. Despite my minimal applicable skills and near-total lack of practical knowledge, I tried to do everything perfectly. But all too often, I totally screwed up!

Fortunately, the medically underserved population of this isolated area accepted treatment failure as a fact of life, and were grateful that our efforts on their behalf so often helped. Among our other duties, we occasionally refracted eyes for spectacles, or pulled a rotten tooth.

Under Dr. Olds’ innovative guidance, Twillingate Hospital avoided bankruptcy in 1934 by becoming North America’s first prepaid HealthCare System! For some years, that Twillingate Plan was funded by an annual fortyfour cents per person assessment on each family living around Notre Dame Bay, plus a yearly stipend of about \$25,000 from Newfoundland’s Government.

To put these health care costs in perspective, until World War II, local Newfoundlanders "on the dole" received six cents per day. Yet by the 1950s, twenty thousand families were hospital subscribers at 85 cents per member, with the Government adding \$45,000 annually. In the early years, tenuous hospital finances were repeatedly augmented by individual donations and interest-free loans (some from Olds himself). Fortunately, these sturdy fisher folk were generally healthy and wisely avoided health care whenever possible.

The rambling hospital building was a weathered wooden structure located just below a pond where hospital-owned pigs took delivery of hospital garbage. As this pig pond

was the hospital's only water source, everyone there drank coffee or tea. Early on, I had quaffed a half glass of cool tap water after the sediment had settled, and quickly developed the most amazing gastroenteritis of my life, probably due to Paratyphoid bacteria. Thereafter, I drank only coffee!

The hospital distilled or boiled enough water for food service, patient care and surgical scrub sinks. Local men usually drank tea while all the women preferred coffee. A tea salesman originated the local rumor that coffee shrinks the gonads.

My tiny room - twice the size of my narrow bed - was barely within the Nurse's Residence, and my door opened onto a sloping hallway leading down to the hospital. We externs worked days, alternated nights on call, and covered each other during house calls. *Those house calls* usually took us to nearby islands at night, after our Hospital Clinic closed. We always walked with a local guide along unmarked dirt lanes across small intervening islands in the dark, waking fishermen to ferry us across whenever phosphorescent waves blocked further progress.

These iceberg-laden North Atlantic seas were always near freezing, so none of the fishermen could swim: Nor did I ever see a life jacket. Thus warmly dressed fishermen who fell overboard usually drowned. Dr. Olds and I argued over how long one could swim in four-degree Centigrade water. I wagered that I could easily swim across Twillingate's Harbor (about an eighth of a mile), but had little free time for such diversions.

Finally, one calm and sunny late September Sunday, I was off call and everyone appeared to be in church (the Salvation Army was a major local denomination). So I put on my bathing suit and slipped quietly into the water to begin my usual effortless sidestroke across the Harbor.

But after swimming less than 50 feet, the world began to whirl so swiftly that I could neither proceed nor direct myself back to the nearby shore. Fortunately, I recognized that icy water entering my right ear had produced this spinning - a normal inner ear "*caloric*" response - so I quickly submerged my dry left ear until the spinning stopped, then proceeded, still using my sidestroke, but now with head held high.

Many fishermen die after falling into icy waters. Older ones may die immediately of cardiac arrest. Others appear to "panic" or act inebriated, "swimming" aimlessly, often away from potential rescuers. Undoubtedly, some of that panic or "inebriated behavior" reflects vertigo from ice water entering an ear, but alcohol and other drugs are certainly common around most seaports.

From his front window, Olds spotted me swimming across the Harbor, so he drove around and picked me up in the hospital jeep. This was an excellent idea, as by then I was moving slowly, my legs entirely numb from the cold water. In fact, it was extremely difficult for me to rise and stand unaided on that rocky shore, and I might have had real problems walking back alone around that Harbor to reach my warm room.

After several hours spent shivering under regularly reheated blankets on my bed - while hugging a frequently replaced hot water bottle over my heart - I was back to normal. When Olds later paid our \$25 wager, he mildly suggested that next time I have someone accompany me in a rowboat. I strongly agreed, but anticipated no "next time." And when my Twillingate tour ended, I gave him my \$25 Japanese binoculars as thanks for his rescue.

Our local fishermen used open, double-ended seaworthy workboats or dories powered by heavy reliable cast iron "make and break" single cylinder inboard engines

that putnputted along, slowly twisting a large propeller that moved the boat efficiently across the waves.

During one night-time house call, our inter-island boat stirred up enough phosphorescence to attract a pod of beluga whales that humped and rubbed the boat suggestively, causing it to tilt and veer. Our three alarmed fishermen shut off the engine and rowed frantically for shore. I grabbed the remaining (fourth) oar and tried to help. But while I often had rowed using steel oarlocks, there were four possible ways to position an oar's short loop of rope over the stout wooden rowing peg, and all but the fourth position that I tried, simply twisted the oar from my hands. So before I could help, the whales were gone and our engine was again cranked up and running.

One house call took us past a home where the lights burned late. To my idle comment "They must be having a party," my gloomy guide responded that they were holding a "Wake" for the patient I had treated several days earlier. Of course, the farther we had to travel on land and sea, the more likely it became that the initial emergency had resolved, one way or another. Then, no matter how little we could do to help, all but the most destitute homes brought out a tiny can of peaches or other goody to strengthen us for the return trip, *as fruit was critically important to all who mainly subsisted on vitamin-depleted, dried salt-cod and boiled hardtack.*

At the time, our standard noon and supper meal, in or outside of the Hospital, was dried salt cod, repeatedly soaked to extract most of the salt, then boiled with brewis - a hardtack bread that had no flavor after being boiled "so one didn't tire of it"- all topped with melted pork fat for both flavor and energy.

According to Wikipedia, Fish and brewis (pronounced "brews")^[1] is a traditional [Newfoundland](#) meal consisting of [codfish](#) and *hard bread* or [hard tack](#). With the former abundance of cod around the [Newfoundland and Labrador](#) coasts, many Newfoundland households considered fish and brewis a delicacy to be served as a main meal. The recipe varied from community to community or even household to household, but the primary ingredients were always the same. The typical recipe calls for [salt fish](#) that is soaked in water overnight to reduce the salt content of the fish, and the hard bread is also soaked in water overnight. The next day, the fish and hard bread are boiled separately until tender, then both are served together.

The traditional meal is served with [scrunchions](#),^[2] salted pork fat which has been cut into small pieces and fried. Both the rendered fat and the liquid fat are then drizzled over the fish and brewis. Fisherman's brewis is the same as fish and brewis, but the fish and bread are chopped while hot and mixed together with the scrunchions, and often fresh cod is used instead of salt cod. *Drawn butter* is sometimes used instead of scrunchions. Drawn butter in this instance is a mixture of melted butter and chopped onions that is thickened by flour in a saucepan, then served hot over the fish and hard bread.

In some Nova Scotia households, this dish is known as "Salt cod and pork scraps" where the mixture can also be served on a plate next to a mound of plain boiled potatoes and carrots. The meal was originally developed by sailors who often were at sea for weeks, and even months, as few fresh ingredients could withstand such lengthy trips. Therefore, long-lasting foods were a necessity, and fish and brewis became the crew's favorite.

The idea that sailors called the hardtack or sea biscuit *brewis* (pronounced 'brews') because of their practice of bruising or breaking up the bread into bite-size pieces is likely a contemporary legend, and it has been argued more

convincingly that the word "brewis" dates back to Middle English, [3] originally referred to bread soaked in fat or drippings and is cognate with [brose](#). [4] A variant of brewis is found in [Wales](#). [4]

To supplement their oatmeal breakfasts and fish and brewis diet, island women picked and stored luscious blueberries and cranberries that grew everywhere. For these rocky islands had long ago given up their last tree to the local demand for lumber and fuel. Indeed, men who didn't fish mostly became loggers working "off isla" in Newfoundland's interior forests.

Blueberries could always be picked when ripe, but cranberries - rich in Vitamin C and easily stored all winter long, were treasured. In fact, it was illegal to pick cranberries before Cranberry Season officially opened. So the cranberry poachers were always quick to conceal their illicit haul (in a big old Folger's coffee can) under a thick layer of "legal" blueberries."

In the 1950's, most locals still spoke a heavily accented 17th century "Scots English" that was difficult for outlanders like me to process even if spoken slowly and clearly. For example, a day after cranberry season opened, many older women came to clinic with severe backaches. By then I knew that these women—like my first Twillingate backache patient—would declare "I finds me back wonderful!"

On that initial occasion, I was puzzled but finally congratulated the patient on her wonderful back before gently inquiring if she had any complaints. But she simply sat there, looking at me strangely until a helpful nurse explained that "finds" means "it hurts" and "wonderful" means "a lot!"

The shortage of local timber often made it worthwhile for those moving elsewhere to take along their small wooden homes. I never saw such a move, but apparently each was a village-wide effort and party, with all adults hauling on ropes to ease the little building across driftwood log rollers into a calm sea. When the incoming tide then floated the house, it would be towed by boats to its new neighborhood, where the partying resumed as the launching process reversed.

Our medical bag for house calls held a blood pressure cuff and stethoscope, assorted bandages and a few medications including *Demerol* or *Codeine and Aspirin* for pain; *phenobarbital* (not very useful for the high blood pressure most adults eventually got from living on salt preserved fish with minimal access to fresh fruits and vegetables), a small SixaVit tablet for vitamin deficiencies, *digitalis leaf* (the only truly spherical "pill" this former pill-pusher ever met) or *digoxin* tablets for heart failure, a *penicillin-containing syringe*, and small bottles of bladder mixture and stomach mixture.

I never used nor found out what ingredients were in bladder or stomach mixture, but I knew enough to immediately label all these bottles after filling them from their appointed jug. For every jug in that long row of standard ten-gallon green glass jugs of the Hospital Pharmacy, had an identical pinch clamp hose and small handwritten label. And except for that mini-label, bladder mixture and stomach mixture jugs were indistinguishable from the Lysol jug between them, or from other nearby medical or housekeeping jugs.

In 1956, cod and squid were still plentiful. The squid were caught by briefly jigging a shiny barb free hook over the side, then retrieving it with a small common squid attached. When a big bait box was full of squid, hundreds of hooks could be baited on a buoyed and weighted long line that went over the side, and that line was soon retrieved with a large cod on each hook.

These cod were then split, cleaned, heavily salted and dried by wind and sun, while somewhat protected from rain and seagulls. In the fall, Norwegian schooners bearing replacement salt and other supplies, sailed into Twillingate Harbor to fill their holds with best quality cod. The remainder was what we consumed locally.

For *urgent daytime house calls* on Twillingate Island, we always went by cab. Distances on our little island were minor - but that extra expense encouraged patients to attend the hospital clinic and also kept us from being away longer than necessary.

A short cab ride cost the patient 50 cents, which covered our ride and a fifteen-minute house call. We never remained longer as few could afford more than 50 cents. Naturally, patients wanted full value for their money, so ailing relatives or friends were routinely brought in to share the known costs and possible benefits of our brief consultations. On a few such occasions, the limited variety of rather safe medicines in our black bag proved advantageous.

One day I was truly stumped. An old man with severe arthritis who had been confined to bed for ten years, overnight and without injury developed a huge painless bruise from his hip to his ankle. As I puzzled, the taxi driver and several sick relatives still awaiting diagnosis and treatment in this tiny house, were getting restless. I had to leave the old man some medicine so I could tend to the others. But he had no infection, no pain, an exemplary stomach, an outstanding bladder, enviable blood pressure and no heart complaints—which left just vitamins . . . Aha! Ahem.....

"Your father appears to have scurvy, due to a Vitamin C deficiency." Had there been additional therapeutic options (Physician References now offer details on many thousand pharmaceuticals), I could never have made such a quick diagnosis as I did just by eliminating available therapeutics in my bag one-by-one, and the old man's scurvy might not have occurred to me within my allotted 15 minutes.

An old saying goes, "When your only tool is a hammer, the whole world looks like a nail." And occasionally, as here, it is a nail! In September, 2002, the World Health Organization (WHO) put out yet another Model Formulary offering comprehensive information on all 325 medicines in its Model List of Essential Drugs, intending thereby to improve patient safety and limit medical spending.

Many patients came to our Hospital Clinic with "*Blood Poisoning*". Usually a red streak extended from an injured or infected hand along inner arm lymphatic vessels toward the armpit. Often a feverish man with a red streak up his arm arrived with a ring of white paint around the upper arm, as it was locally understood that red streaks could be blocked by white paint. The frequent failure of white paint was attributed to "delayed paint application."

Fortunately, such streptococcal infections were all sensitive to penicillin in those early antibiotic days, so our patients recovered quickly after a single shot of long-acting penicillin, rather than dying quickly of blood poisoning as was common in pre-penicillin days (a mere decade earlier).

An easy modern self-treatment for still localized infections is Kroger's Triple Antibiotic Ointment" (or some similar broad-spectrum antibiotic ointment), applied over and repeatedly rubbed into the full extent of an increasingly red, hot, tender and swollen infection (*before that red streak of spreading infection reaches the upper arm*). With several such applications daily, this usually solves such problems simply/easily/cheaply/safely without need for the injected antibiotics we gave for more *widespread infection problems* (formerly referred to as "*blood poisoning*").

Antibiotic ointment's advantages are low cost and easy self-applications plus fewer problems with antibiotic allergies or bacterial resistance as are becoming increasingly common (e.g. with injected penicillin). However, Triple Antibiotic Ointment may be no better than white paint around the arm if an infection already has entered a patient's blood stream - where antibiotic ointments usually cannot reach (but see also the discussion of Bacterial Quorum Sensing in Chapter 12).

Dr. Olds had come north in 1932, after one year of surgical internship. Soon he was the entire region's only physician and surgeon, so by 1956 he had developed a store of useful knowledge and good clinical judgment based upon extensive reading and experience. Nonetheless, he remained open to suggestions so *my confident inexperience* occasionally caused problems.

Of course, patients often differ, and even similar problems may differ, so while training, preparation and experience are essential, *every physician still has failures*. That said, during one Friday clinic, I treated about a dozen young children for severe diarrhea. As usual, the mothers were all told to "Bring them back early if they do not improve".

On Monday, a very ill two-year old returned. It soon became clear that he had now developed an intussusception (telescoping of higher bowel into the colon or rectum) as well. At surgery, his un-telescoped bowel remained black and looked dead, even after being restored to its normal position. Olds decided to drop the black bowel back into the peritoneal cavity in hopes it would recover. I objected, saying it looked dead.

So Olds opened the small bowel above this site and placed the damaged segment (which might otherwise have recovered) in a moist dressing on the abdominal wall. Thereafter, a great deal of fluid drained out. In those days we had no equipment to tell us which salts were being lost. Nor was it yet clear how fluid replacement ought to proceed.

Thus I flew blind, desperately adding or deleting this, that and the other, until the child died. In retrospect, Olds was probably correct - given our limited capabilities in 1956. But a competent bowel surgeon nowadays would likely remove this apparently dead bowel segment and reconnect living bowel - which most likely would have succeeded even in those days.

An old adage describes surgeons in training as "Frequently wrong but never in doubt." I still recall how sure I felt when apparently wrong. This death was another hard lesson about decisions made without understanding their limits, applicability or sequelae.

Olds had built or rebuilt much of the hospital's equipment. He performed both elective and emergency operations for all sorts of abdominal problems and even many orthopedic conditions. And if necessary, he operated on chests, eyes or skulls. He even had devised an unusual but apparently effective, posterior approach to back fusion.

His spinal fusion technique basically wedged the notched ends of a sturdy, flat, inches-long, live-bone graft (a rectangular strip sawn from the patient's tibial surface), between posterior spinous processes above and below the most painful vertebrae. Intervening spinous processes were reduced to bone chips and packed around the graft. After six months in a body cast, these young men (mostly loggers) apparently had solid backs with few symptoms (but see discussion of back surgery in Chapter Six).

Olds, a well-known adventurer, frequently went off to sea. Summers he might travel around Notre Dame Bay in a hospital boat. And winters he often was the medic for the sealing fleet while it killed thousands of newborn seals out on the sea ice to get their beautiful fur.

Like many other young fellows who grew up during Prohibition (1920-1933), Olds was a heavy drinker—a problem that worsened after the death of his beloved first wife. Consequently, like many alcoholic physicians, he became unavailable after about 4 PM. So at night, we students did our unsupervised best to deal with whatever happened.

Fortunately, the hospital nurses, aides and orderlies were all very competent and usually quite experienced, so things generally ran smoothly. And when trouble loomed, the staff offered excellent advice *upon request*. For example, a 19 year old nurse's aide who regularly provided all night care for the hospital's 5075 patients, taught me a great deal about ordinary patient care.

Other employees were skilled at evaluating, soothing, and quietly preparing expectant mothers for delivery. Thus while at Twillingate Hospital, I "delivered" fifty healthy babies *without any of the medications, complications or commotions so routinely encountered in the male-dominated "Teaching Hospitals" of that day*.

My only *obstetric mistake* was an episiotomy that I did for a first pregnancy (as then taught at Harvard hospitals). Several employees politely asked later why I had done such a strange thing, which left the patient with a sore bottom for days. I gratefully accepted their implied criticism and never did another episiotomy!

Basically, the nurses called us five minutes before a baby came out, and our presence was a teaching moment for us, but an entirely unnecessary formality for the hospital staff. For it was well known to them that childbirth went better without the presence of impatient male gynecologists.

Yet over recent decades, as nervous fathers and families have increasingly been welcomed into hospital delivery rooms, the Caesarian birth rate has doubled. Elaine Hodnett, U. of Toronto, has amply confirmed the importance of a soothing *female* companion during childbirth (The Week, p22, 10/10/2003).

Elective Surgery

Elective surgical operations are best avoided if they look likely to fail! But one day, a massively obese (over 300 pounds), middle-aged female insisted Dr. Olds repair her huge umbilical hernia. Because large chronic umbilical hernias in fat folks can enclose much of their intestine, surgeons nowadays no longer try to cram all of that long-time displaced intestine back into the original abdominal cavity during a single operation, as massive umbilical hernias are usually more safely repaired in stages.

A modern "first stage" might gather loose abdominal muscle layers for better support around the greatly enlarged central abdominal umbilical opening. Then one could just sew a sturdy sterile plastic mesh "roof" over the entire operative area, and appropriately fasten the muscular edges of that umbilical defect around that plastic mesh under slight tension before doing the skin closure.

Post-operatively, such a patient would still have an unsightly protuberant abdomen, but it would be far better positioned for later hernia reductions. However, being blissfully unaware of surgical advances yet to come, we simply crammed all her intestines back into her abdomen, and had nearly completed an impressively sturdy hernia repair *under open drop ether anesthesia* when her heart suddenly stopped!

Our resuscitation efforts failed as usual, for effective cardiopulmonary resuscitation had not yet been devised. Undoubtedly, having an amateur give anesthesia also contributed to her death. For since Twillingate Hospital only rarely had skilled anesthesia available, local "lay persons" who had a bit of prior experience were often asked to give

anesthesia for Olds' simple or urgent procedures. And in 1956, there was apparently no way to forward serious surgical problems from Twillingate to any major Canadian Medical Center.

Open-Drop Ether Anesthesia

Whenever we used "open-drop ether anesthesia", we carefully avoided giving a patient sufficient ether to achieve a more-than-momentary total muscle relaxation. For full muscle relaxation obviously meant that neither ether nor oxygen could be inhaled by an unassisted patient.

So to survive surgery, our patient ought instead have had full-time breathing support by a competent anesthesiologist - who surely would have warned Olds that our sturdy abdominal wall closure had so tensely compressed her intestines that her *diaphragm* was no longer able to push such tightly packed intestines downward far enough to enable a useful breath!

In contrast, properly delivered short-term "open drop ether inhalation" was often rather simple and safe. For to deliver open drop ether, you only needed a wire mesh mask resting lightly on cheek-bones and chin - that had a dome shape over nose and mouth to create evaporative air space. Then every ether droplet that fell visibly (from a safety pin stuck cleanly through the soft metal dome of a properly tilted ether can), immediately vanished into the porous cotton sponge cover of that wire mesh mask. Invisible ether gas that emerged was then inhaled along with room air by the patient (and blown toward the anesthesiologist and surgical team during each exhalation).

The patient's skin never contacted liquid ether as very few ether drops were needed, and ether evaporates so quickly. Of course, the patient's breathing and vital signs were continuously monitored for *too much ether* could cause a patient to relax and even stop breathing - while not enough ether was signaled by patient movements or gasps in response to painful stimuli. To avoid unwanted surprises, most anesthesiologists also kept a finger on the easily felt arterial pulse just in front of the patient's ear.

But as such operations continued, the patient and all others nearby absorbed more and more ether, so the patient required diminishing amounts of ether to remain asleep - and it became easier to provide enough excess ether so the patient simply stopped breathing!

Then, quite unlike initial overdoses of ether, which merely delayed a breath or two while that ether was absorbed by "low-ether-level" blood passing through the lungs, later overdoses could require intubation and ongoing respiratory assistance for a while.

During open-drop ether anesthesia, everyone nearby inhales some of the ether allegedly directed at the patient. So Marianne quickly detected my 'ether breath' on evenings after I gave open-drop ether anesthesia at Boston City Hospital. She also claims that I often complained about how difficult it was to stay awake "longer than the patient" as I rebreathed the ether/air mixture exhaled by the patient. For I too felt more and more tired and often nearly fell asleep. But before the end of my anesthesiology month, I also recall rather enjoying my open-drop ether days.

Anyhow, our inadvertently "too tight" abdominal closure in this "huge umbilical-hernia patient" caused her circulation to fail when her abdominal veins were so over-compressed by our tight closure that blood could no longer return freely from her gut or legs to her heart.

And those far-too-tightly compacted viscera under her diaphragm also prevented any future downward movement (contraction) of her usual upwardly-domed-at-rest two hemi-diaphragms (those same hand-packed-intestines laid below her upwardly domed diaphragm) as downward diaphragm contractions are essential for inhalation - although impossible if the diaphragm is not free to move.

Upon departing, Olds ordered us to transfer her corpse from the second floor surgery to the basement morgue via a steep and narrow staircase, as no elevator shafts went to the basement. Being assistant surgeon, it fell upon me to help achieve this transfer. As taller bearer, I also had to go first, so I chose the lighter foot end of the litter.

Then exerting every muscle to keep her litter up and level, we began to carry her down the stairs, with George, the orderly, keeping her head-end as low as possible by stooping. The first several steps passed uneventfully, although each step produced an ominous increase in the downward tilt of her litter.

At five steps down, her sheet slipped off and hung around my neck like a scarf. Two more steps and the tight turn at midflight landing were maneuvered with my ears gradually folding as cold, stiff ankles moved relentlessly forward alongside my head.

My increasingly emphatic suggestions to George to lower his end were answered by his increasingly desperate shouts to “lift 'er higher”. The next three steps passed more rapidly as her icy knees reached my shoulders. She left the litter and landed full astride my shoulders when I was still three or four steps above the first floor.

Together we burst through the swinging double doors into the Hospital's busy thirty-bed ward during Visiting Hours. Then I stumbled + she rode me to the floor.

The Turrs Are Coming!

One fine autumn day, an elderly Twillingate man popped by Olds' office and announced “The Turrs are coming!” I asked, “How does he know?” Olds responded, “I have no idea, but he's always right.” Pandemonium reigned as healing spinal-fusion patients were cut out of their body casts so they could rush out with all the other barely able-bodied men from the hospital to get aboard a small boat.

Soon a mile-long line of skiffs and dories bobbed off the rocky cliffs of Twillingate Island. An hour or so later, we spotted them: Endless flocks of little black and white puffinlike seabirds (of the Auk family) on their ancient annual migration past the Twillingate Cliffs, flying with inherited insistence from one place to another.

After repeated delays, our rowboat was barely offshore - still quite near the hospital and also a bit close by the local Royal Canadian Mounted Policeman's residence. And Turr hunting was illegal!

But fortunately, our local Mountie was in a nearby boat, also preparing to shoot.

I held the boat steady as Olds carefully poured black powder into his ancient muzzle-loader and tamped the packing with his ramrod. He had loaned me his old double barrel 12gauge shotgun (which unexpectedly blasted both barrels whenever I pulled either trigger), but initially I was at the oars—and we both hoped he would make an impressive first shot.

Shooting began far down the line. I kept him informed as the first flock neared. When they were overhead, he raised his musket and fired. The recoil knocked him to the bottom of the boat. A nearby splash confirmed that he had forgotten to remove the ramrod.

Then I nearly joined him when both shotgun barrels went off together. But fortunately for my undeserved reputation, three turrs tumbled down from the sky with my first shot. Eventually we shot a few more turrs.

They resembled dark chicken but tasted like fish.

See also "Doctor Olds of Twillingate" by Gary L. Saunders,
1994, 363 pp, Breakwater, 100 Water St., PO Box 2188,
St. John's NFA1E 636

CHAPTER TWO

Academic Politicians tend to be lazy bull-shitters rather than competent surgeons
Hospitalized patients are frequently mistreated
Interns and Residents must learn from each other

Harvard's most prestigious teaching or private-care hospitals between 1957 and 1963 were Peter Bent Brigham, Mass General, Beth Israel and Boston Children's. Their Academic Surgery Directors were all skillful Medical Politicians who never displayed any hands-on surgical abilities - at least to us interns or residents. Anyhow, for some or all of that era, General Surgery Professors in those hospitals were Francis Moore (PBBH), PR (MGH), Jake Fine (BIH) and JF (BCH).

Moore wrote a widely praised but totally inane and pointlessly complex textbook, "The Metabolic Care of the Surgical Patient". And whenever he lectured to medical students, he regularly stopped in midsentence to declare that the most important thing a surgeon could do was THINK! Which he then scrawled in huge letters across several blackboards (having presumably run out of 'thinks' to share).

Soon after graduating from medical school, while on a surgical rotation at a private hospital, I was assigned to assist Moore as he performed a breast biopsy on his own secretary. (In my view, it is best to avoid operating on relatives or employees, and even better to avoid examining your employees' breasts).

Anyhow, as Moore's BFD operation began, that hospital's nationally renowned senior pathologist was already in attendance - waiting for a surgical specimen to examine. But after a negative needle biopsy, Moore said "von Hippel! You give it a try."

I protested that I had never done a needle biopsy, so he said "Just do exactly as I did." But when I obediently performed a needle biopsy in his flamboyant "Matador" style, the needle broke off deep within her huge breast - an unfortunate complication that was sure to delay us endlessly while we sought that needle.

But Moore seemed untroubled. After declaring "I'm certain this is cancer!" he rapidly removed her entire breast as one definitive biopsy. Our young anesthesiologist and other 'physicians in training' were clearly impressed by Moore's decisive, swift, sure completion of procedure.

I alone wondered, "Why the Hell did he do that!" And despite all the tedious examinations thereafter undertaken *by that hospital's entire superb Pathology Staff*, the only abnormality they ever discovered was my broken-off biopsy needle.

Comment: Moore and I didn't like each other. He had once turned suddenly when laughter erupted in our class as he again scrawled THINK on the board - while I was still

up and mimicking his gestures. At this breast biopsy, I was inexperienced and less than helpful, which simply complicated the operation.

Fortunately, despite her unnecessary simple mastectomy, his secretary reportedly was deeply grateful that Moore himself had operated, and extremely pleased to learn she had no cancer!

PR and JF were both very young, up-and-coming medical-political geniuses (according to their important mentors) when appointed. But both proved so inept that they were soon relegated to laboratory research, where they likely did not achieve much of note beyond JF's regularly announced "Pending Nobel-quality discovery".

A surgical resident's ditty about Jake Fine went "You may be fine with knife and suture but to me you're Jake the Butcher". Black humor (bitter irony) even led some Jewish staff physicians at this Jewish hospital to grumble "that Jake Fine personally killed more Jews than Hitler did."

Before PR replaced him, Dr. Churchill was an elderly, about to retire, Professor of Surgery at MGH. Despite one or two minor "*surgical near-firsts*" in his long career, we students found him boring. Churchill often entered the darkened observation area above the MGH operating room glass ceilings to watch operations in progress.

I was initially unaware of his presence one day as I entertained the residents with some of his more ridiculous gestures and clichés. So for the remainder of that hot springtime rotation, whenever Churchill and I met, he would stop me without a word and carefully re-button the size 16 collar of my medical student tunic tightly around my (then) size 18 neck!

Patients are often mistreated in Hospitals!

But it was insightful Mr. Zackoverich - my very first patient as a senior medical student at PBBH—who inadvertently made me aware that merely hospitalizing an "ordinary" person in strange surroundings and unfamiliar hands is risky - and that under such circumstances, every patient wants and needs **someone trustworthy** to interpret medical terms and ideas - who also has final responsibility for that patient's care, just as any good server has final responsibility for delivering the decent meal that she or he previously described.

Anyhow, Mr. Zackoverich, an apparently healthy retired man in his 60's, was admitted to the prestigious PBBH Internal Medicine ward for evaluation of his "abnormally high" left diaphragm, which moved poorly when he breathed. *This interesting abnormality* - discovered on a routine screening chest X-ray taken for tuberculosis, had caused him no problems, but it was viewed as a possible indicator of something more serious, possibly even "An Undiagnosed Incurable Cancer!"

Because Zachoverich was a diagnostic problem in a major teaching hospital, many different "doctors in training" and several erudite medical professors came by to examine him, and thereby to display "*The Internist's hallowed **Cognition and Caring***" as then taught, displayed and perhaps only admired on this ward and, of course - to order tests.

Eventually, Mr. Zackoverich figured out that these physicians were far more interested in scoring an impressive diagnosis than in helping him. So after several days of tests—some inconvenient, some painful, and all inconclusive—we had a chat. He said, "I want your office address. You're the only one here who seems to know what is going on. And when I get out of here, I want you to be my doctor!"

I was truly touched! And that night he died!

According to the chart, he had become irritable in the evening, and perhaps a bit disoriented by his strange surroundings. A resident ordered him confined to bed and treated with sedatives, which simply made him more confused. Someone else then ordered intravenous fluids in case he might be too dry.

Of course, in those days, every farm boy still knew that "You can lead a horse to water, but you cannot make it drink" (if it is not thirsty). But in marked contrast, intravenous fluids usually go right on running in hospitals more or less "as ordered" - whether a patient feels thirsty or not.

Soon Zackoverich was shouting that he couldn't breathe! So of course they had to tie him down as he kept trying to get out of bed *until he died*.

Autopsy revealed no reason for the high diaphragm, not much heart disease, but it revealed that Zackoverich had died of acute fluid overload (too much intravenous fluid!) that neither Zackoverich nor any reasonable horse would ever have accepted voluntarily by mouth!

That fluid had clearly been forced upon him without any cognition or caring! Not one internal medicine trainee had bothered to ask him if he was thirsty! Nor did anyone even offer him a drink he could have refused. Sadly, such "Fatally pompous internal medicine screw-ups" are not rare.

About 18 years later, an Anchorage attorney was one of my first ten "Open Heart Surgery patients. On his second postop day he was doing remarkably well when a nurse gave him cloudy IV fluid from a cracked bottle—persisting with her efforts to maintain flow rate as ordered until the IV filter entirely plugged.

Though DT seemed unaffected by the contaminated fluid he got from that IV bottle, our consultant in Infectious Disease, having gone through mounds of hospital trash to find the discarded bottle and confirm that it contained mold - elected on his own responsibility to treat with a truly nasty + undoubtedly costly antifungal agent.

By the following morning, Dave was a wreck. Indeed, he and I both worried that his already-scheduled next strenuous antifungal treatment might kill him. He asked what I thought he should do.

I pointed out that "Neither of us knows enough about fungus to win an argument. But if I were you, I would forget about the fungus and just sign out of the hospital "against advice". *Your wife will surely take much better care of you.*" He signed out and did well.

I still wish I had given Zackoverich that same advice, though I don't recall that he even had a wife.

Interns and Residents must learn from each other

When I began my surgical internship on the 5th (Harvard) Surgical Service of Boston City Hospital in 1957, our Director of Surgical Training was Professor J. Engelbert Dunphy, *a superb medical politician* and allegedly, a good surgeon. But Dunphy was a huge disappointment for me as he had no interest in us nor in offering "hands-on training". I never saw him operate, nor did I ever hear of him even guiding *a single resident surgeon through any procedure!*

My only memory of "*A Dunphy Visit to our Fifth Surgical Ward!*" was the day he dropped by to demonstrate "A proper bedside manner". During that brief teaching exercise to our gathered group, he leaned on the bedrails of a demented shit-smearing

patient, then strolled away with parallel brown stripes across the front of his shirt and jacket.

At this point of the growing "Cold War" (after Korea, before Vietnam), surgical residents were increasingly likely to be "called up" by Draft Boards. So to ensure proper staffing at Boston City Hospital on our Fifth Surgical Service, Dunphy decreed that no resident would be reappointed for the following year unless he first volunteered for military duty and was then deferred to complete his surgical training (there may have been one female surgical trainee in Boston then).

Almost everyone had volunteered as directed before Dunphy got a prestigious job offer from San Francisco and immediately abandoned us! Fortunately for me (a true non-volunteer), several medical schools in our Middlesex County were then producing many young doctors, so I completed my general surgical training without being called up.

The remainder of my residency at Boston City Hospital passed under temporary Surgical Chiefs: First, Charles Lund, then Mel Osborne. Lund had treated many victims of Boston's deadly Coconut Grove nightclub fire (nearly 500 lives lost). He was elderly, pleasant and taught us how to do proper skin grafts.

Osborne, a smooth talking surgeon, enjoyed fly-fishing but taught us nothing at all. In effect, Dunphy's abrupt departure for greener pastures left the Fifth Surgical Service unsupervised except by senior residents, some of whom were far more knowledgeable and skilled than others.

Although **modern surgery** was by then pending, remarkably little was yet known about why operations failed or succeeded. But we all remained busy and learned what we could from our few surgical and endless nonsurgical problems. Good surgical residencies were rare, and I was hardly an outstanding resident, so my only option was to complete general surgery training at Boston City Hospital.

We all made huge efforts to care for patients during our 5+ years, but I still ended up "Less than well-trained," as so many of our patients were non-surgical derelicts off the street, extremely ill people, or else relatives-being-put-in-storage by politicians-going-on-vacation. Also any patient who appeared to require major surgery on admission was supposed to be admitted to Boston U, Harvard, and Tufts Surgical Services in turn. However, I merely had to complete General Surgery training in order to apply for Chest Surgery training.

For luckily, my residency at Boston City Hospital had included two rotations through the Overholt Thoracic Clinic, where I assisted all five Clinic partners. But among those five good men, Drs. Neptune and Overholt were two of the finest surgeons I ever assisted. Like Dr. Franseen (see Chapter Five), these men were highly respected and very successful in private practice. Yet they always responded graciously and helpfully to each resident's questions, and seriously considered all of their suggestions.

In the late 1950s, chemotherapy was finally controlling some tuberculosis lung infections, but many TB patients still required years of "inpatient" care (primarily "bed rest" in tuberculosis sanatoria), along with occasional chest operations to drain or remove grossly infected lobes or even entire lungs.

Such operations might also include volume-reducing chest procedures such as plombage (inserting inert space-occupying foreign materials like paraffin, or even a bag of ping pong balls) or thoracoplasty (partial rib removals) that reduced the chest volume to better fit the remaining lung, or to simply obliterate an infected pleural space).

Under such circumstances, even Boston's most important Medical and Surgical Academic Professors—who would never ask Overholt or Neptune to address any of their big conferences still insisted upon getting Overholt Clinic Chest Surgeon Care for themselves and their families.

CHAPTER THREE

Life At The Boston City Hospital

Any action or inaction may lead to catastrophe

In June of 1957, I graduated from medical school. In September, 1962, I completed general surgery training after spending much of each year at Boston City Hospital, where we usually worked about 120 hours per week.

While our internships were mostly spent at Boston City Hospital, as residents we were intermittently assigned to smaller Boston area (or outlying) hospitals for one to three month rotations. Many of these assignments were a nice break from drudgery; some were even useful, as the surgical staff at each hospital did things a bit differently, which allowed us to evaluate alternatives in surgery and patient care. Quite naturally, each hospital group considered their own methods to be "the safest and most effective".

But our Boston City Hospital *work experience* was unique. Indeed, any reader who has not trained in a large City Charity Hospital is advised to suspend disbelief, withhold judgment, and just hope Charity Hospital Care has improved since then. Needless to say, this is a dated report, as *I never returned* after completing Boston City Hospital's inexplicably "*Accredited Surgical Internship and Residency!*"

City Hospital itself was an ugly collection of hulking (710 story) gray masonry structures covered with pigeon excrement. Some of those buildings filled sections of the high external walls bordering on City Dump. Other buildings squatted entirely inside the compound.

As one might expect, nearby dilapidated overcrowded tenements were mostly occupied by disadvantaged minorities. And ordinary background noises included loud traffic and the rumble of passing elevated trains interspersed with ongoing screams and shouts of drunks in delirium tremens, or the wail of ambulances delivering Boston's wretched, poor, homeless, hopeless, drunk, unfortunate, ill or injured to the huge sprawling chaotic intake area commonly referred to as The Emergency Room.

That Emergency Room alone deserves book-length treatment—from the huge cop named McSomething who always vanished when a patient became violent, to the bored intake personnel who often filled out forms without even looking up while inquiring which body part had been stabbed or shot so the patient could be admitted to the appropriate department.

Notably, one worker actually screamed when her client responded to a routine question by turning to reveal a knife protruding from the back of her head. Especially in this area, we had to look out for ourselves as well as each other. For many a drunk remained amorous or combative after a nightstick whack to the head that necessitated scalp repair before jailing.

So when my sweet little Marianne had ER duty, she always hung a slim necked, easily handheld, sturdy glass intravenous bottle nearby, as we deemed these ideal for "decking" aggressive drunks.

The unexpected was common: One day, the worried charge nurse told me that a hysterical paratrooper was beating up two of her orderlies in room 10, while McSomething - as usual - was nowhere to be found!

The agitated soldier had his back toward me when I looked in, so I grabbed him in a full Nelson (passing my arms under his arms and locking my hands together behind his neck). Not surprisingly, he came totally unglued. My only option was to hang on tight, so I tripped him and held him facedown on the concrete floor while both orderlies vanished for parts unknown (leaving me to simply hope that they might eventually return with a straitjacket)!

It took those lads 10 or 15 minutes to recover, reorganize and return! In the meanwhile, I held that patient facedown on the main corridor floor where the heavy traffic of patients being rushed past on litters continued as I (in my white doctor's suit) occasionally thumped his face on the concrete floor whenever he needed reminding not to fight, or just to help him relax.

When I eventually got back to the surgical ward, pushing yet another "New Admission" on a litter, the resident in charge yelled "What took you so long?"

I didn't respond.

You must take for granted that we worked in a corrupt City for a corrupt Hospital Administration where corrupt City Council members and other corrupt politicians routinely filled their possibly corrupt station wagons with possibly corrupt turkeys, roasts and other food items from the hospital kitchen for redistribution in their own corrupt districts near election time or before holidays.

Assume also that these worthies felt free to interfere in patient care despite their profound ignorance of matters medical. Indeed, at any moment, a resident might be ordered to admit some politician's homeless relative or friend to one of our badly needed surgical beds *for the winter!* Or to admit a politician's aged inlaws until that implausibly titled "Honorable Gentleman" and his wife returned from their prolonged Hospital-sponsored Florida vacation.

On the other hand, there was a dapper psychiatry resident who always carried an umbrella and regularly rushed acutely inebriated young males into his nearby office for "Urgent psychotherapy!" And a male "Charge Nurse" in Urology who played golf with the Mayor or other important politicians, and therefore altered any doctor's order with which he disagreed! But given the treatments available at that time, perhaps it did make sense for him to pack sugar into infected wounds.

Some Sugars Prevent Bacteria From Settling Down

Over recent decades, researchers have identified lectins (specific bacterial-surface proteins) that secure invasive bacteria to cell surface carbohydrates in the airway, gut or urinary tract. Such adhesion was essential before bacteria could attack/infect exposed cells.

Human breast milk contains complex carbohydrates that prevent bacterial lectins from binding to cell surfaces. And food technologists have shown that a thin film of cow milk *extract* sprayed upon a fresh cow carcass can keep those raw surfaces 'bacteria-free' for weeks without refrigeration.

Veterinarians have also found they can control chronic equine uterine infections (a cause of repeated abortions) by irrigating the mare's uterus with mannose (a sugar). And the glycoproteins in cow's milk also seem to reduce the survival of *Helicobacter Pylori* bacteria in the stomach (see also Chapter Four).

The polyphenol oxidase found in potatoes and apples is still another antiadhesion compound that prevents harmful bacteria from adhering to the intestinal lining. And in some South East Asian countries, a potato peel extract is smeared onto burns to prevent infection (New Scientist, 29 Nov. 2003 pp347).

City Hospital

City Hospital had a huge supply of physicians in training, plus many thousand hospital employees, plus uncounted thousands of patients constantly passing through its inpatient and outpatient services, all with different problems, needs and concerns.

Naturally, any of the above might suddenly respond more strangely or violently than usual to life's daily pressures, here magnified by stress and mostly hostile interactions. Many viewed politeness as a sign of weakness. And while any patient's heartfelt "Thank you!" *was truly startling and a less than annual occurrence*, threats were more common.

City Hospital had a huge budget, from which every administrative layer of the City and the hospital diverted what they could. Everyone understood this. So nurses occasionally drew attention to a need for fumigation by offering extra desserts to the patient who killed the largest cockroach for their daily ward display.

Naturally, the fumigator finally hired was a no-good Administrator's totally inexperienced *next of kin* who simply went from room to room and ward to ward, shouting "Fumigation! Leave the room!" before spraying poison widely around those too sick or injured to flee.

Within days, two of our postoperative patients died of liver failure. And when I refused to alter their death certificates from "fumigant poisoning" to "natural causes", the Administrator kindly did it for me.

Imagine peeling paint along long dreary corridors, underpaid and hugely obese food-service workers snacking from half gallon cartons of vanilla or chocolate ice cream, and stinking elevator shafts where elevator operators routinely stopped empty elevators between floors to urinate through the inner door grille.

Those operators often abandoned their elevators in the basement to go for lunch or place bets with Pinkie, the hospital security guard and 'bookie', whose fief was the City Hospital parking lot.

As an obviously fresh intern (in my brand new, still clean white coat), I once entered an elevator where a very tall and hugely obese operator said "Hi ya, Doc" and slugged my arm. I carefully explained that the next time this occurred I would slug him right back.

Soon thereafter he again smote me as I entered his elevator. This time, I was right behind the famous neurologist, Professor DennyBrown, and some student nurses. So as promised, I punched him as hard as I could, nearly spraining my wrist as my fist bent so far around while deeply indenting his fat belly. The elevator man fell back with a crash against the brown sheet-metal wall. The entire elevator shook.

A student nurse screamed. DennyBrown said "My word!" I said "UP!" And up we went with no one making another sound. The big elevator man and I had no further problems. Indeed, we remained on remarkably good terms thereafter.

Not infrequently, I had to hijack an abandoned elevator from the basement in order to move a critically ill patient to surgery or Xray. On such occasions, I usually abandoned the elevator on an upper floor so our absent operator could get his much needed daily exercise.

Although the interns and residents working at City Hospital were all licensed MDs, City Hospital pay was low enough (\$100.00 a month in my first year) so that many married physicians qualified for—and some went on—welfare. Soon we all got a \$10 per month raise to avoid adverse publicity for the hospital.

The hospital administration was eager to sell us health insurance, but failed to forward our premiums to Blue Cross. Consequently, although Marianne and I had both been "fully insured" for over a year, we still had to pay the entire \$400.00 bill when our first child was born (NOT at City Hospital). However, City Hospital Dental Resident's did a very decent job of extracting my wisdom teeth without any charge.

Because lab technicians received far larger wages than residents, the hospital relegated all possible routine chores like testing urine or drawing blood to the doctors. Some doctors found it especially annoying when nightshift lab technicians intentionally dropped fragile glass tubes containing laboriously drawn blood samples in order to reduce their own analytical toil and resume slumber.

Other aggravations included X-ray technicians who refused to take the portable X-rays we needed on extremely ill patients because those technicians would soon be going off-duty. Many residents found such behaviors "unbearable", but I resolved them simply by grasping the offending technician's shirt tightly and lifting him a little while explaining, "My patient is very ill and really must have your help NOW!"

The City Hospital X-ray Department always locked its doors promptly at 5 PM every weekday, and usually remained closed for the weekend, though all recently taken films on critically-ill patients had not yet been dried, analyzed or made available to the patient's physician.

Soon I developed a large following among residents in various services as every evening I unscrewed those heavy metal double-door hinges to reopen the X-ray Department "after hours". Small groups of interns and residents were usually waiting impatiently for my nightly extension of the X-ray Department's posted schedule.

Presumably my nondestructive maneuver, leaving one long screw in each middle hinge so those heavy metal double doors would rotate to horizontal position saved many lives. Luckily, those loosened doors never fell on anyone.

Only the residents who "played the numbers" with Pinkie were allowed to park in the City Hospital parking lot. On snowy days, tow trucks plucked our cars off nearby streets. And retrieving an impounded auto cost much of a month's salary. Therefore, one snowy day, I chased Pinkie into his locked security hut and amputated his chain across the parking lot entrance. Over subsequent days, Administrators paged me repeatedly, but never ventured onto our ward.

Several times a day, our Hospital loudspeaker system ("Only to be used for paging physicians in emergencies!") was preempted by nuns and priests for an unending string of Hail Mary's or lengthy prayers in Latin. Before long even those who (like me) were "religiously challenged" and/or expelled from High School Latin class, could mumble those prayers as well as any Italian Priest.

At our annual City Hospital Resident's dinner dance, my fellow residents twice recognized my efforts on their behalf by electing me winner of the "Meanest Resident Of The Year" Prize (in absentia). This truly was an unexpected honor—partly because I had no idea that such an award existed, but also because I was allegedly selected by general acclaim over countless other extremely unpleasant fellow resident doctors then working at City Hospital. My initial prize was another gate chain taken from Pinkie. The following year, I got a carefully hand-lettered scroll that we soon misplaced.

Because our Hospital food was often toxic, we posted daily signup sheets in a public lobby to keep administrators, food inspectors and the public informed on how many physicians currently had City Hospital Food Poisoning. Hospitalized patients and our doctor's cafeteria usually got comparably "bad food" with equally explosive results.

Doctors in training often develop a strange sense of humor as well as *an urge to get even*. As a humble new intern, I was once trailing our group on rounds when the Chief

Resident barked, “von Hippel! Go Fetch me a rectal glove!” Somewhat annoyed, I did as requested and en route made a tiny hole in the index fingertip of the glove.

Our Chief Resident then described how easily he could feel whatever it was on rectal. And when he finished, someone may have snickered, as his index finger had entirely emerged through the latex and required major scrubbing.

Soon thereafter, as I was pulling on a long retractor from my usual remote location as third or fourth assistant (until table-mounted, self-retaining "Iron Intern" retractors became cheaply available, flesh-and-blood interns did little but "retract" in the Operating Room), to improve visibility while the Chief Resident explored an anesthetized patient's distended abdomen.

I heard a muffled sound and he quickly brought his hand out, covered it with a towel and said, “von Hippel, put your hand in here and describe this finding.”

“No Thanks!” I responded.

He appeared puzzled. “Why not?”

I said, “Because I just heard the gut pop and the belly is now full of shit so you want to give me the credit.” He chuckled as our difficult operative procedure proceeded to its dismal conclusion.

At another hospital, a bored anesthesiologist amused himself by pouring ether into my scrub shoes as we worked. I slipped my shoes off without disturbing the flow of surgery, and surreptitiously filled an irrigating syringe with bloody fluid.

When that anesthesiologist next stuck his head in the door to speak with the anesthesia resident who was delivering that patient's anesthesia, I filled his open mouth with bloody fluid without anyone else noticing. Thirty minutes later, he was still washing his face at the sink as we wheeled our patient to the recovery room.

Any action or inaction may lead to catastrophe

One patient had a urine catheter inserted to collect a 24hour urine sample for some long forgotten reason. The initial collection bottle, recently emptied of its original intravenous fluid, soon filled with urine. Once disconnected from the Foley catheter, that full bottle was placed upon the bedside table by an aide, pending its retrieval for analysis.

When the already overwhelmed nurse who had just come on duty, was told the patient's intravenous bottle had run dry, she checked the “vitamins added” label on the urine-filled IV bottle, found it in accordance with doctors orders and ran that freshly collected urine into the patient's vein until he died of widespread hemolysis (red blood cell ruptures) caused by his own dilute urine.

My point? Anything you do, or fail to do, including a simple urinalysis, may prove fatal. And anything that can be misconnected eventually will be misconnected in the worst possible way. *So insist on incompatible connectors for incompatible systems and try to avoid unorthodox uses of equipment (or at least flag aberrant usages or unusual contents with a prominent label)!*

Tracheostomy

A curved metal tube inserted through the front of the windpipe becomes a *tracheostomy*. This formerly common procedure, done under local anesthesia, often markedly relieved upper airway blockages. It also enabled frequent suction removal of thick tracheal secretions. A tracheostomy procedure was even more helpful if the

incoming air was then kept warm and fully humidified so secretions didn't dry into crusts to clog the airway.

However, in my experience, a tracheostomy at City Hospital was invariably fatal. For it left the patient unable to cough, thereby creating yet another new responsibility for already overworked nurses. And on many nights, on many wards, *there were no night nurses on duty!*

Definitions

A felon is "an extremely painful abscess in the palmar aspect of a fingertip." As a resident, I once helped a clumsy private surgeon do a leg amputation for diabetic gangrene. His bone saw slipped and hit my fingertip - which soon became swollen and painful despite antibiotics.

So one of our senior resident's split my fingertip to bone - from side-to-side - under local anesthesia. It healed well soon thereafter.

Paronychia: A near-to-nail-edge infection on a hand or foot.

CHAPTER FOUR

Peptic ulcers were formerly common

Gastric Freezing

Flexible tube endoscopy quickly became popular!

How can we know if too many procedures are being done?

Prevention creep. Assembly-line surgery. Nor was Big Pharma left behind.

Inexpensive vaccines and quick cures *harm everyone except the patient!*

After two Australians discovered *Helicobacter pylori*, nothing changed. *In fact, neither Big Pharma nor early Gastroenterologists wanted to hear anything about Helicobacter* "It is difficult to get a man to understand something when his salary depends on his not understanding it." (Upton Sinclair)

From Wikipedia, the free encyclopedia:

Helicobacter pylori is a [gram-negative](#), [microaerophilic bacterium](#) found usually in the [stomach](#). It was identified in 1982 by Australian scientists [Barry Marshall](#) and [Robin Warren](#), who found it present in a person with chronic [gastritis](#) and [gastric ulcers](#), conditions not previously believed to have a [microbial](#) cause. *Helicobacter pylori* was also linked to the development of [duodenal](#) ulcers and [stomach cancer](#). *However*, over 80% of individuals infected with *H. pylori* are [asymptomatic](#), and it may have some important role in '*the natural stomach ecology*'.^[3]

More than 50% of the world's population harbor *H. pylori* in their upper [gastrointestinal tract](#). This infection is more prevalent in developing countries, and its incidence is decreasing in Western countries. *H. pylori's* helical shape... apparently evolved to penetrate the [mucoid](#) lining of the stomach.^{[4][5]}

When I graduated from medical school in 1957, peptic ulcers of the stomach and duodenum were *frequent and often serious health problems*. These inner-gut-wall erosions were often blamed on cigarettes, alcohol, excessive stomach acid or another inherent inadequacy of the stomach or upper small intestine.

Peptic ulcers were detected with X-ray studies that used swallowed barium sulfate to outline ulcer craters, tumors or other problems. Ordinary ulcers were *commonly* treated with antacids, bland meals, lots of cream to drink, sedation and bed rest.

An occasional peptic ulcer might erode into small, upper-gut blood vessel walls, causing chronic blood loss and anemia. But peptic ulcers that eroded into larger blood vessels occasionally caused massive life-threatening blood loss, as revealed by their copious vomiting of fresh blood or the passage of massive black foul-smelling stools.

As medical treatments for ulcers often proved inadequate, ulcers were often attacked surgically (e.g., by a partial stomach removal (partial gastrectomy), and/or vagotomy (cutting nearby vagus nerves to reduce acid production), and/or pyloroplasty (enlargement of the stomach outlet), or even by creating alternative pathways that allowed food to bypass some or all of the stomach.

These operations were often unhelpful. So sooner or later, many patients underwent further surgery and quite a few died. Therefore, we residents attended endless, exceedingly repetitive discussions of gastric and duodenal ulcers - their probable causes, diagnosis and treatment.

Indeed, at that time it was widely believed that *surgical stomach modifications that usually achieved good results were what "Separated the men from the boys!"* And for over a century, a few surgeons achieved international renown by devising minor non-fatal variations on standard ulcer operations.

Perforated Ulcers

Not infrequently, deeper ulcers eroded right out through a gut wall into the peritoneal (abdominal) cavity. Such a problem was most easily identified by "plain" (meaning '*no barium*') *upright* abdominal X-rays that showed air/fluid levels *outside of the gut*.

Though an occasional minor gut perforation might quickly reseal if overlying irritated bowel happened to stick together, every recognized recent gut perforation demanded 'urgent repair' as the ongoing intra-peritoneal leakage of digestive fluids generally made delayed gut repairs increasingly futile.

Gastro-Intestinal Cancers

In contrast, *intra-abdominal cancers* came in many configurations and tumor cell types, with the cancer cells often widespread before surgery (*or quite possibly spread by the surgery*). Consequently, abdominal cancer operations often had poor outcomes "Even in the best of hands!"

Gastric Freezing

With Peptic Ulcer Surgery so often unsatisfactory, *new advances in peptic ulcer treatment were eagerly awaited*. Hence there was great international excitement when

Owen Wangensteen, a renowned Surgical Professor in Minnesota, reported upon his experience with *"Gastric Freezing as a low risk, non-operative way to reduce acid production in ulcer-susceptible stomachs."*

Wangensteen, by reputation a formidable and demanding boss, had trained many surgeons who went on to develop respected Academic Surgery Programs. So soon after his impressive reports were delivered at National Surgery Meetings, *almost every General Surgery Department in the USA - and many in foreign lands as well - either built or purchased a Gastric Freezing Machine!*

This simple device (a small freezer and pump) moved icy ethanol through a two-channel tube (inserted via the patient's mouth) into a large bag filling the patient's stomach, then back to the freezer for re-cooling. But before long we began to hear rumors that no Gastric Freezing Machine other than Wangensteen's had ever been used more than once.

For it rapidly became evident that totally frozen stomachs did indeed quit producing acid as reported: However, they also disintegrated within a day or so. As every truly frozen stomach swiftly killed that patient, those involved vowed "I'll never do that again!" (A commonly heard expression in those early years)! Nor did any hospital-based groups ever choose to publicize their single disastrous result!

So what could possibly have induced an honored and presumably honorable surgeon like Owen Wangensteen to promote such an obvious flop? Well, according to the residents' grapevine at various surgical meetings, Wangensteen's own patients actually did improve! And most of them produced less gastric acid (at least initially). A few even underwent "refreezing" to further reduce their acid output!

But it soon became clear that residents assigned to perform "gastric freezing" only 'cooled' those stomachs without fully freezing them, as they all understood that a catastrophic outcome on "The Big Boss's Pet Project" would forever destroy any chance they might have had to become a famous Academic Surgeon!

Nor could they discuss that urgent question with Wangensteen, who presumably suffered from *Aging Academic Syndrome*; a common disorder often manifested *when waning judgment allows unfounded self-esteem to fling a final long shot at the Nobel Prize as the clock runs out!* (Think of Laetrile, Krebiozen and all the "Meaning of Life" books written by ancient Professors who had become *Legends in their own minds!*)

Flexible Tube Endoscopy Quickly Became Popular

Peptic ulcers remained significant surgical problems for another couple of decades. During this time, flexible yard-long endoscopes were developed that enabled careful visual inspection plus manipulations and sampling of nearby gut wall and contents via mouth or anus.

Flexible tube endoscopy was the first invasive, diagnostic (and rarely even therapeutic) procedure that could usually be carried out safely by slightly clumsy non-surgeons with very little training. Consequently, ambitious young internists and other wannabes rushed to add endoscopy to their curriculum vitae.

So before long, *Gastroenterology* (the evaluation and treatment of possible disorders of the digestive system) joined *Cardiology* (possible heart problems) and *Nephrology* (possible kidney disorders) as another *technology-driven (therefore highly remunerative) subspecialty of Internal Medicine.*

Before long, a regular endoscopic inspection from below even became mandatory! The Mother Lode! It was highly touted as being the best possible care for wealthy aging

executives and other Important Rich (or well-insured) folks - *even those without symptoms or a family history of colon cancer.*

For unless you looked, you never would know what valuable information might have been missed without your careful inspection of life's dark and smelly recesses with a simple, long, highly profitable and generally harmless lighted tool.

Soon any patients with "heartburn!" couldn't even get a prescription *for the latest near-worthless, grossly-overhyped "billion dollar acid-blocker drug" from their gastroenterologist*, without first undergoing a brief *and costly* "stomach inspection and biopsy" by endoscope from above.

Although abnormal findings were rare (and widely trumpeted), the vast majority of those "routine" colon or stomach inspections simply supported pre-procedural presumptions - An irritable stomach,.. A benign colon,... A wealthier gastroenterologist!

Dental repairs and endoscopies also become as costly as possible

Dentists tend to smile and shrug when asked whether sugar encourages tooth cavities. A Web Dentist recently declared "Without sugar, eating can become unpleasant!" So I decided to keep all sweets and dental-types out of my mouth for the last half dozen years, and my teeth feel the better for it. So my current guess is that by *eliminating sugar* from my diet I seriously depleted the sugar-loving/cavity-causing bacteria from my mouth that might previously have created my cavities and other dental problems.

Over the last dozen years or so, I have enjoyed a vegan diet (plus occasional wild salmon) while avoiding all "*manufactured food*" other than my own crisp-crust sourdough bread. My sourdough fermentation of cracked wheat and rolled oats starts in late afternoon. The following noon I stir in unbleached flour and a bit of sea salt, and allow that dough to rise for at least three hours before baking it for 30 minutes at 550 degrees in a wide, cast-iron pot without a lid.

All of my teeth are old and multi-repaired. Nonetheless they remain sturdy and comfortable *despite many of my tooth roots being partially exposed on the tongue side of my teeth*. Furthermore, *in contrast to my formerly frequent dental visits for tooth cleaning and repairs (before I quit all sugar-added products)*, my **no sugar** lifestyle has so far enabled me to avoid increasingly costly dental care or tooth cleaning by any more complex methods than my own rubber tip probe and ordinary toothbrush.

My only root canal(s) ever were done less than ten years ago. After inspecting the referred tooth, the endodontist strongly urged me to get the same costly treatment for an adjacent tooth, to which I foolishly agreed. But while she presumably had trained many long years to learn her costly art, within a year after *those two root-canal jobs*, I *developed my first and only ever abscessed tooth!*

This time I simply and nearly painlessly drained that abscess myself just by dragging my gum line down a bit on the sore tooth's outer surface with a pointed rubber-tip tooth cleaner (working between the endodontist's infected root-canal job and the abscess that had formed outside of those teeth). Thereafter, I often drew down the gum a bit for more drainage, and/or persistently probed that abscess drainage-site (initially several times per day), then less often as it became symptomless and recurrence free.

So far those two teeth remain stable and useful. Naturally, I cannot generalize on what anyone else ought to do based upon this single incident. *But please note that she did charge far more for those two root canal teeth than my average heart-surgery charges* for patients (who also got my *money-back-guarantee* if unsatisfied with their outcome).

Anyhow, my logical, quick and nearly painless abscess drainage has now remained effective for several years, and I won't need all those teeth forever!

Summary: With so many of my tooth roots partially exposed, a "No-added-sugar" regimen seemed more sensible after I decided to avoid further dental-assistant tooth cleaning." Because my tooth roots have thinner walls than my teeth, *every dental cleaning of those exposed roots was possibly harmful*; as they remained tender for a month.

Why do tooth or gut specialists charge so much for their simple tasks? Because they can! An occasional gastroenterologist may even thread tiny tubes into a bile or pancreatic ducts for X-ray studies. The rare gastroenterologist may even have improved some duct drainage and thereby put off the indication for a major surgical exploration. Thus these deluded or tricky self-declared "specialists", after rarely achieving "possible surgical success", swiftly increased their charges to "surgical" rates!

Soon their compensation for minutes spent doing easy endoscopy procedures leaped to ten times the standard hourly charges of older internists who still boasted that *the only "tool" they needed* (or ever had?) was their ridiculous self-declared *ownership of medical cognition and caring* (which likely was attempted *Command and Control*). Long ago I sent an old internist a patient in need of digitalis for heart failure, that internist finally started digitalis six months later!

When routine colonoscopy fees went over \$1000, many gastroenterologists started doing five or ten of those *costly and usually unnecessary* examinations in a morning. As mentioned, such a fiscal leap was often "justified by the comparatively large fees paid to surgical specialists for major operative procedures". And many younger internists became gastroenterologists rather than continue to rely upon the old internist's or family doctor's "Small bite, applied often".

Our aged internists felt increasingly disrespected as their earnings fell due to the declining hours that anyone sought their *cognition and caring* (see Chapter 2). And internist incomes sank ever farther below the payments that surgeons got for "*Mere cutting and sewing*" (an internist's routine description of surgical work) and way far behind those young "gastroenterologists" inserting their new endoscopes into countless mouths or behinds for almost any reason or even none at all.

Historically, surgical practices were not as routinely productive as a busy medical practice: So the higher surgical fees associated with longer hours spent had traditionally carried surgeons of varied specialties and skills through slow times when few patients were being seen. Perhaps high fees simply enabled additional surgeons to practice in pleasant urban areas than available work might justify.

Naturally, some surgeons were nicer or more competent or more "fiscally cooperative" than others, so referring doctors and their patients deserved a choice, right? Furthermore, sick or injured persons often needed surgical care at midnight, so it seemed sensible for a district to keep spare general surgeons on tap.

On the other hand, the surgeon's principal workplace was "free-to-the-surgeon" hospital facilities, with assistance of hospital-paid nurses, while internists and family practitioners in private offices had to support their own nurses and other employees for all their office-based "cognition and caring."

Naturally, new surgical procedures might initially justify higher hourly fees as long as only a few surgeons did such "rare, risky and intricate" procedures. Yet rapid

technological advances and increasing skills generally resulted in rapid and reliable procedures that were widely taught and easily available.

Soon beneficial new operations, *as well as many procedures later shown to be useless or even harmful such as "Internal Mammary artery ligation" or "Pericardial poudrage" for relieving coronary artery obstructions (the former never made any sense, the latter never delivered additional circulation to coronary arteries from pericardial arteries)* were nonetheless routinely performed by well trained surgical teams in publicly funded facilities.

But before long, the income earned by invasive procedure-driven Internal Medicine subspecialties like Gastroenterology, and Nephrology (with government-subsidized dialysis facilities), and Cardiology, easily surpassed incomes earned through many surgical interventions. Furthermore, the technological advances for *increasingly costly office-based equipment in private practices* surely justified additional major increases in total charges for office procedures.

A nice Cardiology office in the 1950s needed clean curtains, a good stethoscope, a mercury manometer (blood pressure cuff), a smoothly sanded, nicely varnished home-made portable "two step" wooden stairs (for exercise tests), a padded table with clean sheets and gowns, plus a heavy electrocardiogram machine on wheels.

In contrast, modern Cardiologists often divide their time between one or several in-hospital Catheterization Labs and their own group's Cardiology Office equipment. Naturally, those suites needed hugely expensive equipment to better visualize the heart, such as Computed Axial Tomography (CAT Scan, Xray, MRI (Magnetic Resonance Imaging), Ultrasound and Isotope based imaging or other technologies that cost and could net millions of dollars per year - though quite often they delivered comparable (although far more impressive) answers than the old wooden two-step and an EKG.

Nowadays modern Cardiology Office Machines and their necessary technical staff increasingly replicate Hospital machines and services to maximize Cardiology incomes from *low risk patient evaluations and procedures*, while riskier and late-hour catheterizations are more likely to remain in-Hospital.

Cardiology also spun off new subspecialties to compete or cooperate with invasive radiology and its new subspecialties, as well as with cardiac surgeons. Yet despite their competition for patients, the referral patterns and products offered by each group were different enough that they never exerted discernable downward pressure on charges billed for procedures.

As the primary consultants for all heart patients, Cardiologists routinely self-refer their low-risk *insured* patients for coronary artery probing and dilations (pompously reported as "angioplasties") even while surgical bypasses clearly offered better, longer lasting benefits (Lancet, Sept. 28, 2002, pp 96570).

Initially, the main advantage of simple vessel dilations (oops, I meant "angioplasties") was less postoperative pain and a shorter postoperative recovery *if all went well*. Yet as angioplasty equipment, skills and outcomes improved and procedure times declined, equipment costs and cardiologist's fees just increased.

Charges were also likely to rise, rather than fall, if the number of patients referred for a procedure declined for any reason, as high and more or less fixed overhead costs had to be paid in order to prosper in technologically demanding subspecialties. Many such examples of no direct price competition, as well as a general insensitivity of price to demand, reveal just how much the economics of specialty-driven health care resembles natural monopolies like electricity, gas, water, wastewater, garbage and phone utilities.

Local gasoline prices similarly rise more rapidly and remain higher far longer than the cost of a barrel of oil would justify with truly free-and-fair competition. Of course, International oil prices are openly manipulated through public agreements between oil-exporting States. And oil speculators struggle to maximize the prices they get as well.

So does the exchangeability of oil usually keep local oil prices from becoming too outlandish? Or should local healthcare and local oil/gas prices both be regulated or not regulated in similar fashion for reasons that range from social justice or "medical care as a right" to the environmental impacts of hydrocarbon extraction and utilization - e.g., both local pollution and global warming)?

Of course, heart surgeons and cardiologists—unlike oil and drugs—are not strictly fungible (exchangeable) as different nations produce, license and restrict medical specialists somewhat differently. Yet it has occasionally been profitable to send very large airplane loads of German patients to Texas for their elective heart surgery.

Even where there are no significant differences in prescription medicines or surgical standards - say across the border between United States and Canada - Big Pharma companies wield hefty political contributions and heavy-duty lawyers to keep Americans from gaining access to low-cost Canadian drugs.

“Canadian economist Steven Morgan points out that Canadian drug prices *are not lower* than prices American bulk purchasers typically pay for medicines. *However, they are significantly lower than the inflated prices that Americans without drug coverage must pay.* Thus Canada uses government muscle instead of market muscle to keep drug prices tolerable for everyone.”

“Canada’s federal Patented Medicine Prices Review Board limits prices for new "breakthrough" drugs to the median rate charged in seven industrial countries, and it pegs other patented drugs to these prices. (In addition) Provincial Governments add their own controls.” (see "Importing Government" by Deborah Stone, The American Prospect, Nov. 2003, p 21).

A cartel is “an alliance of business companies, formed to control production, competition, and prices.” Most Americans, Canadians and Japanese tolerate and even appreciate the stable, artificially restricted and inflated cartel-controlled prices of diamonds. For ring-size diamonds are actually plentiful and would soon be inexpensive were simple market forces to prevail.

But then how could fair maidens compare and display their suitors or landed mates? Obviously, this doesn't apply to health care costs as it would be far more difficult for others to assess your potential as a caring mate—or appraise your likelihood of success in life - by the size or cost of tablets, capsules, injections or suppositories you might purchase.

It is particularly ridiculous that working uninsured Americans must pay the highest retail markups on essential drugs. For despite all the phony Industry claims, high retail (middleman) profits contribute nothing to drug research (ask your druggist)! And while Pharmacists of yore had to recognize, remember, pick, dry, test, taste, weigh, mix, grind and dispense, modern druggists need only wash their hands, count to 100, and lip synch a computer printout.

Freedom depends upon access to reliable information. Open access to Canadian drug prices showed that Americans were getting screwed. So Canadians were not impressed when Mark McClellan, Bush's FDA Commissioner, criticized Canadian price controls on behalf of Big Pharma. For Canada's controlled retail prices also encouraged Americans to

import \$650 million of Canadian drugs in 2002. Some U.S. states even initiated programs to purchase drugs from Canada in bulk (see Lancet, Nov. 29, 2003 p1816).

And since *Big Pharma has so far prevented U.S. drug prices from being controlled*, wherever price competition can be minimized, the routine markup toward a high “suggested retail price” vastly increases a pharmacist’s preference for selling that costly patented drug over a generic.

Incidentally, a “ripoff” refers to being “cheated, tricked, or exploited” when something is not worth the price being asked or paid. So just how abusive, annoying or disruptive to the American economy must monopolistic Corporate behaviors and jacked-up retail drug prices become before they demand careful investigation, prosecution for anticompetitive activities, and price regulation?

No one even asked such questions while Bush’s Republican Government so obviously “*of, by and for The Corporations rather than The People*” was still in power. Here again, it is often remarked that “Big Corporations will pretend to be people until “the first Corporation and its CEO are executed in Texas.” And many would add, *the sooner the better!*

Will we know it if too many procedures are done?

Western European countries as a whole use far fewer invasive Cardiology procedures per million inhabitants than the USA. However, the German figures for Cardiology procedures are the highest in Europe, and most closely resemble those in the USA. Hence the German experience has relevance to this discussion.

The authors cited below view the German medical profession as having been fragmented by specialization and the pursuit of profit rather than remaining unified as advocates of patients entrusted to their care. They observe that national expenditures on health care (Germany ranks second highest in the world after the USA) are unrelated to any measured success of preventive treatment.

In Germany, as in the USA, cardiologists performing technological procedures have earned far higher fees than non-invasive cardiologists ever since the 1960’s. And invasive treatments also have far greater prestige than efforts to develop comprehensive care for heart patients. Thus *while ten percent of the entire German health care budget is already devoted to cardiology*, an association of German cardiologists reportedly believes that many more Germans could benefit from having their heart catheterized.

Yet “one striking finding is that *case fatality rates of patients with myocardial infarction are increasing slightly in Germany. In view of the high rate of invasive procedures in Germany, one would have expected a decline in case fatality*” (Lancet, Nov. 23, 2002 p1695).

One German scientist even *derided taking a patient’s history as psychosomatics*. Some Germans apparently believe that a careful history and physical examination should be replaced by more costly and risky invasive tests that, in theory, offer far more accurate diagnoses (while ignoring the history, function and human factors that lend clinical significance to those findings). So the authors ask if costly and somewhat risky diagnostic angiography (heart catheterization for dye studies of the coronary arteries) will soon become a screening procedure (like mammography) for the German population at large?

To date, the German Health Ministry has avoided direct confrontations with physicians, hospitals, insurance companies, and the pharmaceutical industry—*describing the wealthy and politically powerful German Health Care Industry as a basin of sharks*

better escaped than confronted (see *The soft science of German Cardiology*; Lancet June 8, 2002 pp20279).

In the USA also, each new intervention or technology that becomes available is soon applied in every possibly remunerative way to help amortize the costly equipment and education that allowed it to happen. On that basis, many privately financed Computerized Axial Tomography or *CAT scan facilities were soliciting patient self-referrals for total body CAT scans to reassure or justify further expensive testing of "the worried well"* (see "To your health?" Science News, Sept. 20, 2003 pp1846).

Similarly, New York initiated a Tobacco Settlement Fund-supported Early Lung Cancer Detection Program in 10,000 heavy smokers that may make it more difficult to ever learn the true value of spiral CT scans (if people come to accept the assumption of benefit). Just as a National Cancer Institute trial of bone marrow transplantation for ovarian cancer "had to be abandoned because eligible patients did not want to participate in the study, they wanted bone marrow transplantation." (Lancet, June 15, 2002 p 2108-11).

Business Week (Feb. 10, 2003) refers to a Johns Hopkins computer model study published in JAMA on cost effectiveness of spiral tomography screening of 100,000 smokers and former smokers. The procedure was judged "Not cost effective" as it would cost \$116,300 per year of life saved in current smokers over 60, and \$2.3 million per life year saved for ex-smokers, while putting 1186 people through the cost, discomfort and various risks of unnecessary radiation and biopsies.

Nevertheless, as with breast and prostate cancer screening tests, there was increasing pressure on Insurance Companies to pay for such tests, despite having no agreement on whether occasional benefits were worth the cost, inconvenience, worry and additive risks of doing so many unnecessary procedures. Of course, each new "possibly useful" or "maybe cost effective" test, drug or procedure makes health insurance that much less affordable for most workers who (understandably but illogically) may still want every available test or treatment regardless of cost and risk.

In August, 2003, Medicare said it would propose significant cuts in payments for anticancer drugs, while offering a modest increase in payments to cancer specialists who provide such drugs in their offices. For Medicare alleged that these oncologists charged Medicare patients \$700 million more for medicines each year than the market prices of medications provided. Presumably, this markup for old folks on Medicare was just a fraction of all markups by oncologists for their ongoing delivery of anticancer medications.

Wennberg and associates (at the Center for the Evaluative Clinical Sciences of Dartmouth Medical School) find that the consumption of what they call "supply sensitive services" increases with their availability. *So as more physicians and hospitals become available, there are more visits to the doctor and hospital, more referrals to specialists, more diagnostic tests and more scans, without any detectable improvement in overall health* (Dartmouth Alumni Magazine, Nov/Dec, 2003 pp 4045).

Apparently, Health Care is not based upon a scientific assessment of medical need, rather *"the supply of resources drives the frequency of use."* Hence the Dartmouth group estimates that *overtreatment alone wastes \$420 billion/year— about 25% of total annual American healthcare costs* (dartmouthatlas.org). Thus people demand more technology and services, and physicians preferentially train to provide the most advanced and profitable studies or treatments.

According to Wennberg, *“Academic medical centers have lost sight of the fact that they are supposed to be building the scientific basis for medicine, not pushing treatments that will make a lot of money.”* Indeed, Medical Schools make little effort to influence the uptake of proven ideas or encourage abandonment of ineffective traditional practices. A recent Institute of Medicine report indicated that, on average, *it takes about 17 years for confirmed findings to significantly alter clinical practice.*

As pointed out by Brazier and Johnson in their article "Economics of Surgery" (Lancet Sept. 29, 2001 pp107781), *“The take-up of surgical techniques will always be affected by the way hospitals and surgeons are remunerated. Affecting practices requires a realistic system of reimbursement that reflects evidence on cost effectiveness.”*

The New York Times (3/16/03) reported on studies by Eric Schneider (Harvard Medical School) suggesting that of *one million angioplasties* (an occasionally life-saving or heart muscle salvaging catheter-based effort to reopen narrowed coronary arteries) performed annually by cardiologists in the United States, *up to two thirds had no medical justification*, being done mostly *to reassure the patient or prevent future problems (a "prevention creep" indication unsupported by evidence), or enhance physician income.*

A local cardiologist reported that the speaker at a national Cardiology meeting asked cardiologists to raise their hands if they thought too many angioplasties were being done. Almost all hands went up. The speaker then asked, *“Anyone who has ever done an unnecessary angioplasty, please raise your hand.”* Allegedly, few if any hands went up; *which led the speaker and group to conclude they had a problem. Major insurers or HMOs could easily examine their own patient records to confirm whether a mentioned figure of about 650,000 unnecessary angioplasties per year is approximately correct.*

Confirmation is also needed for another study by Peter Rothwell suggesting that *about 100,000 carotid artery endarterectomies (surgical neck artery cleanouts) out of the total 150,000 carotid endarterectomies performed annually (at a then-average cost of \$15,000 each) were contraindicated.*

For if they truly were unnecessary, those angioplasties and endarterectomies would account for many billions of health care dollars wasted annually. And those estimates do not include "the risky procedure adverse outcome costs" borne by the patients and society at large (e.g., heart attacks, strokes, and other disabilities or early deaths).

These findings support my personal longtime reluctance to perform carotid endarterectomies, for as far as I could tell, the immediate risk of a new stroke generally outweighed any statistical benefit in disease prevention. So the few patients I thought might be candidates for this procedure were sent elsewhere for evaluation and treatment.

Prevention Creep

All physicians encountered significant examples of "prevention creep". The creepiest example I ever saw was in the late 1960's when Dr. Gary Archer of Anchorage devised his own highly original *“Indications for inserting a balloon pump”* (then a costly new technology) into his patients' aortas. For Dr. Archer aggressively insisted that any patient who underwent several hours on a balloon pump adjusted to Archer's specially devised balloon pump settings, *thereby gained full lifetime protection from any future heart attack (other than the final one?)*

Not surprisingly, Archer offered no evidence for such an absurd claim, yet he performed many costly balloon pump procedures at the Alaska Clinic Teamster Hospital

where he worked. Archer was well known locally as an internist, cardiologist and Businessman" though *he apparently neither studied Internal Medicine nor Cardiology.*

Nonetheless, he told me that he was allowed to challenge the "ordinarily very difficult" Internal Medicine Board Examination because he referred so many Alaska Clinic patients to a prominent Board Examiner in Seattle.

Soon thereafter, Archer loudly announced he had passed!' But I never heard of anyone attempting to confirm Archer's outlandish claims, for like so many other folks who came to Alaska to do good, "*He apparently did well.*"

Assembly Line Surgery

Every new medical subspecialty has progressed within a few years from a few pioneer practitioners who dare to try difficult and dangerous procedures, to the plethora of technologically trained physicians now regularly completing routine and relatively safe diagnostic tests or therapeutic interventions.

Thus *video-assisted arthroscopy* enabled, enhanced and expedited various orthopedic operations on the knee, while laser based tools made ophthalmic surgeons increasingly effective and prosperous. Indeed, by year 2000, a lot of subspecialists were routinely performing enough remunerative procedures in a day to gross over \$50,000 per week.

Of course, high volume or "assembly line" surgery is hardly news. For example, Dr. Victor Rambo, a Mission Hospital Ophthalmologist, performed assembly-line cataract extractions in India between the late 1940s and the 1970s. When a patient could afford it, Dr. Rambo charged \$25; the others were done for free.

They performed up to 100 operations in a 2-3days period, with about a 1% infection rate whether surgery was done in a camp or a hospital - the same as in USA. A nurse would stay with the patients until the team came back through in a week or so to discharge them (For details see "Apostle of Sight" written by Dorothy Clark Wilson).

And Denton Cooley, a famous Texas Heart Surgeon and teacher, allegedly oversaw nine operating rooms simultaneously. In this way, Cooley personally cleared well over 50 million dollars a year—comparable to the income of a modern Corporate CEO, sports superstar or entertainer—or so newspapers of the 1980's implied when they wrote that failed investments had left Cooley \$250 million dollars in debt, but they said he planned to repay all those debts within five years.

Nor Was Big Pharma Left Behind

Pharmaceutical manufacturers struck "pay dirt" too, as mechanisms of stomach acid production became sufficiently clear for Big Pharma to patent and market multiple new "billion dollar drugs" (as market analysts so affectionately refer to them) that finally suppressed stomach acid production relatively safely—although those drugs often had unwanted side effects such as intestinal bacterial overgrowth (due to the lack of stomach acid) *and even testicle shrinkage* (not prominently mentioned).

"Trade Secrets" Still Rule! "

Big Pharma/Big Chemical/Big Pesticide/Big Herbicide/Big Oil/Big Gas/ Big Sugar/ Mining/Feed-Lot/ Agriculture/Food" and the rest now have such major political clout that even top-level Government Agency employees rarely try to contest - and hardly ever can invalidate - a Corporate "Trade Secret" claim.

