Chapter 6

Health Policy and Health Management

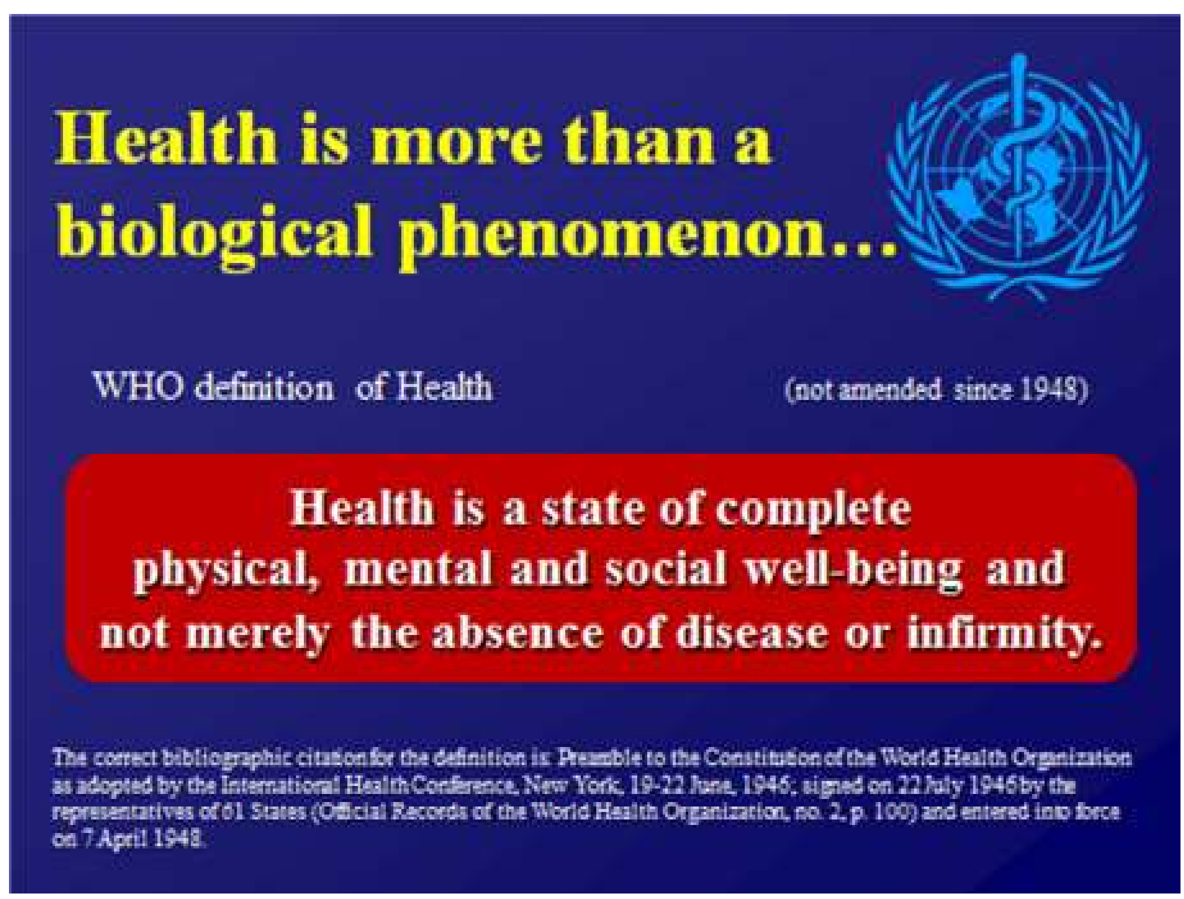
6.1. Health as a public issue, public health functions
- 6.1.1. Public health authorities
- 6.1.2. Authority and service functions in the health system

