HEALTH-CARE SYSTEMS AROUND THE WORLD

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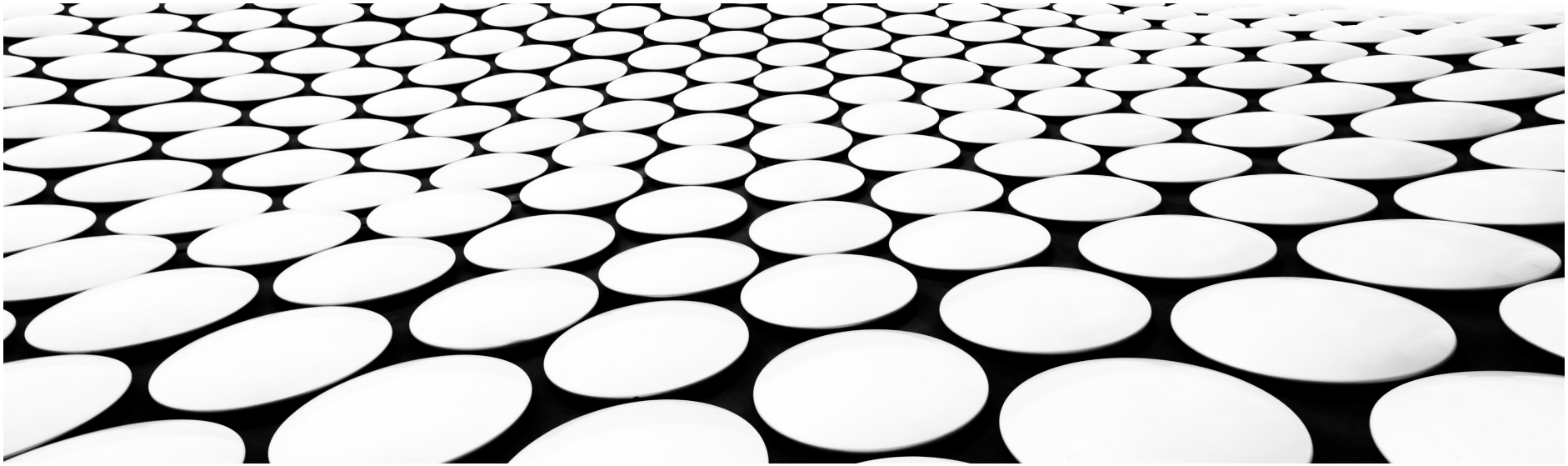


HEALTH-CARE SYSTEMS

- History
- Economic Development
- Political Ideology

HISTORY / POLITICAL IDEOLOGY

Beveridge	Bismark	American
Single-payer insurance	Universal insurance but private insurers play major role	Private insurers (majority) Universal insurance not required. Several uninsured.
Patients receive free care		
Provided by government/public sector	Provided by private sector (majority)	Private providers
Strong regulation of health-care by government	Strong regulation of services with price controls	
Paid by taxes		
Equity is primary: equal access to care regardless of ability to pay		
UK, Canada, Sweden, Australia	Germany, Japan, France, Switzerland	
Sir William Beveridge after World War II	Otto von Bismarck in 1880s in Germany	

ECONOMIC DEVELOPMENT

- Analyzed based on **5 Principal Components:**
  1. Resources
  2. Organization
  3. Management
  4. Economic Support
  5. Delivery of Services

1. ECONOMIC DEVELOPMENT: RESOURCES

1. Human Resources
   - Personnel: Doctors, Nurses, Allied Health Professional
2. Facilities
   - Hospitals, Health-centres
3. Commodities
   - Drugs, Equipment, Supplies
4. Knowledge
   - Training
     - Physical, Online

2. ECONOMIC DEVELOPMENT: ORGANISATION

5 Components:

1. 1 Principal Authority
   - Government: Central vs Provincial Government
2. Several Governmental Agencies with Health functions
   - E.g., Health Promotion Board; Health Sciences Authority
3. Voluntary Health Agencies
4. Enterprises
5. Private Health-care market

3. ECONOMIC DEVELOPMENT: MANAGEMENT

5 Components:

1. Health Planning
   - Government: Central vs Provincial Government
2. Administration
   - Supervision, consultation, coordination
3. Regulation
4. Legislation

The methods of carrying out each managerial process vary with country's dominant political ideology.

4. ECONOMIC DEVELOPMENT: ECONOMIC SUPPORT

Economic support depends on financial mechanisms:

1. Government Tax Revenue
   - Different levels of Government: Federal/Central, State/Provincial, City
2. Social Insurance
   - Supervision, consultation, coordination
3. Voluntary Insurance
4. Charity
5. Personal Households
6. Foreign Aid (usually incoming aid for economically less developed countries)

The *relative proportions* among these influence many features of the health system.

5. ECONOMIC DEVELOPMENT: DELIVERY

The first four components lead to the fifth part: Delivery

1. Primary Health Care
   - Preventive, Curative
2. Secondary Care
3. Tertiary Care
4. Special modes of delivery of health services to certain population and for certain disorders.

