中山大學
SUN YAT-SEN UNIVERSITY

Health Care System in China and Recent Reform Initiatives

Dr. ZHANG Hui (Vivienne)*

16 January 2017

Sun Yat-sen University

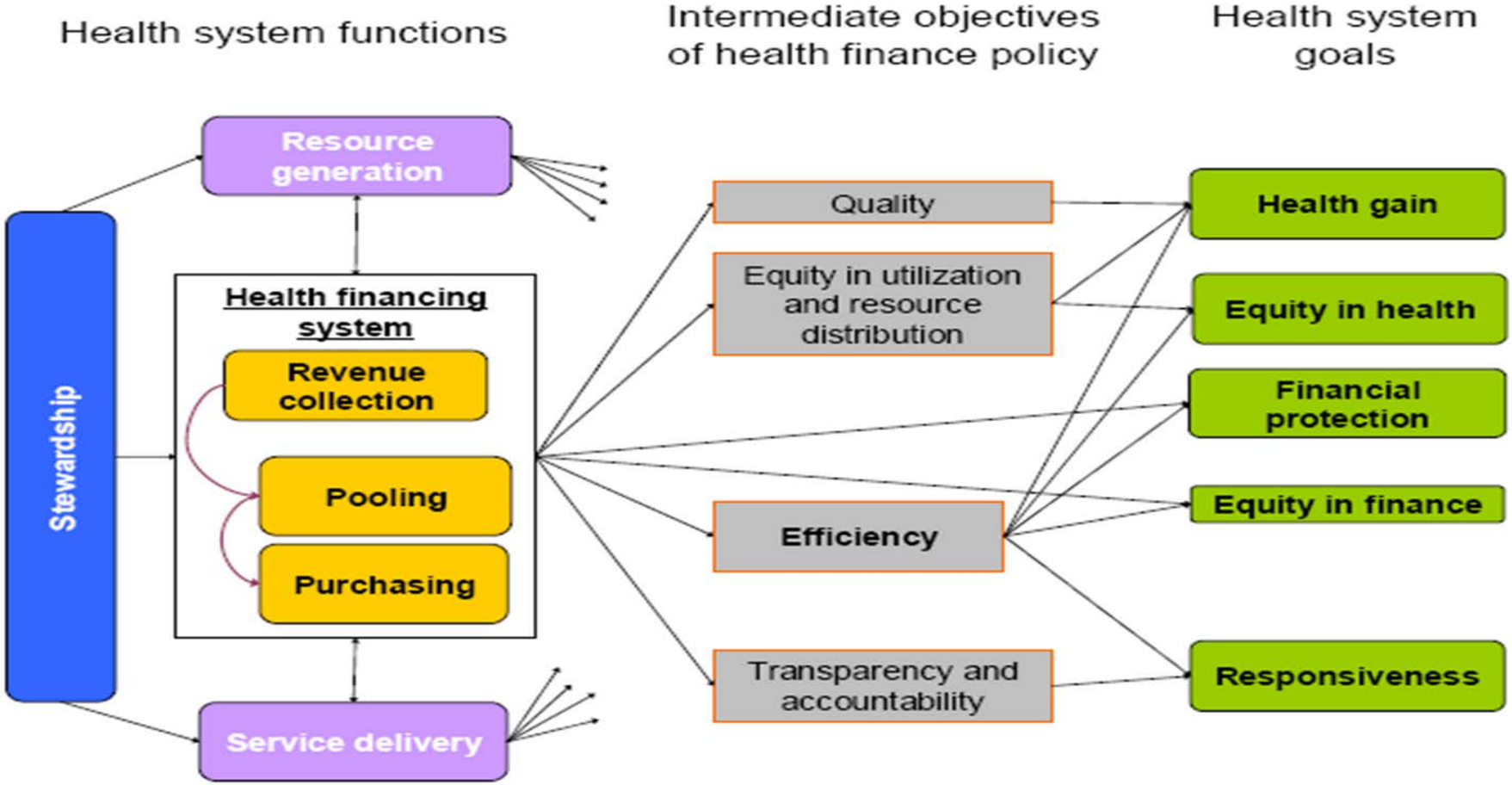
*Email: zhanghui3@mail.sysu.edu.cn

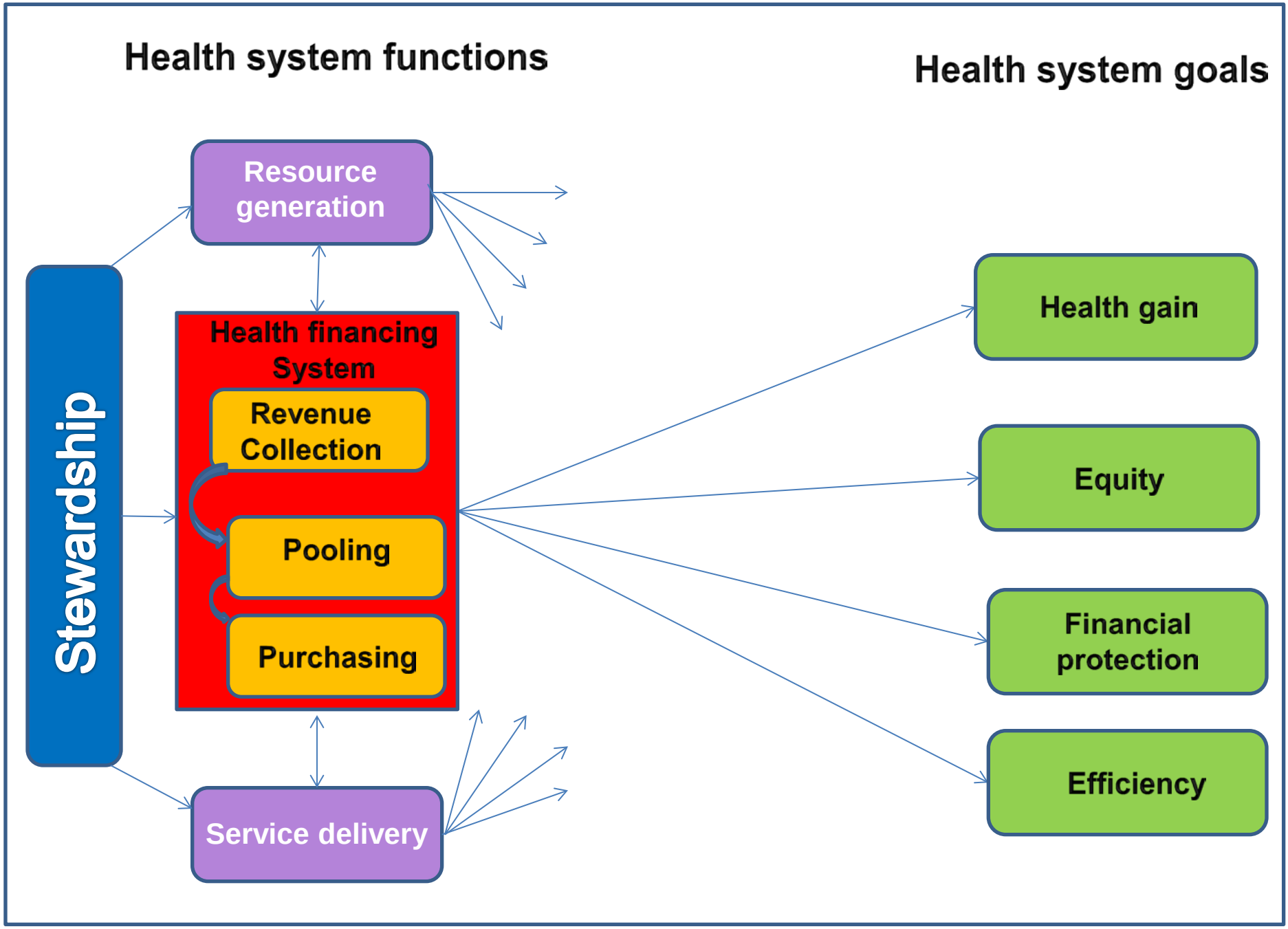
中山大學
SUN YAT-SEN UNIVERSITY

Outline

- Health Financing
- Financial Protection
- Equity
- Health Gain
- Efficiency
- Recent Reform Initiatives

