COMPARATIVE HEALTH CARE SYSTEMS

EE 474 Health Economics

Semester 2/2017

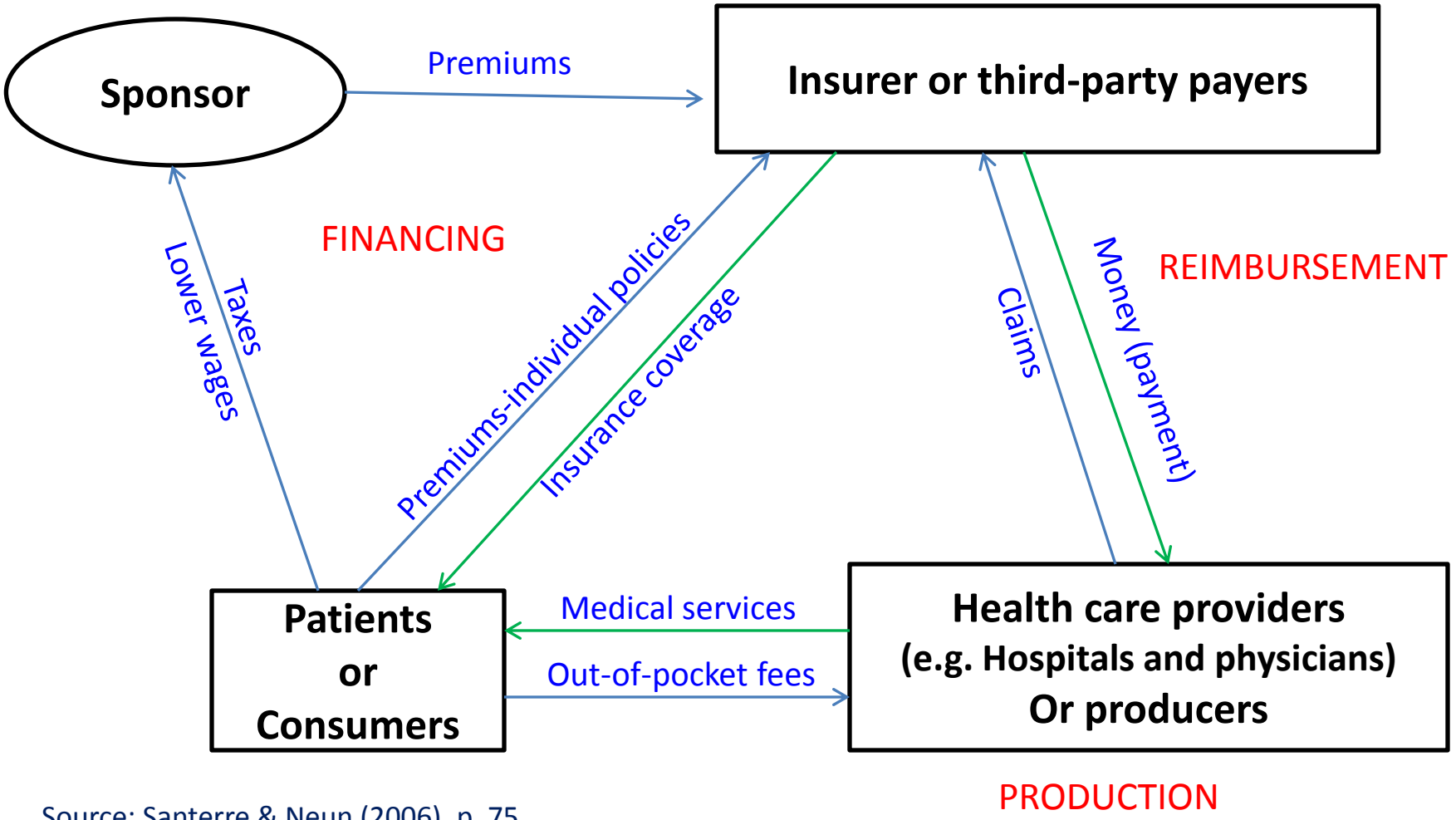
Topics

- A Model of A Health Care System
- Typology of Health Care Systems
  - Beveridge Model
  - Bismarck Model
  - National Health Insurance
  - Mixed System
- China—An Emerging System
- Thailand – Universal Health Coverage Scheme

Introduction

- This lecture is intended to give you an overview of different health care systems around the world, illustrated by four main distinct models and two case studies.
- A health care system consists of the organizational arrangements and process through which a society makes choices concerning the production, consumption, and distribution of health care services. (Santerre & Neun, 2006, p.74).
- Two extremes: Centralized vs. Decentralized systems
- Determining the best structure for a health care system involves the values the society places on a number of alternatives and outcomes, such as choice, uniformity, efficiency, etc.