CLASSIFICATION OF HEALTH SYSTEMS

- Degree of market intervention by government
- Organization of most health-care markets include some proportion of private health-care market.
- Proportions and characteristics depend on *extent* of intervention by government on following elements:
  - Supply, Demand, Price. Competition
- Organize 165 countries into **four** main types (least market intervention to most):
  1. Entrepreneurial
  2. Welfare Oriented
  3. Comprehensive
  4. Socialist

TYPES OF HEALTH SYSTEMS: 1. ENTREPRENEURIAL

- Entrepreneurial health system, industrialized country: United States of America (USA), Australia

1. Resources: Abundant
   - Physicians: 2.6 per 1000 people [Lowest: Eritrea:0.1, Average: 1.6, Highest: Cuba: 8.4, Austria/Greece: 5, China: 2]
   - Nurses: 4.3 per doctor [Lowest: Colombia: 0.6, OECD Average: 2.7, Highest: Japan: 4.7, China: 1.3]
2. Organization
   - Major authority: US Federal Government: Department of Health and Human Services.=: Disease prevention and medical care to selected population.
   - Provincial: 50 US States and 3100 counties: Local public health authorities: Environmental sanitation, communicable diseases,
   - Voluntary: Numerous agencies serving certain persons, diseases, services.
   - Private market: **Largest** channel for providing health-care. Independent practitioners, pharmacies, laboratories.
3. Economic Support
   - Health Expenditure is 17% of GDP (3rd highest) [Lowest: Monaco: 1.6%, Average: 9.8% , China: 5.3% , Maximum: 19% Tuvalu]
   - Private sources: **60%** of expenditures from private sources. 50% of it is from voluntary insurance – hundreds of companies (profit/non-profit)
   - Public sources: 40%. Social insurance; federal/state/local tax-revenues.
   - Charity: 5%

TYPES OF HEALTH SYSTEMS: 1. ENTREPRENEURIAL

- Entrepreneurial health system, industrialized country: United States of America (USA), Australia
  1. Resources: Abundant
  2. Organization
  3. Economic Support
  4. Delivery of Services
     1. **High degree of specialization**: Only 15% are generalists.
     2. 50% are in group practice (three or more working together)
     3. 2/3 of hospital beds are in non-governmental institutions.
     4. 10% of the hospital beds are operated for profit.
     5. Primary care: by private practitioners, paid mostly by fee for service, whether from private or public sources.
     6. Government programs: Medicare for elderly, and Medicaid for poor: doctors paid by fee for service.

TYPES OF HEALTH SYSTEMS: 2. WELFARE ORIENTED

- Western Europe, Canada, Japan, Australia. E.g., Germany
- Make health service available **to practically all of its people**

1. Resources: Abundant
   - Physicians: 4.2 per 1000 people [Lowest: Eritrea:0.1, Average: 1.6, Highest: Cuba: 8.4, Canada:2.6. Japan: 2.4, China: 2]
   - Nurses: 3.0 per doctor [Lowest: Colombia: 0.6, OECD Average: 2.7, Canada: 3.8; Highest: Japan: 4.7, China: 1.3]
   - Resources: Physicians and health personnel trained by **universities funded and operated by government**.
2. Organization
   1. Principal authority: Central government.
3. Management
4. Economic Support
   - Health Expenditure is 11% of GDP [Lowest: Monaco: 1.6%, Average: 9.8%, Canada: 7.9, Japan: 10.9, China: 5.3% , Maximum: 19% Tuvalu]
   - **77% of health-expenditures funded by government**, and only 24% from private sector.
   - Most of public sector funds came from **social insurance**. Insurance provided by several small “sickness funds”
   - Mandatory legislation for insurance in 1883 (Bismarckian)

TYPES OF HEALTH SYSTEMS: 2. WELFARE ORIENTED

1. Delivery of Services
    1. Hospitals are mostly run by units of government
    2. 2/3 non-government beds are run by voluntary non-profit agencies.
    3. Payment is complex:
        1. Sickness funds enter into contracts with association of physicians. The associations are then paid periodic per-capita amounts according to fund's membership (i.e. the number of patients).
        2. The medical association then reviews and pays the fees charged by physicians.
        3. If in quarter of year, the fees charged exceeds the money available, then less than full amount of each fee may be paid.

TYPES OF HEALTH SYSTEMS: 3. COMPREHENSIVE

- Welfare oriented health systems *transformed* after WWII to become comprehensive
- Comprehensive:
  - 100% of the national population *entitled* to complete health service
  - Financial support has shifted *entirely* to general **tax-revenues**
  - Larger proportions of doctors and other health-care professionals work in organised framework on ***salary.***
  - Almost **all** facilities are under direct control of government.
- UK after WWII, Scandinavian countries in 1950s, Italy in 1970, Greece, Spain etc.

TYPES OF HEALTH SYSTEMS: 3. COMPREHENSIVE

- First Pillar: General Practitioner services to provide *all* ambulatory treatment.
- Second Pillar: Hospitals organized into regional groups, each headed by a regional hospital board.
- Third Pillar: Local public health authorities with nurses and ambulance services.
- Fourth Pillar: Administrative unit for coordinating teaching hospitals

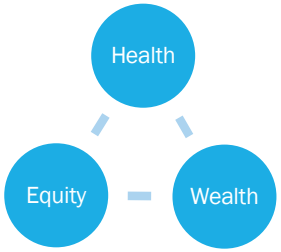
- Payments:
  - General practitioners: paid by capitation according to patients enrolled in practice.
  - Dentists: paid by fee-for-service
  - Hospital-based specialists: Employed by regional boards and paid by salary.

TYPES OF HEALTH SYSTEMS: 4. SOCIALIST

- All physical and human resources taken over by government
- Health services *theoretically* become available to everyone
- Resources:
  - All doctors, nurses, other health professionals were **public employees**.
  - All hospitals and other health facilities taken over by government.
  - Medical schools removed from university and put under ministry of health as academic institute.
  - Health science research carried out in special institutes also under ministry of health.
- Payments
  - Services provided **free of charge** except drugs
- Organisation
  - Hundreds of polyclinics, staffed by generalists, pediatricians, gynecologists in cities.
  - Led to under-provision of facilities in health-care centres.
- Recently:
  - Private out-of-hospital health service has expanded for those who can afford fees.

