

# **CHALLENGES IN DISEASE PREVENTION AND CONTROL IN CHINA : A PRIMARY CARE PERSPECTIVE**

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# Health Data

## Leading Causes of Death

- Cancer
- Heart disease
- Strokes
- Accidents

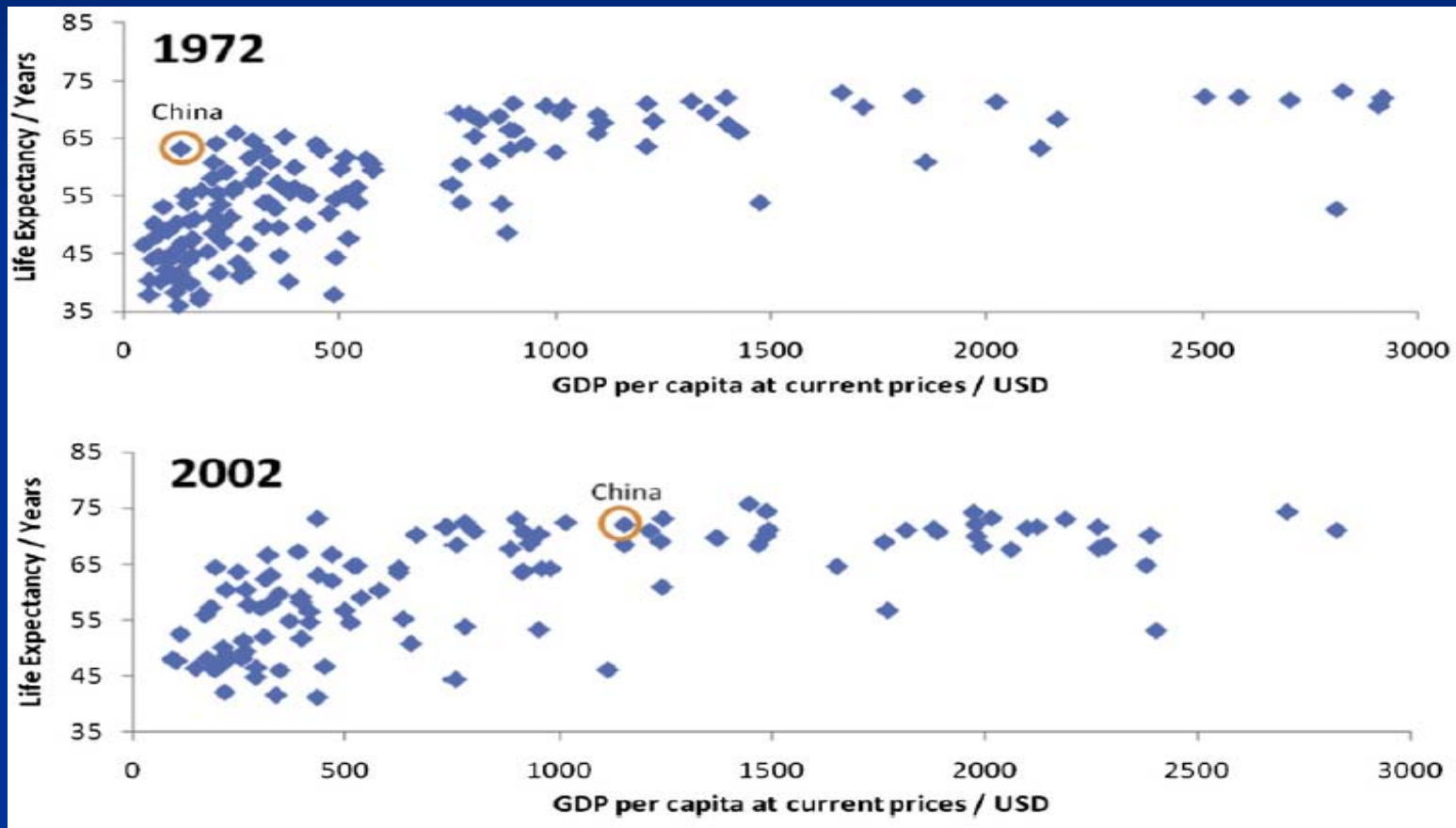
## Leading Preventable Risk Factors

- Hypertension
- Cigarette smoking
- Physical inactivity
- Obesity & underweight

Zheng....Wang : Public Health Genomics, 2010, 13: 269-75;

