

Health and Health Systems

180.289 Session 101



Outline

- Multiple perspectives
- Basic definitions in “health”
- Basic definitions in “health systems”
- How the pieces fit together
- Dimensions of functioning
- Application

Important Distinctions

- Health vs. Health Care
 - *Health* refers to a state of the human body and mind
 - *Health Care* refers to chemicals, devices, and services used by people to improve their health
 - *Medicine* as in “modern medicine” used to refer to just the services
- Health insurance
 - A system of paying for unpredictable needs for health care



Three Distinguishing Features of Health

- Uncertainty
- Asymmetric Information
- Externalities
 - Hence massive government intervention

Uncertainty: Is it cancer?



Uncertainty

- Patients
 - Don't know if and when they will get sick
 - Don't recognize early signs of sickness
- Providers
 - Don't know diagnosis with 100% certainty
 - Don't know if treatment will work
 - Selling a product that “maybe” will help, “maybe” will hurt, “maybe” will kill

Asymmetric knowledge

- Providers usually know more about the services than the patient



Adaptations to Asymmetric Knowledge

- Proxy quality by cleanliness, waiting time, manners, diplomas...
- Reputation and word of mouth
 - Repeated interaction
- Informed patients
 - www.webmd.com
- Choosing medical school applicants well
 - Socializing them in codes of ethics

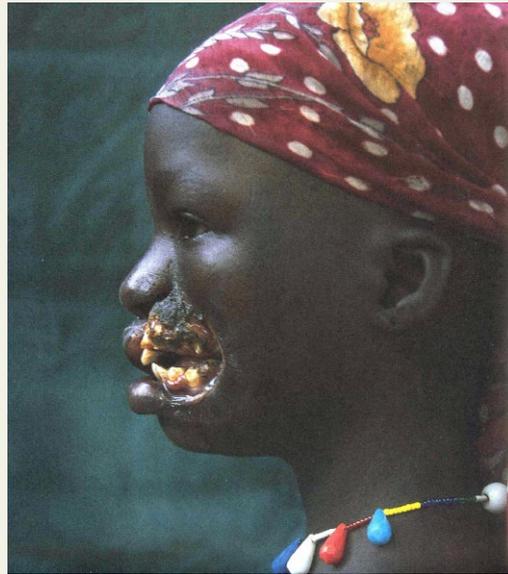
Externalities

- An Economic Externality
 - When a person or group “external” to a transaction derives benefit or harm from the transaction
- Examples:
 - Pollution--I arrange with your neighbor to dump my garbage in his backyard for \$100/ton
 - Pollination--My neighbor decides to buy bees and sell honey to you. My crops are pollinated for free.

Externalities in Health

- Contagion externalities
 - If 80% of the students in the dorm have been vaccinated against meningococcal meningitis then this benefits Mary
 - If TB patients in his village stop taking their medicine too soon this harms John
- Altruistic externalities