A Model of A Health Care System



Source: Santerre & Neun (2006), p. 75.

Types of Reimbursement Schemes

- Variable Payment
  - Fee-for-service basis
  - Retrospective reimbursement
- Fixed Payment (Prospective Payment)
  - Global budget
  - Capitation basis
  - Diagnosis-related-group (DRG) based payment

Likelihood of a Large Volume of Medical Services

(for different reimbursement and consumer copayment scheme)

Types of Reimbursement Scheme

Out-of-pocket price to consumer	Fixed Payment	Variable Payment
Low	Low likelihood (1)	High likelihood (2)
High	Very low likelihood (3)	Moderate likelihood (4)

Source: Santerre & Neun (2010), p. 113.

Typology of Contemporary Health Systems

- *National health services (*a.k.a. "Beveridge Model"*):*
  - State provides and finances the health care.
  - Examples: United Kingdom, Denmark, Greece, Italy, New Zealand, Portugal, and Turkey
- *Traditional sickness insurance (*a.k.a. "Bismarck Model"*):*
  - Fundamentally a private insurance market approach with a state subsidy
  - Example: Germany, France, Belgium, Japan
- *National health insurance (NHI) plans:*
  - A national-level single-payer health insurance system
  - Examples: Canada, Finland, Norway, Spain, Sweden, Taiwan
- *Mixed systems:*
  - Contain elements of both traditional sickness insurance and national health coverage
  - Examples: United States, Switzerland

1. Beveridge Model: United Kingdom

- Background:
  - Named after William Beveridge, the National Health Service (NHS) was established in 1946 and provides health care to all British residents.
  - Can be referred to as "public contracting" model because government contracts with various health care providers on behalf of the people
  - Capital and current budget are allocated from the national level down to the regional and then to the district level.
  - Health care workers are paid by the government.
  - In addition to the NHS, there is also a private-sector health system. About 11 percent of Britons purchase private health insurance.

1. Beveridge Model: United Kingdom

- Financing:
  - NHS offers universal health insurance coverage through general taxation.
  - NHS provides global budgets to district health authorities (DHAs), who is responsible for assessing and prioritizing health care needs of ~300,000 people.
  - DHAs have contracts with health care providers:
    - Nongovernmental trusts
    - Community-based primary care givers
    - General practitioner (GP) fundholders: apply for budgets from DHAs.

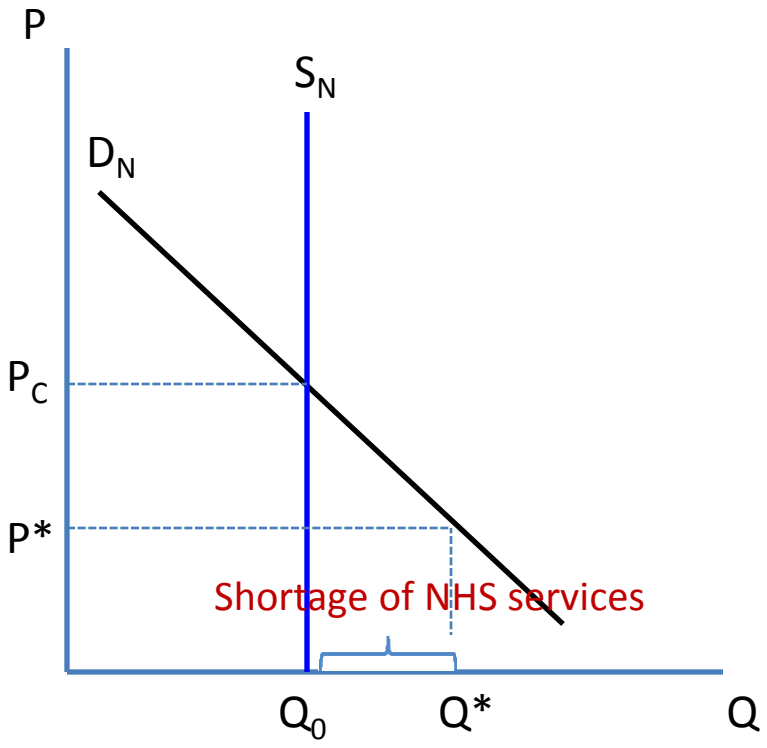
1. Beveridge Model: United Kingdom

- Reimbursement:
  - DHAs are allocated funds by the NHS on a weighted capitation basis, which consider age, sex, health risk, and geographical cost differences.
  - Independent community-based family practitioners contract with the NHS and are paid uniformly on a capitation basis.
  - All general practitioners (GP) are paid on a capitation basis.
  - All physician-based hospital physicians and consultants are paid on a fixed salary basis.

