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Global Health Education Consortium

Health Systems and Organization of Care

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Overview

- What is a health system?
- Do health systems matter?
- What should health systems do?
- What do health systems look like?
- Case study
  - Private practice in India
- Strategies for Innovation
- Conclusion

What is a health system?

- Definition:
  - All the activities and the organizations within which they are carried out whose primary purpose is to promote, restore or maintain health
- Includes formal and informal provision
- Health *care* system is only formal provision
- Global spending ~ $4.1 trillion in 2007

WHO Fact sheet N°319 : March 2007

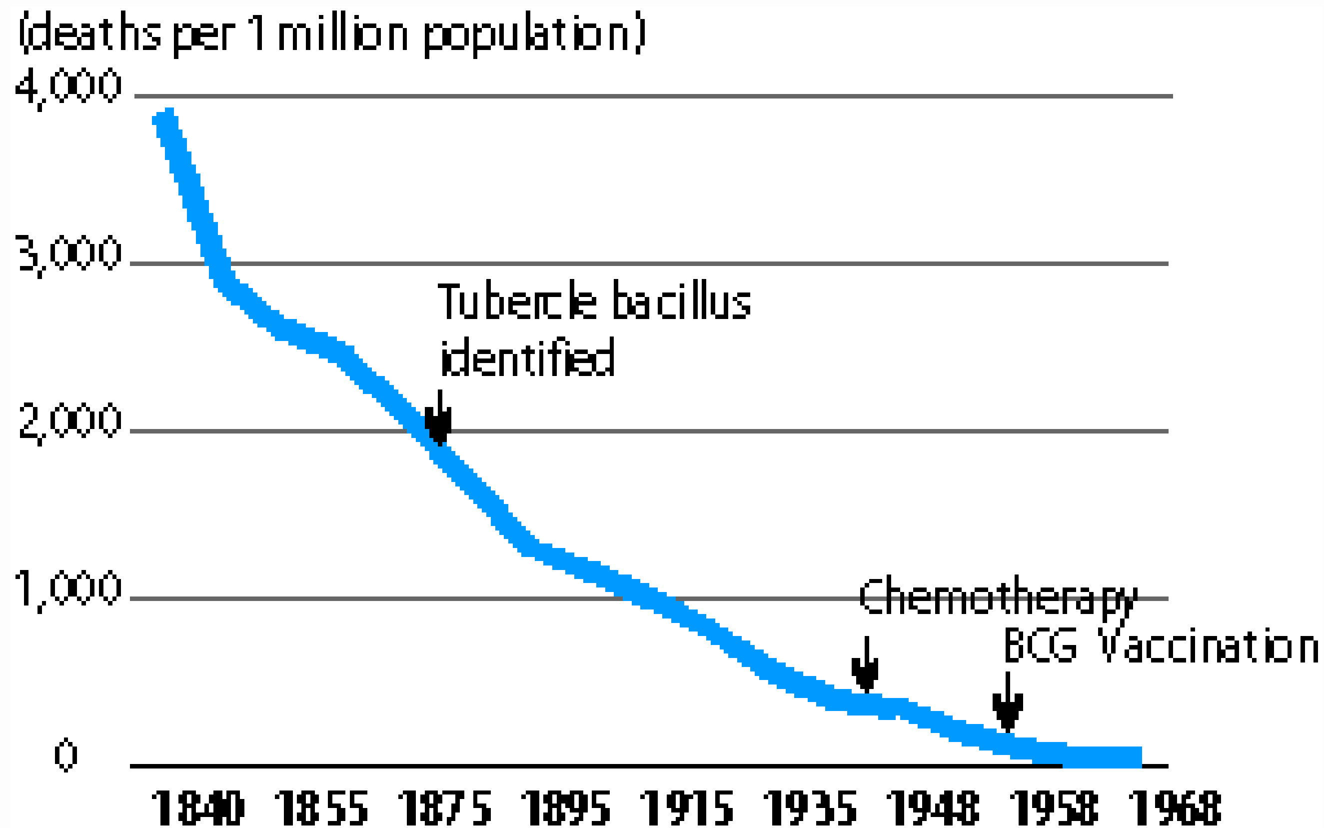
Do health systems matter?

Historical Impact of Medicine

- McKeown Hypothesis (1955-72)
  - Mortality reduction and population increase in industrialized world came before effective medical treatments
  - The reduction is attributed to lifestyle changes, health promotion and prevention activities

McKeow T. Determinants of Health. *Human Nature* 1978; 1:60-7.

TB Mortality 1840-1968



McKeow T. Determinants of Health. *Human Nature* 1978; 1:60-7.