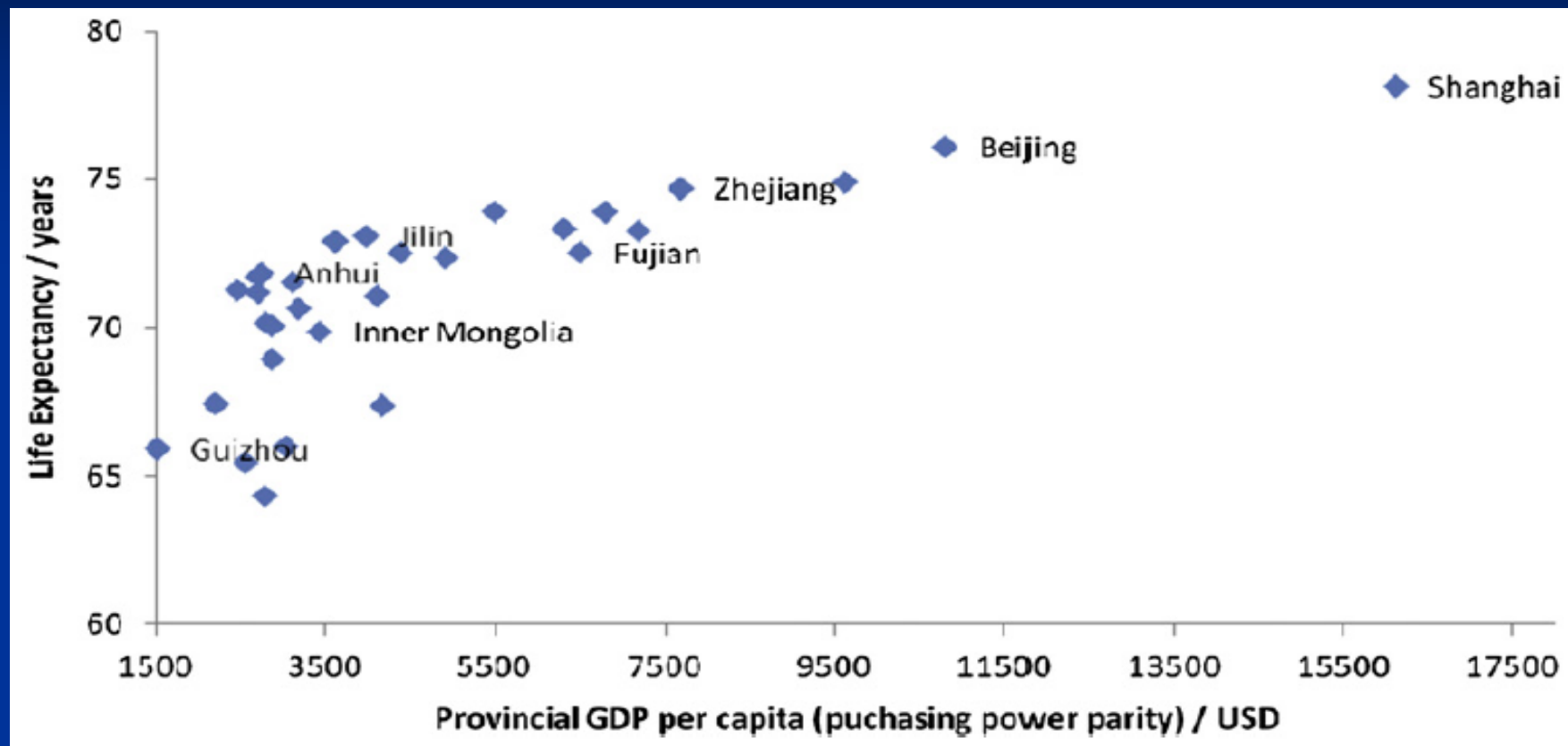
Ling.... Wang: Public Health, 2010, 125: 9-12

# Trends in life expectancy by gross domestic product (GDP) per head for selected countries in 1972 (top) and 2002 (bottom)



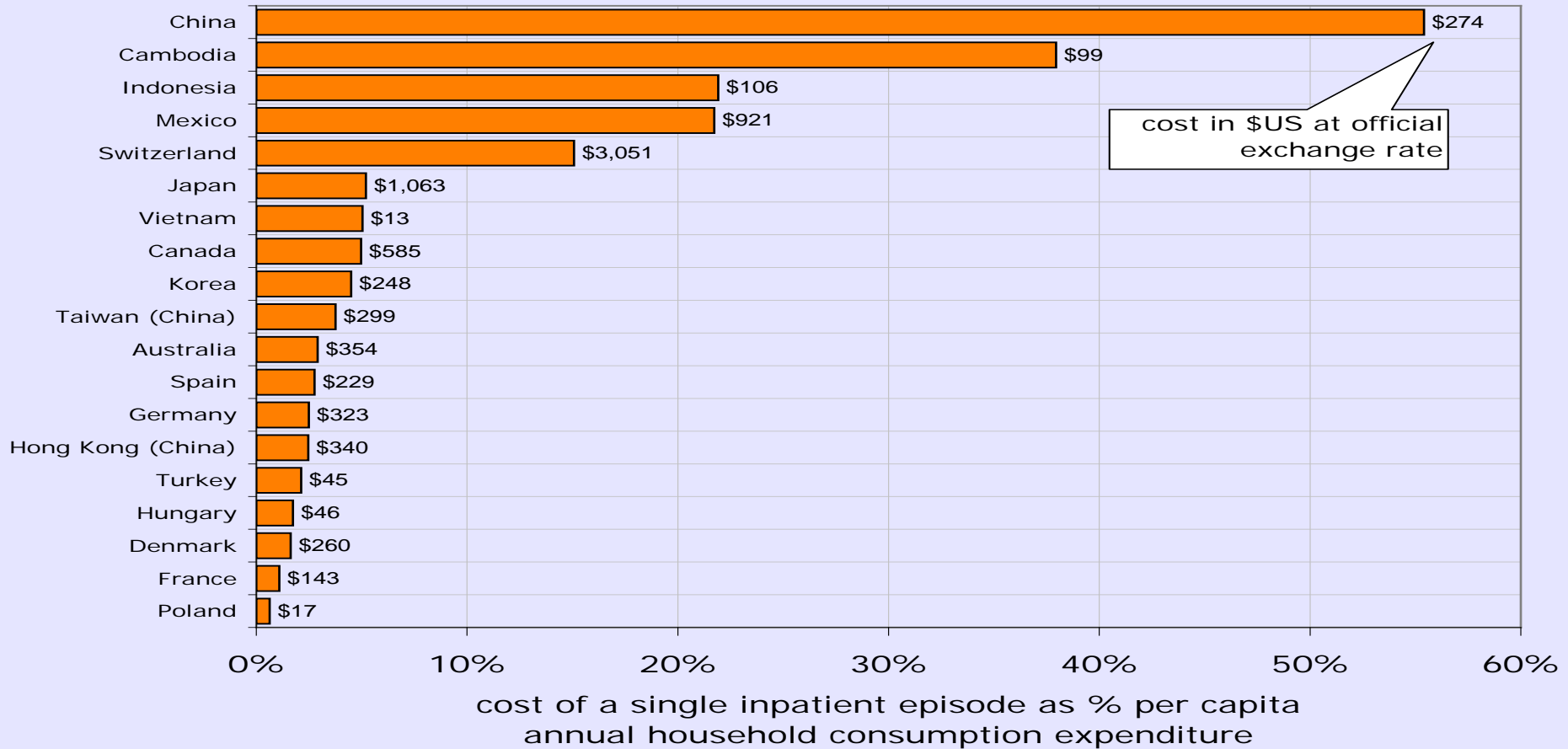
Ling...Wang, 2010 Public Health, 125: 9-12