Indeed, any sign of such dedication to the Public Welfare usually results in rapid termination of that employee. So while our Government often acquires important information on major adverse effects of *new chemicals, drugs, pesticides, herbicides, fracking chemicals* and so on, almost all such information that is provided by Corporations arrives as "Trade Secrets (for permitting purposes only)" which generally means information that cannot be released without Industry permission.

Not surprisingly, "most applications to the EPA for marketing new chemicals declare "trade secret" claims that "do not appear to be justified" making it impossible for outsiders to evaluate the regulator's decisions (see Disclosure in Regulatory Science, Science, Dec 19, 2003, p2073). *Many lawsuits have been threatened or filed by industry against researchers or their institutions when those responsible for clinical trials tried to report unfavorable outcomes with patented drugs or vaccines* (Lancet, Nov.11, 2000, p1659).

On the other hand, it is not yet possible for a manufacturer to simply produce and then declare some new chemical entity as *A Billion Dollar Drug!* - especially if it barely differs from other medicines already marketed. For in an average year, only about *three truly innovative new drugs reach the market from all sources combined*. The others are mostly just "me-too drugs" that ensure every Big Pharma Company a drug presence in every "hot selling" category.

For such additional drugs add little to marketing costs as every Big Pharma Firm already makes major efforts to convince every possible physician that its drugs offer great advantages for patients and physicians over comparable, most likely less costly medicines already available.

And surprisingly, developing and sustaining loyal physician prescription habits is neither difficult for a drug company to achieve nor particularly price sensitive. For good medical care is a moving target, and *all physicians hope to remain (or at least appear) up to date. So the doctors get Drug Company freebies and payoffs, while their patients pay ever more for - and suffer additional ill effects from - the overpriced, often useless and/or toxic medicines they are prescribed*.

Furthermore, *both doctors and patients may incorrectly believe* that more expensive drugs like Vioxx or Celebrex (which could cost an arthritis patient thousands of dollars per year), have been proven safer and more effective than motrin or advil or aspirin or tart cherry capsules (see Chapter twelve), just as people expect more comfort and performance when buying a new Lincoln or Cadillac than would seem realistic with an ancient Ford, Chevy or a used bicycle.

So we encounter handsome young manufacturers' representatives, formerly known as detail men (or women, many of whom were former cheerleaders), waiting patiently in every busy medical office that allows it, in order to deliver compliments - "Oh, Doctor! So few physicians really understand that!"- or medical updates, gifts and lunch or dinner invitations that are often gratefully accepted by lonely physicians too busy or lazy to keep up on their reading.

On their rounds from one medical office to the next, these *drug reps* repeatedly detail the many advantages of their latest pharmacological blockbuster over all competing remedies. At the same time, they offer fully funded invitations to lectures or medical meetings in pleasant faraway places, or perhaps pay physicians to complete simple but pointless literature surveys, or give them a few hundred dollars for an unnecessary consultation or other indirect rebates, plus plenty of free samples of costly new drugs. For

doctors and patients both appreciate *major freebies that appear to reduce the price of an office visit* (though it usually merely encourages a doctor to preferentially prescribe that new and more expensive product).

In addition, manufacturers' reps always supply exhibits as well as generous financial support for local and national medical meetings, along with costly meals and drinks, promotional pens, knives, prizes and so on. Over time, many drug reps become a lonesome doctor's appreciated, trusted and supportive friend, and a regular golfing partner or fishing buddy.

The largest, most profitable Pharmaceutical Corporations have a worldwide "workforce" of over 100,000 people! And while major pharmaceutical manufacturers are not tops in total revenues, they are extremely profitable. So in 2001, Pfizer was ranked 127th in total business revenues (over \$32 billion) but seventh in profitability.

The pharmaceutical industry actually admits to being the most profitable "legal" business sector, averaging over 16% of total revenues as profit *despite paying doctors all those bribes to over-prescribe their costly and often dangerous new medicines!* This is even better than the 11.6% profit that finance companies average through extortionate credit card rates, or the 10% profit that addictive beverage manufacturers expect on their sales of sugar or fire water!

On July 22, 2003, Abbott Labs—a drug and medical products giant—*pleaded guilty to felony obstruction of justice and paid \$600 million in criminal and civil fines for bilking Medicaid and Medicare.* Two years earlier an Abbott joint venture was *fined \$875 million for a similar scheme.* And in 2000, Abbott settled with the FTC after it paid a rival drug maker to keep its generic product off the market. *Presumably, those huge Big Pharma profits and bribes convert otherwise major fines into simple business expenses, as they apparently did not alter Abbott's behavior.*

Cheap vaccines and rapid cures harm everyone *except the patient!*

In 2000, the global value of prescription drugs sold was over \$320 billion—up 11% over the previous year. And 46% of those sales were in North America. Over the first decade of this century, mergers of drug companies were expected to reduce the number of major drug manufacturers from 30 to 12, as a way to replenish products on offer, cut costs and maintain growth and profitability (Lancet, Nov 16, 2000, p1591).

But don't expect any merger to produce cheaper drugs. A more likely scenario is that in their push for growth and profitability, those new *Mega-Pharma* entities will discontinue a lot of essential vaccines and other essential drugs with only small markets that might therefore not interest generic manufacturers. For vaccines only bring in ordinary profits, and represent just 2% of the global pharmaceutical market - or roughly the equivalent of a single "me-too" ulcer drug.

In other words, we can reasonably expect forthcoming drug company mergers to be increasingly hazardous to our health (see also Financing of vaccines, Lancet, April 8, 2000, pp126970, and The intangible value of vaccination, Science, 9 Aug. 2002, pp 937-8).

Antibiotics are yet another critical drug category that Big Pharma is abandoning in its addictive rush for above-ordinary profits (see Drug companies snub antibiotics, Nature, 18 Sept. 2003, p225). From a drug company's perspective, *effective vaccines and*

antibiotics have the huge disadvantage that they prevent illnesses entirely or are likely to cure people within a few days!

That is one reason why Big Pharma would far rather develop another unremarkable “me too” acid-reducing or lipid-lowering drug, or another unremarkable anti-inflammatory agent for rheumatoid arthritis, or another unremarkable antiretroviral drug to suppress HIV infection, for such palliative drugs can often be hyped for lifelong use (see Antibiotic pipeline runs dry, Lancet, Nov22, 2003 pp17267).

In theory, the costs of bombers or warships or even highly mobile armored land-or-sea tanks could rise to a point where we could barely afford one of each (which likely wouldn’t work). Similarly, Big Pharma seems intent on further mergers and concentration of their sales efforts, lobbying and lawsuits on ever fewer and less essential but ever more profitable drugs until they finally all merge and produce just one hugely profitable pill that no one can afford - which, it turns out, no one needs anyhow as it merely works through hype as a placebo to help hypochondriacs.

At present, many academics seem willing to lease their increasingly tattered prestige and credibility to overtly political, monopolistic *Big Pharma Firms*. But while Big Pharma's promotion of dubious copycat drugs helps them sustain those huge overcharges for medicines—Big Pharma’s lawsuits, and shameless lobbying of politicians and physicians surely documents a far greater concern for profits and higher Big Pharma stock prices than for drug safety or efficacy.

However, a few academic researchers might easily undermine such self reinforcing greed-driven corporate misbehaviors by developing independent, low-budget deals with small biotech firms or with generic drug manufacturers—thereby markedly reducing drug costs and *restoring respect for academia as well as those who develop and manufacture drugs!*

The discovery, investigation and manufacture of penicillin remains a great example for how to develop new drugs *without any Big Pharma dollars, hype, lobbying, lawsuits or any other involvements*. After all, most funding still comes through government research grants, health related foundation programs and nonprofits, as well as from venture capitalists hoping to support and share in major discoveries.

Amongst its multitude of *anti-health schemes and activities*, Big Pharma has manipulated Academic Clinical Trials of new drugs into important “profit sharing centers” for Universities. This move alone raised costs for drug development so high that only wealthy Big Pharma companies could afford to run and control such trials.

However, *Big Crooked Pharma firms* are now so focused on *finding new pathways to enhance short-term gains* that they seem increasingly bereft of new drug ideas. So instead of creating and sustaining great research and development programs themselves, Big Pharma companies simply wait for *those ridiculously high costs they devised for developing drugs and doing clinical trials* to crush the small startups that increasingly invent and/or develop exciting new drugs. At that point, Big Pharma firms stroll in to pick off the most likely blockbuster drugs cheaply while other promising drug ideas simply die (see also Chapter Eleven, and “Influence Peddling” in the Afterword).

James Surowieki points out that Merck “One of history’s most innovative corporations . . . devotes three billion dollars a year and ten thousand people to the research and development of new drugs . . . while eking out less than one new product a year.” He finds a deep sense of anxiety in the industry about their “pipeline problem” as lucrative patents expire without any new blockbusters in sight. The result has been a

mania for mergers, despite ample evidence that Big Pharma “research and development doesn’t scale—that bigger may be worse!”

Indeed, Surowieki suggests that when it comes to developing really innovative products, *huge corporate amalgamations have now been tested, and have truly failed*. Yet none seem interested in “tossing out the test tubes and just becoming distributors.” For if Big Pharma admitted that their major research expenditures were largely redundant and corrupt, *they could no longer justify huge expenditures on their marketing and advertising or those payoffs to physicians and politicians that ensure those great profits currently being extracted from the sick or "worried well."*

Surowieki visualizes Big Pharma’s future as “marketing, distributing and perhaps even underwriting the costs of smaller producers.”

My guess? As soon as an honest, effective Single Payer becomes responsible for America's Health Care, *our Historically Corrupt, Hype-and-Bribe-Driven, Big-Pharma Enterprise will vanish, leaving behind enormous healthcare savings for Society* (New Yorker, Feb 16, 2004, p72).

When two Australians Discovered Helicobacter Pylori, nothing much changed

Prominent medical researchers have written “Academia and Industry are symbiotic.” This is undoubtedly true. Furthermore, because Big Pharma has the bucks, it writes the rules. And their bottom line is “We support academics that help us develop blockbuster drugs. We then promote those drugs relentlessly to firm up a consensus position that can resist, overwhelm or delay safer, more effective or less costly therapeutic alternatives. And beware, for our greed is infectious!”

From Wikipedia, the free encyclopedia:

Barry James Marshall and [Robin Warren](#) showed that the bacterium *Helicobacter pylori* (*H. pylori*) is the cause of most [peptic ulcers](#), reversing decades of medical doctrine holding that ulcers were caused by stress, spicy foods, and too much acid. This discovery led to a better understanding of the causative link between *Helicobacter pylori* infection and [stomach cancer](#).^{[4][5][6]}

It was 1982 when Barry Marshall and Robin Warren of Perth, Western Australia, discovered *Helicobacter pylori* in the stomachs of patients with gastritis and stomach ulcers. Until then, conventional thinking believed bacteria could not survive in the human stomach because it enclosed similar strength acid to that in a lead/acid car battery."

"Marshall and Warren then rewrote the textbooks on what causes gastritis and ulcers in the stomach or duodenum. And in recognition of their major discovery, they shared the *2005 Nobel Prize in Physiology or Medicine* for proving that "Gastro-duodenal ulcer is usually associated with an invasion of the stomach or duodenal lining by *H. pylori* bacteria".

"They also showed that swallowing a freshly recovered sample of *Helicobacter pylori* from an ulcer patient’s inflamed stomach would produce similar chronic inflammation in the volunteer researcher’s own stomach. And demonstrated that ordinary antibiotics could eliminate this "gastritis condition" (so often associated with ulcer and even stomach cancer) by clearing the stomach and duodenum of these bacteria" (Lancet, March 3, 2001 p694, and Wikipedia).

Yet their straightforward discovery of that connection was one that Big Pharma and the academics they held in thrall through research grants, and all those practicing

physicians that the manufacturer's reps befriended—first missed *and then ignored for as long as possible*: Which prevented many ulcer patients from getting the inexpensive, definitive antibiotic treatment for additional years. To which a cynic would simply repeat "*A cheap definitive treatment harms everyone but the patient!*"

One might expect other simple inexpensive curative treatments to be equally delayed, at least until patients getting only symptomatic treatments exhaust their money and insurance coverage. And my own observations of long ago certainly support that conclusion! For between 1963-65, as Marianne and I completed our training in Pediatrics and Thoracic Surgery, we often commented on the fact that patients *quite regularly became entirely destitute before finally being referred* by the Osteopathic Hospitals in small Iowa towns to The State University of Iowa Hospitals in Iowa City for "definitive specialty care".

As for the modern treatment of peptic ulcers, it was the U.S. Center for Disease Control or CDC, and *astonishingly, not medical academia* - that initially explained and later seriously promoted the proven antibiotic treatment for eliminating nearly all peptic ulcers to all practicing physicians even including gastroenterologists.

Yet many gastroenterologists continued to perform costly and unnecessary instrumental inspections before utilizing their favorite manufacturer's latest "billion dollar" symptom-reducing non-curative acid blocker drug *because they were unaware, unconvinced, disinterested and/or dismayed at the idea of quickly eliminating the stomach bacteria that for so long had caused peptic ulcers and supported all those gastroenterologists!*

Only after those medically treatable bacterial infections were repeatedly and publicly identified by the CDC as the primary cause of peptic ulcers, did persistently symptomatic stomach or duodenal ulcers become increasingly rare. And after the CDC's final widely circulated promotion of inexpensive antibiotic treatments, operations on stomach or duodenal ulcers almost vanished.

"Helicobacter pylori
and Peptic Ulcer Disease" (from CDC)

A peptic ulcer is a sore or hole in the lining of the stomach or duodenum (the first part of the small intestine). People of any age can get an ulcer and women are affected just as often as men. Over 25 million Americans will suffer from an ulcer at some point during their lifetime. The good news is that most ulcers are caused by an infection with the bacterium, *Helicobacter pylori*, and they can be cured in about two weeks with antibiotics."

Of course, the "billion dollar earning" acid-blocker drugs were still heavily promoted, but now for acid reflux associated with a hiatus hernia, a common condition that develops in the elderly as tissues that held the upper stomach below the diaphragm loosen or are stretched by obesity.

Inexpensive Tums, made from powdered limestone (calcium carbonate **USP**, plus sucrose, etc.) offer similar relief from heartburn. And that USP designation means that *unlike the costly calcium supplements prepared from "cattle bones" fished out of the Ganges River (for example)*, hardly any toxic lead and absolutely no "Mad Cow Disease" will ever be spread by the good old solid limestone being ground up to make Tums (see also Glossary).

Serious stomach or duodenal ulcers still develop sporadically, especially in patients predisposed to such problems *by steroids such as prednisone or by non-steroidal anti-inflammatory drugs* (NSAIDs) like expensive and dangerous Vioxx (now withdrawn) or Celebrex (more recently this was still available on the market).

Incidentally, NSAID prescriptions cost about \$7.75 billion yearly, and over the counter NSAIDs add another \$2 billion, of which aspirin accounts for 20%. Lisa M. Schwartz and Steven Woloshin at Dartmouth Medical School propose that drug ads include a simple table outlining risks and benefits.

For instance, a Table comparing Vioxx with ibuprofen would show “that for both drugs, 9% of patients reported excellent relief of symptoms, while 48% and 41% respectively, reported fair, or else poor or no effects.”

Such a Table becomes even more informative when risk is added. So when 6576 women taking Tamoxifen—which is “advertised as a preventive treatment for breast cancer”—were compared to a control group of 6599 women, the Tamoxifen group had 92 cancers while the controls had 178. However, 33 other women on Tamoxifen developed uterine cancer versus 13 in the control group, and 53 on Tamoxifen developed serious blood clots (strokes, etc) versus 26 in the control group.

For those at high risk of breast cancer, AstraZeneca (Tamoxifen’s manufacturer) still sees benefit. On the other hand, Sidney Wolfe of the Public Citizen’s Health Research Group points out that when so few get the benefit and so many are exposed to the risk, “the risks outweigh the benefits.”

And all sides agree that results of clinical trials vary greatly, “and that *the general population may respond quite differently to drugs* than those carefully selected patients *in these “tightly controlled clinical trials”* (Business Week, Feb 9, 2004 pp845

CHAPTER FIVE

Skin Cancer

Bipolar Electrocoagulation Provides Safe, Attractive Cures

This chapter explains a simple + effective but under-utilized technique

Skin cancers arise from skin

How much surrounding tissue should be removed?

Bipolar Electrocoagulation Technique

Clifford Franseen, a widely respected Boston Surgeon, devised many innovations in patient care. As he wrote few articles and avoided medical politics, his ideas and techniques mainly benefitted the surgical residents assigned to assist him. Dr. Franseen was a meticulous surgeon who tried to control every aspect of every procedure. Like other experienced surgeons, he minimized postoperative wound infections by appropriate skin antisepsis and gentle handling of tissues.

Franseen also kept conversations to a minimum during sterile operations, and insisted that we "*Laugh only on inspiration!*" as he knew each hearty guffaw into the cloth surgical masks of that era could broadcast bacteria widely. Though our loved ones giggled at first when we substituted "Eh! Eh! Eh!" for "Ha! Ha! Ha!" - inspiratory chuckling soon became natural for his assistants.

Because of or despite such quirks, his operations went smoothly and his patients did remarkably well. However, Franseen's lasting legacy was his daily demonstrations of how to destroy skin cancers (*other than melanomas*) quickly and permanently by electrocoagulation.

Skin cancers originate in skin

The three major types of skin cancer are *melanoma, squamous cell skin cancer and basal cell skin "tumor" (benign) or basal cell skin cancer*. Squamous cell skin cancers are more common in skin that was damaged by sunlight or exposed to "chemicals" like arsenic, coal tars, cigarettes, and so on.

Melanomas originate from skin pigment cells and usually vary in color from light brown to nearly black. However, an occasional melanoma that arises from non-pigmented skin beneath a fingernail or toenail may have normal skin color! So such non-pigmented melanomas are extremely dangerous as the diagnosis is rarely even considered before that melanoma has become widespread.

All melanomas will metastasize and cause fatality, so Franseen insisted upon **immediate sharp excision** of all apparently still localized melanomas (along with a wide margin of adjacent "normal looking" tissue). *He also spoke strongly against electrocoagulation of melanomas* which I assume came from a bad experience. Perhaps he also worried that local heat/steam produced during electrocoagulation might more easily disseminate melanoma's loosely attached tumor cells.

In any case, Franseen demonstrated on a near-daily basis *that bipolar electrocoagulation was the simplest, fastest and most successful way to immediately cure localized squamous-cell skin cancers* (which are unlikely to seed distant body sites), or basal cell tumors-or-cancers that expand/invade locally and rarely metastasize.

Franseen's routine electrocoagulation was a swift total destruction of the entire contiguous squamous cell or basal cell cancer by directed heating with a Bovie radio-frequency electrical current after a small diagnostic biopsy. This method was so simple and so successful that many of us who served as his surgical assistants, *never resumed the widely taught but far more risky, costly and time-consuming sharp excision for removal of squamous or basal cell cancers*.

The Big Problem for all "sharp skin cancer excisions" (which are very different procedures from Franseen's in situ cancer destruction by electrocoagulation), is that sharp excision offers no definite

answer to the Big Question for surgeon or patient, which is: "How much normal-appearing tissue surrounding the tumor must also be removed to prevent a skin cancer recurrence?"

*That Same Problem Persists after every complete sharp excision of a skin cancer. For it is a real possibility that any local tumor/cancers **will recur** despite even the most tedious and costly microscopic examinations of an entire series of correctly oriented tissue samples that one hopes will always confirm the total removal of every cancer with **adequate margins**!*

A complete sharp removal of skin cancer and adjacent tissue in one chunk is usually followed by a simple wound closure (unless a big gap requires plastic surgery). But too often, surgeons must *compromise* by removing less tissue than they would like, in order to protect adjacent essential tissues! And all such compromises naturally increases the risk that a few live cancer cells may remain in that neatly closed wound - to possibly reappear years later as a deep and inoperable local recurrence.

OK! So what are adequate margins? Unfortunately, *a surgeon using a scalpel is **never 100% sure** that enough "normal" tissue was cleanly removed along with all contiguous tumor unless she/he includes a lot of normal tissue in that one piece.* But for many locations e.g., eyelid, nose, lip, penis or tongue, removing substantial amounts of normal tissue may be unacceptable or impossible (as follows).

In addition, while careful microscope examinations of many tissue sections usually clarify if the margins removed were adequate, pathologist's reports are costly and occasionally **incorrect**. Consequently, *neither a great report* like "Margins are clear of tumor!" *nor a terrible report* such as "Tumor extends to biopsy margin" may accurately forecast a cure or a later cancer recurrence.

For example, it can matter whether all tissue removed was in one piece or if additional bits were then removed and sent along because one cancer margin seemed too close. And how was the removed tissue marked for orientation and then handled? How were the microscope slides prepared? How large was the specimen? Were enough sections examined? Might a bit of tumor from some other person somehow have floated onto the wrong slide? (I once encountered this unlikely problem, but luckily that floater was a far different sort of cancer).

As you can see, regardless of "margins reported" - a surgeon's options then (*Should she go back for a wider removal? On which edge? How much deeper?*) are unclear because they are unknowable. As a result, decisions on whether to return and cut out more or all of the wound, or to simply recommend strong Xray treatments (a plausible but wimpy treatment that hopefully could reduce the risk of recurrence), may sound sensible or even reassuring, yet be sadly inappropriate.

Summary: Once the site of a sharp skin cancer removal has been neatly sutured shut, one never knows for certain if that closed wound contains still-alive tumor cells that might invade deeply or spread widely before attracting attention much later.

In marked contrast to all such troublesome and costly residual questions after sharp removals, Franseen simply took a small biopsy of any typical squamous or basal cell tumor, to be reported later for the record - and *cheaply destroyed that entire cancer/tumor within minutes* by electrocoagulation!

Bipolar Electrocoagulation Technique

Franseen's definitive electrocoagulation technique requires an ordinary radiofrequency surgical Bovie unit and a dinner-plate-size "ground" electrode coated by conductive jelly placed under the patient (in wide contact with the patient's bare skin) to ensure easy egress of electric current so no "exit burns" occur - as might happen if a small or poorly conductive or poorly placed grounding plate were used during the high current flows associated with active electrocoagulation.

By contrast, a dermatologist's little mono-polar "fulguration" unit only delivers low power that causes localized superficial burns, so dermatologists don't regularly use or need grounding plates if they are merely "fulgurating away" benign superficial skin conditions or skin tags.

The surgeon performing an electrocoagulation should always bring along her/his chosen selection of appropriately bent steel nails with flat, round and smoothed-off circular steel nail-head surfaces and proper size nail-shafts to guarantee a secure "slip fit" into the Bovie electrode handle.

To avoid unnecessary damage, the **nail head** selected by the surgeon for a procedure should have a smaller in transverse diameter than the narrowest surface diameter of the tumor or cancer being electrocoagulated. And a properly bent nail shaft will easily position that nail head so it lies flat on the cancer (to avoid sparking, which dries tissue + might cause undesirable variations in heating).

Also needed: An antiseptic wipe; a small syringe containing local anesthetic with a fine tip hypodermic needle; and a small #15 scalpel blade for the initial biopsy and to later scrape aside soft-cooked tumor trash as it is produced.

Franseen often used *an epinephrine-containing* local anesthetic to prolong skin anesthesia and also to help minimize bleeding through epinephrine's vasoconstriction effect. And following the electrocoagulation of large or deep tumors, he occasionally left the anesthetic syringe at the bedside in case someone needed to inject a bit more epinephrine-containing anesthetic solution to stop minor bleeding (a convenient alternative to finger pressure). I never encountered nor heard of a "post electrocoagulation operative-site bleed", so surely that was both rare and easily handled.

Procedure

1) Apply antiseptic wipe near skin lesion to be coagulated, 2) Introduce local anesthetic under the lesion, 3) Take a small biopsy of the lesion, and 4) Apply prepared **bent** nail (properly curved so nail head lies flat on the tumor surface) for 5) a "trial electrocoagulation" that also stops any biopsy-site bleeding.

Too much current will immediately sparks and chars the anesthetized surface, not enough current merely heats the area. The proper Bovie current setting - with a steady, full nail head contact on one spot - creates a discrete nail-head-size patch of coagulated cancer (with an audible "splut" sound) in 12 seconds.

That initial "trial electrocoagulation" converts the nail-head-size patch of "formerly firm live tumor" into a loose toothpaste-like mush (soft, very different in appearance, and easily scraped aside with the round edge of a small scalpel blade). This dramatic change in texture and appearance ensures that even tiny cancer extensions are easily seen and electro-coagulated.

To repeat, such Bovie-heated "cancer-mush" reveals the true power of Franseen's method - which relies upon the fact that skin cancers grow by expansion rather than by infiltrating nearby normal tissues. So since skin cancers can neither deposit ordinary collagen fibers, nor surround nearby collagen fibers to include that collagen in the tumor, electrocoagulation (a simple, discrete, localized burn) quickly converts a nail head size patch of heated cancer cells into soft pale mush entirely different in appearance from the surrounding leathery and scrape resistant margin of burnt, collagen-supported "normal tissue" (now just another ordinary thin, dry, sterile, charred meat surface).

Summary: Franseen's method ensures that all extensions of toothpaste-like coagulated tumor are visibly obvious and easily followed for further coagulation (after scraping aside the obscuring mush), until the remaining exposed and burnt (by electro-coagulation) surface is all-dry normal tissue, sealed under a thin charred-surface layer (and looks like lightly-seared meat).

This electrocoagulation procedure is quite unlike the usual sharp excision (which commonly is bothered by annoying bleeding that may persist until efforts to control the bleeding from various little blood vessels have considerably distorted and possibly obscured critically important tiny extensions of that malignancy).

In other words, only electrocoagulation amplifies both the visual and tactile contrast between normal tissue and epithelial cancer, thereby allowing one to automatically see, follow, coagulate and remove every bit of tumor from any margin.

As an additional bonus, the final burnt (dehydrated) surface is smaller in diameter than the initial pre-operative tumor was from edge to edge, for as mentioned, these expansile skin tumors displace (rather than deeply infiltrate), adjacent visually normal tissues.

Which is fortunate, for if normal tissues could be deeply infiltrated by skin tumor, such infiltrated tissues would also require total destruction *without ever offering any clear visual demarcation between the tumor's edge and adjacent normal tumor-free tissues*.

Further, by sacrificing only a thin margin of healthy normal tissue, electrocoagulation significantly improves the final appearance *after healing* (in comparison to "any sharp excision that is followed by scarring").

More importantly, by avoiding any skin closure, and especially by not swinging flaps (as plastic surgeons too often do for enhanced operative charges and to improve **initial** postoperative appearances), *only electrocoagulation reliably prevents the inadvertent retention and burial of live tumor cells*.

As mentioned, residual malignant cells left behind after a sharp excision may grow undetected until they later become obvious as a deep recurrence (which too often has grown into or even through important underlying tissues or structures).

Furthermore, after the complete electrocoagulation of a skin cancer, any postulated residual tumor (that was not already a separate or discontinuous "metastatic" tumor before coagulation began), can only recur at the surface where it is easily recognized and simply electro-coagulated again.

Of course, such a local recurrence of tumor would represent tumor that was somehow missed during the first electrocoagulation. So a quick final "inspection and mini-sear" of the entire tumor-free burnt surface pretty much guarantees "No surface recurrence!"

I have never seen nor heard of a local recurrence after a Franseen type electrocoagulation. And I was always impressed by how rapidly even deeply excavated electrocoagulation burns heal without infection beneath the protective, dehydrated, bacteria-resistant, burnt surface that seals heat-sterilized underlying normal tissues.

Lastly, Franseen method electrical burns reliably "Fill in" within weeks, leaving hardly noticeable dimples. Of course, much of that "filling in" merely reflects a return to normal position of previously tumor-displaced tissue.

Case Reports

A middle-aged female came to our resident's clinic with a circular, protruding one-centimeter-wide squamous cell cancer on the bridge of her nose. *Obviously, any sharp removal would destroy her nose!* So as usual, I electro-coagulated that cancer, stopping intermittently to scrape away soft, toothpaste-like debris by scraping a small scalpel blade sideways across the operative field.

At the end of this brief painless minor procedure under local anesthesia, her freshly charred tumor base was far smaller and more attractive than the cancer (which allegedly arose in less than a month). A week or two later, I lifted a loose bit of dead nasal bone out of the base of the defect without causing any pain. Thereafter the wound healed promptly - leaving just a small dimple on a once again cute nose.

Another patient came to the clinic with a similar-size cancer ("Cancer" allegedly means "Crab" in Latin) on the right side of his tongue, about an inch back from the tip. The least radical "sharp excision" of this tumor would have meant a bloody removal of the right half of his tongue, leaving him unable to speak clearly or chew and eat easily.

But even that extensive and disabling procedure would not have cured his cancer! For as I electro-coagulated and gently scraped debris aside, I easily identified, followed and destroyed an obvious narrow-but-deep extension of his toothpaste-like coagulated cancer (a long thin leg of that crab), by coagulating and scraping it off well across the midline, almost to the opposite tongue surface.

His deep tongue burn healed completely after several weeks, leaving only a noticeable dent in the right side of his tongue. About a year later he was healthy and spoke and ate normally, despite my having

destroyed both of his tongue's main arteries while eliminating his cancer and lightly scorching that cancer's bed.

Not surprisingly, prominent Boston surgeons usually asked Franseen to treat their own skin, tongue, lip and other epithelial cancers, though they continued to teach and perform the old "tried and truly inferior" sharp excisions as they were taught.

As a result, a half-century after I first learned how to do Franseen's electrocoagulation technique, the vast majority of surgeons (maybe all surgeons?), allegedly still use "Simple sharp excision" - while insisting that sharp excision remains "the gold standard" for cancer surgery.

Franseen got few if any patient referrals from the grateful and well-known surgeons he treated (who didn't use his technique because they didn't know how, although he would have been pleased to teach them).

But their high standing in medical circles essentially prevented them from referring problem cases to Franseen—especially in Boston, where several medical schools release many more physicians into local practice than the available patient load would justify.

In the spring of 1963—after I finished an optional, unpaid but coveted six month fellowship in the pathology department of the New England Deaconess Hospital (to improve my diagnostic and therapeutic skills in case Alaska was still somewhat low-tech), we moved to Iowa City where Marianne and I both completed our specialty training.

I trained in Thoracic and Cardiovascular (Chest, Heart and Blood Vessel) Surgery in Iowa City. This appointment meant that I was a Junior Surgical Staff member who therefore took frequent "night call for surgical staff" - during which I oversaw general surgery and orthopedic residents on their most difficult cases (but only rarely did I come in, as the residents usually knew a lot more about what they were doing than I did).

At that time, major surgical cases were routinely sent in by general practitioners from all over Iowa to the various State University of Iowa taxpayer-supported teaching programs such as Thoracic and Cardiovascular Surgery, Orthopedics, Eye Surgery and so on.

Due to that heavy volume of referrals, and despite the Harvard Medical Complex's self-image as "Medical Center to the World", the Staff surgeons in Iowa City were frequently far more experienced and capable than most of their then under-utilized Boston-area Academic peers.

My teaching position with General Surgery residents led me to suggest (at a regular Surgery Department meeting) that they use Franseen's technique rather than continue their outmoded "sharp removal and closure" for skin cancers (which they all still did).

The Iowa City Staff Surgeons were initially unreceptive, but finally offered to send me "three lip cancer patients" on condition that I present all three with photo follow-up when they were fully healed. But despite lower lip cancers being common among Iowa's sunburnt farmers, patient referrals came in very slowly. Finally, a year later, *I finally had **electro-coagulated and cured all three** extremely extensive lower-lip cancers that they sent to me!*

So at our regular Surgery meeting, as requested, I presented the biopsy reports plus before and after photographs of all three nicely healed cases, each with minor indentations of the lower lip but with good lip movement and no drooling.

A single loud shout in response to my brief presentation was "Three cases don't prove a thing!" from the very same Staff Surgeon who had initiated this trial and purposely selected only the most extensive cancers to try and prove me wrong. As Upton Sinclair once pointed out "It is difficult to get a man to understand something, when his salary depends on his not understanding it."

Perhaps we all have an innate resistance against changing whatever seems to be working *profitably for us*. Therefore, how should we routinely upgrade health care onto an apparently better path while still avoiding useless or harmful fads?

My current view: A single demonstration or a logical discussion rarely suffices to convince another doctor to do things quite differently. Is it possible that medical and religious "knowledge" occupy nearly the same "risk and reward areas" of the brain? For once folks are heavily invested in certain ways of doing things, and even have taught that skill to others, they may never willingly reconsider whether another way might be better!

I can still recall how outraged I felt - right after doing my first appendectomy - as I watched another surgeon do the same operation quite differently. And how much that experience expanded my view of surgery when his patient did just as well as mine! But ordinarily it takes repeated good outcomes, or bribery, or the friendship of good-looking Big Pharma drug reps, or a "Henceforth you shall..." edict from some authority figure, to change our long-term *wrong-but-comfortable* habits.

Which is why Owen Wangenstein's longtime medical leadership in a difficult problem area led so many surgeons up that wrong mountain and over the cliff. Yet even after *Helicobacter Pylori* was identified as THE apparent cause for multiple gastric problems, a convincing case for simple, inexpensive, short-term antibiotic treatment (rather than costly ongoing acid inhibitor therapy), finally had to be made by the U.S. Government exerting public pressure based on scientific evidence.

An Honorable Single Payer will presumably reintroduce electrocoagulation and other obvious medical advances on a scientific rather than medical or political basis. For many doctors do not have enough self-confidence - or perhaps they have too much of their income or credibility at stake - to voluntarily alter their own long established ways before most others do.

I tried to interest Anchorage physicians in electrocoagulation of skin cancers soon after we arrived in Alaska, but it took far longer than I had anticipated for me to become familiar, trusted and surgically credible. So as far as I know, Alaskan surgeons never even tried electrocoagulation of skin-cancers. So when my first basal cell cancer appeared, it was excised sharply with a good margin from my chest wall.

After I retired and lost easy access to a Bovie unit, I simply sizzled (without scraping) two or three possible small squamous or basal cell tumors on my own forehead, using an appropriate size nail heated on the stove. This primitive but efficient approach worked for me (without a biopsy or local anesthesia).

However, Marianne considered it "gross" and I urge others not to attempt such a branding iron approach unless they already have experience burning off skin lesions. And while old folks allegedly feel less pain, I did not enjoy it at all.

My most recent forehead "lesion", some years ago, was simply scratched off by fingernail, with table salt then rubbed into the raw area. This truly minor procedure was easily repeated three times before that superficial lesion never returned. But as any Iowa City general surgeon would *surely point out*, "One case without pathology studies doesn't prove a thing!" And with that hypothetical remark, I must totally agree!

Thoracic and Cardiovascular Surgery In Iowa (1963-5)

I learned a great deal during my two years training at the State U. of Iowa Hospitals in Iowa City. But while Chest Surgery and Vascular Surgery problems were already commonplace and very well handled, Heart Surgery had only just begun and seemed very primitive while advancing slowly.

During our Iowa years, Hans Ehrenhaft and Montague (Monty) Lawrence co-directed Iowa's Thoracic and Cardiovascular Surgery program. Hans, a complex, excitable immigrant from Germany, was Chief of Thoracic and Cardiovascular Surgery. Monty, a huge muscular black man who had grown up picking cotton down South, and finally finished his surgical training at Homer G. Phillips Hospital (aka St. Louis #2, the Hospital for Blacks), was our assistant director.

Hans was well known as rather excitable in Chest Surgery circles. So one morning he showed up with several cuts and bruises on his head, having had a car accident. When I asked if he had been wearing his seat belt, Hans bellowed "Christ, Arndt, Dere Vas No time!" For in those days, if seat belts were even present, their regular use remained uncommon.

In contrast, Monty always appeared calm: He was also (by far) the fastest, most skilled Vascular Surgeon I ever watched or assisted in surgery. And his admiring surgical residents certainly agreed with that statement for they all, unknowingly, mimicked many of Monty's mannerisms, from the way he walked to how he held various instruments.

Furthermore, I believe that Monty Lawrence's truly well-deserved surgical fame throughout Iowa later helped Obama win Iowa's support: And that Obama's surprising early electoral victory in Iowa then led straight to Obama's first election as President! Soon after we left Iowa in 1965 for Alaska, Monty left the State University of Iowa Hospitals to open a solo surgical practice in nearby Cedar Rapids. And there his reputation as "Iowa's Miracle-Working Black Surgeon!" grew even greater.

Thus when Obama toured through Iowa more than a generation later, as he campaigned for the US Presidency, *Monty was still remembered as Iowa's famous miracle-working Black Surgeon all those years after he died.* Perhaps most Iowans who had heard of Monty's amazing surgical skills felt comfortable and even obliged to vote for another apparently competent Black President.

Monty had a great sense of humor. For example, one day a white lady in a chauffeured Cadillac stopped in front of his nice home in Iowa City while Monty was mowing the lawn.

She opened her window and said "Boy! What do you charge for yard work?"

Monty ambled over and in his best super-southern accent said, "Ah gits to sleep with the lady of the house!"

And did that Cadillac ever depart swiftly!

We Reach Alaska

By late June, 1965, Marianne and I had successfully completed our Iowa City training in Pediatrics and Chest Surgery, so we all drove to Anchorage, Alaska's largest city, where Marianne still works. And since my own 1983 retirement, I have become her loyal House Person and Short Order Cook.

Our four children went through all 12 grades in Anchorage's public schools before they dispersed to relevant colleges and graduate schools that prepared them for their self-selected careers in Astronomy, Social Psychology, International Relations and Biology!

Chapter Six

Physicians face many obstacles, not least themselves
Knowledge is a useful compilation of lessons learned
Wisdom lies in sensing the applicability of knowledge
Unsolicited advice rarely benefits any patient

Bill S. excelled in ROTC. He loved to march! He had learned every military rule! And he was "ready to make decisions!" long before we ever completed our two-year Chest Surgery training program. But once Dr. Bill had memorized every surgical rule he could find, he only accepted additional surgical advice from Dr Ehrenhaft.

Bill never realized, nor would he ever have imagined, that by completing a formal surgical training program, he merely had initiated a lifetime of "On the job training". Coming from an excellent teaching program, he did well at first. But as his military career progressed and he rose through the ranks, Bill's inability to learn anything from more recently trained subordinates, and his insistence on remaining "Surgeon in charge" despite his increasingly out-of-date skills (rather than taking an administrative post), eventually led to a humiliating **nationally-reported investigation** of his 50% operative mortality for routine heart surgery.

Several of us had foreseen the entire trajectory of his career, from initial advancement, to many unnecessary deaths, to his final ouster from the military and from surgery. But every medical or surgical field attracts different talents and personality types for reasons good or bad - such as his obvious intent to rule with a "*Now hear this!*"

My own interest in chest dynamics began in childhood as I watched my mother, a severe asthmatic, struggle for breath. And while I was unusually aggressive and unreasonable as a teenager, I was also very observant and helpful to those in distress. Consequently, our father decided I should become a physician and "Do something about asthma!"

My siblings were similarly directed toward a variety of attainable professional goals, and generously supported until they too became self-sustaining at more or less whatever father had decided they should do. Such supportive/directive approaches eventually positioned both Marianne and me in rewarding careers.

In turn, Marianne made sure that our children and their many friends took all the classes they needed for admission to well known colleges. But other than that, we followed a passively supportive but otherwise nondirective path as they independently explored the seemingly limitless career options of our increasingly complex world.

Medical Training Includes Requirements and Tests

When I graduated from medical school in 1957, multi-year family practice residencies were uncommon and certified family practitioners did not yet exist. Fresh graduates with an M.D. diploma in hand, usually served a mandatory after-graduation internship year of training before sitting for a state medical license exam or entering the military.

A state licensed M.D. was free to enter general practice (as a GP). For that matter, he or she could also specialize in psychiatry or orthopedics or cardiology or radiology (taking and reading X-ray films) or brain surgery. Anything the State License allowed, he/she could do in his/her office practice, with or without additional training.

However, large public "nonprofit" (but **not** physician-owned) hospitals normally did not consider someone a specialist until she/he took additional formal training after internship. And staff physicians in modern public hospitals have been increasingly restricted to specialties included in accredited training programs that they successfully completed.

Successful completion of medical specialty training made physicians eligible for Examination and Certification by that Specialty's Board of Examiners. However, simply by becoming Board Eligible, hence "*Qualified by certified training to undergo Board Examination in that specialty*"), a physician was usually allowed to start his/her practice of that specialty in a Public Hospital, pending a convenient opportunity to take (or retake) the relevant Board Examination.

Public Hospitals generally expected those physicians who had not yet demonstrated proficiency by practicing a specialty locally until grand-fathered in, to challenge and eventually pass an appropriate specialty exam and thereby become Board Certified within a certain number of years.

So after training in General Surgery, I became Board-Certified in General Surgery. And after training in "Thoracic and Cardiovascular Surgery", I became Board Certified in that field (formerly referred to as "Chest Surgery") at a time when chest tumors, infections and injuries still predominated), until heart and large blood vessel repairs became more or less routinely successful.

In 1965, being Board Certified was rare in Alaska, and irrelevant for most medical careers. Soon after Marianne completed her Pediatric residency in Iowa, she became Board Certified in Pediatrics. Then while our four children were young, she worked part-time in the Pediatric Clinic at Elmendorf Air Force Hospital, where she gradually focused on behavioral problems (a natural interest, given that both her parents were psychoanalysts who had trained with Freud).

Marianne later served a fellowship at L.A. Children's Hospital before opening her solo practice of Behavioral Pediatrics in Anchorage. That subspecialty, now known as Developmental Pediatrics, has gradually evolved its own formal training requirements and Certification.

As Marianne was a Behavioral Pediatrician before Developmental Pediatrics existed and became recognized as a subspecialty, she and other practitioners of that time (including some early teachers of that new subspecialty), were all "grand-mothered or grand-fathered in".

But unlike mostly high earning, new sub-specialties that relied upon costly tests and procedures, Marianne soon became busy, but her income always lagged that of an average pediatrician. Fortunately, most of her low-income patients eventually received Medicaid support.

Younger physicians often leap from Board Eligible in some specialty to "grandfathered in" for Hospital Privileges in that hospital and specialty. Usually this is necessitated by their inability to pass the relevant Board Examination, despite which their peers may conclude that they are good fellows and friendly (or polite enough) to continue practice in such a hospital specialty practice.

It would not surprise me to learn that specialties like Internal Medicine or Dentistry raised or lowered the certification-bar according to their perceived need for additional recruits. Similarly, after flipping through my credentials, my GP interlocutor in Iowa had asked one question: Was I planning to practice in Iowa after training? I quickly said "No" and he just as quickly granted my Iowa State Medical license.

Board Recertification?

This separate, more recent issue is discussed later. In 1983, hospital rules and regulations, or malpractice insurance carrier requirements, or medical society guidelines, or State Medical Board regulations only set vague limits on specialty practices. After my medical retirement that may well have changed.

Other than such restrictions, and barring formal patient complaints or malpractice lawsuits (which formerly were often ignored by "Medical Society or Hospital Authorities"), all physicians remained free to offer any lawful services within their own offices.

Hence an occasional doctor, well trained or not, might go off on a tangent from the standard, widely accepted medical treatments that they were taught. Thus Franseen pioneered electrocoagulation of skin cancers, and Deepak Chopra pursued his own personal or religious theories of treatment, while others

performed acupuncture, or prescribed herbal remedies, or promoted specialized diets or costly but unfounded treatments like Chelation or Scientology.

Summary: Only in medically remote rural areas like Twillingate in the fifties, or Alaska into the 1970s, could a North American physician with just an internship year of post-medical school training, regularly perform major elective operations in a public hospital.

How I chose a surgical career

During our senior year in medical school, we students all applied to a nationwide internship matching program that somehow, more or less, correlated our desired postgraduate training programs with any interest those programs had in us. Overall, hospitals back then offered more low-wage intern positions than there were American physician applicants to fill them. Consequently, we all matched into more or less appropriate general or specialty internships somewhere. And openings that remained were then partly or entirely filled by foreign medical graduates.

After internship, most of my cohort took several more years of resident level training in some specialty, usually based at a hospital or medical center. So I also took many years of residency training because medical schools like Harvard were such elitist institutions that only professors, physician specialists and researchers were considered competent. In contrast, local medical doctors (LMD's) were often the butt of jokes for missing obvious diagnoses or otherwise performing poorly.

One reason I became a surgeon was that surgery was my final senior year specialty rotation. Although rotating through other major specialties had been interesting, none had appealed to me as a lifetime occupation. Thus general surgery seemed my best option until I rotated through general surgery and found it merely interesting as well. But by then I was matched, it was too late to change, and besides, until I later rotated through Chest Surgery, I had no better options.

Several aspects of Chest Surgery appealed to me. It was a field in ferment. There was remarkably little agreement on principles of chest physiology, or on when and how to perform chest surgery. Yet chest dynamics seemed straightforward to me, a simple matter of pumps and pipes, pressures and flows, *as I again explained for the third time in my Manual of Thoracic Surgery, 2nd ed.* (which is still available through Amazon.com or as a free download from arndtvonhippel.org)

I found chest surgery exciting for even slight changes that barely improved each cycle of a patient's blood or air pump, might soon develop dramatic cumulative impacts that saved many lives. In addition, chest operations made sense to me, and poor outcomes often had preventable causes that one could identify and thereafter avoid. And intuitively, I already understood a lot about breathing from having watched my mother's struggle with asthma. So I felt I could contribute.

Upon entering medical school, my expressed goal (rare at Harvard) had been to become a "Simple Country Doctor." *For I truly enjoyed rural life and helping people, saving lives and making those lives better.* Also surgical skills were obviously important for a physician who hoped to work in remote locations such as Twillingate Island.

In addition, I was fast, strong, steady, decisive and good with my hands, *though I never achieved the manual dexterity of an average seamstress.* Specializing in psychiatry, with endless talk and inconsistent progress, seemed unrewarding. Nor was I patient enough to enjoy Internal Medicine, where weeks of costly tests might suggest nothing was wrong. Also I found no validation in making obscure diagnoses of conditions that, unfortunately, remained untreatable.

Nonetheless, during those miserable, endless years of general surgery training at Boston City Hospital, my decision to become a surgeon often seemed less than brilliant. Of course, after enduring one year, it also became a matter of "sunk costs" - as those who prolonged the war in Vietnam might attest - for quitting meant admitting that I had endured a lot of misery for no good cause. Many decisions on specialization are likely still made for equally immediate or minimal reasons.

For example, as of 1993, Canadian "family doctors" were required to take a two-year rather than a one-year residency. At the same time, more spaces opened up in specialty residency programs. So since they faced at least a two year residency anyhow, an unexpectedly large number of Canadian medical school graduates chose to enter specialty training without first trying family practice.

Knowledge is the useful compilation of lessons learned

It has often been said, although I certainly never believed it, that "You will never again be as up to date as you were on the day you completed your residency." And every medical hatchling who emerges blinking into the bright sunlight of reality stuffed with plausible theories, soon discovers the unspoken corollary, "You will never again make as many mistakes as you did while learning if, when and how all that new-to-you information should be used, or whether some of it ought never even be tried."

Obviously, this statement and corollary only remain relevant while physicians try to remain well informed. Nevertheless, looking back on the evidence-based, hence "scientific" (because falsifiable) classroom type lessons to which I was exposed during my 20 years of high school, college, medical school and surgical training, it is clear that *hardly anything taught then remains relevant today!*

This apparently absurd statement is not meant as a criticism of my high school, college, medical school or didactic surgical training (though such criticisms surely are warranted). Nor do I suggest that a good science education just represents another ticket to a high paying job that any intelligent high school graduate might learn to do as well, although that too could be the case.

For while high school and college science courses filled me with randomly selected, soon to be forgotten and/or outmoded information, they also offered many options for constructing a personal expandable framework of knowledge, based on innumerable mental collages, message boards, files, hangers, shelves and other sites where additional incoming information just might fit or contribute to understanding.

Eventually, some parts of these options were included in my personal, uniquely organized, mental warehouse wherein meaningful concepts, ideas and behaviors could be examined, matched, rearranged for useful comparisons, revised, connected, disassembled and retrieved until finally discarded or lost. Finally, the above subtitle does not imply that any intelligent person, endowed by life experience with a bit of common sense and willing to do a lot of reading—could open a successful medical practice.

Yet some imposters manage to practice medicine for years before being caught. Has anyone ever determined how well these bounders served their patients? Indeed, ought we be upset if imposters forever evade detection by doing a decent job for a fair price? More generally, I suspect that a good "hands on" apprenticeship (externship, internship, residency or whatever) is probably the most important pre-practice aspect of formal medical training.

Few would deny that some talented nurses and physician assistants, who may initially not have had enough confidence, time, money or interest to undertake medical school, have since proven themselves more caring, competent, honest, intelligent or technically skilled than many physicians.

Indeed, competent foreign physicians occasionally take better paying nursing jobs in America before eventually returning home to open their own medical practices. We regularly expect more of some physicians than they can deliver. And undoubtedly we expect less of some nurses and PAs than they are capable of providing.

In business, a few people who started in the stock room have become competent corporate CEOs. Similarly, more than a few top-level managers ought to have ended their careers in the stock room. But as Business Week has pointed out, our traditional expectation of individual betterment through intelligence and hard work is increasingly an exception rather than the rule.

In other words, the "class" you are born into increasingly determines your occupational destiny, unless you somehow complete college (as I only barely did). Our national dream of a classless egalitarian society was expressed by Thomas Jefferson in the Declaration of Independence "We hold these truths to

be self evident: that all men are created equal; that they are endowed by their Creator with certain unalienable rights; and among these rights are life, liberty, and the pursuit of happiness.”

With China and India now both graduating more scientists and engineers than the USA, an increasingly powerful argument can be made for free tuition and appropriate federal tax supported subsidies at enough State Colleges so no one seeking a college education is denied that chance on the basis of poverty.

For in case you haven't noticed—in addition to the flight of manufacturing, we are rapidly losing white collar jobs and a lot of our technical services sector to less costly but adequately educated folks overseas. *So would our nation's health benefit or suffer if those who finished medical school did not automatically expect lifelong top billing and super salaries regardless of whether they remained up to date or how well they performed?*

Universities occasionally offer professorships to outstanding individuals with no postgraduate degree. Does any field really benefit from a glass ceiling? Might it be a worthwhile experiment to admit a few experienced nurses and PAs directly to an internship or residency if they can successfully challenge an appropriately difficult examination? On the other hand, if a physician repeatedly fails his/her "Beneficial Practice Outcomes" audit, shouldn't that lead to a reduced level of patient care responsibility and compensation—or even a job in the stock room?

The point being made here is that science is an ongoing process rather than a result. And as medicine becomes increasingly scientific, it will outdate ever more swiftly. By 1980, an estimated 600,000 biomedical articles were published annually, and the half-life of medical knowledge was about seven years. Before the millennium, with many more journals and articles, half of all current medical knowledge was outdated within about four years. Now some claim that total cultural information doubles every two or three years.

Science is our most important tool. It works best when kept sharp. And the most rewarding applications of that great tool tend to be those that reflect deep empathy for life and the human condition, as portrayed by innumerable great minds throughout human history. Which leads to the inevitable conclusion that a formal education only succeeds insofar as it encourages a lifetime of learning, including frequent reexaminations of strongly held ideas and beliefs.

Wisdom lies in sensing the applicability of Knowledge

The torrid pace of present day advances in matters scientific and technological, assures us that medical specialties and subspecialties will continue to rise, fall or change ever more swiftly (often beyond recognition) as the years pass. However, a modern medical education represents such a huge effort and expense that one might reasonably expect those who finally achieve high medical specialty status to resist, or at least seem disinterested in, advances that endanger their hard-earned eminence.

Here physicians have an initial advantage over automobile mechanics, construction workers and professional pilots who also must regularly acquaint themselves with new machines, materials and methods. For at least humans, old and new, are all still made of the same more-or-less right stuff. But humanity's inherent self-protective conservatism also explains why possibly important, low-cost medical advances, as mentioned in my discussion of peptic ulcers and skin cancers, or discussed in connection with coronary artery disease, often arise in out-of-the-way places and have relatively few advocates.

Today even the most well intentioned physician feels a twinge of empathy for the young Saint Augustine who, when torn between his sexual appetites and his love of God, fell to his knees in the garden after another immoderate night and prayed "Oh Lord! Strengthen my belief and bring me continence, *but not just yet!*"

Similarly, moral young physicians everywhere sincerely hope that medical advances will soon provide a simple inexpensive cure for devastating illnesses they have just learned to treat. But in the

meanwhile, they expect to prosper using the difficult, dangerous and expensive therapies they were taught.

And if good doctors sometimes resist advances that threaten their position, it is hardly astounding that lesser practitioners regularly become hopelessly out of date - hence dangerous to patients who might benefit from a more modern or moderate approach. It has long been clear that most consultations with a family doctor, clergyperson, witch doctor, faith healer, shaman, homeopath, herbalist, naturopath, acupuncturist, scientologist, music therapist or chiropractor are by the "worried well" seeking reassurance, a checkup, a test, or attention for some minor, self-limited condition.

An additional small number of health-related visits are about serious conditions for which modern medicine thus far offers little more than hope. Naturally, some patients just seek information on normal growth and development, while others come in for complaints related to loneliness or alienation, or to discuss marriage, parenting, lifestyle or sexual problems, or even to seek advice on educational issues from someone they trust to protect their privacy.

Many such visits by the "worried but well" are nowadays criticized as "The medicalization of modern society". Naturally, some advice patients get will be good and some bad, whether Doc's opinions were uploaded in medical school or developed from a lifetime of experiences, or merely represent personal preferences or the results of watching too many football games and soap operas on TV.

Often he or she will just be winging it, as the Oracle of Delphi used to do upon exit from her inner sanctum after sniffing near-fatal doses of gases that seeped up through deep fissures in the cave floor from volcanically heated oily bitumen far below. These gases included CO₂ and hydrocarbon/anesthetic gases such as ethylene that can cause euphoria, violent frenzies and delirium (New Scientist, Sept 1, 2001 pp40-42).

So where else might one go—besides the Doctor's office—to discuss the nuclear family and its problems? Well, self-help books are popular. And many small groups meet regularly to discuss specific problems or medical conditions of mutual interest (meetings and support groups are often listed in newspapers or on the web).

A great many Internet sites also compete to provide information and misinformation that may address some of these questions or needs. Of course, Internet sites don't necessarily respect privacy, so you might soon be inundated with unwanted or embarrassing offers for related products and services.

Anyhow, the office visits of patients with medical questions or misunderstandings often feel more important than they may appear. Thus preadolescent males and their parents are sometimes mightily concerned to notice a soft moveable bit of breast tissue under one or both nipples. But this usually becomes a nonissue when they learn that lump likely represents a temporary early manifestation of the adolescent growth spurt.

And more than one young child has been repeatedly punished for playing with his/her belly button until it got red and sore, before a pediatrician eventually discovered that the child was born with an otherwise non-apparent fistula connecting bladder and umbilicus. So as soon as simple surgery closed that minor bladder leak, the "misbehavior" stopped.

A healthy looking young woman once entered my office in tears, having just learned she only had four months to live. Between sobs, it turned out she had an ordinary hiatus hernia with occasional heartburn. I called her doctor to find out what was said. Apparently, Dr. X tried to reassure her by pointing out that if she took Tums occasionally, she could "go for months" with her minor complaints (before requiring further evaluation).

One could justifiably claim that many patients might derive equal benefit from any sort of practitioner, or less expensively, from complaining over coffee to a friend, or from working in the garden, or taking a stroll in the forest. On the other hand, it really can matter who investigates and treats patients with significant treatable illnesses or injuries. But change sneaks up even on the best. And it is currently

unclear how a busy physician might possibly hear about, let alone evaluate carefully, all potentially relevant medical advances in a broad field like internal medicine or family practice.

Perhaps a cheap, friendly, regularly updated personal pocket computer will soon become a valued additional source of medical information and routine health advice. However, for now, every practicing physician must continue to evaluate and assimilate additional skills and knowledge. And each will undoubtedly absorb different lessons at different speeds for different purposes, based upon previous training, abilities, interests and experiences. ***Thus it follows that no physician is ever completely knowledgeable and unbiased.***

My father-in-law (the psychoanalyst) made the relevant point that “The greater the illusion, the greater the disillusion.” In other words, physicians should avoid trying to appear “All knowing” and they should not try to be “All things to all people”. Rather, doctors and patients both need occasional reminders that even the finest medical schools only produce fallible (but hopefully well intentioned and intelligent) humans with special skills.

Also all doctors must study a lot in order to remain current in their chosen medical field. That is just another reason why a truly "informed consent" for an operation is so important, yet nearly impossible to ensure, as surgeon and patient explore alternative options together before initiating surgery. For a surgeon soon learns that his or her personal preferences will set the course for most patients who have decided to place their lives in her/his hands (see also Informed consent as part and parcel of the scientific inquiry, *Lancet*, June 28, 2003 p2171).

A recent study at Dartmouth Hitchcock Medical Center in Hanover, N.H. suggests that patients who take home videotaped explanations of potential benefits and possible pitfalls of a proposed back operation, are about 30% less likely to undergo surgical repair of their back problem than those who rely upon a physician’s oral presentation—which is already largely forgotten by the time an upset patient reaches home.

That the patient’s welfare must always be paramount hardly seems a controversial statement. Yet we all recognize how slow times can encourage an ambitious plumber or roofer to visualize an expensive rebuild where a simple patch might otherwise suffice. Similarly, some surgeons perform profitable procedures even when they personally would not have selected such an inexperienced surgeon or such a dangerous or costly procedure for themselves.

The solution to this problem might seem straightforward a matter of quality control, but physician quality control is never easy nor completely achieved. Indeed, all sorts of humans do become surgeons. And at various stages in their evolution, different surgical fields attract surgeons with quite different personal characteristics. So while one surgeon might enjoy doing the same procedure the same way, day after day, another might not. One pre-technology stipulation even declared that "Orthopedic Surgeons must not only be strong as an ox, but twice as smart!"

All Surgeons Err Occasionally

Nevertheless, a few surgeons are generally recognized as “the best around” by reason of their above-average skills, judgment and caring. And most surgeons are “good enough” so their usual skills, judgment and caring often suffice. Sometimes our diagnostic tools are inadequate, or they offer accurate but irrelevant information that may mislead us. For example, while 70% of adults have had episodes of back pain—and a third of us have had back problems within the last 30 days—“In 85% of cases, it is impossible to say why a person’s back hurts” and “nearly everyone gets better with or without treatment.”

Furthermore, in two out of three persons with no current back symptoms, MRI examination of the spine will show one or more major bulging, protruding, herniated or degenerated intervertebral discs. And persons with acute back symptoms may have suggestive MRI findings at one vertebral level, often have symptoms suggesting nerve impingement at an entirely different level—while their real problem might simply be sitting upright too long at the computer.

In one study, backache patients were randomly assigned to either an MRI study or a simple back X-ray (which can show tumors or fractures but not disc abnormalities). Those who had the MRI (which reveals degenerative disc disease) predictably received more intensive treatments, more doctor visits and more physical therapy, acupuncture, massage, and chiropractic manipulations, as well as more back surgery. But despite greater patient satisfaction with their care, the MRI group fared no better than those who got a plain back Xray with minimal treatment.

In 1998, American back-pain patient expenses totaled \$26 billion (two and a half percent of total health care costs), up from \$20 billion in 1984 (adjusted for inflation). This difference reflected increasing costs and complexity of treatment per case rather than additional back aches. Yet no one has shown any treatment to be better than "no treatment" for the vast majority of backache patients.

So an ongoing randomized trial was set up to compare the results of "Surgery" and "No Surgery" in 1000 patients with herniated discs, "spinal stenosis" (a narrowing of the spinal canal that often occurs with a lack of exercise such as walking), arthritis and aging or spondylolisthesis (a slipped vertebra). Some providers allegedly fear that those trial results may take away their practice (Anchorage Daily News, Feb 9, 2004 ppA1 and A4).

It seems likely that, rather than undergoing back surgery, the usual backache in a desk worker (a functional problem) might respond best to frequent breaks for short walks, occasional horizontal naps and work in a comfortable tilt back chair with feet upon a stool and/or using a portable computer properly positioned on a "tilting hospital bed type of adjustable table".

Sometimes a surgeon performs a procedure ineptly or carelessly, especially when unexpectedly confronted by a problem beyond his/her current abilities, or if tired or annoyed, or late for a golf game. A few surgeons are chronically unsuited to their field because of poor judgment, inadequate knowledge or skills, or physical or mental limitations ranging from poor eyesight, poor coordination and poor character to addiction (to alcohol or other drugs), indecisiveness, lack of empathy, or an inability to lead, control, or even cooperate with their operating room team.

When such lesser surgeons describe the risks, costs and possible benefits of a proposed procedure to a potential patient, inner demons may drive them to make dramatic declarations such as "I can guarantee you a good result!" or "I never make mistakes!" but neither remark is credible.

And if a patient asks, "What are the most likely results and complications with this procedure?" a lesser surgeon may quote or even misquote the published results of an experienced group rather than honestly relate his/her own meager experience or dismal outcomes.

In contrast, the competent surgeon probably has enough confidence and honesty to present her/his own outcomes in a comprehensible fashion. So when patients ask their ultimate "trick" question "What would you do if it was your wife?" the lesser surgeon is prepared to look that patient in the eye and lie. For only the best can prosper by discussing their results honestly.

Even those who are usually skillful or smart enough must admit to themselves and their patients that better surgeons are probably available, or convince themselves and their patients to proceed in hopes that both may do well. Of course, every sailor encounters - and every skier finds - and every surgeon discovers unexpected limitations that only become evident upon entering weather/terrain/situations he or she cannot handle at least for the first time.

In an emergency, I have occasionally assumed that I would have been granted permission to operate, had the injured or sick patient been in proper condition to evaluate and provide such permission. Under these circumstances, we proceeded with attempts to repair based on my responsibility, simply assuming permission rather than endanger a dying patient with further delay.

Once I even operated *despite a sane adult's express refusal*, for I felt he was unable to make a rational decision or endure prolonged discussions due to his deteriorating condition. In this case, I had been asked to see a Russian Muslim fishing boat Captain who, at the height of the Cold War, had been evacuated to the Alaska Native Hospital for emergency treatment of a severe chest infection.

It turned out that while at sea, his inadequately treated lung infection had extended through the left chest cavity into his pericardium (a sack surrounding the heart). With that infected fluid (pus) now compressing his heart, he needed prompt operative drainage in order to survive.

Through his interpreter, this toxic 'stranger in our strange land' refused any surgery, as well as all contact with female nurses. But when his blood pressure went too low for him to survive further discussion, we whisked him to the operating room and went to work. Thereafter, he was one of our most grateful and cooperative patients. And as he regained his previous good health, he also became friends with all the female nurses.

Unsolicited Opinions Rarely Change a Patient's Decision

As a young resident, I once tried to convince a patient that the Xray therapy his private doctor had ordered was useless for treating the benign bronchial adenoma that nearly blocked his airway. I urged him to consult a far more competent surgeon in the same hospital who could actually remove that benign tumor. Thereupon the patient—a professor with whom I had often chatted—panicked, refused to listen, avoided further contact with me, and suffocated within the week.

But had it become known, my interference in the care of another doctor's patient would have been considered "highly unethical" and might have caused problems for me. Since then I have several times suggested important alternatives to another doctor's patients that could have helped them out of life threatening medical circumstances, but none listened.

For once a patient places faith in a physician, one might as well try to alter his or her religious beliefs. Perhaps "Free advice really is worth exactly what you pay for it." In my experience, unsolicited second opinions rarely if ever change anything.

Our Books

I tend to enjoy books that explain simple ideas simply with a bit of humor. And I repeatedly grumbled during my residency and later about how often surgeons and nurses ignored or mis-interpreted information that was easily apparent upon a simple inspection of the patient's chest drainage tubes. So Marianne suggested "Why don't you explain it in a book!" She was right! And in 1970, Charles C Thomas, Publisher brought out my first book entitled *Chest Tubes and Chest Bottles* - a topic chest surgeons and nurses too often had taken for granted and/or misunderstood.

My next book, *A Manual of Thoracic Surgery*, was also published by Charles Thomas in 1978. Thereafter, I had little time for writing until I retired in 1983. At that point, I ran for office and lost, and started teaching Human Anatomy and Physiology for the University of Alaska (without discovering one decent textbook to teach from). Then I wrote the second edition of *A Manual of Thoracic Surgery* (which was soon turned down by Charles Thomas).

Dr. Ehrenhaft later mentioned that he had seen that book, though I never sent him a copy **after publishing it myself (with very helpful friends and sub-contractors), in 1986**. Eventually that **Manual of Thoracic Surgery, 2e**, was also well received internationally. Most likely Dr Ehrenhaft did review it unfavorably for Charles Thomas, for when we met and chatted about it briefly, I gathered that he felt humorous remarks were out of place in a book on such a serious topic.

My own view is that most people would rather read entertaining texts, which my later book sales suggested was true, although I surely offended some and thereby lost sales as well. So I set up **Stone Age Press** as my personal publishing empire for a writing hobby some day after I retired.

My first effort, *after recovering from my unexpected heart surgery and unplanned retirement*, was to publish Marianne's **More Joy From Parenting**. I (and some far-more competent friends) printed several thousand copies of More Joy from Parenting, assuming that thereby we would remain stocked with them forever, *so I could start printing and publishing more of my own stuff*.

Fortunately our college age children had taken lessons on how to operate the small new printing press that I purchased. Unfortunately, that was just before they all went off to their various schools. So as I slowly recovered from after-effects of my surgery, it took me six tedious months to learn by doing (with frequent kindly visits by helpful experts) in order to print several thousand somewhat amateurish copies.

Nonetheless, *within a few months, Marianne's book almost entirely sold out!* Soon thereafter an expert friend helped me to sell off my almost instantly outdated publishing equipment. Printing Marianne's parenting books had been far too time-consuming, so I hired professionals to produce **Human Evolutionary Biology** (after my decade of teaching Human Anatomy and Physiology without a decent A&P textbook). Amazon readers soon gave *Human Evolutionary Biology 4.5 stars out of five*.

My next projects were **In Darwin's Image**, a condensed version of HEB, published with an on-line publisher but never promoted. Then just before the millennium, I printed **An Evolutionist Deconstructs Creationism** with another on-line publisher - also never promoted. And finally I wrote **Better Health Care at Half the Cost** with a third on-line publisher. Then I wrote *Better Health Care at Half the Cost 2e* (as an Ebook only), and here I am working on 3e which I again hope to give away free in Ebook-only format from my web site in 2016.

About my experiences with three different on-line publishers

They can effectively print small inexpensive books, but *their promises to sell books* and their *promises to send the author any money* from such sales are not credible.

I never made money on my three Chest Surgery books. My **Manual of Thoracic Surgery 2E** is still useful for chest injuries *as well as stories* but otherwise it is out of date. It is an easy free Portable Download Format (PDF) from my website. **Human Evolutionary Biology** is another free PDF download, as are **An Evolutionist Deconstructs Creationism**, **In Darwin's Image** and also **Better Health Care at Half the Cost 2E**, until this 3E project becomes available (soon, I hope), from my usual, free download web site

arndtvonhippel.org

or from some similarly titled web site also including my name (if my current web site fails me due to web site changes beyond my understanding)

My five still-relevant PDF's remain free downloads. I also have a few *paperback copies* of **Manual of Thoracic Surgery 2E**, **Human Evolutionary Biology**, **In Darwin's Image**, and **An Evolutionist Deconstructs Creationism** but no paper copies are planed for **Better Health Care at Half the Cost**, 3E.

Summary: I enjoy writing to share information. But I am not a good publisher. So I find it cheaper and more fun to give my books away than to sell them.

CHAPTER SEVEN

Up the long and dusty trail to market our new skills
Assisting at Surgery - Chief of Surgery - Retraining in heart surgery

In early summer of 1965, we left Iowa for Anchorage in our new International station wagon with a retired U-Haul trailer. Our three young children and a pleasant college-age babysitter (who soon married the boy next door) occupied the back seats. An Iowa fisherman brought along our old Pontiac with my beat-up aluminum canoe on top. And Marge, an Iowa surgical technician, drove up independently to become my trusted secretary and technician, until she married a GI and moved on.

I had intended to live in Alaska after spending two summers in the US Fish + Wildlife Service housed in a remote shack we built by a nice salmon stream in Prince William Sound. As a weir attendant (GS3), I earned \$17.50 per day including room (shack) and "board" (fish caught or clams dug).

Mary (my first wife) accompanied me in 1954, but chose not to return in 1955. So that second summer had been lonesome but idyllic, with thirteen black bears, 60 harbor seals and several fat medical books for company, plenty of clams, salmon, flour and eggs to eat plus one or two brief human encounters per month—an uninterrupted growth experience.

Anchorage

Marianne insisted I visit Anchorage, Alaska's largest city, before she would start packing. While there, I met no Alaskan physician who had felt any need for a Board Certified Chest Surgeon. Several bragged about their "Great relationship with Virginia Mason Clinic in Seattle, *only three hours away by jet!*" Others were "too busy" to see me at all. But by then I felt confident of my own skills, and felt sure the local MD's would eventually understand Alaska's need for better-trained physicians.

Later I learned that the Mason Clinic was especially dear to Alaskans as it had a separate area reserved for Alaskan patients where sick folks and their visitors were likely to meet old friends. *And no matter what debacle preceded a referral, Mason doctors allegedly always spoke highly of the health care provided by Alaskan physicians who sent Mason so many complex, high-risk cases.*

In contrast, surgical residents in the less "Alaskan dollar dependent" U. of Washington Hospital were more likely to ask incoming patients "Who in Hell did THAT to You?!!" Of course, there was much to question about the skills and training of Anchorage doctors in those days. For example, Board Certification was irrelevant, and many older doctors who had grown up during Prohibition were alcohol-dependent. Indeed, *more than once* I overheard patients argue over whether Dr. X was a better surgeon "drunk" than Dr. Y was "when sober" (neither man ever had any surgical training)! Nor did most physicians think having sex with a patient was unethical.

Indeed, HR, a personable, hard-drinking, competent physician and surgeon, *developed a cult-like following among nearly a thousand Anchorage women.* For HR truly loved all women, tall, short, fat, skinny, homely or beautiful. And most of them truly loved him too! In addition, while HR surely annoyed hundreds of husbands and caused innumerable divorces, he allegedly also helped support all his known-to-him descendants, whether they originated within or outside of wedlock. But he was one of a kind, a man of his time, and in these more politically correct days, he would certainly lose his medical license!

In 1965, Anchorage's several Board Certified Surgeons worked closely with local general practitioners, some of whom had their own surgical practices in local hospitals. Anyone could call himself or herself a specialist, and many did. I was especially taken by an elderly GP (general practitioner) who listed himself on a private Clinic's Specialty Board as an Orthopedist one year, and as a Urologist the next.

Not surprisingly, these libertarian circumstances allowed surgeons more freedom to devise innovative solutions for common problems. For example, George Hale, Alaska's first Board Certified General

Surgeon (who also had a busy general practice), apparently cured a patient with an invasive ovarian carcinoma that had already penetrated the ovary's peritoneal surface prior to surgery (she was still well ten years later).

Presumably George achieved his unlikely cure because, after a standard removal of her uterus, ovaries, all visible tumor and omentum (the mobile fatty layer up front), he *compulsively* irrigated every crevice of her entire abdominal cavity with a radioactive gold solution *that he then left inside*.

By instilling that radioactive gold before postoperative adhesions and healing could begin, George optimized the anti-cancer impact of that treatment. For in the early hours after major abdominal surgery, many irritated peritoneal surfaces start sticking together, thereby creating countless isolated pockets wherein cancer cells might avoid discovery or contact with intra-peritoneal or intravenous chemotherapy.

Such internal adhesions also hide tiny tumor implants from visual detection even during an early "*second look*" exploration by an oncologist a day or two later (needed because the patient's initial gynecologist did nothing useful). Anyhow, for many years, costly modern chemotherapy for ovarian cancer was *consistently non-curative* even if started within days after the initial surgery - sort of "Like locking the barn door after the horse runs away"!

GH's choice of radioactive gold made good sense, for gold's radiation has a short effective range—just right for free floating cancer cells or tiny surface implants. Then as tiny particles bearing radioactive gold drain away, they can continue to kill cancer cells in lymph channels or lymph glands en route.

Having radioactive gold solutions regularly available for all initial ovarian cancer operations might quickly demonstrate whether that immediate gold treatment really was better than later palliative, non-curative treatments. While radioactive gold is comparatively cheap, the hospital care of slightly radioactive patients can allegedly become "a nuisance".

Radioactive gold will not often be needed, and only a few ovarian cancer patients might benefit by its introduction. But just as Iowa surgeons resisted electrocoagulation of skin cancers because "it wasn't surgery," gynecologists appear to resist pouring radioactive gold solution into an abdominal cavity and sloshing it about everywhere inside: So to ensure an optimal trial of radioactive gold for newfound ovarian cancer, perhaps specially trained and cooperative general surgeons ought to care for all potential ovarian cancer cases.

And surely it is high time that gynecologists stop showing how swiftly they can complete those few procedures they train to do. So if gynecologists are unwilling to carefully wash or slosh every intra-peritoneal surface with some effective antitumor solution, they should hand off all newly discovered ovarian cancer patients *immediately - intra-operatively - as an emergency* to a general surgeon or an oncologist (chemotherapist) rather than fatally delay that patient's care in order to demonstrate how speedily they can close the abdomen.

In contrast to many speedily surgeons, GH was a truly meticulous guy who could take hours to get everything just right before closing. He arranged to have radioactive gold available for this case, then waited patiently in the operating room while the solution was prepared and its radioactivity measured.

As mentioned with Mr. Zackoverich (see Chapter 2), when responsibility for a patient is shared (e.g., Initially, here, by a gynecologist who quickly dumps it on an oncologist), nobody may "feel in charge" or even have any authority over other consultants. So it is worth repeating: A hospitalized patient needs a physician-in-charge who can demand, modify or veto any/all proposals.

Heading For Our Future Home

The Alaska Highway in 1965 was a scenic 1200mile dirt-road/dust bath. Our many adventures occurred as visibility fell to zero behind each passing truck. But I was convinced there would be work ahead, especially after several small stops along the highway, and even U.S. Customs at the Alaskan end of that dirt road from Dawson Creek, spotted our distinctive, overloaded vehicle and reported inquiries about our progress.

But as it turned out, these inquiries were from my friend (with the Pontiac and canoe), and Marge Y (my surgical tech and secretary), both of whom had pushed ahead more rapidly. So upon our arrival, there still was no interest in my specialty work, nor any surgical work offered to me.

Fortunately, Marianne was soon employed in Elmendorf Air Force Hospital's Pediatric Clinic, where she worked part-time until our four children (by then) were older. But when I was quite unemployed, I once covered the Nome Hospital for two weeks as no other physician was interested or available. While I was there, almost everyone needed penicillin for one problem or another, just as in Newfoundland.

So when Nome's regular doctor returned, I headed for the airport, carrying a two-year old child being sent to the Alaska Native Hospital. As I recall they gave me the kid and a bottle or two and maybe diapers, but no paperwork - nor was an extra ticket needed. The first leg of our flight was to Fairbanks. We were running late, so the hostess/stewardess announced we would all be delayed overnight in Fairbanks as the last flight to Anchorage was scheduled to depart Fairbanks for Anchorage about 45 minutes before our small plane arrived.

A well-known lawyer rushed up to her and said he had to be in court in Anchorage the very next morning. She said we are really sorry but... Then a legislator marched up and demanded that they hold that flight in Fairbanks because he was casting an important vote the next day. She said we are really sorry but...

So then I went up politely with my little baby and said "I really would enjoy staying overnight in Fairbanks, but you will have to provide all the care for this sick child until we leave, for they told me to take it to Native Hospital and I am very inexperienced with sick babies and diapers."

She blanched and rushed back to speak with the pilot. They radioed Fairbanks and held the plane for Anchorage until we all arrived. Needless to say, that kid and I were the unofficial heroes of our late evening flight!

On The Job!

Sixteen years after entering MIT, I finally opened my solo Chest Surgery office in Anchorage: This was a year after North America's largest recorded earthquake and subsequent tsunamis had badly damaged many South Central Alaska facilities and homes over a huge area with few roads, inhabited by about 100,000 people, mostly in Anchorage, but also living in multiple small towns and native villages.

Interestingly, that huge Alaska earthquake not only visibly shook Lake Pontchartrain near New Orleans, but I twice ran upstairs in our Iowa farmhouse during that earthquake because it so loudly rattled storage items or else the farmhouse structure itself.

We moved to Anchorage because it was Alaska's largest town, but its population then was too small to keep a fulltime chest surgeon busy. However, Anchorage was the largest town I was willing to live in, and the smallest city Marianne would even consider, after the two years we spent in a rural Iowa farmhouse on an active corn and sheep farm.

I had enjoyed the sight, sounds and smells of farm activities going on around us, but she now insisted on a home near good shops and schools where honeybees didn't swarm in the walls or drop from light switches while I chased sheep out of the corn and repaired fences by moonlight.

Anchorage's four hospitals were **Providence** (a new 90120 bed Catholic Hospital), a slightly smaller, doctor-owned (formerly **Presbyterian**) Hospital downtown, the large Elmendorf **Air Force Base Hospital** where Marianne worked, and the rambling old **Alaska Native Hospital** near the Railroad Terminal where (and from which) the US Public Health Service provided health care for Alaska's Indians, Inuit and Aleuts.

None of these Hospitals yet had heart monitors, and vascular surgery was just being introduced. So while I soon acquired surgical privileges all over the State, I still had plenty of free time to hike, sail, ski, fly, and write "How to do Chest Surgery" books that were Internationally acclaimed and proved useful for

both chest and general surgeons (while Marianne worked, cared for our four small kids, and began to write her "More Joy from Parenting").

Although I could easily have offered electrocoagulation services for skin tumors, or competed for general surgery patients, I preferred to enter practice as a Thoracic and Cardiovascular Surgeon. So my initial meager income remained at least a thousand dollars below our small office overhead for the first five months.

Thereafter, I increasingly assisted other surgeons working in many different specialties. Assisting at surgery often paid a bit, broadened my experience and helped me maintain my skills. And occasionally patients were sent to me for diagnostic procedures or surgery.

On Emergency Room call, I handled a wide variety of acute cases including a child with intractable epilepsy that responded quickly to my open drop ether anesthesia (another outmoded technique) and I was asked to give many free consultations on severe injuries - including some that I then repaired.

For based upon my wide interests, referring doctors increasingly decided that *Cardiovascular Surgery* meant anyone "*Bleedin' Bad.*" But while many sick patients appreciated my rapid diagnosis and/or correction of their problems, lesser talents among the referring doctors did not. Indeed, one "Internist/Chest Medicine" physician strongly preferred to have a barely qualified surgeon operate upon his lung patients - possibly because those patients then required many more days of his costly intensive care and weeks in hospital—while comparable patients of mine generally went home to convalesce after two or three days.

And not infrequently, as I assisted less experienced surgeons or non-surgeons in other specialties, a clear lack of progress made it evident that I would have to complete this operation. One Scottish urologist always seemed very pleased with my skilled surgical support (he even woke me one midnight to tow his disabled car home), but he always billed so strategically that my assistant's fee routinely remained unpaid *as part of the usual "insurance deductible"*.