HEALTH POLICY TRILEMMA

- Three broad goals:



- Trade-offs:
  - If Policy A resolved adverse selection to increase equity, then it would either increase cost or lower health for some.
- Valuation:
  - Some societies value social equity and willing to pay higher tax for it.
  - Some societies value health and willing to have legislation to solve moral hazard or monopolies in healthcare.
- Variations in countries reflect the different preferences and constraints.

BROAD QUESTIONS

- How should insurance work?
- How should moral hazard be controlled?
- How should health-care providers be regulated?
- How should healthcare be financed?

1. HOW SHOULD INSURANCE MARKET WORK?

Policy Option	Example	Benefit	Cost
1. Complete private insurance		No government involvement will reduce tax.	**Adverse selection** – reduces **equity**
2. Private insurance mandate	USA, Japan	Can reduce adverse selection.	Curtails choice
3. Employer-sponsored private insurance	USA, Japan	Reduces **adverse selection**,	Potential job-lock, reduces equity
4. Universal public coverage	UK, Canada	Eliminates **adverse selection** – **promotes equity**	Potential **moral hazard** – higher **taxes**
5. Means-tested insurance	Medicaid in US, Kokuhu in Japan	Promotes equity	Potential **moral hazard** – higher **taxes**

2. HOW CAN MORAL HAZARD BE CONTROLLED?

Policy Option	Example	Benefit	Cost
1. Cost sharing (co-pays or deductible)	US, France	Reduces moral hazard	Reduces **equity**
2. Zero cost-sharing	UK, Canada	Promotes **equity**	Higher potential **moral hazard**
3. Cost-effectiveness analysis	NICE in UK	Reduces moral hazard	Restricts **access** to health-care
4. Gate-keeping	UK, Canada, Sweden	Reduces moral hazard	Restricts **access** to health-care

3. HOW HEALTH-CARE PROVISION IS REGULATED?

Policy Option	Example	Benefit	Cost
1. Unregulated Private Care	-	Removes government from health-care	Reduces **equity**, potential unlicensed doctors
2. Private hospitals with anti-trust law	US	Limits government role	Reduces **equity**, potential **medical arms race**
3. Private care with price controls	Japan, Switzerland	Promotes equity	Large government involvement
4. Government run hospitals and clinics	UK, Sweden, Norway	Promotes equity, no medical arms race	Large government involvement, higher **taxes**
5. “Last-resort” laws	US	Promotes equity	Higher **taxes**

HOW SHOULD HEALTH FINANCING WORK?

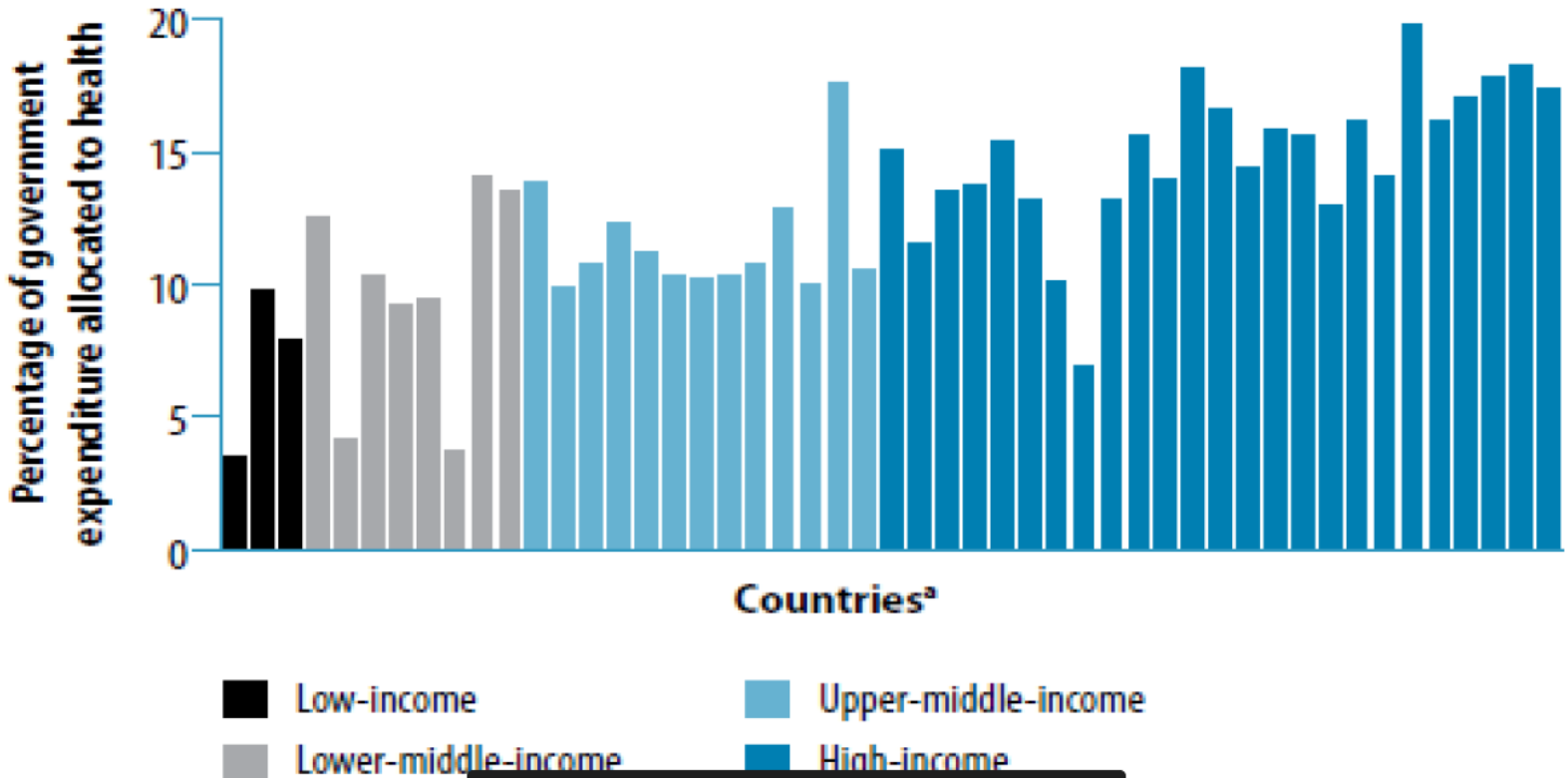
- Three main functions:
  - **Collecting Revenues**
    - Taxes, insurances premiums, out-of-pocket payments, donations from non-governmental organisations, or donor transfers.
  - **Pooling Funds**
    - Financial resources are no longer tied to a particular contributor; and contributors share financial risk
    - Risk of health-care expenditures is shared/distributed across a population
  - **Purchasing Health Services**
    - Allocation of funds to institutional or individual providers.
    - Includes budgeting in integrated systems to contracting-out of services.