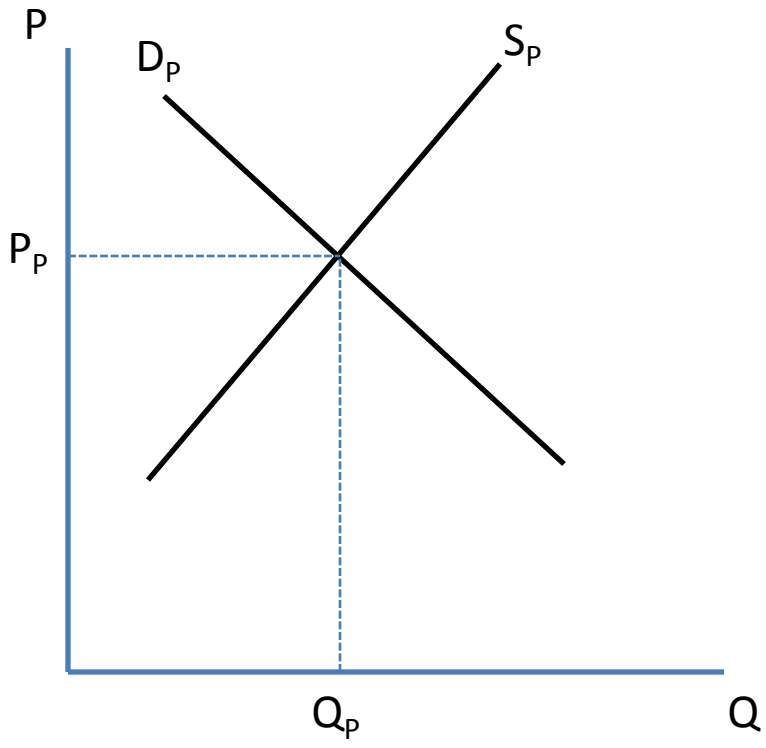
1. Beveridge Model: United Kingdom

- Production:
  - The general practitioner (GP) serves as the gatekeeper. Consultants are specialists, and patients must be referred to them by GPs.
  - Up to 1990, almost all hospitals were publicly owned and most doctors were employees of the NHS.
  - Some services are not entirely free:
    - Private hospital rooms extra
    - Small surcharge for drug prescriptions filled outside hospital.
    - Copayments: Dental care & eyeglasses
  - Specialty care is rationed through waiting lists and limits on the availability of new technologies.
    - ➢Rationing of coverage through National Institute for Health and Clinical Excellence (NICE).

A Model of Rationed Health Care and Private Markets



NHS



Private Market

2. Bismarck Model: Germany

- Background:
  - This model is also known as "Sickness fund" or Social Health Insurance (SHI) – government mandated health care
  - The German health care system is based on programs laid out by Bismarck in 1883.
  - Legislation required workers in various occupations to enroll in autonomous sickness insurance funds, which are private not-for-profit insurance companies. There are about 200+ localized sickness funds.
  - Characterized by the "three S's"- social solidarity (provision of equal access to health care), subsidiarity, and self-governance.
  - Individuals with income beyond a given ceiling may choose the private health system. (~ 10% of the population)

2. Bismarck Model: Germany

- Financing:
  - Costs are divided equally between employer and employee.
  - Employees' shares collected as payroll taxes at rates proportional to their gross wages.
  - Since the funding is based on wages, if wages fail to grow at the same rate as costs of health care, funding issues will arise.
  - Premiums of unemployed and their dependents comes from former employers and other public sources.
  - Sickness funds are responsible for collecting funds from employers and employees and reimbursing hospitals and physicians.