Framework


Health system functions
Intermediate objectives of health finance policy
Health system goals
Resource generation
Stewardship
Health financing system
Revenue collection
Pooling
Purchasing
Service delivery
Quality
Equity in utilization and resource distribution
Efficiency
Transparency and accountability
Health gain
Equity in health
Financial protection
Equity in finance
Responsiveness


Health system functions
Health system goals
Resource generation
Stewardship
Health financing System
Revenue Collection
Pooling
Purchasing
Service delivery
Health gain
Equity
Financial protection
Efficiency

Health Financing

Total health expenditure in China, 1980-2012

Expenditure	1980	1985	1990	1995	2000	2005	2012
Total health expenditure (100 million yuan)	143	279	747	2155	4586	8659	28 119
Total health expenditure (US$ 100 million)	-	95	156	258	554	1057	4454
Total health expenditure per capita (yuan)	14.5	26.4	65.4	177.9	361.9	662.3	2076.7
Expenditure	**1980**	**1985**	**1990**	**1995**	**2000**	**2005**	**2012**
Total health expenditure per capita in urban areas(yuan)	-	-	-	-	813.7	1126.4	2999.3
Total health expenditure per capita in rural areas(yuan)	-	-	-	-	214.9	315.8	1064.8
Total health expenditure as % of GDP	3.2	3.1	4.0	3.5	4.6	4.7	5.4

Source: China National Health Development Research Centre, 2014; World Health Organization NHA Indicators, 2013

During 1995-2012,

- Total health expenditure increased 13 times, rising from 215.5 billion Yuan to 2811.9 billion Yuan.
- Total health expenditure per capita increased 11.7 times, with a large difference between urban and rural areas.
- Total health expenditure as a proportion of GDP has increased.

- China's total health expenditure as a percentage of GDP has attained **6%** in 2015.

Health Financing

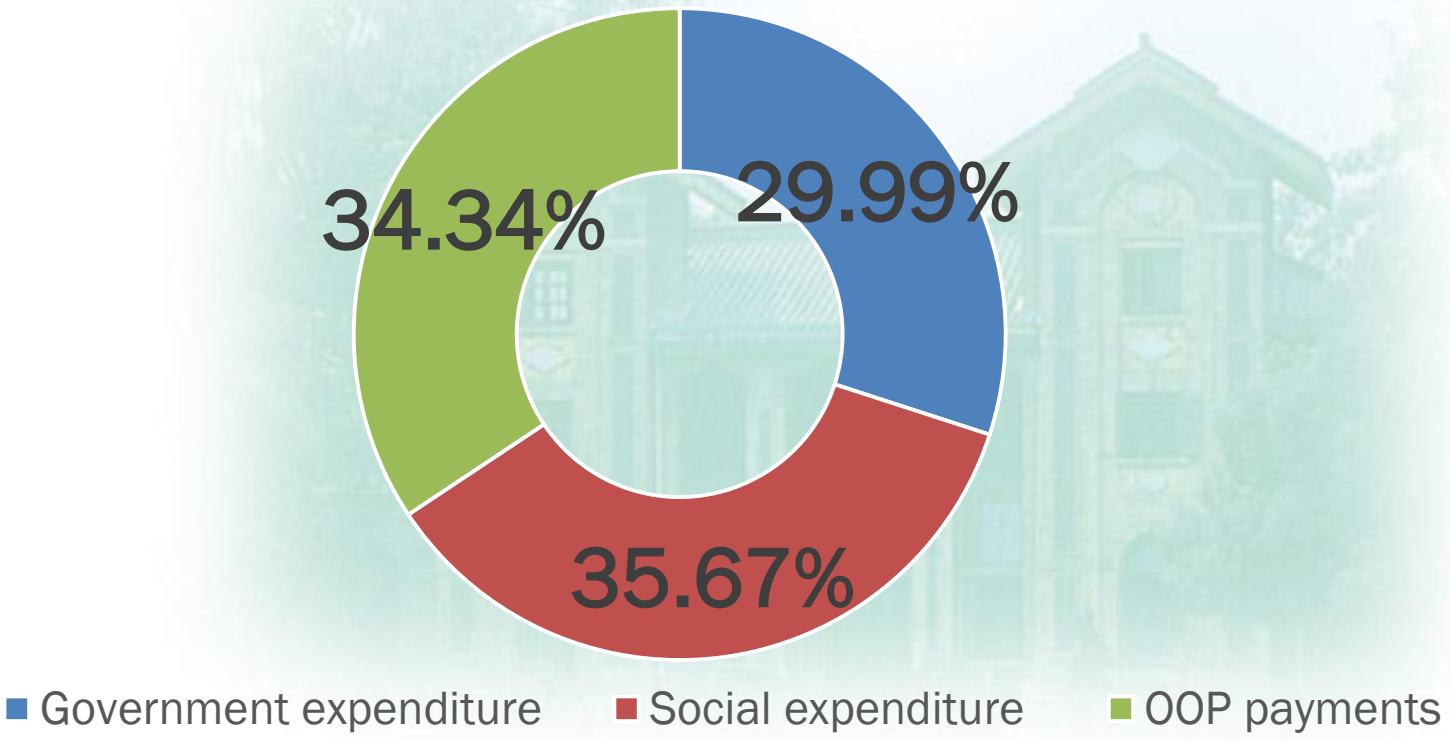
Mapping different indicators of international and domestic classification of Total Health Expenditure

	Categories		Detailed indicators	Categories	
WHO Classification	Public health expenditure (General government health expenditure)	Government budget (ear marked taxes)	Medical services, public health services, health supervision, etc.	**Government expenditure**	**Domestic Classification**
		Social insurance expenditure	Government subsidy for social insurance*		
			Social insurance contribution from individual, employer	**Social expenditure**	
	Private health expenditure	Private medical insurance	Private medical insurance contributions		
		Other private expenditure	Nongovernmental facilities and social donations		
		OOP payments	OOP payments from individual	**OOP payments**	

*Social insurance refers to UEBMI, URBMI and NRCMS
Source: China National Health Development Research Centre, 2014; World Health Organization, 2011

Health Financing

Percentage of Total Health Expenditure to Source of Revenue (domestic classification), 2012



- Government expenditure, social expenditure and OOP payments are the main sources for health financing in the domestic classification.

- 2012 as an example, government expenditure on health as a proportion of Total Health Expenditure was **29.99%**, social expenditure on health was **35.67%** and OOP payments made up **34.34%**.

Health Financing

Three social health insurance schemes:

- Urban Employee Basic Medical Insurance (**UEBMI**): For urban employed

  Medical Savings Account + Social Risk-pooling Fund
- Urban Resident Basic Medical Insurance (**URBMI**): For urban non-employed

  Social Risk-pooling only
- New Rural Cooperative Medical Scheme (**NRCMS**): For rural employed and non- employed

  Social Risk-pooling only

Medical Savings Account (MSA) Research

- Zhang & Yuen (2016) affirmed the usefulness of MSA in performing its intended functions: cost-containment, savings for the future, enabling utilization.
- The relationship between MSA balance and utilization is highly complex, and varies according to different circumstances.
- MSA balance is significantly associated with the likelihood of using outpatient services as well as the level of outpatient expenditure.