COLLECTING OF REVENUE AND PURCHASING OF SERVICES

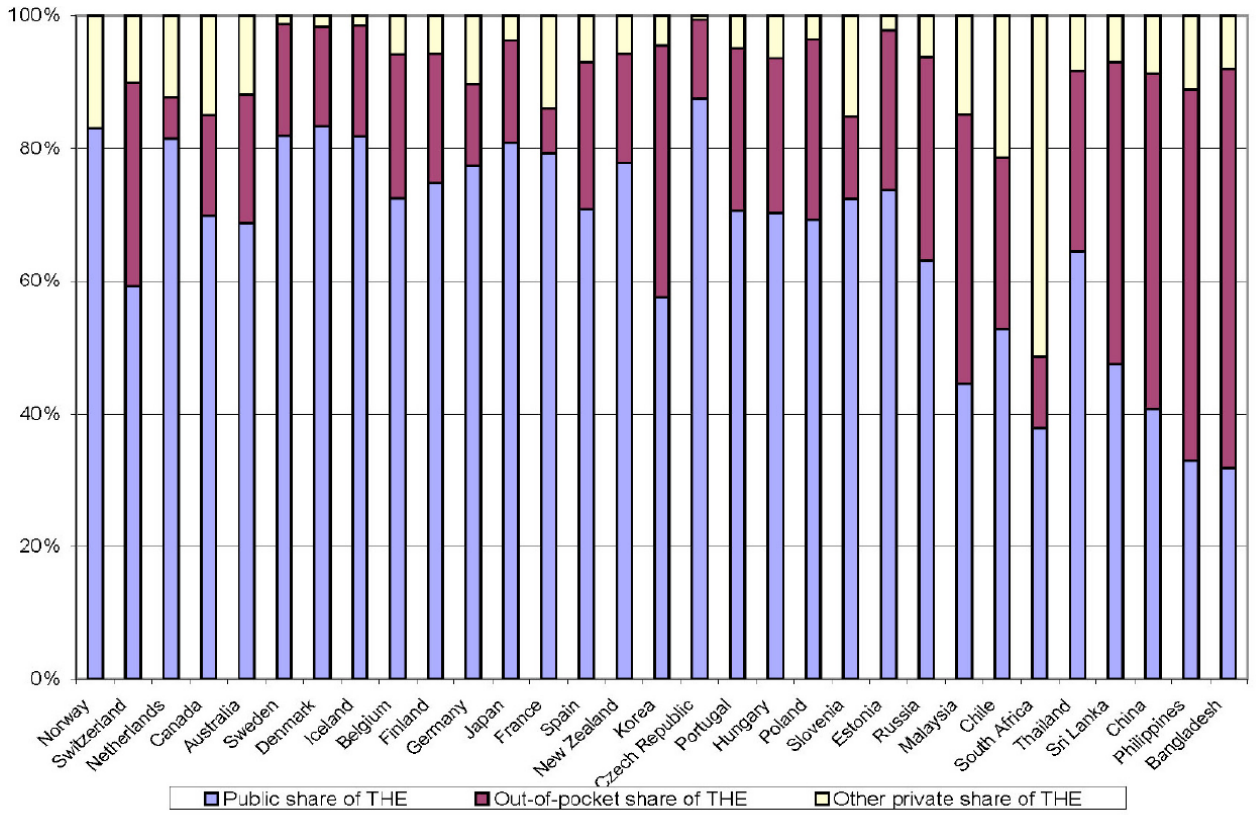
- The ability of countries to generate revenue is linked to their national income (World Bank , 2010)
  - Low income countries collect about 11% of their GDP in government revenue
  - Middle income countries collect about 18%
  - High-income countries collect about 26%

- These differences in revenue-collecting translate into their ability to finance their health systems (WHO 2010):
  - 42% of total health expenditures are public in low-income countries.
  - 55% are public in upper-middle income countries
  - 61% are public in high-income countries