2. Bismarck Model: Germany

- Reimbursement:
  - The Sickness Funds pay negotiated lump-sum funds on a capitation basis (=capitation payment x # of insured individuals) to regional associations of ambulatory physicians.
  - The regional associations reimburse physicians for services based on a fee schedule, determined through negotiation between the regional associations and physicians.
    - i.e. Ambulatory providers are paid on a fee-for-service basis.
  - The Sickness Funds also negotiate fixed prices for various procedures (based on diagnosis-related group: DRG)
    - Incentive for hospitals to save resources and specialize in certain procedures.
  - Hospital-based physicians are paid on a salary basis.

2. Bismarck Model: Germany

- Production:
  - Medical services are produced primarily in the private sector.
  - Public hospitals control over 50% of all hospital beds in the country. The remaining are managed by private not-for-profit and for-profit hospitals.
  - Office-based physicians are normally prohibited from treating patients in hospitals, and most hospital-based physicians are not allowed to provide ambulatory care (outpatient care) services.
  - Benefit package is mandated, but small copayments were added in 2006.

3. National Health Insurance: Canada

- Background:
  - Known as Medicare (not the U.S. Medicare for the elderly).
  - Each provincial government administers a comprehensive and universal program that is partially supported by grants from the federal government.
  - Single payer of all bills, with low administrative costs.
  - General guidelines: coverage must be universal, comprehensive, and portable.
  - Canadians can have supplemental insurance for things that are not covered by the NHI.

3. National Health Insurance: Canada

- **Criteria and Conditions:**
  - *Public administration:*
    - Administration carried out on a nonprofit basis by a public authority.
  - *Comprehensiveness:*
    - All medically necessary services must be covered.
  - *Universality:*
    - All insured persons must be entitled to public health insurance coverage on uniform terms and conditions.
  - *Portability:*
    - Coverage must be maintained when an insured person moves or travels within Canada or travels outside the country.
  - *Accessibility:*
    - Reasonable access by insured persons to medically necessary services must be unimpeded by financial or other barriers.

3. National Health Insurance: Canada

- Financing:
  - NHI program in each province is financed through taxes.
  - The federal government provides up to 40% in direct cost sharing and gives hospital construction grants to provinces.
  - Private insurance is available for some forms of health care, but private coverage is prohibited for services covered by the NHI.
  - No marketing expenses, no administrative costs, no allocation for profits → strategies to keep costs low!

3. National Health Insurance: Canada

- Reimbursement:
  - There are no copayment for most medical services.
  - Reimbursement exclusively takes place between the public insurer (the government) and the health care providers.
  - Cost control is attempted primarily through fixed global budgets for hospitals and predetermined fees for physicians.
  - No extra billing by medical practitioners or dentists and no user charges by hospitals for insured health services under the terms of the health care insurance plan.

3. National Health Insurance: Canada

- Production:
  - Medical services are produced in the private sector.
  - Most hospitals in the private sectors are operated on a not-for-profit basis and owned by either charitable or religious organizations.
  - Patients have free choice in the selection of providers.

4. Mixed System: United States

- Background:
  - In "*The Healing of America: A Global Quest for Better, Cheaper, and Fairer Health Care*," T.R. Reid argues that the U.S. health care system has elements of all of different health care systems in it.
    - Veterans: UK's Beveridge model
    - Americans age 65+ on Medicare: Canada's NHI
    - Working Americans who get insurance on the job: Germany's Bismarck model
    - The rest who have no health insurance: "out-of-pocket" model – more prevalent in developing countries
      - The number of uninsured people are likely to decrease as a result of recent health care reform in 2010.

4. Mixed System: United States

- Financing:
  - Health care in the U.S. are financed through a combination of private and public health insurance (Medicare and Medicaid).
  - Private health insurance is largely employment-based insurance. The rest belongs to some types of managed care plan (e.g. Health Maintenance Organizations: HMOs).
  - Medicare is a uniform, national public health insurance programs for aged and disabled individuals.
  - Medicaid provides coverage for certain economically disadvantaged groups.
    - Later on, the Children's Health Insurance Program (CHIP) was established to provide health insurance to children in low-income families.

4. Mixed System: United States

- Reimbursement:
  - Multi-payer system in which a variety of third-party payers (the federal and state government, commercial health insurance companies, Blue Cross/Blue Shield) are responsible for reimbursing health care providers.
  - Common form of reimbursement is fee-for-service.
  - Since 1983, Medicare reimbursement (and most state Medicaid) are based on diagnosis-related group (DRG) – payment categories based on the characteristics of the patients, diagnosis, and treatment.

