

# Equity and Efficiency of China's Healthcare Delivery System

China Health System Study Group

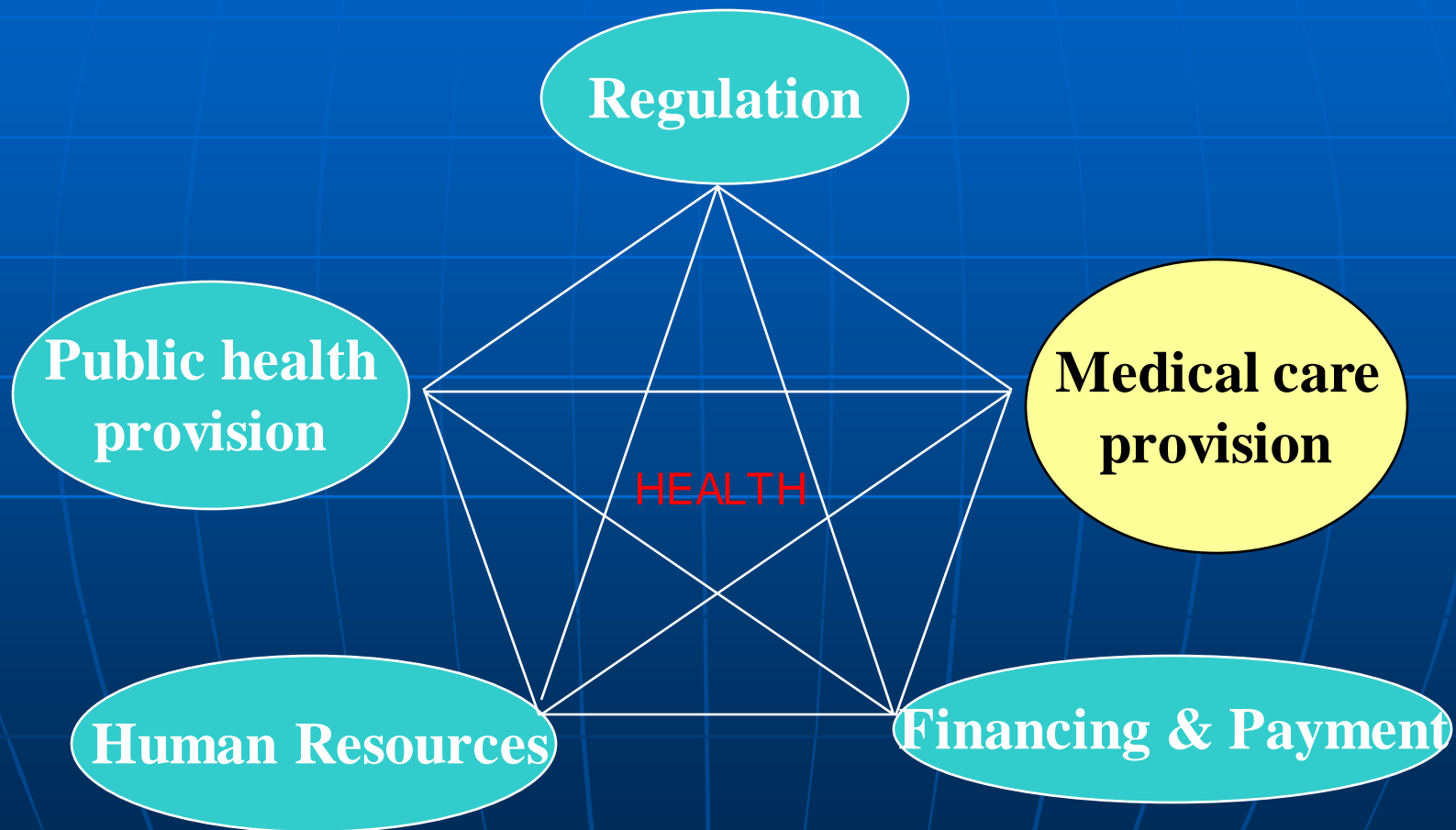
Presented by:

Onil Bhattacharyya, MD, PhD

Harvard School of Public Health

Nov. 5, 2007 APHP

# Framework of Health System Analysis



# Overview

- Trends in health care delivery
- Sources of system inefficiency
- Proposed solutions