Recent Mortality Trends (1950-95)

- Developed countries
  - Life expectancy increased from 65 to 77 years
  - Under 5 Mortality Rate fell from 50 to 5 per 1,000 live births
- Low and Middle Income Countries (LMIC)
  - Life expectancy from 40 to 64 years
  - Under 5 MR from 287 to 90 per 1,000

World Health Report 2000

Impact of modern medicine

- ~50% of mortality reduction in 115 LMIC from 1960-90 was due to scientific and technical progress
- ~ 20% from income growth
- ~ 40% from education of women

World Health Report 2000

McKeown: then and now

	Medical knowledge and efficacy	
Level of development	Low	High
Low	LMIC in 19th century	LMIC after 1950s
High	Europe + US in 19th century	Developed countries after 1950s

Preston and Haines, *Fatal Years: Child Mortality in Late Nineteenth-Century America*, 1991

“What we need is magic guns, not magic bullets.”

David Schellenberg

Specter M, “What money can buy” *New Yorker,* October 25, 2005,p.70

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The latest promise of medicine

- Previously health systems were haphazard and unorganised
- Were not focused on broad based delivery of effective medical interventions
- Now health systems offer the potential of equitable and efficient delivery systems to go along with the technological advances in medicine effective health services

Functions and Objectives of Health Systems

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Health System Functions

- Stewardship
  - Oversight
- Creating resources
  - Investment and training
- Delivering services
  - Planning and provision
- Financing
  - Collecting, pooling and purchasing

Health System Objectives

- Improving the health of the population they serve
- Responding to people's expectations
- Providing financial protection against the costs of ill-health

Relation between functions and objectives of a health system

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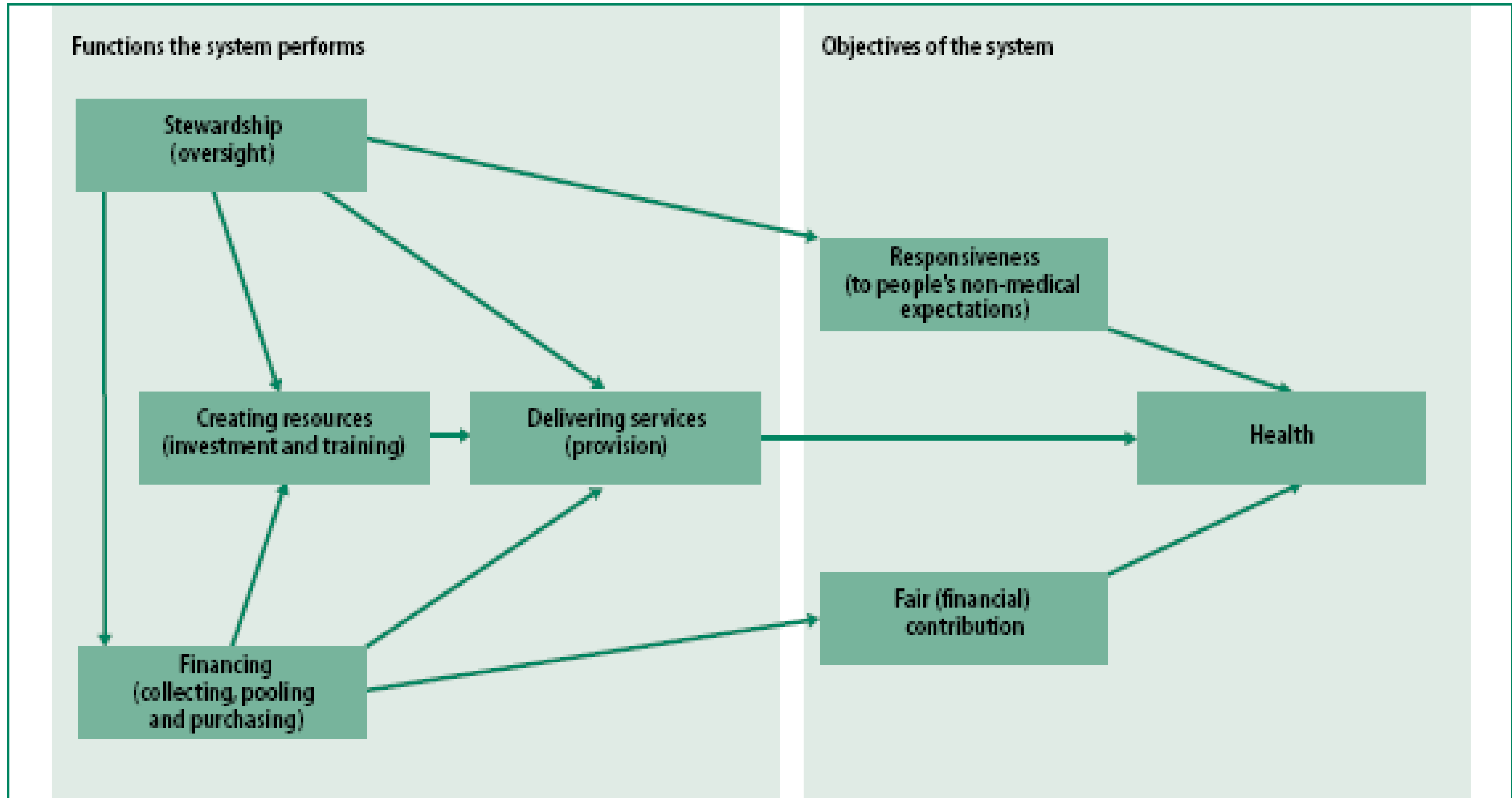