# Life expectancy by Gross Domestic Product (GDP) per capita of 30 Chinese provinces in 2000

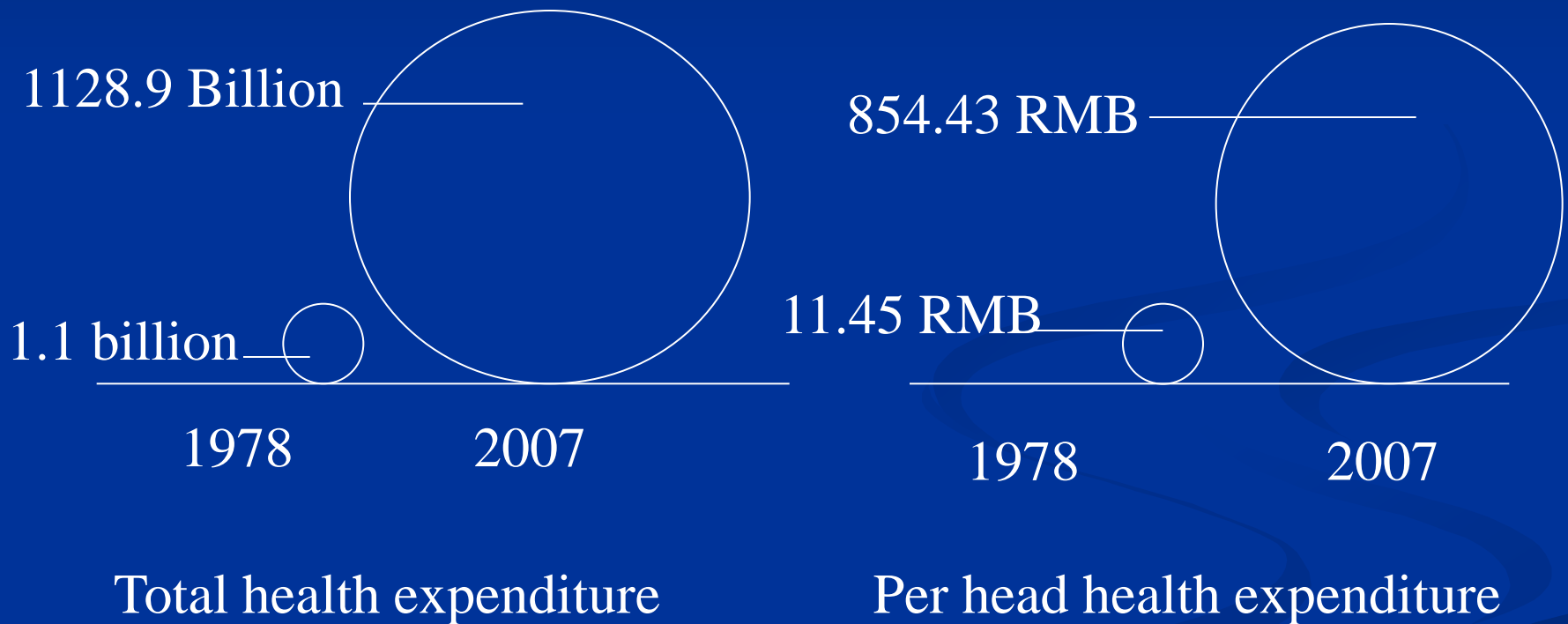


Ling...Wang, 2010 Public Health, 125: 9-12

# Cost of A Single Inpatient Episode as % Per Capita Annual Household Consumption Expenditure



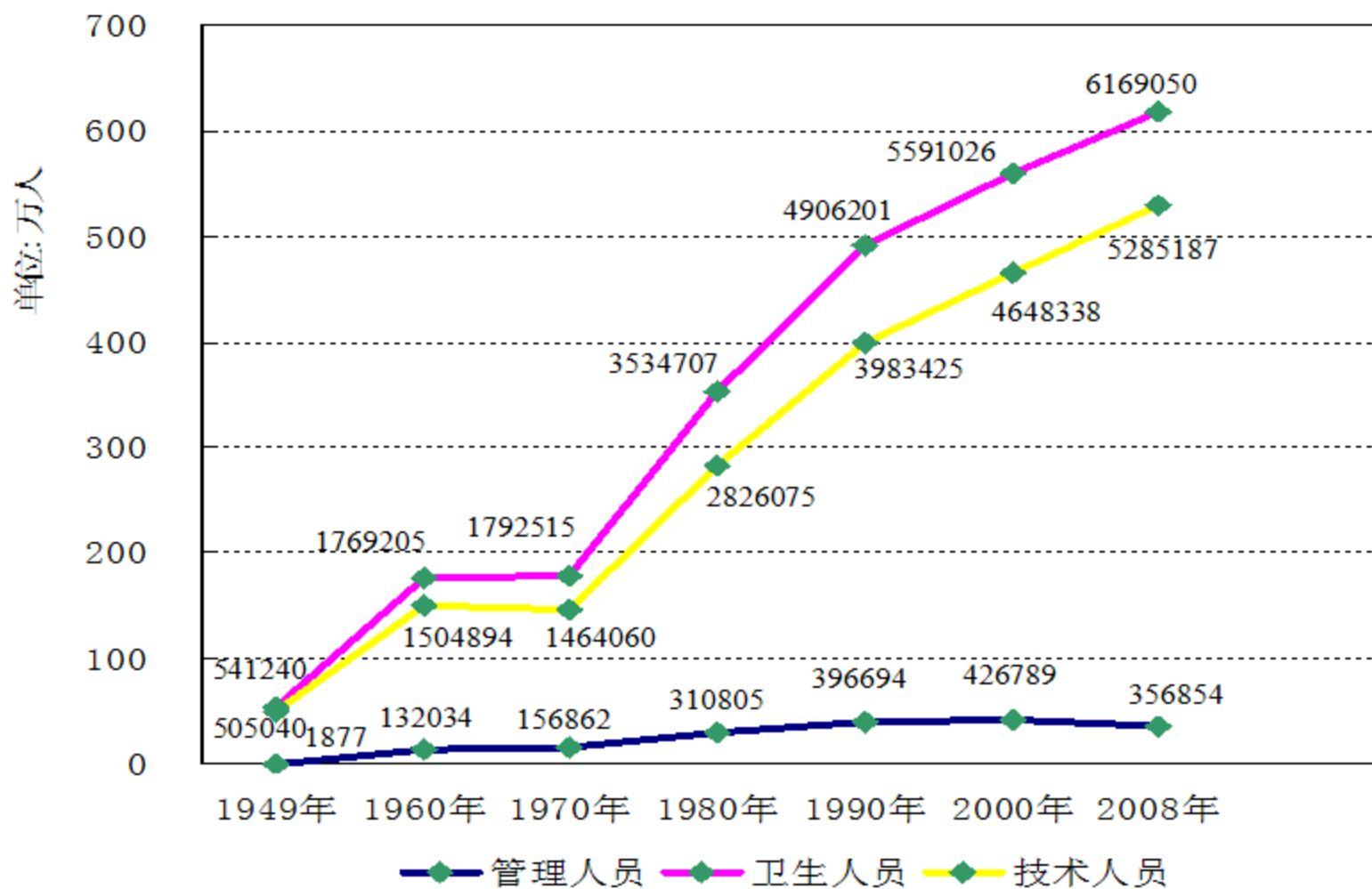