--For working individuals: **U-shaped** relationship

--For retirees: **Inverted U-shaped** relationship

Social Science & Medicine 151 (2016) 1–10

Contents lists available at ScienceDirect

Social Science & Medicine

journal homepage: www.elsevier.com/locate/socscimed

Medical Savings Account balance and outpatient utilization: Evidence from Guangzhou, China

Hui Zhang [a,*], Peter P. Yuen [b]

[a] Sun Yat-sen University, School of Public Health, No. 74. Zhongshan Road 2, Guangzhou, China
[b] The Hong Kong Polytechnic University, College of Professional and Continuing Education, Room 1702, 17/F, PolyU Hung Hom Bay Campus, 8 Hung Lok Road, Kowloon, Hong Kong

ARTICLE INFO

Article history:
Received 14 April 2015
Received in revised form
10 December 2015
Accepted 23 December 2015
Available online 25 December 2015

Keywords:
China

ABSTRACT

Medical Savings Account (MSA) is a financing instrument designed to reduce consumer-side moral hazards. The Urban Employee Basic Medical Insurance (UEBMI) scheme in China has an MSA component in addition to a Social Risk-pooling Fund. This study examines the association between MSA balance and outpatient utilization in Guangzhou, China, and determines MSA's impact on utilization under different circumstances. It also seeks to ascertain whether MSA has achieved its intended functions of "Cost-containment", "Saving for the future" and "Enabling utilization". The first group of 114,657 MSA account-holders, including both employees and retirees, who consistently insured with UEBMI from 2002 to 2007, are selected for this study. A two-part model is employed to estimate the effect of the MSA balance

Health Financing

Basic Information about the three health insurance scheme in China

	NRCMS	URBMI	UEBMI
Inception year	2003	2007	1998
Eligible population	Rural, employed and non-employed	Urban, non-employed	Urban, employed
Number of people insured(millions)	802	296	274
Population coverage	63.41%	15.31%	18.22%
Source of funding	Government subsidy(80%) and individual premium(20%)	Government subsidy(70%) and individual premium(30%)	Contributory(8% of annual payroll, 6% from employers, and 2% from employees)
Per-capita fund(US$)	$61.2	$66.2	$424.7
Number of funding pools	2852(counties)	333(municipalities)	333(municipalities)
Service package	Limited	Limited	Comprehensive
Annual admission to hospital rates	9.1%	7.1%	11.3%
Rate of physician visits for 2 weeks	12.5%	12.4%	13.4%
Number of drugs covered	800	2300	2300
Per-capita household consumption expenses ($)*	$1095	$2974	$2974
Proportion of health expenditures in total household consumption expenses*	9.3%	6.2%	6.2%

Data are from 2013 National Health Statistics Annual Report and Xie and Zhang.
*Household-based data, and URBMI and UEBMI data cannot be separated.

Source: Meng Q. et al. 2015 Lancet

- UEBMI has more comprehensive service coverage and financial protections than URBMI and NRCMS.
- Insurace premiums collected from UEBMI are much higher than the other two plans.
- For both the rate of admissions to hospital per year and the 2 weeks' physician visit rate, UEBMI is higher than the other two plans.
- Rural population have higher financial burdens than do urban populations.

中山大學 SUN YAT-SEN UNIVERSITY

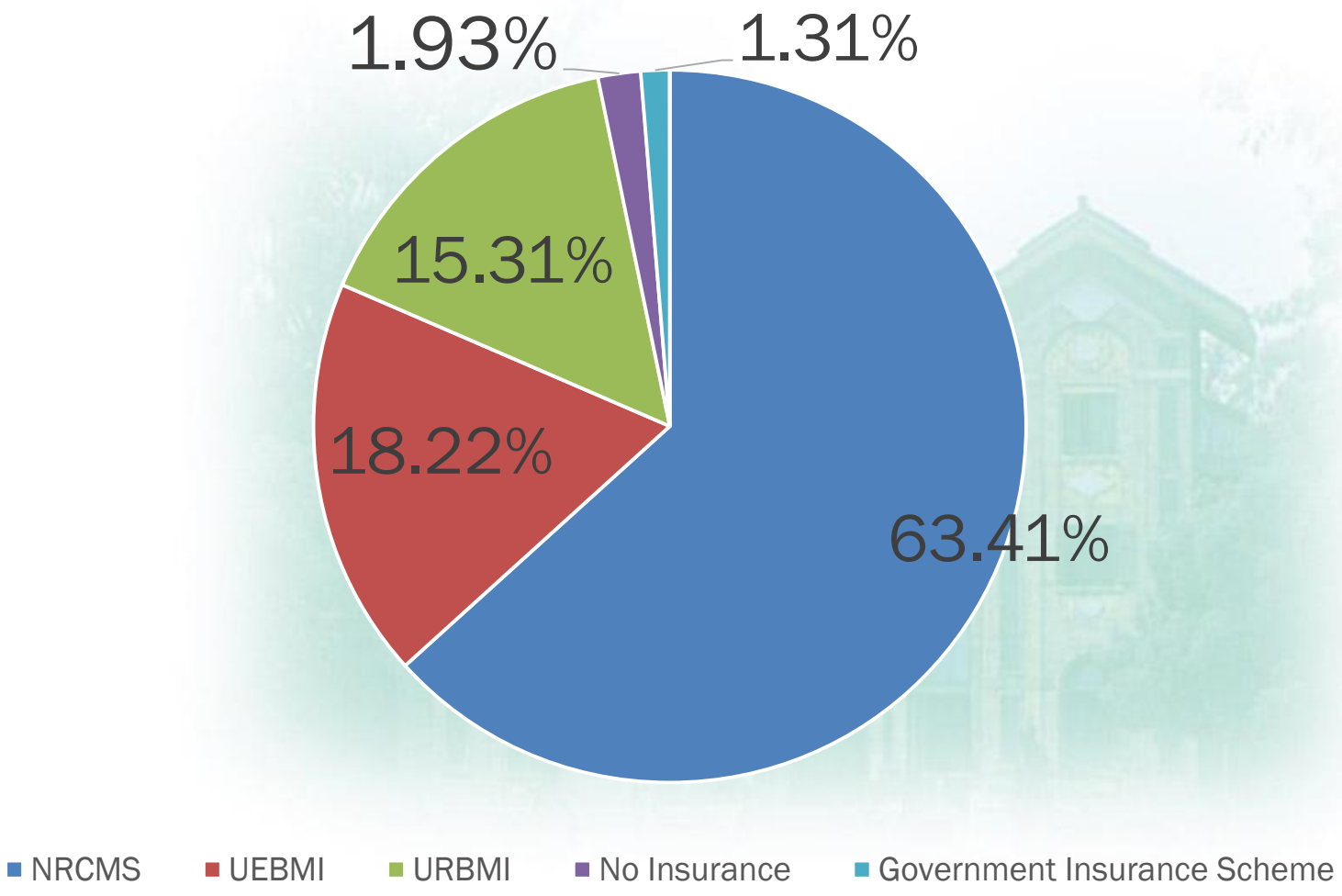
Health Financing

Social Health Insurance Coverage 2007-2013

Year	UEBMI Enrollees (units= 10,000 persons)	URBMI Enrollees (units= 10,000 persons)	NRCMS Enrollees (units= 100,000 ,000 persons)	Per-capita fund (Yuan)	Population coverage (%)
2007	18020.0	4291.1	7.26	58.90	86.20
2008	19995.6	11826.0	8.15	96.30	91.53
2009	21937.4	18209.6	8.33	113.36	94019
2010	23734.7	19528.3	8.36	156.57	96.00
2011	25227.1	22116.1	8.32	246.2	97.00
2012	27731.4	22996.1	8.41	300.3	98.51
2013	28306.8	23310.4	8.49	360.5	98.59