SHARE OF TOTAL GOVERNMENT EXPENDITURE ALLOCATED TO HEALTH

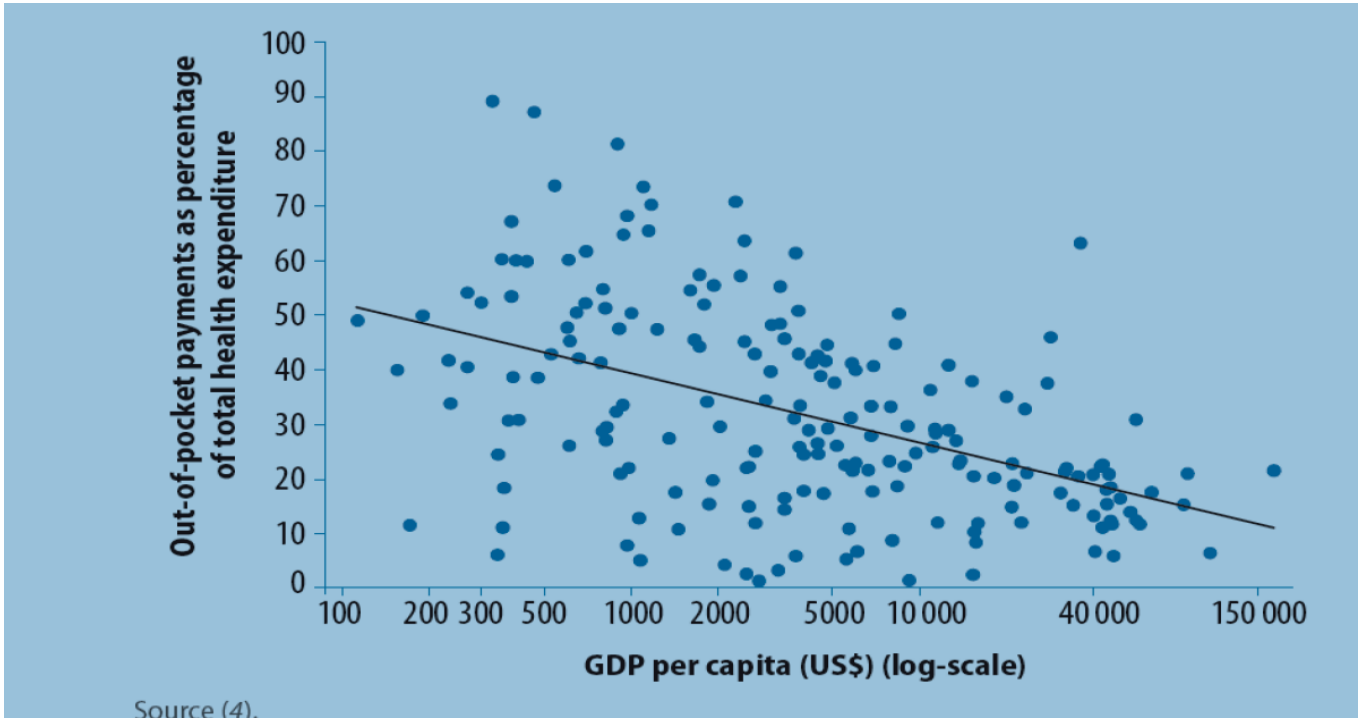


PUBLIC AND PRIVATE EXPENDITURES AS A PERCENTAGE OF TOTAL HEALTH EXPENDITURE



COLLECTING REVENUE

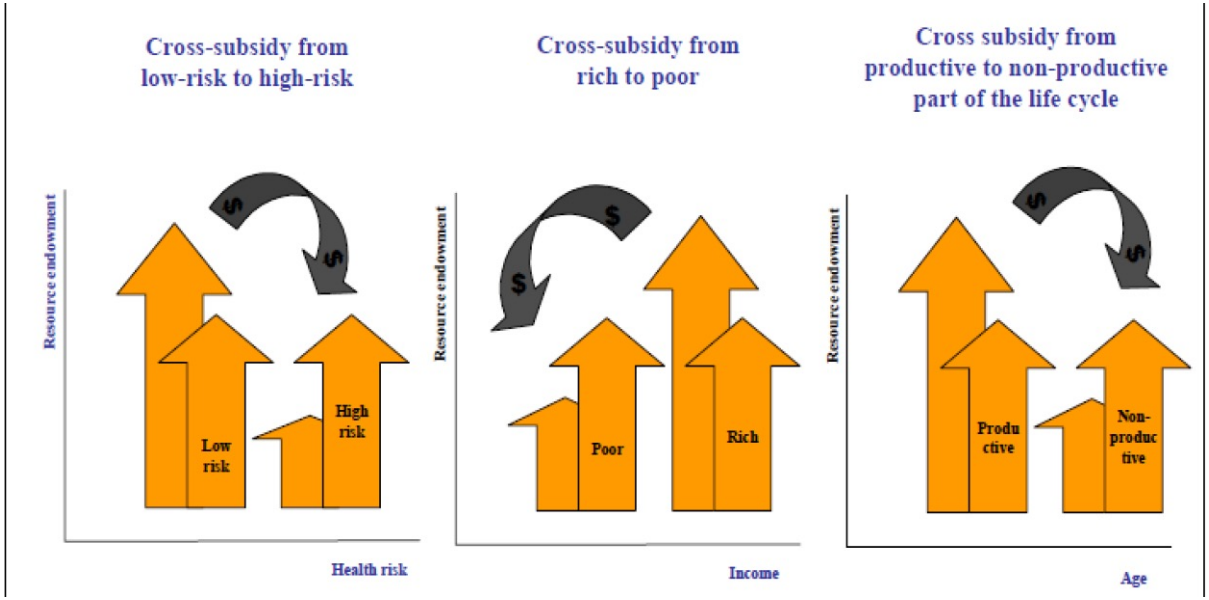
- Figure shows out-of-pocket payment as a function of GDP per capita (2007).
- What implications can you draw from this chart?