Other surgeons occasionally paged me from operating rooms to come quickly and rescue their patient from iatrogenic (physician caused) intraoperative injuries to the lung, or spleen or a major blood vessel. I always requested my name not be listed as participating in these rescue cases since I had not been hired at the patient's or family's request. Thus if my presence became known, it would simply raise awkward questions.

Increasingly, calls came from all over. For example, one gray Sunday, a general practitioner in a small town four hours away by road, phoned me urgently at Providence Hospital (as I was making rounds and removing sutures). He related that after he had merely inserted a simple chest tube, his patient's blood pressure began to fall - and just now her BP had become undetectable.

I rushed for my two-seater "beachcombing airplane", landed at that distant airport and jumped into the nearest car with a driver (at my request a car had been sent for me) and reached that hospital within the hour. By then the young woman was not responsive (no anesthesia required), and the six pints of blood I had requested were ready, so I quickly accessed a leg vein, and then the local operating room nurse (with whom I previously had worked in Anchorage, and who presumably suggested I be called), began pumping blood.

It turned out that the chest tube was incompetently inserted for no indication (a bruised chest). And that unnecessary tube tore her internal mammary artery inside the chest. So as her blood pressure rose, that bleeding vessel was quickly controlled and a proper chest tube inserted before our fully transfused patient finally awoke.

She seemed intact, so I went to the hospital coffee shop while my nurse friend cleaned up. The patient's husband was there having coffee. We chatted casually and I didn't mention my recent involvement in his wife's care. Soon the nurse allowed him in to see his wife. After the husband returned to the coffee shop, I made a final bedside visit and left instructions.

While driving me back to the airport, the referring physician was generous with praise and promised to send me a large king salmon (he never did). A couple of years later, that attractive young couple came by my office to express their appreciation, having by then figured out what had happened. And shortly after they decided not to sue that incompetent doctor, he moved elsewhere.

Another day I was called into two different operating rooms because two different surgeons had each encountered uncontrollable abdominal bleeding during a routine surgical exploration. By coincidence, both patients had a badly torn renal artery that required kidney removal. Luckily both still had a healthy kidney. However, our hospital's accredited urologists were truly enraged by my double invasion of their turf. And "Hell hath no fury like urologists' pissed"!

During the late 1960s, several of us younger (and non-alcoholic) surgeons covered night and weekend emergencies for local hospitals. Our emergency calls occasionally included a *severe toothache*, as Alaska's few dentists were doing so well that they all had acquired *unlisted phone numbers*. At a nurse's suggestion, I recommended "oil of cloves" for several toothaches, which may have helped.

Eventually, a less restrictive Dental Exam allowed more dentists into practice in Alaska, and I guess hospital-based dental specialties took over on *toothache emergencies*. In those days, most Health Care Insurance companies paid assistant surgeons 25% of the surgeon's fee. As uninsured patients rarely could pay, I simply wrote off all such debts. At the time it was still legal to charge "Insurance only" or even to cancel an entire bill if the patient found it burdensome - which was good public relations and eased the financial impacts of illness.

A decade or so later, new Federal guidelines made it illegal to bill Federal Government Insurance more than the lowest fee a physician ever charged anyone else for that same service - which meant anyone who treated a friend or colleague for **insurance only** or worse yet, gave free health care to some poor person, thereafter (in theory) committed "fraud" whenever she/he charged any federally insured patient the usual amount.

I just ignored all this nonsense, though it surely caused unnecessary aggravation as physicians might at any moment be required to show that they had made every effort to collect their usual fee from some poor person, friend or neighbor. Just once I did turn over my unpaid surgeon's bill to a lawyer for debt collection, for the patient's husband—a busy contractor—had put two bullets through his wife's lower midchest on New Year's Eve. And when called for this case, I had just fallen asleep after a party. Although the operation was complicated, she did well.

So because that contractor voluntarily caused us to do a lot of work when I was not feeling all that great, it annoyed me that he wouldn't pay my \$800 fee. But he wisely evaded the high cost of health care by transferring his assets and his wife soon forgave him. A few years later, criminal charges were finally dropped so he quickly divorced her.

Assisting At Surgery

During my slow first year in practice, I mostly assisted Bill Mills, a busy orthopedic surgeon and world renowned frostbite expert, who was also widely known for his superb reconstructive work on post-polio or cerebral palsy children.

Mills regularly asked me to assist him despite serious doubts about "Easterners" - especially Bostonians. For a few years earlier, an Alaskan physician friend had asked Mills to help a "Proper Bostonian" friend named Bradford Washburn who was preparing a small article on frostbite for the Appalachian Mountain Club Journal.

Because Mills was far too busy for Washburn's endless questions, Washburn borrowed the lengthy frostbite article Mills was preparing. When next seen, that article, reporting Mills' lifetime experience in treating frostbite, along with many of Mills' clinical photographs - was the lead article in the highly ranked New England Journal of Medicine, *with Bradford Washburn listed as sole author!*

However, Washburn - an allegedly wealthy man - had exactly zero medical education, and he was only known previously among mountain climbers for taking scenic Alaskan mountain photos with his huge and costly camera from airplanes.

In any case, "Washburn's" *Medical Treatment of Frostbite* became an immediate classic. And over the following forty years, despite repeated requests by me and many other Mills' colleagues, NEJM neither offered a retraction or even admitted Washburn's obvious plagiarism had occurred.

Although recent NEJM editors seemed to agree that it was all Mills' work, Alaska is far from Boston, and Washburn insisted he had published Mills' lifework on frostbite with all of Mills' clinical photos only after he had Mills' "verbal" permission.

Many years later, NEJM allegedly developed *a new policy!* required "authors" who submitted articles to attest they had actually done all work being reported. But that was decades after NEJM's 1960's Editor brushed off repeated complaints from Mills' irate friends by declaring "*No gentleman from a good Boston family would ever take credit for another man's work!*" Yah, sure! Whatever.

As usual, Mills himself ignored this entire ruckus, as he never complained - even when the PT Boat he captained was sunk in combat, or thereafter when Mills' badly injured leg was removed. And all the important frostbite experts around the world knew Washburn's article was stolen from Mills. More recently, the Washington Post aired another accusation that Washburn had plagiarized an entire book. His excuse at that time was being 90 years old "made him forgetful."

Mills again offered his Orthopedic Surgery talents during the Vietnam War. I even considered going with him (Mills was another born leader, and my surgery practice in Anchorage was only slowly increasing), but Marianne said "No way!" So Mills had me split his family's firewood until he returned. Eventually *Mills retired as an Admiral* and resumed his Anchorage private practice.

For the next five years, I mostly assisted gynecologists, general surgeons and a neurosurgeon. One day I was introduced to someone's family as "the world's best assistant vaginal surgeon"—another unsought honor. *But while many or even most hysterectomies performed in Anchorage were not necessary*, at least Alaskan gynecologists knew how to rebuild functional vaginas, unlike the old Harvard surgeons I had assisted years earlier.

Chief of Surgery

In 1971, I was appointed Chief of Surgery at Providence Hospital, when the prior Chief suddenly resigned when a local doctor whose privileges were being curtailed threatened to kill him. No other qualified surgeon would accept the job, so I did. But obviously, my "Chief of Surgery" appointment was no great honor. Additional threats flew as I suspended various operating room privileges of seven physicians "for cause" before my term as Chief expired at the end of 1972.

Something interesting, of which I only gradually became aware during my stint as Chief of Surgery, was that wielding the power to decide who could, or should not do certain things or even anything in the operating room, made me feel increasingly powerful and righteous. As a lifelong critic of those who let power go to their head, this made me uncomfortable.

Consequently, I consulted ever more widely before taking any action, and leaned over backwards to avoid conflicts of interest. Thus I never even attempted to restrict an incompetent surgeon with whom I occasionally competed, and I also continued to bail him out from his frequent (quite often nearly-fatal to his patients) mistakes. Nor did I ever complete the endless task of limiting the privileges of other surgeons to their proven areas of training and/or competence.

While every disciplinary decision I made was open to "In Hospital" or legal appeal, the former was rare and unsuccessful, while the latter never happened. But until I became Chief, I had assumed that I would simply remain immune to feelings of unjustified importance. So now I am even more convinced that built-in safeguards against any and all (especially chronic), abuses of power are essential. After all, it is hardly newsworthy that "*Power corrupts, and absolute power corrupts absolutely*" (Lord Acton).

In its setting, our hospital-based surgeon credentialing and oversight system may have been as good as it could be, as “Chief of Surgery” was an unpaid, one- or two-year post held by most of us in turn. So clearly, when a Single Payer system comes to pass (as it surely must), *it will require huge cooperative efforts and must assign clear public responsibilities to ensure ongoing fair and adequate public and professional oversight of all who bear major responsibilities within such a system.*

In my case, several physicians whom I had restricted or evicted from the operating room—plus certain of their buddies—were determined that I should never again care for any of their patients. And once again, my income dropped below our modest office overhead. So when my "unpaid Chief" job ended, I closed my nearly non-existent practice and went off to St. Luke's Hospital in Milwaukee for a three-month Heart Surgery fellowship, just seven years after completing my initial training in that rapidly evolving field (and six months earlier than I had previously planned to go).

Retraining in Heart Surgery

I had occasionally visited St Luke's Hospital's "State of the Art, Open Heart Surgery" facilities in Milwaukee to observe the pioneering work of Alfred Tector, a friend from Iowa City days, whose training in Thoracic and Cardiovascular Surgery began some years after mine.

By 1972, that Milwaukee Group's heart-lung-machine-supported coronary bypass operations (transplanting a patient's spare leg veins or other vessels to bypass diseased portions of their coronary arteries) *had advanced far enough to justify our opening a small Heart Surgery Program in Anchorage!*

That recent rapid advance in skills, knowledge and equipment had entirely outmoded the few simple heart repairs we had learned in Iowa just seven years earlier. Soon Providence Hospital purchased a shiny new \$4,000 *heart/lung machine* at my urging, which they later sold to me for a dollar to avoid being liable for mechanical problems.

So I quickly simplified my own life by giving my \$1 machine to John Hillebrand, a Milwaukee-trained perfusionist - who thereafter billed independently for his services. By then, the Providence Heart Catheterization Lab was open and offering competent diagnostic services. Our initial heart surgery team included George Seuffert, an anesthesiologist, George Rhyneer, a cardiologist, and half a dozen truly superb/dedicated nurses.

We had already tested our new equipment on a couple of large dogs scheduled to be destroyed. Then a Government biologist offered us the opportunity to support *an adult human-size black bear* on our new heart lung machine before that bear was dissected for ongoing bear-pregnancy studies).

That full scale test showed our equipment to be adequate, but the entire operation was rather slapdash. Right after we shot the bear with a dart full of muscle relaxant, I rushed it from the cage to surgery in a wheelbarrow so Seuffert could commence anesthesia before that relaxant wore off.

Not unreasonably, I belted my old 44 pistol over the surgical gown as my back-up for George. And at one point, I even threatened to shoot the beast if he could not promptly put her to sleep. Then with our bear flat on her back, and George's biggest (still far too small) endotracheal tube delivering inhalation anesthesia to bear and surgical team alike, both forelegs were shaved in a wild search for veins through which George might introduce intravenous anesthetic.

Then as our operation began, she broke her restraints and swung her left foreleg and claws smartly around my back (My one and only true Bear Hug)! Under the circumstances, no one volunteered to watch her when she awoke, so we couldn't check her behavior for possible brain damage during bypass.

Much later I indirectly heard that the Government biologist was annoyed by how we shaved her forelegs as that, along with my large chest incision, had ruined his plan to auction her hide during Anchorage's Winter Fur Festival (which money was to have been used for laboratory equipment).

Overall, our initial efforts to develop an efficient Open Heart Surgery team had made me increasingly nervous. For while I arrived in Anchorage brimming with confidence, my first Alaskan Heart Surgery

experience had left me sadder but wiser. For our local butcher, the first of three Alaskans on whom I did a “closed” mitral valve repair (a simple valve opening procedure done without heartlung machine circulatory support), bled to death as a result of my surgery.

Most fatal automobile, airplane or spacecraft accidents occur as a consequence of multiple errors. Here too, my several errors led to disaster. First, after carefully reviewing all steps of the proposed procedure with Marge, my friend and surgical technician from Iowa City, she convinced me that we always used 20 rather than a far stronger #2 suture to control the finger hole in the atrium through which I monitored the valve dilation (*my mistake #1*).

Secondly, I carefully selected a calm and skilled general surgeon to assist who had never helped on such an operation before, and did not adequately prepare him with a detailed summary of the procedure and his duties ahead of time (*my mistake #2*).

Thirdly, I did not specifically instruct him to keep his hands and instruments out of the operative field unless otherwise directed (*my mistake #3*).

And fourthly, I did not foresee that he might respond to a minor but dramatic gush of blood by trying to reclamp the heart (*my mistake #4*).

So when that too flimsy thread I had reluctantly accepted snapped - a momentary gush of blood followed (itself common and dramatic, but easily remedied), and my assistant surgeon, the just removed clamp still in his hand, reflexively tried to reapply that clamp.

Unfortunately, the scissor action of that clamp on the distended atrium initiated a full thickness tear that quickly extended around to the circumflex coronary vessels behind the heart. And heart surgeons in the 1960's had not yet found safe ways to access or operate in this area without heart lung machine support (which still bore it's own major risks).

For each time I lifted the clamp-damaged heart for a better visual exposure of its backside, the heartbeat became ineffective. Nor could heart surgeons yet do successful coronary artery bypasses if that became necessary. So while all major bleeding from this "No Man's Land" was easily controlled, I reluctantly closed his chest despite an ongoing minor ooze of blood (**my mistake #5**). The patient awoke and lived several hours, but eventually died of blood clot compressing his heart (another easily remedied condition in later days).

I was told that his wife had considered a lawsuit for malpractice, but decided against it. I appreciated that decision, and understood her feelings of anger and loss! And at the time, I still carried malpractice insurance. However, I doubt she could have won, for heart surgery deaths were still common, and both our “closed” and “open heart” repairs remained "a work in progress".

Nevertheless, I had nightmares about this disaster for years thereafter, and never again entered my former butcher's workplace. Another hard lesson had been learned. The next two valve repairs by our properly prepared team went smoothly. And before long, rapid advances in *heart/lung machine supported, visually directed, mitral valve repair* made that a better and safer option than our previously preferred and much simpler closed methods.

CHAPTER EIGHT

Heart Surgery in Alaska

Disputes between surgeons are, unfortunately, common

Painful experience **ought to improve** medical judgment

How aorta's may tear

Medical Malpractice Insurance

Our annual Fuck-Up Conference provided great advice and encouragement

During my three month heart-surgery fellowship at St. Luke's Hospital in Milwaukee, I had to cram my inflated "private practice ego" *back into a resident's white coat*. This was not always easy, and several Milwaukee physicians who tried to play *Blame the resident!* found me rude. But there were lots of exciting new things to learn, and I was back on call every other night—working with other midcareer fellows - one of whom is still a great friend!

Much of my time was spent assisting Alfred Tector, by then a nationally respected heart surgeon and a fine teacher. A decade earlier I had pulled Tector out of his general surgery residency in Iowa City for two weeks of general practice in Nome, Alaska, when that town's hospital again desperately needed a physician. Now on my occasional Sundays "off call" in Milwaukee, Tector sometimes left me at Milwaukee's excellent Zoo near his clinic: There I could wander happily for hours before walking the eight miles back to St. Luke's.

Tector and his wife Joy later visited Anchorage to help us jumpstart Alaska's first Open Heart Surgery program. Our initial two patients really appreciated his presence in the Operating Room, and the heart surgery program opened with good vibes!

Eventually we did 700 cardiopulmonary-bypass-supported heart repairs for a variety of problems: The majority of those patients received coronary artery bypass vein grafts bringing circulation to the heart from the aorta.

When I retired in 1983 - several months after my own heart repairs by Tector at St. Luke's, our *cumulative open heart operative mortality rate for emergency and elective surgeries combined*, was 2%, still too high, but no start-up heart surgery programs of that era had better numbers.

After 1976, heart surgery occupied most of my time. So with busy cardiologists referring Alaskan patients to me, most of the physicians I had restricted or offended while Chief of Surgery, either retired or forgave me. One was jailed elsewhere for killing his wife.

Several times after we began Alaska's Heart Surgery Program, I heard physicians brag that Providence Hospital was far more fussy about granting physician privileges than other Alaskan hospitals! As Lao Tse said, the best leadership is when, at the end, the people claim that they did it by themselves.

Furthermore, the advent of our successful heart surgery program in Alaska was associated with a swift and widely beneficial upgrade in nursing care, laboratory skills and hospital facilities. Soon our usual heart operations went so smoothly that some of the general surgeons who occasionally assisted our team *by preparing the veins we used for bypasses*, concluded, 1) That I was *an overrated fathead*, and 2) That *heart surgery was exceedingly simple, even boring work*. They were at least partially correct on both counts.

After some years of always being on call, I advertised for "qualified competitors" who might wish to practice in Anchorage (for I neither wanted to deal with partner problems nor make more money through a partner's hard work). But soon various Providence Hospital Chiefs-of-Surgery *allegedly began approving Heart Surgery privileges for unqualified applicants including at least one person (MH) - a general surgeon - as well as quite a few others after my retirement, many of whom were allegedly either improperly trained or simply incompetent*.

The first two applicants were Mohammed Sarwar and MH. Mohammed Sarwar was a fully trained and capable Thoracic and Cardiovascular Surgeon from DeBakey's famous program in Texas. In marked contrast, MH was a **general surgeon** who had allegedly served one year in Denton Cooley's famous Heart Surgery program in Texas! So during that year, MH presumably mostly opened and closed chests for others in Cooley's system who did the actual repairs.

I was pleased when Sarwar opened his solo practice in Anchorage: We had a good working relationship from the start, *and soon we shared office space*. But if local rumors at the time were correct, and Cooley really did recommend MH as "Better than any Heart Surgeon in Alaska!" - that silly recommendation may have been made because Cooley heard my silly "Cooley joke" (which amused a couple of acquaintances at a major surgical meeting, so was likely repeated).

That simple joke (not original to me) was "In Alaska, a Cooley is just a Quickie in the Snow!" which clearly was amusing, about sex and did no harm. Anyhow, for reasons unclear, MH was allowed to continue operating on hearts in Anchorage for years, despite far too many patient deaths that surely discredited Cooley's allegedly powerful recommendations about MH's heart-surgery skills. On the other hand, after I helped Sarwar solve a couple of minor early complications, his patients did well and we remained good friends until Sarwar's untimely death at a young age.

Disputes Between Surgeons Are, Unfortunately, Common

During my 18 years of practice, I advertently or inadvertently annoyed many Alaskan doctors. For example, I once encouraged the U.S. Surgeon General to remove JW from his post as Chief of Surgery at Alaska Native Medical Center, after JW repeatedly performed some sort of multi-stage operation upon Native newborns born with the congenital malformation called *Tracheoesophageal fistula*. My gripe was that correcting this condition was usually a one-stage surgical procedure with a high success rate, although it required special training that we had received as chest surgery residents.

Yet JW, an older lung surgeon, who had already demonstrated his inability on three similar newborns (who all died), nonetheless justified operating upon his fourth patient (who soon died), after pointing out that he had already repaired three others. So we raised Hell!

JW's demotion only lasted until a new Surgeon General was appointed, but I assumed our point had been made. Yet a few years later, JW was sued for simply observing an Alaskan Native youth with a freshly torn thoracic aorta for 16 hours until the patient died - rather than referring him to me or to an "Outside" of Alaska surgeon for treatment while the patient was still alive and the weak outer adventitia of his slowly swelling aorta remained intact.

I only learned of this aortic rupture case much later when the deceased patient's sister showed up at my office shortly before JW's scheduled deposition and handed me the chart. She just wanted to know if such a problem could have been surgically corrected. For DD, a local general surgeon, had allegedly testified that *ruptured thoracic aortas were all surgically beyond repair and invariably fatal*.

My response to her was that we had seen a number of ruptured thoracic aortas in Alaska. And that all five patients with this emergency condition who entered our operating rooms alive, also survived our repair and allegedly were "well" (except one allegedly had a residual leg weakness). I even offered to contact those five and provide the names of any who were willing to testify. So during JW's deposition, the plaintiff's lawyer mentioned his plan to ask me for a sworn statement.

Allegedly, JW then exploded—saying (something like) he wouldn't refer a case to me if I were the last surgeon on Earth. At which point the government's defense attorney rose, folded his papers and quietly asked the plaintiff's attorney, "How much do you want?"

Fortunately for us taxpayers (as the Native Hospital where JW worked was owned/operated by the U.S. Government), the dead boy's sister was trying to make a point and bring about policy changes rather than score an outlandish award.

I should mention that despite shortcomings revealed in this case, JW was a competent lung surgeon. And like most experienced surgeons with whom I worked or spoke, JW had developed and willingly shared useful variations on standard surgical techniques. My assumption here is that JW's many years of absolute medical authority over his Alaskan Native patients was *so similar to a preCivil War plantation owner's total authority over his slaves*, that it eventually inflated his self-esteem beyond the reach of his judgment (a problem discussed previously in Chapter 4).

Our five post-traumatic Aortic Arch Repairs

Interestingly, "the rip" in all five torn thoracic aortas that we repaired, began where the aortic arch straightens to become the descending aorta. *Presumably all five aortic repairs were necessitated because a sudden internal wave of high blood pressure over-expanded the aorta* - as is often caused by any major external impact suddenly forcing intra-aortic blood back toward the heart (e.g., when a ditch wall collapse suddenly squeezes a patient's legs and lower body, or perhaps a steering wheel is jammed into the abdomen when an auto collides with a relatively immobile object).

In all five cases, such a sudden reversal-of-aortic-blood-flow would close the aortic valve and easily balloon the aorta past its ripping point in these young men. Any major expansion of the aorta's cross section might initially yank the stiff (long-obiterated) Ductus Arteriosis out of the far more elastic aortic wall (intima and media), without necessarily causing an immediate tear in the more stretchy thin outermost aortic "adventitial" layer.

As you might expect, some aortic medial tears were "small or incomplete" with the ductus just partially pulled out of the media (the strong middle layer) - perhaps also starting a minimal medial tear going both ways around the aorta from there; Other tears were more complete (e.g., extending from the ductus site halfway around the media or more); and still others were complete, with fully torn-apart media ends widely separated but still temporarily enclosed within the intact but ballooning and overstretched (blood-filled) adventitia.

Painful Experience Informs Medical Judgment

As they move up the ranks, some salaried academic and government physicians find it increasingly pleasant or professionally useful to engage in subsidized medical partying-and-politics at every major professional meeting, rather than stay home to care for patients. In contrast, busy older "fee for service" practitioners usually find themselves with far less spare time for taking or even studying for examinations, or merely discussing surgical problems during specialty meetings.

Many experienced physicians gradually restrict their practices to areas in which they still feel current and comfortably effective. And any competent physician or surgeon can recognize glaring inadequacies in the work of others with similar practices. But it is less clear how one might fairly evaluate the current competence of an average physician who has lived with the results of his or her work in a narrow *self-selected subspecialty* over the decades.

It seems especially harmful to make older hard-working, and still effective physicians take time off to study for irrelevant tests about medical truths-and-consequences in fast-changing subsections of a specialty that is likely not relevant to their own health care practices.

For the common sense that underlies excellent results is a product of time, effort, study and painful experience. All conscientious older physicians must already "Forever mentally revisit their personal graveyard where they recall agonizing the past "if only" lessons that underlie their medical knowledge and "humility" (or whatever). It is likely that no major time-wasting exam ever gives a Single Payer more useful information about problems particular doctors may be having than Single Payer already receives each day *by routinely monitoring all patient outcomes*.

Which raises an interesting question. If medical practice enforces humility, *why are so many doctors so arrogant?* An honest first answer must be "I really don't know." However, the increasing emphasis on

communication and teamwork may have helped many of us reduce our arrogance. For most medical folks like to be part of a competent and usually winning team.

But based upon my long experience with humans and other "thoughtful creatures, my Second Guess/Observation is that many males seem intent on dominating women or others, and like to push people around - especially when things are not going well in their own lives (presumably for those same reasons).

So at least in gynecology - that former bastion of male chauvinism - typically bombastic male gynecologists have clearly been *deflated and/or entirely replaced* by **women** physicians, who do far better communicating with females, and usually are better team-workers than most male gynecologists were in the past).

Note: I retired before females had a noticeable presence in or impact upon cardiovascular surgery. Thus I cannot say how women surgeons have fared within our citadel of self-adulation.

Medical Malpractice Insurance in Alaska

In the late 1950's at Boston City Hospital, many of us who were making about \$100/month, reluctantly signed up for medical malpractice insurance, which then cost \$50 per year. Presumably our premiums made it past the Administrator's Office to the Insurance carrier, as we soon received official looking malpractice insurance policies with the usual pages of fine print.

The only "City Hospital" malpractice case that became known while I was there involved an uninsured resident in gynecology who bragged to his postoperative patient that he had used recently developed wire sutures for her vaginal repair (some doctors have no common sense)!

Though she apparently healed well, her husband was not pleased with this "experiment on his wife", as sexual intercourse thereafter was like making love to a cactus. In this case, the hospital defended the resident but he had to pay the \$1,000 settlement. When I entered private practice in Alaska, the cost of malpractice insurance had doubled to \$100 per year, annoying but still affordable. And most years thereafter it doubled again.

During the mid to late 1960's, only a half dozen plaintiff's attorneys accepted medical malpractice cases in Anchorage. Several of these attorneys were rather despicable fellows (in our view). But as my childhood friend, Warren, used to say as we collected the neighborhood's garbage, "Somebody has got to do it!"

Well, malpractice insurance costs continued to rise. And I was among those who dropped their coverage as insurance premiums soared past \$10,000 per year (A Miami obstetrician and gynecologist's policy cost over \$200,000 for coverage in 2001, *which significantly exceeded my median gross practice income for the years 1965-1983*).

At that point, some of us decided we would no longer accept the added risk of providing health care for local medical malpractice attorneys, including one who pointedly brought a medical textbook to the hospital so he could confirm whatever was said or being done to his wife. Thus began a long drawn out dispute.

As it happened, I never again purchased malpractice insurance, as I increasingly came to view such insurance as a counterproductive guarantee to the plaintiff's attorney that his/her costs would be paid while he/she squealed for more. Our hospitals did not then require physicians to carry malpractice insurance, so my lack of it simply became part of our routine pre-operative discussion.

These discussions related how many of this type operation I had done, and how those patients had fared. By then I had a good reputation, so I never heard of anyone going to another surgeon simply because I didn't carry malpractice insurance. But because I lacked malpractice insurance, I did promise each patient that if she/he died or was in any way dissatisfied with my care, I would give them or their estate all insurance payments received for their care which, in more complex, difficult or reoperation cases might be many thousands of dollars.

I generally charged “insurance only” whether the patient had insurance or not (as uninsured folks usually had few resources anyhow). So my “money-back guarantee” usually worked out well, although a single large refund to one patient’s estate contributed to an early death and a second institutionalization when that deceased patient’s “adopted” (and afterwards, unsupervised) teenage street kids were given that money and went wild and/or crazy.

That case was another of my surgical mistakes. For I had initially refused to re-operate on this patient’s asymptomatic leak between his old and new aortic channels near the aortic valve, a year or two after we did a total aortic root replacement. But his damn compulsive internist insisted upon surgical repair even though the patient - a truly nice fellow, “just knew” he would never survive reoperation at an outside V.A. hospital.

So since I had performed his original (emergency) operation, I very reluctantly agreed to try again. We very nearly succeeded, but the operation went too slowly (due to my own inexperience) and his heart was just too weak thereafter to support his circulation. My mistake here was accepting an elective case that I did not feel comfortable doing. And I did not agree at all that a successful second repair would improve his prospects over mere follow-up observation.

Only once did a patient with a good result repeatedly insist that he was unsatisfied. And as he persistently gouged open his leg wound (vein donor site) with his fingernail, it soon became worth the three thousand dollars he lusted for, to be rid of him.

Though I never did the numbers, and didn’t price malpractice insurance in my specialty after I no longer carried it, I likely refunded far less money to patients than my malpractice insurance would have cost me. But for patients with post-operative setbacks that delayed their return to work (gall bladder problems, bleeding gastric ulcer, and so on), or for relatives of the deceased, my quick refund was usually an appreciated “big help”.

With Alaska’s legislature considering a radical rewrite of medical malpractice laws, and physicians increasingly paranoid, we dramatically closed our heart surgery program for over a year. During part of this time, legislators held hearings. Because insurers had essentially abandoned our market, Alaska finally initiated its own insurance program. And that new medical malpractice insurance was *mandatory*!

In the meanwhile, the district attorney investigated if physicians had illegally “blacklisted” certain attorneys and their families to keep them from receiving local medical care. The first doctor from whom the DA demanded “Your blacklist, please!” pointed out that only six attorneys were causing our malpractice problems, so he didn’t need a list, nor had one been provided.

Some of us foresaw problems with mandatory insurance and urged others not to buy it, but at each meeting we had fewer holdouts. At our final meeting, several “State Insured” physicians complained that there were no criteria for settling cases. Indeed, when a patient was distressed about his sore knee after an otherwise successful knee repair, the State Program simply mailed him a \$50,000 check with no hearing or examination. Our State Insured physicians protested that such “easy money” would surely encourage more complaints than the medical profession could afford.

At that point, CF, the State Insurance Program’s lawyer, stood up and said something like “Doctors, you don’t seem to understand, so let me put it bluntly. From now on, your pocket is our pocket!” *Merely imagining his sticky legal fingers in their pockets quickly converted everyone who hadn’t purchased State Malpractice Insurance into a holdout.*

So Alaska’s Attorney General announced the date on which he would arrest all who continued to practice without purchasing the State policy. And we called a meeting for that date of all who would be arrested for not buying the State policy, *and invited the media to attend*! Not surprisingly, our Attorney General chose not to arrest a third of Alaska’s doctors—many with acutely ill patients in the hospital.

Thus Alaska’s Mandatory Malpractice Insurance program fizzled. Eventually, other voluntary plans became available and we reopened the Heart Surgery program, having gained little through our program shutdown and protests other than momentarily increased physician unity.

Although I made serious surgical mistakes as cardiovascular surgery evolved, only one malpractice lawsuit was ever filed against me during my 8 years of training and 18 years of surgical practice in Alaska. That lawsuit was about an unsuccessful case on which I assisted, where we tried to bypass a widespread intra-abdominal ovarian cancer that had blocked a patient's bowels.

The plaintiff, who represented himself, alleged that his wife's surgeon and I had purposely killed her to discredit Laetrile (apricot pit extract, a formerly popular quack remedy) with which he claimed to have already cured her cancer. That case was eventually thrown out of court.

Other observations on medical malpractice insurance

A divorce that doesn't involve children or significant assets is rarely costly or complex. For example, when Mary (my first wife) and I divorced after five years, we neither had children nor significant assets. So she took our wedding-gift silverware when she left and filed for divorce leaving me my \$85 faint blue Model B 1934 Ford convertible with a tarp roof, rumble seat and near-ineffective "mechanical" brakes.

But as more assets come into play, attorneys tend to enhance complexity and promote costly conflict even though their clients would be far better off with a quick, fair, factual negotiation. Similarly, medical malpractice insurance mainly rewards the insurance attorneys and plaintiff's attorneys who routinely choose the most costly and socially destructive path.

I certainly cannot criticize malpractice attorneys who recognize and try to restrict or even delete the medical privileges of some blatantly incompetent malefactor who has successfully evaded medical disciplinary actions—either because those disciplinary actions were too weak and delayed, or because medical politics prevented such an action even when appropriate.

So as long as any physician can maintain adequate malpractice insurance, even a hugely punitive financial award simply becomes another charge against lots of malpractice policies - hence a financial burden reflected onto numerous patients. And quite often malpractice attorney actions seem to say, "We're not mad at you, Doctor! But we do intend to punish your insurance company!"

A competent Single Payer (backed by a decent social safety net that includes the roles currently played by Medicare, Medicaid and Social Security), could easily support good quality health care for all (see Chapter Fifteen and Epilogue).

But Bush-2's Billionaire Corporate Buddies and other God-Fearing Republicans would certainly try to run such an entity into the ground for their own short-term gain. In which case it might become necessary to design a National Health Care System based upon regional and local units in which all adult citizens are equal voting shareholders, *with these separate units run independently and responsibly but sharing information on what works best, and supported by long-term funding from a far more progressive income tax.*

But for now, to the extent that malpractice policy "gold" still resembles the "mother lode", it simply encourages attorneys to prospect. So in response, almost all American physicians now practice "somewhat defensive" medicine. For example, in my own Chest Surgery practice, almost every adult patient had a simple chest Xray taken at the adjacent hospital if no recent film was available. Otherwise any patient leaving my office with a good report following my examination of their leg or tummy vessels might reasonably assume they also had no chest problem. Thus I hoped to avoid "von Hippel missed THAT?!"

Unfortunately, the image that too many competing physicians savor and encourage is "Dr. X sees all & knows all". For quite obviously, even the most carefully cultivated reputation for infallibility will surely collapse with a crash more likely sooner than later. So with small town medical practices, where almost everyone is "in the loop", it is especially important to share credit and not allow others exaggerate your every success. The best approach is to try hard to do good, but to openly admit that, *like all humans*, your knowledge and experience are limited, so you occasionally err!

Otherwise, that town might soon split into true believers who still have faith in you, and hostiles who have been burned, are disillusioned, and hope to drive you out of town "so they can attract a real doctor".

To avoid such unreasonable expectations, one must be fair to the patient's previous doctors and not proclaim, nor encourage others to proclaim, your own greater brilliance.

For patients with vague symptoms often bounce from one physician to another seeking an immediate diagnosis. Yet if something actually is wrong, and that condition is progressive, before long the diagnosis may be obvious to any competent practitioner who happens to see the patient walk thru the clinic door.

So by the time a truly ill patient reaches the next consultant, the lack of an earlier diagnosis may be interpreted (by the patient or by competing practitioners or consultants) as incompetence of the prior or referring doctor. That is especially true of academic physicians who may only see such patients months later.

Of course, many physicians, clinics and hospitals generate so much of their income from X-ray or blood *screening tests* that they would do unnecessary studies even without the risk of a malpractice suit. Yet seemingly sensible malpractice insurance rules can greatly increase cost and risk for the patient as well as for the physician.

For example, malpractice policies commonly require prompt "incident notification" and early consultation with their insurance attorney. But that insurance attorney may only be able to bill for a few hours if an inquiry into a simple incident is rapidly completed or settled.

Similarly, a plaintiff's attorney might not even cover expenses thru a legitimately small settlement, so he often goes "all or nothing" in hopes of scoring a major settlement or jury verdict. Physicians and plumbers encounter similar temptations to do more than is needed, as is discussed throughout this book.

In other words, our system is often so biased that either attorney or perhaps both attorneys would lose a lot of money if they even considered a plaintiff's welfare. Under such circumstances, a proper arbitration clause with timely completion guarantees, might be in the patient's and doctor's best interest.

Sarwar once assisted a newly arrived surgeon (K) who mistakenly sewed a bypass graft onto a coronary vein rather than the intended, adjacent coronary artery. This is the sort of error that most surgeons might *nearly* make at one time or another; here it actually happened. I do not know whether Sarwar was busy procuring a leg vein at the time, or if he too was misled.

In any case, their joint malpractice carrier was notified as soon as this error was suspected (and then demonstrated by postoperative coronary angiogram). But *the lawyer for the insurance carrier* then insisted that K and Sarwar NOT discuss that error with the patient or his family.

Of course, those competent and caring surgeons should simply have told the lawyer to "butt out" until the patient's problem was optimally resolved by reoperation, referral or whatever. But both younger physicians lacked confidence in their own commonsense ethical or legal standing - which might have guided them to correctly flout Insurance Company rules.

Thus they followed the insurance lawyer's "self-serving" advice in his area of expertise and authority. Indeed, both surgeons wrongly assumed that the attorney's preliminary advice at first consultation was their legal mandate, so they abandoned the patient forthwith and refused to see the patient or family again.

Because this was K's patient, not Sarwar's, and the patient's cardiologist had already taken over that patient's day-to-day, out of hospital care, each surgeon faced a somewhat different dilemma. But not surprisingly, their sudden lack of further interest in the patient infuriated and thoroughly confused the patient and his family, who soon contacted me through a printer's organization that I had joined after my medical retirement. Naturally, I listened and tried to help straighten things out—*which initially just messed the matter up even more.*

My point here is that any Malpractice Insurance Attorney's legal advice can legally be ignored when following that advice would violate the physician's common sense duties or act against a patient's apparent best interests. And every malpractice policy should make that point clear in bold print!

We had lived, worked and played in Anchorage for about a decade, and our Heart Surgery program was up and running, when a physician friend recommended me to a person arranging annual, sponsored, three day gatherings of younger heart surgeons from around the country.

Our sponsor was Cobe Laboratories, which picked up the tab for this annual meeting at Keystone Ski Resort near Denver. In addition to offering an important educational service, Cobe Labs gained good will and insight into our current problems and needs. We were also asked to attend a final half hour presentation by their Product Manager in order to critique current or pending Cobe products.

It looked like an important educational exchange and a great way for us to broaden our views. Eventually, Cobe organized several such groups of 20 surgeons. Every group member was asked to present a recent surgical problem case that resulted in unexpected death. Following this presentation, the other group members around our large meeting-room table in turn critiqued his judgment or care, or proposed alternative approaches, or simply expressed sympathy.

We also had the opportunity to present other interesting or troublesome chest or "open heart" surgery problems for brief discussion. The few surgeons who (unbelievably) neither made major mistakes nor caused an unexpected death, were not invited back. I attended half a dozen of these annual three-day meetings. During that time, several participants invited me to visit their home program and observe their work. I managed to arrange two such visits, both of which proved worthwhile.

Despite my sudden "medical" retirement from surgical practice and thus from the Cobe group, I was invited to our group's 10th year reunion. By that time, Sarwar was a several year member of the same group. On recap, it appeared that our group had been the most productive and successful.

Contributing to our group's productivity were our blunt but friendly critiques, and possibly the fact that our group included few if any fulltime academic surgeons. However, even our academic surgeons appeared competent and avoided posturing. Personally, I always came home recharged, with a renewed confidence in our shared evaluations of current advances and limitations of heart surgery.

Our Anchorage Operating Room team and ICU Nursing Teams were always keen to hear what I had learned. And Cobe personnel never pushed Cobe products. Nor did our orders for Cobe products change appreciably during this period.

At our initial Cobe meeting, there had been a bit of paranoia that soon dissipated in our camaraderie (without attorneys or stenographers), as it rapidly became clear that we all screwed up occasionally and that this really was a forum where we could ask each other for advice, rather than a PR event for well-known MD's or a sales pitch for Cobe products.

Some questions arise: Can our group's truly positive outcomes be replicated? Where else might young and middle-aged doctors confer freely about problem cases without risk of malpractice litigation or institutional reprisals? Might similar "mini-conferences" reduce the current high rates of *hospital error that contribute to the estimated 100,000 or so unnecessary hospital deaths per year?*

Would politicians, administrators, grieving families and malpractice attorneys ever agree that an honest admission of error ought not lead to repercussions for an individual or team? Is there a parallel here to FAA or Maritime Law that often hold individuals harmless for self-reported accidents or near misses?

Under such circumstances, working together might even allow simple "Harmful Incident Insurance" to replace our far more costly medical malpractice insurance, especially when we all begin to work for a Single Payer who is also responsible for quality control. My current guess is that honest "Self reporting" will not soon become widespread except in small specialty meetings like our Cobe groups, at least until a Single Payer has demonstrated a track record of objectivity and fairness: In other words, not just yet.

Of course, not every unexpected death soon after surgery has an obvious cause. And it was only years later that I learned (through a chance off-the-record conversation with an unknown but obviously well-informed source) that one of our patients who had succumbed to a sudden, inexplicable and (unusually,

for modern times) irretrievable cardiac arrest in our hospital intensive care unit, was actually murdered right there in his hospital bed by the Mafia.

Apparently this patient had a concerned visitor who (my informant alleged) stood to lose a million dollars if my patient woke up, or to make a million if he died (I can't remember which). After introducing himself to the nurse as "just like family", this man hovered attentively about the patient. So when the nurse had to leave for several minutes, she asked him to keep an eye on the patient and notify the Charge Nurse if he began to wake.

On the nurse's return, her previously stable patient was undergoing resuscitation, and the "concerned visitor" was long gone. None of our usually successful efforts had any effect. When I asked my informant whether he had notified the police, he quite reasonably responded that he preferred to live. So why had he told me this? He just wanted me to know that it wasn't our fault. Well, better late than never! Indeed, this new information indicates that our overall open-heart operative mortality rate was just under 2%.

CHAPTER NINE

*Teamwork thrives on humor: Surgeon-in-charge must accept all blame and avoid favoritism
To sustain a happy, skillful surgical team, Surgeon-in-charge must replace hostile team members*

In earlier times, Wyoming sheep ranchers and the Union Pacific Railroad had an unequal fiscal relationship, as the Union Pacific's longtime monopoly on freight movement (with Interstate Highways yet to come) meant ranchers were routinely cheated on shipping costs. For example, to prevent ranchers from extracting and separately selling valuable "wool grease" (aka "lanolin"), the Railroads and Boston wool merchants allegedly conspired to charge far more for shipping clean wool than shipping freshly sheared dirty wool. Upon its arrival, those proper Bostonians then paid those distant ranchers much less for dirty wool than for clean. So whenever possible, ranchers were happy to return the favor.

When heading East near the Continental Divide, to get over that long slow rise toward Rawlins, heavily laden multiengine Union Pacific Railroad trains usually rolled through Daley's Ranch at about 110 mph. So when a railroad fence went down, speeding trains often killed livestock before ranch hands could get them off the track.

In such cases, Rawlins juries unanimously held that thoroughbred horses or pedigreed cows were the only animals ever killed by those speeding Union Pacific trains. That rapturous acquisition of far greater value was apparently conferred while the animal was still airborne after being struck. *When treated unfairly, people try to get even.*

Squid Truck

I never became anyone's model employee, but additional experience enhanced my abilities to work with others. In the summers of 19523, I regularly drove a flatbed U.S. Navy "squid truck" leaving Weston, MA at four A.M. for Sakonnet Point, RI. There I went out on a boat with local fishermen whose large net-enclosed fish traps continuously captured fish of all sorts including squid - which were then needed because their comparatively huge mantle nerves greatly simplified the early live-nerve studies then underway at MIT and elsewhere.

Those simple old-fashioned fish traps easily captured sea creatures by using simple fish psychology, as fish always head toward deeper water upon encountering a long net leader to shore. En route the sea-life then encounters other leaders which still guide them toward deeper water but also into narrowing funnel nets that open near the center of sequential net enclosure. Consequently, fish that normally seeking egress by swimming around a trap's periphery could not escape (wild horses are similarly captured out West when cowboys or helicopters drive them between narrowing fences thru chutes into corrals).

Among the interesting fish that we caught was a 500 pound **Tuna** (worth \$500 at a time when a cup of coffee plus a donut cost 15 cents and a gallon of gas or a pound of hamburger was 19 cents): An oddity was a 200 pound jellyfish-eating **Ocean Sunfish** that resembled a huge vertical M&M candy with a tiny tail and little side fins (its flesh - worthless in Rhode Island or NY, was valued in Asia). Our sunfish was coated with a half-inch thick layer of mucus/slime that made it nearly impossible for us to heave it overboard; many small **Shark**; small trout-size **Flying Fish** that often flew together from our trap in small flocks - with some escaping while others collided with one of us or landed in a boat); Also **Bonito**, **Sting Rays**; **Skates**; **Sturgeon**; **Mackerel**; tough-looking **Bluefish** and many slow-moving, huge-mouthed, extremely ugly **"Irish Lords"** (a politically incorrect name that presumably served as partial payback for historical injustices).

My task was to fill the truck's fish tank with fresh seawater and keep that water cool en route to MIT during hot summer days (despite unreliable refrigeration equipment), so I could promptly deliver as many healthy squid as possible to the researchers studying electrical impulse conduction through the "giant" nerve fibers that innervated a squid's muscular cone-shaped outer body (the "mantle and fins") below the

head. During capture, our six to ten inch (body-length) squid required gentle handling as they soon died if a delicate, translucent, inner support structure - a mollusk shell remnant known as "the pen" (also a site of mantle muscle attachment) was damaged.

Each morning our sturdy 38foot diesel powered fishing boat towed the long open crew boat and a smaller skiff out to the anchored and buoyed, heavy mesh fish traps. All three of these classic wooden boats had been homebuilt by Holder Wilcox when he entirely re-created his fishing business after the Hurricane of 1938 wiped him out.

Upon reaching a trap, the longer crew boat took position centrally above the fish intake funnel of the final trap, while the skiff was stationed along one side of the trap. Then these ageless lifelong fishermen slowly began lifting the trap mesh with their huge hands and cold impervious fingers (each finger nearly half the size of my wrist). By progressively lifting and releasing the empty mesh behind them, they gradually reduced the remaining trap volume, thereby herding the trapped fish toward a far corner where our fishing boat was waiting to scoop up those fish with a long handled, pursed bottom, large circular scoop net or "brail".

That full brail was repeatedly hoisted from the sea by a sturdy brail rope that went up over the mast top pulley before being wrapped around the "rotating power takeoff" below. Each time the brail rope was tightened around that rotating power takeoff, a heavy brail full of fish was lifted out of the sea and brought inboard just above the deck - at which point a smaller rope through metal brail bottom purse rings was loosened so the enclosed fish would tumble onto the boat deck.

We encountered our big tuna on a day with no gaff hook aboard, so that "giant" (at least to me) fish had to be lassoed as it calmly swam small circles within the diminished-in-size, boat-bordered trap. The lasso was our long brail rope, which temporarily featured a large hangman's noose instead of the usual brail at its outer end.

The final capture followed twenty long silent minutes of failed attempts to slip our noose over the tuna's tail as it lazily, unpredictably circled inside the reduced size net as the noose was silently passed from boat to boat until finally a crewmember slipped it over the tuna's tail - which allowed our skipper to suddenly tighten that brail-rope noose using the boat's power takeoff.

Upon being suddenly jerked backward out of the water, our startled tuna flipped right over the fishing boat mast to the far side—then flipped back over and down toward our tiny open boats like an enraged torpedo on a bungee (a thoroughly mixed but totally valid metaphor).

Fortunately, Carl Wilcox, our great skipper (another born leader!), had huge, powerful arms—and the rope, mast and power takeoff all held - for that rapidly descending tuna could easily have smashed us and plunged right out through the wooden crew boat bottom and trap netting.

Squid Catching

Ordinarily, before the trap net size was diminished sufficiently to squeeze or suffocate squid, there was a brief flurry of activity and often much amusement as carefully hand-netted live squid were thrown at me from both smaller boats - often simultaneously. So standing there by the fresh seawater barrel on the stern of the fishing boat I swiftly became a world-class squid catcher (though I never figured out how they could throw the squid so gently and accurately without the squid ever biting them)!

"Squid catching" is not as simple as it sounds, as a hard catch kills the squid. Nor was it sufficient to catch incoming squid gently, for I still had to convert my backward decelerating soft-catch into a smooth squid dunk into my fresh seawater barrel before it bit my hand with its beak.

Naturally, the burly fishermen's idea of entertainment and my interest in obtaining live squid were not always congruent, but we worked well together—in part because there were usually plenty of squid even if I muffed a few catches amongst simultaneous "incomings"; and also because I helped the crew whenever I could, especially in rough weather when a much reduced crew only picked bluefish from the large gill nets that strangled them as they tried to pass through. On one really windy day, they had

retrieved over 1200 beautiful ocean-fresh, bluefish! But those dead fish quickly lost value unless sold the very same day.

On a particularly rough and windy day, Carl asked me to ride in the long double-ender crew boat with old Holder Wilcox. For although he was an accomplished sailor and boat-builder, Holder often got seasick in large waves. So just before they departed to check the bluefish gill net, I hopped into the crew boat and settled comfortably with my back nestled in the boat's bow to keep an eye on Holder who was riding athwart in the steadier middle of that boat - my task being to prevent him from falling out if we were hit by an unusually large wave.

As we left Sakonnet Harbor that day, those big waves were ready and waiting! And just as the crew boat bow topped a true "surfer-wave peak", our intermittently slack tow rope suddenly tightened and yanked full force forward-and-down on that crew boat bow - thus jerking our boat abruptly ahead as the bow dropped ten feet or more into the wave trough. And when that bow was suddenly jerked down-and-ahead from beneath me, I flew right over Holder, desperately hoping I would not flatten that frail old man by landing on him!

The brief "one big wave" event was followed by smaller waves as I landed softly backwards - facing forward from the stern! And still keeping an eye on old Holder as directed (but now from the opposite end of their 25-30 foot long double-ender crew boat)! Thus I truly watched Old Holder continuously as requested, before - from above, and after flying aft right over him!

I cannot recall another thing about that day except I think there were few if any bluefish in the gill net. Which meant we didn't need to salvage bluefish that day. But I clearly recall looking down upon old Holder as I passed several feet above him, although I still cannot picture how I rotated 180 degrees before my own perfectly soft backward-landing in the stern. This experience amazed me - and likely Carl and old Holder as well, although I believe we never discussed my flight! Or indeed, spoke of anything else other than fish. Two good men, both long deceased.

It helps to occasionally amuse the team: The squid as a water pistol.

On Sundays, I often put on an "impromptu" show while standing next to the squid-tank on the back of our navy gray truck. For on sunny Sundays, after Services, men in light summer suits and stylish flat straw hats often came down from Newport to gawk at Carl's catch as I transferred healthy live squid into the cold seawater tank for their final trip to MIT. Usually one or two of the more adventurous men climbed uninvited onto the squid truck to check out live squid in our tank (their mistake #1)!

Although they mostly pretended to be busy sorting fish, this was a moment the fishermen enjoyed. For I had become an adept squid handler, based upon the following "hard earned" knowledge: Squid will try to slip out of your grasp in either direction. So if you hold them tentacles up, barely underwater, grasped gently near their head, they will squirt (upward) and reload rapidly as they try to jet downward.

When thus held in seawater, they don't bite the hand that holds them. Furthermore, squid are nearly transparent, so any squid with a still visible ink sac - if slightly squeezed - will also eject ink in that jet. And unlike octopus ink, which spreads widely in water as a "smokescreen," squid ink is a thick black snotty substance that becomes a squid decoy while the real squid turns transparent to flee. Soon I became quite an *expert squid shooter*, "accidentally soaking-and-inking quite a few good churchmen over the summer," which always amused our stolid hard-working team.

Accepting Blame

In addition to maintaining a good sense of humor and keeping the team harmlessly entertained, another important aspect of teamwork is taking responsibility for adverse outcomes. Naturally, no one likes to accept blame for another's mistakes, *but those in charge of an operation retain overall responsibility, whether things go splendidly OR NOT!*

In the usual case, those who contributed to the problem already feel badly about their role and are grateful not to be singled out. Thereafter, they become more aware that teamwork includes looking out for one another. Of course, even an undue eagerness to "carry out orders" can have fatal results. For example, soon after entering medical school, I was told to immobilize a large rabbit so another medical student could draw blood from an ear vein. That essentially painless procedure went swiftly and easily, but when it was released, our rabbit was dead.

Clearly, in my eagerness to help, I had held it too tightly so it suffocated, or perhaps I fatally compressed its heart. This was an unforgettable lesson for me - who would later be responsible for restraining and operating upon many tiny infants, some "not much larger than a squirrel."

Like many other teenagers and young adults, my early career goals rarely seemed more important than just being outdoors doing what I enjoyed. In fact, every spring, the thought of further schooling became intolerable. Yet by fall, I always returned from great outdoor jobs with my interest in books and learning rejuvenated.

Nonetheless, in those early years, I would happily have skipped college (I truly detested MIT!) to pursue a farm or ranch or fishing career, or to build log cabins or even to drive trucks for a living, had my father not generously supported me through school despite my endless poor grades and misbehaviors.

My point? As already mentioned, a good education usually enhances a person's productivity. And well-informed citizens are the essential element that stabilizes every democratic society. Yet many good minds never have an opportunity to contribute in this wealthy nation, where too often mediocrity and money rule. Though for me in that time, MIT did not offer a good education - even now my MIT BS degree still impresses people, despite my descriptions of what a rotten student I was when "not interested".

Anyhow, rather than let quirks of birth or fortune limit a young person's chances, a properly subsidized decent State College education should be available to everyone. Our technologically complex nation can no longer afford to leave any citizen under-educated for financial reasons. And here I must applaud MIT's decision to put course materials on-line for free public access worldwide.

But this is not sufficient. For nearly everyone I know has, at some point, fallen sufficiently behind complex developments in their own field that the most sensible way to optimize their usefulness would be - or should be - to retrain them: Yet, while most doctors could easily afford retraining, not many want to bother or even briefly give up their usually lucrative practices. Thus "Single-Payer-supported retraining programs" would greatly encourage retraining and entering a new practice in a related field.

In my own case, I served a three-month fellowship to update myself on recent advances in heart surgery, during which time I supplied resident-level patient care in exchange for new knowledge while earning a monthly stipend of \$1000.

Our national economy would surely benefit if every working adult could be supported through a refresher apprenticeship, or get enough help to study another topic they found more interesting (in a field that needed more workers). Such retraining programs might easily be funded by employers, unemployment benefits, A Single Payer or taxpayer subsidies.

Many low-income American employees are overworked. More cannot find satisfying jobs, or even any job. It takes fresh ideas and new experiences to keep work from becoming stale or intolerable. Minds atrophy when not stimulated and challenged. The world is changing rapidly. For those who prepare, new possibilities are more likely to appear as old jobs vanish. Our human potential and productivity can only be optimized if all of us recast ourselves as lifelong learners. And more jobs tend to open up for those willing to serve a "room and board apprenticeship" w/o salary for a limited time.

On the one hand, a flood of new information and changing times offer excitement and challenges. On the other hand, obsolescence is a constant threat. As social animals, we flourish if we stay involved: So

work, encourage, relate, teach and learn. *Don't* just give up on your life and sit passively in front of a widescreen or tiny screen motivation killer. Read! Write! Grow! Build!

It is especially important to help others without expecting payback, just as they helped you when their taxes were paying for your opportunities. **So pass it on!** Volunteer for community projects. You will be amazed at whom you meet. And doubly amazed when you see what a wonderful reward *true gratitude* can be for hard work undertaken on another's behalf.

Teamwork in Surgery

It takes time and effort to develop a competent surgical team. Fortunately for me, most Alaskan operating room nurses were already smart, tough, competent, hard-working women. Our talented ICU nurses included a few good men who also enjoyed patient care and were eager to learn. Naturally, some nurses didn't have the necessary interest, talent or dedication, so there were several early battles over who would stay and who should seek work elsewhere. Those are battles that a prepared and conscientious team leader must always win!

For no surgical team can provide optimal care or get great results when burdened by persons who are unable or unwilling to help, or worse yet, who actively hope the team leader and project will fail, even if such a failure causes multiple unnecessary deaths.

Yet, surprisingly, more than a few of the folks who regularly work in life or death situations, eventually resume acting out their petty "likes" and "dislikes" - apparently forgetting that any life routinely saved in surgery as part of another day's duties, is as important as a life saved at great risk and publicity from a coal mine disaster or at sea.

Cynicism or depersonalization of the patient, are well known ways to reduce stress and burnout among emergency or health care workers. But it is far better to reduce stress by working a reasonable schedule with a compatible team that succeeds or suffers losses together. Although cynicism may reduce stress and burnout by lowering standards, a happy team can take great pride in their shared excellence (see Lancet, June 15, 2002, 208990).

Incidentally, not many people are natural nightshift workers. Hence those assigned to the aptly named "graveyard shift" make five times as many mistakes, have 20% more accidents (major nuclear power plant accidents have all occurred at night, including Chernobyl), and suffer more serious and costly medical problems (Business Week, July 28, 2003, p14).

For example, nurses who pull "night duty" several times a month for at least 15 years have an elevated risk of breast cancer and a 35% higher risk of colon cancer (Science News, July 5, 2003 p13). Some Sleep Researchers even suggest that training natural "night owls" to work the night shift might be a possible way to reduce such dismal statistics (Nature, 30 Oct. 2003 p885).

It is the team leader's responsibility to see that the work environment is enjoyable for all, allowing no interpersonal problems or voices raised in anger to disturb concentration or delay progress. Furthermore, she or he must ensure that the entire team shares credit for successes, and as mentioned, the team leader (as captain of the ship) is fully responsible for all adverse outcomes.

As team leaders, surgeons take home a disproportionate share of the financial reward for an entire team's effort. Under such circumstances, fairness suggests that leaders at least recognize the contribution of everyone else on the team with a nice annual gift—a bicycle or whatever.

Humor helps, and no posturing. Everyone must feel free to question or offer advice. Thus I might report on how my latest course in reading electrocardiograms ended with me looking thoughtfully at an EKG until a coronary care nurse pointed out that I was holding it upside down.

And if in surgery, I asked for something out of sequence, any of our regular nurses felt free to point out that I usually did (A) before (B). In one case, I suddenly saw a large air bubble in the translucent aorta just as heartbeats began- so I said, "Quick, give me the knife!" at which point one of our great scrub

nurses said, “Why do you need a knife?” before quickly handing it over when I said “I want to kill myself!”

I managed to stab the aorta and release that air before it was pushed into smaller arteries where it might have caused a stroke or other problem. Among our survivors, only one had a significant stroke—and *she made a truly amazing recovery* after a very long weekend in deep coma.

A couple of other patients suffered more diffuse brain damage (one complained he could no longer balance his bank statement without a calculator—the other found it harder to concentrate), after bleeding or other problems led to a prolonged period of dangerously low oxygen and blood pressure.

While one or two patients may have been a bit confused right after surgery, no one developed the “zombie” appearance so prevalent in the late 60’s before those wonderful arterial blood filters became available that could selectively remove clumped blood components and small bubbles from oxygenated blood reentering the patient’s circulation through the aortic cannula from the heart lung machine.

An occasional patient even displayed humor upon awakening. One man insisted he was dead! Assuming he was confused, I repeatedly assured him that the operation had gone smoothly and he had survived nicely. Finally he said, “*No! No! You look like the Devil! I am dead!*”

It goes without saying that every team member including me confessed their own screw-ups so we could all learn from our mistakes. And nobody ever yelled at anyone! After one anesthesiologist caused a serious neck infection, they all agreed to do a full surgical scrub prior to inserting intravenous lines.

Another time, a patient’s heart suddenly stopped as we were preparing to close the sternum. It turned out that the heart–lung machine had been “off” for 15 minutes but the anesthesiologist had not restarted his anesthesia respirator. Thereafter, no one objected to loud reports such as “Pump is off—Restart anesthesia!” that were immediately confirmed “Pump off! Anesthesia restarted!”

To our immense relief, both of those patients did well. The first resolved his infection quickly with antibiotics. The second awoke promptly and was mentally intact—presumably because high intra-operative blood–oxygen levels and brain depression (by medications and cooling) had left the brain enough dissolved oxygen even though the working heart temporarily ran out (as in “Whew!”).

After one very bad week in which three patients bled excessively and one nearly died, I declared that no more cases would be done until the problem was found and corrected. At that point, a perfusionist quietly confided that he had recently begun rewarming blood (we usually cooled the patient for additional safety during surgery) using new equipment that easily exceeded the recommended warming rate. He added he would henceforth rewarm by the clock. Our bleeding problem was over.

A recent chance encounter reminded me that I generally dropped by the laboratory—and especially the blood bank—after dealing with urgent bleeding problems, just to let the techs know what had transpired and how much we appreciated their help. The former tech told me that those visits had been hugely important to them and really made them feel like part of the team.

And last but not least, the cardiologist or surgeon should keep referring physicians in the loop on how their patient is faring

CHAPTER TEN

How and why I retired

Heart attack risks often increase with physical activity

Continuing Medical Education (CME) and Recertification are truly not worthwhile disruptions

To remain healthy, avoid screening tests

The blood circulated by your heart and oxygenated by your lungs sustains all of your tissues including your heart and lungs. *Angina* (heart pain) is usually a signal of insufficient arterial blood flow to some part of your heart. Angina can vary from barely detectable to very severe: It may seem to originate anywhere in your upper body, but left arm or shoulder, left chest, neck or jaw are all common. Occasionally, angina has been mistaken for a toothache or an earache.

Significant episodes of angina are often associated with the irregular heartbeat known as premature ventricular contractions (PVCs). The discomfort of angina varies widely over time and between individuals - from barely noticeable to truly severe. As we age, more of us will detect premature heart beats (or even a series of PVCs) as one or more mild thumps in our necks just above the sternum where major blood vessels passing through soft tissues are close to the skin. PVC's are more conveniently monitored by feeling a peripheral artery pulse (e.g., the radial artery on the inner aspect of either wrist (thumb side).

The evolutionary process that designed us confirms that our ancestors could gain no survival advantage through localizing cardiac or other chest complaints more accurately. So we continue to interpret "overly vague" upper body warnings such as "You have worrisome symptoms! Take it easy! Don't overdo!"

My personal experience

The first time I consciously became aware of having angina was mid-day at the end of July, 1983, as I ran up a flight of stairs to check on our post-operative patients between surgeries. And the main reason I even suspected that a barely noticeable feeling in my jaw might be angina was because I also noted PVCs in my neck.

That evening, our patients doing well so I brought home a few nitroglycerine tablets and rode my exercise bike for a short time until the same abnormal jaw feeling and irregular pulse returned together. And those symptoms and signs were remarkably amplified when I placed my first ever (also my last ever) nitroglycerine tablet under my tongue.

So then I drove back to the hospital and scheduled myself for an emergency heart catheterization that evening. A quick competent heart catheterization by my then cardiologist "friends" revealed that *every damn one* of my heart-muscle-feeding *coronary arteries* appeared multiply blocked.

They handed me my X-rays, some heart medicines, shook my hand and wished me well. The next morning I flew to Milwaukee, where I soon underwent a six-vessel coronary-bypass operation by Tector and his great team. My Milwaukee friends were amused/perplexed by a report from the young nurse assigned to explain my upcoming heart surgery procedure to me, for she insisted I had appeared totally unable to comprehend anything about what was planned.

That sort of error occurs occasionally when someone does not bother to show up but simply fabricates a chat. Surely I was not the first person treated thusly in that place. I just hope she was fired for her laziness and dishonesty - as those traits should have no place in health care scenarios.

Six days after surgery I flew back to Anchorage. Within a month I resumed my surgery career. But as our surgical successes continued unabated, it also became apparent to me that my being totally exhausted every evening meant I should stop doing this work - for the next time I drew a difficult all-night operation, the patient and I would likely both die.

Summary: When your normally stable pulse *becomes irregular* and you also develop *persistent angina-type signals*, you should seriously consider changing your "life-style" to avoid heart damage or at least delay death. Such symptoms had already occurred as I ran upstairs: They were why I stopped and waited some minutes on the steps until that abnormal jaw feeling went away and my pulse was again regular: Then I walked slowly up the remaining few steps to make my rounds.

Overall advice: If you are making "significant" (for you) physical efforts, and if during those efforts you develop symptoms and signs of a potential heart attack, it is best to stop those efforts *immediately unless that activity is essential for your own survival or the survival of others. In addition, activities that involve others or merely might be seen by others, such as surgical procedures or sexual intercourse or shoveling snow – are far more dangerous because they also involve the ego.*

Consequently, the blindingly obvious idea that you should always stop an activity and rest if tired, may be ignored as you try to demonstrate your youthfulness and competence at that activity. Which probably explains why heart attacks and cardiac deaths are more frequent among otherwise logical older men who engage in physically tiring activities such as sexual intercourse or shoveling snow.

On several occasions, I admit that I did not stop shoveling immediately, despite being tired and aware of increasing angina. Indeed, quite recently, *I suddenly had to quit shoveling just before flinging my very last shovel full of snow.* And then, after a few brief moments of total rest calmed my truly-wild heart rhythm, I walked very slowly into the house *before initiating my usual urgent heart-attack-prevention medicines by swallowing half a dozen tart cherry capsules, a 50 milligram Atenolol tablet and 3 or 4 Mag64 tablets. (I carry these meds and a small jar of coffee to wash them down wherever I go. Thus I was already partially protected - and see Chapter 12 for further (heart and other medication details).*

As for any Cardiologists or Rheumatologists or those Gastroenterologists who tried for so long to avoid prescribing tart cherries or Mag64 or even that two-week course of U.S. Government recommended antibiotic that finally ended our former epidemic of peptic ulcers caused by *Helicobacter Pylori* - I truly wish you all well on your new vegan diets. I really have enjoyed mine and have also gradually lost over a hundred pounds in 30+ years, going from brawny and flabby, to far more healthy and truly scrawny (I now weigh 150 pounds).

Marianne and I continue to enjoy our somewhat slower hikes in the forest primeval, which is still packed with beauty, other herbivores and plenty of carnivores. Though I always "tote my old 44" when we are in the woods, I have not deleted one beast since the summers of 1954 and 1955 when I worked in Prince William Sound and took my orders from the U.S. Fish and Wildlife Service.

So to my former medical comrades, please reconsider Upton Sinclair's obvious point that *"It is difficult to get a man to understand something, when his salary depends on his not understanding it."*

For change is pressing upon all of us! And you should expect far better overall health care guidance and far lower health care costs when Bernie Sanders finally can initiate his *Single Payer Plans!*

Prior to my unexpected retirement, our family had agreed that our college age children ought not apply for scholarships because we could readily afford their educations, whereas many others could not pay for college at all. But soon after I suddenly had to retire with no retirement plan and three kids in college (with the fourth preparing to go), all four of our children found scholarships and/or teaching assistant posts that made them pretty much self-supporting.

To help cover my taxes—and because I could no longer fly nor pass a pilot's medical exam—I asked the Citabria dealer in Fairbanks, from whom I had bought my new two-seat airplane, to come get it and sell it for me. We had become friends during *the Fairbanks Flood of August 1967, when 5,000 Fairbanks women and children were evacuated over three hectic days in huge propeller-driven unpressurized National Guard Cargo Airplanes*, flying over the mountain ranges between Fairbanks and Anchorage.

Many of those flood refugees were airsick on arrival: Most of the women had only the clothes on their backs, and were without purses as they passed between stacks of free diapers and other donated essentials *before being taken into private Anchorage homes for a couple of weeks or so.*

When our International station wagon became "next" in an endless line of volunteer host vehicles waiting to house evacuees, the Fairbanks Citabria dealer's wife, and seven children (his kids and those of his business partner) emerged and became our guests. All eight of our guests fit easily into our station wagon, as this was many years before seat belts became mandatory.

Amusingly, those young Fairbanks kids especially enjoyed our shower. So after the two women washed all 11 children (including our four) in "Assembly Line" fashion, they noticed several previously washed kids back in line, hoping to repeat that great warm-spray game.

A few years later, I bought a new Citabria from these Fairbanks folks at full retail price (which I could easily afford), ignoring their generous discount offer because their business was still "underwater" financially, but recovering. In turn, a decade later, when that same dealer flew in to take my airplane back and sell it for me, he refused any compensation.

*Sooner **and** later, we all need friends!*

Through 1984, I occasionally assisted in surgery. But then, rather than waste 17 hours of each year (soon upped to 25 hours) attending lectures on diarrhea or whatever, to meet Alaska's useless Continuing Medical Education (CME) requirement, I let my medical license lapse.

Continuing Medical Education (CME) Makes No Sense!

Alaska's Mandatory CME, like Alaska's short-lived Mandatory Malpractice Insurance, was initiated a decade earlier by those same four aging Anchorage Internists. Possibly relevant information: These four older men presumably felt slighted because their long ago, hard-learned medical lessons were by then so out-of-date that they were rarely consulted for medical care any more. Furthermore, those four grumpy guys surely couldn't charge anywhere near the high hourly rates increasingly being billed by all the internal-medicine subspecialists, nor could our elderly internists even bill at the ordinary rates that surgeons had long received (as those internists so often complained) *"For mere cutting and sewing!"*

As their medical practices faded, these internists couldn't even compete with doctors trained in "family practice", whose skills included child health care and even delivering newborns. So as they consulted less, *these men pontificated more.* And high on their list of issues was the unseemly medical scramble for ever higher incomes that by then had left them so far behind as well as their alleged concern that all physicians *should appear competent and caring* rather than mere money grubbers!

Consequently, these four Medical Society members - most or all of whom were past or present officers of our *Anchorage Medical Society* - demanded immediate *"Mandatory Continuing Medical Education for all Alaskan physicians before the others do it to us"*, as they felt such a preemption should make us all look *"more sincere."* (I wonder how many of our currently over-paid subspecialists still look at all sincere *as in not caring about money?* Anyway, these four prominent elderly Alaskan internists did it to all of us before "those others" could *by claiming **incorrectly** that they were speaking for all Alaskan doctors.*

Because Continuing Medical Education was then becoming a "National Issue", they managed to successfully initiate Alaska's CME requirement *without ever polling Alaskan physicians for their opinions, or asking others if they agreed.* Nor could they hear those who loudly disagreed like me.

Interestingly, the way those four ancient Alaska State Medical Society Internists determined we *should all be required to undergo compulsory CME* was identical to the way the young Internal Medicine trainees at PBBH had used their *?**cognition and caring?*** to decide *"Zachoverich will now get intravenous*

fluids" without once asking him if he was thirsty or listening to his complaints about being unable to breathe! Nor did anyone even listen to his lungs to see if they were congested!

As in "Your doctors have decided you need the fluid that you now receive even though our uncaring will soon kill you!" Just as "We four wise internists have decided you all shall forever be burdened with stupid regulations to waste your overpriced time!" (also see CME sponsors and topics in CH 16!)

That *Four Internist Declaration* "We must do it to ourselves before they do it to us" sounded even more stupid after my retirement as I wrote my third book *A Manual of Thoracic Surgery 2e* that was again positively reviewed and utilized internationally. But as their "Internist's cognition and caring" had never included writing a textbook, that hobby was considered unacceptable as an alternative path to CME credits!

Stunningly Obvious Conclusion: Innumerable patients have been "drowned" by excessive intravenous fluids ordered by busy doctors who already "knew" what these folks likely needed each day and were far too busy to inquire if they had hydrated themselves. But those patients are also our fellow humans who can feel thirst and will never kill themselves drinking nonalcoholic fluids, so why order intravenous fluids at all if they can safely drink whatever they need? Similarly, *why would anyone even want to order all licensed MD's to annually attend 25 irrelevant talks?*

A Fast Forward:

When last I checked, all Alaskan physicians had to get annual credits for 25 one-hour *lectures on any random topic*. So many of them sign in and then sit or stand near the rear exit, and are not seen again after house lights dim for the first slide.

Which is how *"Those Four old, irrelevant and angry Internists demanded* and got their CME-Obligation"- thereby predictably devising yet another time-wasting irrelevancy to steal three? or even four? annual workdays from licensed physician by forcing them to attend pointless lectures and file supportive paperwork with disinterested medical employees in order to meet yet another even-more-time-wasting new Alaska Medical Licensing requirement!

On the other hand, as part of a nationwide CME trend, the escalation of postgraduate educational requirements has stimulated an entire new growth industry—the proliferation of costly "CME accredited" tax-deductible meetings in pleasant resorts or on luxurious cruises—often run by no-longer-licensed medical politicians who scored free trips and supplementary income by lip synching *"Big Pharma lies"* to their legally captive audiences.

One "highly-over-rated CME lecturer" even suggested that role-playing games and/or meditation *would surely improve medical attitudes* (Lancet, May 17, 2003, p1752) although neither would have done anything for my attitude. *So far, there is no evidence that CME enhances medical knowledge, wisdom or effectiveness! But does anyone still care, now that those four outdated internists are all retired and/or dead?*

After all, competent doctors have always sought useful medical training from review courses and their own specialty meetings where they could compare personal results and also update ideas and practices through discussions with their peers. If anything, CME requirements reduce physician attendance at big meetings with hard chairs where one might actually learn something new from fellow attendees (if not from those too-often too-old and too-boring speakers).

Overall, it seems clear that CME requirements waste physician time, reduce taxes collected and unnecessarily increase costs for patients who eventually must support our entire medical enterprise. So since writing yet another textbook was not usable for Alaska's CME credits, I happily used my excuse ("Sorry. No medical license!") to escape assisting in surgery and also to avoid CME.

Recertification: *An equally unproven remedy laid upon us by unemployable Medical Politicians!*

A somewhat related issue to CME is the Mandatory Recertification of Board Certified Specialists every ten years or so. To remain Board Certified nowadays, specialists have to pass a Recertification Examination by their Specialty Board. However, in Chest Surgery, Recertification never applied to older academics who thought it up as a nice stress-free job for useless Academics!" nor to older Board-Certified Surgeons like me. Marianne was similarly "grand-mothered in" by her Pediatric Boards.

You might assume that many other less time-consuming methods of evaluation such as "patient outcomes analyses" were carefully evaluated before Recertification was shown to be the most cost effective solution for such a serious question: And that a lot of evidence for and against Recertification was carefully weighed before Recertification was finally voted "Most Appropriate Remedy" by most surgeons in practice at that time. But you would be wrong!

For there never was any serious competency crisis, nor other relevant problem. And Recertification was never tested against any other alternatives. Rather, Recertification just sounded like a good way to employ aging Academic Politicians. Hence in my view, *Recertification is just another example of how Outmoded Academics Create "Demand" for their truly unwanted Services!*

I opposed Recertification from the start. Indeed, it was another classic case of the "Judas Goat" leading sheep onto a railroad car, then hopping out the other side just before the door slammed and the train rolled off to market. *For had there been any risks from which real patients could be protected by regular Board Recertification, it would have been highly unethical not to demand that the original organizers of Recertification, as well as us old Non-Academic peers, should also be Recertified.*

Earlier, I pointed out that not one of the countless lectures on biology, chemistry or medicine that I endured for my mostly mandatory, typically boring and soon *outdated* education in college, Medical School or even general surgery, would still be considered useful or even relevant by today's practitioners. As I also mentioned, every training program and teaching hospital approached important medical problems quite differently.

Hence it is stupid, arrogant and dishonest for the average academic politician to present himself/herself as more knowledgeable than the busy specialists who routinely devise improved solutions and regularly achieve better results than their Academic peers.

Medicine is not yet physics. And every practitioner soon encounters situations that their professors never met, considered, explained nor understood. So how could "Partying Academics" usefully reexamine us older and far more experienced Board Certified specialists? This becomes even more ridiculous when you notice how often practicing specialists gradually restrict their efforts to some parts of an entire specialty - which means they would just waste their declining valuable time if forced to study prevailing views of all subjects in their overall field (especially when so many of those views were almost surely already outdated as well as almost surely irrelevant to that doctor's practice).

Overall, I view Board Recertification as *just another* annoying manifestation of Aging Academic Syndrome (such as "Gastric Freezing" discussed earlier). And like those CME requirements, Board Recertification is **just another** support system for superfluous senior political specialists to rule over us with another useless but costly industry that produces and markets Board recommended materials.

Politicians routinely say the opposite of what they mean. "This is not about money, it is about principles!" or "Campaign donations won't buy you a huge taxpayer funded payoff!" Similarly, Professors Promoting Recertification may "proclaim 'til the cows come home" that the intent of Recertification is NOT SIMPLY to put no longer useful former academic politicians into ego and wallet satisfying positions of authority over practitioners, but sadly, that too is untrue!

Like CME, Recertification requirements waste physician time, reduce taxes collected and raise costs for the patients who support our entire medical enterprise. At best, Recertification measures the fading ability of experienced physicians to swallow and regurgitate soon-to-be outdated information or theories.

Knowledgeable consumers with major medical, surgical or dental problems, usually look for an experienced hand who has learned “the hard way” what works and what doesn’t. So rather than annoy experienced surgeons with "resident level" teachings, why not simply analyze patient outcomes for each Board Certified specialist’s practice?

Eventually, this will be achieved easily and cheaply (electronically) within a Single Payer system that already keeps all patient follow-up information in their database. I have heard representatives of Health Care Organizations declare that "patient-outcomes analysis" *provides effective quality control*. So why the Hell should we recertify?

Furthermore, in-house analyses avoid the adverse impacts of published ratings that might promote malpractice actions or push surgeons to overstate minor shortness of breath as emphysema (so their patients appear sicker on paper than they really are), or worse yet, might cause surgeons to avoid caring for very ill patients at all, since really sick folks often don’t recover as swiftly as average patients.

Properly performed outcomes analyses ought not even be noticed by most surgeons whose patients get good care. And it has been said that when outlier physicians are privately advised that their peers have better results or require fewer expensive tests, those outliers are usually willing to adopt more effective methods or undergo retraining or change their field. Undoubtedly, some also quit or are fired.

In other words, rather than continue the present costly disturbance of every active specialist’s home life and practice by CME and decennial preparations for Recertification, why not use outcomes analysis and then only bother those who actually need retraining? After all, the average practicing physician is probably far more interested in improving her/his patient outcomes than our far less experienced but very accomplished medical politicians would ever be.

Furthermore, I would prefer to be cared for by a physician whose patient outcomes were satisfactory on an ongoing basis, than by one who had barely passed a mostly irrelevant exam nine years earlier. After all, I was already *totally obsolete in heart surgery* seven years after I became Board Certified, at which point *I required three months of further training to catch up on then-astounding recent advances in cardiac surgery*.

If left to their own devices, most physicians voluntarily attend the best meetings in their specialty. And there they actually do sit long hours on hard chairs in order to remain current on matters affecting the welfare of their patients. On the other hand, busy practitioners cannot leave town for many such trips.

Naturally, it is difficult for specialty meetings in dirty old cities to compete with "free holiday!" bribes from Big Pharma, or with seductive CME accredited offerings—or with classes for Recertification at some fancy deductible resort. *Which is just another way Big Pharma and CME and mandatory Recertification undermine the quality of medical care!*

Are There Really 101 Uses For a Retired Surgeon?

With my third Chest Surgery textbook published and my medical license expired—hoping to still be of service—I signed up to run for a State Senate seat. Fortunately **for me**, after knocking on about 15,000 doors, I was barely defeated in the Primary by the usual "last minute Republican smear." The standard, repeatedly tested, reliably effective Republican smear works best by bribing a noncandidate (third person or group) to promote some fabricated untruth (in my case, that I was "Controlled by the Teamsters!") and keep hammering away at it with costly annoying advertisements until the poorly-informed public becomes so sick of both complainer and complaineé that it either doesn’t vote or simply holds the nose to vote for the uninvolved other (Republican) candidate.

The Republican Party is currently dominated by two largely overlapping groups—religious fundamentalists who believe extremism in the service of the Lord is no sin—and the truly power hungry or terminally greedy billionaires who intend to ride their political connections to dominance and even more obscene wealth.

Recent extraordinary electoral successes of Republicans stem from the fact that neither group of chronic liars feels remorse for last minute smears and other dirty deeds (like using police threats and sham disqualifications to keep Democrat-leaning minorities from voting, or promising to help the less fortunate while doing the opposite, *or installing tens of thousands of costly and defective Republican owned election machines (to issue fraudulent vote counts that ensure they will frustrate the will of the people)*).

For example, many (most?) Republican electoral wins in this millennium have relied upon the rapidly expanding use of touch screen voting machines with secret proprietary software owned and operated by Republican vendors (see Afterword). Which is how those “new, high tech computer voting machines in Boone County, Ind., counted 144,000 votes in an election with fewer than 19,000 eligible voters” (The Week, Nov.21, 2003 p6).

Ordinary Americans formerly assumed that the avoidance of public shame was likely to motivate mostly moral behavior from their leaders and fellow citizens. But these Republican liars and misleaders are so shameless that they just lie all the more when their dirty deeds are exposed. For them, losing honestly is the only shame.