Health Financing

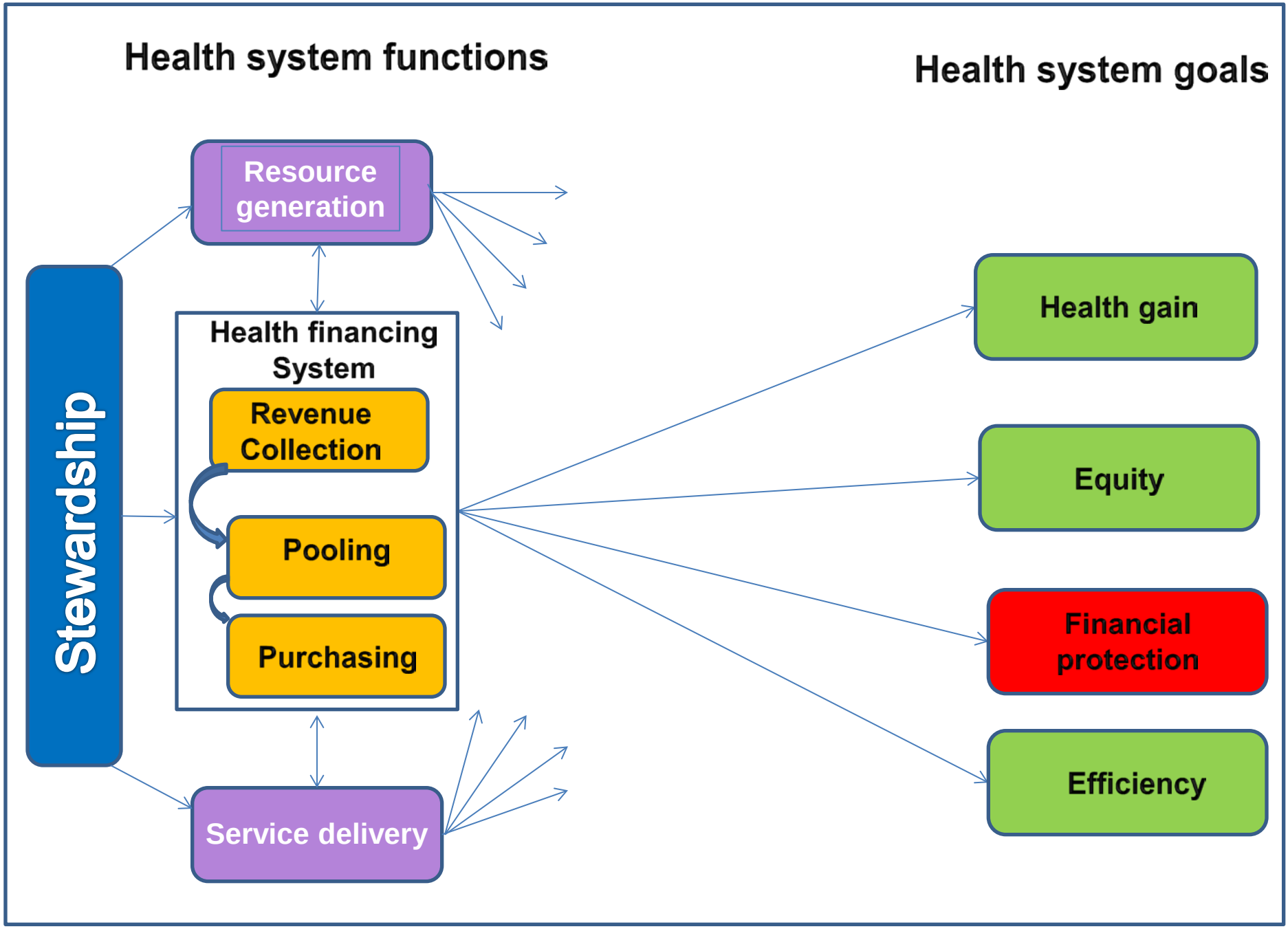
Social Health Insurance Coverage in 2015



- Since launching the health care reform in 2009, China has made significant progress in establishment of a basic health insurance system.

- China's social health insurance schemes – including UEBMI, URBMI, NRCMS – have rapidly expanded.

- Social health insurance coverage has attained 98.07% in 2015, and cover almost the whole Chinese population now.


Health system functions
Health system goals
Resource generation
Stewardship
Health financing System
Revenue Collection
Pooling
Purchasing
Service delivery
Health gain
Equity
Financial protection
Efficiency

Financial Protection

Changes in financial risk protection

	2003	2008	2011	Annual rate of change (%)*	
				2003-08	2008-11
Health insurance coverage (%, 95% CI)					
ALL	29.7 [29.6-30]	87.9 [87.8-88.1]	95.7 [95.5-95.8]	22.8	2.8
Rural	21.0 [20.9-21.3]	93.0 [92.9-93.2]	97.4 [97.2-97.5]	31.3	1.5
Urban	55.2 [54.8-55.6]	73.5 [73.1-73.9]	90.9 [90.4-91.3]	6.0	7.1
Western	27.3 [27.0-27.6]	90.3 [90.1-90.5]	96.6 [96.3-96.8]	25.2	2.2
Central	22.9 [22.5-23.2]	82.2 [81.9-82.6]	94.4 [94.0-94.7]	27.0	4.6
Eastern	38.9 [38.5-39.3]	90.0 [89.7-90.2]	95.7 [95.4-96.0]	17.7	2.1
Inpatient reimbursement rate (%, 95% CI)					
ALL	14.4 [13.7-15.1]	35.2 [34.6-35.8]	46.9 [44.7-49.1]	18.8	9.6
Rural	5.8 [5.2-6.4]	32.9 [32.3-33.6]	43.7 [40.7-46.7]	36.4	9.5
Urban	34.5 [32.8-36.1]	41.6 [40.2-42.9]	54.6 [52.4-56.7]	3.9	9.0
Western	12.0 [11.0-13.0]	37.4 [36.5-38.3]	51.2 [49.4-53.0]	23.6	10.5
Central	12.3 [11.0-13.6]	32.1 [31.1-33.1]	41.2 [34.6-47.6]	20.2	8.3
Eastern	19.2 [17.8-20.6]	35.3 [34.2-36.4]	46.8 [44.7-49.0]	12.8	9.4