World Health Report 2000

Definition of performance

- Goodness
  - Best attainable average levels of health system objectives (health outcome, responsiveness, fair financing)
- Fairness
  - Smallest feasible difference in objectives distributed between individuals or groups
  - E.g. Average life expectancy may be low, but it is very similar between groups like urban/rural, high/low income
- Equity is entrenched as an essential component of performance

Level of Health

- Attainment
  - Measure of life or health expectancy
  - ie. DALYs, QUALYs, DALE
- Distribution
  - Distribution of health between individuals or groups
  - Based on the results on the following graph: Turkmenistan and Haiti have the same average levels of stunting in children (~7%)
  - But in Turkmenistan, the levels in urban and rural are the same, while in Haiti rural stunting is twice as high as urban (~9% vs. 4%)
  - So the distribution is more equitable in Turkmenistan than in Haiti

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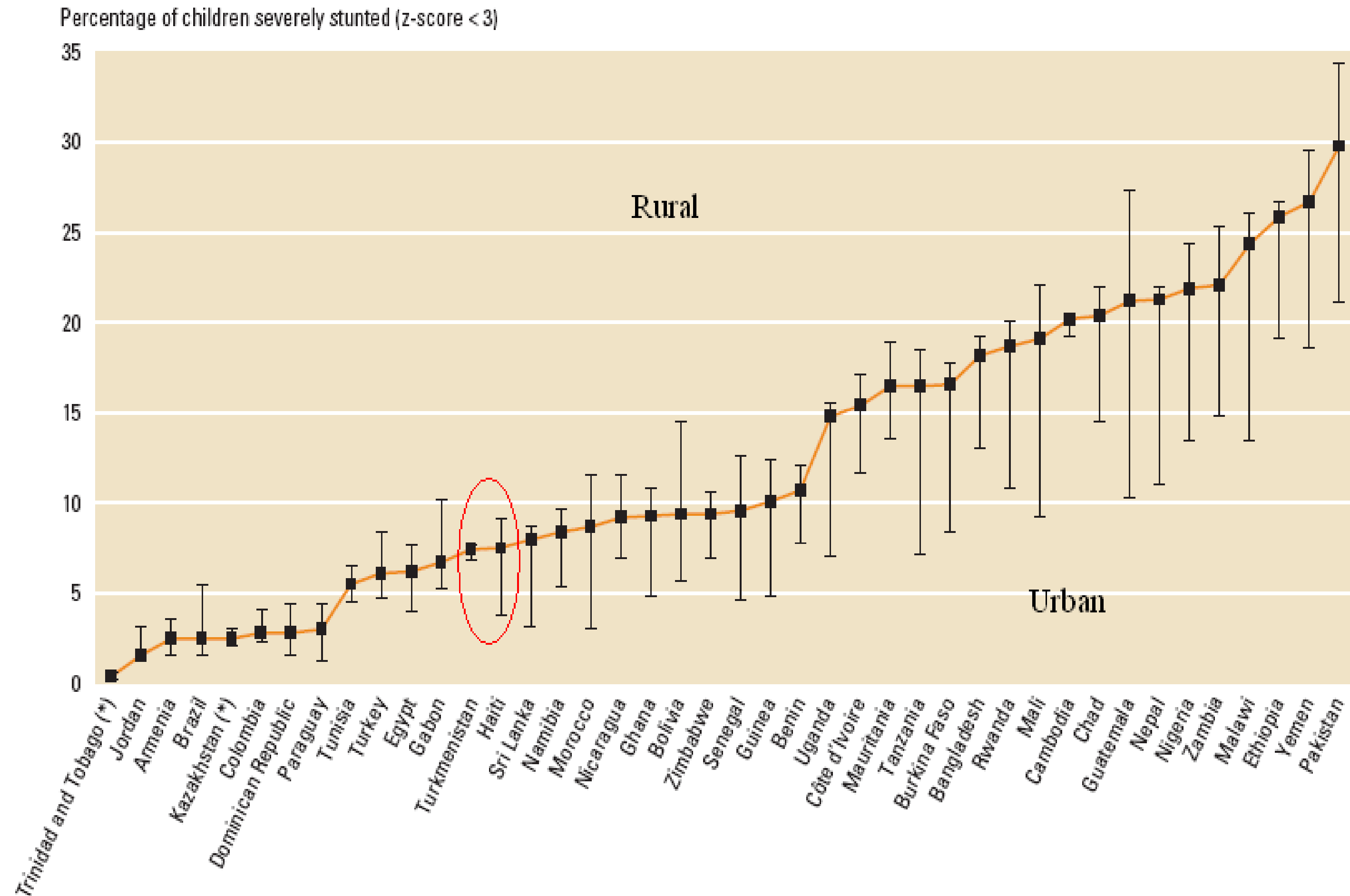

