Exam 3 – Lynch Notes

4/4/17

1. **Ethnomedicine**
    a. **Sickness and Disease** are Human Universals
    b. **Ethnomedicine**: information that pertains to theories of disease and forms of therapy specific to a given culture
        i. Causation- Immediate Versus Ultimate:
            1. **Susto**: (Soul Loss) Culture Bound Syndrome, heavy disease load (compared to not susto victims – sickest of the sick) – leveling mechanism
                a. In Latin America, found in poverty communities
                b. Insomnia and fatigue/depression symptoms
                c. Causes:
                    i. **Immediate** = *Fright* – soul has been scared away
                        1. Almost being hit by a car or something
                    ii. **Ultimate** – *witchcraft* – concept of *limited good*
                        1. *Who* put the snake there or sent the fear
                        2. 'Leveling' mechanism
                        3. Witchcraft found all over the world but with same circumstances – leveling
                d. **Etic View**- RUBEL: Susto victims usually failed at social role performance
                    i. "Sickest of the sick"
    ii. Forms of Therapy
            1. Materia Medica (manipulation of the body; all remedies follow the culture group that the remedy is being treated by)
                a. Aztec Disease Theory: *Tonali*
                    i. Headaches were caused by excessive blood in the head that put pressure on the *Tonali* (the spirit within) causing pain
                        1. Would take an agave plant and bleed out until headache was gone
                b. *Macpalzochitl* (hand-flower tree)
                    i. Flowers from the trees were crushed up and boiled in water and drank as a tea
                    ii. Would strengthen the blood/heart, combat fatigue, and a tonic for elderly
                        1. Real Scientific Results: greatly reduces cholesterol/glycluride. thins blood, some caffeine, helps people urinate
                c. Trepanation
                    i. Brain surgery, where a piece of the skull is removed
                    ii. Used to relief pressure on the brain

1. Some places to remove spirits or something~

iii. Medicinal Plant Species:

1. Complex knowledge, origins of our medicines today (50%)
    a. Not random – not chance –intensive scientific method
        i. Examples:
            1. **Koryak** people of Siberia, *Amanita Muscaria*, Muscimol – talked about this for a while*
                a. Big mushroom, strong hallucinogenic, when the patient trips (hard) the shaman will collect the urine of the patient and drink it and then see visions
                b. Also used recreationally, prefer to drink urine than eating mushroom directly bc you get less gross side effects
                c. Reindeer love these mushrooms, and the other reindeer would drink urine of the other reindeer, and that's where they got the idea for it – observing animal behavior
                    i. Probably the origin of the idea of where reindeer can fly
                    ii. "Laws of going 'berserk' in public"
                    iii. People were tripping hard.
            2. **Medicinal Plants**: often strong <u>alkaloids</u>, *protection*
                a. If a plant produces in large numbers, it can withstand insect/bird pest-ation
                    i. Which then send the plants from place to place for food, withstand a lot
                b. If a plant doesn't produce a lot, they have to develop plant toxins so they are avoided by insects or birds- alkaloid in nature (strong base as opposed to an acid)

i. Most will have a similar taste/smell
ii. Happens over a long period of time, get clues from animal behaviors

3. ***Oxytoxic* Plants**: induce labor
    a. Long history of interaction, plants that induce labor
    b. Plants are very well known and avoided until birth and then used to aid during the birthing process
        i. All of these plants are domesticated
        ii. Papaya, raspberries, etc
        iii. Will reject the fetus, natural birth control*

The Rural and Urban Poor

1. An off-shoot, or product, of state level societies and market economies
- **a.** The world's "have-nots"
- **b.** Characteristics:
    - **i.** Compromise about 50% of the world's population
        - **1.** Lives on <$2 a day
        - **2.** 30% lives in extreme poverty
            - **a.** Lives in <$1 a day
    - **ii.** Infant Mortality Rate are very high
        - **1.** Highest infant mortality rates are in Afghanistan
    - **iii.** Overall health is poor
        - **1.** Rice, wheat, and corn are the main crops of the world
    - **iv.** Overall nutrition is poor
    - **v.** Have little to no autonomy/opportunity
    - **vi.** Extreme poverty
    - **vii.** Unequal distribution of income
- **c. Reasons for underdevelopments:**
    - ***i.*** *Geography, climate, lack of arable land/resources*
        - **1.** Unable to trade in land-locked countries, deserts, jungles, etc
        - **2.** Climate
            - **a.** Too hot or too cold
        - **3.** All economies are built from their agricultural output (and their (in)ability to grow excess or having access to more)
            - **a.** Resources can make up for this inability (oil)
    - **ii.** History of Colonization
        - **1.** Shift wealth **out** from what are now underdeveloped countries
            - **a.** Colonial powers have gone and taken out resources that a country may have

b. The amount time a country is under power of colonial authority determines how underdeveloped undeveloped countries are

c. As of 1914, 70% of the entire world's population were living in colonies

i. Now a lot of those countries are free, but are underdeveloped

ii. If we would've remained a colony for a while longer we prob would've been underdeveloped too