Source：Meng Q, et al. Lancet, 2012

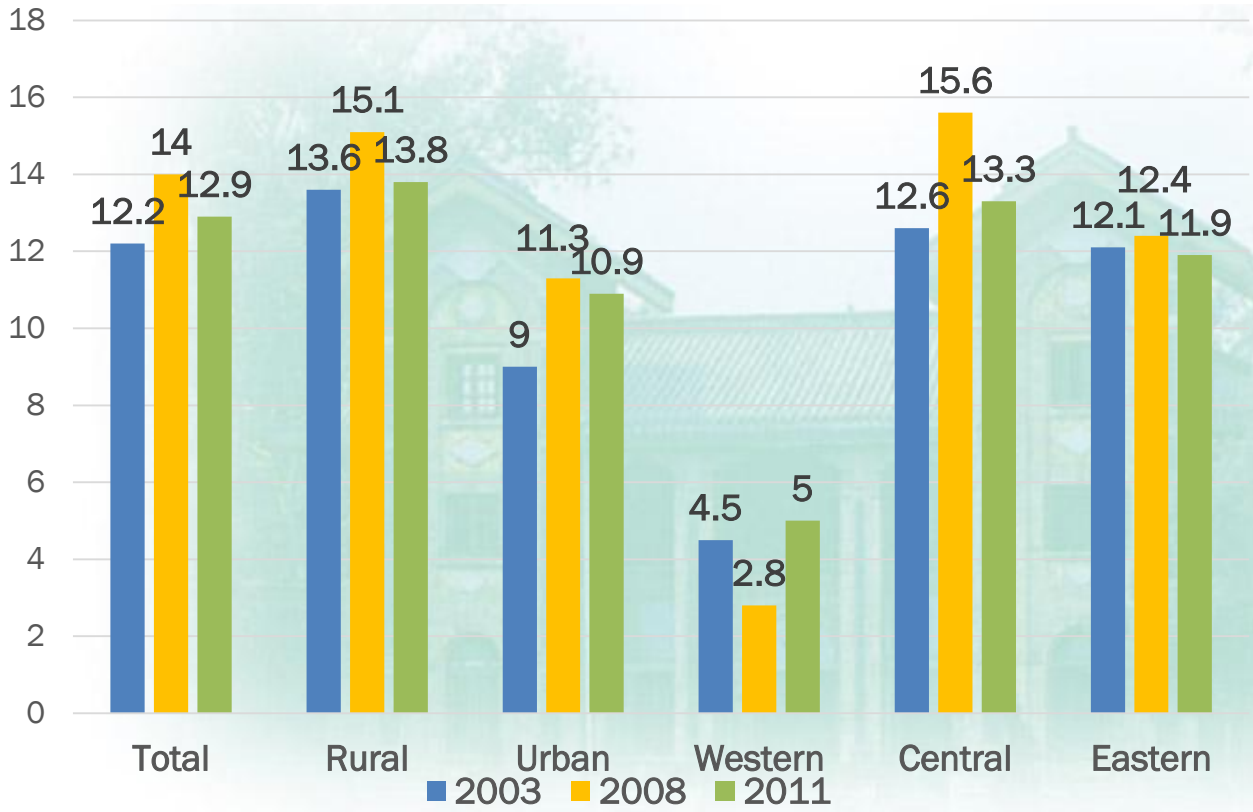
- With the increasing level of financing and government subsidies, the level of financial risk protection has greatly improved.

- All three health insurance schemes cover inpatient services, with the average reimbursement ratio increasing from 14.4% in 2003, to 35.2% in 2008, and to 46.9% in 2011.

- However, disparities still exist between urban and rural regions, as well as between eastern, central, and western China.

Financial Protection

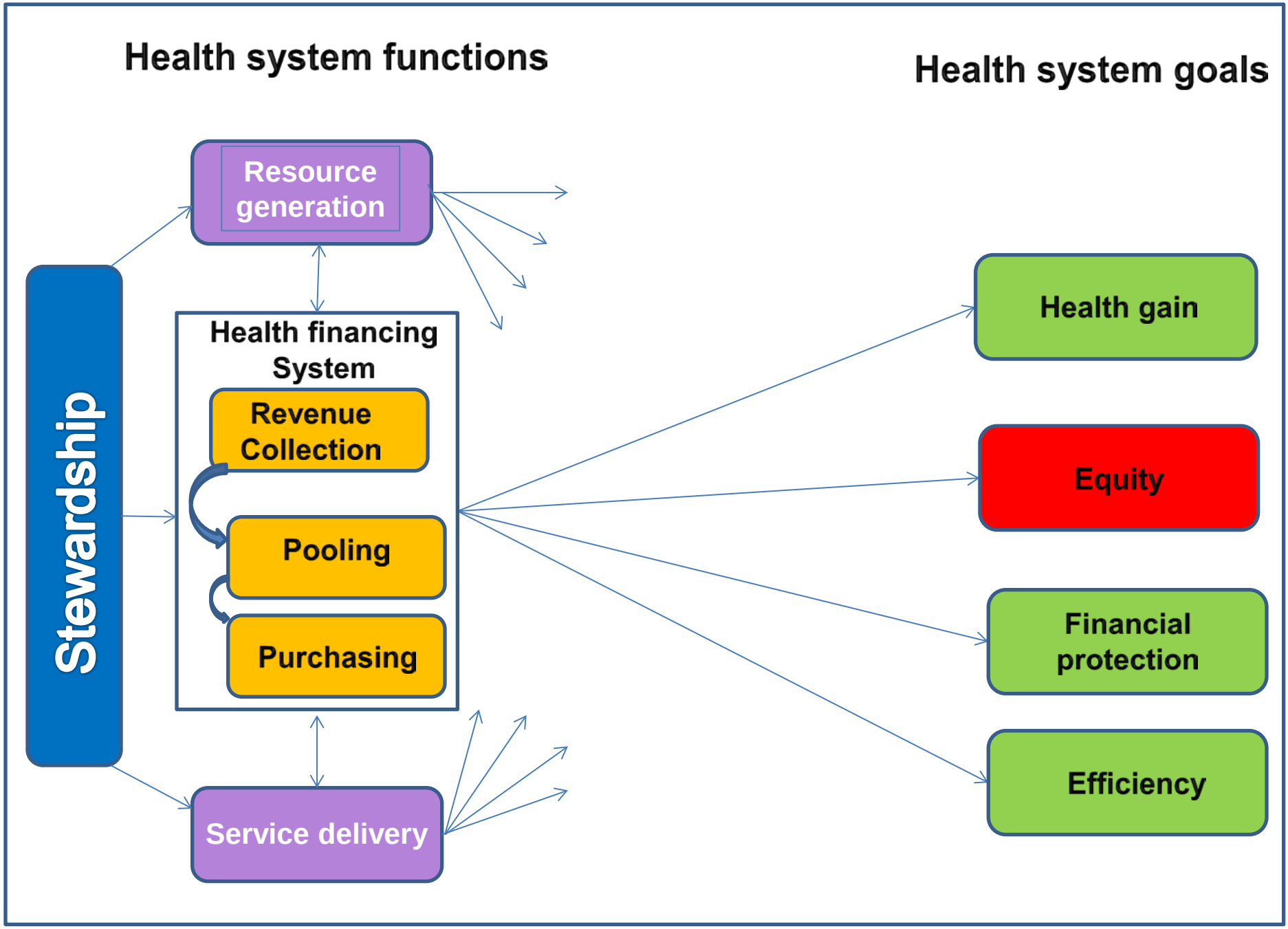
Proportion of households with catastrophic health expenditure (%, average)