6.2. Prevention strategies

6.3. Basics of health care systems
- 6.3.1. Professional level and spatial structure of specialization
  - 6.3.1.1. Primary health care
  - 6.3.1.2. Secondary (tertiary) health care
- 6.3.2. Business structure and financing of services
  - 6.3.2.1. Business structure
  - 6.3.2.2. Financing of services
- 6.3.3. Historically based types of health care systems

6.1. Health as a public issue

Health in human terms is a historical (time and space related) value-oriented definition concerning the individual and community functional status of men being in desirable balanced situation to themselves and the total environment. Individuals do not exist outside of the community thus health is a *per se* public issue.
Related to the latest history of men, the generally accepted definition is that of the World Health Organization (WHO) issued 1946 and enacted in 1948. The generally cited sentence is in the Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946. It was signed on 22 July 1946 by the representatives of 61 States and entered into force on 7 April 1948.



Although this definition is lacking operational value especially because of the term "complete" (see below determinants of health), nevertheless it was left unchanged for practical political and policy reasons.
The WHO definition

1) sets the bottom line for modern health policy, namely to achieve the "absence of disease or infirmity" and
2) leaves open-ended the actual an future goals and activities of health policy aiming the "complete… well-being."

Health policy as managing health of communities is usually defined by functional terms as decisions, plans and actions undertaken to maintain and promote health of the society.
From historic point of view changing of health status of individuals was obvious and actions were taken since ever to cure the patients. "Treating" the ailing community was a rather com-

plex issue because it anticipated the knowledge of causes behind. Infectious diseases were in all probability the first conditions that demonstrated the health interrelations of individuals and communities. First actions of whatever nature indicated the birth of the health policy.

How became health a community issue ?

- 400 BC: Hippocrates presents causal relation between environment and disease
- 1st C. AD: Romans introduce public sanitation and organized water supply system
- 14th C. AD: Black Death (shocked Europe)
- New Age: Colonial expansion (double-faced policy)
- 1750-1850: Industrial Revolution (working class society)
- 1850-1910: Great expansion of causes and transmission of communicable diseases (first steps to globalisation)
- Ignaz Philipp Semmelweiss (1818-1865) there are effective measures to be taken…

Public health is a health of the community

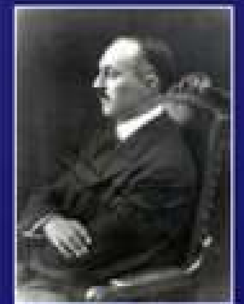
1) *Public Health Science* is the theoretical base of all targeted community activities
2) *Health Policy* means managing public health affairs.

The classic definition of public health was published by Charles-Edward Amory Winslow a US scientist in the *Modern Medicine*, 1920, 2(3), 183-191.

According to Ch. E. A. Winslow it is

- The science and art of preventing disease,
- prolonging life and promoting physical health and efficiency through organized community efforts for
- the sanitation of the environment,
- the control of communicable infections,
- the education of the individual in personal hygiene,
- the organization of medical and nursing services for the early diagnosis and preventive treatment of disease, and
- the development of the social machinery which will ensure to every individual a standard of living adequate for the maintenance of health;
- organizing these benefits in such a fashion as to enable every citizen to realize his birthright of health and longevity."

What is public (community) health ?



„The science and art of preventing disease, prolonging life and promoting physical health and efficiency through organized community efforts for the sanitation of the environment, the control of communicable infections, the education of the individual in personal hygiene, the organization of medical and nursing services for the early diagnosis and preventive treatment of disease, and the development of the social machinery which will ensure to every individual a standard of living adequate for the maintenance of health; organizing these benefits in such a fashion as to enable every citizen to realize his birthright of health and longevity."

Charles-Edward Amory Winslow: The untilled fields of public health. *Modern Medicine*. 1920, 2(3), 183-191.

Public health activities are both

1) authority functions as a special field of law enforcement backed by the latest results of the scientific research,
2) social activity functions for education and mobilization of communities typically within the frame of targeted health programs

Essential Aims of Public Health Authorities (Agencies)

- **Monitor** health status to identify and solve community health problems, **Diagnose and Investigate** health problems and health hazards in the community.
- **Enforce** laws and regulations that protect health and ensure safety
- **Assure** competent public and personal health care workforce.
- **Link** people to needed personal health services and assure the provision of health care when otherwise unavailable.
- **Develop Policies and Plans** that support individual and community health efforts.