4. Mixed System: United States

- Production:
  - The U.S. health care system is very diversified in terms of production.
  - Primary care physicians are mostly in the private for-profit sector and operated in group practice.
  - Hospital services are provided largely by not-for-profit organizations (~70% of hospital beds are in not-for-profit hospitals).
  - 70% of nursing home (long term care) are organized on a for-profit basis.

4. Mixed System: United States

- Patient Protection and Affordable Care Act (PPACA) of 2010:
  - It requires most U.S. citizens and legal residents to have health insurance, the so-called *individual mandate.*
  - It assesses a fee against employers with 50 or more full-time employees that do not offer coverage as a premium tax credit.
  - It expands Medicaid to all non-Medicare eligible individuals under age 65 with incomes up to 133% of the Federal Poverty Level (FPL) with a benchmark benefit package.
  - It creates a state-based program, through which individuals and small businesses (up to 100 employees) can purchase qualified coverage.
  - By 2020, the PPACA is expected to insure at least 32 million of the 50 million currently uninsured

A comparison of Health Care Systems

Feature	"Beveridge" (e.g. UK)	"Bismarck" (e.g. Germany)	NHI (e.g. Canada)	Mixed System (e.g. US)
Coverage	Near universal	Near universal	Universal	~84%
Financing	- General taxes - Single-payer system	- Payroll and general taxes - Single-payer system*	- General taxes - Single-payer system	-Voluntary premiums or general taxes - Multi-payer System
Reimbursement	- Salaries and capitation payments to physicians	- Fixed payments to hospitals - Negotiated point-fee-for-service to physician	- Global budgets to hospitals - Negotiated fee-for-service to physicians	- Mostly fee-for-service to physician - Prospective payment for Medicare &Medicaid
Consumer out-of-pocket price	Negligible	Negligible	Negligible	Positive, but generally small
Production	Private but public contract	Private	Private	Private
Physician choice	Limited	Unlimited	Unlimited	Relatively Limited

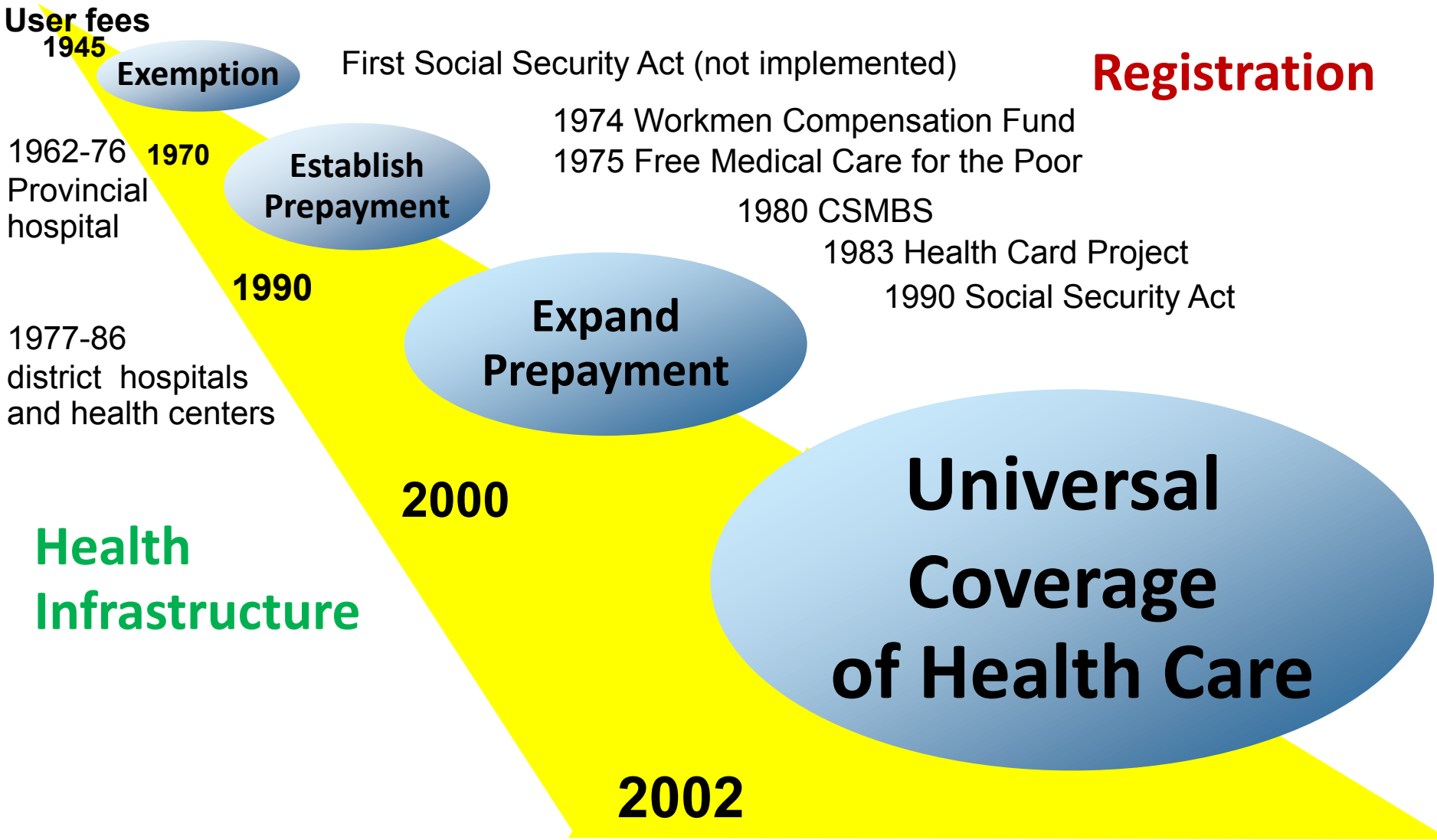
Source: Santerre & Neun (2006), p. 84.