Source：Meng Q, et al. Lancet, 2012

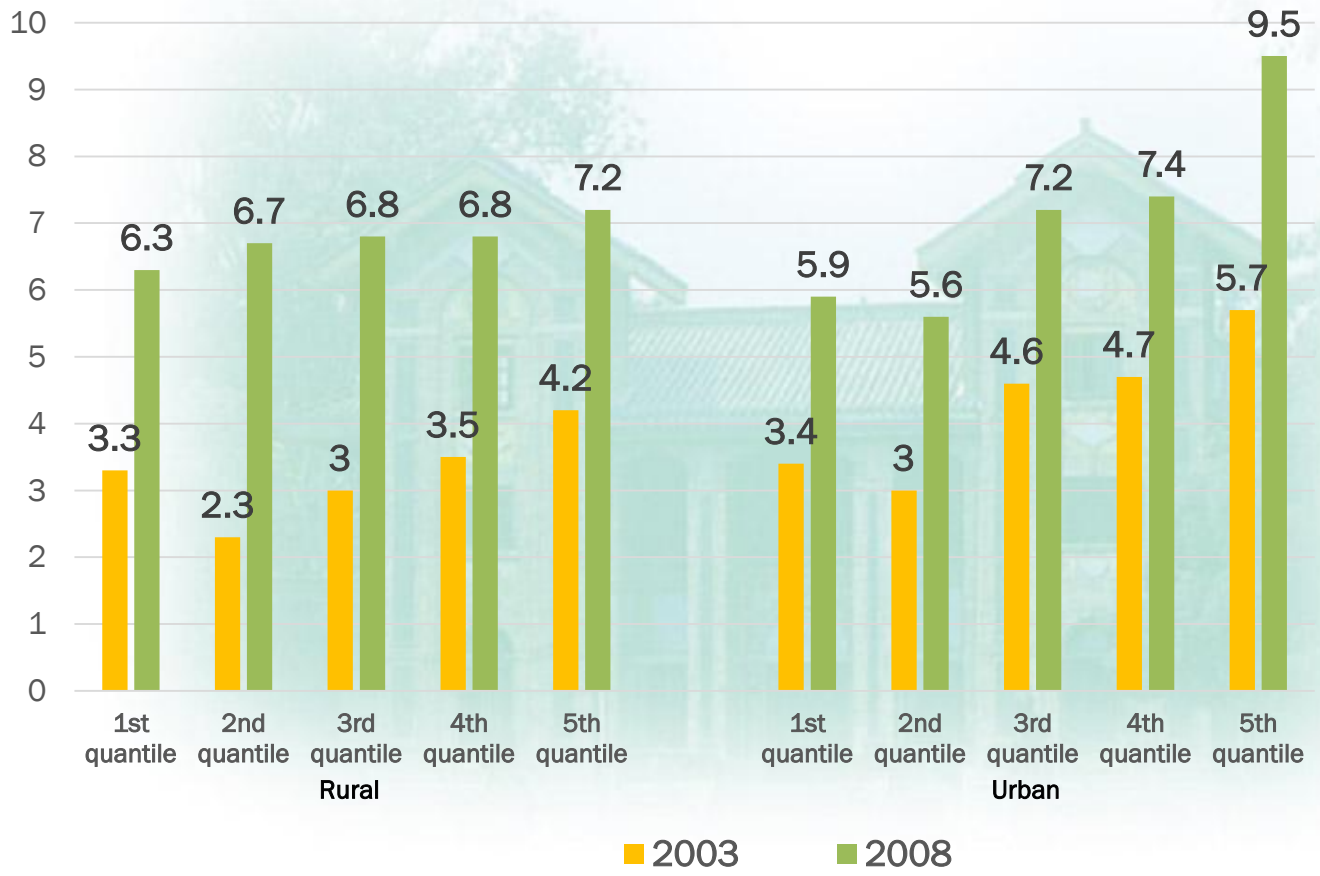
- Decrease in the proportion of households with catastrophic health expenses in 2011 (12.9%).

- Although the health insurance coverage and protection level has greatly improved, the proportion of households with catastrophic health expenditure remain at a relatively high level.


Health system functions
Health system goals
Resource generation
Stewardship
Health financing System
Revenue Collection
Pooling
Purchasing
Service delivery
Health gain
Equity
Financial protection
Efficiency

Equity

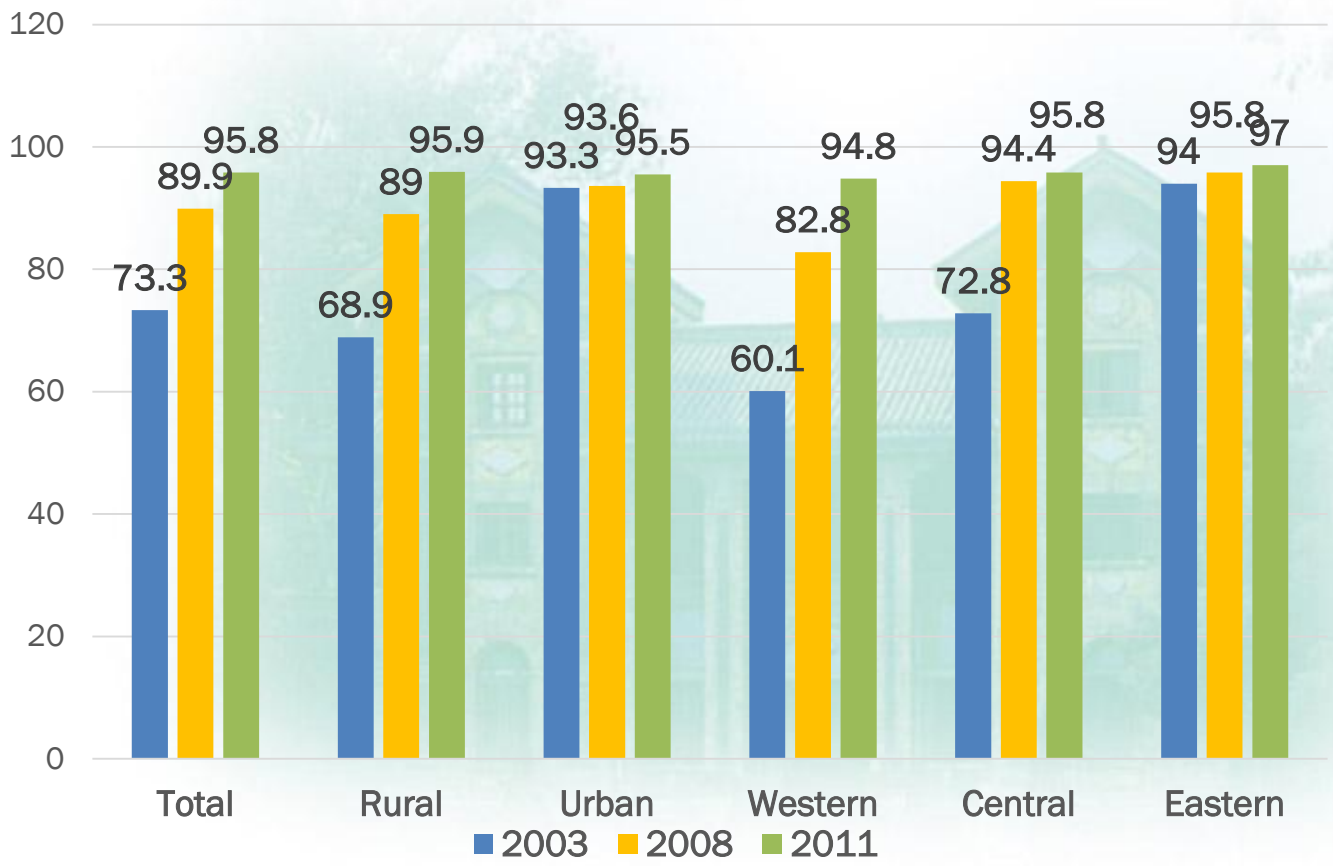
Hospital admission in the past year, according to income group