At the opposite extreme, those who trust and those who are trusted tend to become more trustworthy. And the degree of trust in a country is one of the most powerful factors affecting its economic health. Unfortunately, there seems to be a negative correlation between trust and religious belief. Thus Utah, our most religious state, also has the most business scams.

Which may help us understand how Bush-2, who declared himself a born again Christian, got away with so many lies about his intentions. Apparently, if you cannot rely upon others, you just rely upon a higher power (New Scientist, 10 May, 2003 pp3337). Or perhaps very religious folks really do suspect that all religious beliefs are fraudulent?

In any case, after I barely lost that election for Alaska State Senate, I felt that for the first time in my adult life, I would hereafter do only as I liked; or even stay in bed if I felt ill or tired. But various friends and hustlers, knowing we still had children to educate, asked to use my good reputation in order to help them make a better living.

One hustler asked me to sell mortgages to my medical comrades just as an obvious real-estate crash was pending “because you have such a good reputation!” I politely declined to rent out any tattered remnants of my amply smeared post campaign reputation.

Another friend knew someone who would pay me well to run patient trials on experimental drugs. But I could never encourage others to try a “me too” hardly different “wonder” drug (as in “we wonder how to hype this “me too” drug”) just to detect obvious adverse effects—though many physicians happily accept generous pay to push patients into such studies.

For example, a local urologist wanted to switch my good (and well-insured) friend away from the costly drug successfully suppressing his prostate cancer, to a comparable new drug that might not become available for years. The experimental drug for that short-term test was “free” along with frequent “free” blood tests and *a brief* “free” follow up.

This extra attention appealed to my friend, who realized he would soon need more help. By joining, he assumed the urologist might become more interested in his case. But when he asked my advice, I convinced him that this unknown “me too” drug could interfere with, but not possibly improve his care.

Only his urologist, who in accordance with then current practice might get over a thousand dollars for each patient he enrolled in the study, and the Big Pharma Corporation hoping to hype its slightly different product into another billion dollar drug, could possibly benefit from this study, even if my friend suffered no ill effects.

So he didn’t sign on, though a mutual friend of ours did, also assuming “He will take better care of me if I do him a favor” (How could that possibly qualify as an informed consent?) - *even after I briefly summarized the situation to him as well*. Perhaps coincidentally, our mutual friend’s chronic coronary

heart disease flared up shortly after completing that new drug test and he soon died. (and see Clinical Trials, Lancet, Oct. 30, 1999 p1534)

Screening Tests too often do more harm than good

As I recuperated from heart surgery, it became clear that I no longer was an acceptable risk for anesthesia or major surgery. That was a considerable relief as it further justified my lifelong avoidance of all "popular screening tests" (see Uses and Abuses of Screening Tests, Lancet, March 9, 2002 pp8814) such as colonoscopy or prostate specific antigen (PSA) that commonly return useless findings.

For example, even back in the late 1960's or early 1970's, FS, the friendly long-time hospital pathologist, asked me for a blood sample in order to test his newest blood-screening gadget. Later that same day, he paged me urgently, led me into his office and insisted I sit down. Then he hesitantly confided that his new machine predicted I must soon die.

Of course, pathologists deal mostly with rude doctors and dead folks, so they often come up a bit short on bedside manners. Even my own bedside manner has occasionally been questioned! Anyhow, his machine's tests showed my liver or kidneys to be feeble, failin' bad, and ready to fall out, or some other equally scary anomaly.

Therefore, FS urged me to give lots more blood immediately so he could run a bunch of costly confirmatory tests. I refused, predicting that my body parts would all outlast his idiotic new machine, and rode my bicycle home. As I expected, his new machine died within the week. But before it passed away, it apparently stimulated a fiscally fruitful flurry of follow-up blood tests for the Hospital lab.

Apparently, up to half of all autopsies on older adults reveal small prostate or breast cancers that never had any adverse impact during life. Those individuals who died of an unrelated cause were clearly better off with that cancer unrecognized and untreated.

In the US about 200,000 prostate cancers are discovered and treated annually, while 35,000 to 40,000 men die of prostate cancer each year—see National Cancer Institute SEER website, seer.cancer.gov

Although this represents a considerable rise in prostate cancer frequency, the overall death rate from prostate cancer has remained relatively stable. Some might conclude that we were having a prostate cancer epidemic to which modern medicine had responded with a wonderfully high cure-rate.

But more likely, this situation represents over-detection and over-treatment of many cancer-like cells that would likely not have harmed the patient. Furthermore, it is reasonable to assume that per case treatment–complication rates apply even if less aggressive cancers are being treated—which means the higher modern prostate cancer detection rate has merely left many more men impotent and dribbling urine *without providing any survival benefit* (the US Preventive Services Task Force estimates that prostate cancer surgery leaves 20–70% of patients impotent and 15–50% incontinent).

Some urologists still hope to lower the current PSA cutoff of 4.1 for recommending an invasive prostate biopsy to 2.6 ng/ml as this would detect 64% of prostate cancers in men under 60 versus the 18% currently detected at 4.1. But quadrupling the number of invasive biopsies in the below sixty population becomes highly profitable and highly irresponsible as long as each of those biopsies has significant risks (up to and including death), yet it still cannot predict whether that specific prostate cancer will become dangerous in 5 years or 50 (New Scientist, Aug. 2, 2003 p7).

So will the next recommendation be annual biopsies for all adult males? Some experts say that over three quarters of prostate cancer patients "really don't need to be treated"—though which cases belong in that untreated three quarters is still uncertain. It is even unclear "how significantly any treatment extends life" (see The Prostate Paradox, in The New Yorker, May 29, 2000 pp 5264).

"While (PSA is) frequently used for prostate cancer screening, the United States Preventive Services Task Force (USPSTF) does not recommend its use in healthy men. This USPSTF recommendation, released in October 2011, is based on "review of evidence" studies concluding that "Prostate specific

antigen based screening, results in small or no reduction in prostate cancer-specific mortality and is associated with harms (related to subsequent evaluation and treatments) which may be unnecessary." In those with prostate cancer, rising levels of PSA over time are associated with both localized and metastatic prostate cancer. Prostate... screening is controversial and may lead to unnecessary, even harmful, consequences..." (from Wikipedia)

In addition to weeks of worry, cost and inconvenience, and the risk and discomfort of unnecessary and invasive studies, there is the chance that patients who receive any sort of cancer diagnosis will abandon their previous optimism and self-perceived good health and become less happy, productive or fun to be around.

Thus whenever a screening process generates income or employment without apparently yielding cost effective benefits for the patient, those promoting such screening need to stop and reflect whether they need it more than the patient does—and if so, they should end their program, or at least declare that strong personal conflict of interest.

"It is a difficult situation (says Eric Schneider, Harvard Medical School). Patients want relief from uncertainty, doctors want to offer them something, and these tests provide a sense that more knowledge is possible. In the name of prevention, doctors and patients undertake a collaborative effort that sometimes leads to tests or procedures that might not be in the patient's best interest."

In the meanwhile, to help separate the known from the unknown, the U.S. Preventive Services Task Force (www.ahcpr.gov/clinic/cpsix.htm) "reviews all scientific evidence for or against the different preventative interventions and then grades them accordingly" Harvard Magazine Sept/Oct. 2003.

Another oft-unforeseen side effect of discovering a low malignant potential breast cancer is its adverse effects on insurability of female relatives. Any intelligent woman who accepted the standard medical promo that "mammography is the only way to be sure" might consider herself doubly misled if the final outcome of all those intrusive, expensive and annoying tests was biopsy information that offered neither therapeutic nor prognostic guidance.

And her female family members might justifiably be doubly annoyed to lose their insurability through no act of their own. Clearly, screening is not risk free. Indeed, for populations with a low prevalence of the condition being screened for, even a known low rate of testing errors will reliably produce unacceptably high frequencies of incorrect results and undesirable outcomes.

On the other hand, populations at moderate risk of hypertension, diabetes or cancer of the uterine cervix are likely to benefit from early detection of those problems, provided competent follow up is readily available.

What if one could demonstrate that patients with malignant breast cancers found by screening mammography lived (on average) two years longer after cancer detection than those whose malignant cancer was only diagnosed when it became physically evident?

Unfortunately, that apparent two year bonus might just indicate that the patient learned of her problem two years earlier than she would have without a mammogram, rather than that early detection granted two additional years of life.

As mentioned previously (see urinalysis in Chapter 3), everything we do or have done to us or don't do—including going to work, eating lunch, drinking a glass of water, shopping or having medical tests—exposes us to some risk, and may even cause death.

Perhaps a fair legal environment will one day recognize that the best any physician can do for her patients is to balance the cost and risk of a test against its potential to contribute useful information that might make a helpful difference in treatment.

But even if the cost and risk of a potential treatment could be accurately measured, say against its likely benefit to determine at what point detrimental outcomes from possible errors of omission balanced detrimental outcomes from possible errors of commission—different individuals still might value present cost and risk against possible future benefit in quite their own way.

So should we recommend replacement of a dilated blood vessel in an apparently healthy 70 year old if statistically that vessel has a 50% chance of dangerous rupture within 5 to 10 years? And how shall we factor in sometimes extraneous, subjective or individually relevant values, costs and benefits such as impact on appearance, or the desire to have children, or the effect of a procedure on an individual's ability to work or speak or read or eat or urinate without dribbling.

What if a malignancy near the brain will soon cause a miserable death unless it is heavily irradiated, yet that radiation will destroy enough brain function to probably leave the person blind or an invalid? Surely, accepting radiation under such circumstances is a choice that the patient ought carefully consider in consultation with family members and other concerned and competent advisors or caretakers.

Some might prefer to terminate such a "no win" situation early and in comfort. Indeed, well into the 20th century, most patients were better off avoiding drugs and medical care. Is it morally troubling—or just an unavoidable aspect of capitalism and medical progress—that in the early 21st century, so many still do so well by selling drugs and doing procedures that are cost ineffective, or else do more harm than good? Before *Helicobacter pylori* and the simple antibiotic cures for stomach or duodenal ulcers were discovered, many ulcer patients underwent disabling stomach operations “to prevent future problems”.

And long ago, I operated several times on a young adult whose huge cancer was compressing his heart. Each of those dramatic (and by most measures, cost-ineffective) operations reduced his symptoms and gained a few months. The lad knew he had no chance of cure as other means of control had proven ineffective. But he desperately wanted the extra time.

So for a relatively short time, he came to me for help and I helped as much as I could—which, after all, is what physicians are sworn to do. I don't recall if he was well insured or if I operated for free, or if I refunded his insurance to help him cover other costs.

But money that went into his care from whatever source and to whichever health care persons, could have saved many lives in a free health care clinic. Or those thousands of dollars might have tracked down many patients who underwent spleen removal for various reasons such as splenic rupture from blunt injury to the abdomen, or a problem with blood clotting, or an accidental tear of its delicate capsule during abdominal surgery (in former times, we were told that such a tear justified spleen removal to prevent delayed bleeding).

Yet more recently, post-splenectomy patients have been considered candidates for antibiotic prophylaxis or immunization against certain varieties of pneumococcus and other encapsulated bacteria that may quickly kill patients lacking a spleen.

Presumably, current calculations still identify some of that follow-up care as cost effective, but check with the Center for Disease Control or an appropriately trained infectious disease or other expert (just as you would thoroughly investigate any possibly relevant medical recommendation here and now, or elsewhere and sometime in the future, before proceeding).

Should an insurance company or a Single Payer be allowed or encouraged or required to refuse payment for treatments that do more harm than good, or those that are not cost effective? Would my palliative surgery on that young fellow now be viewed as cost effective? Should we refuse to provide costly unproven drugs or procedures to those who cannot wait for the results of clinical trials? And so on.

CHAPTER ELEVEN

Single Payer will only pay for drugs according to their Effectiveness

Patenting a medical product or service **creates a Monopoly**
that thereafter can endlessly increase Health Care Costs

Medical breakthroughs like penicillin are uncommon and need no promotion. But it takes a lot of advertising to stir up enough excitement about the latest "ho hum" pharmaceutical product so physicians will say "You should be on this medicine" even if you cannot afford it.

Big Pharma promotions often depict "Joe and Jane Average" playing with the grandkids. Such heart-warming scenes suggest Big Pharma's fondest dream is about affordable cures for life's worst diseases. *But were that true, even highly hyped medicines would cost far less.*

Over half a century ago, Kefauver's Congressional Committee hearings revealed that the most outlandishly expensive medicines were not costly for Big Pharma to license from academia, nor very expensive to develop or manufacture.

Rather, it turned out that expensively hyped drugs remain costly for as long as their patent-protected monopoly persists. For costly hype creates an apparent need for non-essential drugs, just as higher prices make ordinary drugs and diamonds more desirable and profitable.

As mentioned, Big Pharma is the most profitable of all the major public (and presumably mostly lawful) industries. And that excessive profitability harms Joe and Jane Average in multiple ways. Chapter Four explained that Big Pharma's focus is on short term profits through **lobbying** (*"In Washington, there are six pharmaceutical company lobbyists for each U.S. senator" according to the Los Angeles Times*), **lawsuits, mergers and acquisitions, rapid payoffs from political contributions**, and so on: Which increasingly divert Corporate attention and investment from projects that might create useful or essential new medicines.

That relentless corporate drive toward higher short-term profitability is largely fueled by the desire for ever higher executive salaries and ever more valuable stock options (e.g., From 1999-2002, Pfizer reported spending over \$14 billion on Research and Development and nearly \$10 billion for enough Pfizer common stock to offset stock options).

In pursuit of such huge, short term profits, Big Pharma companies often shut down plants or discontinue essential vaccines, out-of-patent medicines or other products that citizens depend on *because they return only ordinary profits*. Yet most businesses seem happy when they can reliably make ordinary profits.

But the fact that Big Pharma can discontinue essential vaccines and medicines "at will" also permits rich multinational Corporations to extort guaranteed or excessive profits for vaccines or other medicines that they deign to produce (Why we must pay more, New Scientist, 31 Aug. 2002, p25).

Anyhow, the hype subsides when patents expire, so a drug that has only proven useful for uncommon conditions is not likely to attract immediate generic competition. And don't expect Big Pharma to issue timely market-wide notifications or to continue providing essential but low-volume-selling medications until others can think it over and ramp up low-cost generic production.

Wealthy Corporations often discontinue important vaccines like tetanus toxoid to suit the Corporate "strategy, convenience or whims," usually without attracting ongoing press attention, closer government oversight or organized consumer outrage. *Apparently Multinational Corporation decisions need only benefit top executives and bottom lines.*

Do all those costly drugs at least reflect good science?

Consider an ordinary placebo controlled double-blind trial. This ought to be scientifically above reproach as lookalike pills prevent participants or researchers from knowing who got the new medicine until the code is broken and the results are tabulated.

But placebo controlled, clinical trials of the usual "slightly different, me too" drug will only show whether that new drug is obviously toxic, or more effective *at whatever is being measured* than the placebo effect of a nondrug.

Is this new medicine in any way better than nothing?

Such a study becomes *unethical patient abuse* when it exposes some trial participants (those who got the placebo) to *non-treatment of their serious condition*, while many others are exposed to the unknown risks of a new molecule *without anyone even wanting to answer the crucial question "Is this medicine any better than currently available drugs?"*

And if Big Pharma does compare an established drug with their new release, they regularly use inappropriately small or infrequent doses of the established drug to make the new medicine appear more effective! So not surprisingly, many new medicines that reach the market are more toxic or less effective than what is already available. Yet even proven-worthless new drugs are still heavily hyped, widely sold and inordinately expensive.

Thus in 2003, Bayer, a giant multinational and a long-term German drug manufacturer, faced possible bankruptcy because so many lawsuits claimed that Cerivastatin (the cholesterol reducing statin Bayer developed and promoted over half a dozen other statin drugs already on the market) had *an unusually high fatality rate from muscle breakdown* (a side-effect Bayer was allegedly aware of but repeatedly denied). Incidentally, Bayer also provided Nazi Death Camps with toxic gas to kill hundreds of thousands of Jews, *and it allegedly stores highly toxic chemicals in poorer sections of cities world-wide.*

Other statins may raise the risk of cancer sufficiently to negate any possible improvements in the survival of patients with coronary artery disease, or *they might raise plasma homocysteine concentrations sufficiently to increase the likelihood of arterial disease* (Lancet, July 7, 2001 pp3940).

Not surprisingly, given that cholesterol is a key ingredient of cell membranes, there are many reports of amnesia or other nervous system side effects such as polyneuropathy (weakness and numbness of the extremities) closely associated with taking cholesterol-lowering drugs (and see "You're my wife?" New Scientist, 6 Dec. 2003 p14). But don't expect Big Pharma to evaluate these serious questions either.

Many medicines approved by the FDA for one purpose may have useful *off-label* side effects. *But when drug patents expire, monopoly prices are easily undercut by generic competitors. So manufacturers are unlikely to reap major financial gains from successful new applications. Thus only an advocacy group for patients* (whose members might benefit) *or better yet, A Single Payer who cares for and about all of us,* would support clinical trials to answer such possibly important questions.

In the meanwhile, Medecins Sans Frontieres is organizing a "Drugs for Neglected Diseases Initiative" to develop and distribute essential drugs for the world's poorest people (Nature, 3 July 2003 pp1011).

Off Label Uses

Given that 2560% percent of approximately 1.6 billion prescriptions written in the USA each year involve "off label" uses (Lancet, Jan. 4, 2003 p63), "off label" drug usage surely deserves far more than the limited anecdotal attention it has received. Indeed, if a nationwide survey of physicians simply tabulated and computerized all "off label" prescription drug usages, that compilation would instantly become a new treasury of possible treatments for troublesome conditions, as well as a monument to failed ideas and purposeful misrepresentations.

Examples from the positive side include Ramsdell and colleagues' work at NOAA (in Charleston, S.C.) who confirmed in mice that cholestyramine, a cholesterol lowering drug, is protective against

brevetoxin, an algal (*"red tide"*) product that causes often-fatal paralytic shellfish poisoning or PSP (Science News, June 7, 2002 p364). *And they also developed a quick diagnostic blood test for brevetoxin.*

In another fascinating article, David Horrobin asks "Are large clinical trials in rapidly lethal diseases usually unethical?" (Lancet, Feb. 22, 2003 pp 69597), then answers that question with a resounding "YES!" Fortunately, Horrobin and friends devised an initially effective treatment for his own rare and rapidly lethal type of lymphoma, after uncovering at least six possible but previously unexplored "off label treatments" *using "FDA approved" drugs already on the market.*

Of course, no major drug manufacturer can prosper by developing inexpensive medications for diseases afflicting only a few patients. And this problem will likely get nastier as Big Pharma becomes more adept at identifying *"probable good responders"* through *"Pharmacogenetics"* **in order to help them run truly impressive and even more thoroughly dishonest clinical trials.**

Big Pharma has been conspicuously reluctant to support Public Pharmacogenetics Research, or to publish its own results in that new field. As Brian Spear, director of Pharmacogenetics at Abbott Labs points out, *"Our general philosophy is not to initiate drug development programs that would limit the group of patients a drug could treat"* (Nature, 23 October, 2003 pp7602).

Furthermore, after a Corporation gets specific FDA approval, *"It need not tell physicians how to identify potential good responders if such helpfulness might decrease sales of that often useless or even toxic, but very costly and therefore highly profitable drug".*

Summary: *Expect Big Pharma to report great trial results that encourage physicians to test apparently impressive new drugs on patients outside the designated "likely responder" group. Any "off label" uses of a potent drug with many dangerous side effects will predictably harm lots of "likely non-responders" with little likelihood of benefit (see "Hardly a wonder drug" on misleading promotions by AstraZeneca for Iressa, an anticancer drug that rarely helps but may trigger a deadly sideeffect, New Scientist, 24 May 2003, pp1213).*

Furthermore, where a few treated patients might formerly have "inexpensively and quickly" answered the "Yes" or "No" questions about a Drug's efficacy, *there now exist huge administrative, ethical, clinical and financial barriers that block all but the most wealthy and persistent Big Pharma Corporations, or else very experienced investigators).*

In good part, these barriers were erected as clinical trials changed from interest-driven enterprises to new institutional profit centers. As a result, few can afford to study anything except patent-protected new chemical entities. Allegedly, academic researchers in most institutions now determine which trials to join according to the financial contribution of a commercial sponsor *rather than any likelihood of benefit for the patient.*

Yet such very large clinical trials are only necessary to reveal very small (generally useless or barely significant) beneficial effects. So with unusual diseases, a large trial can tie up enough relevant patients to delay or stymie trials of possibly more useful, competing medicines.

Nowadays, almost every Hospital has Committees to ensure that new drug trials meet strict rules and are statistically valid, as well as ethicists to maintain proper standards for drug trials. But such Committees seem more likely to impede innocuous investigations than safeguard patients. Nonetheless, Big Pharma still manages to test every potential billion-dollar drug for toxicity by misleading sick folks (see previous comments on prostate cancer drugs), *or by taking advantage of poor people in Third World Countries.*

"Trials and Errors" (New Scientist, 21 June 2003, p28) discusses the issue of informed consent in Third World countries, and asks if the efficacy of new drugs can ethically be determined very simply by comparing treatment outcomes to those obtained using local herbal products. *Or should every trial control or comparison population receive the best treatments currently available in Western medicine?*

One may even question the ethics of most ethicists, as Big Pharma Corporations nowadays engage bioethicists to assess their controversial work “in order to convince the public that they (finally!) are taking ethics seriously”. But at a time when bioethicists are offered board positions, consulting contracts, research grants and even stock options, *only one ethics center out of 89 surveyed, posted funding information on its web site* (see Nature, 27 June 2002 pp8856).

Cary Gross and others at Yale University Medical School have reviewed all English language studies of links between funding sources and medical outcomes since 1980. Not surprisingly, after analyzing over 1100 clinical trials, they conclude that *if Academics receive backing from industry, over 80% will reach proindustry conclusions, versus only half of all such studies without such profitable industry links.*

Currently, two thirds of all biomedical research and development is industry backed, *and twothirds of academic institutions have equity interest in new biomed companies that support research on campus. Furthermore, some industry contracts actually prohibit researchers from reporting harmful effects of proprietary medicines that they study, even to trial participants* (see Clinical Trials and industry, Science, 27 Sept., 2002 p2211).

And that is a huge problem! For while it is illegal for Big Pharma Corporations to withhold negative information from the FDA, *the FDA and comparable overseas governmental entities, will not, or else cannot legally, release any information upon which a drug's approval was based, if that evidence was manufacturer-labeled "A trade secret!"*

Which results in truly evil outcomes like more Americans dying each year from antiarrhythmia drugs than died in action during the entire Vietnam war! Indeed, “Had early evidence... suggesting those drugs were lethal been published, this catastrophe might have been prevented.”

And be sure to read about Magnesium Ions in Chapter 12!

Similarly, *Serum Albumin has been used to expand blood volume for over 50 years despite partly unpublished evidence suggesting a six percent mortality rate from its use* (see Chapter Fourteen, and also Iain Chalmers, "In The Dark", New Scientist, 6 March, 2004 p19).

For Chalmers suggests Three Lessons.

“First, if companies have not studied effects on the key outcomes 'like death' that matter to patients, regulators should grant only provisional licenses.

Second, the evidence from successive clinical trials must be accumulated and reviewed systematically.

Third, biased reporting of clinical trials must be outlawed.”

He concludes that *permitting companies to keep the effects of licensed drugs secret, and ignoring the evidence that biased reporting of trials harms patients and wastes money, “surely cannot be in the public interest.”* Chalmers is Editor of the James Lind Library, which documents the evolution of fair tests of medical treatments. www.jameslindlibrary.org

Cancer chemotherapy is currently stuck with the large trials needed to detect a rare persistent improvement. Thus most trial participants suffer all adverse effects with little likelihood of benefit. The author concludes that it can be rational to not participate in a clinical trial, and that we need a new system for selecting and testing promising drugs.

In addition, Contract Research Organizations (CROs) have taken over two thirds of Industry funded Clinical Research. And Big Pharma controls CRO research—*often to the point of withholding complete data from researchers doing the study.* As you might expect, studies with negative findings rarely see the light of day. Furthermore, *Big Advertising Corporations now buy CROs and package the design and outcomes of CRO studies to sell more product* (see *Doctored Research?* Harvard Magazine Nov/Dec, 2003 pp1516).

A Lancet editorial also points out that since a clinical trial is a treatment, it ought to obligate the investigator, especially one running trials in a developing country, to ensure appropriate follow up care is

provided even when the trial is over. After all, it is frequently the case that volunteering for a trial is the only way a poor person can obtain any treatment. *So this obligation should be spelled out in an amendment to the Declaration of Helsinki (Lancet, Sept. 27, 2003 p1005).*

Or perhaps we should simply ignore Administrators, fire all the Ethicists who have cooperated in this unethical folly, and return to doing whatever is best for our patients. However, that would require academics to cast off profitable ties to Big Pharma and return to unrestricted, interest-driven research—so don't hold your breath.

In addition to charging "as much as the Market will bear," Big Pharma Corporations prolong their timelimited monopoly by every possible devious method. If cheating at cards is detested by ordinary folks, how might they judge *games Big Pharma plays, such as filing lawsuits to delay legitimate generic replacements for years while pricing to maximize profit regardless of how many sick people are cut out of the market, just so Big Pharma makes a few extra bucks.*

In 2002, 30 US States and Territories sued Bristol Meyers Squibb for allegedly filing frivolous lawsuits and fraudulent patent applications in an effort to protect their monopoly on Taxol and avoid legitimate competition from generic products.

A course of Taxol treatment from Bristol Meyers Squibb cost \$6,000\$10,000, while generics sold for about a third less. And in 2001, when *generic* Taxol finally reached the US market, BristolMeyers Squibb's annual revenues on Taxol fell from \$1 billion to \$545 million.

As mentioned, highly hyped medications are rarely unique or outstandingly effective. *Indeed, unlike occasional, long hoped for "breakthrough drugs" like good old inexpensive penicillin which was widely known as soon as it became available without any advertising, the usual expensive "Billion Dollar Drug" is not notably more effective than generic medicines costing cents per day or even a placebo.*

For example, a five year study (mentioned in Science News, Jan. 18, 2003 p 45) involving 623 health centers found an inexpensive diuretic was generally more effective as initial treatment for high blood pressure than the calcium blocker or ACE inhibitor drugs *costing 5 to 15 times more. However, anti-hypertensive drugs that work just right for some can be totally ineffective for others.*

One small study suggests that diuretics may be contraindicated during pregnancy, since severe late pregnancy hypertension and/or its treatment with diuretics, may raise the risk of schizophrenia for that newborn by the time he/she reaches 35 years of age (like all initial reports, this interesting association requires confirmation).

An inexpensive, 40 year old drug, Spironolactone (Aldactone), suppresses aldosterone (a steroidal hormone secreted by the adrenal glands which causes sodium ion retention, potassium ion loss and raises norepinephrine levels, thereby stressing the heart). Aldactone remains a very effective antihypertensive drug. It also reduces deaths from heart failure by 30%, but its side effects include reduced sex drive or breast growth in 10% of men.

As an old and retired surgeon, I consider the effective antihypertensive agents that are now available to be truly "wonder drugs" compared to the risky diagnostic studies and low benefit therapeutic operations we performed in the early 1960s for "malignant (uncontrollable) hypertension".

Those barely useful and now totally outdated "antihypertension procedures" included bilateral lumbar sympathectomy, renal artery surgery and partial kidney removal. But nowadays, rather than doing various invasive studies followed by major surgery, physicians simply need to test one anti-hypertensive agent after another until they find a single drug or combination that works for that particular patient at that time without detrimental side effects.

Big Pharma claims that exorbitant charges for patented drugs are the only way they can sustain their fabulous research programs. This claim is "truly a fable!" For most real (rather than hype-driven) "Blockbuster drugs" (over a billion dollars in annual sales) were discovered and often primarily developed by University-based scientists at public expense.

In its May, 2002 report, the nonprofit National Institute for Health Care Management found that the FDA approved 1035 drugs from 1989-2000. Of those 1035, only 361 were new molecular entities, and only 153 were deemed significant enough for a priority review. *Active ingredients in the other 65% of new drugs were already available in approved drugs* (Lancet, Nov. 2, 2002, p1341).

A Government-granted legal right to exclusive control of an industry or service is a Monopoly

A Technology Review commentary by Seth Shulman (April 2003, p77) offered points to ponder as our story unfolds.

1) The U.S. Taxpayer supports about two-thirds of research in our Universities and nonprofit research institutions.

2) The BayhDole Act of 1980 lets Universities license patents to commercial entities without disclosing the deals made.

3) Over half of such licensing deals are exclusive arrangements granting a monopoly on some patented technology.

4) Hence BayhDole should be revised, as taxpayers have the right to know (and benefit from) what happens to the intellectual property they paid to create.

5) *Furthermore, exclusive licensing is usually against the public interest since the owner of a legal monopoly on any lifesaving technology may demand anything from desperately ill persons.* And exclusive licensing often blocks important innovations.

For example, CellPro, a Seattle company, developed an innovative, government approved treatment for cancer that had been used by 5,000 sick cancer patients before Baxter International finally had their own product ready. Then that deep-pocket multinational corporation claimed "Infringement on its exclusive license from Johns Hopkins" and drove CellPro into bankruptcy.

Conflict of interest statement: I once consulted for a Baxter subsidiary and eventually received about \$60,000 in royalties on sales of a Chest Drainage Device.

Monopolies undermine decent health care

In an old Disney movie called "Dumbo", a bunch of circus clowns come up with a great idea, that Dumbo (a small elephant with large ears) shall modify his act by jumping from a far taller burning building into a much smaller safety net. The scene ends with drunken clowns celebrating their great idea before rushing off "to tell the Big Boss and hit him for a raise."

Presumably it was not just a bunch of drunken clowns seeking a raise who initially rumored (thereby market testing) a \$3,000 manufacturer's price *for each drug releasing stent*. The basic stent is a tiny springy metal mesh cylinder that, when positioned within a previously narrowed coronary artery, "might hold it open for a while" after coronary artery "**angioplasty**" (*the impressively surgical term* used by Cardiologists when overcharging an insurance company for a procedure that should have been called probing or "dilation" of one or more arterial blood vessels on a heart).

Cardiologist can usually find many narrowed vessels into which they can insert stents for an angioplasty. Bare metal stents were originally developed in the 1980s to minimize *the highly variable (15% to 80%) early failures of angioplasty*. Despite inserted stents, a fourth of dilated and stented vessels still closed within six months. A more recent study claimed less than half that many closures *within 9 months*.

Long term effects of various stent coatings, or of various drugs eluted by that coating, had not then been reported. But many efforts to decrease vessel closure rates after angioplasty (as by local treatment with radioactive materials) *proved truly counterproductive within two years*.

Yet Science News (Oct. 4, 2003 p214) reported that despite this unhappy experience and limited supplies, an estimated 60% of current stent insertions utilized new-drug releasing types at about \$2500 each (roughly three times the price of one bare metal stent insertion).

Thus every quick or slow insertion of another unproven drug-eluting stent cost the cardiology patient more than my basic surgeon's fee for an entire coronary bypass heart operation in 1983. Cardiologists may charge even more for each stent they insert after an "angioplasty".

In any case, coronary artery closure rates after angioplasty - with or without added stents - have remained consistently higher than the failure rates of surgical bypass grafts. But each approach has advantages under some circumstances.

As cardiologists usually diagnose and treat coronary artery disease, they also get to decide if a particular patient should undergo angioplasty by a cardiologist or be referred for bypass surgery - just as it is usually up to surgeons to decide if patients they evaluate should go to surgery.

The salient point here is that procedural surgeons, physicians and therapists have an inherent conflict of interest of which they are acutely aware: Most of us made a very good living by promoting our own services to the patient. Naturally, physicians usually insist they put the patient's interests before their own. Hopefully, some still uphold that proud tradition and deserve their patient's trust.

I have no idea whether public dollars supported two-thirds of the research on costly drug eluting stents—or on those thirty thousand dollar or more per patient year, cancer drugs, or on the \$60,000 annual costs of a patented drug for reducing pulmonary hypertension (recently I heard that drug price may have dropped to about \$25,000 per year).

In many such cases, the question is not “How can we get our new drug out to all those that desperately need it?” but rather “Will we make more by charging a great deal or by billing for a truly huge amount?” Would Big Pharma withhold an effective drug from dying people to make a few extra bucks?
"You bet!"

However, in the case of the pulmonary hypertension drug, that company allegedly offered reduced or compassionate prices to needy folks if they got a physician approved by the manufacturer to care for them and assist with their “compassionate drug use” applications.

It is obvious that the retail price of stents, or of costly cancer or HIV suppression drugs, often has little to do with manufacturing costs and everything to do with having a monopoly that allows them to avoid competition. Were it otherwise, generic drugs could not be sold inexpensively for a good profit.

Big Pharma's routinely understated marketing expenditures always dwarf their hugely exaggerated research costs—see America's Other Drug Problem—How the drug industry distorts medicine and politics; by Arnold Relman and Marcia Angell (The New Republic, December 16, 2002, pp2741).

Of course, a Big Pharma Corporation's marketing expenditures only begin with routine visits and bribes to physicians (e.g., Marianne was once offered a fully paid-for Florida resort holiday plus \$1000 spending money - so her office eliminated such visits), or the colorful promos seen everywhere in print and other media. *For by far the greatest return on Big Pharma investments comes from dollars spent as campaign contributions, and for the costly throngs of tax deductible lobbyists and attorneys who then routinely revise our Congressional legislation to better serve Big Pharma needs.*

Our very own Food and Drug Administration (FDA) the agency that oversees drug safety concerns before and after drugs are brought to market is increasingly dominated by Big Pharma, as is our heartless foreign policy that so long denied poor countries cheaper drugs to treat AIDS (thereby bringing early death to millions and damaging our Nation's image) just to get extra dollars for Big Pharma.

Robert Kennedy once wrote that when police receive more money from criminal payoffs than from police salaries, there is no need to ask for whom they really work. Similarly, one can tell a lot about how a politician will vote by identifying his or her major campaign contributors. And a lot about whom they really worked for while in office by who hires their relatives initially, or who hires the politician himself or herself upon retirement.

This surely appeared true after the Supreme Court's Bush-for-President decision when multiple Scalia relatives allegedly got high paying government jobs after Supreme Court Justice Scalia selected Bush-2 as our next President.

Big Pharma soon corrupted the Pharmaceutical Management Organizations devised by Big Health Care to monitor prescriptions and negotiate discounts from Big Pharma. Although HMO's and Big Health Insurance initially saved 30% (by restricting drug purchases to discount, less expensive, and more effective remedies), it soon became obvious that the PMOs had been coopted when drug costs to individuals and large organizations again skyrocketed while PMOs reported huge profits from "new services to drugmakers" that they could not disclose.

Medco Health Solutions was an outstanding example of a hugely profitable company that supposedly helped health plans find low cost prescription drugs but (federal prosecutors alleged, on 6/23/03) instead pressured doctors to switch patients to medications made by Merck (after Merck bought Medco in 1993).

When accused of providing misleading information in connection with its contract to manage drug benefits for federal employees, Medco responded that these charges were either untrue or reflected old isolated issues that had been identified and corrected.

On 8/5/03 Merck announced Medco would pay Merck a \$2 billion dividend and that all Medco shares would be distributed to Merck shareholders. For while Merck's pharmaceutical business captures 40 cents pretax profit on each dollar in sales, Medco retains just 2 cents of each dollar in sales.

And because Medco's 2002 revenues were \$33 billion—hence a large part of Merck's entire revenues—their combined results made Merck's profitability appear less grand than that of other Big Pharma companies—which could have limited executive bonuses and stock options at Merck.

Medco's three main competitors in this fast growing field were AdvancePCS, Caremark RX and Express Scripts (\$12 billion in revenues in 2002)—until Caremark bought AdvancePCS for \$5.6 Billion in September, 2003. Advance was larger than Caremark but had lower profit margins. Following this purchase, Caremark expected to handle 600 million prescriptions with annual sales of \$23 billion—up from \$6.8 billion in 2002.

Although modern advertising lets Big Pharma promote many ordinary drugs to great profitability, it is comparatively difficult for Big Pharma to totally suppress information about truly innovative and effective drugs. Nonetheless, the playing field is particularly tilted against inexpensive remedies by the usual aggressive, costly and biased Big Pharma legal attacks, and by Big Pharma's overwhelming marketing and lobbying efforts (see peptic ulcers, Chapter 4 and tetracycline, Ch. 12).

Interestingly, over a million residents of the northern United States have lately been purchasing their more costly medicines from Canadian pharmacies near the US/Canadian border to take advantage of huge discounts negotiated by the Canadian Government for Canadians. Those Canadian discounts in turn are largely based upon average discounts negotiated by several European national health programs—or by prices of comparable drugs already available in Canada. Canadian discounts underlie the 50% to 70% discounts offered by some Internet pharmacies.

Naturally, Big Pharma condemns all crossborder drug sales as "possibly counterfeit" or "hazardous" (at least to Big Pharma's bottom line), even though those drugs are mostly made in USA. In particular, Glaxo and AstraZeneca have said they might no longer supply licensed Canadian pharmacies if they sell their products to Americans.

Bush-2 also tried to stop this crossborder discounting, and even prohibited Medicare from negotiating with Big Pharma for lower drug prices—*although every other major American health care provider regularly derives major discounts through such negotiations.*

Under such egregious circumstances, there was no need to ask whether Bush-2's salary as President was far less than Bush II's rewards from Big Pharma. For every day in every way, President Bush served the Multinational Big Businesses that put him into office "better and better" rather than making any effort on behalf of average Americans—the majority of whom rather sensibly had voted for Al Gore.

Of course, Big Pharma's concern about possibly hazardous or counterfeit drugs on the US market is valid but misplaced. As usual, the explanation is quite different. For currently only 1% of all prescription

drugs coming in illegally from all over the world are stopped by US Customs. Many of these deeply discounted drugs are counterfeit, damaged by poor storage, diluted, mislabeled or outdated.

Not surprisingly, this trade is dominated by organized crime. “Normally, drugs follow a simple route. Manufacturers sell them to one of the Big Three national wholesalers, Cardinal Health Inc., McKesson Corp. and AmerisourceBergen, which sell to drugstores, hospitals and doctor’s offices. Regulators and industry officials have long considered this straightforward chain to be the gold standard . . . But now that system is being undercut by a growing illegal trade in pharmaceuticals.”

“In the past few years, middlemen have siphoned off growing numbers of popular and lifesaving drugs and diverted them into a multibillion dollar shadow market . . . The shadow market exploits gaps in state and federal regulations to corrupt this system . . . Networks of middlemen, felons and other opportunists fraudulently obtain deeply discounted medicines by pretending they are for nursing homes and hospices.”

“Crooks have introduced counterfeit pharmaceuticals into the mainstream drug chain. Fast moving operators have hawked millions of doses of narcotics over the Internet. Such drugs from these diverters and counterfeiters pass back undetected through wholesalers (eager to profit from cheaper supplies) to the shelves of retail pharmacies.”

“Cardinal Health Inc., McKesson Corp. and AmerisourceBergen have a combined annual revenue of \$146 billion and a profit margin of 1% of revenue. And even though they have been forced to recall many counterfeit or damaged goods, the huge discounts they receive from those smaller wholesalers are apparently hard for them to resist.” “In many States, anyone can become a small drug wholesaler for a few hundred dollars” in fees. (quotes are from a Washington Post article—“Shadow Market, US prescription drug system under attack by illegal trade”, by Gilbert M. Gaul and Mary Pat Flaherty that appeared in Anchorage Daily News 10/26/03).

In 1987, manufacturers prices on patented drugs averaged 36% less in Canada than in the US. By 2001, Canadian prices were 69% lower. However, in a 63 decision (June, 2003), the Supreme Court allowed Maine to demand discounts on drugs for Medicaid patients and to impose Medicaid type discounts on drug prices for the poor as well as the uninsured. Many other states planned to follow Maine’s lead.

Pharmacies are increasingly compromised too, because they sell patient information to Big Pharma companies which then pay the pharmacies to call clients and remind them to get prescriptions filled or to tell them that there is another drug available that might work better for their condition. Perhaps new medical privacy regulations will restore some sanity and patient privacy in these situations.

As for herbal remedies, some would be just what the doctor ordered if only they met purity and cleanliness standards and were officially tested for safety and efficacy. However, Big Pharma has prevented herbs from being standardized, tested and regulated by the FDA. After all, that might severely undercut Big Pharma patents or those huge markups on herbal extracts and other manufactured versions of these same traditional remedies.

Big Pharma’s claim that traditional herbal products are “new and previously unrecognized” *despite having been used by man and beast as remedies for countless millenia* is just another abuse of patent law as well as human credulity. And Big Pharma’s avoidance of royalty payments or other fair benefits to the healers that identify and provide herbal samples for researchers, or even to poor foreign lands where these drugs and treatments originated, is unconscionable (see Fair Benefits for Research in Developing Countries, Science, 13 Dec. 2002 pp 21334).

But times are changing. For example, in June 2003, the Queensland Government announced Australia’s first Biodiscovery royalty laws. Now companies must apply for a permit to collect samples, and the state gets a proportion of any royalties from products created as a result of bioprospecting in its territory (see New Scientist, 20/ 27 Dec 2003 and 3 Jan 2004—p86).

An important fourpart series in The Lancet, "Medicines, Society and Industry" offers a great deal of useful information.

In Part 1: The pharmaceutical industry as an informant (Lancet, Nov. 2, 2002, pp140509), Joe Collier and Ike Iheanacho point out that "The pharmaceutical industry spends more time and resources on generation, collation and dissemination of medical information than it does on the production of medicines. This information is essential as a resource for the development of medicines, but is also needed to satisfy licensing requirements, protect patents, promote sales and advise patients, prescribers, and dispensers.

"Such information is of great commercial value, and most of it is confidential, protected by regulations about intellectual property rights. Through the generation and dissemination of information, transnational companies can greatly influence clinical practice. Sometimes, their commercially determined goals represent genuine advances in health care provision, *but most often they are implicated in excessive and costly production of information that is largely kept secret, often duplicated, and can risk undermining the best interests of patients and society.*"

Part II: The pharmaceutical industry as a political player (Lancet, Nov. 9, 2002, pp 14981502) by John Abraham, concludes that "The pharmaceutical industry has produced many drugs that have benefited man. Political frameworks designed to govern the industry must retain these benefits. However, regulation needs to be sufficiently robust to protect public health from drugs that are unsafe, ineffective or not necessary.

The extent of industry influence over drug regulation, at the expense of other interested parties, suggests that the current system could be more robust. The many ways in which the pharmaceutical industry can influence governments and regulatory agencies are discussed, and methods by which this influence can be curbed are suggested."

Part III: The pharmaceutical industry as a medicines provider (Lancet, Nov. 16, 2002, pp 159095) by David Henry and Joel Lexchin points out "Rising prices of medicines are putting them beyond the reach of many people, even in rich countries. In less developed countries, millions of individuals do not have access to essential drugs. Drug development is failing to address the major health needs of these countries.

"The prices of patented medicines usually far exceed the marginal costs of their production; the industry maintains that high prices and patent protection are necessary to compensate for high development costs of innovative products. There is controversy over these claims.

Concerns about the harmful effects of the international system of intellectual property rights have led the World Trade Organization to relax the demands placed on least developed countries, and to advocate differential pricing of essential drugs. How these actions will help countries that lack domestic production capacity is unclear. Better access to essential drugs may be achieved through voluntary licensing arrangements between international pharmaceutical companies and manufacturers in developing countries."

Part IV: Accountability of the pharmaceutical industry (Lancet, Nov. 23, 2002, pp 16824) by M N Graham Dukes concludes "The pharmaceutical industry is accountable on the one hand to its shareholders and on the other to the community at large. These two obligations can, in principle, be met. However, the industry has developed practices that do not consider society, including excessive or inappropriate pricing of drugs, an indifference to the needs and limitations of the developing world, an imbalance between true innovation and promotional activity, interference with clinical investigations, and efforts to mold medical thinking and priorities as a means to enlarge the market.

"In such respects, the pharmaceutical industry must now be called to order. The industry has shown itself to be sufficiently resilient to adapt to change if society insists on it. However, to influence multinational corporations effectively, the efforts of governments will have to be complemented by others, notably the many voluntary organizations that have shown they can effectively represent society's public health interests."

Another useful reference is "Out Licensing: a practical approach for improvement of access to medicines in poor countries"—Lancet, Jan. 25, 2003 pp34144. And see also DNA patenting and licensing, Science, 23 Aug. 2002 p1279.

CHAPTER TWELVE

My approach to health care? Whatever works!
Heavily Hyped Therapies are usually worthless and/or harmful
Self-Medication allows interesting experiments with rapid results
Traditional remedies that are also foods are often better and cheaper
For example, Tart cherries relieve my gout, my angina and may prevent heart attacks
Tart cherries are as safe as cherry pie! Ordering tart cherries on the Web
Cheese and my consumption of sick feedlot animals aggravated my angina
But an occasional ounce or two of wild Alaska salmon has been well tolerated so far
A lot of useful information is presented in The China Study
Turnips and turnip greens can control gout and reduce angina
Good old cheap Tetracycline relieved my angina for a decade!
Costly (NEW ?Tetracycline?) immediately worsened my Angina!
What about Cholesterol? What about Statins?
Mag64 normalizes heart rhythms, ends seizures and relieves muscle cramps
Atenolol Salt as an antiseptic
Anti-depressants were finally debunked (but only *after their patents expired*)
*Kroger's Triple Antibiotic Ointment appears to block **Microbial Quorum Sensing***

The second 16 years of my life were spent in MIT, Harvard Medical School and in surgery training/retraining. In 1959 I married Marianne Waelder. We moved to Anchorage in 1965, where Marianne began her career in Pediatrics working part-time at Elmendorf Air Force Base Hospital. Our children were born in 1961, 1963, 1965, 1967 and attended Anchorage Public Schools.

My Thoracic and Cardiovascular Surgery practice in Anchorage started slowly in 1965. We began heart-lung machine-supported cardiac repairs in 1973, and eventually repaired 700 hearts. *My own coronary arteries were repaired in 1983. I chose not to renew my medical license in 1984.*

In my first decade of retirement, I was **not** elected to the Alaska State Senate, so I wrote/self-published the last of my three books on Chest Surgery - again well received - and learned to print books (with great advice and helpful friends). We printed several thousand copies of Marianne's "More Joy From Parenting" which promptly sold out! Then I taught a two-term *Human Anatomy and Physiology* course in local branches of The University of Alaska for a decade. Because Anatomy and Physiology Books of that era *mentioned everything but explained nothing*, I then wrote and published *Human Evolutionary Biology* - awarded 4.5 out of 5 stars by Amazon readers.

The Millennium was fast approaching and religious expectations were rising worldwide when a young neighbor asked if her son could become a good person *without attending church?* Having not attended a church or synagogue myself, my initial "Yes" response to her question soon expanded into a

non-sectarian book on how religions arise, evolve and decline (3.5 stars from Amazon, and another of my five **free** and still relevant downloads from arndtvonhippel.org.

Following Alfred Tector's life-saving coronary artery bypasses and repairs on me in mid-1983 at St. Luke's Hospital in Milwaukee, it was clear that further repairs would be useless or harmful. So after my initial recovery, I took charge of my own health care, while ignoring the usual jokes such as *"Those who provide their own health care have a fool for a doctor and a very foolish patient"*.

Since 1983, I have taken just a few well-proven medicines and gradually rediscovered sensible ways to stay active and improve productivity (as I slowly became vegetarian and lost over a hundred pounds). *Several important lessons: Tart pie cherries - good! All Dairy products - bad for me! -* were initially based upon helpful remarks by health-care involved women. For example, in the early 1990s an elderly nurse suggested I take "cherries" to relieve my obviously severe, first gout attack. Since then, tart pie cherries (Anti-inflammatory! An old Chinese remedy) have delivered excellent health benefits to me and increasingly, to many others.

Complete self-care using Modern Medical Teachings (versus Traditional or Alternative Medical Principles) is clearly impossible for those not familiar with the many problems closely related to modern health care expenditures. Yet all patients must still try to understand and participate in medical decisions relevant to them, rather than simply accept, ignore or forget the doctor's advice.

Our world includes countless doctors, goals, plans and ideas. As with foods, some of us accept or prefer different choices and outcomes. But other than several worthless visits to a dermatologist long ago, I have entirely avoided formal health care since 1983, except for two brief eye exams. Yet even those simple, standard, competently performed (negative) exams - one for occasional retinal light flashes which, when associated with many new floaters, might signal a retinal tear requiring urgent laser treatment to prevent further retinal detachment), *raised interesting cost/benefit issues*.

For the lights used to examine my retinas were so bright that even two weeks later when I closed my eyes I still saw bright afterimages (in this case, spiderlike visual patterns resembling my retinal vessels). In addition, my visual acuity went down for several months—during which time I couldn't even see the mountain sheep on nearby peaks without using binoculars.

So if gazing directly at the sun during an eclipse endangers your eyesight, why wouldn't regular eye exams with high intensity lights reduce visual acuity as well? Modern soldiers allegedly shoot accurately in the dark, so why do modern eye doctors need such bright lights for ordinary eye exams? *Might frequent eye exams be one reason so many middle aged and older persons avoid driving at night?*

GOUT

On a slippery day in the early 1990s, I fell on a steep and rocky forest path. When I awoke from my presumably brief concussion, I had a shimmering left visual field and temporary loss of leftward vision that is common with "visual migraine", *plus many broken ribs and possible vertebral damage*.

After walking out and driving home cautiously, I sought comfort (*as some have suggested, but do not try this!*) by lying upon my injured side - which immediately caused my broken ribs to cave-in like a dented ping pong ball. My breathing became more difficult. But when Marianne got home and fluffed the bedcovers, she elicited a painful sneeze that popped all of my ribs back into proper position.

Soon my ribs only hurt when they shifted. But over subsequent days, my right great toe became increasingly red, painful and swollen. When that toe swelling reached my knee, I began to take minimal ibuprofen to control the new inflammation and discomfort of my first **gout** attack (an inflammatory condition related to tissue uric acid levels).

Thinking back, I probably had minor inflammation-related symptoms for much of my adult life, including backaches, inflamed Achilles and other tendons, and *"bursitis"* at various sites: (A bursa is a fluid-filled sac that enables nearby bones and tendons to move more efficiently. An *"itis"* word ending indicates *inflammation*).

Pondering Tart (Pie) Cherries and Gout

After several weeks of ibuprofen and hobbling about Anchorage with a cane, we attended a family reunion in Hawaii. An elderly nurse in a nearby unit noticed my swollen leg and asked why I wasn't taking cherries for my gout? Cherries?

The health food section of a local bookstore mentioned **tart pie cherries** as an ancient Chinese gout remedy. So I purchased a can of cherry pie filling, opened it, and consumed a dozen tart cherries, pulling them one-by-one from the pie goop. My gout symptoms *vanished just after I swallowed my twelfth cherry while still parked by that lovely little country store, still holding their beautiful can opener!* (This was the only moment I ever enjoyed gout!)

From then on, I ate a dozen or more "tart" (pie) cherries every day without otherwise altering my diet, adding a few extra tart cherries whenever my toe squawked, which it did faithfully if I forgot a dose of cherries. Although dried tart cherries or a couple of tablespoons of "black cherry concentrate" from health food stores worked similar wonders (within minutes!), *sweet cherries offered no relief*. And after we returned to Alaska, an occasional batch of dried tart cherries proved "totally ineffective" until I realized those dud "tart cherries" were *dried cranberries in the wrong bin*.

A couple of decades ago, a Science News item mentioned that *an interesting anti-inflammatory molecule* had been extracted from tart cherries. But with or without that explanation, I was delighted to get off ibuprofen - which never let me forget I had gout while also raising my blood pressure to 180/100 within weeks). My short-term hypertension subsided after I happily stopped taking Ibuprofen.

Like others who are susceptible to gout, I occasionally feel millimeter size, sharp edged, non-tender uric acid crystals between the skin and cartilage of my ears. Uric acid is produced by nucleotide breakdown. Since nucleotides are building blocks for DNA, RNA, ATP, and so on, all of our cells contain uric acid. Luckily, the anti-oxidant activity of uric acid is comparable to that of Vitamin C (Biochemistry by Lubert Stryer, 3rd ed. 1988 p622).

For while elephants *and other long-lived mammals* regenerate their own Vitamin C, early primates (the common ancestors of humans, apes, monkeys, lemurs, etc.) lost that ability - as did guinea pigs independently. **Uric acid's antioxidant activity** may be why humans prosper despite having near saturation levels of uric acid in their blood and body fluids. In contrast, more primitive primates with far lower blood uric acid levels live shorter lives and have higher cancer rates.

Those high uric acid levels in humans (as well as Vitamins C and E, and also bilirubin) appear to protect our cellular DNA from the oxidative damage that often enables early-onset in cancer or aging. Given our normally high *intracellular uric acid levels*, any significant escape of intracellular fluid into nearby tissue fluids can cause uric acid crystal formation. Which makes uric acid crystal formation a reliable signal of nearby cell damage in humans (except, perhaps, under the ear's skin).

One report suggests that uric acid crystals (but not dissolved uric acid) initiate inflammation that encourages immune cells to seek out and destroy any microbes whose proteins appear along with the cell damage signaled by uric acid crystals. And that is likely far more than you wanted to know about how an injury in the forest stirred up my latent inflammatory problems to cause gout.

Summary: Falling in the forest damaged many of my cells. The resulting major release of intracellular uric acid initiated a nasty inflammatory response at the base of my right great toe. Uric acid crystals also underlie cases of chronic inflammation and autoimmunity in genetically susceptible individuals (see Nature, 2 Oct. 2003, pp4601 and pp51621).

On average, I now have an annoyingly painful and persistent **gout** attack every year or two. Some attacks have been less painful than others, or were relieved more swiftly by major increases of my tart cherry intake. But tart cherries alone, or along with other remedies, never again brought me such a magical instantaneous cure of my "post-traumatic" gout attack (after weeks of misery) as we vacationed in Hawaii.

So has my increasing age and generous use of daily tart cherries to prevent or treat angina somehow rendered tart cherries less useful? Or does gout always last several long weeks until things naturally rebalance? I am not sure. But I am still learning what not to do. My latest "not to do lesson" came when I rapidly consumed a cup of **very strong coffee plus tea**, which instantly converted the **mild** early stages of my last gout attack to **nasty**!

Cliff Pratt (our log cabin builder in 1947-8), gave us a hint on how to treat gout in a story that I misfiled in my brain 65 years ago: That story was recently reactivated when I learned that a friend's husband was told three years ago that he could prevent further gout attacks (and so far he has) by eating 1/4 measuring teaspoonful of dried celery seeds "every morning before breakfast". Though her husband takes his celery seed religiously, and has remained free of gout for the past three years, he was recently diagnosed as having long-term Alzheimer's Disease (which I doubt is celery-related).

Anyhow, my *65 years old delayed message from Cliff* applies here to this discussion of gout treatment: For on that occasion, Cliff reported "that *after feeling very bad for some days*" (surely that is consistent with having gout although not diagnostic), he sat down and consumed "an entire box of celery!" and soon felt fine again. Though I do not know "what size celery boxes were in use back then", Marianne quickly bought me four big celery plants at the grocery store, and we were happy to note significant improvement after I ate an entire big fresh celery plant daily for two days in a row, followed by lesser amounts later (but stay near a bathroom for a few hours after too much celery).

Because Cliff never mentioned "gout", perhaps he was unfamiliar with that term, or maybe he preferred to avoid elite diseases. But for now I conclude that

1) Gout is rather variable in its symptoms and response to treatments. *Severe Gout Pain may start as a barely noticeable bit of soreness around the base of a **big toe*** for a few days, which helps it *avoid special attention or treatment until WHAMMO*, the gout suddenly becomes a Major Pain!

2) *For immediately soothing truly nasty Gout moments*, frequent brief, uncomfortably hot showers day or night, with that hot water directed only onto my swollen right forefoot for several minutes as tolerated (while avoiding a heat-injury) has offered the best immediate/brief relief.

3) *Merely swallowing 1/4 measuring teaspoon of celery seeds each morning for two or three days helped reduce my gout pain more quickly. Daily Turmeric also proved useful. And throughout a recent gout attack, I continued to benefit from frequent regular or urgent-in-emergencies, **tart** cherries.*

*Unstable Angina **and also tetracycline?***

Unstable angina is a variable experience. In my case, I eat **two** daily vegetarian meals (morning and night) that occasionally include Alaska Wild Salmon. And I rarely snack. For after every meal, I must physically rest for 2- 4 hours before engaging in any exercise such as slow hiking or shoveling snow. My angina usually begins as a mild tension in my lower jaw that worsens if I persist, or worse yet, if I speed up my hiking or shoveling.

Of course, any new and *barely detectable lower jaw tension remains barely detectable* until you become aware of it or continue to push your luck while shoveling, as I recently did. I purchase plain **tart cherry herbal extract capsules** from swansonvitamins.com - Marianne buys **our Mag64** over the counter, and brings home good old inexpensive **Atenolol** by prescription.

These three inexpensive and wonderful remedies are worth keeping close-by in a tiny waterproof container until suddenly needed. I also carry or have easy access to a small jar of a strong coffee/tea mixture (coffee alone does too little for me), so I can immediately wash down those medicines wherever I may be (water works equally well but I seem to be a coffee/tea addict).

Tart pie cherries are the best and safest anti-inflammatory "product" I have ever tried. However, tart cherries may also prolong the clotting times of folks on anticoagulants such as Warfarin. I find that *tart cherry capsules over a year after their manufacture date do not work as quickly or as well*. The "herbal extract" designation on the bottle presumably informs the FDA that their oversight is unwanted by the

manufacturer.

As for the risk of an overdose of tart cherries, my rough guess is that a large piece of good old cherry pie may contain about 20 or more tart cherries, which is why cherry pie was so popular with those who formerly did a lot of physical farm or other labor. So if you can safely eat two pieces of cherry pie, no need to worry about tart cherry capsule toxicity unless you are also on Warfarin. It is possible that a chronic user will need a somewhat larger dose of tart cherries as time passes. But after having been on them for close to two decades, I continue to find my exercise tolerance is far better with than without tart cherries. Indeed, I now need that anti-inflammatory effect so I can have a *decent slow stroll* with Marianne in our forests without risking a heart attack.

Once in a long while I encounter a Rheumatologist on our nearby walking and bicycle trail who refuses to discuss or recommend tart cherries for Rheumatoid Arthritis or anything else, despite our considerable success in helping his potential patients use Tart Cherries rather than his ridiculously priced \$500-\$600/appointments plus his costly and often toxic shots.

Off Tetracycline and On Tart Cherries

I routinely swallowed tetracycline capsules to relieve my angina from 1999 until tetracycline suddenly became unavailable (discussed later). Then over the last half-decade or more, I developed a slowly increasing angina once again which gradually interfered with our walks in the woods. After a while, I noticed that swallowing two or three extra tart cherry capsules when we headed out, made my angina less annoying. Soon an extra half dozen **or more** tart cherries allowed us to resume our usual walks in the woods.

Nowadays it may take a dozen of the tart cherry capsules ordered from *Swansonvitamins.com* to control my increasing old age inflammatory aches, pains and angina". Plus an extra two or three tart cherry herbal supplement capsules every three or four hours day and night (I have no conflicts of interest).

Tart Cherries may even stop a serious heart attack

About three years ago, having just shoveled our old neighbor's driveway, I was finishing our own when an apparently persistent heart attack began (rather than just my usual temporary bit of increased angina when I overdo). Soon I went inside to rest and swallowed two tart cherry capsules per hour for three hours – though I had no further discomfort after my first two capsules.

My mistake had been deferring shoveling snow until later in the day, for I had just eaten when Marianne reminded me that we were going out that night to a party. At which point, my shoveling "in a rush" was just plain stupid as I already knew that (at least for me) rushing an exertion with food in my stomach was asking for trouble, for food always diverts a significant part of your circulation into the gut, which is also why I usually nap for an hour or more after breakfast before attempting useful activities, even including the application of my brain to writing).

Subsequently, I used a small snow blower until my cold weather and exercise tolerance returned to normal (after about a week). I also shoveled our roof several times during heavier than usual snowfalls. That seemingly successful "instant control" of my "first heart attack" by a couple of extra tart cherry capsules was possibly another exciting confirmation of the inflammatory basis of coronary heart disease.

Yet even if such beneficial outcomes are eventually replicated countless times, tart cherries will never interest nor convince high-income statin-peddlers-or-statin prescribers, or even costly stent inserting cardiologists, until "***Give tart cherries immediately for any possible heart attack if available***", is mandated by a Single Payer.

The only known-to-me adverse side-effect of tart cherries might have caused problems for an older friend for whom I dropped-off a bottle of tart cherries when he complained of severe "Sciatica" (a formerly common word for hip/leg pain). Though he had sensibly reminded me that he was on Coumadin

for an artificial aortic valve, I was unaware or had forgotten - that tart cherries could gradually delay blood clotting. But fortunately, his doctor was closely monitoring my friend's Coumadin dosages and noticed the initial cherry-enhanced clotting delay within two or three days. At that point, my friend wisely quit tart cherries (with his sciatica fully cured!) before he could develop any Coumadin-related bleeding problems.

So now I wonder if tart cherries might serve as a safer, milder way *to slightly anti-coagulate some people*? Perhaps, one day airlines will pass out **tart cherry treats** occasionally on longer flights to reduce the risk of clots forming in the leg vessels of older, inactive or obese passengers?

Tart cherries are likely safer than Glucosamine

One day in 2003, I awoke with several swollen and tender joints in my hands. This resolved soon after I began swallowing glucosamine capsules—so I continued to take glucosamine for a month or two. One medical study (Lancet, Jan 27, 2001 pp2516) had suggested glucosamine might preserve joint cartilages, which I suspected would be useful as my fingers had rapidly become crooked after I retired at the young age of 50.

The article also pointed out that short-term studies showed glucosamine to be safer “than standard NSAIDs (aspirin, ibuprofen, Vioxx, etc.), especially with respect to the gastrointestinal tract (and comparable to placebo in safety” with no apparent effect on blood sugar. The FDA allegedly viewed glucosamine as a possibly effective remedy and it seemed to work for me.

But like all other *alternative remedies and health food supplements*, glucosamine capsules made in USA *need not meet any dosage or purity standards*. And you might want to avoid glucosamine anyhow, as it allegedly inhibits “inducible nitric oxide synthesis,” which implies it could both reduce small artery blood flows and sexual function (see Mollusks and also Viagra in Chapter 13). So a friend who took daily glucosamine “religiously” (without thinking at all) for five years, then developed small vessel circulatory problems that led to *a minor unexpected frostbite of his toes*.

Ordering tart cherries on the Web

Many web sites offer tart cherry products, often at a lower cost than your local Health Food Store. Major tart cherry crops grow in Michigan and Ontario, but Sarah Ballard - a nurse friend - has found prolific tart cherry trees growing in nearby Anchorage subdivisions. I have benefitted from taking dried or wild or canned or frozen tart cherries. But tart cherry capsules are often the most convenient (although their usefulness does decline within a year after manufacture, so I usually prefer capsules manufactured less than six to eight months ago).

Swansonvitamins.com (18004374148) in North Dakota *sells good inexpensive tart cherry capsules*. A friend discovered the Swanson site. We have no conflicts of interest, and wouldn't even if they found out we recommend them. But it can be useful to request a recent date of manufacture.

The rise and fall of tart cherry pies is an interesting tale, as cherry pies were very popular in my youth when farmers and other workers still performed a lot of physical work. But as American jobs became less physical, there was a comparable drop in the consumption cherry pie.

Indeed, at one point near the Millennium, tart cherry farmers worried publicly that low demand might soon force them to chop down tart cherry trees and plant another crop. Quite possibly a small, mostly feminist group to which I belong - that I eventually convinced to try tart cherries, then spread the word on tart cherry's anti-inflammatory benefits, thereby helping tart cherries become a good cash crop again after the Millennium: At least the demand for and price of tart cherries definitely increased soon thereafter. Ideas - good or bad - definitely spread more rapidly in our ever-more interconnected world!

Turnips also help control gout

In the summer of 2002, I planted a lot of turnip seeds. Before long I had a bumper turnip crop in several large containers on a balcony that our local moose couldn't reach. So while home grown fresh

turnip greens and sliced turnips featured on my daily menu, I totally forgot to take my tart cherries, though my big toe was usually first to complain if I went a half day without tart cherries.

Nowadays, I order "Swansons Tart Cherry Herbal Supplement" from Swanson (this "herbal supplement" includes no herbs, just dried cherry fruit, but calling it a "herbal supplement" likely cuts FDA paperwork and inspections). Anyhow, nowadays I often munch a turnip to prevent my great toe from squawking although store turnips often seem less anti-inflammatory, especially those with a thick woody stem that may have been grown too long with insufficient water.

Turnips always grow vigorously indoors or out, but outside they attract cutworms (caterpillars laid by moths). Being cheap and often visibly infested, turnips and turnip greens (no part wasted) were allegedly viewed as food fit only for slaves - whose hard labor may also have been made easier by turnip's apparent anti-inflammatory action.

Yet rich folks like Charles Darwin's physician father suffered agonies and died of gout and its serious mismanagement, when simple anti-inflammatory foods growing nearby might have relieved his problem. And I'll wager the old-time midwives knew all about turnips and tart cherries.

Commercial "red and white" turnips work for me raw, fried or heated in a soup, and they sometimes are also served and eaten like potatoes. My own organic turnips were just rinsed and eaten. The peel has the strongest radish type flavor so it may also offer the most benefit. But Marianne does occasionally refer to my "turnip breath".

Low dose Tetracycline relieved my coronary insufficiency

In February of 1999, almost sixteen years after my six coronary artery bypasses, I developed "unstable angina." In my case, this term meant that any little thing, getting out of bed, eating a sandwich, a brief stroll inside the house—led to significant chest pain with discomfort down my left arm. So a cardiologist friend dropped by and we discussed my options. In the early years after my 1983 coronary bypasses, I had occasionally experienced a few weeks of reduced exercise tolerance. Each of these episodes suggested that yet another of my vein bypass grafts had closed (vein grafts bypassing arteriosclerotic "low flow" vessels like mine are more likely to close within a few years).

Anyway, by 1999, my entire coronary circulation probably depended upon a single long skinny internal mammary artery grafted into my skillfully cleaned out LAD artery. Any repeat coronary artery catheterization would have meant filling my last open graft with X-ray dye at a time when my heart demanded **more** oxygen from my blood—an unattractive option. The known sorry state of my preoperative coronary arteries offered little likelihood that more could be learned from a new angiogram anyhow, nor did reoperation to connect additional bypasses onto my severely corroded arteries seem worthwhile.

The "turtle heart treatment" - then in its final iteration - involved burning many laser holes through left ventricle muscle into the cavity of that blood pump, which likely did not draw additional oxygenated blood out into heart muscle either, though it sometimes relieved angina - as did other *soon-recognized-as-useless or placebo* interventions like cardiac surface abrasion or internal mammary artery ligation.

My cardiologist friend knew of no new medications likely to help. The situation looked grim for me. In fact, he advised "Anyone wishing to *see* von Hippel alive should drop by soon". So John, our loyal heart-lung-machine "Perfusionist", dropped by. Of course, given all the medical folks I had annoyed over the years, there would surely have been a far better turnout had he invited everyone wishing to *view* von Hippel.

Anyhow, the following week, some old friends insisted we come to dinner. On returning home after a light meal, I had severe angina for an hour. Fortunately, this was some years after Finnish researchers had discovered DNA of an intracellular bacterium, *Chlamydia Pneumoniae*, in 80% of human coronary artery plaques that they tested (this work may still deserve a Nobel prize!)

So after two straight weeks of unstable angina, I decided to experiment with low-dose tetracycline – an effective "Chlamydia suppressing" antibiotic that has long been given to corn-fed cattle (corn is far cheaper than hay, and it adds carcass weight more quickly, but inflammatory omega-6 corn soon makes cattle ill). So as a "food supplement" many thousand tons of tetracycline were therefore consumed annually by these *future hamburgers of America*, to optimize their (pre-grocery) survival and growth.

Tetracycline is also an anti-inflammatory metalloprotease inhibitor. Anyhow, in earlier times, I had treated variously infected adult humans with up to 4 grams of tetracycline per day. So I started myself on a half gram of tetracycline twice daily. Within eight days, my heart felt well enough for me to slowly climb a dead spruce dragging a heavy chain. Then Al Moe (my 77 year old pal living next door) and I used my still sharp two-man crosscut saw to drop that tree neatly in our yard before it could fall onto our garage roof.

For the next half-decade or more, I remained essentially angina-free on this same low dose of tetracycline. Once I stopped tetracycline for two weeks while taking penicillin for a "strep throat" (for tetracycline suppresses bacterial growth, while penicillin only kills bacteria that are growing).

So there I was, a bit surprised to still be enjoying life, puzzling over which tetracycline effect provided what benefit. Both bacterial suppression and tetracycline's known anti-inflammatory action likely helped. And tetracycline's inhibition of matrix degrading enzymes presumably stabilized any vulnerable atherosclerotic plaques, further reducing the risk of plaque rupture and coronary artery clot.

My Tendons were often inflamed

For many decades before I went on tetracycline, I had chronic tendon soreness-inflammation, as well as a tendency of my tendons and ligaments to tear. One time I even bought Cowboy boots with heels which somewhat relieved the stress on my sore Achilles tendons. And during minor exertions, I snapped both plantaris tendons in my calf muscles. During another effort, I felt a ligamentum teres break (one ligament ties each hip bone directly to its socket, and sometimes also delivers important circulation to that bone). And for years thereafter, that hip often insisted "I use it cautiously!"

I separated my left shoulder when I fell from my bicycle. And while descending into a gully near Denver, I suddenly slipped and my right cowboy boot heel hooked a big root, causing my entire quadriceps (the front-of-thigh muscle) to contract so suddenly that the entire muscle tore away from my right knee cap: That one required an excellent surgical repair by Ed Voke, a truly gifted Anchorage orthopedic surgeon with whom I had occasionally worked in Iowa while we both trained in our respective specialties. We had then worked together more often on trauma cases during our early years in Anchorage

And the outer joint of my left thumb dislocated as I hung from a sturdy root climbing down a rock face. One might say I was falling apart or aging ungracefully. But since starting tetracycline in 1999, I only slightly tore my other quadriceps slipping on ice in the woods (so we got better ice grippers). And one day, the heavily used "long tendon of my right biceps parted. However, overall, I appeared to be holding together far better after starting daily tetracycline. Tetracycline's metalloprotease (collagen dissolving enzyme) inhibition may also have blocked enzymes produced by oral bacteria and possibly secured my gums more tightly to my teeth.

Plus I no longer felt occasional minor ripping sensations inside my chest (which pleased me as my aorta had been a bit enlarged at surgery (and see "Mollusks" in Chapter 13 for other body muscle benefits). Given such positive anecdotal findings, one might expect ambitious cardiologists to seek fame by rushing to define tetracycline's beneficial effects on coronary artery disease.

Such a study could easily have been funded out of office "pettycash" or "partycash," as several companies were then producing inexpensive generic tetracycline capsules (In bottles of 100 capsules, retail tetracycline then cost me about 36 cents per day). But outdated tetracycline can damage the liver, so we always made sure the tetracycline expiry date lay far ahead whenever we purchased larger quantities.

Then Big Pharma actually did run many clinical trials of various other antibiotics for relieving coronary artery disease, but their money-crazed Corporation Directors only wanted additional beneficial uses for their (currently most costly) antibiotics. And none of those drugs relieved any symptoms of coronary artery disease, even when blood tests documented Chlamydia pneumoniae infections. So since Big Pharma had very few costly antibiotics to over-sell back then, they apparently lost interest in antibiotics for coronary heart disease.

In contrast, a Lancet article pointed out how “Recent trials and guidelines have resulted in a substantial increase in the use of invasive cardiological procedures and new pharmacological treatments. Without necessarily being at high risk, previously well patients with an acute first coronary are increasingly likely to undergo invasive coronary procedures with implantation of one or more stents, and to receive intravenous . . . platelet receptor blockers, in addition to heparin, aspirin, clopidogrel, beta blockers, ACE inhibitors, and lipid lowering agents . . . all in accord with guidelines based on results of randomized trials published in peer reviewed journals . . . and strongly promoted” in other publications, roundtables, forums, workshops and conferences subsidized by industry (Lancet, May 24, 2003 p 1813).

The authors went on to point out many serious limitations of these clinical trials including careful patient selection, brief follow up, statistical manipulations of minor differences and conflicts of interest, that together would impose a very costly conformity of care on many patients who would not benefit—in accordance with the wishes of a powerful pharmaceutical and device industry that builds up "Opinion Leaders" (often the same researchers now strengthening the conclusions of their "so-so - as in not very impressive" studies - while revising consensus guidelines and recommendations).

On the other hand, the widespread coronary inflammation seen in unstable angina **is** strongly associated with systemic markers of inflammation such as elevated levels of "C reactive protein". So a lot of evidence suggests that the above recommended focal treatments (angioplasties, stents or bypasses of obviously narrowed coronary arteries) in patients with unstable angina—as well as in many others with stable angina—*may be less important for avoiding future coronary events than anti-inflammatory treatments* such as dietary manipulation (more fruits and vegetables, ongoing gradual weight loss), or tart cherries and tetracycline—and see also New England Journal of Medicine, July 4, 2002 p56.

So once again, as we saw when discussing high quality MRI studies of the spine in backache patients (see Chapter Six), modern medicine manages to derive and display a lot of ... information with coronary angiograms that ...often leads to misdirected or complicated therapeutic efforts ***only good for raising costs.***

Anyhow, despite abovementioned negative reports on cardiac benefits from costly antibiotics, I knew several people taking low or even farlower dose tetracycline to avoid familial, or suppress presumed actual, coronary artery problems.

But while these folks claimed to benefit, their belief and my positive experiences reported here, are undocumented anecdotes. And tetracycline's known positive effects on the health and weight gain of feed-lot cattle may not relate to cattle coronary arteries either.

Dermatologists have long treated patients with low dose tetracycline to help suppress acne. One could easily look for obvious differences in the incidence of coronary artery disease between acne treatment groups and similar untreated populations to encourage more useful investigations.

Chlamydia pneumoniae have even been found in temporo-mandibular joints of some individuals with TMJ problems (pain or inflammation of the joint where jaw meets skull). Chronic Chlamydia pneumonia infections in blood vessels also seem associated with an increased risk of stroke.

I formerly went to a good dentist whenever I broke a tooth on my crusty sourdough bread (more than 8 molars so far). I am now also two inches shorter and scrawny, compared with my overweight/brawny younger self. My lengthwise gravitational compression left my soft center with about the same circumference as my chest and hips. So I must depend on suspenders. And since it takes far less food to

fill us up, Marianne and I often stop for coffee and a snack, or split a single restaurant meal after our walks in the woods (of course, we then compensate by giving "the help" a larger tip).

Restaurant meals are occasionally followed by abdominal discomfort and distension

Speaking of restaurants, in the uncommon event of food poisoning, my belly aches and becomes bloated. This is a quite common complaint among older folks in any large hospital emergency room, but that is no place I wish to visit. So under such circumstances, this condition—often referred to as *ileus* or *partial bowel obstruction*, likely won't get worse and usually improves if one walks as much as is tolerable (inside the home is fine), for walking naturally jiggles and rearranges gut loops, thus assisting the onward passage of bowel gas, and thereby commonly prevents trips to the hospital for all those costly tubes, tests and treatments.

Marianne and I are anyhow convinced that walking is the best exercise for older people (those who can). As mentioned, those who suffer chronic backache find a daily walk with comfortable shoes on a proper surface is an important way to control back spasms and remain mobile. Daily walking also encourages weight loss and reduces the risk of diabetes. And the increased nitric oxide production within small blood vessels of those who walk (exercise) daily may also help lower the blood pressure.

Chronic infection with Toxoplasma gondii

I began this book by mentioning common microbial epidemics and infections in pre-antibiotic days. At that time "the experts all knew that widespread chronic bacterial invasion of the body could not occur without obvious illness." Yet it now appears that many chronic inflammatory, autoimmune or even malignant ailments may be associated with, and perhaps even elicited by, ongoing internal (often intracellular), microbial or viral infections.

A brief report in *The Week* (Oct. 10, 2003 p22), which obviously merits further investigation, even claims that chronic infection with *Toxoplasma gondii*—a common parasite in cats that spreads easily to humans—can change the personalities of humans that it infects. Prof. Jaroslav Flegr of Charles University in Prague, Czech Republic, said that he, along with investigators in Britain and the US, had found that women infected with toxoplasmosis tended to become more fun-loving and promiscuous (the origin of the term, Cat House?), while infected males often became antisocial and aggressive alley cats?

Although such effects seem implausible, it is well known that many microbes alter animal behavior in ways that encourage microbial dissemination. For example, infections that cause coughing, sneezing or diarrhea are far more likely to spread to others nearby than infections that dry up body secretions. Indeed, few if any travelers have ever been disabled by "infectious constipation".

Modern researchers commonly scrutinize huge libraries of molecules—including already "FDA approved" therapeutics—seeking appropriate shapes to jam up or otherwise relieve a specific microbial disease or molecular malfunction. And as scientists seek new therapeutic roles for old or new molecules, I hope they will reinvestigate several unexplained empirical benefits of the **original** tetracycline molecule, thousands of tons of which helped sustain the health of feedlot cattle, hogs and former feedlot meat consumers like me.

Of course, no reasonable argument prevents individual physicians from trying tetracycline and other low risk, low tech, low dose, low cost treatments on a whole variety of chronic and currently incurable conditions. After all, widespread trial and error was how medicine slowly advanced in the days before Big Pharma coopted medical experimentation and discovery in order to elicit greater profits from worse drugs.

I suspect that relevant committees in larger hospitals won't encourage physicians in private practice to formally test the **original tetracycline molecule** on hospitalized patients. But such studies could easily be run on ambulatory patients through any medical office. After all, even well known researchers working for Big Pharma often revert to that same old empirical approach when seeking profitable new indications

for patented drugs like the various statins (Chapters Ten and Eleven). *And many cholesterol-lowering drugs were heavily hyped despite their numerous well-documented dangerous and nasty side-effects.*

What About Cholesterol? (Initial quotes from Wikipedia)

"Some scientists believe that statins are overused. Their use has expanded markedly in areas where they provide less benefit and less evidence of benefit. And the lower the risk of cardiovascular events, the lower the ratio of any benefits to costs. The US market for statins nearly tripled when the National Cholesterol Education Program (NCEP) revised its guidelines to recommend statins as primary prevention.

Although the panel cited *randomized trials that support statin therapy for primary prevention of occlusive cardiovascular disease*, Lancet notes **"not one of the studies provides such evidence!"** Journalists also questioned the (conflict of) interests of doctors making such recommendations, since eight out of the nine doctors on this panel were discovered to be making money from the companies whose cholesterol-lowering drugs they were pitching to 20 million Americans. "

"A smaller group of scientists, The International Network of Cholesterol Skeptics, question the lipid hypothesis and argue that elevated cholesterol has not been adequately proven to cause heart disease. These organizations maintain that statins are not as beneficial or safe as suggested. The commonly held belief that high fat and cholesterol consumption causes atherosclerosis has been questioned. Because fat and cholesterol are the main substances of arterial plaques, both are often considered contributors to atherosclerosis, though this was never verified.