Individual Suffering



Cancrum Oris from a flyer for the Dutch Noma Foundation

Statistical Suffering

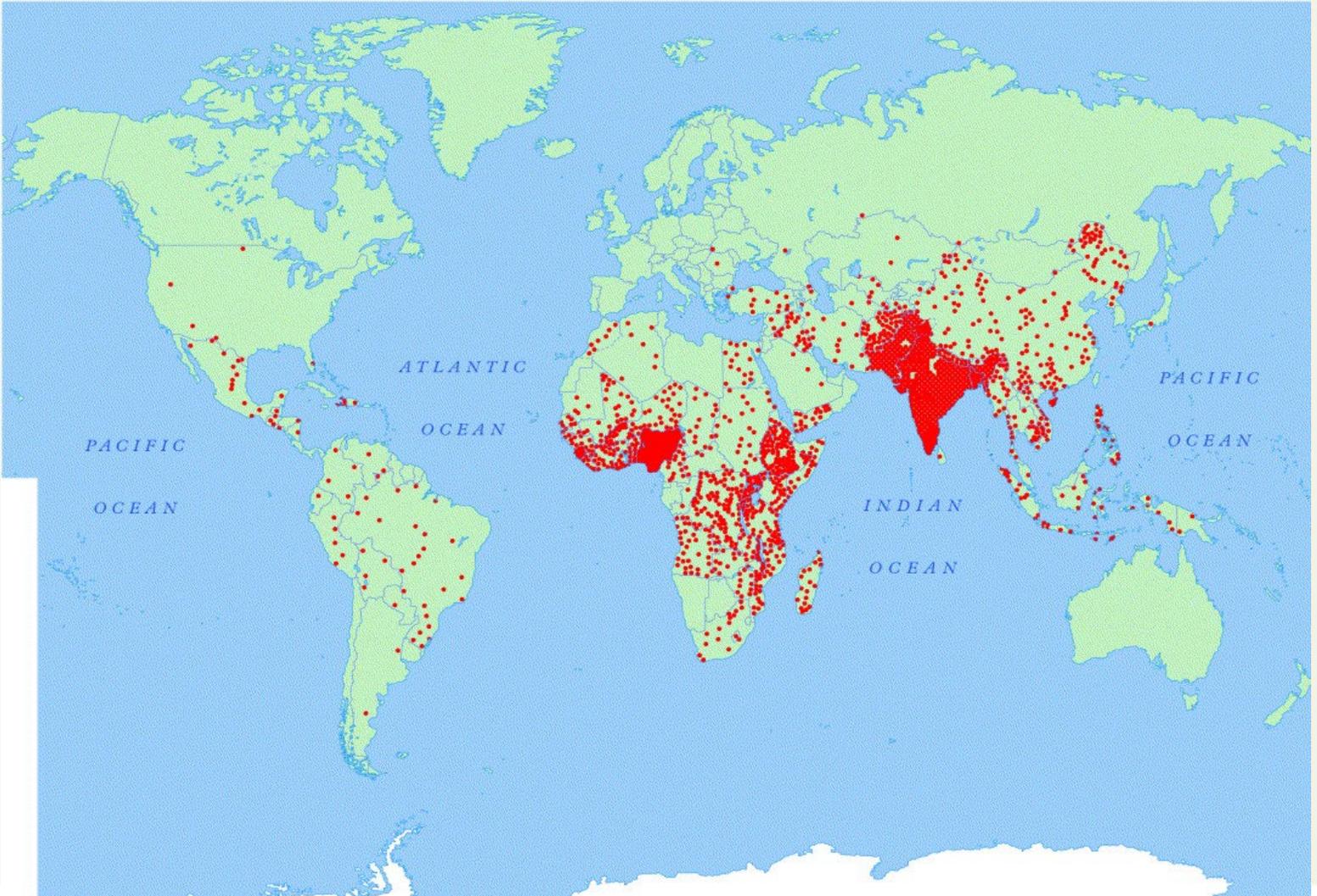


Figure 1. Worldwide distribution of child deaths. Each dot represents 5000 deaths (Black, 2005)



Altruistic externalities

- Stronger for photographable conditions and patients
- Compassion driven by the rule of rescue
 - Saving an identified life is worth more than saving an unidentified life.

Health Policy Mixes Multiple Objectives

- Objectives about “Health Insurance”
 - Protection against the unpredictability of health care expenses
- Objectives about “Health Care”
 - Delivers only “costworthy” (*efficient*) health care
 - Equity and fairness in access to health care
 - Making health services more respectful, kind, friendly...
- Objectives about “Health”
 - A special concern for the health of disadvantaged groups
 - A special concern for the health of workers (human capital)
 - Financing public goods that affect health
- Social objectives
 - Redistribution of income between rich and poor, healthy and sick, powerful and weak

Systems

- The Study of “Economic Systems”
 - Classical economics (Smith, Ricardo, Marx) was exactly this
 - “How does our whole economic system work?”
 - From 1950-1990 neo-classical economists refined this through comparative studies
 - Cold-war niche
 - “How do capitalist systems differ from Marxist?”
- Useful constructs for our course in health economics

Basic Definitions

- *Economic Agent-*
 - an individual with a specific role in the system, e.g. a patient, a nurse, a manager
- *Economic Units*
 - groups of individuals brought together for a common purpose
- *Institutions-*
 - Norms, rules of conduct, established procedures e.g. property, corporations, paying fines, tipping waiters

The sports analogy

Institutional enforcer

Agent
Ben
Roethlisberger



Unit Steelers

Definition of systems

- *Economic systems*
 - a collection of economic units, agents, and institutions that interact coherently; adapting and adjusting to the social and physical environment
 - (Expect definitions of *coherence*, *adaptation*, *adjustment*)
- *Health systems*
 - economic systems that are concerned with human health



Adaptation, Adjustment, Coherence

- *Adjustment*
 - transforming and redistributing resources to improve function, exploit opportunities, resolve weaknesses
- *Adaptation*
 - evolving or planning new institutions to solve problems
- *Coherence*
 - degree to which agents and units coordinate their activity for common purpose



Principal Health Systems Building Blocks

- Households
- Primary health service delivery system
- Financial protection system
- Quality assurance system
- Drugs and supplies distribution system
- Innovation system



Pop Quiz

- Which of the following are health systems?
 - The neighborhoods in West Baltimore
 - Association of American Medical Colleges
 - Black and Decker Incorporated
 - Medical malpractice courts
- Why?

Understanding Systems

- Analogy: economic systems are to society what organ systems are to the body
- There is no “system” there are “systems”
- Dysfunction in one affects others
- What do systems “do”?
 - Adapt
 - Adjust
 - (coherently)
- How do scientists study?
 - Identify institutions
 - Examine adaptations etc.
- No best system

Some Examples of Institutions

Households	• Folk remedies
Primary health service delivery system	• Clinics
Financial protection system	• Insurance
Quality assurance system	• Licensing
Drugs and supplies distribution system	• Markets
Innovation system	• Patents

Some Examples of Adjustments

- Folk remedies • Special feeding
- Clinics • Outreach campaign
- Insurance • Lowering copay
- Licensing • New qualifying exams
- Markets • Making a drug over the counter
- Patents • Extending patent life



Examples of Adaptations

- Decentralizing governance
- Starting a government health insurance program
- Deploying barefoot doctors



Examples of Coherence

- Relying on tradition
- Using market signals
- Commanding and controlling from above
- *Motivation* is an essential tool for coherence
- Examples
 - Material incentives
 - Moral incentives
 - Coercion



Power

- Power is relative to the motivations that are operating in a system
- Examples
 - Control of money, titles, space, assets, status
 - Power of coercion (different forms of coercion)
 - Control of information



Summarizing

- Distinguish: Health vs. Health Care vs. Health Insurance
- Each of these is unlike ordinary commodities
 - Government intervention to achieve multiple objectives
 - Uncertainty
 - Asymmetric knowledge
 - Externalities