Responsiveness

- Responsiveness is a measure of how the system performs relative to non-health aspects, meeting or not meeting a population’s expectations of how it should be treated by providers of prevention, care or non-personal services such as:
- Respect for persons
- Client orientation

World Health Report 2000

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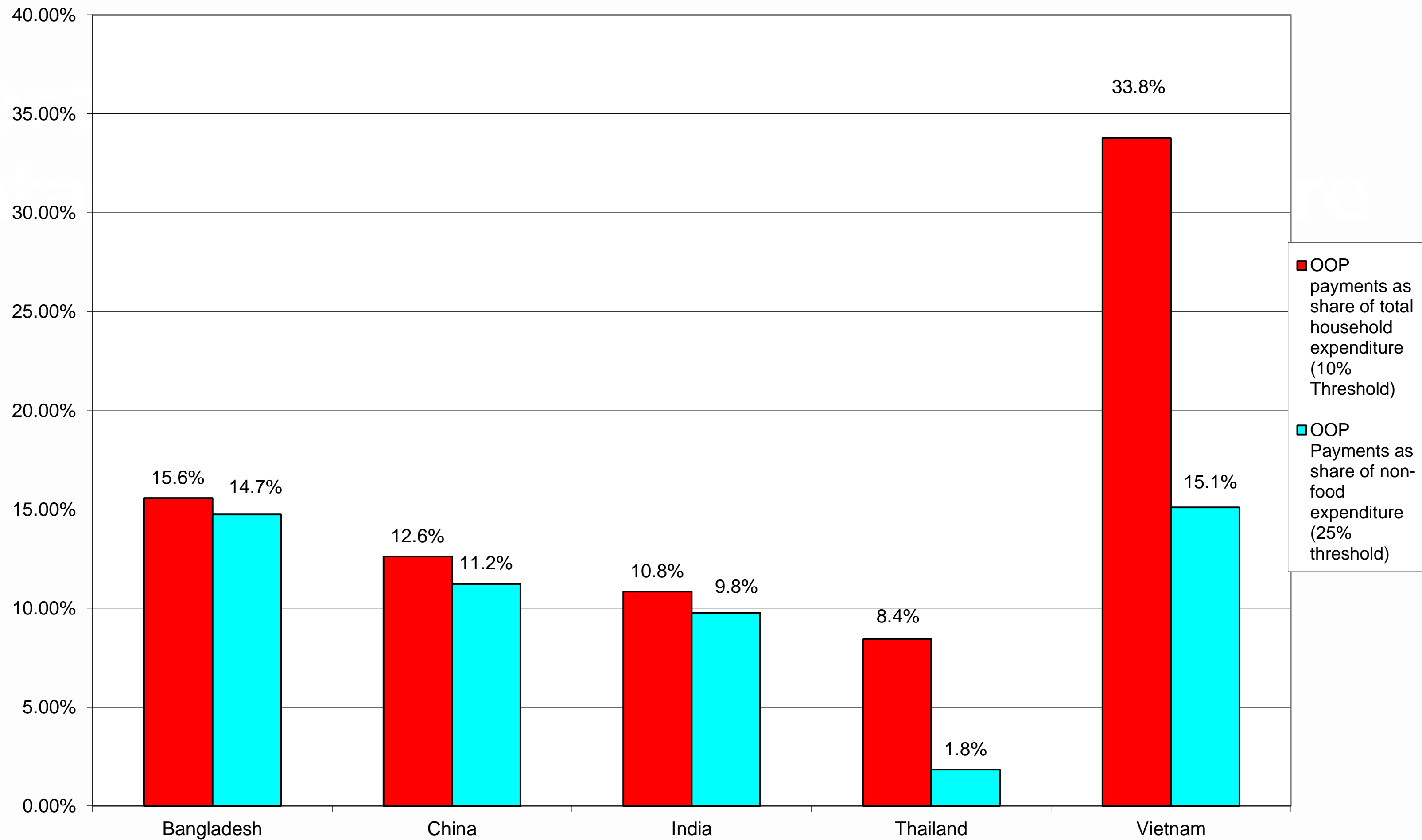
Fair Financing