A CASE STUDY OF THAILAND

Overview

- Health care system in Thailand is based on a "pluralistic" approach.
  - Multiple public health schemes
  - Different sources of funding.
- The country adopted to Universal Health Coverage in late 2001.
  - This action is based on egalitarian ideology.
- Ministry of Public Health is the major health service provider.
  - ~70% of hospital beds are in public hospitals.
  - Private health facilities are concentrated in Bangkok and other large cities.

Historical development

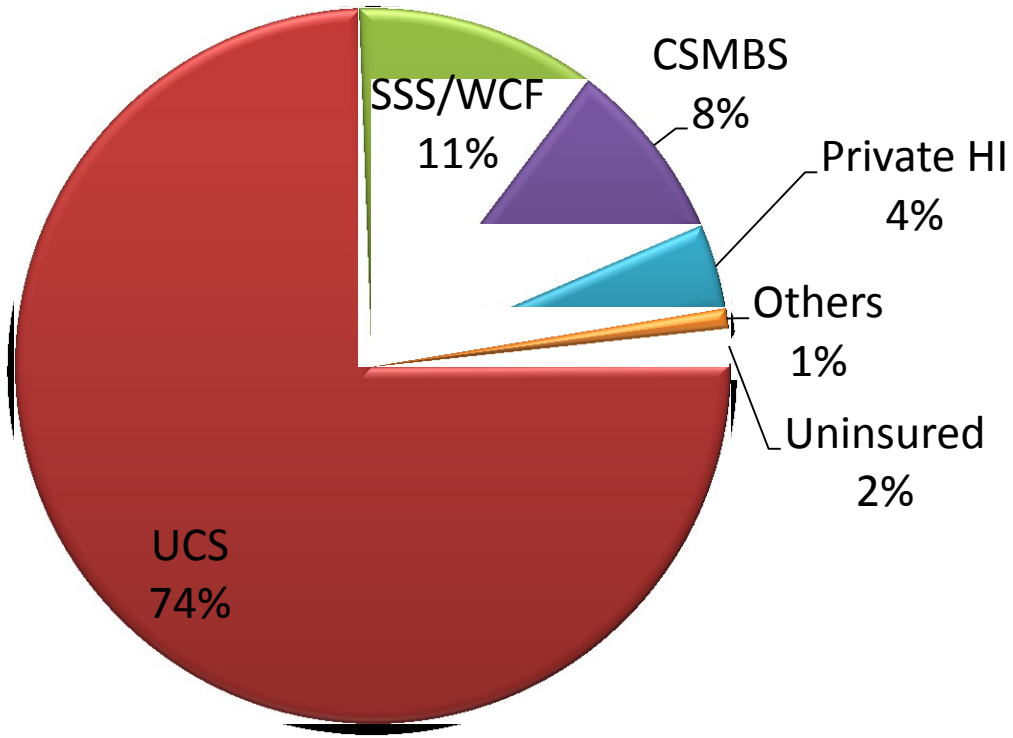


Source: Health Insurance System Research Office (HISRO)