Source：Ministry of Health 2009

Equity

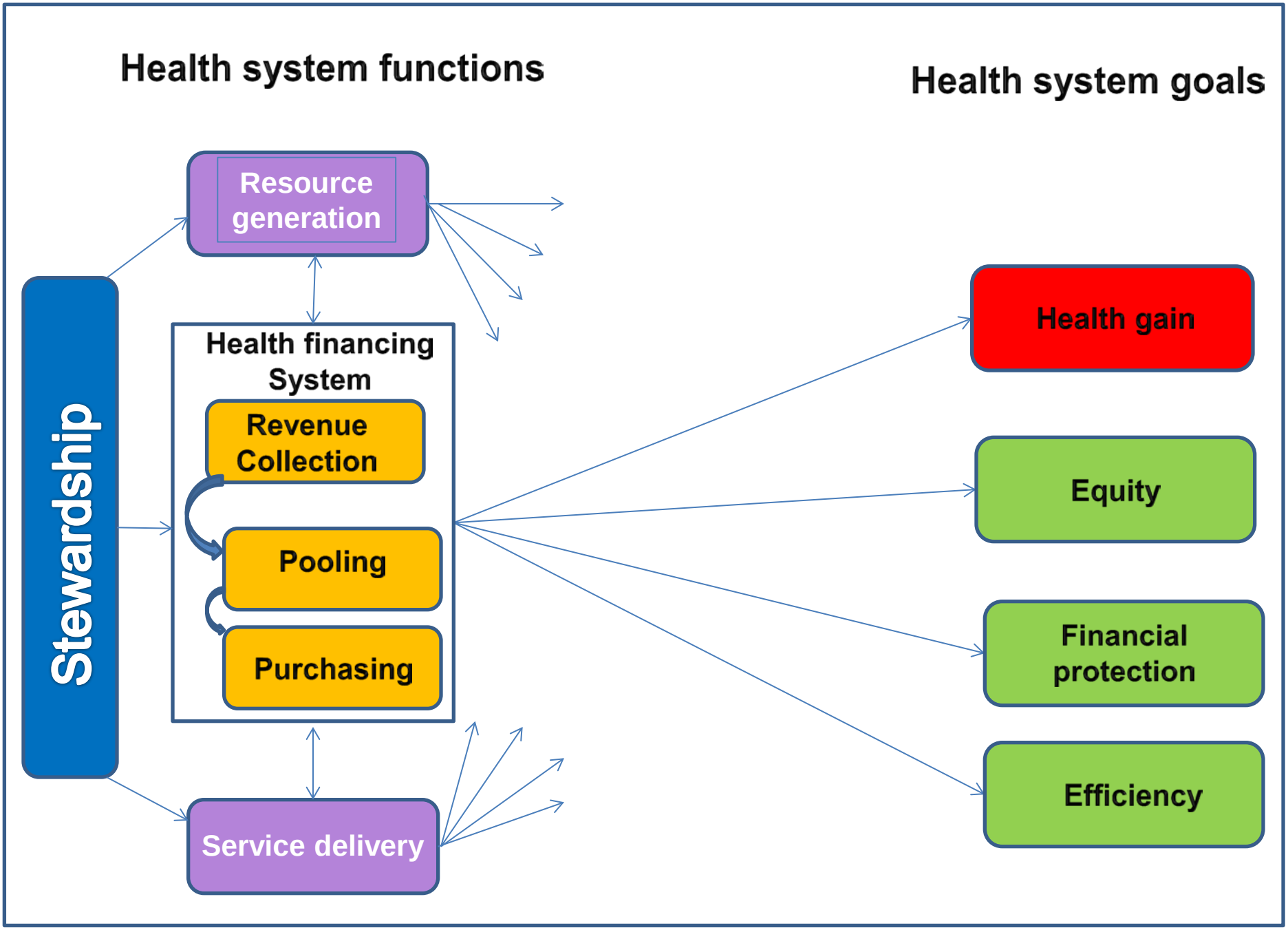
Proportion of in-hospital service delivery (%, average)



Source：Meng Q, et al. Lancet, 2012

- The proportion of hospital admissions increased significantly from 2003 to 2011.

- The disparities in geographical accessibility to hospitalization between urban and rural areas, between different income levels of different regions, and between the eastern, western, or central China, have narrowed down considerably, but gaps still exist.


Health system functions
Health system goals
Resource generation
Stewardship
Health financing System
Revenue Collection
Pooling
Purchasing
Service delivery
Health gain
Equity
Financial protection
Efficiency

中山大學 SUN YAT-SEN UNIVERSITY

Health gain

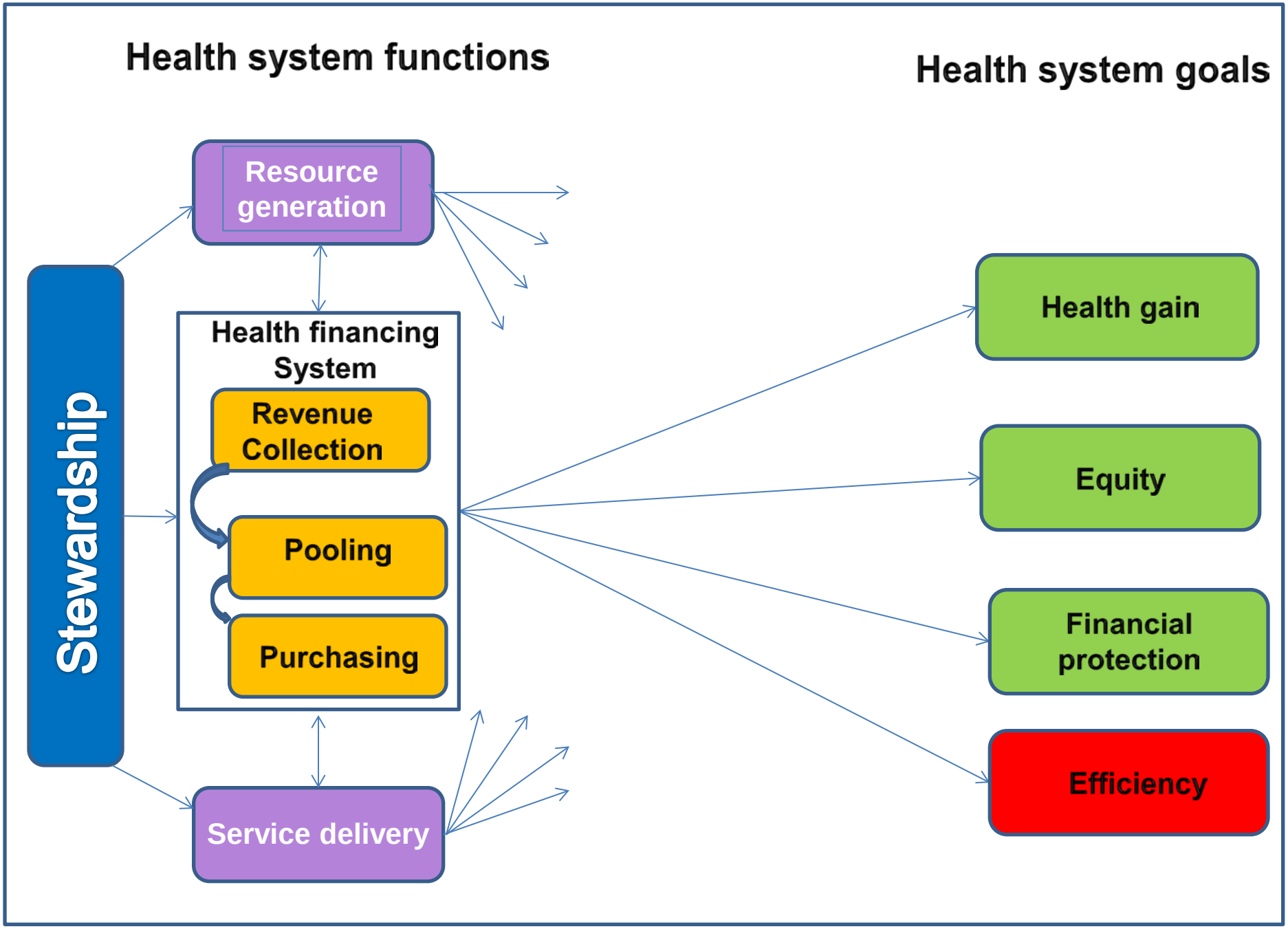
Major health indicators, selected years

Hospitals	1980	1985	1990	1995	2000	2005	2012
Life expectancy at birth (years)	67.0	68.3	69.5	70.3	72.1	74.1	75.2
Male	65.5	66.8	67.9	68.7	70.7	72.8	73.9
Female	68.6	69.9	71.1	72.0	73.6	75.3	76.5
Infant mortality rate (per 1000)	48.0	42.1	42.2	37.7	30.2	20.3	11.7
Under-5 mortality rate (per 1000)	62.4	53.8	53.9	47.5	36.9	23.9	13.6
Maternal mortality ratio (per 100 000 live births)	-	-	-	-	53	47.7	24.5
Malnutrition rate under-5 children (%)	12.6	10.7	7.4	4.5	-	-	-