Source (4).

RISK POOLING

- *Risk-pooling* refers to the accumulation and management of revenues so that members of the pool share collective health risks, thereby protecting individual pool members from large, unpredictable health expenditures (Gottret and Schieber 2006).
- Differential contributions by poor and rich, sick and healthy, young and old, allow for cross-subsidization of risk and protection of the relatively needy and poor.



RISK POOLING

- General Taxation
- Social Health Insurance
  - Financed by payroll contribution shared by employees and employers. Subsidized by government
- Voluntary Private Health Insurance
  - Financed through premiums from individuals
- Community based health insurance
  - Risk pooling at community level

HEALTH SECTOR REFORM

- Health sector reform is a “

  sustained process of fundamental change in policy and institutional arrangements,

  guided by government,

  designed to improve the functioning and performance of the healthcare sector”

  (Sikosana et al cited in Mills and Ranson 2010)

- Motivation: Address problems of poor quality of care, inequities, limited access to health services, insufficient funding, inefficiency in the delivery of services, insufficient patient responsiveness.

EVOLUTION OF HEALTH SYSTEM REFORM – 3 GENERATIONS

- *First Generation:* Founding of national health care systems and extension of social insurance schemes
- *Second Generation*: promotion of Primary Health Care (PHC) as a means of achieving affordable universal coverage (the Alma-Ata Declaration of 1978)
- *Third Generation*: (not so clear cut but include the following):
  - Responding to changing demands
  - Ensuring **access** for **poor**
  - **Financing** (including subsidies) rather than direct public provision.

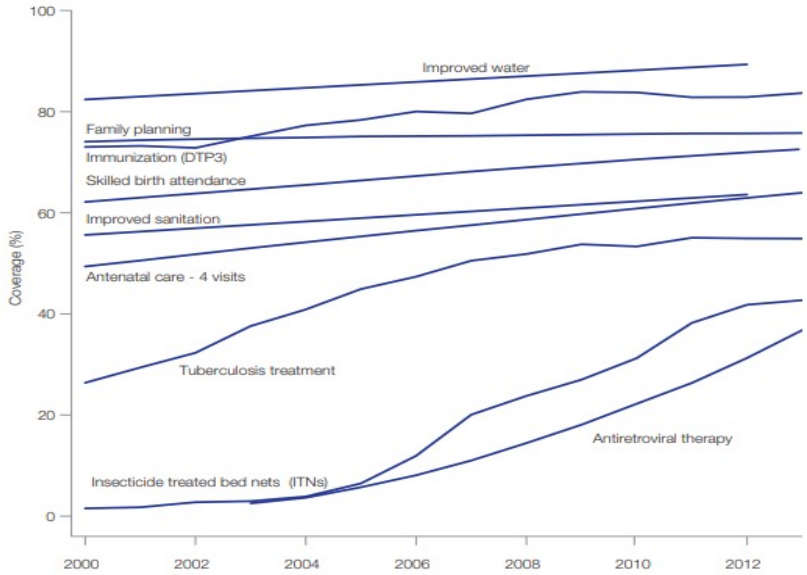
THIRD GENERATION REFORMS – 1990S ONWARDS

- Economic factors (macroeconomic reforms and structural adjustment programmes) and epidemiological factors (increase in morbidity, mortality, and disability due to epidemics such as HIV/AIDS, TB, and malaria).
- *World Development Report 1993: Investing in Health* - Focus on efficiency and cost-effectiveness
  - "Economic environment which fosters **households** to improve **own health**"
  - "To redirect **government** spending away **from specialized care toward immunization, micronutrient deficiencies, control of infectious diseases.**
  - **"Decentralize** government services, promote competitive procurement practices, foster greater involvement of non-governmental organizations, and regulate insurance markets."

UNIVERSAL HEALTH COVERAGE (UHC)

- "**All** people have access to **health services** they need, **when** they need, and **where** they need them, of sufficient **quality** to be effective, without suffering **financial hardship**."
  - **All people**: Currently half of the people in the world do not receive the health services they need.
  - **Full range of health services**: health promotion (anti-tobacco) to prevention (vaccinations), treatment, rehabilitation, and palliative care.
  - **When**: Timely care.
  - **Where:** Lack of primary care, lack of maternity services.
  - **Quality**: Properly trained health-care workforce, equipment, drugs.
  - **Financial hardship**: 100 million people are pushed into poverty because out-of-pocket spending on health-care.