# History of Healthcare Delivery in China

- 1949-78:
  - Publicly financed and vertically integrated system
  - Good health at low cost
- Post-1978 Reforms:
  - Reduced government financing
  - Facilities generate operating revenue
- Investment in tertiary care
- Radical change in organizational and provider incentives

# Growth of Hospitals and Beds

Size of Hospital	1990	2000	2005	2006
<100(Beds)	7787	7898	11156	11516
100-499(Beds)	5261	6738	6523	6635
500-799(Beds)	441	661	740	764
≥800(Beds)	-	149	284	331
Total	13489	15446	18703	19246

# Distribution of Resources and Services

70% of  
Population in  
Rural Areas



80% of  
Services  
Provided in  
Urban Areas

China daily, 2003

# Utilization of Hospital Services by Level - 2006

	Visits (10 000)	Inpatients (10 000)	Utilization Rate (%)
Total	147101.3	5562.2	72.4
<b>Tertiary</b>	45261.9	1614.0	<b>91.2</b>
1 st Class	34641.7	1181.1	93.0
2 st Class	9495.0	397.7	87.2
<b>Secondary</b>	58092.1	2530.0	<b>70.3</b>
1 st Class	44621.6	1979.9	74.2
2 st Class	12542.4	527.2	59.7
<b>Primary</b>	10308.4	215.1	<b>50.9</b>
1 st Class	8285.0	176.3	52.7
2 st Class	1043.7	21.9	42.5



6:00 AM at Beijing Union Medical University  
Hospital Outpatient Registration Office

"Market Newspaper, 03/14/01"



# Sources of Inefficiency

- Limited government funding
  - Hospital must generate own income
  - Focus on profitable services and clients
  - Reduced incentive to provide “public goods”
- Perverse provider incentives
  - Bonuses given based on revenue generated for the hospital
  - Affects prescription of drugs and tests

# Government Subsidy of General Hospitals

Year	1998	1999	2000	2001	2002	2003	2004	2005
Hospital Average Income (10,000 Yuan)	25947	28583	32424	35379	37150	39694	51118	55756
Government Subsidy (10,000 Yuan)	1554	1945	2041	2516	2730	2975	3182	3333
% of income	6.0	6.8	6.3	7.1	7.3	7.5	6.2	6.0

MOH, 2007

# Hospital income Sources

## Average Medical Expense Per Patient in China

	1995	2000	2005	2006
<b>Outpatient Medical Expense Per Capita (yuan)</b>	<b>39.9</b>	<b>85.8</b>	<b>126.9</b>	<b>128.7</b>
<i>Drug%</i>	64.2	58.6	52.0	50.5
Examination & Treatment %	22.8	19.6	29.8	31.0
<b>Outpatient Medical Expense Per Capita (yuan)</b>	<b>1667.8</b>	<b>3083.7</b>	<b>4661.5</b>	<b>4668.9</b>
<i>Drug%</i>	52.8	46.1	43.9	42.7
Examination & Treatment %	30.4	31.7	36.0	36.2

# Sources of Inefficiency

- Underutilization of primary care
  - There are 3 times more outpatients seen per staff in hospitals than community health centers
- Competition between levels of care

# Public Perception of Community Health Centers

Service	Satisfaction with service
Disease prevention	66%
Health education	76%
Medical treatment	22%
Family planning	63%
Community rehabilitation	19%

Pan et al, 2005

# Community Health Service Financial Policies

- 42% of regions allow CHCs to be registered with health insurance
- 50% of regions have provision to subsidize care for the poor in CHCs

But

- 59% of CHC operating revenue from drug sales

Chen et al, 2006

# Summary

- Inequality stems from
  - Distribution of resources
  - Poor financial access to basic services
- Inefficiency stems from
  - Incentive to increase healthcare costs
  - Underutilization of primary care

# Recommendations

- Clarify and redefine the role of public and private providers
- New organization and financing mechanisms to improve quality and efficiency in healthcare delivery



# Recommendations

- Strengthen vertical integration of primary and secondary/tertiary systems
- Strengthen primary care
- Strengthen Public Health & Disease Prevention

New Health Minister Chen Zhu vowed to establish a medical service system which covers all Chinese by 2010

- "Public medical service should not be a burden to society, but an important aspect of sustainable social development"

# Contributors

- Yuanli Liu
- Wensheng Fan
- Linlin Hu
- Lingling Zhang
- Poyu Lai

# China's Health Delivery System