Indeed, inflammation is now considered a more likely cause of atherosclerosis than fat or cholesterol intake. And "non-dietary" triggers for inflammation include bacterial infection. Thus syphilis remained a major trigger of artery damage in persons under the age of 50 until penicillin became available in the 1940s - following which syphilis-based arteriosclerosis became rare in the developed world.

Tobacco smoking is another major risk factor for atherosclerosis, as smoking induces vasoconstriction and inflammation of artery walls. Drugs such as cocaine have also been implicated in atherosclerosis. A few uncommon genetic conditions also can cause cholesterol accumulation in the arteries of those affected.

And a team of scientists investigating ancient Egyptian mummies recently discovered the earliest known case of atherosclerosis. These findings suggest that some scientists do not understand heart disease as well as they claim. Perhaps atherosclerosis is not a modern disease at all. Maybe it has been common throughout human history?

For when this team began running mummies through a CT scanner, their hypothesis was that they wouldn't have heart disease because they were active, their diet was different and they didn't have tobacco," he says. But they were wrong. One of the mummies the team scanned was a princess in her 40s with atherosclerosis," the researcher says, "I think we're missing a risk factor. Right now we know that high blood pressure, smoking, inactivity, cholesterol and other things can cause atherosclerosis, but I think that we're less complete than we think." On the other hand, those mummies were all members of the Egyptian upper class, and would have had access to higher calorie foods than the lower classes, whose bodies rarely survive for examination."

My view on Cholesterol

Most physicians are aware of occasional families with high blood cholesterol in which adult males tend to die young (in their 30s and 40s) of strokes and heart disease. At autopsy, those persons often have narrowed or blocked arteries with fatty cholesterol-thickened walls. But physicians also see many families with very high cholesterol in which all members generally enjoy good health, often into their 90s, and have decent looking blood vessels.

No one has ever demonstrated that a "population wide" reduction of blood cholesterol by statins can decrease early deaths from vascular disease without increasing early deaths from other causes. Nor has anyone even shown if - or even in which direction - the "population wide" statin treatment so urgently being promoted by Big Pharma might alter the incidence of arteriosclerosis.

Yet it has been known for centuries that chronically infected individuals, such as those with long-term carious teeth (a possible cause of the artery disease in the mummy princess cited above), often die young, and obesity is also associated with early onset arteriosclerosis!

Other modern aggravating factors include consumption of heavily sweetened, and surprisingly, also of Diet (Non-Sugar) soft drinks, as well as high salt or multivitamin and mineral depleted manufactured foods (foods that by law must display their extensive list of ingredients). Even my excessive consumption of "unhealthy" (overfed with omega-6 to the point of illness) cattle, pigs or fowl was likely a major reason that I required such an early coronary revascularization.

Most of us understand that life evolved over billions of years. During those eons, innumerable molecular modifications and interactions appeared and were deleted. A few changes that increased fitness at the moment, tended to endure and undergo further (disadvantageous or occasionally advantageous) changes, some of which persist to this day. ***Overall, human biology is rarely as simple as those whose conflict of interest leads them to promote patented health care products.***

So our ears perk up when statin manufacturers brag that the beneficial impact of their particular statin on survival for patients with heart disease begins almost immediately, even before cholesterol levels start to "improve". If true, this alone would suggest that statins don't act as advertised, and that possible statin-altered cholesterol levels are of secondary rather than of primary importance.

But instead of admitting that statins may beneficially hit unknown targets while aimed elsewhere, Big Pharma promotes statins as *also having antiinflammatory* and other unexplained health benefits (see New Scientist, 11 Jan., 2003 pp379). Recent studies suggest that each of us inherits particular proteins that determine the size of the cholesterol particles being transported through our blood. And that individuals with naturally larger cholesterol particles are less likely to have cholesterol deposits in their blood vessel walls, regardless of blood cholesterol levels.

In other words, merely having smaller cholesterol transport particles in your blood might increase your risk for arterial disease, heart disease or stroke. *Yet I have seen no evidence that statins beneficially affect cholesterol particle size. Nor have I yet heard of laboratories doing "Important new tests to determine your cholesterol particle size!"*

Some "Statin Peddlers" insist that up to half of all adult Americans have sufficiently "elevated" cholesterols to benefit from taking statins. But as is well known, *half of all heart attacks afflict individuals with "normal" cholesterols. So if populations with high cholesterols and populations with normal cholesterols have a similar overall risk of heart attack, logic again suggests that reducing blood cholesterol levels of those with elevated cholesterol might not alter their incidence of coronary artery disease.*

Furthermore, current evidence indicates that cholesterol deposits in blood vessel walls are not directly related to blood cholesterol levels anyhow. *Rather, atherosclerotic cholesterol plaques in arteries seem to follow damaging inflammation, whether caused by Chlamydia pneumoniae, local inflammation, carious teeth, a bad diet, etc.*

So if such causative conditions were detected earlier—say, by testing blood for elevated levels of C reactive protein ("a strong independent predictor of future vascular events"—Lancet, Sept. 22, 2001, pp9467)—they might then be treatable in a more direct and timely fashion. But the relevance of any such evidence remains unclear.

Among its other functions, C reactive protein (produced in the liver), tags bacteria for destruction. High levels of two other inflammation related proteins, interleukin6 and tumor necrosis factor alpha, also seem associated with coronary artery disease. And high interleukin6 levels are allegedly associated with

increased risk of stroke, while low levels of adiponectin have been associated with an elevated risk for heart disease (see Science News, Nov. 22, 2003 p334).

Fortunately, *a simple, tasty Greek diet, rich in olive oil, fresh fruits and vegetables (but very little red meat), lowers C reactive protein, interleukin6 and tumor necrosis factor* (Science News, Nov 22 p 334, and Dec 6, 2003 p366). Other inexpensive "anti inflammatory" regimens—perhaps even including the cheap *original feed-lot tetracycline and gradual weight loss*, could deliver similar benefits. The British National Health Service spent an estimated \$900 million on statin drugs in 2003. I'll wager that their \$900 million would have been far better spent (health-wise) on subsidizing imports of fresh Greek food!

As for important contributions of infection or inflammation to blood vessel disease, it now appears that antibodies themselves generate ozone to directly kill bacteria, whereas formerly it was believed that antibodies simply tagged bacteria for destruction by immune cells. Recent evidence also suggests that the ozone (produced by antibodies and immune cells during inflammation), can contribute to arterial plaque formation by oxidizing cholesterol (see Science, 7 Nov. 2003 p965 and p1053).

Statin manufacturers continue to promote the far more widespread use of statins *although no convincing statin benefits for health or longevity have yet been demonstrated by their brief and limited trials*.. Some experts apparently hope one day to add their favorite \$tatin to our drinking water. And as with screening tests (see Chapter 10), *even if \$tatin promoters ever show a legitimate beneficial result from \$tatin use in a high-risk population, that purely hypothetical beneficial outcome would not guarantee that a lower risk population wouldn't on average be harmed by \$tatins!*

For among known but allegedly "minor" side-effects of \$tatin treatment's are mild to moderate muscle destruction, and "insignificant" rises in blood levels of muscle enzymes, or the gradual appearance of \$tatin-caused muscle weakness, cognitive decline or polyneuropathy - all of which one might easily blame on "the natural decline of old or ill patients". So Big Pharma and their well-paid Medical Experts seem eager to risk killing many healthy people if thereby they can make more money!

Nonetheless, it would be catastrophic to offer such known harmful "side effects" to a far larger population of healthy younger individuals, especially for \$tatin's *"nonexistent benefits"*. I have been impressed by the skinny arms and legs of middle-aged persons on \$tatins, as well as by healthy older persons on \$tatins who cannot get up unassisted after a non-injurious fall to the floor!

So if you think I am paranoid about Statins and all those Big Pharma Crooks hoping to sell ever more statins *even for children!!!* - just have a look at Science 26 August, 2016, page 855 under Children's Health, titled "Cholesterol screening for kids sparks debate (again)." Subtitled "Evidence for universal testing is insufficient, task force says" by Jennifer Couzin-Frankel.

For as the Preventive Services Task Force points out, there is "Inadequate evidence for even undertaking universal Familial Hypercholesterolemia screening" because no one knows what such tests might mean (other than worried kids, worried parents and wealthier Big Pharma).

As I pointed out earlier, most screening tests are dangerous exactly because they do not tell you what you need to know, so then the question is "Should you ignore and worry or proceed even though you have no clue what such test results might mean or what harm might result from proceeding versus not proceeding."

Even Viagra, originally intended for other indications, is once again being tested against all sorts of conditions such as pulmonary hypertension or high altitude pulmonary edema where nitric oxide induced relaxation of lung arteries is known to bring benefit. However, Viagra has been associated with hundreds of cardiovascular deaths that may formerly have been dismissed with a leer and a wink because *Viagra was so widely considered the Geezers' last chance!*

So does Big Viagra expect us to assume that they all died enjoying "a better life through chemistry?" Or ought we be worrying about recent reports suggesting that *Viagra can adversely affect blood clotting?* And *this clotting question remains unanswered eighteen years after Viagra was first marketed.*

Surely it is easier, more fun and cheaper to order a half Rueben Sandwich with a side of clams, as discussed in Chapter 13. More generally, there is no reason to assume that any single chronic condition has only one "cause" or merely one "cure". Nor is it likely that any single medicine has just one effect. And we ought not expect that any multistep molecular progression that eventually gives rise to chronic illness will have just one point at which treatment can intervene.

The “turnip or tart cherries?” decisions I regularly face when my toe squawks, suggests that there are many ways to relieve various symptoms, and that among these ways, some may alter or block an undesirable cascade of chemical events far earlier than others.

Or if it turns out that cherries and turnips both contain the very same active ingredient, this might imply that there were other similar but unrecognized remedies for gout. So it would be easy and worthwhile to study the impact of gradual weight loss, tart cherries, turnips and the **original** tetracycline (individually and together) on inflammatory diseases in general, and perhaps on autoimmune problems as well.

In this regard, it is especially interesting that several Big Pharma companies have developed—and are currently testing—slightly modified tetracycline molecules that each presumably hopes to sell at a very high price by alleging that their patented variant of tetracycline is best at whatever it was that good old generic tetracycline did so very well.

And if Big Pharma's tetracycline research had met with any success, I predicted years ago, there would soon be increasing calls to get generic tetracycline out of animal feed (allegedly to avoid bacterial resistance) as losing that huge market might make it unprofitable for generic manufacturers to produce original cheap generic tetracycline at all.

The above is what I predicted in 2012! Soon tetracycline was indeed yanked out of the Feed Lot and Human market. Eventually, as mentioned, the new, extremely expensive tetracycline for humans finally reappeared. And I tried it when I was again having trouble with angina, but both that hugely costly new tetracycline, and that hugely costly new doxycycline - made my angina worse!! Nonetheless, as Business Week pointed out, the newly reissued Doxycycline price had gone up 6,000 % (regardless of whether it does anything useful or not)!

My Medical Parameters

My only cholesterol tests - drawn in 1983 before my coronary bypass surgery - were on the high side (220/240). I don't recall the HDL or LDL. My customary breakfast had long been a tough piece of steak and an egg with homemade sourdough bread. I ate and drank lesser amounts throughout the day, often including plain low-fat yogurt (see later this chapter).

In the spring of 2003, I again began to feel run down and more tired than usual, especially after eating another omega6-feedlot steak. By this time it was becoming clear that severe atherosclerosis or arteriosclerosis, the sort of vascular corrosion that had extended throughout my coronary arteries—was basically inflammatory, or to some extent an autoimmune process, rather than a random dump of excess blood cholesterol on those arteries (see Nature, 6 March 2003, pp 27-8; New England Journal of Medicine, July 4, 2002, p512 and p557; Science News, Sept. 15, 2001, p175; and see Inflammatory Fat, Science News, Feb. 28, 2004 pp139140).

Furthermore, there was increasing evidence that an overweight person could reduce inflammation and suppress autoimmune conditions most easily just by losing weight. Presumably this beneficial result of slowly reducing total body fat is partly related to the inflammatory impact of hordes of macrophages (cells that dispose of tissue debris and bacteria), drawn to clean up visceral fat stores as fat cells rupture.

For the enzymes and inflammatory signals released by macrophages include tumor necrosis factor alpha - which can increase insulin resistance, lead to type II Diabetes, and have a body-wide impact. So I decided to reduce my food calories and slowly lose weight over a prolonged period of time. As the rate of

weight loss seemed less important than sustaining it more or less indefinitely, my initial target was a half pound of weight lost per week.

My initial ten pound weight loss was easily achieved by eating wild salmon and fruit more often, plus a lot more veggies and considerably less meat. Within a week or two of starting this sustained weight loss program, I again felt well and my walking speed returned to our usual comfortable pace. So after that first ten pounds, I lost interest in continuing my weight loss program until I again encountered “the dwindles” about half a year later.

At this point, it is worth mentioning that persons with coronary artery disease tend to have intermittent bad days for no externally obvious reason such as a cold, or stress or a lack of sleep or something they ate. I had often attributed my own bad days to “having done too much” the day before. But given the modern understanding of coronary artery disease as a part of body-wide inflammation - or of body-wide inflammation as a cause of coronary artery disease - it makes more sense to explain occasional episodes of feeling unwell (being unusually tired, warm then cold, and so forth) as part of a sporadic wide-spread inflammation.

So in 2004 I concluded that my “bad days” were a signal to increase my low daily consumption of turnips and some form of tart cherries, and to adhere more faithfully to my gradual anti-inflammatory weight loss program. My appetite for meat disappeared without any need for will power, as I felt better and was more productive after a big breakfast of one egg, lightly fried vegetables (in a bit of olive oil) and a piece of a wild salmon, along with my home made multigrain sourdough bread.

I still ate sweets for a while but gradually discontinued them as well, and began napping one or two times a day and weighing myself every few days rather than every few years as before. Though I hadn’t seen an ophthalmologist for 30 years (until recently), I still saw other things well enough to renew my driver’s licenses without glasses.

Atenolol

Atenolol is a good old beta blocker that inhibits the sympathetic nervous system (and sometimes made me sweat excessively). Atenolol is an inexpensive lifesaving drug for cardiac patients because it minimizes the adrenalin rush of a “fight or flight” reaction. Thus atenolol helps me avoid getting annoyed. Some politicians take atenolol before a speech when they fear their voice might tremble. Other liars consume atenolol to fool lie-detection equipment. However, as far as I know (trust me!), atenolol neither forces one to lie, nor to tell the truth.

Beta blockers are known to prevent bone loss in those affected by “reflex sympathetic dystrophy”. As activation of the sympathetic system in animals results in bone loss, betablockers were evaluated by Gerard Karsenty’s team at Baylor College of Medicine as a possible way to prevent osteoporosis. In 2005 they published in “Nature online” that *beta blockers protect mice from osteoporosis*.

Beta blockers also help preserve muscle tissue of burn victims by blocking epinephrine and other catecholamines that cause posttraumatic hyper metabolism (see Herndon et al, NEJM Oct.25, 2001).

On Gatorade versus Skratch

I am too old to have a useful opinion on this topic. But I felt Gatorade offered benefits when it first was formulated in the 1960s. And on a recent “too hot” Alaskan day, I even got a bit dehydrated while sweating and drinking water as we walked up a rather steep trail onto the 800 foot high scenic Portage Pass from Whittier. So I will briefly mention a recent Business Week article “*No More Gatorade. Pro Athletes and life hackers .. adopting a new style of liquid electrolytes*” by Gordy Megroz, July 27- Aug 2, 2015, just *because it sounded sensible*.

Anyhow, a sports physiologist named Allen Lim was mulling over a offer to buy his Sports Drink formula when a bird flew over and pooped on the contract. “So Lim took the hint and started his own company - *Skratch Labs*, in 2010 - aimed both at professionals and more casually-fit folks.”

Unlike Gatorade, Powerade, and other products, Lim "eschews coloring ...uses as little sugar as possible and incorporates more sodium citrate to better match the amount of salt we lose when we sweat."

Lim says "When Gatorade was first formulated in the '60s it was probably a lot like Scratch. But then they added sugar and coloring to sell it to the 7-11 crowd." "Scratch is sold as a powder, for portability, and Lim also makes hydration mixes (\$2.00 powder packets). Scratch sales have grown over 100% annually, including to several professional teams sponsored by competing drinks, so those of you who seek the latest and greatest sports drinks - or even just worry about how to hydrate with Global Warming - might want to try Scratch." PS: I truly find some such stuff interesting, but I have no conflicts of interest, not here, not ever!

Cooked (but not fresh) tomatoes include compounds beneficial to the prostate. An enlarged Prostate interferes with urine flow. So older men can help maintain or improve their urine stream by consuming canned tomatoes (or canned tomato juice, or tomato paste) as needed. But life is a balancing act. For tomatoes, turkey and other foods may also aggravate (but not initiate) gout! So my canned tomatoes occasionally force me to eat more turnips and tart cherries as well.

Antibiotic ointments may disrupt bacterial quorum sensing!

Modern antibiotic ointments generally contain several powerful antibiotics in high concentrations that are far too toxic to ever take internally! Now the interesting part!

Several sequential smears of Kroger's Triple Antibiotic (Bacitracin/Neomycin/Polymyxin) Ointment or any similar product, rubbed over, around and into any red and increasingly sore skin surface area, can usually "cure" such a local infection before it spreads (e.g., by sending a red streak up your arm which will soon require an urgent visit to your doctor or the Emergency Room, as also discussed in Chapter One).

Pondering Bacterial Quorum Sensing:

When I entered medical school in 1953, we knew that innumerable microbes lived comfortably and often helpfully on our outer surfaces, as well as within our guts. We also understood that when random bacteria entered our tissues via a skin injury, or if we inhaled or consumed harmful pathogenic bacteria, this might cause serious illness or even death. So dangerous invasive bacteria were considered ongoing threats that should be entirely **eradicated from our tissues (if possible)** before they seriously harmed or killed us!

However, nowadays, in addition to - or even instead of - the powerful systemic antibiotics we still have available to treat nasty microbial infections (which antibiotics often harm our ordinarily helpful gut bacteria), there may be newer options such as "Ways to disrupt communications of invasive microbes" *rather than continuously trying to "eradicate" unwanted microbial guests.*

In my personal experience, I had applied strong antibiotic ointments to my intact but deeply infected skin surfaces and thereby achieved amazing "cures" of deep microbial infections. Then more recently, I viewed Bonnie Bassler's excellent TED-talk about her group's early studies on *bacterial quorum sensing*), and it seemed likely that my antibiotic ointments had somehow blocked Bacterial Quorum Sensing.

Under such circumstances, plenty of confused microbes would likely still be *alive but unable to organize an attack* on me after I unknowingly disrupted their normal bacteria-to-bacteria communication system (also known as Quorum Sensing) without necessarily injuring them. So is this good or bad? Yes!

If good, does it mean that every single invasive microbe whose quorum sensing you have blocked can be ignored forever (or for as long as it remains quietly alive but confused within you). Or does your body need further help to *hunt down and kill all such "bad bacteria" to prevent recurrence of their*

previous attack? After some initial background information, the paragraphs that follow discuss my personal experiences with "heavy" surface use of antibiotic ointments roughly seven to ten years ago.

Background: When I became old enough to drive legally, I purchased a used WW2 Indian Scout Motorcycle boasting a new "War Surplus" 30/50 engine on which I commuted to MIT. It was an easy riding, low-powered beginner's bike that easily handled traffic speeds of the late 1940s. At the time, I either viewed motorcycle helmets and sunglasses "as too costly or else as too restrictive".

In any case, I got severely sunburnt while traveling West from Boston to Chicago (I eventually ended up in Wyoming with a great ranch job). On this trip I mostly drove along narrow, paved, two-lane country roads that criss-crossed the U.S. well before 1956 when President Eisenhower initiated our amazing U.S. Interstate Highway System.

Anyhow, when I asked a druggist for sunburn cream, he sold me a cheap little container of Noxzema that I plastered over my face. That was a truly dumb idea but it was also far too painful to scrape off, so thereafter my sticky sore face accumulated literally thousands of flies and mosquitoes from every insect swarm I motorcycled through, as any insect that bumped my face remained stuck to my face.

Upon my arrival in Chicago, my aunt screamed and slammed the door when I first knocked. The door didn't hit my face, and eventually she figured out who I was, after I drove around and parked in their tiny back yard.

Fast Forward: By the time I retired, I was rather bald, and annoyed by many recurrent red, tender, persistent spots on my head. I presumed these were some sort of Barber Shop fungus infection, although by then I had been cutting my own diminishing hair for many years. A dermatologist was not too useful when he tried to freeze these spots away with liquid nitrogen. So I froze them a few more times with dry ice, which was even more stupid!

Decades later, well after I quit teaching A&P, a blocked translucent lymphatic vessel on the right side of my neck began to bulge above skin level. By the time it was the size and shape of a baby bottle nipple, I was annoyed enough to stab and try to drain that translucent bulging lymphatic. *That was dumb too! For while very little fluid drained from that blocked lymphatic, by morning, my right neck had swelled to nearly double-normal size and was red, hot and hurting!*

So I initiated a full right-neck treatment with extensive applications of *Kroger Triple Antibiotic Ointment* several times/day. For several days this appeared totally ineffective, but then it began to work wonders. And within 6 weeks my neck resumed its usual size and comfort, so I ended the antibiotic ointment treatments. A couple of minor recurrences showed up here and there, but each responded quickly to more of the same ointment, now applied only to the affected parts of my neck.

About a year passed without further problems: Then one morning I awoke to discover that my entire sternum (the bony front-central part of my chest) had suddenly swelled to a great size, with the same annoying heat, redness, swelling and discomfort now centered between neck and navel around the midline incision and the wires that had initially held my surgically-split sternum together until it healed.

Here again, about six weeks of local triple antibiotic applied several times daily took care of the problem. And a couple of minor local recurrences around several wires again required an additional week or two of triple-antibiotic treatment. Indeed, for the next couple of years, small portions of my wired sternal tissues swelled up but responded nicely to a bit more local triple antibiotic ointment.

I assumed that my neck and chest wall infections were fungal because initially I had felt that process spread just under the skin of my face and scalp (painlessly). When it first entered my nose, I had frequent nose bleeds, but then a decade passed without any nose bleeds, before a couple recently. This presumed fungus also spread widely just under my face and scalp skin, as well as between my outer ear skin and the underlying cartilages.

Those local extensions never troubled me although at times the skin on my ears appeared less tightly bonded to the ear cartilages, and occasionally they required and partially responded to the usual triple

antibiotic or later, partially responded to Mycostatin antifungal treatments. But my annoying facial red spots never totally disappeared, although rather hot showers helped somewhat to minimize them.

Summary: Some microbial infections seem easily suppressed by Kroger Triple Antibiotic Ointment. For now, I suspect that blocked quorum sensing was helpfully involved although that ointment was not promoted for use against fungus. At the time of these self-treatments, I had never heard of quorum sensing. And there may be much more to it, for the usual barber shop fungi remain superficial so they can consume fat found between your skin cells - which is what leads to the loose dried skin cells commonly known as "dandruff".

SALT

Salt was once a common antiseptic, but even salt rubbed into a minor cut or scrape may really sting for a few minutes. Hence the old adage "Like rubbing salt into a wound!" Perhaps you wonder why people would do such a painful thing.

Here is an example: I often get spider bites while picking raspberries when I wear shorts. Such bites often go unnoticed for a day or two until a bit of still-active spider venom encounters a sensory nerve where it may suddenly cause significant ongoing pain!

That pain encourages me to *quickly scratch open that small*, previously unnoticed but suddenly painful, spider bite *and rub in salt to precipitate (deactivate) the venom*: This "scratch-and-salt treatment" immediately ends the annoying pain and promotes quick healing.

The side point here is that spiders inject enzymes into small creatures to gradually dissolve them into a nutritious brew. Therefore, those spiders must initially immobilize their prey, and then return later to suck out the nutritious bug juice: Spiders inject-and-later-drink for they cannot chew.

Salt Mines

In former times, convicts were often sent to work in Salt Mines - which were allegedly very unpleasant places where the work was very hard. But interestingly, those "salt mine workers" rarely if ever developed skin infections. Salt was then a valued commodity, so valuable that sweaty Roman Soldiers often were paid in salt, or in coins they could use to buy salt. In either case, *the 'salary' was paid!*

Statins and antidepressants were only debunked on TV after their patents lapsed

"The CBS news show "60 Minutes" made waves with a story asserting that the antidepressants taken by millions of Americans daily are actually no more effective than sugar pill placebos. And the national evening TV news reported that a *Harvard research publication had found a 50% increase in diabetes among women who took cholesterol-lowering statin drugs like Pfizer's Lipitor. Also they reported that the cheaper generic statins were "as effective!" or "not any more useless!"* than expensively promoted statins such as Crestor.

"It is quite rare for national TV news to report data critical of pharmaceutical blockbusters despite plenty of research over the last several decades that repeatedly questioned the risk/benefit profile of commonly used drugs. *The likely explanation for such drugs finally being declared ineffective and unsafe is that they had lost their patent protection, and were no longer generating huge advertising revenues for the networks. Broadcast Networks make a lot of money from pharmaceutical advertisements!*

It might seem "better late than never" to expose the true risk/benefit profiles of blockbuster drugs. However, the millions of patients who diligently took their Lipitor or Prozac daily, *and now are told they have wasted their time and money, and possibly suffered major harm*, could justifiably scream at their TV sets, "You're telling me this now?!" But of course! For paid ads generally promote an agenda, *Not Truth!*

"If the mounting evidence linking increased Type 2 diabetes risk to statin use is correct, then tens of millions of patients developed diabetes as a result of taking Lipitor ***without any reduction in mortality***". Likewise, if published data supporting the efficacy of antidepressants was skewed *because negative results were never published*, a sugar pill would have been just as effective (without causing additional suicides as in the 60 Minutes story), so millions of possibly depressed patients were harmed! And a large percentage of all those patients needlessly prescribed antidepressants were children!

"American healthcare is at a watershed period in history. In the United States, total health care spending represents almost \$3 Trillion a year, or 18% of the entire gross domestic product. America spends more on healthcare than on the entire Defense Department. There is bipartisan consensus that much of this spending is wasteful, ineffective, and quite often harmful. *Only a rare drug is without some nasty side effects. Which is why Big Pharma usually profits far more if a potential "Blockbuster Drug" never undergoes any randomized studies that would likely prevent its use by millions of patients!*

The recent trend in national media to finally expose toxic or ineffective drugs is long overdue! But to cut health care spending, a law (known as "Obamacare" by many) mandates a \$500 Billion cut in Medicare spending: However, no progress has been made on that front. The failure of the bipartisan deficit reduction "Super Committee" was supposed to trigger mandatory cuts to Medicare, and even that is not likely to happen in an election year. Given the dysfunctional status of our federal government, the national media might be the most powerful force to wrestle America's healthcare monster. But don't hold your breath!

(Dr. Steven Greer MD is a healthcare sector financial analyst and contributor to MSNBC, Fox News, NPR, Reuters, and The Wall Street Journal.

The China Study

If you would prefer to read a lot of confirmed dietary information rather than continue to track me as I only very slowly and experimentally learned which were **"Great foods not to eat"**, you should buy an **inexpensive** little book, "The China Study", by T Colin Campbell and his physician son, Thomas Campbell (published in the United States in 2005). For by the time this authoritative book was given to me several years ago by friends, I already had laboriously corrected almost all of the close calls I caused myself by eating wrong through trial and error or by quickly testing any casual free advice. The China Study is both reliable and an easy read.

So to encourage others, in my experience, *bad outcomes from bad eating habits appear remarkably reversible if you feel well and soon convert to becoming a full time vegan*, even if your preoperative angiograms revealed *not a single unobstructed coronary artery as mine did!* Or even if you have a cancer or another serious health problem). For the China Study is also recommended reading by our local Alaska Cancer Society because so many have found that its dietary advice has pleasantly prolonged their lives no matter what ailed them!

More recently, *The China Study* was kindly brought to my attention by the late Dr. Walter Johnson and his younger wife, Judith James. She is a health lecturer from a small town who often speaks *against consuming "animal or dairy-based foods"* (which incrementally led me to delete all cheeses & yoghurts).

Each dairy deletion I undertook under cardiac angina duress, *immediately reduced or eliminated my angina* and brought many months of minimal angina that could easily be suppressed by tart cherries. Even a *small* taste of fresh Feta cheese boosted my angina as we strolled in the forest (our favorite exercise).

The following book review is from Wikipedia:

"The China Study - a book by T Colin Campbell, Professor Emeritus of Nutritional Biochemistry at Cornell University, and his son Thomas M. Campbell II, a physician. This low cost paperback book was first published in USA January 2005. It sold over a million copies by

October 2013, making it one of America's best-selling books about nutrition. *The China Study* examines the relationship between consumption of animal products (including dairy) and chronic illnesses such as coronary heart disease, diabetes, breast cancer, prostate cancer and bowel cancer."

"The authors conclude that people who eat a whole-food, plant-based vegan diet, avoiding all animal products including beef, pork, poultry, fish, eggs, cheese and milk, while reducing their intake of processed foods and refined carbohydrates, will escape, reduce or reverse the development of numerous diseases. In my experience they are totally correct, *but I still consume an ounce or two of Wild caught Alaskan Salmon most weeks, and so far have seen no repercussions.*

They write that "eating foods that contain any cholesterol above 0 mg is unhealthy. The book recommends sunshine exposure or dietary supplements to maintain adequate levels of [vitamin D](#), and supplements of [vitamin B12](#) in case of complete avoidance of animal products.[5] It criticizes [low-carb diets](#), such as the [Atkins diet](#), which include restrictions on the percentage of [calories](#) derived from carbohydrates, which would, by quantity, reduce the benefits of complex carbohydrates.[6]

The authors are critical of reductionist approaches to the study of nutrition, whereby certain nutrients are blamed for disease, as opposed to studying patterns of nutrition and the interactions between nutrients.

The book is loosely based on the [China-Cornell-Oxford Project](#), a 20-year study - described by *The New York Times* as "the Grand Prix of epidemiology" - conducted by the Chinese Academy of Preventive Medicine, Cornell University and the University of Oxford. T. Colin Campbell was one of the study's directors.

It looked at mortality rates from cancer and other chronic diseases from 1973-75 in 65 counties in China; the data was correlated with 1983-84 dietary surveys and blood work from 100 people in each county. The research was conducted in those counties because they had genetically similar populations that tended, over generations, to live and eat in the same way in the same place.

The study concluded that counties with a high consumption of animal-based foods in 1983-84 were more likely to have had higher death rates from "Western" diseases as of 1973-75, while the opposite was true for counties that ate more plant foods."

My Ruminatiions on The China Study (AvH)

The China Study was first published in 2005. Had I read, and then followed the advice of this book in 1965, I could have saved myself a great deal of trouble. More importantly, I could have helped anyone who might have believed me to avoid surgery as well. So what profession might I then have chosen? And why would any of my future patients have accepted my conclusions anyway, which were merely based upon reading? In fact, I didn't fully believe that every step I so belatedly undertook to remain alive could ever be successfully generalized until I included this Wikipedia review here a few months ago.

So now I shall attempt to explain how and why I remained alive on my personal slow pathway that led me independently to the very same annoying conclusions as The China Study. Indeed, that was how I managed to repeatedly downsize and renew my aging body over the past 33 years - especially my heart with its multiple near-total occluded coronary arteries (of which I first became aware in 1983).

I hope you will find my experiences and self-experiments useful and believable. And if you already are a vegan, perhaps reading about my inexcusably slow learning curve will strengthen your beliefs and make them more convincing for yourself.

But first, whether it fully, partially or hopefully minimally applies to me, I again feel forced to repeat Upton Sinclair's point that "*It is difficult to get a man to understand something, when his salary depends on his not understanding it.*" Which certainly included me and possibly your own physicians too! For as I mentioned earlier in this book, from my cook and packer days at Lonesome Lake to my teen age job on a

Wyoming ranch to my frequent Saturday night forays to Boston's Durgin-Park meat market to load the 'rumble seat' of my 1934 Ford convertible with 'near expiry' meat for myself and sometimes other medical students. For by then I was a committed carnivore and rarely ate many vegetables except at our parent's house. I also ate a lot of that beef rare and occasionally raw!

Ever since my own 6-vessel coronary artery bypass surgery in 1983, I have become far more aware of how I feel - which lets me quickly complete simple mental Yes/No! evaluations of pathways toward health or illness. Such "findings" - after they are discussed with others - could help some of you, within your own comfort zone, take greater responsibility for your own health care decisions.

Rule One: *There is no magic!* Therefore, all those costly, heavily hyped medications allegedly designed to deal with your or my exact problem are almost surely worthless and/or damaging! Indeed, *I never use recently created medications at all until they have proven themselves widely helpful (and turn out to have no known, or only rare and not-too-harmful, negative side-effects).*

Thus the practical view of medicine I have acquired since 1956, suggests that any new and/or heavily hyped medication ought generally never be used except by fully informed, truly desperate people. Try to imagine all the glowing promises of youth and beauty restored, or the other amazing outcomes promised by statin or antidepressant promoters (see below), when such trusted folks must have known that they would harm many more folks than they might ever benefit (or if you were truly lucky, such products did nothing at all, despite their very high price).

Rule Two: Useful natural remedies that I successfully depend upon, such as tart cherries (see below for details), occasionally prove so widely beneficial that we and others have managed to spread that information virally around the country and world - initially helped along by the open-minded and finally convinced members of a mostly feminist, private web site devoted to improving health care.

When I was a youngster, every farmer treasured his junk pile of discarded implements, wheels, axles, differentials and rusty iron parts, for that was where he or a good neighbor might find just what was needed for a critical repair, revision or invention.

Similarly, health care, whether one delivers, explains or experiences it, is a jumble of reasonable assumptions, dubious concepts and totally unrealistic information in desperate need of revision, at least according to the ultrasensitive "crap detector" that I gradually pieced together while rummaging through helpful and obsolete ideas on dealing with life's wonderful processes that keep us all going till the end.

Self-Medication enables interesting experiments and offers rapid results. The daily medication costs in my early post-heart-surgery years were maybe \$2 a day. But the only **still available** "heart medicine" that I continue to find useful from that period is Atenolol – a proven Beta Blocker that calms me and my heart when I am stressed, or that I take along with Mag64 if my heartbeat becomes sufficiently irregular with multiple PVCs, or if I also have muscle cramps - for which Mag64 alone truly excels.

Regarding penicillin's possibly-beneficial impact on nerves

Addendum 1: About nerve injuries:

Some years ago, a 70 year old friend (who mines gold in summer and is a general surgeon in winter), was pulling upon a stuck inspection port cover from the high track of his D-9 Bulldozer when that cover suddenly came loose. My friend fell backwards over 10 feet onto hard ground and suffered lumbar fractures and low back nerve injuries. He was in considerable pain when I visited him in the hospital.

I told him that I had read of penicillin being helpful for nerve injuries and suggested that he take **a full course of penicillin** ASAP. He and his internist conferred and agreed to try penicillin. Within a day my friend was far more comfortable. And that winter he again snow-machined hundreds of miles in support of the Alaskan Iditarod Dog Sled race without further back problems. He believes penicillin had a remarkably beneficial effect on his serious nerve injuries.

Addendum 2: The effect of penicillin on a man diagnosed with Amyotrophic Lateral Sclerosis

About a dozen years ago, our son Frank asked my advice regarding his 40 year-old friend - a contractor - who had been diagnosed with "progressive Amyotrophic Lateral Sclerosis" in Alaska. A New York City ALS Specialist confirmed the contractor's diagnosis and told him he would soon die.

I suggested Frank get his friend a full course of penicillin ASAP. Soon our son found an MD willing to give that penicillin. And within weeks, Frank's ALS friend began to feel better. So before long he resumed his full-time heavy-duty contractor work - and has continued without health problems to this day.

Addendum 3: I suggested that same penicillin treatment for a retired West Coast Nurse with confirmed progressive ALS. Unfortunately, her progressive ALS soon killed her.

Conclusion: With nerve problems, Penicillin *sometimes* seems helpful (and possibly curative).

*About giving **magnesium sulfate** intravenously to control arrhythmias in the 1960s*

As a Boston City Hospital surgical resident in the 1960s, I once watched obstetricians empty a large syringe-full of Magnesium Sulfate into a vein of a patient with Eclampsia and convulsions. Soon she stabilized and woke up a bit groggy.

From 1973 to 1983 we used cardiopulmonary bypass to support our heart surgery 700 times. When I returned to Alaska in August, 1983, six days after undergoing heart surgery by Dr. Tector in Milwaukee, I was having many PVCs (premature ventricular contractions) that I blamed upon drinking too much coffee (which habit I hoped to continue).

A local internist pointed out that there was no safe way (in 1983) to inhibit such irregular or premature beats: Indeed, the only drug then advertised as capable of stopping cardiac rhythm irregularities had by then killed over 50,000 Americans - causing them to have cardiac arrest). The manufacturer allegedly knew of this "*unwanted side-effect*" from the beginning, *but he still heavily promoted that drug without mentioning that it significantly increased the risk of sudden death.*

During our decade-long heart surgery program in Anchorage, we often gave Magnesium Sulfate intravenously and were always pleased and impressed by its excellent cardiac support and rhythm control. So I decided to create a magnesium-based remedy to control my own extra heartbeats. Therefore I purchased pure (oral) Epsom Salts (aka Magnesium Sulfate, but named after the English town of Epsom, a town regularly visited by constipated Brits "to take the waters"). But as my problem was irregular heartbeat rather than constipation, I avoided consuming oral Epsom Salts (because oral Magnesium Sulfate is so poorly absorbed, it retains water which softens stools until the large bowel empties naturally).

Therefore, I had my ordinary sourdough-starter microbes ferment their usual sourdough ingredients plus an added small handful of Epsom Salts that I mixed in, hoping those microbes would attach the Magnesium from Epsom Salts onto my easily absorbed sourdough bread molecules. And amazingly, that is more or less what happened! So when I tested the baked bread mixture that included my handful of Epsom Salts, I found that a half-slice of that bread daily provided me with enough dietary magnesium to solve my arrhythmia problem without unsettling my gut.

When I mentioned this result to my early post-operative internist - he pointed out that there were inexpensive enteric-coated magnesium tablets that could easily deliver magnesium chloride into my blood stream. Soon I switched over to that easier-to-use medication (called Slow-Mag) and after the Slow-Mag patent expired, I began using Mag64 - a cheaper generic form from the same provider, which seems equally effective.

Several cardiologists, *former* friends to whom I suggested that a \$7 bottle containing 60 tabs of enteric-coated Mag64 offered better outcomes than their \$50,000 to \$100,000 Atrial Ablations, either ignored me or else claimed that Mag64 "or some such drug" had been carefully tested and didn't work. The "or some such" part is correct as most magnesium supplements are very poorly absorbed from the

gut, unlike the quickly absorbed (*enteric coated*) Mag64.

After my repeated requests for any references on the ineffectiveness of Mag64, a nutty classmate (+prosperous cardiologist) complied. However, his reference proved to be on dog training, so we never spoke again. But at different times, two men, one already scheduled for Atrial Ablation, asked me for and then followed my free advice. They both did so well using Mag64 that they never went back to have the Ablation.

And now an increasing number of people are successfully self-treating with Mag64 for muscle cramps and/or cardiac arrhythmias. And hopefully someone will one day try it on epilepsy. As for the dose of Mag64 one can tolerate, basically it is as much as it takes. For everyone has huge stores of magnesium in their muscles where your two major positively charged (cations) are potassium (K⁺) and Magnesium (Mg⁺⁺) and allegedly they have plenty more in their bones.

So if you swallow a couple of Mag64 tablets and they don't provide lasting relief, just swallow some more - on rare occasions I have taken about a dozen of these sometimes hard-to-swallow tablets within an hour when my cramps persist or recur after a lot of walking (for me). For we have such huge stores of K⁺ and Mg⁺⁺ in our bodies that you cannot possibly overload your muscles by swallowing individual small tablets.

However, if you eat lots of "manufactured foods" whether heavily sugared (bad) or not at all sugared (good!), your diet likely does not include enough "essential" anions and cations anyhow, compared to those who eat organic or home-grown vegetables.

Summary: I gave up my medical license to avoid *Stupid Continuing Medical Education (CME)* regulations. I now treat only myself. But I still offer free medical suggestions upon request.

Both Atenolol and Mag64 are stable, durable, effective and safe. Mag64 is the safest treatment I have ever seen for muscle cramps, heart arrhythmias and presumably eclamptic convulsions, and very likely also ordinary epileptic convulsions (if any neurologist were even willing to try such a cheap, safe and very-likely-effective remedy).

Afterword: In 1983 I decided to become my own sole-source health-care provider. Since then I have simplified and minimized my health problems repeatedly by backing away from *my pre-heart-repair diet as a dairy-loving carnivore*. Every dietary deletion I made was forced upon me by yet another existential trial (when death again appeared ready to foreclose upon my still enjoyable existence).

So now I happily eat only fruit and vegetables plus an occasional ounce or two of wild caught Alaskan salmon or a few bites of mollusk. I quit "dairy" a bit at a time (initially, by just quitting cheese, I immediately lost almost all of my angina). Thereafter, each additional deletion up to and including yoghurt, gained me additional months or years of nearly angina-free family fun (plus dietary rules I had to obey). *However, my simple crisp-crust sourdough bread is "To live for!"*

CHAPTER THIRTEEN

Is there any difference between food and medicine?

A Glossary of Old Wives' Remedies would be useful

Mollusks are cheap, tasty and work far better than Viagra!

Aphrodisiacs, Menopause and Testosterone Therapy

Herbal Teas were initially developed to cause miscarriages

Did Prohibition increase alcoholism?

Omega-6 fats versus Omega-3 fats with a possible Inuit exception

Probiotics (fermented foods)

Eat a few cranberries or sip cranberry juice several times/day to reduce or eliminate minor urinary tract infections

Eat **cooked** (not fresh) tomatoes in order to improve prostate health and urine flow

Cilantro/coriander and Wasabi help diners avoid Salmonella infections

Raspberry leaf tea safely delivers impressive relief from ordinary diarrhea

Eating unfermented Soy promotes major pancreatic illness

Going Vegetarian saved my life!

Around the world, humans consume (or apply externally) different parts of countless varieties of plants and animals. Many foods are seasonal in their ripening, or for optimal concentrations of important ingredients, or as they become accessible through migration. Humans, bears and pigs are omnivorous. So hungry humans, bears or pigs may consume pigs, bears or humans.

More generally, eating is always sort of medicating oneself, as all life selects food items that relieve a current or potential metabolic deficiency or treat an infection or other complaint. As Cynthia Engel reported in "Wild Health", inquisitive humans and other animals frequently taste and eat unusual foods and even soils, especially after seeing others seem to prosper by doing so.

Some diatomaceous soils are eaten to deter intestinal parasites. Clay soils such as kaolin, the white clay in Kaopectate (still mined from Kaoling "high hill" Mountain in China for the manufacture of fine porcelain), absorb plant toxins. Other soils are consumed because they contain essential sodium or important trace elements.

Some potential foods require prolonged soaking or more complex preparations to ensure safety or palatability. And any act observed may be misleading. A medical instructor demonstrated the old-fashioned urine test for diabetes—dipping, and then licking a finger to detect sweetness. He then passed the urine around so we could try it. Some did, others didn't and several just dipped one finger and licked another as the instructor had done.

Not surprisingly, the more complex, variable and risky their environment, the longer intelligent animals take "to learn all the ropes or branches". So an average female orangutan only gives birth to an infant every 7 or 8 years, in order to educate each child on what, when and where to eat, and how to "self medicate" for common parasites and other ailments.

Older female elephants, like human elders in many cultures, are important sources of environmental knowledge. Orangutans and elephants clearly utilize their complex brains and communication systems to teach and "discuss" various foods, places, worms, antidotes, safety, etc.

Early human immigrants into North and South America included the ancestors of modern Alaskan Natives. Those ancestors were closely related to the ancestors of the East Asian inhabitants of Southern Siberia who still live between the Altai Mountains on the west and the Amur River on the east (Scientific American, Nov, 2011 pp 3645).

Asians entering America from the West, 25,000 to 15,000 years ago, arrived during an **Ice Age** that froze so much water into glaciers and Continental Ice Caps that sea levels dropped over 100 meters - converting shallow sea bottoms into the solid ground of Beringia that then connected Siberia to Alaska.

But regardless of whether the Yupic People walked across "Beringia" or came over in small boats, their descendants have since foraged over North and South America's beaches, rivers, lakes, seas, forests, savannas, tundra, deserts and mountains. Even "City dwelling Native Alaskans" readily resume subsistence activities as opportunities present. Recent Asian immigrants to Alaska regularly become competent foragers here as well. Yet few European immigrants can find much to eat in the wild, beyond the standard selection of birds, beasts and berries. Why is this?

Well, in traditional subsistence societies, men likely roamed farther and dominated the killing of game animals, while women specialized in local food gathering and childrearing activities. Females were also more involved with hence better informed about - treatments for "women's complaints" and assisting at childbirth. The most skilled became health care advisors such as "midwives" and "doctors".

Older women presumably enhanced and passed along their botanical knowledge wherever they lived including information on the herbal control of female fertility. But, at least in Europe, these age-old social activities and that separate female-controlled knowledge base, gradually became an intolerable challenge to the wealthy, authoritarian, male-dominated Catholic Church.

Its inherent anti-female bias surely encouraged the Catholic Church to dominate human reproductive activities and all knowledge thereof. But Catholic religious power also had an important but less visible, secular and fiscal underbelly. For high taxes and productive Church Estates were required to support explorations, missions, wars and the dissolute life styles of Church leaders. Such activities consumed the endless input of poor peasants, soldiers and sailors.

As towns developed, increasing business travel between them brought epidemic diseases that - when combined with inadequate pay, minimal shelter, rags for clothing, overwork in noisy, smoky, dusty conditions, polluted water and rotten food - led to the high mortality rates that consumed endless streams of desperately poor workers.

Such changes coincided with early lobbying efforts by male barbers or medical practitioners seeking professional status and the elimination of competing midwives. So between 1450 and 1700, various Popes declared *many hundred thousand European midwives "witches" and burned them at the stake*.

At the same time, the Church and its cooperating male medical practitioners, tried to learn who was pregnant and bully them into remaining so, on fear of death (and see additional information from "Eve's Herbs" by John M. Riddle, below).

Everyone knows that in 1492, Columbus "discovered" (or was first to publicize) an inhabited, self aware and equally civilized America. At first Columbus thought he had reached India, so America's native inhabitants were ever-after referred to as "Indians". Not surprisingly, descendants of those Indians still protest every Columbus Day about the purposely spread diseases and endless massacres carried out by their "self-described as more civilized" European conquerors.

" The name *America* was coined by [Martin Waldseemüller](#) from *Americus Vesputius*, the Latinized version of the name of [Amerigo Vespucci](#) (1454–1512), the Italian explorer who mapped South America's east coast and the [Caribbean](#) Sea in the early 16th century.

Later, Vespucci's published letters were the basis of [Waldseemüller's 1507 map](#), which includes the first usage of *America*. The adjective *American* subsequently denoted the New World (from Wikipedia)".

William Withering became famous in 1775 when he "discovered" that a plant called foxglove—in proper dose— could help those in heart failure. Withering learned of this use for foxglove—the source of digitalis and related drugs—through a receipt for treatment by "an old woman from Shropshire" whose herbal mixtures routinely cured heart-failure patients when male practitioners could not help.

Note that Withering got all the credit—and that he and other male practitioners were fully identified rather than being labeled "an old man from X." There is no record that any good Catholic ever rewarded that nameless old woman (or else burned her at the stake).

As recently as sixty years ago, women entering health care fields were still pretty much restricted to low-pay nursing positions. But as more men chose professional nursing careers, female nurses received better salaries. Now so many females are entering medical schools that women doctors may eventually outnumber the men.

More importantly, midwives and female physicians have already reclaimed much of their traditional dominance over childbirth, female complaints and the medical care of children. As female physicians are often mothers who provide much of the family's child care and income, they tend to enter specialties that offer regular schedules.

Do We Need A Computerized Database of Old Wives Tales?

In the summer of 1947, my older brother Peter and I worked with a small construction crew in then remote Passaconaway Valley, New Hampshire. And that summer, Peter and I lived with Cliff Pratt (the contractor) and his wife Mabel, (as mentioned in The Early Days). Our father subsidized our "room and board" that first summer as we helped build the family's log cabin. We worked hard and learned a lot. The following summer I returned and "earned?" 65 cents an hour, while Peter worked with the Appalachian Mountain Club Trail Crew.

Cliff and Mabel enjoyed discussing the history of this reforested Valley (which had been logged and farmed in the 19th century). For example, Cliff told us that local sheep often died with *The Blind Staggers* until someone found this resulted from a cobalt deficient diet. Cobalt supplements solved that problem.

Upon admission to medical school, that "tale" made me wonder if those sheep had "Scrapie", a fatal, degenerative disease that affects the nervous systems of sheep and goats. It is one of several transmissible spongiform encephalopathy's (TSEs), which are related to bovine spongiform encephalopathy (BSE or "mad cow disease" (taken from Wikipedia) *and the chronic wasting disease of deer*. Furthermore I wondered if cobalt salts might benefit creatures with scrapie and related diseases such as Mad Cow or Creutzfeldt-Jakob disease?

After an excellent science magazine wisely ignored my vague ruminations, I went on to more pressing matters. Nonetheless, an easily searched, cross-referenced data base of such "old wives' tales" surely would offer useful nuggets of traditional knowledge for researchers willing to sift through the entertaining rhetorical debris, as long as a Single Payer for health care considered such a history project deserving of a small subsidy.

The herbal knowledge relayed by Mabel proved equally interesting, and her gently amused smiles now make more sense. For example, it was a local custom for New Hampshire adults (or just the women?) to drink a strong tansy tea for their "spring cleanout". At the time, I assumed tansy was a laxative. But as John M. Riddle points out in his comprehensive *Eve's Herbs: A History of Contraception and Abortion in the West*, tansy tea was a well-known abortifacient.

Riddle lists many other commonly consumed herbal teas such as pennyroyal that often cause females to miscarry. Apparently quite a few flavorful herbs remained popular and available over centuries, despite having initially been domesticated for "pharmacological effects" which no one later dared discuss.

This makes the consumption of herbal teas a risky way to protest the past dominance and abusiveness of the Catholic Church and its affiliated medical establishment. So while I would be the last to criticize anyone who feels pleasantly subversive for drinking herbal teas, ordinary black or green teas, coffee or even hot vegetable broths are definitely safer for those without the knowledge and experience of olden day midwives.

From an evolutionary perspective, tansy and similar herbs likely prospered and spread because they happened to include chemicals that aborted pregnant herbivores. Though I never tasted tansy tea, I can vouch for another of Mabel's herbal remedies, having on many occasions gotten immediate relief from troublesome diarrhea by drinking a cup of raspberry leaf tea. When frozen or fresh raspberries are included in home-baked sourdough bread, they often appear to soothe gut problems related to comfort or control - in addition to lending the bread a yukko pink color.

And more than once I heard Cliff describe how, after feeling worn and tired for a while, he consumed an entire case of celery, and soon felt "like a new man". Most of us have had similar moments, and I relate some of my own in this book (see also Gout in Chapter 12).

Perhaps the lesson to take away here is that humans eat thousands of different "natural" (as opposed to "manufactured") foods, many of which—like tart cherries or turnips or celery or raspberry leaf tea or raspberry sourdough bread—may be "good for what ails ye" (and a whole lot cheaper, safer and likely more effective than costly pills manufactured and sold for the same purposes).

And as we age and develop recurring symptoms or chronic illnesses, we are ideally positioned to try different interventions or to notice how an unaccustomed food—or even a change in the weather—may alter our chronic complaints.

An example: Every cubic centimeter of seawater allegedly contains billions of viruses unwittingly manufactured and released into the environment *as their host bacterium, alga, fungus or protist finally ruptures*. Everyday knowledge and experience suggests that to prosper, such viruses must infect common ocean microbes. For example, it wouldn't be useful for ocean viruses to evolve specific clever attacks on rarely encountered human cells.

Therefore, when we submerge our skin in seawater, some ocean viruses might help clear some of the resident bacteria or fungi from our skin surfaces, but except for microbes found in sewage effluent, oceanic microbes likely lack a "key" for entering human cells in order to reproduce there. Anyhow, my chronic skin problems nearly cleared after a few ocean swims in Hawaii.

As for how useful knowledge about foods and herbs was compiled: Most of us inherit the good judgment that leads us to avoid restaurants or foods that previously made us ill. Similarly, **rats** learn about new foods by first watching who consumes what, and remembering who keeled over after binging on which food or drink, thereby avoiding a similar fate.

Many kings formerly had official "tasters" who lived "high off the hog", but whose sudden demise might be bad news for the cook. Other rulers just slipped suspect food samples to their pets. In contrast, Mason et al report in Science (Dec.9, 2011), that rats display far more empathy and pro-social behavior than the above mentioned monarchs. For a rat will not only work very hard to rescue a trapped companion, but it then willingly shares its own treats with that rescued animal.

It is well known that Big Pharma hosts countless thousands of mice and rats who did not give informed consent for the experiments into which they unknowingly are entered. Similarly, Big Pharma "clinical trials" routinely enroll desperate and misinformed humans. These circumstances suggest that few if any "alleged consents" to a clinical trial by mice or men are "voluntary" or "informed".

Inexpensive foods and common sense versus Viagra

Computer spam messages declare that costly Viagra will help you "Make love till you drop!" The old joke about "life's three stages" (*triweekly, try weekly, try weakly*) suggests that adult human male sexual potency generally declines with age. Nonetheless, aging men persistently hope for some rare or exotic foods that might rejuvenate their fading sexual prowess. Thus as young Wyoming ranch hands, we joked about the popularity of fresh "Rocky Mountain Oysters" (recently removed sheep or bull testicles) "in season" on local restaurant menus. Such testosterone-packed foods allegedly gave many elderly males a necessary boost.

Yet many men seem unaware of ordinary factors other than alcohol (itself renowned for heightening desire and reducing performance) that can impair their sexual abilities. For example, *cigarettes accelerate arterial aging and "prematurely terminate" male sexual function*. So here are a few insights that may help you make love inexpensively without dropping or drooping.

Let's begin with the circulation. Your heart pumps blood through all the capillaries of your body. However, even a healthy young heart cannot deliver maximal blood flow to all of your organs and tissues at once. Thus you occasionally think great thoughts, or exercise maximally, or digest a huge meal, or "enjoy a few beers" or have great sex: But *a wise man* engages in such activities serially *if at all*. And elderly males soon learn that even the usual shift of body fluids into their gut for digesting an ordinary meal may temporarily reduce their physical performance or thoughts about doing anything other than taking a nap.

Men also ought to **avoid hot tubs** as even occasionally overheated testes may "take forever to recover". Hot tubs are dangerous for old folks anyhow, especially those with known cardiac problems. For as heat dilates near-surface veins, those vessels may temporarily hold more than usual of the venous blood heading back toward the heart that is required for ongoing circulatory support. The final collapse may come as an overheated geezer steps out of the hot tub water that was also compressing those veins.

Chest pain during intercourse may be "a downer", but it is better to let your body set limits than attempt to override its "advice" (your signs and symptoms) by using risky drugs like Viagra without competent medical guidance. While we are on the subject of listening to our bodies, commonsense stuff increasingly matters as we age, like "stop eating or drinking when you feel full enough". And if tired, take a short nap whenever possible (2045 minutes works for me), or perhaps drink some water or tea to see if your increasingly wobbly or washed out feeling signals mild fluid depletion or a need for more coffee. For older people are often less aware of fading signals from their bodies.

According to Graham Giles of Cancer Council Victoria in Melbourne, more men could also do their prostate a favor by spending "quality time" alone regularly. For when Australian scientists compared the sexual habits of 1079 men with prostate cancer to 1259 healthy men, they found that men who had ejaculated at least five times a week between the ages of 20 and 50, faced only one-third the risk of prostate cancer as men who rarely masturbated.

"Semen is a very potent and strong brew of chemicals that could be carcinogenic if left to lie around" said Giles. And if masturbation is "normal . . . healthy and beneficial, why not?"

Men should also avoid hard narrow bicycle seats or vigorous mountain biking without excellent shock absorbers, as these seats and activities may repeatedly injure blood vessels at the base of the penis, thereby boosting the likelihood of impotence. The small calcium collections in frequently injured testes of "extreme bikers" may even be associated with increased risk of testicular cancer. And as adult human male blood testosterone levels are highest in the morning, older men usually find morning the best time for sexual intercourse.

Elderly men who don't regularly expel sperm through intercourse or by masturbation, may be dismayed to discover how much their performance has declined, for sperm and testosterone production fade to match chronic low demand. As they say, "Use it or lose it". And older folks with stiff arteries can also be surprisingly sensitive to changes in their blood volume. Removing or adding an ounce or two of blood at surgery can significantly reduce or enhance an oldster's blood pressure and circulation.

So since penile erection easily entraps that much blood temporarily, adequate sexual performance in older men also depends upon preparatory hydration (e.g., drinking a pint of sports drink) or perhaps "activating" the circulation with a leisurely cup of coffee and a walk. And don't be in a rush—for getting full systemic benefits of oral fluids often takes 3045 minutes.

Manufactured foods regularly incorporate cheap **soy** products, commonly labeled as "Hydrolysed vegetable proteins". Because soy additives often retain significant estrogenic activity, males should also avoid soy milk or soy solids and check ingredient lists of all manufactured foods for soy additives (see also my book report on Soy at end of this Chapter). Furthermore, plant foods often contain estrogen-like substances. So consuming too much of certain plants may have an oral contraceptive effect.

A varied diet helps you avoid toxicity from normal plant or animal ingredients (or low levels of toxic substances that all living things may acquire). This makes evolutionary sense, as tasty plants would gain little by raising estrogen or other toxin levels to a point that punishes random acts of grazing. In contrast, such plants could benefit by limiting the reproduction of mammals, insects or dinosaurs that overgraze them. Thus some plants do reduce the sexual performance of aging human males who overgraze them. Even natural foods may also include chemical contaminants that affect the consumer's health or sexual performance.

Herbicides, pesticides, and some plastics are potent estrogen mimics, even in tiny doses. Research suggests that modern farm workers have low sperm counts. So take the necessary time to wash or peel market-origin fruits and vegetables and wash most organic fruits and veggies a bit too.

Herbs and herbal teas

In Eve's Herbs, The history of contraception and abortion in the West referred to above, John M. Riddle "showed... that women from ancient Egyptian times to the fifteenth century ... relied on an extensive pharmacopoeia of herbal abortifacients and contraceptives to regulate fertility"...(So) Riddle poses a new question: If women once had access to effective means of birth control, why was this knowledge lost to them in modern times?

"Beginning with the testimony of a young woman brought before the Inquisition in France in 1320, Riddle asks what women knew about regulating fertility with herbs and shows how the new intellectual, religious, and legal climate of the early modern period tended to cast suspicion on women using "secret knowledge" to terminate or prevent pregnancy.

Knowledge of the menstrual regulating qualities of rue, pennyroyal, and other herbs was widespread through many centuries among herbalists, apothecaries, doctors, and laywomen themselves, *even as theologians and their legal scholars concluded that every fetus was a Fully Alive Catholic from conception.*

"Drawing on previously unavailable material, Riddle reaches a startling conclusion: While it did not persist in a form that was available to most women, ancient knowledge about herbs was not lost in modern times but survived in coded form. Persecuted as "witchcraft" in centuries past and prosecuted as a crime in our own time, the control of fertility by "Eve's herbs was presumably practiced worldwide by women since ancient times."

Summary: Herbal teas may affect drinkers in subtle and unexpected ways, so if you prefer to avoid medically active solutions, do not drink herbal teas!

Aphrodisiac Foods

Oysters have long been valued as an aphrodisiac. A few years ago, New Scientist reported that oysters, hence presumably all mollusks (including clams, squid, octopus, mussels, scallops, snails, slugs, etc), bear a modified amino acid that stimulates mammals to secrete more testosterone. Thus eating mollusks might be a legal way for athletes to enhance their own testosterone production.

However, to avoid parking lot fights (due to testosterone-fueled aggression), or paying surgeons to deal with your swollen prostate and slow urine flow, anyone increasing their own testosterone production should do so very slowly starting with small meals of clams, etc. However, merely enhancing your sex drive through additional testosterone production is not enough. *For nitric oxide is also required to sustain erections.*

Fortunately, consuming a small portion of nitrate- or nitrite preserved meat or fish easily provides sufficient *nitric oxide* to sustain erections inexpensively without Viagra's many side effects (including the rare risk of blindness or death). *But eating any nitrate salts (aka "saltpeter" or "niter") interferes with erections (and just a bit too much saltpeter can poison you!* (see Eleven Blue Men by Berton Roueche).

"The Big Oyster", Mark Kurlansky's book about New York, mentions that most "All you can eat!" New York Oyster Houses formerly maintained active whorehouses out back for the relief of their customers.

Summary: A small to moderate intake of mollusks, plus a bit of nitrite- or nitrate- preserved meat e.g., a side of clams plus a half Reuben sandwich (or several slices of nitrate or nitrite preserved salami, or similarly preserved hot dogs or even salmon strips (read those labels!) should do.

Testosterone Treatments for Menopausal Women

Menopausal women are occasionally prescribed a testosterone patch for "loss of libido." But unwanted side effects of such a patch may include new facial hair, or the accidental transfer of patch testosterone onto a child during a hug. It is simpler, safer and more fun to eat tasty, inexpensive mollusks now and then. But no matter how great they may taste, ***lobsters, crab and prawns are NOT mollusks!***

Prohibition led many to Alcoholism

Prohibition created a whole generation of alcoholics. Similarly, after being liberated from a boring, minimal meat WWII American civilian diet as a lad, I clogged my own coronaries by eating lots of high protein, high fat (high omega6 feedlot corn-fed) meat. In other words, I truly enjoyed an "inflammatory" diet for the next 30 years.

But after undergoing coronary bypass surgery, I reconsidered. My "excuse" for concluding that meat protein and fat could be viewed as healthy eating had been that many Alaskan Natives, especially those living near often-ice-covered Arctic Seas, survive to ripe old age on a mostly meat diet – which I truly enjoyed at the time but *"Am no longer interested in!"*

Omega6 Fats

And I finally understand a truly important difference between wildlife and feedlot cattle: Neither whales nor buffalo in their natural habitats were ever corn-fed! (Nor has anyone ever accused me of being a genius). But my last exposure to a tiny bit of animal protein from fast food or home-cooking was long ago, and it almost certainly provoked my always pending body-wide (especially coronary) inflammation, causing me to get angina with far less exertion than usual. And a slight weight gain brought on similar symptoms, as obesity fat is inflammatory while losing a pound or two quickly brings anti-inflammatory relief (and see *tart cherries*).

I now assume that "just a taste" of feed-lot beef set off my inflammatory responses because those poor animals were so ill from being overfed with corn-based omega6 that some became "downers" unable to walk, so they had to be dragged into the slaughterhouse in order to reach your refrigerator. With omega6 food now so inflammatory for me, I bless **the original** tetracycline, as well as tart cherries and turnips for keeping me out of the "downer" state thus far.

In contrast, Doctor Atkins' high protein, high fat diet was still being promoted after he died of a "head injury". But by then Atkins had allegedly become hugely obese and was a totally disabled "downer". Yet as far as I know, those who continued to promote his diet business never publicly admitted that his diet - just like my personal diet - had long been badly wrong.

Omega3 Fats

The oil in wild-caught salmon and herring contains omega-3 fat (anti-inflammatory) that moves up the food chain after being produced by algae. Omega3 originates in chlorophyll, so you can also get your supply from broccoli or leafy greens. A proper balance of omega3 with omega6 is important for good health. *Unfortunately, modern manufactured "fast food" is predominantly corn-based and sugar-laden inflammatory omega-6.*

Probiotics

A few years ago, an article in New Scientist mentioned that South Koreans apparently avoid getting flu by eating Kimchi. More specifically, Korean scientists found that "the Korean's flu resistance" comes from eating the live microbes that ferment Kimchi" (with or without all those tasty fermented vegetables).

The following Wikipedia information has been somewhat abbreviated

Kimchi, also spelled gimchi, kimchee, or kim chee, is a traditional fermented Korean dish made of vegetables with varied seasonings. There are hundreds of varieties of kimchi made with a main vegetable ingredient such as napa cabbage, radish, green onions or cucumber. It is the most common side dish in Korean cuisine. Kimchi is also a main ingredient for many popular Korean dishes such as kimchi stew, kimchi soup, and kimchi fried rice.

History

Ancient Kimchi: The oldest references to kimchi can be found from 2600 to 3000 years ago. The first text-written evidence of its existence can be found in the first Chinese poetry book. The word then was modified into jimchi, and is currently kimchi.

Early kimchi was made of cabbage and beef stock only. Red chili, a New World vegetable not found in Korea before European contact with the Americas, was introduced to Korea from Japan after the Hideyoshi Invasions (1592-1598) and became a staple ingredient in kimchi.

Red chili pepper flakes are now used as the main ingredient for spice and source of heat for many varieties of kimchi. Kimchi varieties are determined by the main vegetable ingredients and the mix of

seasonings used to flavor them. The most popular type of kimchi is the baecheu (napa cabbage, a long white-colored cabbage) variety, although there are many regional and seasonal varieties.

The Kimchi Field Museum in Seoul has documented 187 historic and current varieties of kimchi. Although the most common seasonings include brine, scallions and spices, ingredients can be replaced or added depending on the type of kimchi being made. Common seasonings also include ginger, chopped radish, garlic and fish sauce.

Kimchi is made of various vegetables and contains a high concentration of dietary fiber, while being low in calories. One serving also provides over 50% of the daily recommended amount of vitamin C and carotene. Most types of kimchi contain onions, garlic, and chili peppers, all of which are salutary. The vegetables being made into kimchi also contribute to the overall nutritional value. Kimchi is rich in vitamin A, thiamine (B1), riboflavin (B2), calcium, and iron, and contains a number of lactic acid bacteria, among those the typical *Lactobacillus* kimchi. Health magazine named kimchi in its list of top five "World's Healthiest Foods" for being rich in vitamins, aiding digestion, and even possibly reducing cancer growth.

One study conducted by Seoul National University claimed that chickens infected with the H5N1 virus, also called avian flu, recovered after eating food containing the same bacteria found in kimchi. And in May 2009, the Korea Food Research Institute, Korea's State food research organization, said a larger study on 200 chickens supported the theory that it boosts chickens' immunity to the virus.

1996 Japanese Kimchi dispute

In 1996, Korea protested Japanese commercial production of "kimchi" arguing that the Japanese-produced product was different from kimchi (in particular, it was not fermented). Korea lobbied for an international standard from the Codex Alimentarius, an organization associated with the World Health Organization that defines voluntary standards for food preparation for international trade purposes.

A Codex Alimentarius standard was published in 2001 that described production methods similar to those traditionally used in Korea, which also prohibited marketing of Japanese produced traditional "kimchi" in international trade.

"A point being made here is that neither Japanese (who also eat Kimchi frequently) nor Koreans contracted bird flu despite exposures to sick fowl. But in other countries such as Indonesia, Malaysia, China and Thailand where human populations also live in close contact with fowl but don't eat Kimchi, some people became very ill (a few even died) during the last poultry flu pandemic."

So if eating Kimchi fermenting microbes affords protection from flu, the same microbes fermenting other foods ought to be equally protective, which seems to be the case for fermented buttermilk, sour cream, sauerkraut, yoghurt and old fashioned pickles like "Bubbies" in their cloudy solutions of microbes producing lactic acid (thus "no vinegar-added" on the ingredient label) and so on.

My current understanding is that by ingesting *Lactobacillus* microbes and others that ferment all sorts of foods, one can prevent or alleviate many infectious illnesses - not through a special microbial gift or kindness but as a fortunate side-effect of particular methods evolved by such fermenters to protect food on which they live from being consumed by other hungry microbes.

Thus *Lactobacillus* and other probiotic microbes in yoghurt protect us from flu "only incidentally" (flu viruses are inanimate molecules that don't "eat" anything). This protection comes about in part because some fermenting microbes extend stringy pili with multiple attachment sites that keep harmful microbes from attaching to the fermenter's "food" (or to your throat, lung or gut cells).

Many antibiotics produced by microbes in soil and elsewhere offer similar food protection. But while purchased probiotic capsules of live microbes may prevent gastrointestinal problems, those swallowed capsules won't coat your throat and lung en route - the way that eating probiotic foods can.

I cannot eat Kimchi regularly as it eventually annoys my nonKorean gut (and Marianne is unfond of Kimchi breath). So for many years we both ate a couple of tablespoons of tasty yoghurt - in particular, "Nancy's" (*which advertises its "mixed live cultures"*) twice a day, which apparently protected us from

almost all of the throat, lung and gut infections regularly being delivered by our grandchildren. Another advantage of live cultures *for those who are lactose intolerant* - is that lactose is progressively dissipated by fermentation.

In almost two decades, only once did I become ill despite my "near regular" intake of yoghurt or other fermented "live culture" foods. And that time "live" Kimchi conferred additional benefits as I struggled with my upset gut and flulike illness. In particular, during my weeklong illness, whenever I became more feverish or short of breath, I could reliably return quickly to "just being ill" by eating a small quantity of my simple home remedy of "live yoghurt" mixed with "live Kimchi" which was easier for me to consume and may have minimized further viral or bacterial invasion, thereby keeping me alive.

Furthermore, throughout that entire weeklong illness, I also swallowed extra tart cherry capsules whenever I felt I was getting worse. For it is well known that rather old and also rather young people frequently fight flu too vigorously, and that such excessive inflammatory responses can cause serious damage to the flu-fighters themselves. Indeed, many young or elderly flu patients become sicker or even die of immunopathology caused by a too vigorous inflammatory reaction to flu, which often impairs an old person's ability to survive the commonly-subsequent bacterial pneumonia.

Being able to modulate my own immune response to flu or other diseases according to my own symptoms in real time was truly interesting. Hopefully, others may also succeed in minimizing such illness-related damage. My frequent "patient controlled adjustments" seemed a rational way to sustain a balanced "partial" tolerance condition. It also made me feel better to think I could simply titrate my own response to an illness and minimize my symptoms with self-administered tart cherries and Kimchi or some comparable *anti-inflammatory and probiotic combination*.

These primitive efforts to alleviate my apparently serious flu infection may be a useful starting point for those seeking therapeutic approaches to reduce host resistance and induce tolerance (and see also Science, 24 Feb, 2012, pages 93641 "Disease tolerance as a defense strategy" by Ruslan Medzhitof, David S Schneider, and Miguel P Soares).

Salt Preservation:

The major reason to put sufficiently thick layers of salt between layers of food in sauerkraut, cod, pickles, meat and other fermentable foods is that the salt draws moisture out. And any salt-dehydrated food that remains submerged in the resulting strong salt solution offers probiotic fermenters the environment they require to multiply and then suppress other microbes thru fermentation. But while fermenters ferment only to nourish and protect themselves as they grow and reproduce, humans often enjoy that fermented taste, and have long appreciated fermentation's ability to preserve food without refrigeration.

Probiotics can remain active preservative agents for relatively long periods in fermented foods that have not been reheated or pasteurized. Some salami type products are similarly fermentation-preserved. But fermented foods often include a lot of salt, so some cheeses are up to 5% salt by weight.

Overview: Many fermenting microbes offer protection to your throat, lungs and gut if you eat them in food as live cultures a couple of times per day. As microbes are tiny, we don't require more than spoons-full of live yoghurt, or half a kosher pickle, or a bite or two of "truly pickled" herring (not preserved by refrigeration in wine sauce), or 'natural' sour cream or buttermilk, or uncooked sauerkraut or raw Kimchi.

Pickling foods (from Wikipedia, the free encyclopedia)

"Pickling is the process of preserving or expanding the lifespan of food by either anaerobic fermentation in brine or immersion in vinegar. The resulting food is called a pickle, or to prevent ambiguity, prefaced with the adjective pickled. The pickling procedure typically alters the food's texture

and flavor. In East Asia, vinaigrette (vegetable oil and vinegar) is also a pickling medium. Another distinguishing characteristic is a pH 4.6 or lower, which is sufficient to kill most bacteria.

Pickling can preserve perishable foods for months. Antimicrobial herbs and spices, such as mustard seed, garlic, cinnamon or cloves, are often added. If a food contains sufficient moisture, the pickling brine may be produced by simply adding dry salt. For example, German sauerkraut and Korean kimchi are produced by salting those vegetables to draw out excess water. Natural fermentation at room temperature by lactic acid bacteria, produces the required acidity. Other pickles are made by placing vegetables in vinegar.

Unlike the canning process, pickling ...if it includes fermentation... does not require that the food be completely sterile before it is sealed. The acidity or salinity of the solution, the temperature of fermentation, and the exclusion of oxygen determine which microorganisms dominate, and determine the flavor of the end product.[4]

When both salt concentration and temperature are low, *Leuconostoc mesenteroides* dominates, producing a mix of acids, alcohol, and aroma compounds. At higher temperatures *Lactobacillus plantarum* dominates, which produces primarily lactic acid. Many pickles start with *Leuconostoc*, and change to *Lactobacillus* with higher acidity.[4]

Pickling began 4000 years ago using cucumbers native to India... as a way to preserve food for out-of-season use and for long journeys, especially by sea. Salt pork and salt beef were common staples for sailors before the days of steam engines. Although the process was invented to preserve foods, pickles are also made and eaten because people enjoy the resulting flavors. Pickling may also improve the nutritional value of food by introducing B vitamins produced by bacteria.

Traditionally manufactured pickles are *a source of healthy probiotic microbes, which occur by natural fermentation in brine, but pickles produced using vinegar are not a source of probiotics.*

Possible health hazards of pickled vegetables

The British Journal of Cancer released an online 2009 meta-analysis of research on pickles as increasing the risks of esophageal cancer. The report, citing limited data in a statistical meta analysis, *indicates a potential two-fold increased risk of esophageal cancer with the consumption of Asian pickled vegetable.* Results from the research are described as having "high heterogeneity" and the study said that further well-designed prospective studies were warranted."

You can easily *ferment raw cabbage to get a probiotic-laden pickled cabbage.* Salt is not useful for short-term cabbage fermentation, nor could I tolerate a high salt intake. So I simply slice a red cabbage (or two, if small) into centimeter (or thinner) slices and drop that rough cut cabbage into a clean tall one-gallon glass kimchi jar. The refrigerated fluid from a recent cabbage fermentation is then poured onto that newly sliced cabbage, and supplemented by pure Alaskan cold faucet water as needed to nearly fill the jar.

Next, I lower a narrow glass jar (partly full of clean tap water for weight) **into** the Kimchi jar to weigh-down/submerge all of that newly sliced cabbage. A clean one-gallon plastic bag is drawn down over the smaller protruding glass jar like a hat to position the jar centrally, then I pull that plastic bag part-way down the sides of the Kimchi jar. The inner and outer stabilized jars in their snug plastic cover are kept on a large, rimmed plate. For cabbage softens as it ferments, which allows the narrower glass jar to sink lower within the outside jar.

So when purple cabbage liquid overflows the kimchi jar and runs beneath the plastic wrap into the plate, this liquid signals that the newly fermented cabbage has softened and is "pretty much ready" to consume. Then within a couple of days, I scoop all of that fermented cabbage out of the kimchi jar into bowls and cover that cabbage with fermentation fluid or water. Bowls of fermented cabbage and jars storing fermentation fluid are both refrigerated until the next round.

Fermented cabbage that remains fully exposed to air for several days, becomes increasingly slimy and can be tossed, though it seems non-toxic if consumed in small quantities. One can also avoid such problems by inverting small plates onto/into the bowl to keep the cabbage pretty much wet and submerged during storage for the week or so until all is consumed.

My cabbage *fermentation-starter fluid* originated as a tablespoon or two of a dilute sourdough fluid and a tablespoon or two of dilute yoghurt fluid. Both were created by using a large spoon to dent the surface of a "ready for thickening, rising and baking" sourdough bread mixture, or to dent the surface of a newly opened Nancy's "multiple cultures" yoghurt. Both dents accumulated clear fluids containing fermenters that multiplied endlessly in water to become my new cabbage-fermentation fluid.

Cooked Tomatoes

Older men may *eat cooked tomatoes regularly* to improve their urine stream.
Cooked Tomatoes reduce prostatic swelling in older males. **Fresh tomatoes do not!**

Cranberries

Consuming a few cranberries or some cranberry juice several times per day often relieves mild urinary tract infections in females or males (if the urine flow slows, associated with bladder spasms).

Cilantro/coriander or Wasabi can protect diners from Salmonella infections

Raspberry Leaf Tea

Especially when traveling or working, Raspberry leaf tea is a great "cure" for ordinary diarrhea. Simply pick some nice raspberry leaves before winter: Cram those fresh raspberry leaves tightly into small plastic bags and keep several bags in the freezer to help your friends as well!
Such dry frozen leaves should remain effective for you and your friends for at least a year!

The World Of Soy

A quick summary of what I learned from "The World of Soy" edited by Christine du Bois and others (300 pp, 2008). Main message: *"The soybean is protected from pests by a number of chemicals that range from unpleasant to fairly poisonous, and therefore soybeans are more or less inedible when raw.* Nor is soy a good food if roasted or otherwise cooked in dry heat, as Soy proteins and other compounds bind into indigestible complexes. But despite the above, with proper mold fermentation and/or prolonged wet cookery, soy has been eaten safely in East Asia for millennia. *But soy is an excellent example of why foods enjoyed in certain cultures cannot be tolerated by those unfamiliar with its often tedious or complex-but-essential preparation.*

In other words, do NOT munch on raw or heated soybeans, as *soybeans contain no starches, just peculiar oligopolysaccharides that the human gut cannot handle:* Consequently, soy intake can produce flatulence and illness. Furthermore, soy contains trypsin inhibitors that make protein digestion difficult and eventually lead to growth inhibition and pancreatic hypertrophy (thus soy can cause nonalcoholic pancreatitis). And improperly processed soybeans develop an unpleasant beany flavor.

Soy also contains isoflavones or plant estrogens (phytoestrogens) that presumably boys and men should avoid, and there are no guidelines on how much soy an average pre or postmenopausal female might safely eat. "In the wild," such estrogens have a contraceptive effect that presumably evolved to limit or reduce the populations of soy-eating mammals.

Nonetheless, soy is prized because 1) it grows well, even in poor soils, and 2) because soybeans contribute nitrogen that enriches the soil for other crops, and 3) because if properly fermented and cooked,

soybean's high protein and oil content supplies poor folks or voluntary vegetarians with additional needed fat, lysine, etc.

In case you have not noticed, almost all processed or manufactured American foods include some "hydrolyzed vegetable protein" or otherwise-labeled Soy components. All Japanese soups include miso flavoring unless otherwise specified. Thus soy is hard to avoid but not necessarily bad. However, The American Academy of Pediatrics no longer recommends SOY MILK!

Case Report:

Acute pancreatitis in an overweight Mormon non-drinker

Our healthy, middle-aged alcohol-abstaining Mormon friend was suddenly hospitalized with acute pancreatitis. I suspected that he had been trying to lose weight by eating Edamame (raw soybeans in their shells), which are often served that way by ignorant workers in American Oriental Restaurants.

When Marianne asked him if he had been eating Edamame, he happily confirmed that he had eaten a lot of Edamame to lose weight, for that meant he could soon go home rather than undergo further medical and possibly also surgical workups for pancreatic cancer or other rare problems that could cause acute non-alcoholic pancreatitis!