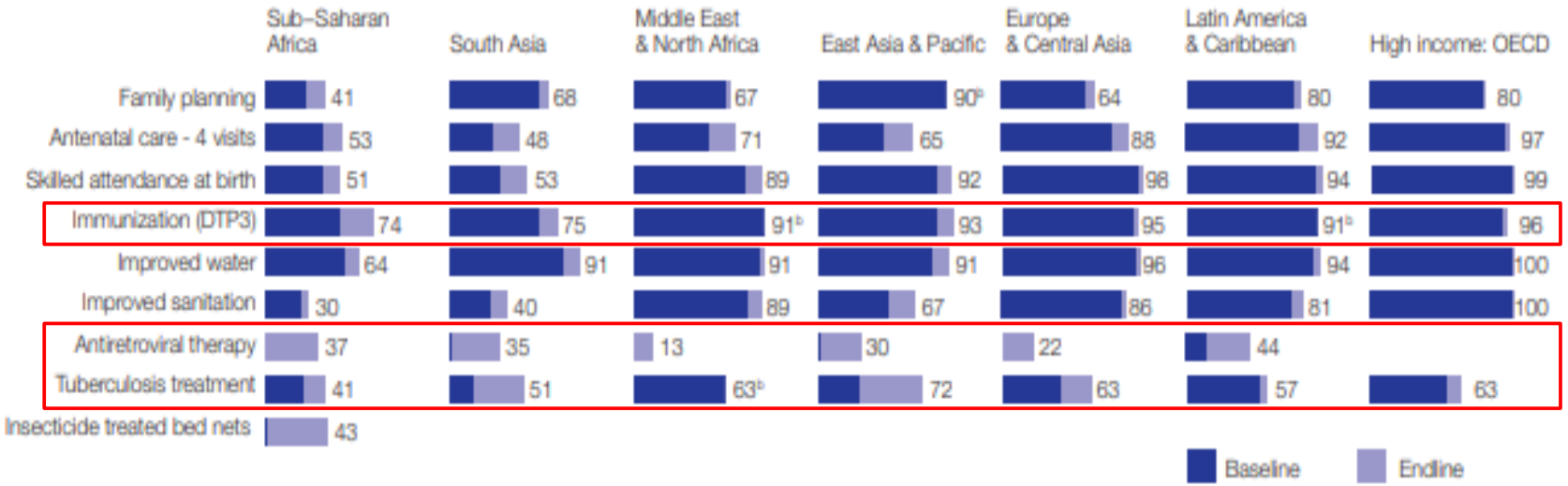
ACCESS TO HEALTH SERVICES



All people: Currently half of the people in the world do not receive the health services they need.

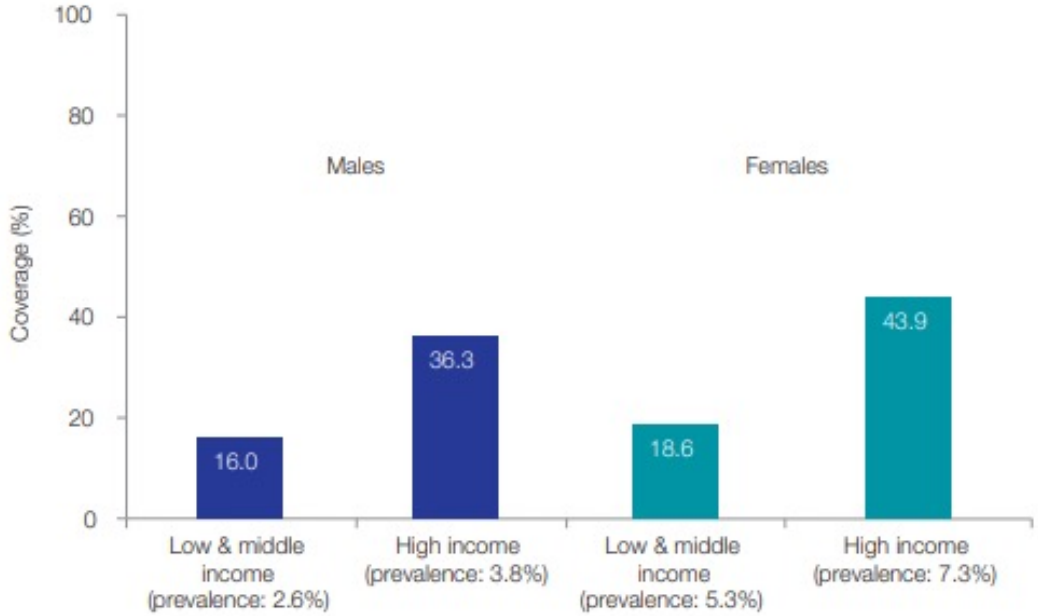
- Basic lack of quality health services.
- Distance to the nearest facility
- Restricted opening hours
- Over-crowded facilities leading to long-waiting times.
- Lack of information; Lack of Trust in Facilities
- Socio-Cultural, Language, Gender barriers.

ACCESS TO HEALTH SERVICES



- Global numbers hide regional disparities
- 2/3 of unmet needs are in regions with 1/3 of world's population.
- Notable achievements:
  - DTP coverage: Childhood vaccination
  - ART coverage in SSA and South Asia
  - Tuberculosis treatment.

TREATMENT



Mental illness are
(a) undiagnosed,
(b) or have no access to treatment, [only 1/3 of people receive any treatment]
https://www.youtube.com/watch?v=1tEuU_1ZGSY
(c) while those who do often receive poor quality of treatment

Burden: 2.8% of global disease burden, 800,000 suicides every year.

FINANCIAL RISK PROTECTION

- To protect from financial hardship use **prepayment and pooling of resources** for health, rather than paying for health services **out-of-pocket (OOP)** at the time of use.
  - Pre-payment and pooling of resources: Taxes, insurance premiums.
  - OOP: direct payment made to health-care providers by individuals at the time of service use
    - Usually cash-payments either before or right after seeking care.
    - Other payments like transportation to health facility, accommodation for attending family members, food can also become a burden (but not accounted in OOP).
- OOP:
  - Discourages care-seeking: especially for poor who must choose between health-care or other necessity like food, rent.
  - For those who seek-care: could lead to impoverishment.