# China



Source: China Hospital CEO 2009

# Population size of the health staff 1949-2008

## 中国卫生人员数量变化





# 医药分开

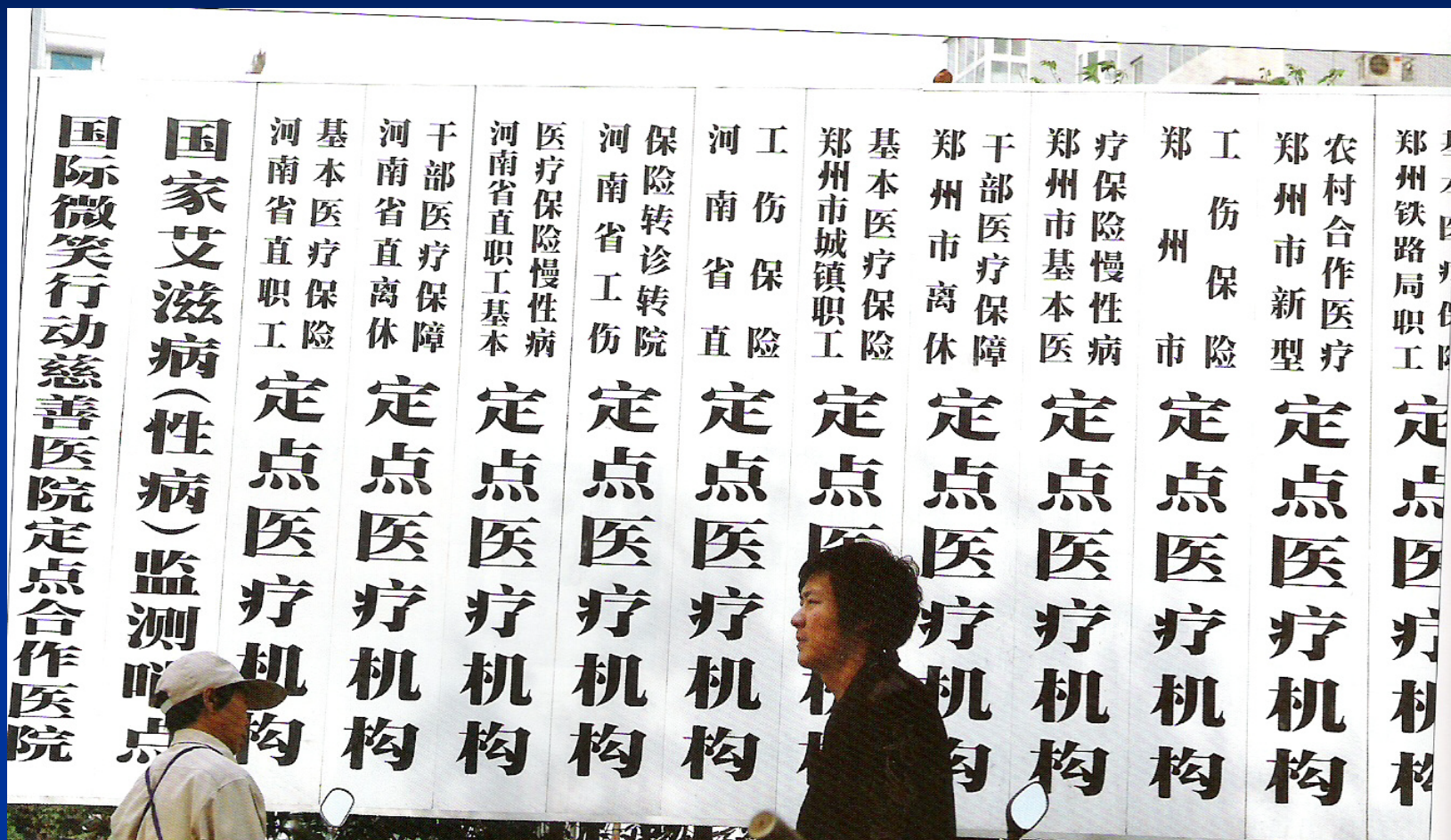


**“Generate” incomes for the hospitals through prescribing highly-profitable, sometimes unnecessary drugs and treatment.**