How Soy Wreaks Havoc on Digestion and the Pancreas
by **Kaayla T. Daniel** *Healthy Living, The Naughty Nutritionist*
Information off the web that sounds sensible (AvH)

"If you think ...about ...the extent of the damage that the lowly soybean can wreak on your health, you may be surprised to learn that soybeans are also notoriously hard to digest, **with GMO soybeans – widely used in processed foods – the absolute worst.**"

(A Clarification: GMOs are "genetically modified living organisms whose genetic material has been artificially manipulated in a laboratory through genetic engineering or GE).

Anyhow, "The culprit is the **protease inhibitors** found in all soybeans whether organic or GMO. As the name suggests, protease inhibitors suppress some of the key enzymes that help us digest protein.

"The best known and most important of the proteases thus inhibited is **trypsin**. **GMO soybeans including edamame have more of them than organic or conventional beans, and to make matters worse, those protease inhibitors are stubbornly resistant to deactivation by cooking or other processing methods.**

"Soybeans are not the only foods that contain protease inhibitors. All beans contain them, as do grains, nuts, seeds, vegetables of the nightshade family, egg whites, and other foods. However, the protease inhibitors in those foods rarely contribute to health problems because few of those foods are eaten excessively and cooking deactivates most of them.

"In contrast, there are more protease inhibitors in soybeans than in any other commonly eaten food. While protease inhibitors are not a problem for people who enjoy the occasional soy dish, the quantities add up quickly when people consume soy daily in the mistaken belief that it is a "healthy" meat and dairy substitute.

"For decades, USDA and other researchers put their efforts into finding safe and inexpensive ways to deactivate the protease inhibitors found in soy. Boiling, roasting and modern processing methods help, but cannot destroy all of these troublesome components. The only way to come close is through the old-fashioned fermentation methods used to make

miso, tempeh and natto. Modern industrial processing techniques involving heat, pressure and chemical treatments have been reported to kill off as much as 80 to 90 percent, but that's a promise, not a guarantee.

"The numbers of "live" protease inhibitors remaining in soy products varies from batch to batch, and investigators have found unexpectedly high levels of protease inhibitors present in some soy foods, and startlingly high levels in some [soy formulas](#)."

"Protease inhibitors are an especially bad problem in GMO soybeans. With more than ninety percent of commercial soybean crops now genetically modified — up from around fifty percent in 2007 — there are very real health risks. Monsanto, of course, claims these beans are substantially equivalent to the conventional soybean, hence safe."

"In fact, tests have shown significantly higher concentrations of protease inhibitors in the toasted GMO soybean compared to conventional soybeans. Furthermore, those found in the GMO strain proved stubbornly resistant to deactivation by the heat treatment known as "toasting."

"When the results first came in, Monsanto took the bad news to mean that the GM beans had not been properly cooked and asked for retreatment of the sample. Further heating, however, widened the difference even more. The logical conclusion would be that a substantial difference exists between the GMO and conventional soybeans, and that the GMO soybean is more likely to cause digestive distress and growth problems in humans and animals."

"Monsanto, however, concluded that the second toasting was still not enough and toasted twice more until they got the result they wanted, namely that ALL proteins were denatured and inactivated. At this point, most of the soybean's protein value was also destroyed, but it gave Monsanto the "proof" it needed to conclude that **where protease inhibitors were concerned, GM and normal soybeans were equivalent.**"

Protease Inhibitors Do a Number on the Pancreas

"Why be concerned about protease inhibitors? They are the reason soybeans are notoriously hard to digest, and why soybean consumption stresses the pancreas. Because the protease inhibitors in soy inhibit the protease enzymes we need to digest protein, the pancreas has to work overtime to produce more. If this happens only occasionally, the pancreas quickly recovers. But if soy is consumed day after day, week after week, year after year, there will be no rest for the weary pancreas. The result is an increase of both the number of pancreatic cells (hyperplasia) and the size of those cells (hypertrophy).

"The extent of soy-caused pancreatic hypertrophy and hyperplasia varies widely from species to species in the animal kingdom. In some soy-fed animals, the pancreas swells quickly, in others more slowly, and in some not at all. However, all animals — including the human animal — will suffer from the loss of the ability to secrete sufficient enzymes if regularly consuming protease inhibitors. That means digestive distress for nearly everyone and growth problems for the young."

"With pancreatic stress and cell proliferation, cancer becomes a distinct possibility. Pancreatic cancer currently ranks as the fourth leading cause of cancer deaths of men and women in the United States, and is predicted to move into second place by 2020. Back in the 1970s and 1980s, researchers studying damage to the pancreas caused by protease inhibitors noted that pancreatic cancer had then moved up to fifth place, and suggested a soybean-protease inhibitor connection. Since then the rise has been even more alarming.

"The fact that it has occurred along with increased human consumption of soybeans — **and over the past decade GMO soybeans** — is probably not coincidental. Association, of course, does not prove cause and effect, but looking at the rise of pancreatic cancer alongside the evidence of so many animal studies is suggestive and sobering.

"Irvin Liener, PhD, professor emeritus at the University of Minnesota and the world's leading expert on anti-nutrients and toxins in plant foods, sums it up well, **"Soybean trypsin inhibitors do in fact pose a real health risk to humans when indigestible soy protein is incorporated into the diet.**

CHAPTER FOURTEEN

Thoughts about our far-too-expensive health care system

American health care, health insurance and prescription drugs are all far too expensive because

1) *Physicians in technology-driven sub-specialties often purchase costly new equipment they then utilize unnecessarily if thereby they can charge far more for the same services.*

2) *Health-Insurance Companies routinely minimize their payouts by fine-print stipulations, long delays, offering partial payments, or by making illegal insurance denials for poor or minority persons.*

3) *Big Pharma routinely corrupts politicians, bribes doctors and misleads everyone about medication risks known to Big Pharma but not shared with doctors or patients. It often appears that their most strenuously marketed medicines are least likely to offer real benefits.*

Big Pharma often boasts about how useful their newly developed drugs are; so they should face sanctions for all their cover-ups and misrepresentations. *Big Pharma Executives ought always be prosecuted when misrepresented drugs cause foreseeable damages and deaths!*

Many who are attracted by rapid medical and technological advances hope to "make a killing" selling goods and services unrelated to patient needs, product safety or more efficient production and distribution of useful products at a lower price. And soon enough, those hugely expensive, highly touted, frequently more dangerous or less effective new drugs or medical technologies, drive our overall health care costs way up.

One might reasonably argue that misuse (such as theft by computer hacking) or inappropriate overuse of costly medical technologies and highly touted pharmaceuticals (e.g., theft by lies and misrepresentation), or ordinary theft (inexcusably high patent/Monopoly prices) were equally corrupt practices.

Among our highly trained white coats, too many physicians that we too-often trust-too-much really do profit mightily by over-prescribing the most costly new (hence likely more dangerous) drugs - rather than looking into and suggesting easily available, well-known, effective, even "over-the-counter" safer alternatives!

We routinely see Big Pharma Corporations make huge profits by keeping drug prices high as long as their patent monopoly persists. But once a patent expires and generic manufacturers can compete, the price of simple, potent, widely useful generic medicines (such as the low price I once paid for my "feed-lot type tetracycline") may truly become *a bargain!*

But that wonderfully low cost (anti-inflammatory + more) drug - which might otherwise soon have benefitted most of us over-weight, overfed-on-corn omega-6 folks at a very low cost, was soon taken off the market before it could become well known and then save too many lives too cheaply! And not surprisingly, the far more costly ""Tetracycline"" then reissued was different enough to also be useless. Doxycycline was the same, for when it returned to the market at a price Business Week alleged had gone up 6000%, it seemed equally useless.

All of which suggests that like many other truly useful drugs, **original tetracycline** (formerly used in thousands of tons annually to keep feed lot animals healthy on their sickening omega-6 corn-fed rather than more costly/slower weight gain grass diet) would have been far too helpful, far too cheaply for folks with coronary atherosclerosis - so tetracycline first became unavailable at any price *pending costly changes and reintroduction - at which point it was so revised that it no longer worked well - if at all - (to avoid it in any way reducing health care costs and Big Pharma profits).*

Dramatic advances in medical care have mostly reduced hospital stays of weeks or months to hospital stays of hours or days. "Nurse watchers" report increasingly rare sightings as hospital charges inflate without an apparent top despite declining bed occupancy rates or entirely vacant, high-tech wards.

In contrast, a discreet friend once told me that his outmoded "barely out of town" motel did better with modest charges and short stays for then he could rent out the same room several times in a day. And my friend only had to clean and change the linen of his ordinary but obviously high-occupancy rooms.

Nowadays, many urban hospitals cannot compete without supporting an entire gamut of modern healthcare specialists with fancy equipment and convenient services. Furthermore, the top executives and other shareholders of "for profit" hospitals demand annual increases in salaries and hospital earnings, even if many underpaid, overworked employees must intermittently be laid off to meet earning targets.

Universal Health Services, the nation's third largest hospital chain, began with venture capital backing in 1978. Soon it owned and operated 100 hospitals. Over the prior ten years UHS has averaged

29% returns on investment (Business Week, Sept. 15, 2003 p112). HMO's may try to keep 15% of every health dollar they collect, when other large disbursement organizations like Medicare or the Canadian Government Health Care Plan need just 3% to 6% to cover their overhead.

The direct diversion of private health insurance dollars from health care easily exceeds 25% if you include executive perks, agent costs, marketing, administration, subcontractors, legal counsel, investments, dividends, and so on, without even considering all the extra employees that physicians or hospitals must hire to deal with those purposely misleading insurance papers or unjustified insurance refusals of insured costs.

Every health care institution wants more paying patients, but the supply of such patients is limited. Nonetheless, there is no overt price competition, nor is there published information that elective patients might use to select a hospital charging less than \$25 for a tube of toothpaste, or under \$1200 for an Emergency Room visit to determine that a broken clavicle needs no treatment, or less than \$3700 (including two CAT scans) to learn that a kidney stone is small enough to pass unassisted, or less than \$5,000 for an appendectomy with overnight care, or under \$8,000 for a full MRI study.

Technological and surgical advances simplify most operative procedures and reduce operative times for ophthalmologists, urologists, orthopedists, gastroenterologists, oncologists, cardiologists, general surgeons and heart surgeons. Yet such specialists hardly ever cut fees voluntarily when new techniques permit them to treat many more patients.

In former times, hospitals bought or saved sturdy glass gallon cider jugs full of delicious fresh cider (or wine or vinegar or whatever), then washed and sterilized those gallon bottles, added a sterile rubber cork with two or three good size holes for glass or plastic straws, plus tubing, all for less than 10% of the market price of an equally functional, disposable "chest drainage device" with plastic tubes attached.

Yet no large hospital can any longer afford to accept that empty cider jug today as it would involve too many specifications, meetings and hospital departments; from Purchasing ("How much cider? What supplier? Put out bids.") to the Kitchen ("The cider went hard. No one drinks cider.") to the Wash Room ("We don't have space. Order a new jug washer.") to Sterile Assembly ("How does this thing go together?") to Surgery ("Some idiot put this thing together backwards!") to the Emergency Room ("We have plenty. Oops! Rush 6 more units, they all broke") to Infection Control ("Improperly sterilized. Cannot be reused.") to Waste Management ("Which department gets charged for discarding this?"). Yet formerly all of this nonsense was quickly and sensibly handled by a single hard-working underpaid human female.

On the other hand, physicians frequently invest in outpatient Surgery Centers, free standing Sonography, CAT scan, or Mammography units, and so on—whenever they might be able to divert high-paying patients from local hospitals and their prosperous "hospital favored" radiologists, pathologists and other specialists. Yet I have neither seen published rates nor price wars.

Our health care system is rife with unplanned and usually perverse financial incentives and disincentives. It is replete with monopolistic specialties and subspecialties protected by arcane rules and regulations including sensible requirements to ensure adequate training and proper certification of expertise. Of course, as each subspecialty defends its own turf, it simultaneously promotes products and services in other subspecialty areas.

We have noted that the level of compensation accounts for major differences between how many doctors train in a particular specialty and how many may still be needed, regardless of whether that "need" is essential to patient care or if it merely allows a hospital to provide often optional, but hugely profitable, 24 hour services like costly MRI exams for every accident victim (who might otherwise go home and recover without a study confirming the diagnosis).

To a considerable extent, historical biases determine which services and specialties are most richly rewarded. But those highly paid specialists then tend to make large political contributions so their interests and protests receive priority attention from politicians and bureaucrats. And by being appointed

to Medicare committees that set payments for various services, these specialists also ensure they will remain highly paid.

The problem really is quite simple. Most people seek meaningful work. Many begin their working careers truly hoping to make a difference. But during internship and residency, most physicians of our day cared for so many desperately ill patients that they hardly had time to sleep, let alone visualize a future beyond some institution, clinic or a too busy practitioner who might hire them.

But once they are trained in a field and have a job, all employees naturally want the best return on the time, money and energy invested in learning new skills. As a result, doctors and medical researchers usually focus on diseases prevalent in wealthy industrialized nations, since that option is the usual track toward a decent life style and professional recognition.

Like many others of our peer group, Marianne and I lacked the time, money and information necessary to discover a pleasant practice area where our medical skills would be in reasonable demand. Most young shopkeepers, entrepreneurs and businesspersons face comparable difficulties: Many soon mutter “Had I known then what I know now . . .

Fortunately for us, Marianne and I chose to settle in an area with sufficient growth potential so we both become increasingly useful. However, from day one, we had to adapt, improvise, upgrade our skills and offer new services in order to avoid early or even initial obsolescence.

But even had we fallen into ideal practice opportunities, they could not have remained that way. For there would have been endless challenges as our interests and skills matured, and health care evolved, and our region became medically sophisticated - or else lost too many physicians to other areas. The often unhappy later lives of those who make it big in their youth (perhaps as TV, rap, rock or sports stars), certainly suggest that it is easier to stay productive and optimistic in a slowly improving situation than to tolerate a gradually declining one, even if “plenty rich-enough.”

Having entered medical school with hopes of becoming "a simple country doctor", I especially appreciated my school's approved unpaid externship at Twillingate. But as our family grew and my training continued, a lifetime of providing needed medical care to those living on Newfoundland's northern shore became increasingly unrealistic, especially as declining cod populations drained the working population away.

Nonetheless, I would not have refused occasional requests for delivering free medical services to this needy population through its already organized but struggling health care system. For such temporary, valued, out-of-area experiences often revitalize physicians whose usual office practices offer too few opportunities to "really make a difference."

In our day, if you didn't want to be a military doctor or medical missionary, or join the Peace Corps or the Indian Health Service, there was still that big white nicely refurbished hospital ship named "Hope". And that was where many midcareer physicians cheerfully donated their skilled professional services while teaching local health workers for a few weeks or months—on foreign duty, without family. More recently, physicians seeking a nonreligious workplace where they might utilize still-youthful energies to help a populace with no other options, have also joined *Medecins sans frontieres*.

Freedom from rigid rules and tight oversight was a special concern of mine, as I needed plenty of elbow-room in order to do my innovative best within our rapidly evolving specialty. But I also needed to be with my family, and wanted decent access to a natural ecosystem. Though I had long been enamored by Alaska, Marianne remained unconvinced. An elderly physician then advised us to “Enter practice where you wish to live, and provide the services needed there.” So simple! So true! And so we did.

Marianne and I finished our Boston residencies about three months before midsummer, when our next training was scheduled to commence in Iowa. Initially, I applied for various short-term surgical positions, sending out two page resumes about my sterling qualifications, and mentioning Marianne's

training in Pediatrics as an afterthought. The response from American Samoa was typical. "We have an immediate opening for your wife, and will try to find something for you to do."

Eventually we packed all we owned into our roomy 1960 Pontiac and did a ten-week meander over America's byways en route to Iowa—seeking the perfect place to eventually settle down. In those slower driving, bigger car, pre-seatbelt days, our year-old first child bounced happily around on his crib mattress which nicely covered the back seat.

At that time, rather than focus on developing altruistic workers committed to decades of service in ghettos or less developed lands, famous medical schools vied to produce famous researchers and teachers who might attract potentially famous students as well as endow new buildings. But while I had many fine teachers and nice classmates, we shared few interests. And soon after graduating, I lost all contacts with my classmates *and* my medical school. Indeed, by the time we left Boston, I was convinced that most academic physicians were pompous and overrated.

Yet I now suspect that many medical students and academics might enjoy more meaningful careers if several students in each class year entered school on a subsidized "free tuition, all expenses paid" career track to develop, broaden and upgrade the health care of a particularly poor and underserved population at home or abroad. For if all our classmates had one or more friends in such a situation—or conversely, if those accepting these opportunities remained in regular touch with the advancing specialization and skills of their medical school classmates, the average regular track medical student might one day find it truly rewarding to advise and occasionally deliver care in places where friends dedicated to the underserved had settled.

Every such small, ready-made cohort, if held together by a "medical school based organization" and monthly newsletter, could schedule occasional visits by academics, researchers and practicing physicians to offer needed consultations, specialty clinics and surgical care. Surely all would benefit if First World Doctors experienced Third World realities at a working level, rather than merely passing through as tourists.

The three part goal of such an effort would be 1) to bring excellent, culturally relevant health care to those in need, 2) to maintain classmate communication in a way that helped everyone involved stay up to date, and 3) to remind all parties why they entered medicine, thereby helping us all avoid "burnout".

If every year's class in multiple medical schools routinely built such long term relationships to enable and enhance the delivery of important health care services by self-selected classmates (who were interested in supporting Third World health care knowledge and delivery), then many could become referral or visiting participants in meaningful activities, and all would likely gain if more could retain the ideal of true medical service.

Despite all the valid criticisms of Big Pharma, their very occasional donations of essential drugs to improve the health of impoverished workers or peasants still deserves applause. For example, Pfizer gave great quantities of a long-acting antibiotic to control chronic eye infections, and Merck gave great quantities of anti-helminthic medicines to eradicate invasive worms.

But other than a few such deservedly well-publicized, good deeds, Big Pharma never had much interest in Third World Health beyond sneaky bio-prospecting while strictly enforcing their own hugely profitable pharmaceutical patents.

Even the World Health Organization had serious conflicts of interest: So for example, researchers discovered that untrained medical practitioners or even improper vaccination techniques (e.g., reused needles) really were to blame for many of Africa's new AIDS cases. Thus far, the WHO seemingly prefers to emphasize the role of unsafe sex, and divert blame from WHO supported immunization programs—some of which likely used such dirty needles. But many Africans already believed AIDS was a white man's plot to kill them off.

So some Nigerian tribes initially refused to even accept the polio vaccinations upon which World Wide eradication of polio might eventually depend. Once again, it seems prudent to first eliminate errors of commission (promote safe injection techniques world-wide) before worrying about errors of omission (inadequate immunization). For good evidence suggests that polio vaccination with live attenuated virus can also create new polio cases.

In any case, trained and motivated individuals who promote better health care and research in undeveloped nations could make a huge difference for the poor (e.g., *Nature*, 11 Sept. 2003 p142). And recent inputs of Gates Foundation money may one day prove useful for new health care projects in Africa and elsewhere. Unfortunately, Big Pharma's priorities remain creating costly quality-of-life drugs to suppress hay fever symptoms without making you sleepy, or helping a short child grow an extra inch or two taller, rather than helping the poor.

Worldwide, over 200,000 children were prescribed costly and largely unjustified growth hormone treatments. Many thousand of those short children received expensive natural growth hormone extracted from human cadavers before artificial growth hormone was developed. And some of those pooled extracts inadvertently transmitted the human version of Mad Cow Disease known as CreutzfeldtJakob disease.

Other costly elective treatments like laser reshaping of the cornea for minor cosmetic or functional benefits, similarly bear major risks including blindness. On the other hand, logic suggests that repeated botulinum toxin treatments for wrinkles might build up a sufficient immunity against botulism so wealthy dowagers would survive terrorist attacks based upon botulinum toxin.

Anchorage now has too many Cardiologists (all in one group) and too many Orthopedists (all in one group). An 8/10/16 opinion article by Charles Wohlforth in *Alaska Dispatch* points out that Anchorage's major Cardiologist Group and major Orthopedist Group both often charge **ten times as much for procedures done here** as is charged for procedures in the Seattle area. Why? Because they can!

When Marianne and I applied to medical school there were several applicants for each opening. During our medical school years, most aspiring physicians anticipated a life of service in a medical practice and/or in a research position that would support a comfortable but not extravagant middle class life style. Few doctors then expected to become wealthy, though a great many eventually did. Among these were some highly respected old timers who got Internal Revenue Service approval to continue running their low overhead Depression era "cashbox" offices (no billing, no paperwork, hence no audits, with all income and expenses added to or subtracted from their cash box).

Those doctors naturally avoided conspicuous consumption as they only paid income tax on profits they chose to declare. In my childhood—when \$2000 was still a decent annual income—one physician killed himself after someone stole or otherwise drew attention to \$80,000 or \$100,000 stashed in the doctor's shoebox. Shame still mattered then.

Many Medical Fees are now regulated

Medical care often seems essential, regardless of cost. Hence publicly supported health care programs increasingly regulate physician's fees—especially Medicaid programs that serve needy and less well off children, and Medicare programs that pay many medical costs for the elderly or disabled. But federally regulated prices neither notice nor respond to changing times, so such payments are often inappropriate and not cost effective.

Medicaid payments for institutional or technological services are sometimes too high, leading to unnecessary services and hospitalization for as long as payments continue (often a month or so). Then patients are discharged back to their former medical practitioner without evidence of having undergone useful treatments, with no apparent improvement, and without plans for aftercare.

On the other hand, Medicare's remuneration for an ordinary office evaluation or treatment is widely considered insufficient to cover the office expenses for that patient's visit. A physician friend recently doing part-time work mentioned that his employer billed HIM a token \$54 for the amount that patient-related office costs exceeded his total earnings from Medicare after he spent a day treating Medicare patients.

When we first arrived in Anchorage, frustrated physicians often complained about local welfare payments. Many would have preferred to provide totally free care rather than overhear visiting welfare workers reassure sick patients that their doctor's bills were "all taken care of" - especially when the welfare payment might be two or three dollars on a \$50 or \$200 dollar fee.

Many medical offices are currently unable to care for more than a few longtime patients after they retire and Medicare becomes responsible for paying their medical charges. Some practices even advertise that they don't accept Medicare payments but would be pleased to care for wealthy older patients who pay cash in advance.

Unlike truly free-market competition, regulated prices cause ongoing inefficiencies, inequities, mislabeling of illnesses, and inappropriate diagnostic or therapeutic enhancements. It is worth remembering that state-owned businesses and state-established prices and production quotas helped destroy the Soviet economy. Similar strictures also burden great nations like China and Japan.

As medical fees become established and regulated, they elicit persistently wasteful behavior by mismatching supply and demand (e.g., for orthopedists or cardiologists) over such prolonged periods that most people eventually adapt and restructure their lives and businesses to this more costly and inefficient alternative.

As mentioned, instead of fully utilizing hospital diagnostic equipment, it is often more profitable for cardiologists to purchase and staff similarly "expensive" equipment in their offices - as this allows them to charge less restricted global fees for diagnostic procedures, rather than just billing standard procedural or hourly fees. But the same high overhead that currently maximizes their income from procedures may one day prove burdensome if cardiologists must respond competitively to effective pricing.

So What Do We Need To Do?

America would clearly be a better place if its inhabitants all had access to safe nutritious food, adequate shelter, decent education, basic medical care, clean air and water, a healthy environment, liberty, justice and freedom from governmental intrusions. Not surprisingly, the bumpy road toward this Promised Land requires constant inspection and repair. With regard to basic medical care, a Single Payer, whether it is a private, or a nonprofit or a public health care program, and no matter if it is organized on a local, statewide or national basis, could easily adjust its payment policies to draw physicians into specialties or geographical areas with insufficient coverage.

A Single Payer would also be able to reduce remuneration in certain specialties or locations that had more than enough practitioners. And while physician surpluses or unfilled positions would not self-correct overnight, they could easily be remedied, given lag time for retraining, completion of training or turnover.

Of course, to avoid restricting or delaying medical progress, we would want a Single Payer to anticipate new developments—but bureaucracies are rarely good at that. Thus a Single Payer system will forever be playing catch up with population shifts, technological advances, evolving medical problems and their new solutions.

Then how about paying one standard salary to all medical practitioners with comparable training so they choose a practice specialty on the basis of interest, abilities and patient needs rather than according to which provides a better income? After all, we want to attract people of quality, empathy and intelligence into all medical specialties and locations.

But some sites are unattractive or downright dangerous, so add a differential for that. And some salaried physicians might prefer to spend their time at meetings, or fishing, or both—as some salaried

folks already do—rather than providing more patient care. So we had better keep some sort of “fee for service” incentive.

Under such circumstances, a few might turn their offices into oxycontin mills or give every patient an injection to promote volume of care at the expense of quality. So here comes quality control again. And how can we measure and respond to that?

Well, in Canada, doctors who order much over the average number of tests in their specialty may have their practices reviewed (Feb. 2003, *The American Prospect*, pp378). Or we might merely end up paying better salaries to those who are nicest to the Administrator.

In any case, it seems safer to let the system evolve slowly, adjusting specialty fees, and perhaps requiring an initial two-year medical duty in some underserved community as exchange for free medical tuition plus basic room and board for doctors and nurses and other needed medical practitioners in fully accredited training programs.

And when possible, allow patients to select their own physicians. For major revisions of complex systems incite many feedbacks - and abrupt changes in health care delivery, like other revolutions, rarely deliver the anticipated result or even a desirable alternative.

What if our government simply provided all citizens with basic health insurance paid for by a progressive tax so those who couldn't afford anything had free care while those who could afford a little paid a little and so on up the ladder? You might ask, “What would prevent the poor from abusing such a system?”

I once worked in such a system at the Boston City Hospital. And in my experience, that system was mainly abused from above by politicians and administrators, not by the destitute below. But perhaps there is no inherent reason why all administrators must be corrupt, or all young doctors should be treated badly, or all politicians must outrank doctors and patients.

As a rule, those who steal billions—as Enron leaders did from Californians and their own employees—are treated far more leniently than poor folks trying to squeeze a few more dollars or a better deal out of a system than some biased and comparatively wealthy prosecutor deems permissible. Hence many “welfare cheats” are swiftly jailed for the little scams they use to survive, while Enron leaders become pillars of Bush's Billionaire Buddies.

But if harsh punishments are needed so poor malefactors won't misrepresent their situation to obtain essential medical care, then the usual non-prosecution or minimal punishment of Republican Donors Who Get to Steal Billions will surely motivate vast multitudes to attend **Future Billion Dollar Thieves of America meetings** where Republican dignitaries would endlessly explain why only the wealthy deserve deliverance from evil (taxes).

Of course, no matter what solutions are devised for American health care, they will require ongoing changes as flaws, errors and new ways to scam the system become evident. Overall, I suspect that hospitals would function more responsively and responsibly as widely distributed, small to medium size, competing facilities subject to some local control rather than as gargantuan politician-controlled institutions like Boston City Hospital.

When we first arrived in Anchorage, an experienced surgeon (Dr. Mills) pointed out that despite its many deficiencies, our current relatively friendly and open, moderately democratic and efficient, 90120 bed hospital would one day be recognized as a great working environment—in marked contrast to what we would have once our hospital exceeded 200 beds. And he was right!

For Providence Hospital became hugely complicated as we “advanced” from an “open door” nun administrator and assistant administrator, with every hospital department phone number listed on one side of a single sheet of paper—to departments uncountable and administrators unknown who were always at meetings or otherwise unavailable.

Our hospital phone book eventually became larger than the phone books of nearby small towns—at which point it was difficult to get a final decision, employee morale went down the tube, and costs

skyrocketed as bed count rose while bed occupancy declined. Before long, a lay administrator (whose office included a small putting green) was “too busy” to see me, and outraged when called at home about a hospital emergency.

When It Comes To Health Care, Better Is Hard To Define

Price becomes a minor consideration when the life or limb or eye of a loved one is at stake. Nevertheless, patients cannot select a competent specialist who charges less unless they have access to a list of standard charges by competing specialists, and some objective way to determine who achieves better outcomes.

Quite naturally, most physicians (who are still paying off major investments in education, office space, medical equipment, or multiple homes, sailboats and airplanes), will not voluntarily reduce rates, especially when changes already underway in their specialty are likely to include mandatory fee reductions, or declining patient referrals as others offer a better-sounding technique or less invasive services.

And wherever there are more physicians in practice than seem necessary for relatively urgent health matters and proven treatments, one will likely encounter increasing interest in "optional" or less treatment-amenable problems. At that point, unproven or even useless remedies reliably emerge—even though, on average, no one benefits much from such costly investigations and treatments except the provider.

More specifically, the number of specialist visits or X-rays or other medical services provided have little to do with the average citizen's health or longevity but everything to do with the regional availability of specialists and medical facilities (see, for example, *The Over-treated American* by Shannon Brownlee in January/February, 2003 issue of *The Atlantic Monthly*, pp 89-91).

A big part of the problem is that - after so many glowing reports about great new diagnostic and therapeutic advances, seriously ill patients or their families assume we will operate or offer strenuous chemotherapy or provide major X-ray treatments or do something "BIG"—regardless of whether such options are likely to help or just might conceivably do so. “After all, miracles do happen!”

And if all else fails, some patients will take their last dollars and head off to Mexico for the latest "alternative medicine cure". Of course, all of us who don't die suddenly or by accident must die with some sort of terminal illness. Perhaps some of the terminally ill would have more confidence that every reasonable therapeutic option had been considered if they could select an uninvolved practitioner in a relevant specialty from a list of volunteer physicians willing to read the patient's chart and meet with those concerned (at no charge) to discuss options.

After rendering such a service, the volunteer physician would come off the discussant list for a month or so, as seemed practical. Presumably all parties in the patient's corner would preview their questions just before such a discussion so that it could be useful and still last just 15 minutes (as in local house calls—see Chapter One).

This would be an "off the record", neighborly, Good Samaritan act rather than the formal second opinion so often demanded and reimbursed by an insurer hoping to deny expensive procedures. In Anchorage, with its many hundred physicians, our admittedly incomplete daily obituaries rarely included more than one or two deaths from a terminal illness for which such a "discussant option" might have been requested.

When facing death, even I, a well-informed physician, found great comfort in a brief chat with an objective practitioner. This option might even prove to be a great money saver for the average patient and for the medical system, as well as a useful experience for the average physician who, when not directly challenged to "**Do something!**" - might find it easier to offer a thoughtful opinion on the lack of reliable options for further treatment before mentioning additional inexpensive options “outside of the box”.

Many patients might opt to gamble on a traditional or alternative treatment or off-the-wall remedies as I did, rather than risk dying at the hospital, broke, with more tubes than orifices. Such a patient could also consult a traditional healer about various herbal remedies (a course on this topic is sometimes offered at the Alaska Native Medical Center in Anchorage).

Or perhaps a non-physician volunteer could then help the patient or family research traditional Indian remedies such as Devil's Club tea for cancer, which the patient or family might even prepare on their own (most physicians would likely be uninformed and unhelpful in devising or delivering such therapies).

Surely such a terminal patient support system would be better for most old folks than what we now have with competing cardiologists and cardiac surgeons evaluating various expensive procedures to remedy irregular heartbeats because irregular heartbeats definitely have risks and these specialists now have the time and it might be a beneficial service. For even if long-term benefits are unproven, the herd mentality is in favor.

Although I know little about some of these advanced procedures, it seems unfortunate that all cardiologists appear unwilling to discuss, let alone try, my safe and inexpensive Mag 64 treatment (see chapter 12) preoperatively on patients they then schedule for their very profitable "atrial ablation" procedure for heartbeat irregularities.

After all, allegedly 50,000 - 100,000 patients may have died of cardiac arrest while taking supposedly useful and definitely costly **anti-arrhythmia drugs for minor heartbeat abnormalities in the 1980s** (see Chapter Eleven, and "Protecting America's Health" by Philip J. Hilts, pp2302 and 323). And I previously commented on costly lasers formerly found in heart surgery centers, ready to punch holes through left ventricle muscle into the ventricular cavity of an insured.

While no one ever demonstrated benefits for the patient's heart, "It might help." And one really cannot predict whether medical progress might be slowed or advanced if expensive or intrusive new remedies first had to be tested and confirmed in published clinical trials before every patient had access to them.

But surely a Single Payer system could save huge amounts of money by demanding some evidence of efficacy before a treatment became generally available. We learned that same lesson the hard way with Gastric Freezing (Chapter 4), as did AIDS activists who initially pushed to have every possible treatment available ASAP whether plausible or not.

Those who declare, "We are too soon old, and too late smart," surely understand why each new medicine or treatment tends to spread too soon and be carefully evaluated too late. Oregon begat one useful idea when it democratically prioritized an inclusive list of proven remedies that the state would support for uninsured persons within the shrinking budget available for low-income medical care.

Would chemotherapy do more good or less harm if cost versus benefit and risk versus benefit ratios were determined by objective analysts, and if cost effectiveness parameters and even relevant DNA studies were developed before the more risky or expensive sorts of chemotherapy became widespread?

If so, a Single Payer would have to demand higher quality trials, since most studies of new medical treatments have *purposely or otherwise been inadequate* to settle questions of efficacy and cost/benefit that they allegedly addressed. Furthermore, the final responsibility for clinical trials should return to academia from Big Pharma, due to Big Pharma's vested interest in positive outcomes. Yet even academics with stock options whose value hinges on the outcome of such trials can be less than totally objective.

Over the years, Insurance Corporations with cost-plus contracts and their entire cash flow earning healthy stock market gains, had little incentive to approve proposed surgeries promptly or to pay their bills quickly. In fact, Insurance Corporations are notorious for the confusing and annoying paperwork barriers a patient must overcome before any part of an insured's legitimate claim is paid. As mentioned, this sometimes illegal ploy is called "*rationing by inconvenience*".

Even the partial insurance payments from my then health insurance policy to my friend Tector, who performed emergency heart surgery on me in 1983, were delayed more than a year for no apparent reason

other than that they could. But the burden of delayed insurance payments usually falls upon insured persons, many of whom must pay up front or finance the entire treatment even though insurance supposedly covered that treatment, while the Insurer ponders whether it really has to reimburse the Insuree.

Nor did Health Insurance Corporations ever bother (before recent stock and bond market declines and crashes) to negotiate reduced payments for initially difficult and dangerous surgical procedures that became more efficient and successful as patient numbers ballooned. After all, the larger the premiums, the greater the opportunity for gain (or loss) on the stock or bond market.

For as you may have noticed, every time the stock or bond market crashes, malpractice and health care insurers immediately reduce their exposures and request huge increases in premiums that are totally unrelated to risks they currently insure, simply to offset their market losses. Indeed, malpractice insurers don't want it known that malpractice claims in many regions are stable or falling: Insurers want policyholders worried enough to pay their ever-escalating insurance rates.

For rather than reflecting policyholder risks, insurance rates are eventually adjusted so that policyholders insure the insurance companies against stock or bond market losses. And policies that are required under some state laws or hospital policies may overlap or even be against the public interest.

Being responsible for quality control, a Single Payer also needs independent ombudspersons, timely arbitration and an efficient appeals process for patients harmed by gross error or incompetence. Proper patient education might also encourage more realistic expectations. Malpractice claims would then become less like winning a lottery and more about *"Does this incident reveal something needing correction? Plus "How can the injured party or parties best be helped?"*

Internists who enjoy hospital practice often find they can work better hours for better pay as Hospitalists. Others prefer predictable hours and a good paycheck as Emergency Room physicians, rather than risk burnout while trying to keep up with relevant developments in human health care and also coordinate a decent family life with unrelenting patient care obligations.

Medicine is changing. The latest version of in-hospital patient care—hyped as "team care", has problems and benefits that require clarification. Certainly, the concept of team care is not new. And many apparently stable and profitable specialties will soon morph into entirely new forms or simply vanish.

Retraining for some months, as I did, will likely become an essential aspect of modern medical care. Medical costs have so far been uncontrollable for many reasons, *including the unmatched political clout of HMO's, Insurers, Multinational Pharmaceutical Corporations, and well-established physician organizations such as the AMA*—all of which may be far more “conservative” than the majority of those whom they employ, insure, bribe, mislead or claim to serve.

CHAPTER FIFTEEN

Single Payer

A Single Payer that offered free basic health care for all U.S. residents might initially interview all qualified, interested health care workers who wished to serve at a decent salary plus their costs at work. Health Care Worker competence might initially be assessed through local health records and patient feedback. And if annual Bonus Awards were often made in Complementary Currencies, that could help to minimize American Recessions (see Ch16).

Free Basic Health Care for all improves jobs and pensions, decreases strikes, bankruptcies and homelessness, and replaces all Health Insurance Carriers. Single Payer shall offer all patients free access to competing health care services, as is now enjoyed by Congress, the Judiciary and the Executive Branch, including basic mental and dental care.

Single Payer will negotiate nationwide drug discounts. SP will regulate health-care monopolies, monitor health-care outcomes, pay providers at approved standard rates for completing accredited retraining or at their retirement "in good standing". Providers may appeal any SP decisions or directives to Expert Medical Oversight Boards or Medical Courts.

Single Payer shall monitor and report upon any wide-spread contaminants in air, water and food, promote healthy lifestyles, provide competent cost-effective health care and deal responsibly with health-related issues under educated-citizen oversight.

Single Payer may legally increase its own funding without further taxpayer support as soon as ALL Governmental Subsidies and/or Tax Rebates to Businesses and Corporations automatically convert into equal value SP/Public-Ownership Shares in those Businesses or Corporations.

The Guardian Newspaper's Summary on US Healthcare (based upon OECD Health Statistics 2015). The Organization for Economic Cooperation and Development is a unique forum where the governments of 34 democracies with market economies work with each other, as well as with over 70 non-member economies, to promote economic growth, prosperity and sustainable development.

"US healthcare is not quite the Darwinian lottery imagined by foreigners. [Hospitals](#) are duty-bound to treat emergency cases. Government spending pays for a surprising share of visits to the doctor and drugs through a patchwork of public programs: Medicare for the old, Medicaid for the poor and CHIP for children. Since Obama's insurance reforms, the percentage of people who have no cover has fallen to "only" 10% – a mere 33 million people."

"For the rest, standards are generally high, sometimes among the best in the world. But no matter how good the insurance policy, few Americans can escape the crushing weight of the payments bureaucracy, or from risk-averse medical practices that flow from a fear of lawsuits."

"Almost all visits to the doctor (often a specialist, rather than general practitioner) generate "co-pays" for the patient and revenue streams for the physician that some fear encourages excessive testing and intervention: a consumer, rather than care-led, culture."

"Preventive medicine and public health are hard to incentivize. Patchy access to insurance can leave emergency rooms clogged with chronic conditions. Obesity and mental illness often go untreated."

"Though the system fosters excellence and innovation in places, the messy combination of under-insurance and over-insurance has left the US with the highest healthcare costs in the developed world and some of the worst overall health outcomes."

Jan 4, 2015: Our National **Healthcare Expenditure** (NHE) is projected to hit \$3.207 trillion this year. The U.S. Population is currently hovering at around 320 million, so **2015** looks to be the first year

healthcare spending will reach \$10,000 per person.

Jul 28, 2015: Thanks in large part to the expansion of coverage under Obamacare, **health care spending** in the U.S. is projected to have hit \$3.1 trillion.

Certainly, no other First World nation offers such inadequate health care coverage for their lower income working population that holds the most tedious, dirty and dangerous jobs. Our Nation suffers extraordinary losses when low-wage workers wait many hours for urgent healthcare - or must wait for weeks or months to access routine but important public-financed examinations or procedures (that often might have prevented chronic illness or early death). In 2003 we spent over 1.6 trillion dollars on health care. This was 2 to 4 times more per person (a far higher percentage of our \$11 trillion gross national product) spent on medical care - than in other developed countries.

Over 14% of our gross national product is consumed by our chaotic and inefficient medical system. Unaffordable medical insurance is **the** major cause of labor unrest. Most strikes are called, at least in part, to settle heated disputes over how much employer and employee shall each contribute to the escalating cost of health care. They fight each other locally over national political problems neither side can correct.

Many industries move overseas to escape that heavy burden. Low or middle-wage workers regularly become trapped in unsatisfying dead end jobs that include otherwise unaffordable insurance coverage for their current medical problems. To evade health care and pension obligations, companies like Nestle have shut down efficient profitable plants when most workers reached their 50s. Duty, loyalty and trust no longer matter. Everyone feels betrayed.

Physicians cannot make a living or pay their staff salaries and other overhead costs if caring solely for Medicare patients. On the other hand, although I am now "out of the loop", I suspect the subspecialists who perform costly diagnostic and therapeutic procedures still do very well with Medicare funding. Not by coincidence, the groups representing 170,000 of those highly paid medical and surgical specialists combined their lobbying efforts some years ago.

A fully empowered Single Payer System responsible for all basic health-care-related payments will markedly increase health care efficiency and greatly reduce provider overheads, as Health Insurance Corporations have notoriously made Health Insurance payouts as restrictive and difficult as possible.

With increasingly computerized medical records, a Single Payer could easily monitor most current patient outcomes, in order to initiate early investigations of worrisome variations. In this way, a Single Payer could increasingly eliminate paperwork and minimize computer entries other than patient information.

At present, whether or not a worker is insured, or a retiree has Medicare, their uninsured cost of pharmaceuticals and medical appliances may reach many thousands of dollars per year for ordinary older Americans, and many tens of thousands for some cancer patients or those with severe chronic illnesses.

Overall, health care can suddenly become unaffordable for at least half of our citizens. One need only read a daily newspaper to become aware of spaghetti feeds and other fundraisers for ordinary persons who ran up massive medical debts as a result of cancer, stroke or other serious illness, even when they thought they were adequately insured.

Nowadays too many Americans are allegedly "doomed" unless friends quickly raise money to enable costly chemotherapy or whatever. For insurance policies often don't cover chemotherapy or other expensive or unproven treatments that might bring worse outcomes than the untreated disease.

Many patients only get to see a physician if they pay regularly or even in advance. Patients evaluated by "specialists who do costly procedures" usually undergo costly procedures. And patients are often pressured to immediately pay medical bills for unexpected illnesses or injuries.

Uninsured accounts are even *sent to collection!* while a still-hospitalized patient cannot hide. So sick folks put unsustainable balances on their credit cards and pay extortionate interest until they lose their homes and jobs. Yet until credit cards became common, most ordinary medical offices usually arranged

simple monthly payment plans that protected patients from crushing debt. Not surprisingly, medical expenses are now a leading cause of personal bankruptcy in the United States.

Those pushing high interest rate credit cards especially view the elderly, the poor and the uneducated as their prey. And through their lobbying and major campaign contributions, those bankers even managed to minimize the debt relief afforded to poor folks who file for bankruptcy protection. Not surprisingly, bankruptcy rules are far less burdensome for persons with businesses and costly homes.

Over the past 50 years, health care costs increased far more rapidly than overall inflation rates. Individual health insurance policies are only selectively available and don't cover preexisting illnesses (whatever was probably wrong with you) as Health Insurance Corporations much prefer to insure individuals for conditions they won't develop.

Investor-owned Health Maintenance Organizations or HMOs often delay or minimize patient care to maximize returns for their investors. The annual premium for an insurance policy often rises rapidly when stock or bond markets fall. Various estimates suggest that medical errors seriously injure or kill at least 100,000 Americans a year.

Our current problem, costly but inadequate health care, has long been obvious to thoughtful players on all sides. But inexpensive health care remedies or even old-fashioned possible cures will never be reinvestigated unless a Single Payer or a major foundation funds ongoing investigations of practical, low cost remedies for common complaints (New Scientist, May 26, 2001 pp 3140). By this I do not mean "Music therapy to raise the chi", nor would I encourage further evaluation of scientology, chiropractic, chelation or other favorite causes of those seeking medical care with a more human face. At present, the NIH based Office of Alternative Medicine is funding studies of glucosamine as well as even more questionable therapies (Lancet, Aug 18, 2001 p566).

A Single Payer could easily evaluate and set up a public information web site on possibly useful alternative therapies such as raspberry leaf tea for diarrhea, turnips, celery seeds and tart cherries for gout, tart cherries or the previously inexpensive feed-lot *tetracycline* for some acute and chronic cardiac or inflammatory problems, tryptophan rich foods that might allow many persons to stabilize their moods through diet (Science News, July 8, 2000 p23), antiinflammatory effects of honey bee stings (to suppress autoimmunity), and an entire host of other inexpensive dietary or other traditional remedies that patients could easily afford and access outside of a Single Payer care system.

Thousands of traditional remedies from around the world could be evaluated simultaneously with standardized studies run by ordinary practicing physicians and designed by the best talent a Single Payer could find. Many safe, inexpensive, even homegrown remedies could finally challenge Big Pharma's billion dollar drugs to an honest "head-to-head" competition with Single Payer (rather than money-makers) doing the evaluations and then cheaply providing proven remedies to the public, along with relevant medical advice.

A Single Payer could also underwrite international evaluations of remedies for safety and efficacy (e.g., the neem tree of India, or the antibiotic tea tree oil of Australia and New Zealand—Lancet, Oct. 13, 2001 p1245— or the woundhealing manuka and jelly bush honeys made from tea tree nectar— New Scientist, Oct. 7, 2000 pp32–5). If any of those, or thousands of other "remedies" were deemed effective, Standard Research Agreements could ensure that small surcharges reached responsible locales in the source country. This might even help Third World Nations reduce deforestation (see Ethnobotanical knowledge, Science, Mar. 14, 2003 p1707).

In contrast, Big Pharma routinely "patents" potentially profitable traditional remedies (as if they were "new and nonobvious discoveries") in order to monopolize that market as well. *Too often this has occurred with our Government's connivance, despite outcries from areas where such remedies grow and/or are traditionally used.*

A Single Payer might markedly lower its own drug costs by subsidies and bulk buying of safe and pure herbal remedies, while testing and banning potentially toxic herbs such as those containing ephedra and other dangerous ingredients.

A Single Payer could evaluate if, when and for whom various screening tests like PSA and mammography would be useful and cost-effective. It could sponsor studies and post regular SP updates on who might benefit from regular colonoscopy, gastroscopy or mammography, or if blood cholesterol or C-reactive protein levels were even relevant indicators of future coronary events, or compare outcomes of persons on statins with those on tart cherries or tetracycline and figure out how best to utilize that information.

Most specialists are well aware of obvious problems that their competitors in other specialties now face. A while ago a cardiologist remarked, "These new drug releasing stents will prevent restenosis after we dilate a vessel." He gave me a nudge. "It won't be long before you heart surgeons go out of business."

My response was "And what about tetracycline? It won't be long before that puts you cardiologists out of business." He shrugged, "Well, tetracycline was big four years ago, but interest faded after some negative studies."

I said, "Of course. At the time, Tetracycline was long off its original patent so it cost me 30 cents/capsule so no one will fund studies except perhaps long-term studies that won't report until current drug patents all have expired." He nodded.

By chance, that day's mail included a notice on upcoming heart surgery meeting topics. Included were three talks on whether the new drug eluting stents might reduce our Nation's need for heart surgeons. But while every medical specialty is affected by advances in medical care, the entire medical care enterprise currently tilts ever more unreasonably toward investigations, developments and teachings about "ever more expensive remedies" for "ever less important" problems.

A point I have repeatedly tried to make in this book is that it would be unprofitable and hugely difficult for a busy doctor to study and utilize inexpensive remedies against such a strong tide of opinion. Nor would any of her peers wish to join such efforts. And his malpractice insurance carrier might even disown him when possible difficulties arose with their use.

A major problem for those who really want to change how things are done, is that most doctors fear criticism and a loss of business if their practice deviates too markedly from what they were taught, as pointed out in previous discussions of tetracycline, electrocoagulation, radioactive gold, tart cherries, turnips and so on.

Secondly, greedy practitioners or those with "a screw loose" often grasp simple ideas such as chelation or intra-aortic balloon pumps and unreasonably promote them ("called prevention creep"), making it that much more difficult for others to devise appropriate indications for their use.

Nonetheless, without truly qualified leadership from Academia, or strong sponsorship by Single Payer scientists, all efforts to develop effective low-cost remedies will swiftly die, as Corporate interests are always ready to sue or have investigators fired if they threaten Corporation business plans. For example, one article on my desk favors legislation that would only allow antibiotic usage in animals for treatment of current illnesses (allegedly "to reduce the risk of antibiotic resistance in infected humans").

Naturally, the long list of precluded antibiotics includes tetracycline, which has now been fed in feedlots for many decades at thousands of tons per year "to spur animal growth". Might tetracycline's main effect simply have been to minimize animal inflammation caused by the cheap, corn-based omega6 feedlot diet that makes so many animals - and their meat eaters - ill (see ref. in "WHO urges farmers to cut use of antibiotic growth agents", *Lancet*, Aug. 23, 2003 p626).

A midSeptember, 2003, fisheries report in the Anchorage Daily News mentioned that Japanese researchers found trace doses of tetracycline in farmed salmon. And this release incorrectly described tetracycline as an extremely toxic fungicide rather than one of the safest antibiotics known. Was someone misinformed? Or are commercial interests already out there undermining tetracycline before it can

become a serious threat? Might this be the start of a campaign to eliminate cheap ordinary tetracycline before costly, patented, slightly modified tetracycline hits the market? Stay tuned.

For at that point, the only sure thing was that tetracycline was so inexpensive that no one would want to spend much money defending it. And given its history of heavy feedlot usage, microbial drug resistance to tetracycline presumably had already occurred as often and to the extent it can.

In fact, such a chronic feedlot usage alone easily discredits self-interested Big Pharma remarks such as “Physicians shouldn’t test antibiotics like tetracycline against symptomatic coronary heart disease since using tetracycline for such an unproven indication would encourage antibiotic resistant bacteria.”

Yet just such a remark was made several years ago by a Seattle physician conducting a costly long-term study on the use of antibiotics for coronary artery disease. Nor did he reply to my email describing personal experiences with tetracycline. So does he really expect the World to patiently await the potentially amazing results of his long-term subsidized investigation? Or do his grants restrict him to studies of costly antibiotics still protected by patent?

In any case, times are changing and many of today’s health care workers will need to upgrade or alter their job description within a few years. Yet, as previously discussed, *NO evidence has ever been offered in support of mandatory Continuing Medical Education or Recertification!*

On the other hand, it seems practical and sensible to offer beneficial retraining challenges for health care workers anytime such new proficiencies could increase their productivity and alleviate boredom, burnout or simple redundancy (and their patients would obviously benefit too). So under a Single Payer, any competent physician or surgeon might retrain in a related field where demand is unmet or growing, just as my three month fellowship in Heart Surgery improved my skills and Alaska's care for Heart Surgery patients.

Government programs, Insurance Corporations and HMO’s often undercompensate those who deliver basic medical care. So more physicians enter higher income interventional specialties such as radiology, orthopedics (especially the repair and rebuilding of joints), cardiology, eye surgery, urology and plastic surgery. Yet the amount of care provided by these costly specialists more closely tracks the number of specialists available rather than objective measures of need or benefit.

A Single Payer could easily confirm or refute the common notion that *half of all diagnostic and therapeutic studies or procedures are unnecessary, poorly performed or otherwise contraindicated*. And eliminating half of all tests or procedures would sufficiently decrease demand for CAT scans, MRI and EEGs to free up such machines for examining prison inmates and mental hospital patients, seeking variant epilepsy or chronic subdural hematomas as possible causes for their abnormal symptoms or behaviors.

Business Week (Oct. 27, 2003, pp845) reports that an estimated 2 4% of the US adult population and a third to a half of the adult prison population has attention deficit hyperactivity disorder or ADHD—an increasingly recognized dysfunction treatable in 60-80% of cases.

Although drastic change is always risky, a Single Payer would apply equally to all Americans who, in the words of Thomas Jefferson "hold these truths to be self evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed..."

To date, *our National Politicians have avoided stirring up vicious opposition by wealthy opponents* of Single Payer (who have heavily invested in the current **Medical Industrial Complex**), just to improve a system that will never provide care for them or their families. For these far-seeing folks long ago established their own First Class healthcare and retirement system, funded by "the taxpayer."

However, whether it is organized as an offshoot of Social Security or Medicare, or as a new quasi-governmental entity comparable to Fannie Mae, any competent nationwide (or regional or statewide) Single Payer system could immediately and impressively reduce the current cost of medical care. Even Veteran’s Hospitals, which during my years of training already offered separate, but often less than equal

care to those who had earned the very best, could meld seamlessly into a new Single Payer system dedicated to lifelong first class medical care **for everyone**, including all the “important people” like you!

A Single Payer can provide more services at a far lower cost

In view of Medicare's and Canada's early SP experience, an entire Single Payer Health Care Services Organization operating with open books plus ongoing public oversight by consumers, providers and an honest research arm - could be run efficiently on 36% of total Single Payer funds.

A Single Payer would generate huge savings immediately by negotiating reasonable reimbursement rates for nonprofit and for-profit Health Care services and equipment. Assets that were invested for policyholders by Health Insurance, Malpractice Insurance and Workman's Compensation Insurance would be transferred to Single Payer in exchange for better coverage.

This might seem a heartless way to end a long relationship with your favorite Insurance Corporation and its flocks of friendly employees, but those companies repeatedly move in and out of health care and malpractice markets in an equally heartless fashion, often without harm to themselves, though sometimes they deservedly go broke.

As far as the big picture is concerned, not much new or different is being suggested here. Many insurance markets would remain. And those huge investments made with your Health Care payments, currently being held in the bond and stock markets to cover your risks as the insured, would simply change their nominal ownership from HealthCare related Insurance Corporations to the *Single Payer who thereafter would cover all health care problems including preexisting and genetic diseases*.

Naturally, such Insurance Corporation stocks and bonds could not simply be dumped on the market. Rather, the Single Payer, as new owner of all assets dedicated to health care or malpractice insurance, representing all of us, would audit and take early possession to minimize gambling away of value or other thievery.

Based upon discounts negotiated by the Canadian Government, Internet pharmacies are able to sell patented drugs at 50% to 70% below current U.S. prices. Hence a fully empowered American Single Payer could surely obtain all important pharmaceuticals at less than half the price that uninsured American patients currently pay. Additional huge savings would come from not buying drugs deemed unnecessary, risk ineffective or cost ineffective.

No need for Pharmaceutical Management Groups

What about the four huge pharmaceutical management organizations Medco Health Solutions, AdvancePCS, Caremark RX, and Express Scripts? All recently reported large revenues (Medco's 2002 revenues were \$33 billion). As mentioned, those revenues include payments for services to drug makers that these companies would rather not disclose. But regardless of whether those revenues originated from Health Care Corporations or Big Pharma, pharmaceutical management organizations are very profitable.

As also mentioned, Caremark bought the bigger but less profitable AdvancePCS. And on 6/23/03, federal prosecutors alleged that Medco Health Solutions—a hugely profitable pharmaceutical management organization set up to help health plans find low cost prescription drugs, had instead pressured doctors to switch patients to Merck medications after Merck bought Medco in 1993.

When accused of providing misleading information in connection with its contract to manage drug benefits for federal employees, Medco responded that these charges were either untrue or they reflected old isolated issues that had been identified and corrected. But whether or not pharmaceutical management organizations initially or recently provided any benefits to health care organizations, Medco still retains two cents on each dollar in pharmaceutical sales that it handles. The point here is that a Single Payer would monitor prescriptions and negotiate its own discounts so it would have no use for such services, whether unexpectedly performed faithfully, or *as usual* with serious conflicts of interest.

Direct savings when a Single Payer simply eliminates useless middlemen would be many billions of dollars annually. As mentioned before, Single Payer could subsidize generic drugs of proven efficacy,

regulate all health care related monopolies, monitor all medical care practice outcomes, cover mental and dental care, and pay appropriately for effective drug and alcohol rehabilitation programs!

A Single Payer might initiate its important new obligation to subsidize essential drugs by approving most of the 325 drugs listed as essential by the World Health Organization, subject to negotiated discounts. Thereafter, it could easily add other discount-negotiated drugs as physicians or Big Pharma demonstrated the need for, and efficacy of, such drugs.

In addition to requiring proof of safety and efficacy before any candidate drug could be reviewed for the SP drugs list, a Single Payer might limit expenditures by refusing to list more than one or two comparable ("me too") drugs unless newer candidate drugs had fewer or less serious side effects, or greater efficacy, or offered equal benefit at a much lower cost. To prevent scams, this would have to be an appropriately open process.

A Single Payer would also be required by law to publish all important negative information on any drug, whether or not that drug's toxicity or inefficacy was labeled "a trade secret". Another huge reduction in drug costs will follow *when all exclusive licenses on partially or entirely publicly funded drug discoveries are automatically opened to all legitimate generic manufacturers for a fair licensing fee.*

Only Big Pharma drugs developed entirely in-house *without any public funds could retain a monopoly for the minimum duration of that drug patent.* However, monopoly drugs prices would also be publicly regulated just as radio, broadcast or cable television, electricity, gas, phone, water, railroads and other natural monopolies are, but here all such deals would be negotiated with SP.

Just a small portion of many such savings would also allow SP to greatly reduce current health care costs and allow SP to add coverage for negotiated dental care and psychological services, as well as drug and alcohol rehabilitation. Since SP would unburden all employers of ever growing Health Care and most Workman's Compensation Insurance costs, the new laws initiating and regulating a Single Payer would also demand onetime offsetting options like higher, irrevocable employer pension contributions, more paid time off, increased worker educational opportunities, and—for companies over a certain size—licensed child care with preschool activities on site or nearby.

The computerized SP data base would also be open to a fully funded research arm that could design or support inexpensive evaluations by practicing physicians (with appropriate guidance from recognized statisticians) of physician practices that seemed unusual or unsound.

In addition to supplying real time information for quality control studies, and identifying outliers in need of counseling, retraining or discharge—these studies would reveal which medications and procedures were unproven, unsafe or not cost effective, and therefore ought not be offered or reimbursed.

For example, the postulated health benefits that led to postmenopausal Hormone Replacement Therapy being widely recommended over recent decades have been largely discredited. For it turned out that HRT users had an increased incidence and severity of breast cancer, more strokes and pulmonary emboli, and were more likely to die of Alzheimer's Disease.

HRT users also showed a lower incidence of colorectal cancer and hip fracture, and no change in the incidence of endometrial cancer or coronary heart disease. Nonetheless, some gynecologists continue to promote HRT. So how did this "Selling of a dream and triumph of marketing over science" ever get started? And why did it persist?

Well, according to Barbara Seaman—who wrote "The greatest experiment ever performed on women: Exploding the estrogen myth"—it all began when E. Charles Dodds published the formula for an estrogen in 1938 to prevent Hitler from cornering the sex hormone market through patents. But as it became apparent that estrogen caused breast growth in men and cancer in mice, The Council on Pharmacy and Chemistry declared "it should not be recognized for general use at the present time (1939)."

Nonetheless, "no patent" meant no royalties to pay! "Therefore, a dozen drug companies quickly joined forces to "strong arm" the FDA into approving this new biologically active molecule. The first

estrogen tablet was approved in 1941. Then in 1942, Premarin (derived from pregnant mare urine) was also approved, and the race was on.

Especially disastrous results followed the widespread clinical use of diethylstilbesterol, an estrogen once viewed as a possibly better way to stabilize troubled pregnancies! Not only did this totally unproven application cause fetal malformations, but over subsequent decades it led to many cases of a rapidly fatal (and otherwise exceedingly rare) vaginal cancer in daughters born to pregnant women taking diethylstilbesterol.

So how did Big Pharma respond? Irresponsibly, of course! Indeed, rather than discontinue these highly profitable and sometimes disastrous treatments, they repeatedly revised the estrogen formulations, hyping each slightly altered product as yet another great advance *that was even more likely to keep older women from becoming "ugly and unpleasant"*.

Was lead poisoning *an underlying reason for HRT becoming popular?*

In my youth, many older women did indeed become crabby or worse, for that cohort's misfortune was to *be aging females* in an environment replete with leaded gasoline, leaded paints, lead solder in water pipes and food cans, even lead arsenate sprays on apples to deter worms. Somebody once advised me to always rub apples on my pants until they were shiny clean and thus safe to eat right off the tree!

Anyhow, during our childhoods, Americans sequestered *a lot of their body's toxic lead* in their bones, along with the calcium that those bones depended upon. Later, as older women just entering *menopause* (having had no menstrual period for 12 months), underwent their normal acceleration of bone loss (known as menopausal osteoporosis), they mobilized enough of that lifetime lead burden into their blood to develop real lead poisoning (plumbism) for the first time. Just as I, who used to love fresh-off-the-tree apples, again honestly admit to having been "a difficult child"!

Thus many menopausal females did indeed develop severe headaches and other symptoms of plumbism including hypertension, kidney disease, crabbiness and possibly dementia. As Silbergeld et al showed in 1987, post-menopausal women also had significantly higher blood lead levels than younger women, despite having "no greater ongoing environmental exposure". *Indeed, he reported that blood lead levels rose as much as 25% in the five years after menopause.*

So did the unrecognized but legitimate problem of *plumbism which mainly harmed menopausal females* help Big Pharma to peddle their various estrogen wares? Well, as soon as Hormone Replacement Therapy (HRT) slowed the rate at which older women lost calcium and developed osteoporosis, it would also have reduced the release of long-term accumulated skeletal lead - thereby providing some relief to many chronically lead-poisoned menopausal females *(as well as to their husbands)!*

The following quotes are from Wikipedia

Lead arsenate was the most extensively used arsenical insecticide. Until the 1930s/1940s, lead arsenate was frequently prepared by farmers at home reacting soluble lead salts with sodium arsenate. This insecticide was first used against the gypsy moth in Massachusetts as a less soluble - hence less toxic alternative to then-used Paris Green. It also adhered better to the surface of the plants, further enhancing and prolonging its insecticidal effect.

Paris green (copper(II) acetate triarsenite) is an [inorganic compound](#) more precisely known as copper(II) acetoarsenite. It is a highly toxic emerald-green crystalline powder^[3] that has been used as a [rodenticide](#) and [insecticide](#), and also as a pigment, despite its toxicity. It is also used as a blue colorant for fireworks.^[4] The color of Paris green is said to range from a pale, but vivid, blue green when very finely ground, to a deeper true green when coarsely ground.

Preparation: Paris green may be prepared by combining [copper\(II\) acetate](#) and [arsenic trioxide](#).^[5]
Insecticide

Paris green was once used to kill rats in [Parisian sewers](#), hence the common name.^[6] It was also used in America and elsewhere as an [insecticide](#) for produce such as apples, around 1900, where it was blended with [lead arsenate](#). This toxic mixture is said "to have burned the trees and the grass around the trees". Paris green was heavily sprayed by airplane in Italy, Sardinia, and Corsica during 1944 and in Italy in 1945 to control [malaria](#).^[7]

Pigment

Paris green, also called emerald green, was a popular pigment used in artists' paints by (among others) the English painter [W. Turner](#), [Impressionists](#) such as [Monet](#) and [Renoir](#) and [Post-Impressionists](#) such as [Gauguin](#), [Cézanne](#) and [Van Gogh](#).^[8]

Related pigments

Similar natural compounds are the minerals [chalcophyllite](#) $\text{Cu}_{18}\text{Al}_2(\text{AsO}_4)_3(\text{SO}_4)_3(\text{OH})_{27}\cdot 36(\text{H}_2\text{O})$, [conichalcite](#) $\text{CaCu}(\text{AsO}_4)(\text{OH})$, [cornubite](#) $\text{Cu}_5(\text{AsO}_4)_2(\text{OH})_4\cdot (\text{H}_2\text{O})$, [cornwallite](#) $\text{Cu}_5(\text{AsO}_4)_2(\text{OH})_4\cdot (\text{H}_2\text{O})$, and [lirioconite](#) $\text{Cu}_2\text{Al}(\text{AsO}_4)(\text{OH})_4\cdot 4(\text{H}_2\text{O})$. These vivid minerals range from greenish blue to slightly yellowish green.

[Scheele's green](#) is a chemically simpler, less brilliant, and less permanent, synthetic copper-arsenic pigment used for a rather short time before Paris green was first prepared, which was approximately 1814. It was popular as a [wallpaper](#) pigment and would degrade, with moisture and molds, to [arsine](#) gas. Paris green may have also been used in wallpaper to some extent and may have also degraded similarly. Both pigments were once used in [printing ink](#) formulations.

The [ancient Romans](#) used one of them, possibly conichalcite, as a green pigment. The Paris green paint used by the Impressionists is said to have been composed of relatively coarse particles. Later, the chemical was produced with increasingly small grinds and without carefully removing impurities; its permanence suffered. It is likely that it was ground more finely for use in [watercolors](#) and inks, too.

Lead arsenate was widely used in Australia, Canada, New Zealand, USA, England, France, North Africa, and many other areas, principally against the codling moth. It was used mainly on apples, but also on other fruit trees, garden crops, turf grasses, and against mosquitoes. In combination with ammonium sulfate, it was used in southern California as a winter treatment on lawns to kill crab grass seed.

Lead arsenate was also used in the early part of twentieth century for controlling pests of cranberry (fireworm, cranberry girdler) in Massachusetts.

Basic lead arsenate, $\text{Pb}_5\text{OH}(\text{AsO}_4)_3$, was used in some areas of California.

The search for a substitute was commenced in 1919, when it was found that its residues remain in the products despite washing their surfaces. Alternatives were found to be less effective or more toxic to plants and animals, until 1947 when DDT was discovered. The use of lead arsenate in the USA continued until the mid 1960s. It was officially banned as an insecticide on August 1, 1988.

Morel mushrooms growing in old apple orchards that were formerly treated with lead arsenate may accumulate levels of toxic lead and arsenic that make them unfit for human consumption.

Under these circumstances, Big Pharma Corporations hired the same public relations firms that so skillfully diverted public attention from tobacco health issues. Formula and dose revisions were then heavily hyped to gynecologists and the public for the next five decades on flimsy evidence. In 1994, estrogen manufacturers even claimed that studies had showed estrogens could prevent Alzheimer's Disease.

It is true that one study showed that a group of older women on estrogens had one-third less Alzheimer's than a comparable Alzheimer group that reported rarely taking estrogens. But when physicians actually checked the pharmacy records, they found that both groups had used estrogen equally—the Alzheimer patients just didn't remember.

A responsible Single Payer would surely want to evaluate indications and follow up data on new or unproven therapies - in close cooperation with the FDA - before they could be widely sold or given Single Payer support (see Evidence from randomized trials on the long term effects of hormone replacement therapy, Lancet, Sept. 21, 2002 pp 94244).

As mentioned in Chapter 11, 2560% percent of the approximately 1.6 billion prescriptions written in the USA each year involved off-label uses. Quite possibly, a nationwide survey of physicians and prescriptions to tabulate and computerize all such usages would be a compendium of additional useful treatments for troublesome conditions, as well as a monument to failed ideas.

A Single Payer would request and reward cost-effective health care ideas

With no other entity to share the blame, a Single Payer would be under great pressure to improve the early analysis and corrective measures for cost control, and to ensure safer, more effective care. Most physicians will likely respond to SP requests for useful insights on important health care problem areas based upon their own experiences.

How did health care become so expensive? Why did computers and automobiles become better and relatively cheaper while medical care became ever more costly and impersonal? Is it simply the inefficiencies implicit in one-on-one care? Or does it reflect a lack of effective competition?

Can we make medical care more widely available and affordable for all without reducing the best quality care currently available to a select few? Might there be easily instituted positive incentives that would elicit better care for most Americans at lower cost? Is it possible that many failings of our current medical care system reflect positive feedbacks from perverse incentives?

Since being admitted to medical school in 1953, I have watched medicine change from respected individual primary caregivers with limited options for therapy or referral, into organizational care with almost unlimited access to new specialties and therapies that may brilliantly restore your health or waste your money and ruin your health.

A Single Payer would promote healthy life styles for all ages and provide ongoing competent on-line education in human biology. And SP would also encourage and teach useful self-care!

A Science editorial (7 Feb. 2003) on "The ironic politics of obesity" by Marion Nestle offers a fine summary of the current obesity epidemic in the USA. People use extra income to eat more and be less active—spending more time sitting in their cars for short trips (rather than walking or bicycling) or before a television or computer.

Most American adults are overweight. Our food supply provides 3800 kilocalories per person per day, nearly twice as much as is needed by many adults. Food companies compete through advertising, by providing larger portions and through campaigns directed at children. Nestle points out that almost every major American industry would suffer if people ate less food or became more active.

Consequently, our agriculture, food product, grocery, restaurant, diet and drugs industries all employ armies of lobbyists to discourage our Government from doing anything to inhibit overeating. "The Department of Agriculture's primary mission is to promote U.S. agricultural products ("eat more") but it also issues advice about diet and health (sometimes meaning "eat less")" . . . which accounts for "the confusing nature of the USDA's food guide pyramid."

At present, litigation is the only way to confront obesity promoting practices of food companies. Professor Nestle's hope for political progress in confronting the food industry rests on getting important changes in campaign contribution laws and giving a "Government Agency....independent of industry . . . clear responsibility for matters pertaining to food, nutrition and health."

It sounds to me like Nestle is talking about a big agency with a lot of clout and significant financial independence. The proposed Single Payer would seem to fit that bill, especially as it would also have

treatment and payment responsibility for all the extra heart disease, diabetes, stroke care, stomach surgery, joint replacements, and other disabilities that obesity engenders.

One estimate suggested obesity cost the US economy \$117 Billion in 2000 (see Childhood obesity: public health crisis, common sense cure. Lancet, Aug. 10, 2002 47382). Another study “pegs 2003 medical costs from conditions linked to excess weight at \$75 billion” (see Inflammatory Fat, Science News, Feb. 28, 2004 pp 139140).

Presumably a Single Payer might save anywhere up to such amounts by helping people eat sensibly. As for what sorts of pressure the food industry can apply, consider its response to the new guidelines by the World Health Organization and the international Food and Agriculture Organization on nutrition and exercise published on April 23, 2003.

The WHO/FAO study, compiled by 30 independent experts, recommended a fat intake of 1530% of total daily energy intake; saturated fat at less than 10%; carbohydrates at 5575% but free sugars below 10%. The recommended daily intake of iodized salt was under 5 gm/day; protein should be 1015%; and fruits and vegetables should be at least 400gm.

Finally, the report recommended walking or similarly intense exercise for an hour each day (see Lancet, April 26, 2003 p1442—which also has a brief note about *the beneficial impact on hypertension of eating more fruit and vegetables*). Well, the US Sugar Industry (Big Sugar) immediately demanded that Congress cut all funding for WHO unless it revised the new rules for healthy eating.

WHO insiders called this “blackmail worse than the response of the tobacco industry”. And those sugar folks supported their tantrum with an Institute of Medicine report that allegedly insisted 25% of food and drink calories could come from sugar. But the WHO has 23 national reports that all support the 10% limit on sugar, so perhaps we cannot rely upon IOM’s “independent” analyses of anything.

Anyhow, the Sugar Association, along with a coalition of major “?Food?” groups that includes Coca Cola and PepsiCo, also asked US Health Secretary Tommy Thompson to get the WHO report withdrawn. Nowadays, many poor countries produce sugar so cheaply that Big Sugar cannot survive without ongoing heavy infusions of your hard-earned tax dollars.

Naturally, some of those subsidies are then spent on lobbyists, lawyers and political contributions as our politicians might otherwise decide to stop harming America’s poorest trade partners, damaging the Everglades, promoting obesity and destroying our teeth.

Should it be illegal for subsidized industries to lobby Congress with our tax dollars? A subsidy is “a grant or gift of money from a government to a private company, organization, or charity to help it to continue to function.” In theory, a subsidy allows or encourages a struggling individual or Corporate entity to provide essential charitable services—or to pursue an essential research program—or gives it time to modify an outdated business plan—or helps it to maintain an unprofitable but essential research or production capacity (e.g., for vaccines, or items essential to National Defense).

However, in practice, ongoing subsidies to Corporations usually support outmoded or inefficient or otherwise noncompetitive businesses or industries like Big Sugar. The usual result is a gross misallocation of resources and that bidirectional political/corporate dependency known as corruption.

Corporate subsidies generally transfer cash from Government coffers to politically powerful but failing industries, and are now our most costly welfare program. For example, legislative mandates and price supports for using ethanol as an oxygenated gasoline additive include huge subsidies to mega Corporate farms and giant Corporations like ArcherDanielsMidland that routinely return regional votes, political contributions and personal favors for politicians.

Though a little ethanol may help fossil fuels burn more cleanly, mandating more than that doesn’t seem sensible—at least yet—since it currently requires about as much fossil fuel energy to produce ethanol as ethanol then releases upon ignition in an engine. And when fossil fuel spills, any (oil and water-soluble) ethanol present will encourage that fuel to spread into nearby aquifers and surface waters.

In summary, ongoing governmental subsidies and rebates undermine international markets, encourage misallocation of productive assets, sustain uncompetitive uses of land and products, and damage the environment. Yet huge political contributions and other bribes sustain stupid subsidies.

However, rather than being grateful, the wealthy Corporations that depend upon and are empowered by our tax dollars, become demanding, politically powerful paymasters. Subsidized industries thrive on Corruption and Crony Capitalism. Therefore, any subsidy deemed temporarily essential to a for-profit corporation, should face an early expiration date with no option to renew.

When our Government subsidized Chrysler to help it stay in business, it acted as a venture capitalist, receiving Chrysler shares that it later sold for a profit. Similarly, if subsidies to a profitmaking Corporation or other entity persist for over two or three years, the total subsidy amount should automatically convert into a full subsidy-value citizen ownership stake.

A Single Payer could save truly enormous sums by developing and promoting effective drug and alcohol programs and lobbying for total elimination of alcohol and tobacco advertisements (or sales) to minors. For minors currently account for about 20% of all alcohol and tobacco sales (see also Lancet articles July 26, 2003 pp 2589, 2815, 304).

Minors can stunt their later cognitive development when they drink alcohol. And cigarette manufacturers have long known that minors are far more easily hooked on tobacco and other drugs than adults (since brain development is incomplete into the early 20's)—and see Aaron White's www.duke.edu/~amwhite/adolescence.html and www.duke.edu/~amwhite/blackouts.html

In New Scientist (22 Feb. 2003, p25), Professor Nestle suggests ways to make the food supply safer that could save a huge number of Americans from food poisoning each year, as well as protect our food supply from bioterrorism. Once again, the food industry is opposed. But as investigations of a "Mad Cow" in the Pacific Northwest amply demonstrated, we desperately need a governmental organization that will investigate, stand up to, and regulate the food industry and its cleanliness.

That organization must also question possible new risks as they appear. Thus Monsanto's (GM) genetically modified soy has rapidly become an important new ingredient in most manufactured food items is now usually vaguely/incorrectly labeled Hydrolysed Vegetable Protein when it should more accurately be called "Toasted and most likely toxic Soy! For as Nestle says "All it takes is political will, some basic intelligence, and relentless testing" which sounds to me like *another urgent "Call for a Single Payer!" before we all develop Pancreatic Cancer or some other side-effect from eating incorrectly labeled and improperly prepared Soy!*

CHAPTER SIXTEEN

Are Wealth and Happiness compatible?

Does "Enough" always beat "Too Much?"

Many of us still believe that a great medical career is its own Best Reward!

But doctors seeking great wealth must always put themselves first,

which steals all the joy and gratitude from helping others

Complementary currencies bring prosperity and happiness

Building Social Capital with Complementary Currencies

Why Enough always beats Too Much

A house that warms in winter

yet opens wide for spring

A summer house and loving spouse

is there some better thing?

A harvest house with food to share

where children like to be

Some space for books in quiet nooks

and conversations free

Yet many who could have all that

prefer to seek more power

Their lives on hold while assets cold

make money every hour

But all need love and love's a thing

that's neither bought nor sold

for love takes time and time runs out

on even wealth untold

Sweet time that's spent in discontent

can never be repaid

While others try to rule the sky

I'd rather just get laid!

Wealth and Happiness are incompatible: For while money merely increases, kindness heals!

Too much remuneration distracts from enjoyable patient relations in medical practice. The well known "over-justification effect"—first demonstrated by Lepper, Greene and Nisbett in 1973, and repeatedly confirmed since then—says that when there is more than ample justification for engaging in an activity (e.g., medical practice) because (a) it is intrinsically rewarding and (b) well remunerated, people tend to lose focus on reason (a) because reason (b) is so much more apparent.

In the original study, Lepper et al found that children who were promised a gold star bribe if they did a good drawing, later showed less interest in drawing than did kids who unexpectedly received a gold star reward for having made a good drawing.

So while all received a star, apparently those working for a bribe concluded that they needed a star to perform because they actually didn't like to draw that much (see "Undermining children's intrinsic

interest with extrinsic reward: A test of the over-justification hypothesis," J. Personality and Social Psychology, 28, pp129137, and also "The hidden costs of reward" by Lepper and Greene, pub. 1978).

These findings on the negative impact of bribes appear to justify Marianne's long-time feeling that children tend to lose interest and do worse in school when parents bribe them with money to improve their grades. For the common childhood interpretation of being bribed to perform is that the student is learning or working merely to please or benefit their parents rather than themselves.

Marianne also speaks against the use of food for reasons other than the satisfaction of hunger, as holding a dessert hostage, or offering an extra dessert bribe when you eat your carrots or finish your homework, clearly encourages consumption of sweet and fatty foods for "non-hunger reasons" in later life.

Now think of the many health care workers who spend their lives, holidays or retirements as volunteers in mission hospitals, or with Medecins sans frontieres. Here we encounter skilled persons who labor willingly under arduous conditions for minimal compensation. Note that such volunteers especially treasure the simplicity and camaraderie of that life, and the intrinsic rewards of cooperating with others to bring essential health care to strangers *who have no other option!*

Do you envy those who perform surgery where housing is poor, electricity occasional, water polluted, biting insects bring hazardous diseases, equipment is ancient, and the personnel untrained? Can you even imagine how such a life in an area with dangerous civil unrest might possibly be simpler or more rewarding than making far more efficient medical efforts in your own clean modern hospital?

If so, you can also understand why *the crass commercialism of First World Health Care Systems so often dominate, depersonalize and damage the comradeship that otherwise arises when people make great efforts to help one another. For by insisting that your patients first navigate complex insurance forms, then satisfy office rules demanding pre-payment, care givers clearly are trying to maximize their own rewards - thereby distancing themselves from the joys and sorrows of shared goals and concerns.*

Throughout my 18 years of practice, I routinely charged "*Insurance only*" even after this eventually became illegal (see Chapter Seven). Soon I also dealt with the issue of our shared concerns and common goals during my preoperative discussions by promising each patient (and any family) that if she or he was in any way unsatisfied or died, I would refund any insurance or other money received on their account to them or to their Estate.

My simple ordinary warranty was "Satisfaction guaranteed or your money back". For thereby I also answered any unspoken concern that I might need the operation more than my patients did, or that I would benefit even if they didn't.

Though I never made an issue of, nor hid my "insurance only" and "refund" policies - one very wealthy doctor expressed his annoyance as he feared patients might expect the same from him. And his concern had merit as diagnosticians are less likely to become a focus of gratitude than the patient's "own" surgeon who must try to make things right again.

Our insurance dominated fee-for-service model of health care often results in inadequate, delayed or denied medical care. Yet many physicians claim to fear that a Single Payer System - which they may disparage as "Socialized Medicine" - would detract more from the doctor/patient relationship than the pre-extracted "rewards" their office demands for the job "planned" or "done".