Current Public Health Schemes

- Public employees
  - Civil Servant Medical Benefit Scheme (CSMBS): Employee benefit schemes
- Private employees
  - Workmen compensation fund (WCF)
    - For work-related illness
  - Social Security Scheme (SSS):
    - For non-work-related illness
    - Contributed jointly by employees, employers, and the government
- The rest (people uncovered by CSMBS or SSS)
  - Universal Coverage Scheme (UC):

Health Care Coverage 2011



Source: Health and Welfare Survey, 2011 (NSO, Thailand)

Financing

Schemes	Nature	Financing Model
CSMBS	Fringe benefits, tax-based system	Public reimbursement model
SSS	Social health insurance, compulsory contributions from employer, employee, and the government	Public contracted model with both public and private hospitals
UCS	Entitlement, tax-based system, managed by NHSO	Public contracted model, capitation 2,100 THB in 2007

Reimbursement

Schemes	Reimbursement
CSMBS	Retrospective fee-for-services IP -> DRG reimbursement in April 2007
SSS	Capitation for OP and IP services Additional payments for utilization rate, OP (chronic conditions), IP workload (DRG), fee schedule for high cost services, and fixed amount for AE, dental care, maternity
UCS	OP, PP - Capitation IP - DRG weighted global budget Accident/Emergency and High Cost OP – point system, Accident/Emergency and High Cost IP –DRG weighted global budget

Production

Scheme	Benefit Package	Service Providers
CSMBS	Comprehensive package including OP, IP, and private ward in public hospitals	Free choice of public facilities Access to private hospitals only in case of emergency
SSS	Comprehensive package including OP, IP, maternal care, dental care	Contracted public and private hospitals with 100-bed or above
UCS	Comprehensive package including prevention and promotion services (PP) and accredited alternative medicines with an exclusion list of some services	Contracted public and private hospitals and requiring all hospital to establish one primary care unit (PCU) for every 10,000-15,000 registered population

CHINA – AN EMERGING SYSTEM

China

- This is an example of health care systems in developing countries.
- Like in other developing countries, the Chinese health care system is a mixed system, with a large group of population pays for health care out-of-pocket.
- Some country backgrounds:
  - The Chinese health economy has undergone substantial changes since the formation of the People's Republic in 1949.
  - Governmental policies moved from a doctrinaire political system with administered prices in the first three decades, to more market-oriented processes since the 1980s, affecting coverage and focus.

Comparative Health Services Data, 2009

Statistics	China	India	Indonesia	Japan	Thailand*
Total population (in thousands)	1,353,311	1,198,003	229,965	127,156	69,200
Gross national income per capita (PPP international $)	6,010	2,930	3,600	35,190	8,190
Life expectancy at birth male/female (years)	72/76	63/66	66/71	80/86	66/74
Number dying under age five (per 1,000 live births)	19	66	39	3	12
Probability of dying between 15 and 60 years m/f (per 1,000 population)	142/87	250/169	234/143	86/42	270/139
Total expenditure on health per capita ($ 2009)	309	132	99	2,713	330
Total expenditure on health as % of GDP (2009)	4.6	4.2	2.4	8.3	3.9

Source: World Health Organization, http://www.who.int/countries/en/, accessed June 26, 2011

* Data based on 2010.