以药补医生的问题不解决，大处方和多开药等问题不可能解决



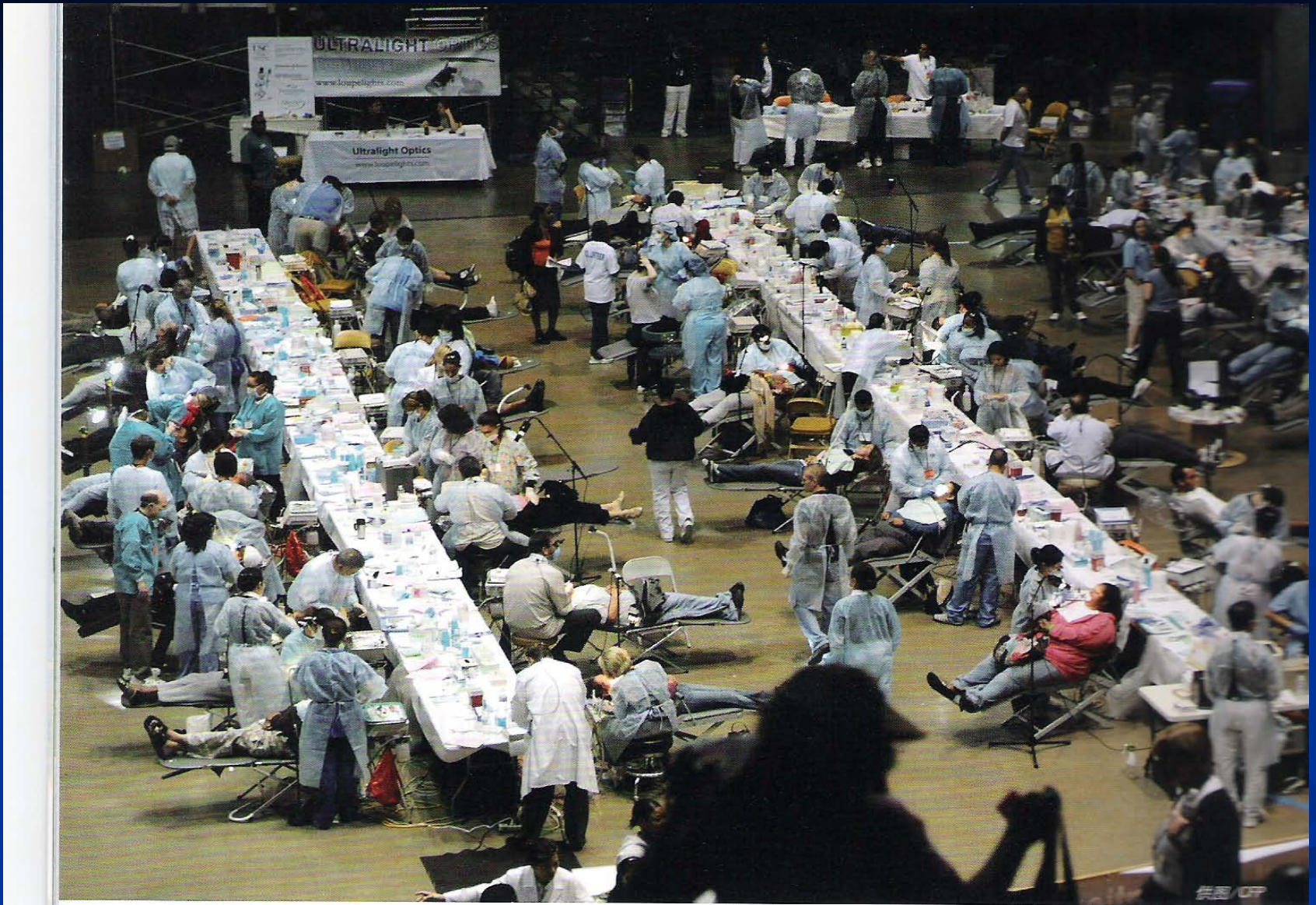
# Hospital elective referral



Hospitals or Company ?

郑州市第一人民医院门前，“医保定点”的牌子犹如“广告招牌”。





加州提供免费医疗 2000穷人排队求诊



# Two boxers: 美国医改 驴象争锋



# House narrowly passes landmark health care bill



WASHINGTON –**landmark**: health care legislation passed to expand coverage to tens of millions who lack it and place tough new restrictions on the insurance industry .

November 8th 2009.



“以药养医”如何改变？ “管办分离”如何实现？  
“收支两条线”是否可行？ “自由执业”可否预见？





医改

# Medical Insurance

- Past: Near-universal insurance coverage:

Cooperative Medical System (CMS)  
Government Insurance Scheme (GIS)  
Labour Insurance Scheme (LIS)

- Current: proposing universal basic health care (\$25-38 billion of governmental funding, 1-1.5% GDP)

New Cooperative medical System (NCMS)  
Government Insurance Scheme (GIS)  
Labour Insurance Scheme (LIS)  
Student Health Insurance  
Commercial Health Insurance