4/6/17

1. Rural and Urban poverty Cont.
    a. Rural to Urban Migration and Cultural Lag (major contributing factors)
        i. Example: Agrarian Family Ideals
            1. Want a lot of kids, they add more production; free labor
                a. Take care of you when you're old (insurance)
                b. Kids were a status symbol
    b. Penny capitalism: desperate supply and selective demand
        i. Guatemalan Peasants
        ii. Minimum salaries
        iii. Selling of Wares
            1. "Open Air Fares" – like a flea market
        iv. International Companies and Cheap Labor
    c. The New Slavery
        i. Debt Bondage
            1. Not enslaved for life
                a. Self themselves to pay off a debt
            2. 1 million slaves in US and Canada
        ii. Example of Girl in Brazil
            1. Sold by her father when she was 10 years old due to gambling (waited until 12) to a slave broker
            2. Rented from her captor for 6 months, did this over and over until she was set 'free' at 15
        iii. Sexual tourism
    d. Health Conditions¨
        i. Poor public hygiene
        ii. Scrimshaw's vicious cycle – malnutrition - intestinal parasites – diarrhea – weakening of the immune system- infectious disease-
            1. #1 cause for infant mortality (under 5)
        iii. Epidemics
            1. Aids, tropical diseases
                a. 70% in Africa
                b. Tropical diseases – malaria – kills over 1 mil children every year)
            2. Lack of adequate medical care
            3. Infant feeding practices

a. Generally don't breastfeed their children, they themselves are malnourishes to be able to produce milk for their children

4/11/2017

1. Culture and Disease Patterning
    a. Disease is never random- it's always patterned
        i. Health problems in the US today vs 100 years ago
            1. Infections v Chronic
            2. Native Americans and Trauma
                a. #1 cause of death for males is trauma, high rates of suicide/homicide/automobile accidents
    b. Four Categories of Variables of Disease Patterning
        i. Environmental
            1. Filariasis in India
                a. Malaria – Colex misquito
                b. Tropical disease
        ii. Demographic
            1. Population factors, how many people how dense the population
                a. Smallpox in the new world – virgin population
                    i. More virulent (deadly)
                    ii. Big differences in death rates
                        1. Aztec – Cocolitali killed 90% of population
                        2. Native americans
                b. Why?
                    i. Because the probability of transmission of disease relates directly to its virulence. Insurance of transmission selects for higher virulence
                        1. When the probability of transmission of disease is high, ore virulent strains will be selected for (when probability is low, less virulent strains will be selected
                        2. Example
                            a. Diseases from far east – flu and zoonoses
                                i. More virulence, more mortality
                                ii. Zoonoses- any disease spread by animals
        iii. Idiosyncratic
            1. Risks which are particular to the individual, can be behavioral or genetic
        iv. Cultural
            1. Health Risks that directly relate to normative cultural behavior

a. Examples:
    i. Beri Beri in Thailand – fish oil
    ii. Prostate canser in the US – red meat
    iii. Heart disease in Japan – fast food
    iv. Incidence Rate – number of **new** cases in a given population
        1. Brazil has the highest (shortest life expectancy)
    v. Prevalence Rate – <u>total</u> number of cases of a particular disease in a given population at a given time (79/100,000)

c. Filariasis in India
    i. Case Study: As an illustration of cultural factors/disease
    ii. Filariasis: elephantiasis "Sli poda" or Big Foot – 120 million cases worldwide, estimated population at risk – 1.3 billion
    iii. Host: organism infected, human beings
    iv. Agent: A nematode, Wucheria Bancrofti
        1. Active only at night
    v. Vector: The Culex Mosquito; requires stagnatic water sources in a tropical environment to reproduce/survive
        1. Example: Co-evolution – vector feeds at night, agent active at night – requires both host and vector to complete their lifecycle
            a. L1 – L2 – L3 – L4 – Adult
    vi. Ecological Factors: a tropical environment w innumerable stands of stagnant water
    vii. Demographic Factors: Very dense, large, unprotected host population