Yet soldiers, firepersons, paramedics, police and many others routinely risk their own lives to rescue others. So since those skilled services are usually taxpayer-funded through Government Agencies, we already have Socialized Soldiers, Socialized Firepersons, and so on. Admittedly, such workers commonly consider themselves *understaffed, underpaid and overworked*, while other citizens may complain that they cost too much, or that their services were ineffective or too slow.

But few on either side of that debate would insist that desperate applicants for help first fill out multiple forms and/or pay in advance before that trained team will initiate an appropriate response to a

foreign attack—a house on fire—a drowning—a heart attack—a kidnapping—a robbery—or a rape in progress.

By law, hospital-based emergency medical care is available to all in most areas. But for the poor, the uninsured or the inadequately insured (*which at times includes a quarter to a half of our working population*), that care is more frequently too brief, or insufficient, or substandard and unsuccessful.

A Government-supported Single Payer Medical System would almost surely do better, which is why Chapter 14, 15 and the Epilogue consider the Single Payer idea at length. Our Nation's Judges and Politicians have long enjoyed free health care through their own Government-run programs. And Hawaii's mandatory health-insurance-based medical care program also deserves our study.

"Hawaii Prepaid Health Care Act From Wikipedia, the free encyclopedia
Hawaii Prepaid Health Care (PHC) Act (PHCA) is a state law (Hawaii Revised Statutes Chapter 393)^[1] enacted June 12, 1974^[2] in the [State of Hawaii](#) to improve health care coverage by employer mandate. The Hawaii Prepaid Health Care Act set minimum standards for worker benefits.^[3]

"Upon its adoption in 1974, Hawaii became the first [U.S. state](#) to require minimum standards of health care benefits by law.^[3] [Hawaii State Rep. Yoshito Takamine](#), the longtime chairman of the House Labor Committee, was one of the law's chief architects and proponents.^[3]

"Under the law, businesses are required to offer [health insurance](#) to employees who work more than 20 hours per week for four or more consecutive weeks in the State of Hawaii. Before the law Hawaii had an insured rate of 70%. The highest insured rate after the law was enacted was 98%; by 2009 Hawaii's insured rate dropped to 92%, due largely to the [2009 recession](#).

"Among other things, Hawaii's law requires employers to offer coverage to employees working at least 20 hours per week. In contrast, the federal law requires employers to offer coverage to employees working at least 30 hours per week effective Jan. 1, 2014. The two laws also set different penalties on employers that do not offer coverage.

"At 6.7%, Hawaii had the nation's second-lowest uninsured rate, trailing only Massachusetts, where 3.7% of the population lacked health care coverage in 2013, according to the [U.S. Census Bureau](#).^[4]"

As mentioned, the primary opponent to a "Single Payer Program For All Health Care" has been our Medical Industrial Complex. *But now many health care providers believe a Single Payer would help return compassion, equity and intrinsic rewards to our money-grubbing Health Care System.*

From Wikipedia

"The concept of a "medical-industrial complex" was first advanced by Barbara and John Ehrenreich in the November 1969 issue of the Bulletin of the Health Policy Advisory Center in an article entitled "The Medical Industrial Complex" and in a subsequent book (with Health-PAC), *The American Health Empire: Power, Profits, and Politics* (Random House, 1970). The concept was widely discussed throughout the 1970s, including reviews in the *New England Journal of Medicine* (Nov. 4, 1971, 285:1095).

It was further popularized in 1980, by [Arnold S. Relman](#) while he served as editor of *The New England Journal of Medicine*.^[1] In a paper titled "The New Medical-Industrial Complex," Relman commented, "The past decade has seen the rise of another kind of private "Industrial Complex" with an equally great potential for influence on public policy — this time in health care..."

Oddly, Relman added, "In searching for information on this subject, I have found no standard literature and have had to draw on a variety of unconventional sources..."^[1] Subsequently, this paper and the concept have been discussed continually.^[2] An updated history and analysis can be found in John Ehrenreich, *"Third Wave Capitalism: How Money, Power, and the Pursuit of Self-Interest have Imperiled the American Dream"* (Cornell University Press, May 2016)."

"Characteristics: Manufacturers of medical devices fund medical education programs and physicians and hospitals directly to adopt the use of their devices. The management of health care organizations by business staff rather than local medical practice is one of the trends of the increasing influence of the medical-industrial complex. Another trend is that increased pressure to generate profit for providing services can decrease the influence of creativity or innovation in medical research. In the 1970s, profit-seeking companies became significant stakeholders in the United States healthcare system.

The influence of economic policy on the practice of medicine has a long history. Because the [General Agreement on Trade in Services](#) regulates international marketplaces, in countries where the industrial-medical complex is stronger, there can be legal limitations to consumer options for accessing diverse healthcare services.

Because the industrial-medical complex funds [continuing medical education](#), this education has a bias to promote the interests of its funders. Market conditions for providing [pain management](#) services are influenced significantly by the medical-industrial complex."(See CME in Chapter 10)

Think of it this way. "Strictly business" attitudes undercut important interactions. Central heating and TV dinners fail to encourage easy conversations and new relationships, or the memorable tales shared between generations and with others who were strangers, the way a stew pot does on a old wood stove.

Nor can TV simulate the calm camaraderie that envelops those watching food roast slowly on an evening campfire. That may be an important aspect of why so many physicians volunteer their services overseas in search of "a more meaningful professional life".

Patients can easily sense from a physician's body language and helpful "hands on" assistance (versus never putting down the computer or clipboard), whether she or he truly cares about them or merely wishes to complete another transaction.

I have often felt physically and mentally joined to extremely ill patients while holding them up so they could cough or breathe and just survive the next moments. Such a nonverbal, burden-sharing approach is sometimes essential to elicit yet another huge effort from a weary patient in pain who is ready to give up. Any decent physician or nurse knows how much such a sharing of concerns can achieve.

On the other hand, as an unpaid extern, I was properly embarrassed when, in my effort to "bond" I casually sat on an arthritis patient's bedside, hence accidentally on his sore foot which came off his knee at an unexpected angle under the covers.

Similarly, as a doctor in practice, and later as a teacher, despite truly being there to help, I regularly embarrassed myself by various things said or not said, done or not done, in my many interactions with my patients or students. But everyone makes mistakes, and the more you do or try to do, the more mistakes you must make. And unless you wish to live "unoccupied" as a hermit, that's life! So when you publicly goof, just admit it, and restate what you meant to say or simply apologize, if either seems appropriate.

In any case, the more money we make, the more we worry about making more or not losing what we have. As the old song goes "The folks with plenty of plenty, they got a lock on the door, afraid somebody will come and rob 'em while they're out a'makin' more. What for?"

As Alaska's only heart surgeon (competing largely with myself), I cut my supplementary charges for additional coronary bypass grafts by 20% when I began to receive more money than I needed. But I also confess that, as the song suggests, after three "break in's" while I was "out a'makin' more," I finally signed up for an expensive lock on the door (our home burglar alarm system).

"Wealth accumulating physicians" tend to become increasingly conservative as they seek moral comfort by blaming the daily problems and worries of the poor on inadequate effort and sacrifice. *More than a few wealthy physicians won't even pay college education costs for their own children!*

Rather, having "Made it on their own," (an obvious impossibility!), they prefer to grow their wealth while encouraging others to copy their great virtues (primarily "greed" or "dumb luck"). However, giving

what you can according to need (rather than when you feel like it), is so difficult to learn that it is often best taught by example.

As refugees, our parents viewed our entire family as extremely lucky to have been invited into their adopted new country, and they viewed education as the best cure for narrow minds. And they truly understood the value of timely help for others in need—even as mother still scrubbed our laundry on a washboard.

My big point here is that everyone, no matter how wealthy, needs real help occasionally. So every reasonable opportunity to assist others through your companionship, skills or money—whether to advance their education, help them cope with personal problems, or regain a productive life—makes both of you feel better about yourselves and others, and actually makes the world "a better place". Those who regularly help others may even live longer.

No medical career requires, nor even justifies, a huge reward! As mentioned elsewhere, in 1900, a physician's annual income was \$750 to \$1500 or slightly below average for the entire workforce. In 1928, physicians averaged \$6,354, which fell in 1929 to \$3,758 with the onset of the Great Depression. In 1945 it was \$8,000, and in 1969 it was \$32,000.

Currently an average physician makes at least 4 to 10 times the average national income, depending upon her/his specialty (see Bulletin of the American College of Surgeons, March, 2003, pp1112). Marianne and I believe that all health care workers and their patients would benefit greatly if everyone (including all us "fee for service" doctors) understood from the start that they would never earn more than a good (productivity and outcomes related) salary. Perhaps one day soon, remuneration for physicians will simply reflect years in training, competence and productivity. That salary could still be several times the wages of an unskilled worker, and might best be determined by negotiation (as salaries now are established for unionized government employees).

Upon graduating from medical school, Marianne and I considered it a great honor and responsibility to practice medicine, whether we were "busy saving lives" or simply helping others cope with illness or disability. And while I often cursed when called away from another family dinner, or as I rushed off at midnight for another emergency, we did our best for each person who apparently needed or sought our help, whenever we felt we could make a difference. We believe that most physicians start out feeling the same way, especially recent graduates (those not overwhelmed by debt or already seduced by wealth).

We also suspect that plenty of talented people will continue to view medical work as a rewarding career—perhaps even more so if they know from the start that they cannot thereby become extremely wealthy. Certainly, low pay never seems to have stopped motivated folks from becoming veterinarians.

And we believe that initially kind and generous doctors are more likely to remain that way if not overburdened by education-related debts. We are also truly impressed by how many health care workers devote their lives or vacations or retirements to providing needed medical services for folks unable to pay.

Indeed, it might be better for all of us, and especially for the reputations of physicians in general, if those seeking great wealth were diverted from medical training to banking (where they could soon learn "the price of everything, and the value of nothing"), or to join a Wall Street firms, or start new businesses, or concentrate on sleazy deals with greedy politicians, or whatever.

I don't know anyone who has been quite wealthy for long, who seems truly content with their money dominated, often "gated" existence. Too much money is an impediment and a distraction. And the pursuit of great wealth can easily become a consuming addiction. Yet unless you can display it, being rich means nothing.

So even those who could afford almost anything are rarely content for long with anything they can afford. One very good surgeon who grew up in poverty, upon finally becoming wealthy, triumphantly declared that he would henceforth never again need to ask anyone for anything. He remained very generous to all who had helped him when he was in need, as well as to those with whom he worked, and took great pride in giving his wife whatever she wanted.

But being wealthy, unsophisticated and unwilling to seek help for unclear personal problems made him a juicy target. Soon enough, a scheming nurse prospered mightily by destroying his marriage, causing his wife's death and eventually his as well. So I repeat—at some point in their lives, everyone needs assistance or advice from another trusted human in order to deal effectively with personal or health problems.

For when our pets, teachers, friends and families are not enough (or too much), we all depend upon and greatly appreciate needed help from our competent, caring fellow humans. I have always been impressed by how many competent and caring people live in these United States, and how few unpleasant jerks (though the latter frequently are far more evident). And when I really needed help, *my experiences were routinely very positive*.

Of course, this is anecdotal evidence, and I am fully aware that many others had truly terrible experiences they did not even survive to relate. In one typical experience as a teenager, my old motorcycle died as usual, but this time I was over a hundred miles from the nearest town in Wyoming. As I struggled on a hot day to right the problem with inadequate tools, a car stopped and the driver—who identified himself as a mechanic—offered to help.

He then pulled out a heavy tool chest while his wife and kid spread a tablecloth on the ground and insisted that I share their wonderful fried chicken picnic! An hour later, my new best friends and I parted company with my bike repaired and my tummy full. He refused any money, of which I obviously had little. And his parting request was one I have often heard since in rural communities and even cities, and have repeated on occasions where I was fortunate and able to help—“Just pass it on” (help someone else in need).

On another trip, I was motorcycling at night in flattest Ohio through the most impressive lightning storm I had ever seen. It goes without saying that I was both drenched and sincerely concerned about how often I was the tallest object around. So I stopped late at a small motel. The owner apologized but said her rooms were full. So I inquired if I might sleep in her barn. She said “No!”

But after a moment's hesitation, she invited me to sleep in her son's bedroom, for he was off to college. And the following morning I even got an amazing free-breakfast!

More recently, Marianne slipped on crowded, wet subway steps in New York City, which caused her to lose and dump her suitcase. Two separate strangers immediately stopped to help her recover those scattered possessions and repack, then assisted her down to the subway level so she wouldn't screw up again. I suspect that many, and I hope that most humans have had similarly positive experiences when in need.

Must it always be wealth versus happiness?

Happiness is an elusive concept. So is wealth. Yet we know it when we see either one. And once people enjoy a decent environment in which basic needs are met, most free and law-abiding humans seem happier if they also have meaningful work, love and fun. Here meaningful is a purely personal call that might include anything from accounting with an abacus to child care, farm work or a quiet janitorial job that supports your family and allows you to be a weekend DJ - to military service, selling software and volunteer activities, or even playing a zither at the zoo.

Thus Marianne recommends work, love and fun as the “Big Three” of happiness, though one cannot be sure if happier people are more likely to have the Big Three or the Big Three define the route to happiness. An old song claims “The best things in life are free!” But it requires insight, flexibility, persistence and *luck!* to get, modify and sustain a satisfying job or a marriage.

In these changing times, one also needs to develop enough common sense to recognize a dead end situation, and the courage to know when to retrain or move on. Those without a decent education or work ethic often call it luck if others succeed while they await the perfect job. Similarly, many seek and even demand a perfect spouse despite personal imperfections that would prevent any “perfect person” (a purely

hypothetical entity) from giving them a second look. And not surprisingly, the few persons who really do strive for personal perfection (the theoretical state mentioned above), will more than likely become "perfect pains" for many others.

Marianne and I decided that a perfect spouse is one whose shortcomings are tolerable and sufficiently different from your own that together you both will be happier and more productive than either would be separately. The many short, unhappy romances of famous people suggests that relationships often cannot prosper and endure unless we value each other on more than "good looks" or "looking good on paper".

For all people are annoying and unreasonable at times— yet the rich or famous or self-intoxicated or merely drunk, generally believe that they don't have to put up with annoying and unreasonable. But being annoying and unreasonable often is an emotion-driven declaration of what one party in a relationship currently understands or will tolerate.

In other words, staying in love requires two people who both like and enjoy each other sufficiently to make huge ongoing efforts and sacrifices for one another. Temporary fun is sometimes had for free, but ongoing fun usually requires good relationships, patience, tolerance, careful organization and shared tastes so those involved will want to repeat that experience.

Many cannot understand why exciting love, work and fun just show up, then too soon fade away in the absence of a major ongoing effort. As a result, even when conditions are otherwise adequate, countless adults settle for just one or two of the Big Three, plus a dog or cat—and thereby lead less fulfilling lives.

In addition, those physicians who, for whatever reason, come to depend entirely upon their medical work for gratification, may become increasingly unhappy and greedy as they seek to offset their ongoing lack of love and fun with an annual yearly increase in net worth.

"*What do you do?*" ranks high amongst questions asked of strangers. As a surgeon traveling alone and hoping to read or write, I have often answered "I am a meat cutter" or "a garbage collector" (either was once more or less true), thereby avoiding tedious conversations about headaches, hemorrhoids and hospitals.

But while most air travelers cannot relate to a meat cutter or a garbage man, one militant conversationalist tried endlessly to discuss the relative merits of different cuts of beef!

As mentioned, much of human happiness or unhappiness arises from the presence or absence of "meaningful work" *which usually involves sharing, learning and teaching*—in other words, social intercourse among equals. Yet great wealth tends to isolate a person from ordinary human contact. For wealthy people generally feel entitled rather than equal. So despite their own obvious faults, they demand 100% effort and perfection from others.

Most persons with whom the rich relate, simply fake perfection for as long as is tolerable or necessary. Because few meet their standards for long, the rich are chronically disappointed and dissatisfied. They want more, and worry constantly that they are being cheated, overtaxed, or perhaps even slighted by people ***not** asking them for money*. Quite often they don't sleep well either.

Rich folk are makers—breakers—shakers—above the rules. They avoid or sacrifice privacy and communication at home by hiring others to cook, clean, shop, serve and bring up the children. They compete on appearances and become paranoid about relationships. They feel unfulfilled and unappreciated at home, but extramarital solace rarely satisfies for long either.

Early on, Marianne and I independently chose to have just one home and just one love, and to otherwise keep our lives as uncomplicated as possible. Even so, I have been impressed by how easily the care and maintenance of ordinary possessions can take over one's free time. Hence we get rid of possessions that take more than they give us through use or pleasure. Donating items to a charity or to young friends is usually simpler and more satisfying than selling stuff.

One might think that a physician has the perfect job. After all, she or he gets paid for helping others who remain grateful forever. Right? But sometimes the patient's needs or demands seem endless and unreasonable, or cannot be met, or the doctor never gets to enjoy a quiet evening at home with the family.

And as the doctor's own family disputes or problems often seem less urgent than patient care, family problems frequently end up "on hold" (without the annoying music) for another day.

Unfulfilled physicians seek solace in wealth, or in frequent changes of spouse or partner, or through dominating patients, or by ruling over others as program directors or administrators. A brief alumni survey recently found that 30% of the middle-aged physicians being polled were contemplating a career in Medical Administration.

Academic physicians frequently become absorbed in medical politics. Too often, doctors lose touch with their increasingly dissatisfied inner self, or try to subdue it with alcohol or drugs. Generosity suffers and fees rise and obesity often sets in when physicians see their own lives passing without pleasure while their families are increasingly taken for granted.

In this and many other respects, Marianne and I were lucky. We usually made enough money to be comfortable but not enough to require significant attention. And as our children matured and developed insight into family finances, they naturally sought rewarding careers of their own rather than waiting to inherit wealth that wasn't there.

As the only - so unquestionably the best heart surgeon in Alaska (until I advertised for competitors), I had only myself to compete with, and I set the standards. At the time, Medicare, Medicaid and insurance rules let physicians charge whatever they wanted upon entering practice— but thereafter disallowed most fee increases.

Consequently, heart surgeons entering practice after me allegedly charged two to ten times more than I did for the same services. But as far as I know, those differences never affected patient referrals in any way. On the downside, I had never planned to retire at age 51, so I had no retirement plan, nor savings of note, when I suddenly had to stop work.

However, our home was paid off and we owned a small unprofitable farm that I had no time to manage, where our sons and their friends worked part-time in summer. Only because my friend Mohammed Sarwar generously bought my practice, was I able to pay my remaining taxes and quit work. Eventually our farm sold for less than I had put into it, and became a popular tourist attraction as the Musk Ox Farm of Palmer, Alaska.

An article, "Does money buy happiness?" (The Atlantic Monthly, Jan/Feb. 2003, pp423) offered an interesting summary of studies on happiness, including surveys of happiness in 54 countries. Overall, "political freedom, physical safety and a belief in God were strongly associated with happiness. Societal corruption and militancy appear to diminish happiness greatly. Education had practically no effect, and "unhappy countries" were all in the old Eastern bloc.

Three conclusions were particularly relevant to our topic. People in poor nations became happier as average incomes rose—until average incomes then reached \$20,000—beyond which higher incomes didn't improve happiness. But social ties were often strongest where money was scarce.

Apparently, somewhere above \$20,000, gains in material comfort no longer outweighed losses in social connectedness. People who valued **money** highly tended to be less happy than those who value **love**. It usually takes a lifelong, self-loving effort to become very wealthy. And few even notice their initial indeterminate goal as they rush by. Furthermore, the Weak Golden Rule—"He who has the gold, makes the rules" annoys both sides of every transaction.

Similarly, it usually takes a lifelong effort to create and sustain a happy family, but caring spreads as the Strong Golden Rule - "Treat others as you would like to be treated" thaws both sides of every transaction. Yet there is no way to guarantee performance or success in either effort.

The overall amount of ordinary currency in circulation must be limited or it loses value. So when you make more, others have less. In contrast, love shared expands without limit and increases in value. Choose one!

Americans are increasingly materialistic, but not happier. The Western notion of progress was shaped during a century long period when rising wealth almost certainly bought rising happiness. Only recently

have we left that era behind—and our society has not yet adjusted. Conditioned to value financial achievement, we may cling to materialism even as it causes the contentment we seek to elude us.

Complementary Currencies bring prosperity and happiness

Where there are people who want work and jobs that need doing, but there is no money to pay anyone, it makes sense to *create "local" money*. As Bernard Lietaer points out in "The Future of Money - Creating New Wealth, Work, and a Wiser World" (pub. 2001), money is an agreement within a community to use something as a means of payment.

Conventional money is created as debt to a bank. It is limited in amount and bears interest, so people must save, compete and work harder to avoid ever-deeper debt. In contrast, **negative interest money**, being freely created, encourages cooperation and reciprocity, Lietaer writes, and "functions more like gift exchanges in traditional societies".

Having money that is **local**, even if it does not bear negative interest, can help build and protect communities. One well-known example is the "Ithaca Hours" currency that was designed to encourage community building in the town of Ithaca in upstate New York (discussed below).

"Local currencies won't change the world on their own. But with several different types of money working in parallel, including negative interest money to deal with international trade, money would take us naturally where we want to go, says Lietaer. "If you need regulations and coercion to get what you want, the system has a design flaw" (quoted in part from New Scientist, 27 April, 2003

Problem One: Our Nation's jobless future

Sixty years ago, pundits predicted that robots, automation and unlimited atomic energy would soon make all nations wealthy, eliminate tedious grunt work and provide life's necessities at negligible cost. As far as the average worker was concerned, that future couldn't come soon enough!

But in the 1940s, John Maynard Keynes predicted that "No people... can look forward to the age of leisure and abundance without dread. It is a fearful problem for the average person with no special talents to occupy himself, especially if he no longer has roots to the soil or in custom or in the beloved conventions of a traditional society."

And Norbert Weiner warned "The automatic machine is the precise equivalent of slave labor. Any labor that competes with slave labor must accept economic conditions of slave labor... this will produce an unemployment condition in comparison with which even the depression of the thirties will seem a pleasant joke."

In "The Future of Money" (on which this review is largely based), Bernard Lietaer discusses the Nature, Purpose and Distribution of Money. Lietaer (who helped to design **the Euro** and was the world's "top money-making currency trader" for four years) claims that as we lose employment possibilities, our sense of self and individual purpose will be at stake.

Population facts

For countless millennia, probably fewer than 400 million humans lived on Earth.

At some point between 1800-1850, Earth's population reached 1 billion.

Then in 1925 it reached 2 billion.

In 1962, 3 billion;

In 1975, 4 billion;

In 1986, 5 billion;

In 1999, 6 billion;

By 2012, 7 billion humans!

By 2030, one of every four persons in developed economies will be over 65.

By 2050, expect 1012 billion humans, many of them elderly.

Productivity facts

Since 1800, the substitution of fossil fuel power for people and animal power has allowed individual humans in developed lands to multiply their productivity by 20 times.

In 1800, 80% of U.S. citizens lived on farms.

In 1900, 48% of Americans were farmers.

In 2000, just 2.9% of our population produced far more food than Americans could eat. That food and surplus European food was therefore dumped overseas, bankrupting farmers around the world.

By 2030, an International Metalworkers Forecast predicts that 2% of the current world labor force will be able to produce all goods needed to meet total demand. *So what will the other 98% do?*

Problem Two: The current jobless recovery

America has more millionaires and billionaires than ever before, but we now face a national post-recession jobless recovery, with millions of good jobs permanently gone. Some of those jobs vanished due to increased productivity, others went overseas and will not return.

Consequently, through no fault of their own, a lot of decent, hardworking folks have already lost their jobs and health insurance, gone bankrupt and even become homeless. Many unemployed workers no longer even look for work, while others slave under ceaseless pressure and become workaholics.

Some claim that globalization means everyone applying their talents, energies and resources to enrich us all. Others view globalization as a "beggar thy neighbor" race to the bottom. *Both descriptions are apt.*

At a time when developed nations face \$35 trillion in unfunded pensions, and a similar shortfall for health care, Business Week (3/22/04 p37) wonders what "Next Big Thing" might restore job growth. Robert Kuttner (American Prospect, 4/2/04 p3), worries that the long anticipated jobless future is upon us, in which case, we will need thousands and millions of "next small things" to help local citizens participate in their communities productively.

If we rephrase Kuttner's problem as a question, a solution may become more obvious:

Must we always compete with one another for money, just so a connected few can dominate the poor majority? Or is there some way we can modify money so that it promotes local jobs and businesses and brings our communities back together?

Countless Americans have relocated in search of a decent job. An obvious downside of labor mobility is losing the social safety net of family and longtime friends. Since families are more likely to prosper as an integrated part of a stable community, we need to dissect the nature and role of money in sustaining a local economy.

In "The Natural Economic Order" (4th ed. 1918), Silvio Gesell, a successful businessman in Europe and Argentina before World War I, pointed out that ordinary money can be saved intact and reinvested whenever and wherever an opportunity arises to earn interest.

This gives money a huge advantage over other goods and services, for potatoes or empty rentals or unused idle hours of unemployed workers are strictly declining assets. As a result, during every recession, money is simply withdrawn from the market as elective expenditures stop in anticipation of hard times or bargains ahead, while unemployed workers go broke and unsold potatoes are dumped.

To remedy this negotiating imbalance, Gesell advocated that all holders of currency pay negative interest (like the demurrage charges assessed against users while a railroad car remains idle on a siding). With such regularly incurred charges, money would naturally remain in circulation through good times and bad, rather than being withdrawn and hoarded, and thereby worsening each recession.

The Industrial Revolution required "interest earning currency" so that innovative individuals could make the necessary huge investments. However, *negative-interest currency has great advantages under present circumstances since it is better suited to stabilizing the economy, the environment and the community.*

And when it is used to supplement a national currency, negative interest money has no obvious downside since unlike ordinary "interest earning currency", which worsens boom and bust cycles negative interest complementary currencies tend to increase or decrease in a way that evens out business cycles without altering inflation.

Hence Gesell proposed that a distressed community or region could put the unemployed back to work and restore local productivity and liquidity by issuing monetary coupons that declined in value like other assets. As mentioned, such local coupon money would lack the unique power of ordinary, interest-earning money to cause the usual boom and bust cycles that occur when people save or spend in anticipation, or in response to, the postulated or actual dealings of others.

For while each coupon could be used to pay for a variety of goods and services (potatoes, rent, transportation, school crossing guards, neighborhood patrols, home or car repair, pedestrian overpasses, road/bike/walkway maintenance and so on), *a weekly or monthly tax stamp (its proceeds dedicated to homeless shelters, soup kitchens, food banks and child care)* would have to be purchased at City Hall and pasted upon each coupon to restore its face value before it could be spent. So to avoid buying such tax stamps, coupon recipients would naturally spend them as soon as possible.

How did Gesell's idea work out? Well, in 1932, during the Great Depression, the Austrian town of Worgl "had thousands out of work and little money in the municipal coffers." So Mayor Michael Unterguggenberger printed his own. The value of the Worgl 'stamp' was set to automatically depreciate: that is, it earned negative interest. Once a month, its holders had to pay a stamp fee of 1% of the face value of the note. *The Mayor had thus created money that could only be spent locally, and which grew less in value the longer you held it.*"

"The result was that everyone spent the new money in the town as fast as possible. The streets were repaved, the water system rebuilt, new houses appeared, then a ski jump, a new bridge... Even the French Prime Minister came to inspect 'the miracle of Worgl.'

Then some 200 other Austrian towns came up with plans to copy the Worgl experience, at which point the Austrian Central Bank panicked, and it became a criminal offense to issue currency. Unemployment returned to where it was before, thereby restarting the countdown to World War II.

"Where there are people who want to work, jobs that need doing, but no money to pay anyone, it makes sense to create local money." As Lietaer points out, "Money is an agreement, within a community, to use something as a means of payment."

To repeat, conventional money is created as debt to a bank. It is limited in supply and bears interest, so people must save, compete and work harder to avoid ever-increasing debt. In contrast, negative interest money, freely created, encourages cooperation and reciprocity, Lietaer writes, and functions more like gift exchanges in traditional societies."

"Having money that is local, even if it doesn't bear negative interest, can help build and protect communities. As mentioned above, the most famous example is the 'Ithaca Hours' currency, designed to support community building in the town of Ithaca in upstate New York. It is credited with having maintained a true town center and building many small businesses."

Variants of these schemes have spread throughout the world and there are now thousands of them. The World's oldest surviving scheme, "the Swiss Wir, was founded in 1934 by 16 people... The money is now used in transactions worth over \$2 billion a year."

"Local currencies won't change the world on their own. But with several different types of money working in parallel, including negative interest money to deal with international trade, money would take us naturally where we want to go" says Lietaer.

"If you need regulations and coercion to get what you want, the system has a design flaw"(quoted from New Scientist, 27 April, 2002). *As Lao Tse pointed out, the best leadership is when at the end the people claim that they did it themselves.*

Complementary currencies stimulate/sustain communities

Since the Great Depression in the 1930s, Americans have experienced about half a dozen recessions. These events never made sense to me (AvH), nor did I gain useful information from reading equation packed tomes written by experts. For with plenty of people willing to work, and plenty of work waiting to be done, the mysteriously intractable problem was a scarcity of circulating money.

Anyone in Alaska during our 19856 recession probably recalls how a synchronized reduction in oil field workers, and in the compensation of those still working (by Big Oil), initiated a cycle of bankruptcies that overwhelmed local citizens, investors, businesses and banks. At the time, that recession was seen as just another inevitable result of "far off" decisions and events over which we had no control.

So once again I sought information on how communities might respond constructively to recessions. Fortunately, our daughter Karin quickly located Gesell's and Lietaer's books detailing solutions devised long ago. Indeed, Lietaer reported that by the Millennium, over 2500 Complementary Community Currencies introduced around the World *had helped local economies through difficult times*.

These local currencies were designed to supplement rather than replace National currencies, and in the past two decades they have drawn worldwide Governmental attention and support. *With careful planning and persistent follow-up, any community can devise a complementary currency that will stimulate the local economy and sustain participant cooperation.*

By supporting the production and exchange of additional goods and services, *these complementary currencies can increase local business volumes by 30% or more*, thereby counteracting the adverse local impacts of a recession.

All sorts of currencies have been effective including paper money, sequentially transferrable checks, bus tokens, frequent flyer miles, and other loyalty coupons or awards. Of course, these currencies like all national currencies represent IOUs. And they too encourage exchanges of goods and services as long as potential recipients believe in that money.

Incidentally, simply keeping an accurate computer tally of mutual credit association member credits/debits per transaction seems to work as well as issuing an actual currency. *But regardless of whether the currency is virtual or real, such mutual credit currencies are created and destroyed as every agreed/completed transaction creates/consumes IOUs. This ensures that there will always be just enough money in circulation to support every "agreed upon" transaction.*

In addition, members can check their own debit/credit balance and that of other association members with whom they might do business. To stimulate the local economy and deter scams, *mutual credit associations often limit how much credit or debit members may carry before requiring offset by consumption or production.*

Successful programs often expand beyond their original location. In Japan, "volunteer hour certificates" earned for elder care have become a nationally popular complementary currency that will soon fund a third to a half of the nation's elder home care. In addition to offering convenience, improved care and huge savings for individuals in need of home care, these eldercare hours are routinely issued by, accepted by, and transferred between more than 100 Japanese nonprofit organizations.

Thus even part-time workers (who are often students) can easily earn and donate care hours for far-away friends and relatives. As part of a voluntary off-budget system, eldercare hours greatly reduced nationwide yen currency expenditures for old folk's care at home.

One big advantage for expressing complementary currencies in fractions or multiples of "hours" is that hours need no revaluations as national currencies rise or fall. Thus New York City's Elder Plan issues bankable time dollars for home visits and minor repairs.

The IRS currently considers complementary currency earned for nonprofessional services exempt from income tax. Most likely that tax-free status would only change if such complementary currency transactions became noticeably profitable, at which point paying taxes would not deter their further use.

And those who also pay some expenses outside of "a complementary currency zone," simply negotiate combinations of local and national currencies for their goods and services.

Problem Three: Interest-earning currencies drive competition, concentrate wealth, encourage conservatism and force growth.

Discounting of future earnings by interest-income makes sustainability appear less important than short-term profits. But when we utilize the positive impacts of complementary currencies and avoid negative impacts of national currencies, we improve our local economy and even influence far away decisions in a helpful way. Thereby we also restore feelings of community, mutual responsibility and traditional gift-based values in areas with too few jobs where the young are bored and alienated, where alcohol and other drugs promote family dysfunction, and where school roofs leak and collapse because there is no money for maintenance.

Please bear with me as I set a gloomy stage for the cheerful climax. Our first example dates from the British Colonization of Africa. Here the major corporate business goal was to make those new colonies dependent upon British manufactures. But traditional gift-based native societies had no useful currency, nor any great need for English cloth, cutlery or machinery. So the British rulers instituted and enforced a hut tax, whereupon previously stable African societies disintegrated as natives abandoned centuries-old trading practices of their previously self-sufficient local economies in their desperate scramble for money to pay the hut tax.

Because there never was sufficient money in circulation for all to succeed, anyone helping her neighbor thereby hurt her own chances. In this way, Western money repeatedly disrupted long-established mutual assistance subsistence economies of traditional societies around the world.

Of course, epidemic European diseases such as measles, and the Rinderpest brought in with cattle during an Italian invasion of Africa, also extinguished uncounted millions of Africans along with their cattle and civilizations, just as smallpox and other diseases decimated Native American cultures (see "Guns, Germs and Steel" by Jared Diamond).

But these days, most of the major problems stressing Earth's finite resources are money-related including global warming, endangered species, extinctions and human overpopulation. Some claim that money is the root of all evil. Others see a lack of money as the root of all evil. But careful readers of the Hebrew Bible, the Christian New Testament or the Koran would conclude that usury (charging interest on loans) brought these evils upon us, and surprisingly, they would be right!

First of all, *long term, compounded interest is a lie!* For had Joseph celebrated the birth of Jesus by investing a penny's worth of gold at 5% compound interest, by 1990 that initially tiny investment would have grown in value so its gold equivalent would be *134 billion Earth-sized balls of gold*. Nonetheless, most adults still view usury's wooden "Merry go round" pony as an actual war-horse.

Secondly, Usury diminishes our concern for the future, whether we fish for tuna or preside over a huge publicly held Corporation. After all, when you discount future earnings based upon present day interest rates, you illogically reach antisocial conclusions that favor short-term financial gain over long term sustainability. But without sustainability, humanity's future will be short and bleak!

Nonetheless, those discounted figures makes it "obvious" that you will maximize your personal future wealth by killing and selling every possible scarce and desirable fish this year and investing the proceeds at interest rather than tediously negotiating with equally greedy and unreasonable folks in order to develop and protect a sustainable fishery. So when there are no more fish, the poor can eat jellyfish while the rich may consume all the money they can hold!

Using those same false ideas about compound interest, every Corporate CEO should discount the uncertain value of that Corporation's future production by current net interest on assets. The resulting figures clearly require a greedy CEO to ignore research and development, and devote her/his energies

and funds to exceeding the next Quarter's expected results in order to benefit shareholders and CEO stock options. And don't forget to send all your lobbyists and lawyers to Washington to demand tax rebates and subsidies for your failing products.

Naturally, all CEOs want their employees to be happy despite low wages, so they set up "generous" but unfunded employee health and retirement plans. Then as soon as "their" Corporation goes bankrupt, the CEOs retire on interest from their outlandish stock options and ridiculous salaries.

That "interest driven greed" which underlies the lack of concern for employees or for research, development and product quality, partially explains why so many of America's increasingly outsourced manufactured products are ever less competitive worldwide.

The Hebrew Bible (which in essence was adopted by Christians as their "Old Testament") prohibited charging interest ("Usury") on loans by Jews to other Jews. Early Christians and Muslims similarly declared a blanket religious prohibition on the charging of interest.

Catholics condemned and punished usury into the 19th century. But well over a century ago, they too began to charge interest "unofficially" *while awaiting and awaiting* a promised Church response to parishioner requests for "clarification".

Devout Muslims still honor that religious commandment by charging a variety of fees or else partnering in an enterprise, rather than demanding interest on a loan. In more recent years "Usury" has been redefined to mean charging excessive interest. *But while modern credit card interest rates and fees are no longer viewed as usurious, they are definitely excessive and corrupt!*

When Henry VIII took over the English Church in preVictorian times, he became the first Christian ruler to legalize usury. Surprisingly, this may have made the Industrial Revolution possible, for as those who wrote the Hebrew Bible knew, charging interest on money loans has major social consequences!

These consequences include making money scarce (which incites competition), concentrating wealth in the hands of a few (which encourages major investments), and creating an incessant demand for economic growth to sustain liquidity based upon ever more debt while our standards of living stagnate and the environment gets trashed.

A reminder: Each new bank loan puts its exact "loan amount" of new money into circulation. And every paid-off bank loan removes exactly that amount of money from circulation. In addition, until Nixon finally took us off the gold standard in 1971, our nation's respected dollars were IOUs that in theory could still be redeemed for a standard amount of gold, just as the bearer of a pound sterling was once entitled to exchange that pound note for a pound of silver.

Furthermore, interest-charging national monetary systems are always associated with scarce money, *as additional new money is not created* (beyond the exact loan amount that borrowers obtained initially) *with which to make interest payments!*

Hence money becomes ever more scarce as individuals, businesses and governments all compete to make interest payments on their loans. *So not only does a scarcity of interest-earning money underlie our competition for money, but the money with which you pay interest is actually principal from a loan made to someone else who, through misfortune or lack of effort, later went bankrupt.*

Our society rewards and empowers individuals who accumulate money. It demeans and punishes those that don't. The obvious lesson appears to be "Slave for money or suffer the consequences". Yet the financial field on which we all compete is so severely tilted that *on average, the hard working lowest 80% of income earners in our population, including our middle class, pay more of their income as interest to investors in the top 10% (whose inherited assets now earn lightly taxed "interest income") than they pay in taxes to the Government.*

So it is hardly surprising that wealthier Americans increasingly choose to live within over 80,000 gated communities where the homeless, the angry poor and the middle class persons who pay them all that interest, will never be met.

Similarly, the poorest African and Latin American nations pay far more in interest on old loans made by foreign bankers (mostly for corrupt or misguided projects) than they receive through all their various aid programs. And our American Corporations, which are largely owned by the wealthy, receive far more money via Governmental subsidies and tax rebates than poor Americans ever get through all of their welfare programs and earned income rebates!

Problem Four: Corporations rule!

An objective observer could easily conclude that just as British Corporate interests formerly parasitized British African and Indian Colonies, *the entire World is now parasitized by Corporations that increasingly profit by detaching themselves from people and places* (as human and Corporate interests diverge, and even Corporate insiders discover that they are expendable).

Someone recently said, "15% of workers now fear that their jobs will be outsourced, while 85% are in denial." This decline in available work leads to underemployment, social unrest, citizen frustration, impotence and depression, all of which cause further unemployment and spreading poverty as investment flees the growing violence and extremism.

Meanwhile, a demand to restore "law and order" leads to the scapegoating and persecution of minorities and the homeless. Historically, the same course of events followed wherever governmental mismanagement and unwillingness to let localities develop their own fiscal solutions led to fascist governments as the desperately poor and unemployed flocked to any economic savior who promised to Do Something!

During the Great Depression, Austria, The United States under Franklin Delano Roosevelt, and other nations *forbade local communities from developing local solutions to local fiscal problems*, as bureaucrats greatly prefer to dominate and take credit for standard centralized solutions paid for by taxes and mis-administered by bureaucrats and politicians.

Of course, Austria's centralized solutions didn't work so the desperate and unemployed Austrians became increasingly embittered and susceptible to Hitler. And World War II followed World War I, *just as Gesell predicted would happen if new monetary solutions were suppressed*.

Since Roosevelt prohibited local fiscal options that might have allowed parts of the United States to become truly prosperous, the Great Depression persisted throughout the U.S. despite his highly touted New Deal (a national "make work" program) until preparations for WWII resurrected America's economy. *Because they are independent of tax dollars and bureaucracy, complementary currency solutions are now freely available to supplement employment and help communities cope with recessions or jobless growth.*

Lietaer designed a (theoretical) stable global reference *TERRA* currency that is inflation proofed by basing it upon a standard basket of commodities. During deflations he expects companies to cash-in their excess commodities for *TERRA* and thereby increase their own liquidity, while in boom times companies would naturally buy back materials they need for making products, leaving fewer *TERRA* in circulation to push inflation.

An additional advantage of TERRA currency (which supports itself through a 3 to 4% annual demurrage charge that covers commodity storage costs), *is that beside reducing worries about currency fluctuations or inflation, TERRA currency counters the usual business cycle*. Indeed, demurrage charges give future *TERRA* greater value than any *TERRA* in hand, *thereby shifting the individual's interests from short-term money acquisition toward long-term sustainability*.

"Sustainability" means not using renewable resources faster than they are renewed, and not using nonrenewable resources faster than the rate at which sustainable substitutes become available, and not emitting more pollutants than environments can deal with on a steady state basis.

The Latinate Bible quotes God as saying "Fiat Lux!" (Let there be light!). Similarly, governments issue fiat currencies (Let there be value!) by decree, even without any precious metals to back them up. Fiat money persists because it is useful in trade as long as it remains scarce enough to retain value.

However, that normal scarcity of money still causes competition where cooperation is more appropriate. Which is why experience suggests that utilizing only national fiat currencies can constrict economic activity by 30% or more, compared to the economic expansion that occurs when using both fiat and complementary currencies.

Of course, complementary currencies may be anything from fiat currencies (as in Ithaca, N.Y.) to local exchange trading systems or LETS, to community service dollars, to transferrable elder care hours, to mutual credit currencies (where an equal credit and debit are created by every voluntary cooperative interaction).

"Negative interest complementary currencies" are an easy way to encourage and formalize "helping each other" as in traditional societies. And such currencies apparently do a great deal to restore community spirit since offering goods and services to the neighbors easily expands into sharing with entire neighborhoods and getting increasingly used to watching out for, and helping, one another.

In contrast, positive interest money inevitably leads to a concentration of assets, bankruptcy, poverty, crime and self-centered conservatism. Arnold Toynbee's study of 21 great civilizations revealed that each died with an extreme concentration of wealth and apparent inflexibility in the face of changing conditions.

Summary: The scarcity of money, and the resulting competition "to get more than your fair share" causes our economy to cycle repeatedly between boom times when everyone wants to buy, borrow and invest before prices rise (hence money flows freely and work is readily available) and recessions when many willing workers cannot find employment at any wage, while those who have money stop their elective spending in anticipation of hard times or bargains ahead.

In contrast, ancient Egypt's economy and its "non-interest-bearing, wheat-based currency" remained stable, productive and inflation-free for over a thousand years.

A Reminder: The above information was derived in part from Gesell's book, which is freely available in English translation on the web. Some of my material initially came via New Scientist, but most of it is directly derived from *The Future of Money* by Litaer.

My personal view (AvH): After considerable contemplation and discussion, though I have never seen community currencies in action, I am convinced that properly designed complementary currencies can enrich local economies. For example, a reliable businessman who traveled through Argentina during one of its recent recessions mentioned that *the overall Argentine economy was largely unaffected because so many impacted communities simply devised their own currencies.*

The Building of Social Capital with Complementary Currencies in Curitiba, Brazil is a report on a very successful ongoing experiment with complementary currencies. For the Mayor of this provincial capital of 2.3 million inhabitants in Brazil utilized complementary currencies over the past 25 years to foster an economic growth rate 40% higher than any other city in the country.

Thereby he managed to finance a series of social, cultural and ecological programs that brought his city the award of "The most ecological city in the world" by the United Nations in 1992. All this was accomplished while keeping his municipal tax rate at the same level as the rest of the country. (The following story is from Litaer's *Future of Money*).

Curitiba: the Brazilian City that left the Third World

In 1971, Jaime Lerner became Mayor of Curitiba, the capital of the southeastern state of Paraná, Brazil. He was by profession an architect. Quite typically for the region, its urban population had mushroomed from 120,000 people in 1942 to over a million by the time Jaime became Mayor. By 1997, Curitiba's population had reached 2.3 million. Again, quite typically, the majority of these people lived in "favelas," the shantytowns made out of cardboard and corrugated metal.

One of Jaime Lerner's first big headaches was garbage. The town garbage collection trucks could not access the favelas because there were no streets suitable for them. As a consequence, garbage just piled up, rodents got into it and all kinds of diseases broke out. *A mountain-sized mess!*

Because they did not have the money to apply "normal" solutions, such as bulldozing the area to build streets, Lerner's team invented another way. Large metallic bins were placed on the streets at the edge of the favelas. The bins had big labels on them such as "Glass", "Paper", "Plastics", "Biodegradable material" and so on. These labels were color coded for those who couldn't read. Anyone who brought down a garbage bag full of presorted garbage was given a bus token. Biodegradable materials earned the donor a plastic chit exchangeable for a food parcel of seasonal fresh fruit and vegetables.

A school-based "garbage collection program" supplied poorer students with notebooks. Soon the neighborhoods were picked clean by tens of thousands of kids, who quickly learned to distinguish even different types of plastic. Their parents used those tokens to take the bus downtown, where the jobs were.

What Jaime Lerner did, from our perspective, is invent Curitiba money. His bus tokens and food chits are a form of complementary currency. His program "Garbage which is Not Garbage" could just as well have been baptized "Garbage which is Your Money."

Today, seventy percent of all Curitiba households participate in this process. Sixty-two poorer neighborhoods alone exchanged 11,000 tons of garbage for nearly a million bus tokens and 1,200 tons of food. In the past three years, more than 100 schools traded 200 tons of garbage for 1.9 million notebooks. And the paper-recycling component alone saves the equivalent of 1,200 trees each day.

Let it be clear that Lerner's team did not start off with the idea to "create a complementary currency." Instead they used an integrated systems analysis for all the major issues at hand, and spontaneously ended up with a complementary currency way to solve those issues.

Nor is the garbage cycle the only form of local money in Curitiba that has resulted from this approach. For instance, another system was designed specifically to finance the restoration of historical buildings, create green areas and build social housing in a way that would not financially burden the municipality. It is called "sol criado" (literally, "created surface") and works as follows:

Like most cities, Curitiba has a detailed zoning plan which specifies the number of floors that can be built in each zone. In Curitiba however, there are two standards: the normal allowable standard and the maximum level. For instance, a hotel with a ground plan of 10,000 square meters is being built in an area where the normal allowable level is 10 floors and the maximum 15. If the hotel owner wants to build 15 floors he has to "buy 50,000 square meters (5x 10,000 sq. Meters) in the 'sol criado' market."

The city itself only plays the role of an intermediary matching demand with supply in that market. But where is the supply for these sol criado surfaces generated? One source is historical buildings. For instance the "Club Italiano" owns a beautiful historic landmark building called "Garibaldi House." The property has a total ground surface of 25,000 square meters, but the place needed a serious restoration job.

The Club did not have the money to restore the building. But because it is located in an area where up to two floors of new construction could theoretically be built, it sold 50,000 square meters (2 floors x 25,000 square meters) to the highest bidder, for instance, the hotel owner mentioned above.

The proceeds belong to the Club to administer, but have to be used to restore the property. Therefore the hotel owner ends up paying for restoring the historic edifice in order to obtain the right to build the extra floors of the hotel, without any financial intervention from the city.

Other sources of supply for such "created surfaces" are green areas where trees are protected, and the construction of social housing in other parts of the town. Several of the more recent of sixteen extensive nature parks open to the public, have been completely financed in this way.

The owner of a large plot of land obtained the right to develop one side of the street on the condition that the other side becomes a public park. The new housing has an extra value because it is located at

walking distance from the park; thus the people of Curitiba have another park for their week-end strolls; and the township does not have to go into debt or raise taxes to obtain all of that. Everybody wins.

What is most interesting from our perspective is that this market for "created surfaces" is another type of specialized complementary currency, which enables Curitiba to obtain public goods for which other cities have to obtain traditional financing. What began as a garbage and public health problem, has become a way to solve public transportation and unemployment difficulties in a uniquely innovative way.

By creating the "sol criado" market system, significant public advantages are obtained at no cost to the city itself. The secret is not that this city or population has something unique, but that an integrated systems approach has created new ways to tackle the problems at hand. The net result is a city where many things run against conventional wisdom.

Curitiba: Another Development Strategy

Public transportation is encouraged over individual car usage. This is accomplished by making the public transport better and more convenient than the private variety. For example, it is speedier because of an original speed-loading process: The bus tokens enable the users to enter into specially designed raised tube bus stops; when the bus arrives, entire sections of both the bus and the unit open so that people can move in and out in large groups in a few seconds.

No time is lost collecting money or tokens. Similarly, the special express lanes for public transport have made bus use the fastest and most convenient way to move around anywhere. A single fare of .65 R\$ (about 50 US cents,) enables someone to move over the entire system, independently of distance covered. This includes any connections to feeder and inter-district public transport systems,.

The real test is that this public transport system has become the preferred way. One out of four people using public transportation own cars, but prefer not to use them to get around town. Because of the efficiency of the public transport system, it has been possible to create several downtown pedestrian streets, including the Main Boulevard.

These pedestrian streets are now used for local music, popular theater performances, and children's art festivals. There are also arcades of shops and restaurants that stay open 24 hours per day and maintain the vitality of the downtown area, instead of the ghost towns that characterize most city centers.

Conventional city planning claims that any city with more than 1 million inhabitants must have a subway system to avoid traffic congestion. Similarly, cities that generate more than 1,000 tons of solid waste per day need expensive mechanical garbage separation plants. Curitiba has neither. And the investment needed for their public transport system costs only 5% of an equivalent underground system. The savings has allowed Curitiba to keep its fleet of buses among the newest in the world.

There is a "Free University for the Environment" offering practical short courses at no cost for homemakers, building superintendents, shopkeepers and taxi drivers. They are taught the environmental implications of their daily activities. It is a breathtaking architectural building made mostly out of recycled telephone poles, in what is now an idyllic setting near a lake. The location used to be an abandoned industrial stone mine.

Curitiba is the only town in Brazil that now has a significantly lower pollution level than in the 1950's; it has also a lower crime rate and a higher educational level than comparable Brazilian cities. It is the only city in Brazil that has actually turned down grants from the federal government, because their own solutions involve less red tape.

A botanical garden has been planted on what was once the inner city dump, which now serves as a recreation and research center. In addition, there are currently 16 different nature parks around the city, based on different themes. As a consequence, Curitiba has 52 square meters of nature per inhabitant.

The UN ideal standard is 48 square meters of green surface per city inhabitant, a level rarely, if ever, reached by cities in either the developed First or the Third World. Furthermore, all these nature parks are

easily accessible from the transportation network, so the ordinary people can and do fully take advantage of them.

Curitiba was recognized in 1992 by the United Nations as the model ecological town in the world. And Jaime Lerner has received international recognition for his initiatives. Some other cities have started to take notice. About 20 cities in Brazil have started to implement the integrated public transport system. Cape Town has copied several features of it. City planners from Buenos Aires, Santiago de Chile, Montreal, Paris, Prague, Mexico and Lagos have been impressed by what they saw.

Perhaps the clearest political signal that "All this works!" is the fact that every time Jaime Lerner presented himself for election, he was reelected by a landslide! Some years ago, he was elected Governor of the State of Paraná. A movement was started to draft him as next President of Brazil. The Curitiba story demonstrates that there are political careers to be made in relation to complementary currency. The impact of the complementary systems is finally identifiable in economic terms.

An average Curitibaño makes about 3.3 times the country's minimum salary, but his real total income is at least 30% higher than that (i.e. about 5 times the minimum salary). This 30% difference is income directly derived in nontraditional monetary forms, such as the food for garbage systems. Another indication is that Curitiba has by far the most developed social support system in Brazil - and one of its most vibrant cultural and educational programs - and it still doesn't have a higher tax rate than the rest of the country.

Even at the traditional macroeconomic statistical level there are clear indications that something unusual is going on in Curitiba. The Domestic Product of Curitiba increased between 1975 and 1995 by some 75% more than the entire State of Paraná, and 48% more than Brazil as a whole. Such difference in growth rate has remained valid in the recent past: Between 1993 and 1995, Curitiba's Domestic Product grew 41% faster than the State of Paraná and 70% faster than Brazil's.

Curitiba's success has attracted internal immigrants, so the Curitibaño population has grown faster than the State of Paraná or the country as a whole. On a per capita basis the difference is therefore slightly less impressive, but still quite significant. Between 1980 and 1995, Curitiba's Domestic Product per capita grew 45% faster than the State of Paraná or Brazil as a whole.

Curitiba is a practical case study where 25 years of experience has shown that a whole system approach using both the traditional national currency and carefully designed complementary currencies is beneficial to everybody, including people who are focused exclusively on the traditional economy denominated in national currencies. It has enabled one Third World city to join First World Living Standards in one generation's time.

EPILOGUE

Good health begins with reliable information. Nations gain respect by helping others prosper.

President Bush's "No child left behind program" was just another unfunded Federal mandate that interfered with teaching and set impossible performance standards. The religious right's openly desired outcome was public school failure so students with Government vouchers, riding Government buses, could attend religious schools at public expense, which would thereby eliminate the teaching of detested topics such as Evolution and Sex Education.

However, one reason we all pay taxes more or less willingly is to ensure that every child and adolescent can attend Public School while one or both parents work. In addition to keeping kids off the street and out of trouble, our public schools are supposed to produce literate, numerate, rational, healthy citizens with sufficient social skills to settle disagreements nonviolently.

Public Schools serve many other important social and public health functions including detection of disabilities or child abuse, teaching about and supplying adequate nutrition, offering information on human health and sexually transmitted diseases, minimizing teen pregnancies through sex education, and controlling epidemic diseases by mandatory immunization programs.

With so many goals, there will always be great room for improvement in Public Schools. And while poorly funded school programs may revert to campus sales of soda pop and other unhealthy food choices to make ends meet, Public Schools still have a hugely important role in health care. Most citizens support free public education because an educated public is essential to our national economy. So how can they not support free basic healthcare services for all children?

Durable Organizations need Roles and Goals

Historical beginnings tend to be poorly defined, but Health Care's current problems probably date back to when *various factions of the early Medical/Industrial complex first recognized that their prospects would be grim if better health care at lower cost for the foreseeable future actually prevailed.*

Even nonprofit organizations felt threatened. I still recall participating in animated discussions about what new role and goal the respected National multi-million dollar "March of Dimes" fundraising organization (initiated by President Franklin Delano Roosevelt, a polio victim himself, whose image is on the dime) might find for itself when polio, the sole purpose of its Corporate existence, was finally eradicated. Or should they just throw a huge cross-country party and "shut her down?"

As it turned out, the March of Dimes "loyally" (against its own ongoing interests) fought polio to a standstill. Thereafter, this enduring entity rapidly rebuilt itself as a very different institution—dedicated to funding education and research on a previously neglected group—those with birth defects (who were at no apparent risk of cure).

Even the new March of Dimes' mission statement carefully steered clear of achievable goals. Note also how carefully the March of Dimes avoided turf battles with other major nonprofit organizations like

the American Lung Association (originally an antituberculosis group), or the Heart Association, which began as a group of New York doctors whose first two research topics were “Could patients with heart disease return to work?” and “Rheumatic Fever.” As better remedies for heart disease were developed, the American Heart Association wisely expanded its brand to include strokes.

Our oldest major health related “nonprofit” Corporation is the American Red Cross, which currently procures and sells much of the nation’s donated blood. However, in recent years, the Red Cross has repeatedly been fined many millions of dollars for its poor "quality controls" and inadequate record keeping - which put America's blood supplies at risk. And while Red Cross staff still show up at disaster scenes and make themselves available to the media, it is often unclear whether they are serving others or merely defending their own turf.

The International Red Cross began in 1864 as a neutral wartime Swiss Christian relief organization—hence its Greek Orthodox Cross. Though it welcomed Muslim affiliates under their Red Crescent religious symbol, this International Relief Organization wouldn't admit Israel under its six-pointed Star of David “Because then we might have to admit some other nation under a Swastika!”

Thus even after the Holocaust, this wealthy conservative Christian organization still denied Jews unless they accepted the Cross. And like the Catholic Church, they never release a real financial statement, nor have I ever heard of them being audited.

The annual American Red Cross budget in early 2000 was \$1.9 billion. But its handling of disaster relief funds has often been inept—ranging from unjustified "show" projects after the 1938 Hurricane (e.g., donating a fleet of new boats to someone who had never owned nor lost any), through their quickly foiled efforts to charge our poorly paid draftee soldiers and sailors for hot coffee served at USO’s during World War II, *to its more recently thwarted plan to retain funds donated for September 11th victims’ families.*

Even among nonprofits, only the fittest, most adaptable Corporations can survive and prosper in our rapidly changing environment. But every frantic search for plausible new fund raising goals also increases the likelihood that a non-profit’s staff will come to view their fundraising Corporation as a **sinecure**: (“A position or job that provides a regular income for little or no work”). So I was not astounded that a common complaint heard among non-profit employees deployed to aid citizens of Third World countries, was "How difficult it is to find good servants nowadays!"

Old Corporations Too Rarely Die

Early American leaders allowed legal incorporation so wealthy individuals would invest more freely in new business ventures. The idea was to generate jobs and grow national wealth by limiting monetary risk to the amount invested. But the Founding Fathers surely never meant to create permanent (hence irresistibly wealthy) organizations that would increasingly dominate our political process and oppress ordinary citizens. Unfortunately, that is what happened.

For legal Incorporation combined unlimited longevity and faceless (hence reduced) individual responsibility, thereby opening the way for greedy, ambitious outsiders to eventually "invade, milk and sell" or "downsize and offshore" workplaces long ago created and sustained by local efforts and pride. Such sudden removals of long-time local Corporate funds have devastated many communities.

And with the cooperation of our formerly-respected Supreme Court, Corporate misleaders even demanded and got the same Constitutional Rights guaranteed to all human citizens for those faceless, baseless, currently immortal legal inventions known as Corporations.

So now these greed-driven people demand "Freedom of Corporate speech" including the legal right to lie about conditions under which something (e.g., a Nike product) is made, or a legal right not to reveal whether a drug is toxic or ineffective for the purposes advertised (that is a trade secret!), or a legal right to spend other people’s money without their permission in order to subvert Government policies and elections, or even buy judges

“Those who love sausage and respect the Law should not watch either being created” (Bismarck?)

More than fifty years ago, first shift employees at one Boston sausage factory were told to delay turning on meat grinding machines whenever a food inspector was near enough to hear death squeals of rats feeding inside. Similarly, an insider's view of *Legislative Committee Caucuses where complex and emotion laden issues are actually negotiated with lobbyists would drive the average citizen to despair.*

Except for extreme conservatives, most people agree that tax dollars should be spent for purposes like public defense, education, airports, roads and bridges, as well as to subsidize food, shelter and medical care for the poor. Reasonable people often disagree on when, where, how or how much to spend, but rarely question whether such causes warrant public support.

In contrast, politically powerful Corporations routinely lobby and bribe our elected representatives to reduce Corporate obligations to the public or blatantly convert Public assets into Corporate assets. As any informed citizen would readily recognize these arrangements as "Not in the Public interest," Corporate raids are generally carried out in secret, or through distraction (as by declaring a war), or by deception (with outright denial and other lies).

Furthermore, countless anonymous Corporate employees, shielded from public view and recognition by their Corporate umbrella, have routinely achieved small savings for their Corporations through costly acts of environmental vandalism that were detected, understood and dealt with many years later, long after time for criminal prosecution has passed.

Thus nameless scoundrels at General Electric persistently pumped dangerous, long lasting PCB chemical wastes into the Hudson River. And rogue industrial farmers spread hog farm and feedlot pollution and hazardous pesticides/herbicides widely over the public's air, lands and waters.

Meanwhile, conniving Mining and Logging Corporations laid waste to pristine lands and waters, then sometimes even disbanded before starting anew elsewhere under another name to avoid responsibility for the environmental disasters left behind.

Selfserving profiteers in the automobile, oil and lead industries long prospered by making inefficient polluting engines that burned toxic leaded gas, or by promoting lead-based paints for decades after these products were proven harmful to children (in the 1930s) see Lancet, May 17, 2003 p1753, Science, 25 Oct, 2002 p732, Science, 7 Feb. 2003 p795 or www.cincinnatichildrens.org/lead advertising/

Similarly, countless irresponsible villains dumped, burned or buried poisonous pollutants on land or sea. And huge numbers of our citizens were injured or killed by overt or covert criminal activities of those peddling tobacco (for example, see “Public misled over fire safe cigarettes”, New Scientist, 2128 Dec. 2002, pp67; or “Tobacco's longtime adversary” in Lancet, July 7, 2001 p44), or similar discussions of alcohol and other addictive drugs, as well as by Adulterated Foods, Toxic Patent Medicines and Poisonous Pesticides and Herbicides.

It seems that to prosper under the nearly hallucinatory internal risk/reward structures of an established Corporation, Religion, Dictatorship, Gang or other nondemocratic group, one must set aside personal qualms in order to promote the antisocial special interests in that enduring body over many essential public interests of the less organized ordinary citizens outside.

The power inherent in long lasting Corporations assures us that many of these increasingly dominant old dogs will become ever more self serving and unwilling to learn new tricks. Will we finally get "liberty and justice for all" only when every Corporate charter - new and old is legally amended to include an "absolute expiration date" at which all debts must be paid, all promises met, all profits distributed, all assets sold at public auction to more dynamic users, and all business arrangements wrapped up?

In order to deconstruct the current rule of America by Corporate Interests, we must first end those immense ongoing Corporate Welfare Payments known as Government Subsidies or Tax Rebate\$ to Big Sugar, Coal, Corn, Cotton, Car\$, Airplane\$, unhealthy manufactured Fa\$t Food\$, Mine\$, Oil production or extraction, etc.

To combat Corporate anti-environmental practices and reverse declining productivity in various Government aided industries (which, as in Russia, China and Japan, comes from insulating increasingly outofdate Corporations from free market competition), we should enforce a 35 to 40 years limit on any Corporation's existence—with Corporate taxes rising stepwise to 100% over the final five years. In the meanwhile, we must finally insist by law that "Every subsidy or tax rebate from our local or National Government to Corporations shall henceforth immediately become *"Public Ownership Interests!"*

And now that Corporations have been recognized as "People", there should be legal limits on every Corporation's life span that roughly equals the productive years of WORKING PEOPLE, who nowadays are too commonly cheated of rights and retirements by Corporate shenanigans. Were such a Corporate entity still needed thereafter, it could start anew, unfettered by ongoing corrupt relationships, irrelevant arrangements or regulations, and an unproductive baseless lifestyle dependent upon enduring subsidies and tax rebates.

Programmed death is Nature's way of keeping life strong and adaptable. For if old bears could live and function indefinitely, the growing population of old males would consume all cubs until bears became extinct.

Similarly, Big Pharma, Big Oil, Big Bank\$, WalMart\$ and other major multinational Corporations routinely buy or crush innovative new businesses and bankrupt local and even national economies in their shortsighted quest for a few extra dollars to boost quarterly profits and Executive Bonuses.

Is it mere coincidence that so many million good paying productive American jobs disappeared or were exported, and that our Treasury needed Chinese loans, and that our \$tock market increasingly requires life support at just the time that "Eternal" Corporations loyal only to quarterly profits took over our Nation's policies from "We (formerly The Only) People?" Are unconstrained Corporations just like those hungry old male bears?

My sample suggestions for a Single Payer

One Human's Start - Over Eighty Possible Ways to Improve Health Care while Reducing Its Costs

1) Design a Nationwide Single Payer (SP) Health Care System: Get advice from anyone interested. Investigate recommended options on organizing, controlling, financing, directing and reviewing. Set up the Single Payer so it can easily be revised and improved.

2) SP will audit all Health Insurance Corporations and take over every policyholder's health care obligated assets.

3) SP will negotiate to take over Workman's Comp liabilities in exchange for Each Employer's Optimization of Job Safety plus offsets like better wages, fully funded retirement plans, and childcare.

4) SP's overhead cost will be limited by law: Would 3% of total funds disbursed—plus 1% or so to support ongoing studies (see below) be appropriate initially?

5) SP total overhead cost can only be revised by Congress after Public Input from all States.

6) SP must meet certain efficiency and transparency standards or undergo reorganization.

7) SP will negotiate major discounts nationally and internationally on drugs and medical equipment.

8) SP's purchasing monopoly on Health Care Items shall allow it to Audit Manufacturer's Costs and Negotiate Fair Discounts.

9) SP shall evaluate and publish Big Pharma Drug Cost and Efficacy comparisons annually, including drug discounts obtained by other Nations.

10) SP leadership should become criminally liable for withholding any data on the safety or efficacy of any Drugs or Medical Devices.

11) New drugs partially or totally discovered by tax dollar expenditures, shall all be open for competent generic competition for an appropriate fee. The basic goal would be fairness for both the patent holder and the public.

12) Fully patent-based monopolies where no public funding or research support was provided shall be regulated as Public Services to avoid profiteering.

13) SP shall publish Administrative Costs for every Hospital.

14) SP must publicize standards to clarify which overhead costs on health-care-related businesses are reimbursable, and when.

15) SP may subsidize education and basic living costs for nursing students, medical students, interns, medical/surgical residents and certain other health care workers (e.g., mental and dental) and also help qualified health care workers train or retrain as desired and needed.

16) Fully subsidized trainees shall repay Single Payer by serving their "initial" two-year service requirement in any SP designated Underserved Area.

17) Students who paid for their own education costs and wish to work for SP can select their service location and duty from publically available slots after passing appropriate tests.

18) SP could revise total number of subsidy-eligible specialty training positions annually, according to projected needs in USA (and overseas, as applicable).

19) SP subsidies for student trainees from programs whose graduates perform poorly may be reduced or eliminated with notice.

20) SP would regularly negotiate a fair maximum medical income. The same maximum medical income limit will apply to all physicians and other high earners like SP Officers and Administrators.

21) SP may publicly renegotiate compensation for all medical tests and surgical procedures annually to rectify overpayments or underpayments and help stabilize the total supply of health care at levels that fill needs.

22) SP could reset hourly rates of nonprocedural (medical office or administrative) charges according to training, experience, success rates and cost of living.

23) SP may develop appropriate public methods for calculating and compensating overhead costs of physicians and institutions.

24) SP could conduct (or outsource) studies that analyze/compare patient outcomes, and/or assess provider competence, assess medical techniques and pharmaceuticals, assess any benefits claimed for second opinions, assess Continuing Medical Education (CME) and Board Recertification, and determine which requirements "actually benefit patient care and should be continued". The rest shall be discontinued in accordance with a published plan.

25) SP will generally not subsidize activities, training programs, procedures or drugs that provide poor evidence of efficacy, except as part of a preapproved study. Thus CME-dependent or Recertification-dependent industries could well be disallowed as "costly, unproven, not eligible for recognition or reimbursement as a requirement" (in contrast to standard office costs).

26) SP should maintain an ongoing up-to-date comprehensive Survey of Outcomes to detect individual or unit outliers with poor results for private counseling, retraining or discharge.

27) SP will routinely audit practices that use many expensive tests, or perform more procedures, or serve many more (or far fewer) patients than comparable practices.

28) SP could use outcomes analyses and other studies to determine which practitioners overuse specific procedures such as coronary angioplasty and carotid endarterectomy.

29) SP could use outcomes analysis to identify possibly valuable "off label" uses for drugs that might be worthy of investigation.

30) SP shall not publicize physician performance reviews unless they lead to physician discharge as this might cause other physicians to avoid sicker patients.

31) SP could investigate claims and compensate medically harmed patients with standard Federal Adverse Events Compensation (see also The Swedish Patient Compensation System. Is this a viable alternative to the U.S. tort system? Bulletin of the American College of Surgeons, Jan 2004 pp2530).

32) SP should publicly evaluate with timely arbitration all complaints against SP or SP providers or their employees or patients, and set up a timely and appropriate appeals processes. Timely arbitration could also be requested by physicians and other workers who are consistent outliers (e.g., those with allegedly inadequate indications for doing procedures, or with consistently poor results, or who disagree with private counseling, or who were billed to return excessive charges under "egregious circumstances", or who are unwilling to accept constraints, retraining or discharge by SP.

33) SP physicians could choose where to live but their pay might vary by a negotiated percentage according to area-wide needs as well as practice outcomes.

34) SP will establish a hot line for immediate reports on new medicines or procedures or technologies that are costly or dangerous or apparently don't work (e.g., gastric freezing, or laser holes in left ventricle to create new circulation).

35) SP will not support expensive or nonstandard treatments unless such treatments appear useful and cost effective in comparison with standard care.

36) SP will ask qualified advisors without conflicts of interest determine if double-blind drug comparisons used fair timing of appropriate dosages in every clinical trial comparing generic medication to patent protected medication to learn which drug is more cost- and/or risk-effective.

37) SP (or CDC, FDA or other qualified Federal health care entity) will study, confirm and promote inexpensive new definitive treatments (such as antibiotics for Helicobacter Pylori in Ulcer Patients) in a timely fashion.

38) SP should study the individual impacts of slow weight loss and adequate doses of tart cherries, turnips and **original formula** tetracycline, on inflammatory diseases in general (including strokes and heart disease) and autoimmune problems in particular, and then publicize all indications for use (if any) as well as overall results and doses of each.

39) SP could evaluate sugars and similar antibacterial adhesive compounds (e.g., in milk, cranberries, apples and potatoes) that seem to protect from bacterial infection, and study the impact of xylitol chewing gum on caries and ear infections.

40) SP could evaluate tansy tea and other herbs that might be provided to patients for self-initiated, safe and effective patient-controlled abortions.

41) SP could evaluate celery and celery seeds, turnips, tart cherries, turmeric, etc. for the treatment of gout.

42) SP could evaluate Mag64 or other well-absorbed Magnesium supplements for asthma, cardiac arrhythmias, epilepsy, muscle cramps, migraine headache (prevention or reduction), or even Eclampsia.

43) SP will develop (or contract for) computerized answers to common patient questions wherever that could be useful or save SP money.

44) SP will develop a fair way to identify and pay "The responsible patient care coordinator" in "team care" cases so hospitalized patients or their relatives can deal directly with person in charge.

45) SP could develop and update website information on common elective surgical procedures, and compare indications and risks of various treatments.

46) SP must evaluate and publicly critique and/or ridicule dietary advice from other Agencies (such as the Department of Agriculture) if their dietary recommendations could increase risk of death, obesity, diabetes or other illnesses.

47) SP shall study and report to Congress on how best to reduce health care costs caused by sugar, non-sugar sweeteners, "diet" drinks and other soft drinks, artificial or manufactured food risks including possibly unsafe ingredients such as soy or hydrolysed vegetable protein, tobacco, alcohol, and drugs, and preview/approve or eliminate all advertisements that affect children.

48) SP to support International research into reducing traffic accidents, which regularly consume 1-3% of a country's GNP (see Lancet, Oct. 4, 2003 p1125).

49) SP to encourage International research into how to improve the health, safety and efficiency of shift workers (see Nature, 30 Oct. 2003 p885 on "Morning persons and night owls", also Lancet, Oct. 4, 2003 on "Drug treatment to promote wakefulness").

50) SP should regulate and regularly revise protocols for "urgent morbidity reducing treatments" by ambulance personnel and hospital emergency rooms"(e.g., early use of tissue plasminogen activator for strokes if still indicated—see Science, 19 Sept. 2003 p1677).

51) SP would subsidize research, and advise Congress on the impact of patents and copyrights (which often raise costs and prevent competition) on health care - see New Yorker, July 1421, 2003 p36 and Technology Review Sept. 2003, p82).

52) SP could develop information on how legal and illegal mind-altering drugs affects health care costs, and compare that with societal costs for the War on Drugs in a Public Report to Congress.

53) SP can sue to recover costs for patient care made necessary by unproven remedies delivered under egregious circumstances.

54) SP need not provide nor pay for medicines or treatments unless they are generally recognized as safe and effective, or at least helpful for the stated purpose.

55) Corporate Lobbyist Costs ought never be "tax deductible" as that converts pleas for special treatment into a public burden.

56) It shall be illegal for a Corporation that has received governmental subsidies or tax rebates to lobby for more public money with the funds received.

57) Big Pharma shall no longer be allowed to advertise prescription drugs to the public, for giving drugs ordinarily used by prescription requires more than routine public understanding.

58) It should be illegal to use Big Pharma money as a bribe/payment/reward to doctors or pharmacists for recommending any treatment, equipment or drugs.

59) SP shall prohibit clinical trials of drugs now available or hereafter sold in USA except on fully informed, adequately paid volunteers with guaranteed free long-term follow-up care for any negative consequences.

60) Whenever Big Pharma interferes with legal generic drug production, SP may sue for full cost recovery plus penalties.

61) Generic medications shall be used preferentially whenever that seems "reasonable".

62) SP should research feedlot health benefits of all current or formerly common antibiotic and/or food supplements in feedlots.

63) SP should develop and support a public computerized data base of traditional medications, and evaluate possibly useful remedies such as cobalt salts for scrapie, bee stings for autoimmune disease, antibiotic treatment for peptic ulcers, pentosan polysulphate for variant CreutzfeldtJakob disease (see

Lancet, Oct. 4, 2003 p1130), erythropoietin in heart attack (see Journal of Clinical Investigation 2003; 112, 9991007), penicillin for nerve injuries or diseases such as ALS, etc.

64) SP should look for digestive problems from consuming inappropriately prepared soybeans, and investigate/report on estrogen or other problematic soy ingredients in all manufactured foods, and publish guidelines for Soy use, as well as prohibit uses of Soy that are sometimes unhealthful such as consuming GMO soy.

65) SP should publicize mercury levels and other dangerous contaminants like radioactivity in fish and their impact on public health.

66) SP shall recommend how best to prepare or avoid fruits and vegetables treated with herbicides/pesticides. In particular, herbicides/pesticides declared "possibly risky" by other nations (such as *Round-Up* which has commonly been used to prepare field potatoes for harvest) shall be immediately evaluated - and in the meanwhile put on a list of notifications to consumers.

67) SP to compare costs, safety and results of electrocoagulation versus excision of skin cancers.

68) SP shall compare "widely sloshed intra-peritoneal radioactive gold" with other chemotherapy during initial operations for early ovarian cancer.

69) SP should cooperate with FDA on how best to regulate the safety and purity of traditional herbal remedies and also to develop on-line educational material about useful herbal remedies.

70) SP could assist Poison Control Centers by posting frequently requested information on line ("what to do if..."), and by publicizing discussion or action groups that develop appropriate topical videos, or make reliable information more easily identified and understood on all health issues.

71) No time limits should apply on criminal or civil prosecutions for "major acts of environmental vandalism" (and define such).

72) No time limits should apply on criminal or civil prosecutions for knowingly distributing toxic drugs or other toxic materials without informing all who might encounter or ingest them.

73) Privatization rarely provides the greatest good to the greatest number. In particular, the privatization of "essentials" like medical care and water resources and electricity offers too much temptation to overcharge and no protection for the rights and needs of those with little income.

74) All humans have a right to education and a right to health care and a right to clean drinking water, and so on. Such services should therefore be made publicly available to all in reasonable amounts for appropriate purposes (with subsidies for basic amounts where rates are otherwise unaffordable).

75) SP should study and publicize the impact of high credit card interest rates on the poor and their lenders. SP should also protect poor borrowers so they are treated equally to rich borrowers when they cannot repay and wish to declare bankruptcy.

76) SP might study Veterinary Medical Care to see why and how their charges for successful procedures have remained so low.

77) SP could evaluate/regulate and demand reimbursement for egregiously unnecessary and costly hospitalizations (e.g., hospitalizing a child one month for \$25,000—the current Medicaid limit) simply to adjust a drug dosage—something that a private pediatrician does routinely in the office for less than \$200 (see also Business Week, Oct. 13, 2003 p13 for comments on criminal investigations into the bankrupt hospital chain HealthSouth for alleged accounting and rehab abuses).

78) Should SP pay full costs or just a token percentage of dollars spent for health care by wealthy folks who obviously can afford to pay their own entire health care bill?

79) Should SP provide the same pay for all physicians and all kinds of care—regardless of whether these are in-hospital or office based?

80) A standard definition of “fulltime practice hours” might increase provider stress and burnout. Perhaps it need not apply equally to all specialties.

81) SP might evaluate the ventilation of sealed, climate controlled hospitals and medical office buildings where illnesses can spread through ventilation systems, and compare these buildings to large hotels to see if having windows that open may reduce discomfort and illnesses due to recycled air and also reduce or eliminate "sick building" syndrome.

82) SP could investigate the health of travelers in commercial airliners, and the health benefits of adjustable fresh air vents for each passenger and "fully fresh" airflows versus current passenger airplane designs that recycle foul, depleted, or engine-sourced air. And evaluate Single Payer having a role in eliminating possibly fume-contaminated air sources or perhaps even make engine-source heated-air illegal in airplane cabins!

83) Boeing has considered a further reduction from 50/ 50 to 25% fresh air and 75% recycled cabin air (see Thieves in high places by Jim Hightower—2003 p36). So anticipate more “Any doctor in the plane?” calls for passengers with heart attacks or strokes

Ideas are just hot air until they make a difference! It is fun to contemplate what a Single Payer might achieve. Yet any politically wired person might say, “Nice try, but it’ll never fly!” For every idea that helps or empowers ordinary citizens simultaneously threatens the political clout and income of wealthy Corporations: Which explains why Corporations routinely outbid real humans to control all those politicians we may naively think we support with a good salary, until they retire as multimillionaires after "Many lucky investments".

So an important idea like a Single Payer is guaranteed a slow death by innumerable well timed, seemingly innocent cuts, amendments, rescheduled meetings, and add-ons - during legislative hearings, caucuses or sessions—until the majority finally declares it “impractical”—meaning good for most voters but unacceptable to the Corporations that actually rule us all.

Undoubtedly, our complaints and suggestions will continue to vanish without a trace unless folks all over the country organize and exert pressure at the local level to bring about changes in their health care system. But believe it or not, the time is ripe, the cause is just, the people are fed up, and big changes are already beginning. The opening skirmish came between Bush II (in Big Pharma's corner) and various states ordering discount drugs from Canada for the elderly, the poor and the unemployed.

As we have seen, the Medicare bill that passed the Republican Congress and President Bush 2 in November, 2003 specifically prohibited Medicare - our nation’s largest purchaser of medicines - from

negotiating any discounts with Big Pharma, our most profitable "allegedly legal if not always criminal" industry.

President Bush consistently exerted the powers of The President's Office on behalf of the tax hating politically connected wealthy class that financed his costly campaigns for office. By serving the rich, Bush-II oppressed the "poor and disconnected" (those who actually perform society's most disagreeable, difficult, dirty, dangerous jobs, yet cannot afford acceptable housing, education, health care or child care).

So why does the current advantage and momentum lie so much with greedy insiders when what they do is so obviously wrong for the Public at large? Was it the irrational exuberance of the recent stock market bubble (when anyone might make millions, fairness was forgotten, and empathy seemed an irrational weakness) that cleared the way for the Republican Party's unending campaign to further enrich the wealthy?

Yet the truth is out there and voters are increasingly angry at being so misled and abused. As one upset elderly lady recently spluttered, "Health care is obscene! It allows the rich to keep ordinary Americans from getting adequate health care at a fair affordable price."

In his 1961 inaugural address, President Kennedy reaffirmed our nation's basic principles "And so my fellow Americans, ask not what your Country can do for you—ask what you can do for your Country. My fellow citizens of the World, ask not what America will do for you, but together what we can do for the freedom of man."