Source: Zheng...Wang : Public Health Genomics 2010



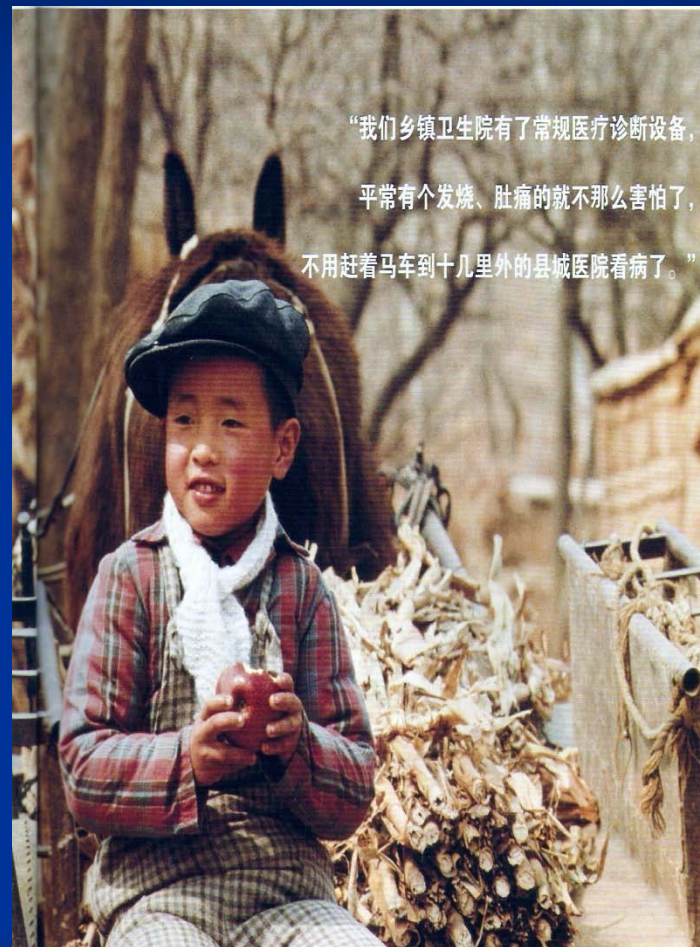
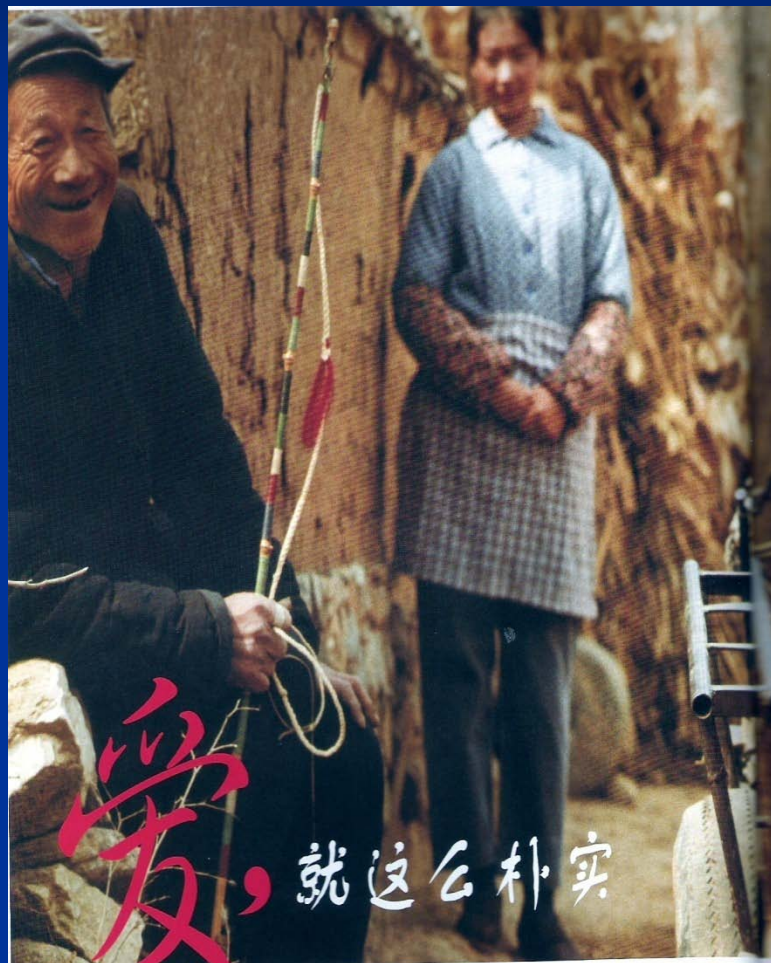
# The Beginning Stage of Primary Care in China

- Main work on rural areas:
  1. Environmental health
  2. The three-tier rural health care network spanning the county, township and village
  3. In rural areas the first tier was made up of barefoot doctors
  4. Rural cooperative medical care system



# 新农村 新医疗

## New Cooperative Medical System (NCMS)

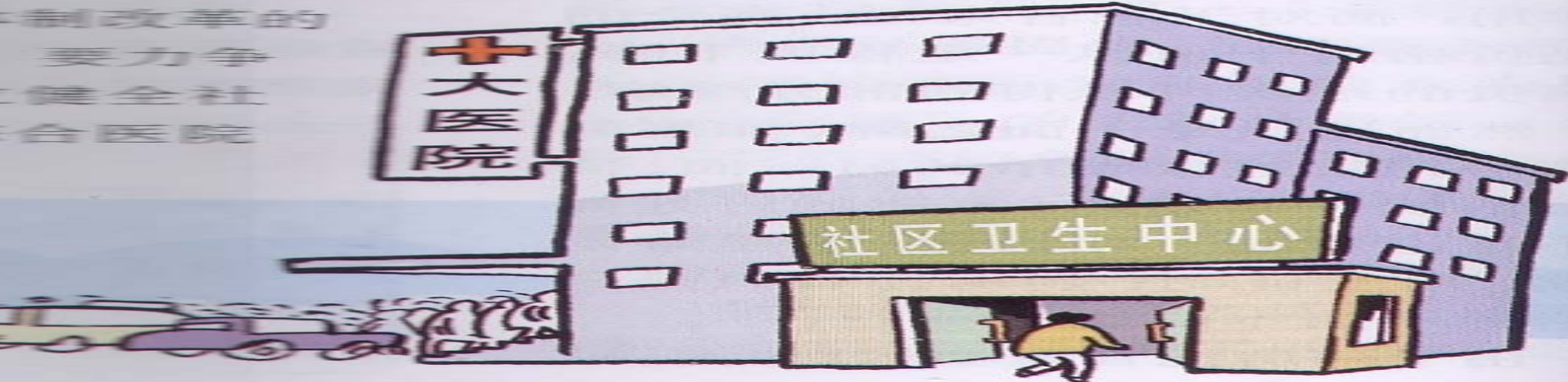


8500亿元重点投向新农合与城镇医保（陈竺 2009）

# Primary Care

- **Primary care**  
diagnostic, treatment, health education,  
vaccination, rehabilitation, family planning
- **Secondary care**  
diagnostic and management support
- **Tertiary care**  
unusual or unusually complex health problems

医疗改革的  
要力争  
健全社  
会医院





# Healthy China 2020

- Earlier 2008, the China government announced a plan to reform the country's health care system which is called 'Healthy China 2020' .
- The main focus of the 'Healthy China 2020' reforms is to set up a universal health service across the country, available to even the poverty stricken, rural segment of the population.