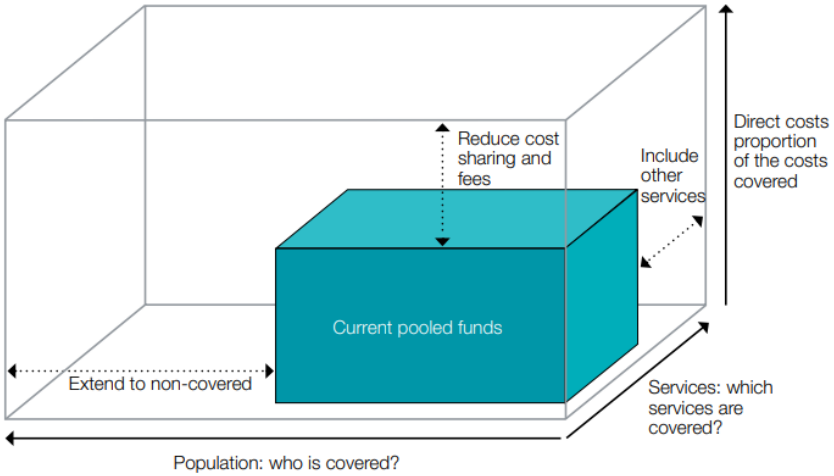
FINANCIAL RISK PROTECTION

	Number of countries	THE per capita (US$ PPP)[c]		GGHE/GGE[d] (%)		OOP/THE[e]	
		2002	2013	2002	2013	2002	2013
World	189	752	1251	10.9	12.0	35.6	32.1
East Asia & Pacific	24	313	589	10.4	11.5	31.4	27.5
Europe & Central Asia	28	725	1309	11.0	11.4	39.2	37.1
Latin America & Caribbean	32	477	848	12.3	13.3	35.3	33.3
Middle East & North Africa	19	891	1179	8.5	8.7	38.9	33.8
South Asia	8	136	321	8.3	8.3	52.4	50.3
Sub-Saharan Africa	47	140	263	9.0	11.1	42.7	36.1
High income: OECD	31	2362	3832	14.3	15.6	18.8	17.9
Low income	32	49	102	9.3	10.8	52.7	42.3
Lower middle income	48	164	310	10.0	10.2	42.2	40.4
Upper middle income	54	448	861	10.7	12.5	33.4	29.7
High income	55	1949	3112	12.6	13.5	22.4	21.5

FINANCIAL RISK PROTECTION - INDICATORS

- Catastrophic Health Expenditure
  - When, due to OOP, the households have forego consumption of other necessary goods and services.
  - Calculation: OOP exceeds a fraction of household expenditure.
    - 40% to 10%.
- Impoverishing Health Expenditure
  - Number of families pushed below the poverty line due to OOP.
  - Incidence count

DIMENSIONS OF UHC: 3 DIMENSIONS



- Effective Health Services: Extend the **range, quality, and effectiveness** of services.
- Financial Coverage: Ensure **financial risk protection**.
- Population: Ensure **all population** has access to health.

TRANSITION TO UHC -

- Stages
  - **Breadth or Population Coverage:** Formal sector is covered first, coverage gradually extended to other groups including informal sector
    - Informal sector workers are difficult to identify
    - Informal sector workers have irregular incomes
    - (Discuss the Platform workers bill that will be debated in parliament)
  - **Height or Financing:**
    - Mostly taxation and transition to Social Health Insurance (SHI)
    - SHI is extended to informal sector (e.g. Vietnam where SHI was made mandatory for school-children)
    - Subsidised voluntary health insurance (e.g. China, where informal sector pays subsidised flat-rate contributions while poor are covered by taxes)
    - Adverse selection is an issue with voluntary schemes.
  - **Depth**:
    - If schemes are voluntary and flat-rate based (low fee), then financial protection remains an issue due to shallow coverage

TRANSITION TO UHC – CASE OF THAILAND

- Four schemes
  - Tax-financed Medical Welfare Scheme (the Low-Income Scheme) for low-income people
  - Civil Servant Medical Benefit Scheme (CSMBS) for government workers and their families
  - Voluntary scheme was introduced in 1983
  - In 1990s, a separate social security scheme was successfully introduced to cover employees in the formal private sector, using a mix of employee, employer and government contributions
- However, limited coverage for those in informal (farming) sector
  - No regular cash income.
- **Universal Coverage (UC) scheme, also known as the 30 Baht Scheme,**
  - Voluntary Health Card, the Low-Income Scheme and the 30% of the population that was uninsured under one mandatory scheme
  - Financed it through taxation.
  - Provide financial protection, reduce the incidence of catastrophic expenditures and improve equity between the poor and the rich

CONTRAINTS FOR REFORMS– 5 AREAS

#	Area	Constraint
1	Community and household level	Lack of demand for effective interventions
2		Barriers to use of effective interventions (physical, financial, social)
3	Health services delivery level	Shortage and distribution of appropriately qualified staff
4		Weak technical guidance, programme management and supervision
5		Inadequate drugs and medical supplies
6		Lack of equipment and infrastructure, including poor accessibility of health services
7	Health sector policy and strategic management level	Weak and overly centralized systems for planning and management
8		Inadequate regulation of pharmaceutical and private sectors and improper industry practices
9		Reliance on donor funding that reduces flexibility and ownership
10	Public policies across sectors	Government bureaucracy (civil service rules and remuneration; centralized management system; civil service reforms)
11	Environmental and contextual characteristics	Corruption, political instability, low priority for social sector, lack of free press.
12		Climatic and geographic predisposition to disease, tough physical environment.