Good Health Care Begins With Reliable Information

To obtain adequate health care, one must comprehend what medical care can or cannot achieve—and also have easy access to relevant information that the patient or her/his family can understand. For when basic medical information is readily available and understood by all, this greatly alters the balance of power in every health care transaction.

Throughout human history, men have stolen, fought over and traded for limited supplies of valuable goods, metals, women and land. This was a zero sum game. One man's gain was another man's loss. Only when trading items of equal value at the site of exchange, might all parties, each satisfying a personal shortage or perceived need, come out ahead. A traveling merchant who was prepared to carry and defend portable items like gold, slaves and other valuables could then go to distant markets where those items would fetch a far higher price.

Of course, all possible information was tightly controlled so the wealthy could continue to take advantage of the poor and uninformed. In some situations, a poor person who seemed dangerously well informed—perhaps even able to read—was likely to be killed by the Church, or by the State, or by the Plantation Slave Owner.

And based on an 1884 address by Oliver Wendell Holmes, Jr. in New Hampshire, it appears that the Catholic Inquisition developed *the same isolation/eradication techniques* to fight heresy that we now use to fight diseases like SARS (see New Scientist, 16 Aug. 2003 pp32–3). But this is the Information Age. Information is the modern world's primary currency. And surprisingly enough, human rights, including our right to privacy, personal wealth and freedom, ultimately depend upon immediate open access to all information about our Society.

We especially depend upon unrestricted journalists to monitor corporate and government activities and decisions. Yet the fight for a free press is never finally won. For to empower and enrich themselves, media barons and politicians groom one another incessantly.

Major corporate owners of multiple newspapers and radio/TV stations routinely subvert or redirect aggressive press investigations to support their political benefactors or discredit their opponents. Greedy media manipulate public perceptions of politicians; greedy politicians manipulate media regulations so supportive media barons can monopolize markets and control public assets such as broadcast frequencies.

Four hundred years ago, Sir Edward Coke complained that companies “cannot commit treason, nor be outlawed or excommunicated, for they have no souls.” Two hundred years ago, the Lord Chancellor, Edward Thurlow, echoed his words, “Corporations have neither bodies to be punished nor souls to be condemned, they therefore do as they like” (see “The Company, A short history of a revolutionary idea”, by John Micklethwait and Adrian Wooldridge).

Fifty years ago, George Orwell remarked that what undermines the integrity of journalism is not so much the bad behavior of individuals who lie or plagiarize when they know they shouldn’t, but the potential for corruption implicit in the way the media is concentrated into the hands of fewer and fewer proprietors.

John Cornwell, author of *Hitler’s Scientists*, quotes Orwell, and sums it up similarly for science: “The circumstances that erode the integrity of well ordered science and that work to undermine freedom, pluralism and the serendipity of discovery are not so much the bad actions of individuals as the stranglehold of the proprietorship of science itself.

This was all too obvious under Hitler, when the regime intervened to control funding and appointments on the basis of their usefulness to the aims of National Socialism. But the same tendency has been evident under our more or less democratic systems throughout the 20th century and into the 21st”.

“Scientists are increasingly dependent on their paymasters for opportunities and appointments, and to be published. What is more, the proprietors of Science— Governments, Health Authorities, commercial interests and the military—end up owning the knowledge they acquire through intellectual property rights and patenting.

“The ownership principle is the most insidious feature of the corruption of Science, and has been increasingly dominating Science since the end of the Second World War.” “We saw it during the cold war in the form of the Military Industrial Complex.

“But there was no let up after the fall of the Berlin Wall, and there has been a huge boost in the privatization of knowledge in the 1990’s, especially in biology. Following 9/11, things threatened to become far worse, as Science in the US comes to be measured according to whether it is for or against the security of the American Homeland in the War on Terrorism . . . The silence and indifference of scientists have enabled their paymasters to undermine the integrity of science with impunity” (New Scientist, 27 Sept. 2003 p25).

Like essential blood coursing through the aging human circulation, the world’s information flows around many obstructions and via many alternate channels to reach those that need it. Useful information that is shared, modified and enhanced, increases in quantity and value without limit, enriching information donors and recipients alike.

But if the free flow of information ever stops, freedom dies and the body politic soon rots. When gold is shared, it enriches the recipients but reduces the wealth of the donor by an equal amount. In other words, gold is a classic zerosum possession, as well as difficult and dangerous for a person to carry (something the soldiers with Cortez soon learned).

But except for criminal or military secrets, it is rarely burdensome or dangerous to bear lots of useful—hence valuable—information in one’s mind. Open access to information—and a proper education that enables information utilization and improvement—has finally empowered the ordinary people who previously were always used, cheated, abused and discarded by powerful and secretive rulers of various States and religions.

The former Soviet Union found it could not compete without open access to information. Subsequently it learned that it could not survive with open access to information. So the Soviet Union fell apart because it lost legitimacy and authority over citizens who finally understood that a better life required an open system.

At present, China, Iran, Saudi Arabia, the Roman Catholic Church and North Korea are in varying stages of denial as they face organization wide problems brought on by the modern world's inescapable openness to information about freedom, corruption and abuse.

For corruption requires ignorance and promotes generalized poverty, while information paves the way toward general prosperity, happiness and freedom. So when you notice an increase in corruption and governmental abuse (as in this country under Bush I and Bush II), and if you see a general decline in prosperity, happiness and freedom (as in this country at present except among a few "lucky" folks), you can assume that the fix is in, and that you are being fed biased, incomplete and untrue information.

In many ways, the Founding Fathers invented, developed and popularized the whole concept of Freedom of the Press and Freedom of Speech. *The initial ten amendments to the Constitution of the United States of America—ratified in 1791, are known as the "Bill of Rights."*

The First Amendment in that Bill of Rights declares that Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances. Yet all of these rights are now endangered.

While Bush II "served us", Christian Fundamentalist Dogma prevailed in high Government circles as Governmental corruption and the Patriot Act threatened our other freedoms and rights. "What's more, the media industry now operates like a cartel . . . big media players control both programming and distribution. Five companies own all the broadcast networks, four of the major movie studios, and ninety percent of the top fifty cable channels."

"Deregulation is leading to fewer choices, not more . . . The media giants' incestuous relationships bring to mind the economy of South Korea, which was dominated by giant conglomerates until the late nineteen nineties when it had a meltdown . . . Their sheer size and their connections to the government (and to each other) insulated them from competition" (James Surowieki, New Yorker, June 16, 2003).

These criticisms apply equally to our nation's newspapers and magazines, which have largely been acquired, bled and tamed by large Corporations. As a result, the information most important to our freedom often appears only in major foreign publications or alternative American papers and magazines.

For reporters in mainstream Republican owned and directed newspapers and magazines are on a short leash when it comes to rooting out corruption, harassing the rich or representing the poor and downtrodden.

That is why we were saturated with information about Monica Lewinski, yet uninformed about secret proprietary software that controlled touchscreen voting machines. That is why technologically stolen elections - a huge and growing threat to democracy worldwide—have had no exposure in the remaining major American newspapers.

And why we see countless references to the "hanging chads" that excused BushII's thuggish election victory in 2000. For those chads are supposed to remind us of how great life will be when every voting place is filled with efficient "no recount" Republican owned touchscreen voting machines that only elect compassionate conservatives.

Information makes the difference between satisfaction and death in the Australian Outback or the Kalahari Desert. *And the simple radios in Somaliland, or the basic cell phones of rural Latin America and Africa, have finally provided the essential equal access to uncensored market information that can do such wonders for a local economy.*

Information's critical importance explains why public education is such a bargain for all, whether they are parents or not. For when children become highly educated and increasingly productive, we all become richer through new insights, new businesses, new products, and less damaging ways to relate to each other and to the environment upon which all life depends.

That is why we should invest public money in all young adults who seriously seek a college education, as well as in all older folks who can still benefit by retraining. Between excesses on the right and left, our great nation passes repeatedly through the happier middle ground.

Currently, we are only beginning another major swing in which populist leaders with fewer conflicts of interest increasingly resonate with the public's revulsion for conservative greed, and will guide our nation back toward the trust and concern for each other that underlie a decent society and the renewal of our national self-respect.

Nations gain respect when they guide others to prosperity

At this critically important juncture in human history, we—the most fortunate people on Earth—urgently need to restore our nation's positive international influence. To best support the battle for human freedom, health and prosperity around the world, we should subsidize worldwide access to education, disseminate only objective, useful information and avoid spreading disinformation for short-term gain, since misleading others inevitably weakens our main message.

Truly caring for and helping the needy (in contrast to claiming compassion while stealing for the greedy as Bush II did), delivers humanity's most positive message. And the powerful impact of that message on all recipients is its own greatest reward. This means we should do all we can for the other inhabitants of this shrinking world—even if an easily affordable part of that assistance must come from our own pockets.

Greed, good deeds and terrorism are all equally infectious. Sufficient exposure to any of the above can trigger an epidemic. And once a person reaps attractive rewards by being seriously greedy (like BushI and BushII and their Republican minions), or becomes respected by peers for doing good (like Gandhi, or Mother Theresa), or through acts of terrorism (like Arafat), he or she develops increasing immunity to those other infections.

In both World Wars of the twentieth century, American power rescued the entire world—at a great cost in American lives. Even after the U.S. and its allies successfully defended freedom during World War II, America continued to support World Wide economic and social recovery under President Truman, while also maintaining a fearful balance of military and thermonuclear power throughout the Cold War.

Those too young to remember need to hear that an abject response of many on our far left to Russian Communist military expansion was "Better Red than dead!" Luckily, that preference for surrender proved misguided on all counts. And just as American intervention saved the world from both Hitler and Stalin, we must now mobilize our courage and assets to undertake the next great effort for the sake of all our children, and their children and children's children.

And the outcome of this renewed worldwide battle between evidence-based education and militant religious fundamentalism, whether a homegrown fanaticism or one originating outside our Nation's borders, may turn out to be as important as any previous battle against inquisitorial thought.

For our "information rich" civilization can only lead humanity toward new openness, freedom and prosperity if it sustains the critical separation between parochial religious interests and State power. But as Karl Popper pointed out (*see Conjectures and Refutations—The Growth of Scientific Knowledge*), an *Open Society that encourages the continuous investigation and assessment of Nature and social relations has many enemies.*

Most humans prefer certainty and order. Innovations and change threaten that orderliness. As we have seen throughout this book (even in Health Care) thought systems tend to close down, solidify and put up increasing barriers to possibly subversive or dangerous new ideas. *The Glass Bathyscaphe* by Macfarlane and Martin offers an insightful exploration of how the science and technology of glass provided a new way of seeing that led to The Renaissance.

As Voltaire said, *"Doubt is uncomfortable and certainty is ridiculous!"* And if by our actions or inactions, we again cede our Government to ignorant and corrupt crusaders and hucksters—while similar

minds abroad in Saudi Arabia, Iran, and other Islamic nations subsidize terrorist attacks on our modern civilization—then soon enough *those who prefer certainty will rally to restore the dark and bloody times when anachronistic interpretations of some Holy Book were imposed by the sword and the stake.*

Most of us are so deeply immersed in our daily trials, tribulations and triumphs that we cannot pay adequate attention to politics or to Big Corporations or to the welfare of those in need. Yet, as I have tried to show, *these are the basic elements of our current health care crisis.*

Like many books of our information age, this book offers a different viewpoint buttressed by useful bits of information acquired over a long lifetime. The appropriate use of that information has helped others. May it serve you as well!

In his Dedication of the National Cemetery at Gettysburg, Abraham Lincoln spoke of “*the great task remaining before us... that we here highly resolve that the dead shall not have died in vain, that this Nation, under God, shall have a new birth of freedom; and that Government of the People, by the People, and for the People, shall not perish from the earth.*”

The Bush Administration was obviously not a government of the people, by the people or for the people. Rather it was a government of, by and for wealthy Corporations. Although Obama has tried hard to be fair and become useful for the good of this Nation and the World, “*We the People*” must now regain control of our local, State and National Governments by eliminating all Corporation dollars from politics through a Constitutional Amendment.

AFTERWORD

*The Big Health Picture as the 21st Century Began
How our Supreme Court, Republican Politicians and the
Medical-Industrial Complex Swindled U.S. Health Care*

Americans favor the Golden Rule, but appear indifferent to greed. Did President Bush or the Republican Congress ever try to solve America’s health care problems? Why do we trust our leaders so much? *True patriots would never do such harm to America and to the World. Strongly held religious views notoriously accompany illiberal certainty.*

Corporations lose their edge when they loot. Elections almost never resolve health care issues. Corporate lobbyists even determine our wages and taxes! Corporations and the wealthy probably double our healthcare costs! Palliation *is profitable and endless!* Cures harm all except the patients. Things rarely turn out as expected. Health insurance is no simple matter. *Our only remaining choice: Do we continue our excessive payments to the Medical Industrial Complex or try Socialized Medicine?*

When the widely anticipated benefits of penicillin and polio vaccines were finally realized, most observers assumed that such publicly funded investigations would soon deliver inexpensive cures for a host of other common disorders. In fact, pundits predicted “Better health care at lower costs for the foreseeable future!”

Readers who track quarterly profits of multinational pharmaceutical corporations (aka “Big Pharma”), *or those who cannot afford health insurance and are truly offended by multi-million dollar*

compensation packages for healthcare related Corporate CEO's, will be astounded to learn that no one sought and no one reaped great wealth by developing or marketing penicillin or polio vaccine.

Nor were either of these truly lifesaving products expensive. For scientists on ordinary government and academic salaries did all the research and development, and oversaw initial production, while major drug manufacturers remained aloof and uninvolved.

Furthermore, penicillin, and a decade later "Polio vaccine", immediately became known and sought-after worldwide *without any advertisement*. Naturally, those responsible gained great international esteem. Winston Churchill was among the first to receive penicillin when he came down with life threatening pneumonia in 1943 upon returning from Algiers.

Adolph Hitler, too, was treated with penicillin produced by the Allies (perhaps acquired via diplomatic pouch from Spain), after a July, 1944 assassination attempt by a time-bomb left him with dangerously infected wounds.

Eventually penicillin saved uncounted millions of lives, starting with Churchill's. But by keeping Hitler alive until late April 1945 (when Hitler shot himself as Russian soldiers neared Headquarters in Berlin), penicillin contributed to the deaths of millions more prisoners and soldiers (New Scientist, 16 Sept, 2003).

In any case, two generations of unprecedented progress in medical science and technology have enabled most Americans to live longer, healthier lives. And rising personal incomes, along with greater public demands for clean air, wholesome unadulterated food and better housing, enhanced that beneficial trend. Similarly, food inspections and sewage treatment (or at least sewage diversion from public water supplies and beaches) conquered cholera, while new vaccines increasingly undercut epidemic diseases of childhood. So why is another book on problems in health care needed now?

This Afterword reviews the reasons why those initial, significant, easily afforded improvements in public health and life expectancy did not deter a relentless escalation of health care costs. And why an average uninsured worker, hospitalized for a week or two with a serious illness or injury, may be wheeled out with dozens of "Get Well!" cards in one hand and over \$200,000 in medical and hospital bills in the other.

Those huge bills expose a particularly egregious aspect of being uninsured (and nearly a third of all Americans under 65 years old were uninsured for all or part of 2001 and 2002); namely, that *uninsured patients are likely to be charged three to ten times more for hospital services than the discounted prices negotiated by large health maintenance organizations (HMOs) for those same services*.

And according to The Wall Street Journal, while doctors can only collect negotiated fees from our Government and other large insurers, they are "free to charge the uninsured two or three times more for the same services." One can only hope that freedom is rarely exercised, as uninsured medical debts regularly force sick citizens, *some still in hospital, into the clutches of Collection Agencies or paying unbelievable Credit Card rates until bankrupt and homeless*.

An August, 2003, Associated Press report on the twelve months ending June 30, said personal bankruptcy filings reached a new, all time high of 1,613,097—up 10% from the previous year. Meanwhile business bankruptcies were down 5% to 37,182—according to the American Bankruptcy Institute of Alexandria, Virginia.

Americans favor the Golden Rule but are overly tolerant of greed! Almost two decades ago, a tiny nonprofit group—the Council of United Latinos in East Los Angeles—publicly chastised Tenet Healthcare Corp (the second largest US hospital chain) and Nashville based HCA Inc. (the nation's largest hospital chain) for "gouging" uninsured patients.

In response, Tenet said it would start giving uninsured patients similar discounts to those demanded by "managed care" companies. Tenet even promised to stop placing liens on or seizing people's homes for nonpayment of hospital bills. Then in August of 2003, Tenet agreed to refund \$54 million it received from

Medicare for unnecessary diagnostic procedures and heart operations performed on hundreds of healthy patients at a Tenet hospital in Redding, California.

Attorneys for the two Redding Heart Specialists point out that "while others might disagree with their clinical decisions, they did nothing illegal." Who can deny that it is high time for a Single Payer?

In contrast, HCA, founded by the father of former Senate Majority Leader Bill Frist, controlled by the Frist family, and run by the Senator's brother Thomas—merely offered a sliding scale of discounts based upon income. Their offer was denounced as “meaningless fluff” by K.B. Forbes of United Latinos, who pointed out that HCA was still gouging uninsured patients in order to raise the \$1.7 Billion it had agreed to pay to settle Medicare Fraud Allegations.

Did President Bush or the Republican Congress even want to solve America's health care problems?

Senator Bill Frist, M.D. took a lead role in President Bush's effort to overhaul Medicare. Yet Dr. Frist's own family (and his huge personal blind trust) pulled off the largest Medicare fraud ever detected to that time. Not surprisingly, therefore, *the Medicare bill finally signed with great fanfare by President Bush, was a classic "baitandswitch" operation cleverly crafted to entice seniors out of Medicare permanently by offering confusingly complex drug benefits through temporarily subsidized HMOs!*

To reward Big Pharma Corporations for their political contributions and minimize Medicare's options during his drive to privatize elder health care, Bush II prohibited Medicare from negotiating any drug discounts such as those routinely demanded by all other healthcare organizations including Frist's HCA.

Comparable gifts went to Health Care Insurance Corporations and other members of the Medical/Industrial complex. Bush's Medicare bill even subsidized employers “to help them maintain prescription drug coverage for their retirees.” *Yet (as pointed out by the Wall Street Journal) it still allowed employers to severely reduce their coverage for retirees without losing that \$86 Billion subsidy.*

Of course, had Bush been serious about helping retirees cover drug costs, he would have subsidized their costs directly. Comparably conflicted Republicans have taken charge of our nation's other henhouses. So our environmental and air pollution regulations—as well as our Wilderness and National Parks rules—were rigged to favor extractive industries (e.g., Bush's “Healthy Forests” plan) and other polluters (Bush's “Clear Skies” initiative), thereby degrading the health, welfare and environment previously enjoyed by ordinary Americans!

And rather than defend our Constitutionally guaranteed individual rights, as he was sworn to do, Attorney General Ashcroft promoted unprecedented Governmental intrusions through Patriot Acts I and II. Yet in deference to the NRA, Ashcroft wouldn't allow the FBI to end terrorist purchases of firearms in America (see The Week, Dec. 19, 2003 p14).

But Ashcroft was relentless in pursuing his own religious goals. For example, in early 2004, “Ayatollah” Ashcroft and his religious police (doing business as the U.S. Department of Justice), issued subpoenas to at least six hospitals for the medical records of patients who had abortions.

The Department claimed it needed those records to enforce the Federal Partial Birth Abortion Ban Act. When some hospitals resisted on grounds of patient privacy, the Justice Department wrote “*No Federal Common Law*” *protects the confidentiality of the patient-doctor relationship, and patients “no longer possess a reasonable expectation that their histories will remain completely confidential”* (see Lancet, Feb 21, 2004 p626).

Should We Trust Our Leaders So Much?

In a L.A. Times article (Anchorage Daily News, Jan. 16, 2004) titled Bush Dynasty's Mideast Links Warp U.S. Policies, Kevin Phillips details “how four generations of The George W. Bush family have embroiled the United States in the Middle East through CIA connections, arms shipments, rogue banks, inherited war policies and personal financial links” including arms sales scandals known as Iran contra

and Iraq gate—the latter being when our government provided Saddam Hussein nuclear know how, bacterial warfare cultures and conventional weapons for use against Iran.

Phillips points out how former President George H. W. Bush (Bush-1) and all of his sons prospered through long-term fiscal relationships with Kuwaitis, Bahrainis, Saudis (*including the bin Laden family and Saudi Royalty*), Iranians and Iraqis. And how, after all of his oil ventures had failed (see *Audit This*, New Republic, July 22, 2002, p46), George W. Bush (Bush-2) still made a fine profit selling his moribund oil business to Harken Energy, which had close relations with Abu Dhabi based BCCI, nicknamed “Bank of Crooks and Criminals, International.”

So what did Bush-1 do as America’s CIA Director, Vice President and then U.S. President, to earn that remarkable foreign bailout for Bush II? Indeed, how could Bush I and Bush II possibly have repaid all the foreign fiscal favors that rained down upon the entire Bush family? Or did 9/11 victims and the US Military eventually pay in blood for the Bush family’s foreign financial machinations?

Phillips closes pointedly, “the Bush dynasty’s many decades of entanglement and money hunting in the Middle East have created a major conflict of interest that deserves to be part of the 2004 political debate (it wasn’t). No previous presidency has had anything remotely similar. Not one.” (see also Phillips’ *American Dynasty: Aristocracy, Fortune, and the Politics of Deceit in the House of Bush*).

Like other long time Bush family friends, Dick Cheney benefited handsomely, even when performing his sworn duties for the United States. In fact, while he was our Vice President, Cheney received a sudden \$40 million payment for “previously performed services” as CEO of Halliburton—with more money reportedly on the way—just before Cheney awarded multibillion dollar non-competitive contracts to Halliburton for work in Iraq.

In early 2004, a persistent French investigation finally forced Ashcroft’s Justice Dept. and the SEC to open an official inquiry into Vice President Cheney’s possible violation of the Foreign Corrupt Practices Act. For while Cheney was Halliburton’s CEO, its Kellogg, Brown and Root subsidiary allegedly paid Nigerian officials \$180 million for the right to participate in a lucrative \$4 billion Nigerian natural gas project.

Saudi Arabian kings and princes take many wives and beget lots of sons. In recent years, thousands of greedy Saudi princes have impoverished Saudi businesses and decimated the Saudi Arabian middle class through extortion and other corrupt practices. A few of these princes apparently helped finance the September 11th attack on the World Trade Center as 15 of 19 terrorists were Saudis.

*On the other hand, Saudis gave generously to Bush I’s Presidential Library—and they granted lucrative contracts to Halliburton while Cheney ran that company. Interestingly, the main legal firm that defended Saudis against families of September 11 victims was Baker Botts—run by James Baker who was BushI’s Secretary of State and also “the tactician behind BushII’s extralegal victory in Florida” that made BushII President (see *Audit This*—New Republic, July 22, 2002, p46, and *Bush’s Saudi Connections*—The American Prospect, Oct. 2003 pp 15–17).*

And right after 9/11, President BushII allowed the entire bin Laden clan to flee the US before they could be interrogated by the FBI. Then in late 2003, with sudden preelection urgency, our Government made large payments to the 98% of 9/11 victim’s families who agreed not to sue the US airlines or others involved!

When Congress agreed to his long planned imperialistic takeover of Iraq, Bush2 mentioned a personal motive for invading Iraq—that Saddam had threatened his father (Bush1). He also revealed a religious motive, calling America’s military involvement in the Middle East a “Crusade” (*defined as a Christian, religiously motivated, war or campaign, especially one to retake the Holy Land from Muslims*).

But Bush2 never publicly admitted that he was invading Iraq because its huge oil reserves seemed up for grabs. However, he did propose (contrary to all intelligence: See Jan/Feb 2004 Atlantic Magazine) to

finance his war in Iraq by selling Iraqi oil. And he predicted that Iraqi oil sales would repay American Corporations for rebuilding Iraq.

It now appears that Cheney's Energy Task Force reviewed "operational policies toward rogue states" as well as "actions regarding the capture of new and existing oil and gas fields" in February of 2001, well before the 9/11/01 terrorist attacks. Not surprisingly, *Cheney has refused to release any information on these private task force meetings since they were supposed to be about domestic energy policy.*

"But if this little group was discussing geostrategic plans for oil, it puts the issue of (the Iraq) war in the context of the captains of the oil industry sitting down with Cheney and laying grand global plans." In any case, Bush2's Iraqi venture placed much of our active Army in harm's way as an occupying force.

That war also damaged our international credibility and proved very costly. As a result, not long after Bush2 declared the European Union and United Nations "irrelevant" (for not supporting his war), he had to ask the EU and UN for help in coping with the war's aftermath. And it turned out that Halliburton's initial small contract "to put out Iraqi oil well fires" (though no Intelligence Agency anticipated many fires) included a classified provision to restore "the entire oil infrastructure in Iraq."

Soon the Coalition Provisional Authority under L. Paul Bremer requested additional US funds to build a new Iraqi oil refinery and drill new wells. As US Congressman Henry Waxman then asked, with Halliburton getting paid to improve Iraqi oil facilities, *"Who will own these upgrades after the US Government has finished paying to build them? Who knows? Nobody is saying."* (New Yorker, Feb. 16/23 2004 pp80-91).

During the first three years of his quest to reduce taxes on Big Corporations and wealthy Republicans, BushII converted an estimated ten-year budget surplus of \$5.6 trillion into an estimated ten-year budget deficit of \$2 trillion to \$6.7 trillion. During the same period, the U.S. Government's annual expenditures rose to \$400 billion over earnings.

Congressional Budget Office figures expected 2004's budget deficit to exceed \$520 billion. At that point, America's trade deficit (the dollar value of what we sell to other lands minus what we buy from them) would have exceeded 5% of our gross domestic product. And we already owed the rest of the world \$4 trillion, which was "something totally unprecedented."

Indeed, early in 2004, the IMF warned that US budget and trade deficits threatened the entire global economy. For as world financial markets lose confidence in the dollar, they will quit financing our trade and budget deficits. This happened to Argentina, Brazil and Indonesia, and their economies crashed. Similarly, when the US dollar goes into free fall, our interest rates must zoom to attract loan money, collapsing the US economy too."

Indeed, by early 2004, most foreign investors had stopped lending money to the USA. But to keep their own economies growing, China and Japan lent America still more dollars so we would pay for their goods. After all, the USA is the world's biggest market, so when we crash, they crash. Think of it as global extortion, or an international game of "chicken" (see New Yorker, Dec. 15, 2003 pp412, also Business Week, Dec. 29, 2003 p32 and Jan. 19, 2004 p20).

Bush2's budgetary and trade deficits—and his strong support for outsourcing American jobs overseas to enhance Corporate profits—undermined our military capabilities and weakened the US economy. During Bush2's Presidency, several million jobs disappeared, many overseas. Most of our states also faced major cuts in social services and education (see The Bush tax cuts are sapping America's strength, Business Week, Aug. 11, 2003, p22).

A commentary in Business Week claimed that Bush2 intentionally "exposed the nation to a long term fiscal crisis . . . (in order to force) a big reduction in Government spending on social programs" (see Bush's Borrowing is Sapping Our Strength, Business Week, Jan. 19, 2004 p24).

No true patriot would do this to America and the World economy. Consider the following analysis: "The reigning ideologues (then) in Washington—not only in the Bush2 White House but also in the

Republican Congressional leadership, in the dominant faction at the Supreme Court, and in the conservative press and “Think Tanks”—believe in free markets, individual initiative, and private schools and private charity as substitutes for public provision . . .

They do not . . . believe that society, through mechanisms of democratic government, has a moral obligation to provide care for the sick, food for the hungry, shelter for the homeless, and education for all . . . They believe . . . that taxes are a species of theft.” (New Yorker, June 9, 2003 pp 3940).

This philosophy became dominant during the same recent decades that upward income mobility (which had made America “the land of opportunity”) also declined markedly. Indeed, Federal Reserve studies indicated in 2001, that the richest 1% of families held 34% of America’s net worth, and the top 10% of families held over 70% of all assets, while the poorer 50% of all American families owned less than 3% of America’s wealth.

(And) that recent “sharp growth in income and wealth inequality . . . is likely to worsen, particularly if the estate tax is eliminated . . . (and) may yet become a contentious political issue”—and could lead to social unrest or even class warfare (Business Week, June 30, 2003 p28).

Political conservatism has been the subject of many psychological studies. One overview of studies from around the world, titled Political Conservatism as Motivated Social Cognition by Jost, Glaser, Kruglanski and Sulloway, appeared in Psychological Bulletin (Vol. 129 No. 3, 2003 pp339375).

Their conclusions, in part, are as follows: *“Variables significantly associated with conservatism . . . include fear and aggression . . . dogmatism and intolerance of ambiguity . . . uncertainty avoidance . . . need for cognitive closure . . . personal need for structure, terror management . . . group based dominance . . . and system justification.. These psychological factors are capable of contributing to the adoption of conservative ideological contents.”*

“The avoidance of uncertainty (and striving for certainty) may be particularly tied to one core dimension of conservative thought, resistance to change . . . Similarly, concerns with fear and threat may be linked to the second core dimension of conservatism, endorsement of inequality.”

So again we ask, why would sensible persons who are already comfortably well off, risk socially destructive outcomes to save a few tax dollars? Well, why not? After all, religions are widespread. And religions generally prosper by valuing their own theories above the survival of others. During the past century, Marxism and Fascism both joined that terrible trend.

But surely, the greediest rich person alive cannot possibly crave the measly 3% of national wealth remaining in worn pockets of the poorest half of American families? Well, David Kay Johnston’s book, Perfectly Legal—the covert campaign to rig our tax system to benefit the super rich—and cheat everyone else (reviewed in Business Week, Jan. 19, 2004 p 20), points out how American Corporations routinely save billions by fleeing the US for the Caribbean.

And how the alternative minimum tax was set up to wipe out Bush tax cuts for tens of millions in the middle class who— along with the poor—increasingly pay our costs of government.

Strong religious views notoriously equate with illiberal certainty Might such views also underlie various risky and aggressive actions taken with great certainty by Ronald Reagan (who believed “End Times” were near), Bush2 (who is “born again”), Ashcroft (who conducted intense daily prayer groups in our Halls of Justice) and many others who occupied high executive, legislative and judicial offices at that time?

Christian fundamentalists pray fervently that Jesus will soon return. The millennia that ended at 1000 CE and 2000 CE, rather than being recognized as ordinary odometer events, were celebrated with great religious expectations. Thus 2000 to 2001 generated a wave of religiosity that has finally begun to abate.

Many religious folk view wealth as a sign of God’s favor. Might this view encourage an attitude of “the more the better” even beyond ordinary avarice? And if the uncontrolled avarice of a few caused many others to become poor, might that improve the rich man’s odds of Recognition and Rapture?

More importantly, if “Extremism in the service of the Lord is no sin,” how could our American Fundamentalist Christian President Bush-2 (by definition, a true believer eagerly awaiting Armageddon) resist the temptation to build enough nuclear weapons to incinerate the world without caring about the security or disposal of existing foreign nuclear weapons.

And how could he resist waging Holy War on those who "Worship Idols"—or resist stirring up famine and social unrest—in hopes of thereby persuading Jesus to come back sooner? And finally, were those Fundamentalist leaders trying to convert America into the most powerful military theocracy the world has ever known? Was that why the religious right judges of our Supreme Court rushed to appoint Bush-II President, despite admitting they had no legal precedent or Constitutional justification for that precipitous decision?

In turn, Bush-2 insisted upon appointing openly religious judges who strongly opposed the Constitutional separation of Church and State. Was this simply to rally Evangelical Republicans? Or *might BushII really have been trying to convert the United States into a Theocracy?*

It seems appropriate to recall the years when John F. Kennedy sought the US Presidency. In those less “politically correct” times, there was openly expressed nationwide concern that Kennedy—if he became our first Catholic President—might do the Pope’s bidding rather than pursue our Nation’s best interests. As it turned out, Kennedy only became our 35th President after vowing to promote his country’s best interests even if that meant ignoring or disagreeing with the Pope.

In contrast, Bush and his highly religious supporters apparently saw no difference between their own fiscal or religious goals and the nation’s best interests. So to boost corporate incomes and free more soldiers for fighting Bush’s wars, the US military supply system was privatized.

But after the Iraq war, “some contractors refused assignments to dangerous parts of that country. Which left American troops sitting in the mud, and without hot food . . . (And when) two South Korean subcontractors who had been repairing the Iraqi power grid were killed . . . sixty of their colleagues just up and quit” (see Army, Inc, New Yorker, Jan. 12, 2004 p27).

Obviously, when private contractors refuse to enter especially dangerous areas, this deprives and endangers our troops. *Indeed, some US soldiers in Iraq allegedly died of thirst and hyperthermia while on an inadequate water ration from a private contractor.*

Furthermore, it is irrational to anticipate savings through outsourcing under costplus contracts since the higher those costs, the greater a contractor’s profit. But “The ultimate fear . . . is that contractors under extreme duress will flee en masse, exposing U.S. soldiers to catastrophic risk” (Business Week, Sept 15, 2003 p78).

According to The Week (Sept. 26, 2003 p18), by late 2003, an estimated 10,00020,000 (quite possibly many more) contract employees were working—and sometimes fighting and dying—in Iraq, though their occasional anonymous deaths, like those of Iraqi civilians, were rarely noted officially.

As of Feb. 2004, Halliburton alone had 7,000 employees on the ground in Iraq. And by offering annual salaries of \$80,000–\$100,000 “in a US economy that isn’t producing many new jobs,” Halliburton was easily recruiting 500 unemployed or underemployed bluecollar workers per week to Houston for interviews. Those who passed the physical and background checks were issued military IDs and dispatched directly “without a trip home for a final goodbye” (see Anchorage Daily News, Feb 6, 2004 ppD1 and D4).

In addition to enriching Halliburton, Bechtel, Fluor and other huge corporations through costplus contracts (since contract workers earn four to five times more than the combat salary of a fully trained soldier), civilian workers are not our government’s responsibility, and privatization minimized official US casualties.

More importantly, privatization made it “too easy to go to war . . . When you can hire people to go to war, there is none of the grumbling and political friction.” Especially when scut work being contracted out

to firms like Halliburton would usually be “performed by reserve soldiers, who often complain the loudest.” (New Yorker, Feb 16, 2004 p87).

Costplus contractors in Iraq generally provided their own security, so they frequently bid against each other for experienced former commandos—often paying \$1,000 and up to \$2,000/day. Local Iraqi workers generally got \$200/month—though some firms charged their costplus accounts “ten times that” for each worker (see Washington Post National Weekly Edition, March 17, 2004 p18).

During the initial invasion of Iraq, our soldiers were often ill equipped. Many bought their own Kevlar vests and other necessities including mosquito netting, gloves and undershirts. Their Vietnam era M16 rifles were notoriously unreliable and jammed easily. And rather than require manufacturers to install aircraft survivability packages in all combat helicopters, a Pentagon spokesperson said it was up to unit commanders to install antimissile equipment (if they could find any).

Military hospitals in Iraq were chronically "under equipped", lacking essential supplies that staff could only purchase using personal credit cards. And after flying to Iraq to serve a beautiful photoop turkey to our troops (which they never got), Bush2 tried to reduce soldier death payments below \$6,000 (but Congress raised them to \$12,000).

Bush also threatened to veto a bill if it included important veteran’s health benefits for service related disabilities. And he refused to let terribly mistreated POWs from the 1991 Iraqi war collect settlement money they won at trial because “the U.S. now controls all Iraqi funds” (see Hightower Lowdown, Feb. 2004 and hightowerlowdown.com).

Of course, our business, banking, communications, energy, food and drug, and stock market regulations underwent revision by similarly sticky fingers. And we are not surprised that so many close relatives of Scalia, Rehnquist et al were given high posts in the Bush Administration soon after Scalia, Rehnquist et al chose BushII to be our next President.

Nor are we astounded that the number of top federal wage earners more than tripled during Bush II’s first three years. In addition to an overall 5% increase in the number of federal employees (spread over most agencies), the Bush II government added more than a million jobs to the indirect or "off budget" payroll. As Economics Nobelst George Akerlof pointed out “This is not normal government policy . . . What we have here is a form of looting.”

Corporations may lose their edge when they loot

A non-profit organization, Public Campaign (publiccampaign.org), has compiled information on the enormous financial benefits regularly elicited through comparatively small campaign contributions.

For example, top Corporations that paid no taxes from 19968 included AT&T, "Bristol/Meyers Squibb" (Big Pharma), Chase Manhattan Bank, Enron, Exxon Mobil (in 2003, the world’s biggest, most profitable Oil Company - clearing \$22 billion on revenues of \$247 billion), GE, Microsoft, Pfizer (Big Pharma), and Phillip Morris (Big Tobacco).

These giant corporations together gave a decisive \$150 million to political campaigns from 1991 to 2001, which elicited \$55 billion in tax breaks between 19961998, plus a gutting of corporate taxes and many billions in direct rebates (a.k.a. “corporate welfare payments”). An equally careful planting of \$318 million in contributions helped resource-extracting industries reap \$33 billion plus lax regulation and permission to pollute without cleanup.

It was once believed that quality products and happy workers enhanced a manufacturer’s long term prospects. But in these rapidly changing, hypercompetitive, globalized times, long term prospects often arouse less concern than meeting the next quarter’s expectations, as hugely overpaid CEOs make frantic efforts to boost the price of their own stock options.

Who you know (connections within corrupt local or national governments) can be far more important to a company’s bottom line than what you know. But the downside of increasing dependence on

governmental largesse is seen in sales lost by Detroit automakers to Toyota and Honda, and Boeing's declining ability to compete with Airbus.

For when every corporate dollar spent on campaign contributions, lobbyists, influence peddlers (often former congresspersons or their relatives, or former insiders from regulatory agencies) and lawyers, adds many hundreds more dollars to the corporate bottom line than a corporate dollar invested in research and design or manufacturing, both product development and labor relations are inevitably neglected (see Business Week, Dec. 29., 2003 p43).

A Washington Post article by Peter Slevin (Oct. 31, 2003), based on findings by The Center for Public Integrity, claims that all major "non bid" contracts granted to huge Corporations in postwar Afghanistan and Iraq, went to heavy Republican campaign contributors such as Halliburton and its Kellogg, Brown and Root subsidiary, Bechtel, Fluor, Washington Group International, Perini Corp and Science Applications International Corp (SAIC).

Many of those awards did not even clarify what the contracts included, or what amounts were awarded— *thereby making Congressional or public oversight of performance, expenditures and profits impossible!* By the way, "patronage" refers to appointments or privileges that politicians give to loyal supporters while "corruption" is the dishonest exploitation of power for personal gain.

Elections rarely resolve health care issues

To deal with the "voting system failure" that allowed Bush-2 to become President in 2000, the Republican Congress allocated \$4 billion for the privatization of American elections by installing new paperless touchscreen voting machines around the nation before the 2004 election.

By late 2003, over "thirty three thousand" of those machines from Diebold, Inc. (whose strongly partisan CEO, Wally O'Dell, confidently predicted a 2004 Republican sweep in his home state of Ohio) were in place in 30 States despite (or because of) allegedly inadequate software and an apparent history of Republican abuse.

For example, Max Cleland suffered a surprise defeat in Georgia after Diebold made urgent "pre-election" software modifications (see below). And soon after Cleland's election upset, Diebold destroyed all memory cards of those voting machines—even though paper ballots must legally be kept for 22 months.

New Scientist (Nov. 3, 2003 p5 and Jan. 24, 2004 p5) reported, "Over half the votes cast in US elections are now processed in machines designed by Diebold Electronic Systems, based in North Canton, Ohio (yet) students and academics at 40 US universities . . . have posted a series of memos leaked by Diebold employees that confirm security flaws in Diebold software (and) highlight many additional problems."

"These include admissions from Diebold engineers that their software allows employees to fake thousands of votes, and that certain software upgrades already used in elections were never approved by the relevant testing authority." Furthermore, it was alleged that Diebold machines can easily be manipulated by hackers. Diebold's response has been to threaten any University posting details about their software with legal action for breach of copyright.

Observers regularly comment on the recent polarization of the American electorate into two extreme groups, along with the disappearance of a moderate middle. Many Democrats remain furious about Bush-2's thuggish and well-organized theft of the Presidential election in 2000, and his subsequent shameless transfer of our national assets to the rich who supported him.

On the other hand, many "borrow and spend" Republicans, "tired of tax and spend liberal whining" said "You lost! Get over it! Clinton Democrats were way worse!" That claim is totally impossible! Which made the stunning election "upset" that unseated Democratic Senator Max Cleland especially relevant.

For Cleland was a true war hero who earned a Silver Star for rescuing injured comrades under fire. And four days later, he lost three limbs while on a combat mission. Yet even Cleland was hammered with the usual preelection Republican smear, *including accusations that he was an unpatriotic traitor!*

Coming from Bush II, this smear seemed especially absurd. After all, Bush I served the interests of Saudi princes so well that they referred to him as “Our” President. And Bush II went missing for over a year from the Texas Air National Guard during the Vietnam war—having requested equivalent duty in Alabama’s Air National Guard so he could help a family friend run for the Senate.

But there is no evidence that Bush II ever reported for duty in Alabama (see L.A. Times article in Anchorage Daily News Feb 4, 2004 p A3—and The Week, Feb 6, 2004 p18). Under regular army rules, an unexcused absence of up to 31 days is considered AWOL—any longer absence defines the individual as a deserter.

Unfortunately, even the most egregious preelection smears can mislead some voters. But that particularly shameful smear of Cleland may just have been a smokescreen to obscure the key role of Diebold voting machine software in Cleland’s loss. Senator John McCain, another war hero and former POW, was similarly smeared by Bush II backers before he lost South Carolina's Presidential primary to Bush II in yet another major upset.

Not surprisingly, McCain became one of Bush’s harshest critics in the Senate. And Cleland served on the 9/11 Commission, which was formed in response to strong public insistence and chaired by former New Jersey Republican Governor Thomas Kean. The Kean Commission seemed quite intent on learning what Bush II knew about plans for the 9/11 terrorist attacks, and why he did nothing to stop them.

But Bush II insisted that documents they wanted to see would compromise national security. And the White House refused to let Kean make photocopies or take notes about relevant classified documents. And Bush II initially refused Kean a several week extension for completion of the Commission report unless that report was then withheld until after the 2004 Presidential election.

At that point, a reporter for The New York Observer asked Kean if anyone in the Bush Administration had any idea that al Qaida attacks were coming? Kean replied “The President’s daily briefings are classified. If I told you what was in them, I would go to jail.”

Quite reasonably, the reporter concluded that Bush was told about al Qaida threats during his briefings, “including the briefing on August 6, 2001 when he was sunning himself in Crawford, Texas.” This would explain why Bush II has been impeding the Commission at every turn as “That sort of information could send him back to Crawford for a permanent vacation” (The Week, Feb 6, 2004, p14).

The facts were supposed to become available before the November, 2004 election (but they did not). In the meanwhile, conspiracy books about Bush’s role and goal in 9/11 were selling well in France and Germany, with rumors of Bush’s involvement widespread in the Muslim world.

However, Kevin Phillips considered it probable that Bush II was simply rendered ineffective by the direct conflict between his duty to take urgent steps in defense of our Nation, and his personal obligation to the Saudi financial backers of the Bush family. In fact, right after 9/11 Bush II displayed his ultimate loyalty to foreigners by protecting those money-men from FBI surveillance and interrogation.

By the way, Patriotism is defined as devotion to your country. Treason is defined as a violation of the allegiance owed by a person to his own country. And a traitor is someone who behaves in a disloyal or treacherous manner.

Mark Twain once said that fiction - unlike the truth - must always be believable. He also declared Wagner’s music “better than it sounds”. In marked contrast, an increasing number of Americans found the Bushes and their cohort unbelievable and far worse than they sound.

ES&S was another private vendor of voting machines that ran on secret proprietary software. The former ES&S CEO is Republican Senator Chuck Hagel. Indeed, Hagel’s own winning votes—including those of the first “big upset” that initially put him in Congress—were provided by ES&S voting machines.

And interestingly, given Janet Reno's "surprise" primary loss in Florida, ES&S machines unexpectedly recorded no votes in precincts where Reno was strong. And with Reno out of the way, Jeb Bush was easily reelected Governor with (by?) those same ES&S machines.

SAIC (the abovementioned heavy Republican campaign contributor and major Pentagon contractor in Iraq) is also a technology consultant to Corporations and Governments on the use of voting machines. Yet SAIC was allegedly charged with fabricating tests, civil fraud and making false claims.

Accenture is the Bermudabased remnant of Arthur Andersen (a huge accounting corporation that once helped Bush II's Harken Energy figure its accounts—and later was prosecuted and went bankrupt for shredding records of its work for Enron). Accenture was yet another entrant in the privatized fields of computerized voting.

The depressing list goes on (see Hightower Lowdown, Oct. 2003 or hightowerlowdown.com)—as well as Paul Krugman's commentary – "Touch screen voting machines leave room for error (and) fraud" (Anchorage Daily News, Jan 25, 2004, H3). With such corporations vying to certify Republican victories on proprietary voting machines, our only hope for regaining representative government is to demand voter verifiable paper audit trails on all ballots.

Fortunately, this is not rocket science. After all, paper receipts are already a standard part of every ATM transaction—and Diebold voting machines are very similar to Diebold ATM machines.

Specifically, Hightower proposed that for secure voting on a touch screen system, the machine must print a paper ballot of how you voted, then you verify on the touch screen that the paper ballot is correct and turn in your anonymous printout (on ordinary paper with nonfading ink) to election officials who place it directly in a lockbox where it is kept for at least a year in case the election must be reconstituted.

With admittedly fraudulent, easily hacked voting machines becoming an important national issue, the Republican Congress promised to provide paper receipts before 2006. In the meanwhile, Diebold and the others did not provide paper receipts to all voters by November, 2004, so the only reasonable option was to insist on plain old "pencil on paper" ballots that could be optically scanned or hand counted (and recounted if necessary) in public by friends and neighbors of every political persuasion while they watch each other closely and record how often each machine was used so that obviously incorrect machine totals can be discarded.

For without reliable paper records, one can expect many more "machinecooked" results like the three Republican winners in one Texas county who each won by exactly the same margin—18,181. That election used voting machines with the secret software of yet another foreign corporation—Sequoia—based in England. And never forget that a Diebold touch screen voting machine in Precinct 216 gave Al Gore minus 16,022 votes when it was uploaded at the end of Election Day (Anchorage Daily News, Jan 25, 2004, H3).

However, to achieve the purpose of this book, we still need to demonstrate if, and how, all those still recent, carefully orchestrated Republican political smears, blatant lies and election frauds may have impacted America's health care, or in any way altered how we live? In other words, with so many of our citizens convinced that most politicians are crooks, does it really matter which party wins?

Fortunately, the Associated Press studied how spending patterns changed after Republicans took over Congress in 1995. It turns out that despite their continued rant about "tax and spend Democrats", the "borrow and spend Republicans" quickly increased federal spending (in their own words) "like drunken sailors!"

Furthermore, they very soberly redirected Federal funds from poorer Democratic districts to wealthier Republican ones. In particular, major Corporations, ranging from Big Pharma to huge Agribusinesses and other wealthy Republican campaign contributors (including some wealthy specialist physicians) got "way beyond their wildest requests."

At the same time, direct federal spending for sick people, public housing grants and food stamps was sharply curtailed. So whereas in 1995, poorer Democratic districts averaged \$35 million more in federal

support than wealthier Republican districts, by 2001 GOP districts averaged \$612 million more than Democratic ones.

In case that message was in any way unclear, House Majority Leader Dick Armey explained, “To the victor goes the spoils” (New Republic, Dec. 15, 2003). And after Paul O’Neill (Bush II’s first Treasury Secretary) pointed out that further tax breaks for the rich would move the country “toward a fiscal crisis,” Vice President Dick Cheney spelled it out, “We won the midterms. This is our due.” Not long thereafter, O’Neill was fired and began his autobiography (New Yorker, Jan. 26, 2004 p24).

Evidently elections matter a lot! So did Bush, like Putin, manage, or did Bush merely “almost manage” to recreate The United States as a corrupt oneparty Republicanruled country? And ought we henceforth demand that United Nations election monitors be stationed all around the entire USA to encourage fair American Presidential elections?

How Corporation lobbyists “adjust” wages and taxes

In early 2003, the Wall Street Journal was so obsessed about only the rich paying taxes, that it even labeled poor folks as “lucky duckys.” However, if we total all taxes including sales, excise, import, payroll and state taxes, the poorest fifth of American workers paid a cumulative rate of 18% on their average yearly income of \$7946. In contrast, the richest fifth paid just 19% on their average yearly income of \$116,666, and that was before recent tax cuts, while three middle-income groups paid 14, 16, and 17%.

More impressive yet, an average CEO of our top 100 Corporations earned \$7,452 per hour—just \$494 less than the average yearly wage of the poorest fifth of workers)—an American Army General got \$156,000/year—and a US Army Private on the ground in Iraq received \$19,600/year including his or her extra combat pay (see the Hightower Lowdown, June 2003 or hightowerlowdown.com).

And for unspecified reasons, the Bush Administration simply refused to cooperate with European Union efforts to collect taxes owed by Corporate tax evaders (Business Week, June 23, 2003. p24). Instead, Federal prosecutors at that time pursued misdemeanants like Martha Stewart for allegedly using inside information to take a profit on stocks (though Stewart profited far less than either Bush II or Cheney looted by using inside information under Bush I’s protection while at Harken Energy and Halliburton).

New York Stock Exchange Chairman Dick Grasso (who replaced William Donaldson when Bush appointed Donaldson to the SEC that oversees the NYSE) drew \$140 million in compensation from the Exchange as a lump sum payout, allegedly for “overlooking” rather than “overseeing” all the ways Stock Exchange members cheated the investor, on his base salary of \$1.4 million plus a \$1 million bonus.

On the other hand, through an Administrative Rules change (after Congress turned the idea down) effective March, 2004—President Bush extended overtime pay to more than a million low wage workers while disqualifying eight million higherwage workers from continuing to get overtime pay by reclassifying them as management or professionals if they had any comparable training, even by service in the military!

At that time, Bush’s Labor Department also posted helpful hints for employers on how to legally evade overtime payments. The actual rule change reads “Exemption (from overtime payments) is also available to employees in such professions who have substantially the same knowledge level as the degreed employees, but who obtained such knowledge through a combination of work experience, training in the armed forces, attending a technical school, attending a community college or other intellectual instruction.”

As for President Bush’s proposed immigration plan, which “would allow some workers in the US illegally, to qualify for guest worker status and retain their Social Security credits when they return home”—this bill simply permitted minimum wage Employers like WalMart to hire illegal workers.

Furthermore, such “Employer owned work permits would make those immigrant workers something close to indentured servants.” For without green cards they could not legally change employers or even apply for permanent resident status (see Bush’s Cynical Immigration Gambit in Business Week, Feb 9, 2004 pp2021).

Republican looting may have doubled our Health Care Costs! For health care is a hodgepodge created by innumerable individual and organizational responses to changes in medical care and its incentives. As in biological evolution, the most adaptive responses contributed to the next status quo from which subsequent modifications underwent further selection for profitability.

In 2001, American Health Care consumed \$1.4 trillion or 14% of our gross national product. In 2002, that spending rose to \$1.6 trillion, with prescription drugs the fastest growing item, up 15% for the year. And Health Care costs in 2003 exceeded \$1.7 trillion.

Interestingly, this colossal undertaking "self-assembled" over five decades with no Master Plan. And since no one dreamed that Health Care could undergo such amazing growth, no one was positioned to control what lay ahead. Perhaps no possible plan could have guided this broad based advance more effectively than simply allowing individual participants to invest their time, effort and assets wherever needs or opportunities beckoned.

But the same irrational fiscal exuberance ("every man for himself, get rich quick") that currently infects so much of our society, now threatens to wreck American Health Care and also ruin whatever remains of our Economy. Some day, someone may produce a fascinating tome about astounding medical advances of the last 50 years, heaping well-earned praise on all who contributed.

However, I would find that task daunting, since breakthroughs such as penicillin and heart surgery resulted from huge efforts and major insights of so many people. For example, significant advances in heart surgery often originated with encouraging patient responses to desperate measures taken during last-ditch efforts on critically ill people. Ideas that proved useful were naturally widely shared.

But as soon as open heart surgical procedures became regularly successful, the laborious, insight driven, sequential steps that finally made heart repairs possible, swiftly morphed into boring routines, though no step ever relinquished its catastrophic potential.

So while much of medical progress truly deserves our admiration, it is far more urgent to seek common sense, nonobvious or even counter intuitive explanations and solutions for serious problems that currently threaten our chaotic health care system.

To that end, this book offers a longtime observer's candid views of, and experiences with, modern medicine and its deep- seated yet solvable problems. My blunt descriptions and criticisms of modern health care are made on behalf of patients and providers alike.

Palliation is profitable and ongoing:

I have repeatedly pointed out that a cure harms everyone but the patient. A few direct onetime medical interventions like penicillin for a “strep throat”, appendectomy for an inflamed appendix, or stabilization of a broken bone, are generally viewed as curative. For by "eliminating" a nasty bacterial invader (however, see also bacterial quorum sensing in Chapter 12), or by removing a diseased but nonessential structure, or by aligning and properly supporting an important structure until it has healed, one can usually get early healing and full recovery.

In contrast, far more costly medical interventions—such as heart surgery, long-term arthritis treatments and cancer chemotherapy are **palliative** since they may alleviate pain and other symptoms without fully correcting the health problem. Of course, palliative treatments such as heart surgery or cancer chemotherapy can also be viewed as curative if they provide relief until the patient dies of an "unrelated" condition.

But whether a proposed remedy is **preventive** (like polio vaccine), **curative** or **palliative**, the outcome in a specific case may be sufficiently unfavorable so that results of treatment turn out to be far

worse than the disease. And palliation generally implies ongoing therapeutic interventions, with each new treatment, or every trial of a different palliative therapy, adding further risk and expense.

Ordinary experience suggests that whenever an individual offers several entirely different excuses for avoiding some duty—or if a disease has several entirely different treatments—that those excuses or treatments are probably all incomplete (as in untrue, ineffective, palliative, toxic) or otherwise unsatisfactory.

Nonetheless, patented palliative therapies are generally quite expensive. Therefore, far more health care jobs and profits are at risk if a researcher discovers a quick cure than if she merely devises another palliative treatment that requires expensive promotion to become widely known and used.

The picture built up by many such observations throughout this book, shows our entire economy being bled into anemia by an "Out of control drive for profit in certain, but not all sectors of our health care industry." Thus many citizens and businesses that are currently being squeezed dry, can only hope that our Government will limit profits for purveyors of goods and services in the health care industry before another business sector vanishes overseas.

Naturally, Big Pharma and other health care business leaders insist it would be unfair and un-American to limit the profits of Health Care Corporations. Indeed, many true conservatives decry all Government regulations as "Work of the Devil"—or "A plot by godless communists"—or even "A serious resurgence of **Socialism**" *which has long been held responsible for evils best left un-described!*

However, the very same Conservatives who detest all Government regulations as a matter of principle, apparently don't object to hugely profitable Big Pharma patents—nor to the legal or practical Monopolies held by other purveyors of medical goods and services—all of which depend upon, and would lose much of their value without Government regulation!

There are endless explanations for the widespread failure of national Governments to combine legal incentives for invention (or discovery or developing important new ideas, services or things), with ongoing expert oversight to ensure responsible behavior. Obviously, any Monopoly the USA agrees to create ought generally allow a decent profit on past investments and efforts, while treating our society in general, and those people desperate for a cure specifically, fairly, kindly and with generosity as needed.

Indeed, the basic concept of patents and copyrights badly needs revisiting, and relevant regulations demand radical revision. For one thing, patents now last too long. As James Surowiecki points out, while patents surely "spur innovation, . . . so does their expiration." Therefore, "to lower drug prices . . . (just) shorten the length of patents, eliminate patent extensions, open the market to competitors quickly, get rid of all the regulatory provisions that lead to endless litigation, and close the loopholes that grant generic drugs brief monopolies of their own" (New Yorker, Oct. 16, 2000, p98).

Furthermore, the patent process now even protects "obvious" ideas like ordering on the Internet with one mouse click (Amazon.com) or leading tourists through the rainforest canopy or claiming a sole right to test for certain "cancer associated" genes (as Myriad Genomics of Utah did after patenting genes of BRCA1 and 2).

Not surprisingly, Myriad then charged three times as much per test as the Curie institute in Paris had previously charged (see Nature, 15 May, 2003 p207; New Yorker July 14, 2003 p36). But the European Union then granted one of those patents to a British nonprofit to make that test far less costly overseas.

Huge bundles of healthcare dollars are regularly diverted to defend, extend or contest patents that may earn royalties of "hundreds of millions of dollars" (see Science, 25 July, 2003 p448). While it may seem illogical and inappropriate to charge for each subsequent use of an initially obvious idea, Monsanto has gained exclusive rights to all genetically modified soy beans (Technology Review, Sept. 2003 p82)—and when DuPont bought rights to a cancer-gene-carrying mouse from Harvard, it also patented "Insertion of a cancer gene into any mammalian species" (Science, 19 July, 2002, p336).

Outlawing competition in favor of extortionate behavior impedes medical care and progress, rather than “promoting progress of the useful arts” the original reason for encouraging patents. See *Inventing a Better Patent Law* (Business Week, Dec. 22, 2003 pp IM 56).

Another great spate of lawsuits was pending over who owns which right to what gene silencing or RNA interference technique. And that donnybrook will surely retard important research using this promising new tool for the investigation of gene function (Nature, 20 June, 2002 p77—see also working through the patent problem, Science, 14 Feb., 2003 p1021).

A letter from Medecins sans frontieres in Lancet, Jan. 4, 2003, pp712, points out that European Union and American positions on drug prices and drug patents protect only their drug industries and show no concern for the growing disease burdens that contribute enormously to social and economic problems faced by most of the world’s population. The writers conclude “*The duty of medical professionals to protect the interests of public health over trade has never been clearer or more vital.*”

And a Lancet commentary, “USAMorocco deal may extend drug patents (from 20) to 30 years” (Dec.6, 2003, p1904)—discloses how countries signing free trade agreements with the US may be forced to even renounce their right to use generic drugs—which then threatens access of such poor nations to medicines. At the 2003 World Health Assembly, the US stressed “respect for strong intellectual property rights” while others pointed out that “USA has broken every promise made concerning developing countries’ rights to access low cost generic medicines” (see Lancet, May 31, 2003 p1831).

Yet these current problems are hardly new or unique. Rather, greed epidemics reappear regularly. A similarly egregious situation drove our famous Republican President, Theodore Roosevelt (third face from the left on Mt. Rushmore Memorial in South Dakota), to regulate railroads and other utilities as natural monopolies when “Robber Barons” running those businesses proved so shameless and uncontrollable in their greed that it threatened social stability.

Of course, those monopolies too originated in speculative excess, widespread corruption and huge public subsidies including massive land grants, rights of way and other protections from free and fair competition. Recent experiences with Enron and the deregulation of electricity in California amply reconfirm that without regulation, noncompetitive markets swiftly spiral out of control.

Things Rarely Turn Out As Expected

Scientific understanding begins with evidence, depends on evidence, and is refuted by evidence. Science confirms that change is inevitable. It also suggests that we may never uncover absolute or eternal truths. Indeed, half of all current medical knowledge becomes outdated within four years—and we are often as surprised by which half is replaced as by what replaces it.

Nonetheless, the obvious acceleration of progress in every field of science or technology—and the countless ways by which science empowers and enriches our civilization— amply confirm that significant scientific discoveries offer important insights into the Universe, even if their ultimate meaning and significance only dawn upon us incrementally or incompletely.

In classical physics, the predictable outcome of any action is an equal and opposite reaction. However, Nature rarely favors an animal that cannot modify a standard response when confronted by a new situation. Which is why “He who knows what a bear will do next, knows more than the bear.”

Those who try to guide health care programs around the world have encountered many ways in which health care resembles that bear. The following discussion of health insurance illustrates how one apparently simple idea was hijacked and modified in unpredictable ways by the adaptive responses of everyone affected.

Health Insurance Is Not A Simple Matter

Overview: As medical treatments became increasingly effective, physician incomes rose and health insurance became more important and less affordable for the working poor and middle class. Yet there was a surprisingly complex relationship between health insurance and health care costs.

For example, the prolonged passionate opposition of our Medical Industrial Complex to Universal Comprehensive Government Controlled Health Services “*left the financing and organization of health care to market forces, and converted health care services into a for-profit arm of the insurance industry*” (Science, 26 Sept. 2003, p1813).

To understand how modern American health care evolved, we hark back seventy years to the Great Depression preceding World War II, when physicians had just basic diagnostic and therapeutic skills to offer—along with a dozen or so relatively safe and useful medicines that they might prescribe.

At the same time, tens of thousands of useless (contaminated, adulterated and even poisonous secret concoctions) or "patent medicines" were heavily promoted throughout the land (see “Jake Leg”, New Yorker, Sept 15, 2003 pp507). And for a comprehensive overview, see Protecting America’s Health—The FDA, Business, and One Hundred Years of Regulation, by Philip J. Hilts, pub. 2003).

When unemployment was rampant, few had money to pay the physician. Some brought a little garden produce, a few eggs, a pie, a bushel of apples or potatoes, a homemade carving, or offered to repair the doctor’s roof. Under such circumstances, and probably long before, physicians charged on a sliding scale, with richer patients paying far more for their own care so that medical services might remain available to all, although especially to the rich and their employees.

When World War II ended in 1945, the economy boomed on pent up savings and demand. Soon medical Insurance became an inexpensive "add on" to sweeten Union contracts. Some employers added frugal infactory health services to keep employees on the job. As one might anticipate, the most obvious consequence of increasingly widespread health insurance was a more reliable (partial or full) payment of physician and hospital charges.

Yet even as such indirect or third party payments progressively displaced direct patient to doctor payments, a significant percentage of funds paid into health insurance policies were diverted to support each insurance company’s aggressive sales force and growing overhead. As recently as 2002, private insurers still kept about “14% of their premiums for overhead and profit.

In addition, they outsourced such tasks as utilization review and case management to other for-profit businesses that also diverted money from actual care. "Compare that with the less than 3% overhead costs of Medicare.” (Marcia Angell, The American Prospect, Feb. 2003 p38).

Increasing portions of each patient’s health care dollar also went to cover growing medical "overhead costs" as doctors and hospitals hired extra employees to obtain, process, submit and resubmit each insurance company’s uniquely confusing and intentionally inconvenient forms. Even today, for every four physicians hired, the Massachusetts General Hospital also hires one billing specialist and two “referrals and authorization” specialists, none of whom contribute directly to patient care. Medical productivity suffered further when qualified physicians took on administrative roles such as "compliance officer" (Nov. Bulletin, American College of Surgeons, pp257) for ensuring compliance with complex federal regulations about remuneration.

Once they were insured, patients naturally became less concerned about the costs of major surgery or other interventions, for we all prefer to focus on our own health problems. So patients and physicians increasingly avoided discussing fees, since it might appear rude if a patient raised monetary issues, or materialistic for a physician to do so.

Homeowner, automobile and life insurance policies traditionally compensated for some or all of a loss on a predetermined basis, especially if you were fortunate enough to meet the fine print requirements of an appropriate policy issued by a legitimate and ethical insurance company whose agent was a fairly close personal friend.

But health insurance was often seen as a more open-ended commitment to cover whatever treatment the insured might need. Initially, any disinterest in cost by insured patients and their doctors probably didn't matter much, since little enough, beyond pain medicine, an operation and bed rest, could be done for the seriously ill.

However, as real medical advances became newsworthy, "possibly effective" treatments proliferated too, and often were publicized prematurely to attract research funding or stock market investors. As a result, poorly informed patients or their relatives soon concluded that all seriously ill persons usually should get some new treatment, regardless of its cost or the actual likelihood of benefit.

From the days of patent medicines to now, advertisements by Big Pharma—whether directed at physicians or the public, have routinely been biased and misleading (as in untrue). But eventually most medicine bottles had to include a true list of ingredients on the label, although only highly educated consumers might even try to interpret that mandated information.

More recently, Bush-2 delayed and hampered the FDA's ability to stamp out deceptive drug advertisements to the point of ineffectiveness (Lancet, Dec 14, 2002 p1951). Thereafter, the FDA simply *recommended relevant and honest advertising* rather than requiring it—sort of like God scribbling a couple of suggestions about neatness on the back of an old envelope when He encountered Moses trudging across the desert.

So while health insurance gave patients and their relatives a welcome feeling of fiscal control and entitlement, it also raised the risk of malpractice claims against any physician who might appear less than eager to meet every demand made by Old McDonald's relatives. This markedly reduced the perceived benefit of a house call, or any opportunities for the aged and terminally ill to die peacefully at home.

For after long ignoring that grumpy old insured, those relatives now wanted to do everything possible, no matter how useless, expensive or painful, to display caring or relieve guilt. In this way, health insurance encouraged that escalation of unnecessary tests and invasive procedures now known as "defensive medicine".

Thus health insurance boosted the demand for and cost of medical care, as well as demand for and cost of medical malpractice insurance—which further raised medical overhead costs. And health insurance truly was a unique product: For under no other circumstance could an ordinary sober person, loudly declare that cost was of no concern.

One important but hidden impact of health insurance coverage was its leveling of medical and hospital fees. Although surgical charges still varied widely between surgeons, third party payers soon issued comparable payments for comparable services by specific surgeons, regardless of whether the insured was wealthy or poor. So it was health insurance—a product designed for the lower classes—that allowed the rich to shrug off their longtime disproportionate responsibility for sustaining medical services overall.

Naturally, some doctors and hospitals raised their rates to compensate for loss of income from the wealthy. And the obligation to support free care for indigents was quietly shifted onto all taxpayers and policyholders, many of whom could barely afford any health care for themselves and their families.

By encouraging patients to consume unnecessary health services—and by somewhat reducing the free care that most doctors and hospitals were obliged to provide—health insurance brought additional revenues to many physicians and hospitals, thereby creating a demand for more physicians, hospital beds and services.

In the meanwhile, medical progress gave rise to new technology-driven medical specialties dedicated to specific organs such as heart, kidneys and gastrointestinal tract. As physicians became trained to provide more specialized, intensive and costly services, health insurance policies reimbursed more physicians at higher rates, making health insurance even more important and still harder for the worker to afford.

As Garrett Hardin pointed out in *The Tragedy of the Commons*, people naturally try to utilize or harvest more than their fair share of jointly held assets like grazing land or a public fishery. Similarly, the original idea of an insurance policy was many individuals pooling prepayments to cover anticipated health care costs of the few unfortunates who fell seriously ill.

But rather than appreciating their own good health—or being concerned that their latest prescription cost several hundred dollars—insured patients often felt shortchanged if a costly insurance policy paid little for them while others received far more.

In 2001, 41 million Americans—or roughly one in seven—went without health insurance coverage for the entire year—while over 2 years about 80 million people lacked coverage for part of that period.

Of course, without universal health insurance coverage (hence truly widespread risk sharing), still healthy folks tended to believe they “deserved” a lower cost health insurance policy, while insurance companies scrambled to avoid insuring the ill or those more likely than average to become so.

Most US hospitals are legally obliged to provide indigent care. But uninsured adults with diabetes, hypertension or heart disease are far less likely to get regular follow up—and those with acute heart problems are less likely to be evaluated or treated, and more likely to die (ref; National Academy of Sciences, Institute of Medicine, “Care without coverage: too little, too late,” 2002).

Interestingly, Health Insurance Corporations—without whose cooperation the ongoing massive escalation of medical costs would have run aground far earlier—had no complaints about irrational exuberance in health care costs as long as the incoming flood of policy dollars—plus returns on their huge investments—exceeded insurance payouts and their burgeoning overheads. As one might also expect, insurance payments for less informed, less aggressive or minority patients were frequently deferred or denied on a technicality.

Big Pharma Favors “Prescription and Health Insurance

During the 1950s, drug manufacturers finally began to hire qualified chemists and other specialists to replicate, modify, manufacture and test important new drug discoveries of academic and government-employed researchers. Many effective, worthless or even potentially poisonous medicines were still heavily hyped and exceedingly profitable as long as such drugs remained a legal monopoly of the patent holder.

A 1958 Congressional investigation led by Senator Estes Kefauver, revealed that retail prices of some popular drugs exceeded the manufacturer’s total expenses for that medicine by seven thousand percent. In fact, such “Sky is the limit” pricing policies drove average annual after-tax Corporate profits for a Big Pharma Corporation like Schering, up to a quarter or even a half of its total net worth.

Since then, Big Pharma corporations have become much bigger—in part by purchasing many smaller drug companies that had important skills or potential blockbuster products, or were more politically adept at controlling regulations through lobbyists, lawyers, Congressional Acts and Presidential payoffs.

As mentioned earlier, huge Pharmaceutical Corporations generate far greater returns from dollars spent on or donated to a political campaign than from dollars invested in the search for truly new drugs. But not surprisingly, their long-term prospects also fade as they concentrate more heavily on “short term political payoffs” and legal scams than research and development.

Their huge profits on legitimate drugs, and the concerns of increasingly competent staff scientists, finally convinced major pharmaceutical corporations to stop producing untold thousands of useless and often toxic—yet still strongly promoted patent medicines, even before the Food and Drug Administration entered another populist cycle during which it was willing and able to crack down just a little bit more.

At this point, Big Pharma also realized that it would be more profitable for drug companies to discontinue “over the counter” sales of their most costly and effective drugs, as it was far easier to coax thousands of doctors to “prescribe” (meaning “order patients to take”) a specific product than to market that product effectively to many millions of citizens as had heretofore been attempted.

Evidently they chose wisely, for in 2002, Americans spent over \$160 billion (or 10% of total health care costs) just to fill 1.6 billion prescriptions (which doesn't include "over the counter" drug purchases). In contrast, European Government health systems spent about \$77 billion, and some were worried that low European drug prices made the European drugs industry less competitive (Lancet, July 26, 2003, p257).

While drug manufacturers promoted laws that made powerful, less common, or more effective remedies available only on a physician's prescription—Big Pharma also insisted on retaining its traditional right to sell unregulated, impure, untested and potentially toxic herbal or natural food supplements directly. And prescription drug costs reimbursed by Insurance Companies further raised health insurance rates.

Are excessive payments to the Medical Industrial Complex or Socialized Medicine our only options?

This book has exposed many failures and successes of our modern health care system. Illustrations of what went wrong and what went right were taken from my personal and medical experiences over the past sixty years. As the reader considers how and why we failed to control health care costs, she or he will surely think of new ways to achieve better patient outcomes at lower cost.

My true tales ought to have interested, amused and appalled you. For only through such forthright reports can a lay reader comprehend the countless ways in which our antiquated health care review and reward system elicits counter-productive, self-serving behaviors from competent, hard working, well meaning participants—and how much money is wasted on costly unproven remedies or on totally inefficient ideas like individually sold health insurance.

America's "Medical/Industrial complex" includes the major health insurers, Big Pharma, medical equipment manufacturers like GE, enormous HMO's and other bulk suppliers of physician's services, huge private hospital groups like Tenet and HCA, the American Medical Association (which only speaks for a minority of physicians these days), and various associations of highly paid medical specialists.

In particular, the Alliance of Specialty Medicine "composed of 13 medical specialty societies representing more than 170,000 physicians throughout the United States, has worked to raise the profile of specialty medicine in Washington, D.C. since 2001" (STS News, fall 2003 p11).

Together those Big Money Medical/Industrial players spend billions on lobbyists, lawyers and political contributions to modify and support government programs that they favor, and to undermine ideas like Universal Health Care or a Single Payer system that could injure their bottom line. Just imagine the impact if those tax deductible expenditures had been spent "to solve our health care problems" rather than on "trying to justify the unjustifiable".

Unwanted governmental intrusions into health care are routinely castigated as "Egad! Socialized Medicine!!!" Yet you never will hear big political donors criticizing America's finest Socialized Medicine and Retirement Program, the one set up by Congress for all Federal Employees including Congress, the Judiciary and the Executive Branch.

Over the half century most closely covered in this book, the greediest players, mainly *huge Corporations, gradually acquired enough political clout to guide American Health Care into its present uncontrollable, unsustainable, monopolistic, socially destructive, Behemoth "Chaos Monster" form.*

Throughout this book, I have considered less costly ways to provide better health care—ways that still offer legitimate and satisfying rewards to productive people who deliver essential medical services. But quite naturally, different commentators attribute the current high cost of health care to different factors.

For example, James Surowiecki points at Baumol's cost disease (New Yorker, 7/7/03 p27). Evidently Baumol defined "cost disease" as the basic inability of chamber orchestras, educators, waiters and health care workers—those who deliver in person services to individuals or small groups—to improve their own

efficiency (e.g., play Mozart faster, teach or feed many more folks at once, or repair several hernias simultaneously).

So while gains in manufacturing productivity often allow wages to rise without increasing product prices, workers in fields afflicted by "cost disease" cannot make more money without raising the price of their services. But in my experience, the wage demands of lower level health care workers *contribute hardly at all to outlandish health care costs based upon the "grasping" MedicalIndustrial Complex's ability to incite and fuel foolish demands at extravagant prices.*

Nor would I expect those working outside of Health Care to be aware of actual or pending inexpensive shortcuts to good health, or technological developments that increase efficiency, or lead to new cures, or to better and cheaper palliatives, or to even suspect how much medical productivity might be enhanced by non fiscal incentives and the curtailment of useless or cost ineffective diagnostic or therapeutic procedures.

The goal of this book has been to nudge our unending theoretical discussions of "Where do we go from here?" onto a firmer footing of practical experience and common sense. For objective, well informed citizens may soon have their generation's best chance to restore the hope, charity and clarity of purpose that our brilliant but deeply flawed Health Care System lost somewhere along the way.

GLOSSARY

The meaning of a few terms as used in this book

Aging Academic Syndrome: A common disorder that becomes manifest as waning judgment allows unfounded self-esteem to take a last long shot at the Nobel as time runs out.

Alternative care: A wide range of hypothesis-driven treatments ranging from chiropractic to scientology, that all claim to improve real or alleged health problems without ever providing evidence for greater-than-placebo benefits.

Alternative medicines: Biological substances, or soils, or mineral or radioactive waters that are ingested or applied externally to maintain health or treat various complaints (see traditional medicines).

Alternative Press: Subscription-supported newsletters or magazines that are not restricted to advertiser-acceptable topics or views.

Big Pharma: Major Pharmaceutical Corporations.

Board Recertification: A counter-productive way to employ aging medical politicians who "ought to be put out to pasture". A huge waste of prime medical time that is of minimal relevance to health care!

Continuing Medical Education (CME): Required CME hours are disruptive and rarely provide relevant new information. CME wastes practitioner time, reduces taxes paid and increases health care costs. The main beneficiaries are speakers promoting a product or their own irrelevant agenda.

Crooked Election Machines: Tens of thousands of Republican owned and operated election machines with private codes and easily hacked functions that reliably reelected Republican candidates before, during and between the 2000 and 2004 Presidential elections by returning unbelievable counts or simply ignoring votes in Democratic Districts.

Few paper ballots were used during those stolen elections. For further details, see my extensive discussion of Republican electoral fraud and its adverse impact on Health Care in the Afterword,

Externship: A period of apprentice-level medical activity outside of the standard Medical School experience before graduation.

Fellowship: A practical, individually arranged, variable duration period of postgraduate training, retraining or apprenticeship that does not provide the trainee any additional certification.

Generic Drugs: When the **patent** expires on a big name drug, interested manufacturers may bid for an exclusive six month right to market the drug before all other generic manufacturers can compete. Generic drugs generally cost far less than the brand name drug on which they are based. Generic drugs were 42% of all US drug sales in the first 8 months of 2003 (Business Week, Nov. 3, 2003 p94).

Harm/Benefit ratio: How many people must be screened, tested, biopsied, treated or otherwise disturbed or endangered to gain a particular health benefit. One measure might be how many years of life (on average) any intervention gains. But how could one balance a gain of ten years for one out of 20

persons undergoing harsh but occasionally beneficial chemotherapy, against ten early treatment-associated deaths among the others? One cannot simply ask survivors if the treatment was worthwhile.

Internship: A formal year (or two) of apprenticeship training: Customarily the first postgraduate year after graduation from Medical School. Ordinarily required before one can open a medical practice.

Medical Industrial Complex: A modification of President Eisenhower's famous words in his last major speech where he warned against the growing power of the "Military Industrial Complex."

The Medical Industrial Complex includes major health insurers, Big Pharma, giant Medical Equipment Manufacturers like GE, enormous HMO's and other bulk suppliers of physician's services; huge private hospital groups like Tenet and HCA, the American Medical Association (which represents a conservative minority of physicians), and various Associations of over-paid medical specialists.

Medication: Food or another product used for a desired effect other than merely relieving hunger.

Microbe: Any small infectious entity such as a virus, bacterium, fungus, single cell or tiny multicellular parasite."

Modern Medical Care: The usual physician marketed, more-or-less evidence compatible care provided for current health problems. Such treatments are based upon personal or expert perceptions of "good care" that remain subject to change and may improve in effectiveness over time.

Placebo effect: A benefit derived solely from the knowledge that a treatment was given.

Primum non nocere: A [Latin](#) phrase that means "first, do no harm." **Non-maleficence**, which is derived from the maxim, is one of the principal precepts of [bioethics](#) that all healthcare students are taught in school and is a fundamental principle throughout the world. Another way to state it is that, "given an existing problem, it may be better not to do something, or even to do nothing, than to risk causing more harm than good." It reminds the health care provider that they must consider the possible harm that any intervention might do. It is commonly invoked when considering an intervention that has obvious risks but uncertain benefits. (from Wikipedia)

Religious Right: Any militant or traditionalist or orthodox group motivated by shared religious convictions. In the USA, most Orthodox Believers view themselves "Christian" even though that label covers a *huge variety of totally incompatible beliefs*. Elsewhere in this uncertain world, **Orthodox** Muslims, Hindus, Jews and the true believers of countless other affiliations, hold equally strong but wildly incompatible beliefs over which they may fight local battles and even wars.

Some extremists from any such groups perform atrocious acts (e.g., September 11th attack, or killing abortion doctors or blowing up innocent civilians), to serve their Gods or indicate how strongly they feel about abortion, or the education of women, or eating pork or beef or any other human behavior, or sometimes merely to take over a Government so they can become wealthy through corruption.

Self-Treatment: *The use of simple old-fashioned remedies such as Tart Cherries or Raspberry Leaf tea or Celery stalks or seeds, or Cilantro or Wasabi, or fermented foods to treat relevant problems if such home remedies appear a lot safer and/or far cheaper than heavily advertised patent medicines.*

Sign: An objective indication of a disease or disorder that is detectable by others.

Sinecure: A job or position that provides a regular income but little or no work.

Subsidy: A grant or gift of money from a government or other source to a company, charity or other organization that may allow, or help it to initiate or continue or expand any activity, or a monetary gift or contribution to somebody for food or medical expenses, etc.

Symptom: A subjective experience (such as pain) that may or may not be related to an underlying disease or disorder.

Traditional Healers: May include those who only offer specific remedies such as honeybee stings for autoimmune disorders. Healers often provide useful health services (at low cost and risk) to persons who cannot afford or will not accept modern medicines' risk/benefit or cost/benefit for their condition. Here too, careful investigation is warranted. Look **before you leap**.

Traditional Medicine: Timetested folk medicines or treatments like acupuncture that tradition and observations indicate may sometimes be helpful.

USP: This designation shows that a product meets composition and preparation standards of the United States Pharmacopoeia (an official guide for pharmacists that also describes dosages, effects and side effects).