# China aims to expand health care by 2020

- Offering hospitals and clinics for the poor in rural areas.
- Placing caps on the price of essential medicines.
- Increasing attention to disease prevention and control, maternal health, mental health and first aid services.
- China government announced plans to spend 850 billion yuan (\$124 billion US) on health care reform by 2011.

- The health plan embraced the following principles and goals:
- Serve the people.
- Make public medical institutions "non-profit".
- Reduce the involvement of hospitals in the sale of drugs.
- Increase the role and responsibility of government.
- Establish a basic medicare network for all.

# Major policy interventions of the Chinese Healthcare Reform

## **Increasing financial access**

- Expanding insurance coverage through premium subsidies
- Controlling drug pricing, establishing essential-medicine policy

## **Increasing efficiency**

- Strengthening public health, health education
- Gradual separation of prescribing from dispensing
- Encourage vertical integration
- Gradually carrying out provider payment-reforms

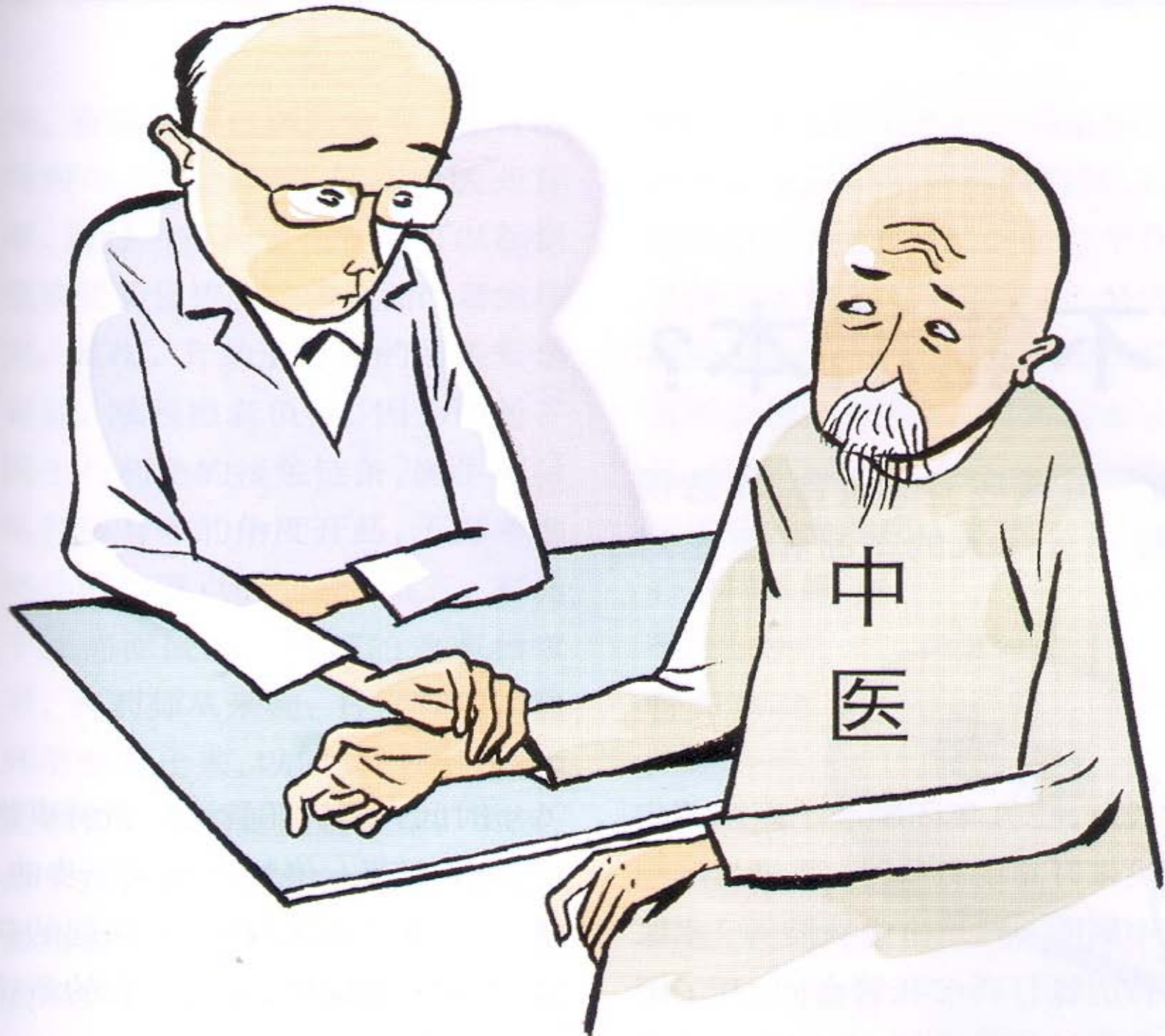
## **Increasing physical access**

- Strengthening rural infrastructure
- Establishing network of community-based health centres
- Encouraging development of private sector

## **Enhancing safety and quality**

- Modernising medical information system
- Strengthening medical education
- Strengthening professional ethics





# Highlights

"This is the first time that basic medical services in China are clearly defined as a public service for all citizens, which is part of essential rights of the people."



# Primary care calendar

- After the founding of the People's Republic of China in 1949, governments covered more than 90 percent of medical expenses for urban residents, while rural people enjoyed simple but essentially free health care.
- But when China began its economic reforms in the early 1980s, the system was dismantled as the country attempted to switch to a market-oriented health care system.
- Due to low government funding, doctors at state-run hospitals were forced to "generate" incomes for the hospitals through prescribing highly-profitable, sometimes unnecessary drugs and treatment. In many places this could account for 90 percent of a hospital's income.
- Soaring fees plunged many into poverty and made medical services less affordable to ordinary citizens.
- Statistics from the Ministry of Health show that the personal spending on medical services has doubled from 21.2 percent in 1980 to 45.2 percent in 2007, while the government funding dropped to 20.3 percent from 36.2 percent in 1980.