- Minimize unexpected expenses
  - Prepayment, not out of pocket (OOP)
- Progressive payments
  - According to ability to pay
- Risk pooling
  - Cross-subsidy from rich to poor and healthy to sick

Medical Poverty Trap

- **Untreated morbidity**
  - Patients not consulting for financial reasons
  - Patients not hospitalized for financial reasons
- **Reduced access to care**
  - User fees common
- **Long-term impoverishment**
  - No financial protection for catastrophic costs (out of pocket [OOP] payments as share of total household expenditure or as share of non food expenditure)
  - Formal & informal fees high compared to salary
- **Irrational use of drugs**
  - Wasteful and potentially harmful (to individual and society)

M. Whitehead, G. Dahlgren, T. Evans, Equity and health sector reforms: can low-income countries escape the medical poverty trap?. *The Lancet*, Volume 358, Issue 9284, Pages 833-836



Van Doorslaer E. et al. Effect of payments for health care on poverty estimates in 11 countries in Asia: an analysis of household survey data (2006) *Lancet*, 368 (9544), pp. 1357-1364

World Bank, 2001

Patient perspectives on health system performance

- Structure
  - Availability of drugs
  - Accessibility of the facility
  - Availability of “good” drugs
- Process
  - Overall patient care
  - Good clinical examination
  - Dispensing drugs
- Outcomes
  - Recovery, cure

HADDAD S. et al; What does quality mean to lay people? Community perceptions of primary health care services in Guinea, *Social science & medicine*, vol. 47, no3, pp. 381-394, 1998

What does the health system look like?

Mixed Health Markets

- Mixed health markets exist in low and middle income countries and are made up of the organized/ unorganized sectors and the marketized/ non-marketized sectors
- Mixed health markets can be chaotic as they operate outside of any regulatory framework
- This means that the challenges for regulating health markets are different between developed and developing countries.

Types of Health Markets

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	Unorganized		Organized	
Function	Non-marketized	Marketized	Public	Private
Consultation and treatment	Household member's advice Informal Midwife	Traditional healers LTFQ* Covert practice by public staff	Public health services	Licensed for-profit services NGO organizations
Medical goods	Household production of traditional medicines	Shopkeepers Itinerant drug peddlers	Gov't pharmacies	Licensed pharmacies

*LTFQ = Less than fully qualified medical staff

Bloom G. Beyond public and private? Unorganised markets in health care delivery. background paper for the World Development Report (WDR) 2003/4 presented at 'Making Services Work for Poor People' workshop held at Eynsham Hall, Oxford, November; 2002

Path Dependency

- It is dangerous to assume that health systems in low and middle income countries will follow a similar path as those in advanced market economies
- Transferability of experiences from advanced market economies to low and middle income economies is questionable
- Low and middle income countries may be in a better position to innovate institutionally as advanced market economies may not have developed in the same way.

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Developing Country Health Markets

- Weak regulation
  - Out of date or limited supervisory capacity
- Fragmentation
  - Plurality of financing and provision
  - Limits capacity to contain costs
  - Poor coordination and continuity of care
  - Difficulty in implementing regulations

In: Bennett, S., B. McPake & A. Mills, eds. *Private health providers in developing countries: serving the public interest?* London, Zed Books, 1997

Shortcomings of Private Health Markets

- Middle-income countries
  - Overuse of high-technology, poor internal efficiency
  - No significant difference in efficiency b/w public and private sector
  - Greater capacity to regulate

In: Bennett, S., B. McPake & A. Mills, eds. *Private health providers in developing countries: serving the public interest?* London, Zed Books, 1997

