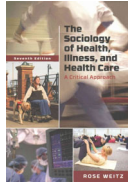


## Chapter 4:

### Illness and Death in the Less Developed Nations



What countries are considered more developed? Less developed? Least developed?

- More developed: examples include: U.S., Canada, Western Europe, Japan
- Less developed: examples include: Brazil, China, India, Mexico
- Least develop: examples include: Haiti, Ethiopia, Afghanistan

How do more developed nations differ from less developed nations in terms of health?

- Health conditions are more likely to be chronic rather than acute (epidemiological transition of nations)
- More access to health care technologies
- Lower infant and maternal mortality rates
- Longer life expectancy
- Less poverty, malnutrition, disease

What factors contribute to malnutrition in less developed nations?

- the social distribution of food is unequal
- a small group of people are in power and this small elite group controls the food resources
- typically the low-income and females have the least access to resources
- famine is exacerbated by global warming

(typically there is enough food produced but it is not distributed equally)

Can you name some infectious diseases found around the world?

- Corona Viruses (Covid)
- Diarrheal Diseases (e.g., dysentery, cholera)
- Tuberculosis
- Malaria
- HIV-AIDS

What factors can cause the spread of infectious diseases?

- sexual partners (including intercourse, oral, anal sex) and concurrent sexual partners
- childbearing women to their babies
- use of needles (e.g., heroin)
- prostitutes (fostered by labor migration in less developed nations)
- access to treatment (women less likely to have access)
- labor migration as workers must migrate to find work
- travel

### Why is diarrhea dangerous in least developed nations and what causes it?

- people die from dehydration and electrolytic imbalance; also leads to malnutrition that then leads to disease
- in less developed nations—second leading cause of death of children under 5;
- Caused by contaminated water used with powdered baby food/formula
- caused by infections, bacteria, parasites
- ingesting contaminated water or foods; insufficiently cooked food; lack of sanitation (e.g., sanitary toilets)

The use of infant formula in less developed countries is deadly for babies with an estimated 13% of all infant deaths due to the manufactured formula.

### Can you guess why?

- the formula is not as nutritious as breast milk (lacks mother's antibodies)
- the formula is in powder form and must be mixed with water and put in a bottle. The water and bottle are often contaminated. Unless boiled, they will often cause infections.

### In what type of country is chronic disease found most often?

- more developed countries but they are becoming more common in less developed nations (China, India, Brazil, Mexico) due to tobacco and alcohol use, obesity

### What are some examples of chronic diseases?

- arthritis, heart and lung diseases, crohnes disease

### What are the most common serious health issues in more developed nations?

- heart disease
- stroke and other cardiovascular diseases (involves heart and blood vessels)
- cancer

### What are the most common diseases in the least developed nations?

- lower respiratory infections (e.g., pneumonia; acute bronchitis)
- HIV/AIDS
- Diarrheal diseases (often obtain from lack of sewage systems, defecating outdoors)

### What are the advantages of building a dam in a less developed nation?

- provides electricity and water to cities and international factories

### What are the disadvantages of building a dam in a less developed nation?

- flooding and destroying the agricultural fields of rural citizens
- plagues of water born diseases

## Village Sustainability and Health of the Rural Chinese Elderly

### Examining the CHARLS Pilot Study of a Rich and Poor Province

(Dale Yeatts, Xiaomei Pei, Cynthia Cready, Yuying Shen, Hao Luo)

### Purpose of Research

- To examine the relationship between village characteristics and the health of the rural Chinese elderly
- Characteristics include environmental, economic, and social conditions important to village sustainability

### Methods (continued):

- There were 74 Villages included in the study. The variable, "village", was treated as a random effect (used STATA software, its "cluster" command allows for this control)



### Results:

Gansu (poor province) and Zhejiang (rich province) comparison of means—statistically significant differences on dependent and most independent variables such as:

	Zhejiang	Gansu
Av. # of physical limitations	1.2	3.2
% with no physical limitations	49%	21%
coal used in at least one household in village	16%	90%
has sewage system	53%	06%

### (Results continued)

	Zhejiang	Gansu
per capita village income 3000+ yuan (\$500)	89%	13%
household monthly expenses 1500+ (\$250)	66%	36%
Av. # programs for seniors	1.7	0.3
NCMS started 2005 or later (new cooperative medical scheme)	24%	89%
peasant paid 11+ yuan for NCMS	84%	10%

### (Results continued)

- Factors affecting health in Gansu: (negative binomial regression based on 1.0)
  - Environment: has village sewage system (IRR=.68; or 32% less likely to have health problems)
  - Social: married (IRR=.73);
  - control variables: male (IRR=.77); 60+ years (IRR=1.58); education (IRR=.74)

## Conclusions/Policy Implications

1. NCMS seems to be working since it is associated with fewer health limitations, suggesting the program should be maintained
2. villages located in more rural and remote locations such as those in Gansu should be provided the means to obtain sewage systems

## Conclusions/Policy Implications

3. A moratorium on coal in the home would contribute to better health
4. increasing activity centers for seniors and organizations for the elderly could result in fewer health limitations

"Doctors and Nurses" documentary film on health workforce (7:50)

<https://www.youtube.com/watch?v=HPaMwIkx2PA>

India: The reality of healthcare in developing countries (5:07)

<https://www.youtube.com/watch?v=VAT27Zzoktc>

Health care in India (5:57)

<https://www.youtube.com/watch?v=lsMfO8xcylQ>

Identify changes you think would contribute most to improving the health of people in the less developed nation?

Identify three *selfish* reasons why Americans (individuals, corporations, government, voluntary organizations) should care about illness and death for *less developed nations*?

How are the effects of natural disasters amplified by the political and economic conditions in less developed nations?