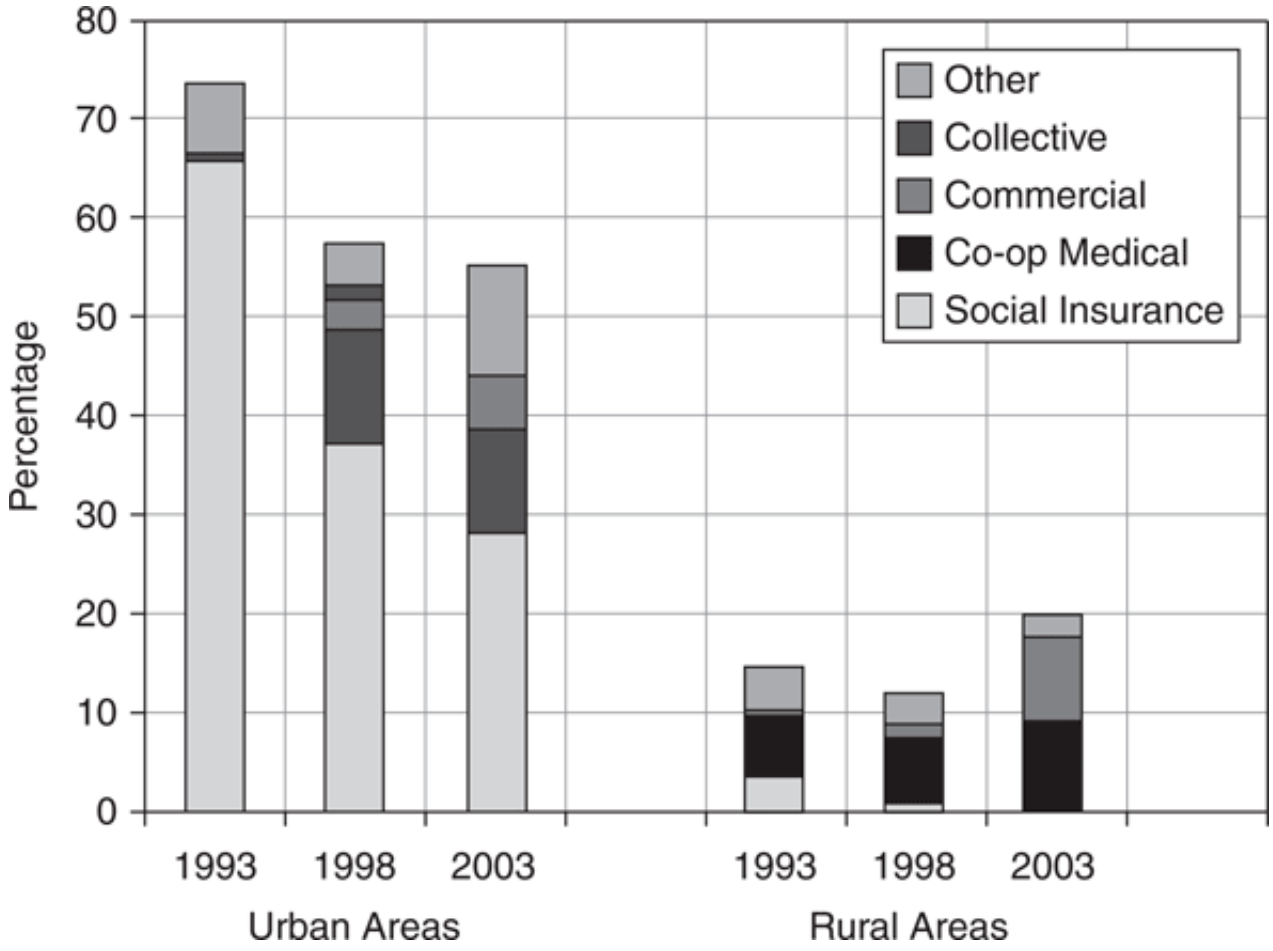
Structure of the System

- Eggleston et al. (2008) describe the development of separate three-tiered urban and rural systems starting in the early 1950s
  - Urban areas: Street clinics, district hospitals, and city hospitals.
  - Rural areas : Village clinics, township health centers (THCs) and county hospitals.
- The goal under Maoist Communist rule through the 1970s was to assure access to care.
- But, since the early 1980s, the government has allowed providers to generate, retain, and manage surpluses, with subsidies to providers constituting smaller and decreasing shares of provider financing.

Structure of the System

- The combination of rapid private sector growth, and decreased organized financing, have made health care less affordable for many.
  - Some 700 million rural Chinese must pay out of pocket for virtually all health services, leading to the deferral of care and untreated illness.
- Several new policies in 1990s:
  - **Urban areas**: Municipal risk pooling for employees, a.k.a. Basic Medical Insurance (or BMI)
  - **Rural areas**: The government established a new cooperative medical scheme (NCMS), which combines household contributions with central and local government subsidies.

Health Insurance Coverage in Urban and rural Areas in China (1993, 1998, 2003)



Performance

- Chinese economist Jian Wang (2011) highlights five priorities for Chinese health policy reform:
  - Expanded coverage and improved basic health insurance benefits for both the urban and rural populations;
  - Full coverage of essential medicines;
  - Reformed and improved capabilities for the primary health care institutions;
  - More efficient provision of and access to public health programs;
  - Improved capacity and quality of traditional Chinese medicine care and further containment of health care costs.