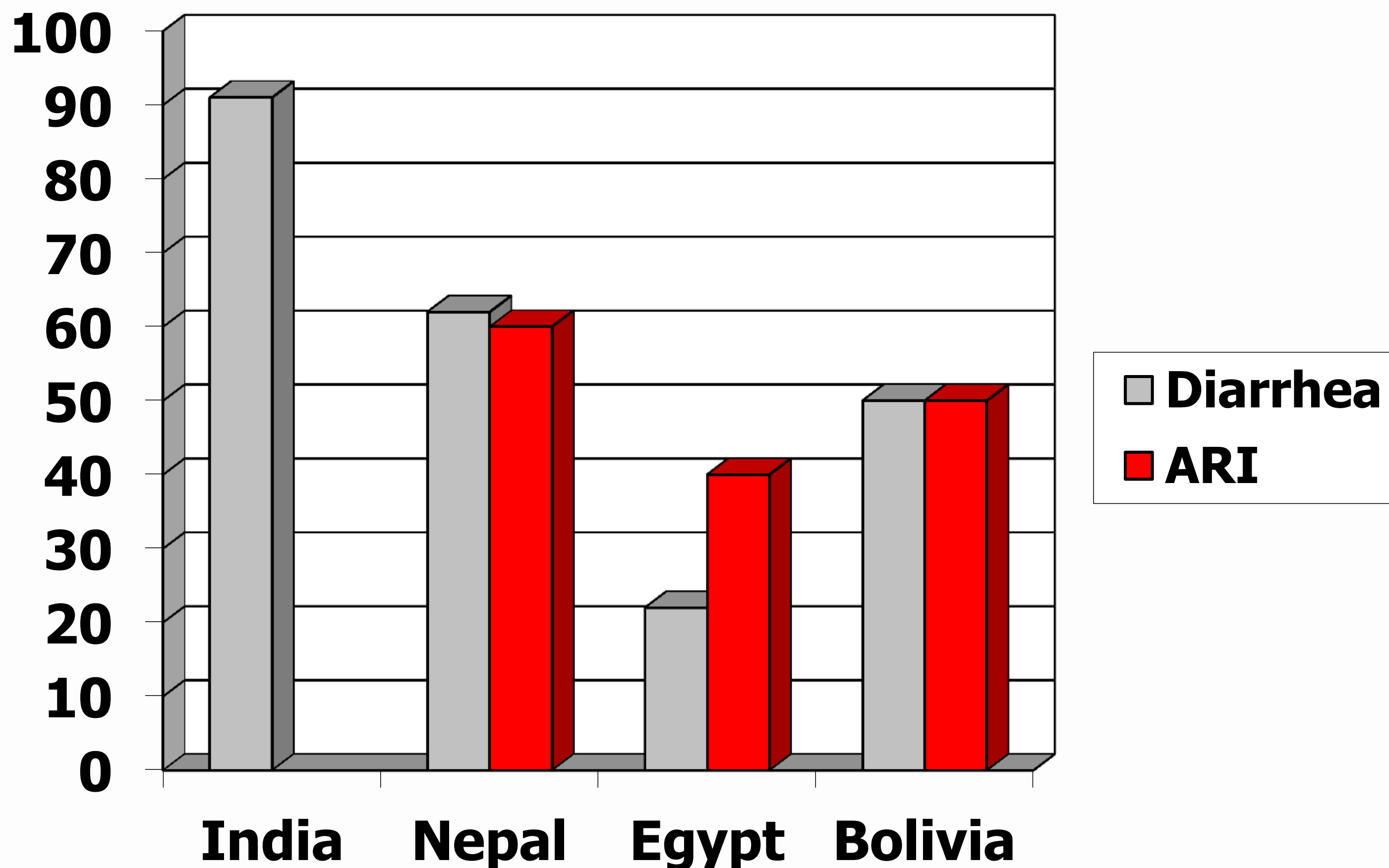
Private Sector in Health Systems

Utilization of Private Sector

- Used more by rich than poor in most places
- Widely used by poor, even when free services available in the public sector
  - 58%-99% of poor used it for acute respiratory infection and diarrhea in a sample of 35 countries
- Poor often choose
  - Private sector for outpatient care
  - Public sector for inpatient care

Flavia Bustreo, et al., *Can developing countries achieve adequate improvements in child health outcomes without engaging the private sector?, Bulletin of the World Health Organization* 2003;81:886-895

Percentage of children treated by private providers



Flavia Bustreo, et al., *Can developing countries achieve adequate improvements in child health outcomes without engaging the private sector?, Bulletin of the World Health Organization* 2003;81:886-895

Reasons for Using Private Sector

- Greater accessibility
- Greater privacy
- Higher (perceived) quality
- Speed of service better
- More sensitive to user's demands
- Costs more predictable

Anne Mills, Ruairi Brugha, Kara Hanson, & Barbara McPake, What can be done about the private health sector in low-income countries?. *Bulletin of World Health Organization* 2002;80(4): 325-30

Equity and Provider Behavior

Policy Objectives for Care Provision

- Equity
- Affordability
- Appropriateness of clinical management
  - clinically appropriate
  - cost-effective
  - in-line with government priorities

Zwi, Anthony. Private Health Care in Developing Countries. *BMJ* 2001;323:463-464

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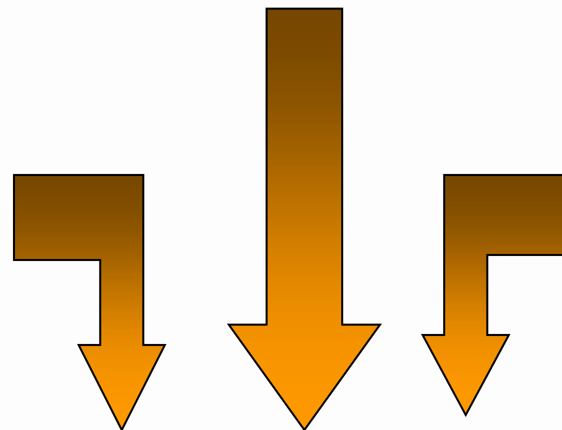
Model of Private Provider Behavior