Source: Word Bank, World Development Indicators,2014

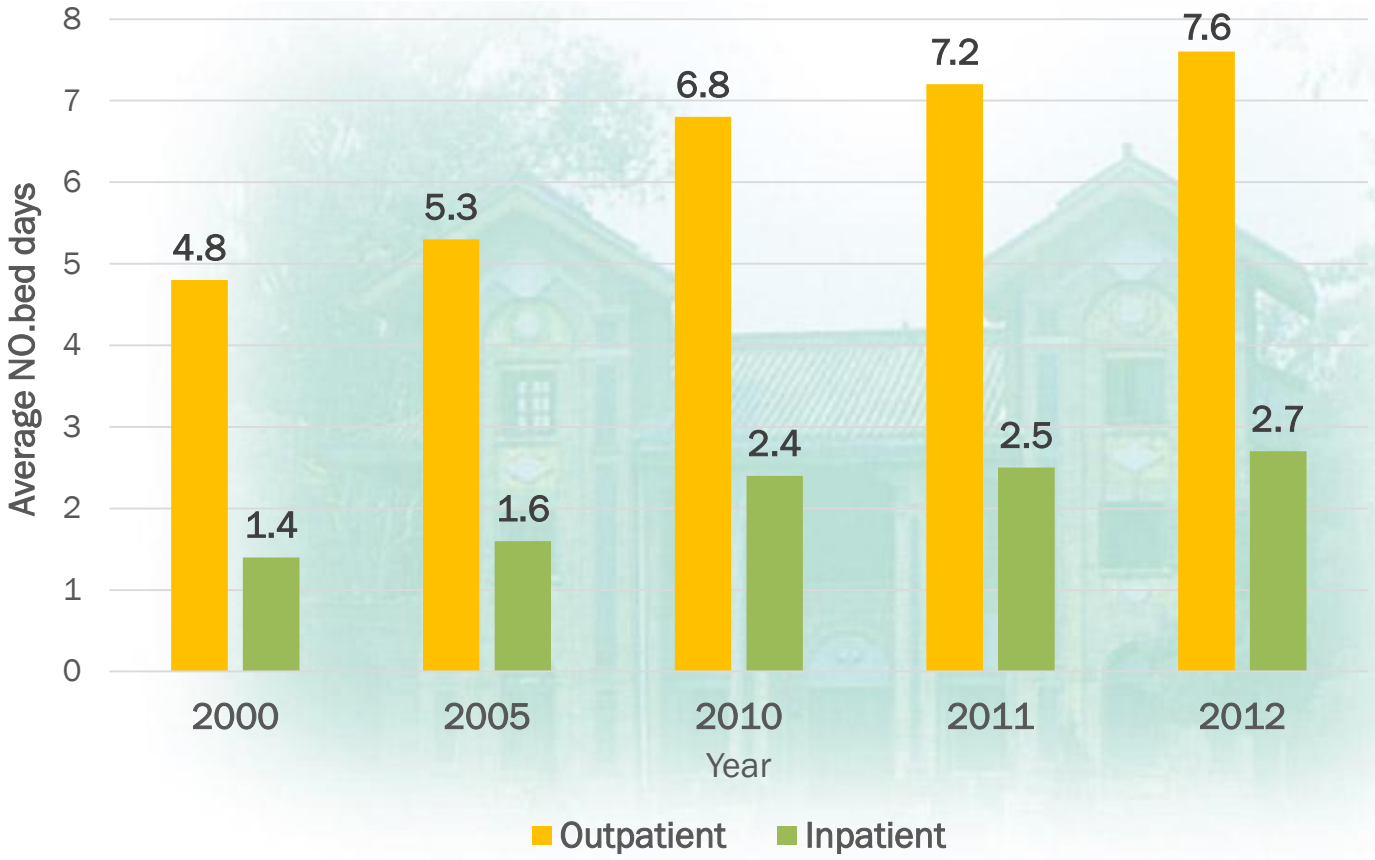
- Life expectancy at birth of Chinese people has increased substantially, from 67 years in 1980 to75.2 years in 2012.

- Child mortality in China has been declining continuously.


Health system functions
Health system goals
Resource generation
Stewardship
Health financing System
Revenue Collection
Pooling
Purchasing
Service delivery
Health gain
Equity
Financial protection
Efficiency

Efficiency

Daily average rate of outpatient visits and inpatient bed days per doctor in China 2000-2012



Source：Ministry of Health 2013

中山大學
SUN YAT-SEN UNIVERSITY

Efficiency

Average inpatient length of stay (days) in general hospitals in China, 2000-2012

Source：Ministry of Health 2013

- Since 2000, the average daily outpatient visits per doctor and inpatient bed days per doctor have increased significantly, indicating that technical efficiency in using hospital resources has gradually increased.

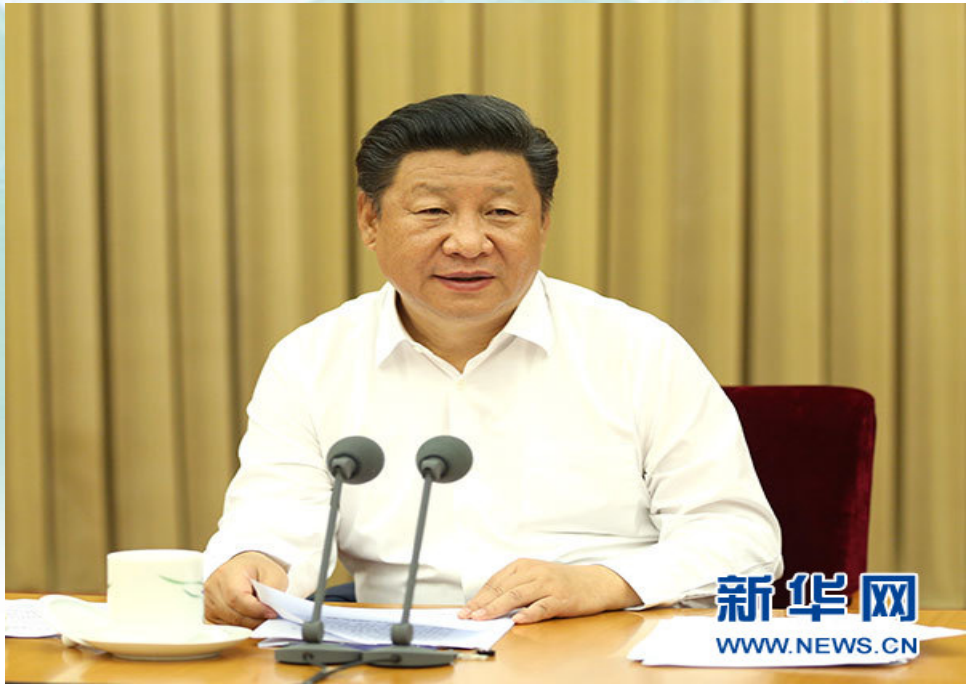
- Meanwhile, the average length of stay at hospital was longest in 2000 at 10.5 days; it dropped to 9.4 days in 2012.

Healthy China 2030 Strategy
健康中国2030规划纲要

SUN YAT-SEN UNIVERSITY

President Xi said :
"Population health should be given priority in the country's development strategy"

A National Health Meeting
2016 August,19-20, Beijing
全国卫生与健康大会
2016年8月19-20日, 北京



习近平主席强调：
"把人民健康放在优先发展战略地位"

Recent Reform Initiatives

Important actions under "**Healthy China 2030**" will be:

- The three social health insurance schemes need to be integrated in order to achieve equity in both financing and health services.
- To establish a primary care-focused health delivery system, build the family doctors system.
- To speed up the public hospital reform, remove drug mark-ups.

中山大學 SUN YAT-SEN UNIVERSITY

Thank you very much!