4/18/17

1. Culture change and modernization
    a. Systems of directed change by modern societies: usually have been based on the:
    b. 4 Case Studies
        i. <u>Guarani Indians of Itanarami Village in Eastern Paraguay</u>: deforestation at rapid rate, land and soil not suitable for mono-cropping/raising livestock
            1. Guarani Traditional Subsistence, crop rotation, slash and burn, small clearings
            2. Development enters, destroys land, way of life
        ii. <u>Apache Housing Projects (1962)</u>
            1. Houses se on grid pattern, clash with traditional customs
                a. Doors always need to face east, like living away from people, don't like separate rooms, so the apache tailored their houses in the way they wanted to me (moved out of the assigned houses and created matrilineal clusters)

i. Government sued the apaches for property damage, fought them in court and apaches won – government had to pay to repair some of the houses
2. Failed program due to the lack of regard of different cultures

iii. Pastoralism in Kenya: *forced* agriculture in North, compared to southern tribe (All defaulted on loans, soil wasn't good, needed famine relief, were forced out of their farms and moved into famine camps (turned permanent)
1. Ngisonyoka Turkana Pastoralists: facts, figures and techniques they utilize
    a. Better, more appropriate, land use
    b. Good trading systems

iv. Cocaine trade in Bolivia: facts and figures, case studies of villages
1. As an adaptation of high altitude, effect of a cup of coffee; help them breathe in higher altitudes (chew the cocoa leaves)
2. Primary food producing areas are in the high altitude areas
3. Cocaine addiction was just newly introduced to the people by foreigners
4. #1 cash crop in Bolivia – result of a shortage of food stables
    a. Most of the profit is made outside of the country (cocaine sold)

2. Medical Anthropology

a. The comparative and holistic study of culture's impact on health and health-seeking behavior

b. Interdisciplinary

i. Medical anthropology is one of the unifying of all the various subfields because of common interests in culture and health

ii. Contributions of sub-fields:

1. Physical

a. Paleopathology

i. Study of disease in prehistoric populations
1. Skeletal indicators (from bones and teeth)
2. Cultural Patterns
    a. Warfare
    b. Slavery in ancient Egypt
        i. People buried in mass graves
        ii. High frequencies of trauma in the arm
    c. Degenerative knee disease in Eskimos

i. Had high rates of disease- cartilage in the knees are worn down, extreme arthritis due to dogsleds
ii. Today it's in the lower back due to snowmobiles

d. Lack of Cancer: in pre-industrial societies
i. Almost no evidence for cancer because it effects internal organs
ii. Industrialization causes cancer

b. Paleodemography:

i. Population factors, settlement changes age, sex ratios, life expectancy, etc.
ii. Examples
1. Sift to agriculture – health down
2. Increases in both infectious disease and episodes of nutritional stress (deficiency disease)
3. *Dickson Mound* (site in Illinois): showed the rise and decline of agriculture, looked at nutritional status and found enamel hypoplasias
a. Enamel Hypoplasias
i. Discoloration of the teeth, caused by nutritional stress (0-7 years old)
b. Harris Lines
i. Arm and legs
c. Porotic Hyperostosis
i. Caused by iron deficiency anemia (overreliance on corn)
ii. Skull thinning

c. Genetic Studies:

i. Frank Livingstone – (phy anthro) first identified the relationship between sickle cell anemia and malaria.
1. Cultural origins
a. Extreme species diversity created boundaries, if there aren't a lot of options they will get stronger and adapt to feed on what's available

d. Archaeological Contributions

i. Reconstructions of diet and habitat

1. Origins of Agriculture, Coprolites, Artifacts, Art depicting illness, etc.
2. Coprolites – really old feces that can be tested for parasites and diets

4/20/2017

1. Linguistics

a. Folk domains, taxonomies

b. Discourse analysis

i. Explores the language/dialog used between doctors/healthcare providers and patients

ii. The way doctors approach cancer

1. Studies have shown that when it comes to cancer, when you have a positive outlook and hope there's a better chance of it being remitted (Europe)
    a. But when doctors accentuate the more negative outlook instead (US) it's out of fear of litigation

2. Cultural

a. Cultural studies in medicine anthropology have traditionally fallen into 3 types

i. Studies of ethnomedicine, including ethnobotany, often tied to belief systems

1. Macpalxoxitl, Fritz, etc.

ii. Studies of personality and mental health in diverse cultural settings

1. Susto and social role performance

iii. Applied studies in international public health and planned community change programs

iv. Example

1. Peter brown and Malaria in Sardinia
    a. Native Beliefs and Health
        i. Reduced relapsed rates in malaria
        ii. Any quick change from hot to cold (vice versa)
        iii. Having an immoderate lifestyle

b. Ethnobotany

i. Modern drugs and indigenous use (like cures like)

1. Examples famous and new
    a. Curare:
        i. Tribes in the Amazon use as a blow-gun poison, extracted from the "liaga" plant and effects skeletal muscles (paralyzes people completely but doesn't mess with any internal organs)

c. Evolutionary Medicine:

i. EEA, life expectancy, applications

ii. Chronic Disease:

1. Thrifty genes: selected during our evolutionary past to predispose carriers toward more efficient extraction and retention of (then) scarce, yet essential nutrients:
    a. Fats, carbohydrates (energy), protein (cholesterol), and salt
    b. Implications for chronic disease
2. Behavioral, Eaton and Konner:
    a. Comparisons of *Paleolithic nutrition and activity* with that of today

iii. Infectious Disease: using evolutionary models at the population level to mold pathogens to a more benign state of co-existence (proactive)
1. Wide-spectrum antibacterial
    a. Re-thinking cost-benefit analysis
        i. "Nothing but net"

3. Applied Anthropology
    a. The use of anthropology to solve practical problems
        i. Utilizes a ground-up or grass roots perspective/approach (one community at a time)
    b. Problems occur with a top down approach
        i. Apache housing
        ii. Solar water pumps in India
            1. The women hated it because the well had been their central gathering place
            2. Young men had no jobs, made the rich richer and the poor poorer
                a. Turn to petty theft
    c. Applied Anthropology
        i. Two fundamental categories *development anthropology* and *Advocacy*
    d. Development Anthropology
        i. Part of the broad, multi-disciplinary field of international development, which tried to improve human welfare, particularly in underdeveloped and developing countries
            1. Emphasizes *Sustainability* as a goal/requirement
                a. Set up a situation to where the people can provide for themselves
                b. Intended benefits will continue even when funding runs out
    e. One major area:
        i. Health care and nutrition- often need to change behavior often created the problem
        ii. **Medical anthropology**:; the study of culture's impact on health and health seeking behavior
            1. Very strong applied orientation
                a. Filariasis in India
                b. Behrehorst Foundation
                    i. Guatemala hiking and saw all the disease and gave up private practice and moved to

Guatemala and set up a clinic and tried to treat people (for free)
    1. Saw the same things, intestinal parasites and water-borne illness
        a. "Cremshaws cycle"
ii. Provided as many wells as possible

4/25/17

1. **Grassroots Economic Development** (bottom-up)
    a. Pirambu and the Quarto Varas Project (four forks)
        i. Built a dozen bakeries (set up as cooperatives)
            1. The longer you work there, you start earning part of the business
            2. Vote on who runs what and what their salary is
        ii. Textile training* most influential/successful project they had
            1. Women bought some sewing machines and got women who had skill in sewing to teach younger women to do it
                a. In exchange of finishing the program, they can use the Quarto Vargas logo
                    i. Can't sell below a certain price (not competing against each other) turned into a luxury item
            2. Children will paint postcards and then place them by hotel rooms and sell them
                a. Kids get to keep half
    b. Business loans and the economic aid > target *women*
        i. Men are more likely to use the money in another way than intended
            1. Have unrealistic expectations, invest in riskier business than women do
                a. Higher failure rate
        ii. Women will think of their children first, and have more realistic goals
    c. Vicos Project: Allen Holmberg
        i. Hacienda workers (plantation) in Peru, found that everyone who worked there were native descents
            1. Were all share-croppers – given a small plot of land to live off of and had to pay a small "hacienda money" fee
                a. Money that you earned could only be used in that hacienda (not real currency)
                b. Deeply in debt because they had to pay higher prices for things (would buy in credit) basically enslaved
        ii. Came in and rented the hacienda, paid actual wages to the workers, made the local store a non-profit store, set up schools, brought in professionals to train them on their agriculture and rights

1. Productivity increased drastically and they bought the hacienda (then bought it and ran it as cooperative – longer you work there the more you gain rights over the hacienda)

iii. After 10 years the hacienda became so successful that they bought the other haciendas near there

2. Applied anthropology in Us subgroups:
    a. Aids and IV Drug use
        i. Needle “exchange” programs
3. Applied Ethnography
    a. Darrell Posey and Amazon Indian groups
        i. Agrosilvaculture
4. Anthropology and program evaluation
    a. James justice and the Navahoe Paramedic Program (recent)
        i. US government trying to get native navahoe to come see doctors (their health was suffering)
            1. Government started a program of free education to help navahoe become paramedics but was failing
                a. Called in Anthropologist James Justice and found the education technique was emphasizing grades and competition too high
                    i. Made a new self-paced, hands-on training; emphasized teamwork, did not use any grades

        ii. Made it culturally appropriate, program was successful after that
5. Anthropology and education : Testing methods
    a. Designed with the majority group in mind
        i. Minority groups tend to do worse, can’t find anything that relates to them
            1. Distinct lack of role models for minority children
    b. Oritz de Montellano and Mesoamerican inclusive curriculum
        i. Aztec and Mayan anthropologist, worked on a culturally appropriate materials for people along the border (of Mexico)
            1. Made a difference in keeping student interest
    c. Cathie Jordan and project KEEP