National Context
- Public / private mix
- Gov't-Private Sector Relations
- Regulatory Environment

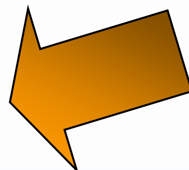
Provider Knowledge & Attitudes
- Training
- Opportunities for Continuing Medical Education (CME)
- Influence of Pharma Industry
- Access to Guidelines

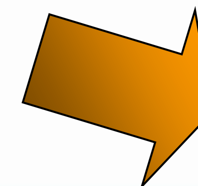


Practice Context
- Market Exposure
- Provider Payment System
- Accountability
- Community expectations

Patient-MD Interaction
- Ability of provider to choose correct management
- Availability, acceptability & affordability of treatments

Appropriate Management





Inappropriate Management

Brugha, R. and Zwi, A. Improving the quality of private sector delivery of public services: challenges and strategies. *Health Policy and Planning* 1998; 13:107-120

India Case Study

Population: 1.15 billion

GDP per capita: $2,460 (PPP)

Life expectancy: 62 (male) /64 (female)

Total expenditure on health as % of GDP: 5.0

Private expenditure: 81%

Out-of-pocket expense: 76% of all health expenditure

World Health Statistics, 2008

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India: National Context

- National policy to promote private sector since '82
- Not accounted for in planning
- Poor linkage between private and public sector
- At independence in 1947, the private health sector provided 5-10% of total patient care
- It now accounts for 82% of outpatient visits, 49% of inpatient beds, and 75% of specialists

Baru R. Private health care in India – social characteristics and trends. New Delhi, India: *Sage Publications*, 1998
Berman, P. Rethinking Health Care Systems: Private Health Care Provision in India. *World Development*, 26(8):1463-1479, 1998. Government of India. *Tenth five year plan 2002-07*. New Delhi: Indian Planning Commission, 2002.
Commission on Macroeconomics and health: Delivery of Health Services in the Private Sector 2005.

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India: Regulatory Context

Medical Council of India (State)

- –Register physicians, regulate medical education
- –No systematic database of registered members
- –Few councils have ever suspended anyone

Nursing Home Act (Delhi and Maharashtra)

- –Only 22% registered in Delhi
- –Inspection and cancellation of registration rare
- –Register small private hospitals and dispensaries

Consumer Protection Act (Federal)

-Strengthens rights of patients
-Complainant must prove negligence, difficulty finding doctors to testify
-200,000 cases pending, few funds to process them

Bhat R. Regulation of the private sector in India. *International journal of health planning and management* 1996;11:253-274

India: Practice Environment

- 92% private practitioners are sole proprietors
- Half borrow at high interest to start up
- Location and equipment biggest factors in cost of establishment
- Experience biggest barrier to entry

Bhat R. Characteristics of private medical practice in India: a provider perspective. *Health policy and planning* 1999;14:26-37

India: Practice Environment

- Main risks: fluctuation in patient flow, poor recovery of costs, ↑ operating costs
- Shortage of paramedical staff
- Prices based on cost and market price for most MDs
- Fee splitting, over-prescription of drugs and inadequate waste disposal common

Bhat R. Characteristics of private medical practice in India: a provider perspective. Health policy and planning 1999;14:26-37

Rao KS, Nundy M, Dua AS. Financing and Delivery of Health Care Services in India, Section II: Delivery of health services in the private sector. *National Commission on Macroeconomics and Health Report* 2005.

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Provider Knowledge & Attitudes

- Few opportunities for CME
- Pharmaceutical industry:
  - 1 medical representative for every 4 medical practitioners in Bombay
  - $20/MD/month spent by Abbott on marketing
- Some awareness of clinical practice guidelines

Brugha R, Zwi A. Improving the quality of private sector delivery of public health services: challenges and strategies. *Health policy and planning* 1998;13:107-120.
Thaver IH, Harpham T. Private practitioners in the slums of Karachi: professional development and innovative approaches for improving practice. From Bennett S, McPake B, Mills A, eds. *Private health providers in developing countries: serving the public interest*? London: Zed Books, 1997.
Kamat V, Nichter M. Monitoring of product movement: an ethnographic study of pharmaceutical sales representatives in Bombay, India. From Bennett S, McPake B, Mills A, eds. *Private health providers in developing countries: serving the public interest?* London: Zed Books, 1997.