# Health Care Reform Highlights

- The government will improve the public health network for disease prevention and control, health education, mother and infant health care, mental health and first aid services, according to the blueprint.
- Public, non-profit hospitals will continue to be dominant providers of medical services, while more priority will be given to the development of grassroots-level hospitals and clinics in cities and rural areas, which are often ill-equipped and understaffed.
- Patients will be encouraged to use more grassroots-level hospitals and clinics, which will be improved to provide more accessible and affordable services. Comprehensive hospitals in big cities will be asked to provide more support to small, local hospitals in terms of personnel, expertise and equipment.
- The government plans to set up diversified medical insurance systems in order to have urban employees, urban residents who do not work or are self-employed, and rural residents covered by some sort of insurance plan.
- The ratio of those covered by the basic medical insurance is expected to surpass 90 percent by 2011.

# Health Care Reform Highlights

- In 1997, the State Council moved to correct the previous concept that medical services were a type of commercial product. In the next ten years, a series of medical reforms, such as the basic medical insurance for urban employees and the new cooperative medical scheme for farmers, were gradually implemented.
- But the central government admitted in 2005 that previous reform was "basically unsuccessful," then started a new round of reforms .
- The blueprint highlights the establishment of a basic health-care system to cover all Chinese citizens to be formed on the basis of systems of public health, medical service, medical insurance and medicine supply.
- The reform is also aimed at improving the medicine supply system so that public hospitals and clinics are supplied with essential medicines with prices regulated by the government, according to the blueprint.

# Health Care Reform Highlights

- Other highlights include:
- - The government to enhance the management and supervision of the operation of medical institutions, the planning of health service development, and the basic medical insurance system.
- - Public hospitals to receive more government funding and be allowed to charge higher fees for treatment. But they will be eventually banned from making profits through subscribing expensive medicines and treatment, which is a common practice at present.
- - Central and local governments to increase investment in the public health sector, grassroots-level clinics, subsidies for public hospitals, and basic medical insurance systems.
- - Governments to increasingly regulate the pricing systems of medical services and medicines, with particular control on the price of basic services at non-profit hospitals and essential medicines those hospitals use.
- - Supervision of medical institutions, health insurance providers, and pharmaceutical companies and retailers to be strengthened. Governments will also tighten monitoring of drinking water and food safety, and safety in workplace.



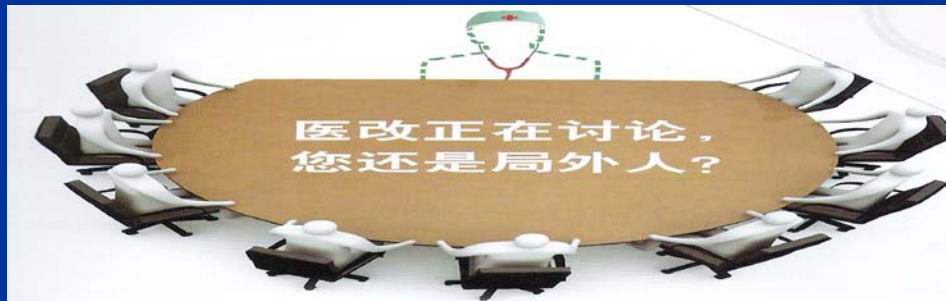


医改



# The Chinese health system at a cross road

- How to transform money into efficient and effective services ?
  1. Government provision approach-MOH (**traditional model**)?
  2. Regulated market approach (**health budget-purchaser (inside of government) who act on behalf of the population to select and contract with provider**) ?
  3. Third-party purchaser (**outside government purchaser**)?



Market Watch, 2009

中国红十字基金会“万名乡村医生培训计划”——

# “飞利浦中国乡村医生培训计划”启动

## 暨“飞利浦爱心基金” 成立仪式

主办：中国红十字基金会 飞利浦电子中国集团  
协办：卫生部中国乡村医生培训中心  
承办：首都医科大学 卫生部全科医学培训中心

Project for training 10 thousand village doctors in 3-5 years by the Chinese Red -Cross Foundation, School of Public health And family Medicine CMU, National GP Training Centre, MOH, China



# Summary

**China's expenditure on healthcare has increased dramatically over the last twenty years and three broad trends are seen in the associated health outcomes:**

- 1) limited improvements have been achieved to aggregate high level health outcomes;**
- 2) development of large and widening health inequalities associated with disparate wealth between provinces and a rural-urban divide.;**
- 3) the burden of disease is shifting from predominantly communicable diseases to chronic diseases.**



# Reasons for the limited gains from investment in healthcare

- 1) Increased out of pocket expenditure including a high proportion of catastrophic expenditure;
- 2) A geographical imbalance in healthcare spending – focusing on secondary and tertiary hospital care and greater expenditure on urban over rural centres;
- 3) The commercialisation of healthcare without adequate attending to cost control which has led to escalation of prices and decreased efficiency.

## **Three key policy responses are to establish rural health insurance, in part funded by the government**

- 1) The new rural co-operative medical share System,
- 2) To develop community health centres
- 3) To aspire to universal basic healthcare coverage by 2020 (Healthy China 2020).

# Suboptimal health

Gene	VS	Environment
Nature	VS	Nurture
Genomics	VS	Genetics
Chronic	VS	Infectious
Public Health	VS	Individulized Medicine
Health	VS	Disability
City	VS	Rural
Rich	VS	Poor
Developed	VS	Developing
Migrants	VS	Residences



Yan..Wang: J Epidemiol, 2009; Zheng...Wang: Public Health Genomics 2009; Ling...Wang: Public Health 2010;  
Kottgen. .. Wang et al: Nat Genet 2010 ; Wang et al :NEJM 2010; Chen..Wang: Lancet 2010; PloS ONE 2010; Wang et  
al: Preventive Med 2010; Wang et al: Nat Reviews Cancer 2011; Wang , Clinical Translational Med, 2013.





*Thank You*