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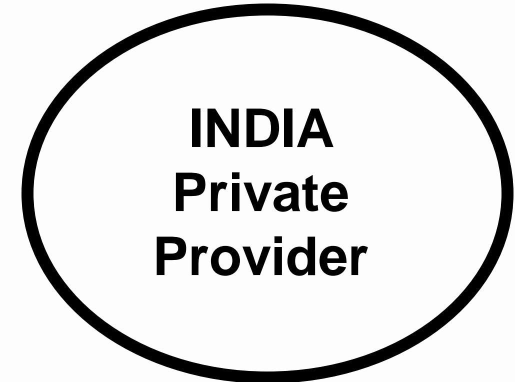
Patient-Provider Interaction & Outcomes

- Ability of provider to choose correct management
  - Only 15% of providers measured respiratory rate in ARI cases (Bihar)
  - 80 different treatments prescribed for TB
- Average consultation is 3 minutes in slum practice
- Knowledge of guidelines good
- Mean of 4 drugs dispensed per case of diarrhea
  - 66% prescribed antibiotics, only 29% oral rehydration salts
  - 14% prescribed injectable drugs

Brugha R, Zwi A. Improving the quality of private sector delivery of public health services: challenges and strategies. *Health policy and planning* 1998;13:107-120.
Chakraborty S, D'Souza SA, Northrup RS. Improving private practitioner care of sick children: testing new approaches in rural Bihar. *Health policy and planning* 2000;15:400-407.
Thaver IH, Harpham T. Private practitioners in the slums of Karachi: professional development and innovative approaches for improving practice. From Bennett S, McPake B, Mills A, eds. *Private health providers in developing countries: serving the public interest?* London: Zed Books, 1997.

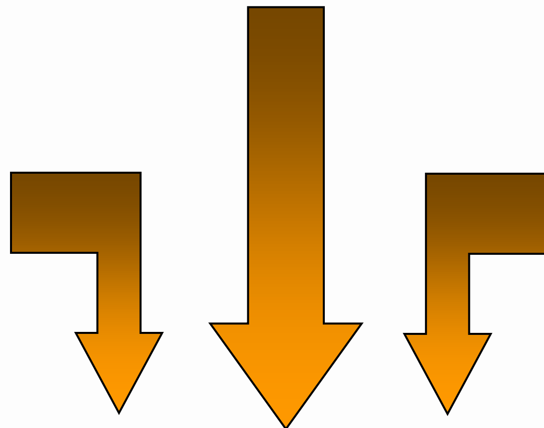


National Context

- Public services dominate
- Gov't ignores private sector
- Poor regulatory capacity

Provider Knowledge & Attitudes

- Highly variable training
- Few opportunities for CME
- Strong influence of Pharma Industry
- Moderate access to Guidelines



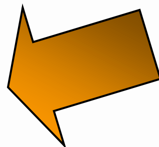
Practice Context

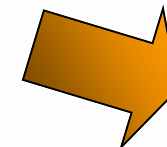
- High market exposure
- Fee for service
- Little accountability
- Incentives to increase costs

Patient-MD Interaction

- Knowledge secondary to other influences
- Availability, acceptability & affordability of treatments

Appropriate Management





Inappropriate Management

Strategies for Increasing Performance of Private Care

- Supply side
  - Training
  - Provider accreditation
  - Regulation/ standard setting
  - Contracting

Strategies for Increasing Performance of Private Care

- Demand side
  - Subsidies, vouchers for vulnerable groups
  - Community health education
  - Social marketing (Use of marketing techniques to influence public health behaviors like hand washing or use of contraceptives)
  - Patients rights groups

Organizational Innovations

- Innovation may arise out of chaotic systems
  - There are gaps in dysfunctional public systems by innovative non-state organizations
- Organizations can use innovative business models to improve availability, affordability and quality of services for the poor
- This can be done through innovations in:
  - Financing
  - Marketing
  - Operations

Organizational Innovations (cont.)

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- **Innovative Financing**
  - Cross subsidization from rich to poor
  - Reducing Capital and Operating costs
  - High Volume, Low Cost models
- **Innovative Marketing**
  - Mass communication
  - Customer orientation
  - Franchising
- **Innovative Operations**
  - Extensive use of paramedical staff
  - Developing new, simpler approaches to screening and treatment
  - Novel delivery mechanisms to reach patients

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Conclusions

- Health systems have great potential to improve health of populations, but their performance is often poor
- Private care dominates most low/middle income health markets
- Unregulated private sector does not have an incentive to provide high-quality care
- Expansion of public sector is difficult with current low levels of government spending

Conclusions (cont.)

- Advances in management have much to contribute to health system performance
- Innovative organizational models have emerged which could improve health services for the poor
- Improving performance through regulation requires new investment or shifting public resources from provision and infrastructure to oversight

Credits

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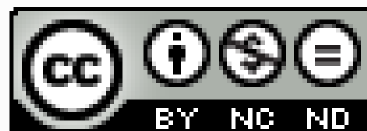

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