Social Public Health Activities

- **Inform, Educate** and empower people about health issues.
- **Mobilize** community partnerships and action to identify and solve health problems. → **Health Programs**
- **Evaluate** effectiveness, accessibility, and quality of personal and population-based health services.
- **Research** for new insights and innovative solutions to health problems.

6.1.1. Public Health Authorities

Keeping up the proper functions of whatever society (empires, states, or nations), regulation of behaviour, internal law and order was needed as it was documented since the written history of men in the last five millennia. Implementing all these depends on the power of the state that was considered indivisible down to the Enlightenment in the 18th century.

The emerging idea of separation of powers goes back to Montesquieu's philosophy in the first half of the 18th century. According to this teaching, governing of the state is set up by three basic functions of the power:

- making rules = Legislation
- ensuring that these rules are obeyed = Executive
- effective action against the offender = Judiciary

Historically, it was accumulated in the same hand i.e. that of the absolute ruler, but since the French Revolution (1789) there are three branches checking and balancing each other in the modern democracies.
In terms of the modern constitutional law, public health authorities belong to the Executive Power that is mandated to rule (administer) the society according to the regulations set by the Legislative Power and under the control of the Judicial Power.
Authority means in legal terms the power to enforce laws on behalf of the society. Thus authorities are e.g.

- the head of the state
- the parliament
- the government (central and local ones alike)

In limited, common use of the word the ***Authority*** means a public agency or corporation with administrative powers in a specified field, e.g. concerning the health of the public.

6.1.2. Authority and service functions in the health system

Note: health system of the military forces (army, navy, air force) operates separately from civil authorities and services. All the following entries are about the civil institutions.
The table shows functions of the health system. At the same time, the system is functioning as a set of authorities and as a set of providing services. The main difference of these features from the general public's point of view is very simple to conceive: authority rules are mandatory but services are optional they may even be rejected.

Producing goods as

- pharmaceuticals,
- medical devices and equipment or
- construction of whole facilities (e.g. hospital)

necessary to perform health services, is not a part of the health system. It does not belong to the ministry of health or any other ministry responsible for the same function. It is a part of the industrial production under the regulation of the concerning industrial agencies.
Pharmaceutical industry and the wholesale of pharmaceuticals are typically outside of the health system, drug stores (pharmacies) are operating as traditionally as health service facilities.
The table below shows the comparison of health authorities, public health services and individual health care from point of view of the population to be served or regulated.

Historic specialization of law enforcement and service functions

Since the dawn of the urbanization (ca. in the last five millennia) local governments as authorities, provided also health services necessary to eliminate risks generated by the urban life style. These community services did not change throughout the millennia:

- ample supply of drinking water
- sewerage and drainage (for liquid waste, rain, and melting snow)
- public cleansing (solid household waste, litter on public places)
- public cemeteries (hygienic managing of dead)
- general protection for artificial and natural environment
- healthy life style education.

However these services were not provided by civil servants rather by public employees in the public institutions or by private businesses (self-employed people or business organizations) contracted to the authority.

As a result of the historic specialization some authorities of the modern industrialized societies involve mainly

- law enforcing activities (e.g. the Police) or
- providing services (namely teaching in the mandatory education system)

Nevertheless, the separation is not complete because the Police are also engaged in crime prevention programs and the education system has also its authority control and supervision.
The health system is situated between the two extremes with distinct terms for both activities:

- Public Health Authorities are responsible for law enforcing, and
- Health Care for providing medical services.

Historically, providing individual health services was an optional business and curing indigent people was based on private or public charity. In Europe, since the end of the 19th century with emerging public financing systems covering the whole society, providing services became a mandatory task for central (state) and/or local authorities.

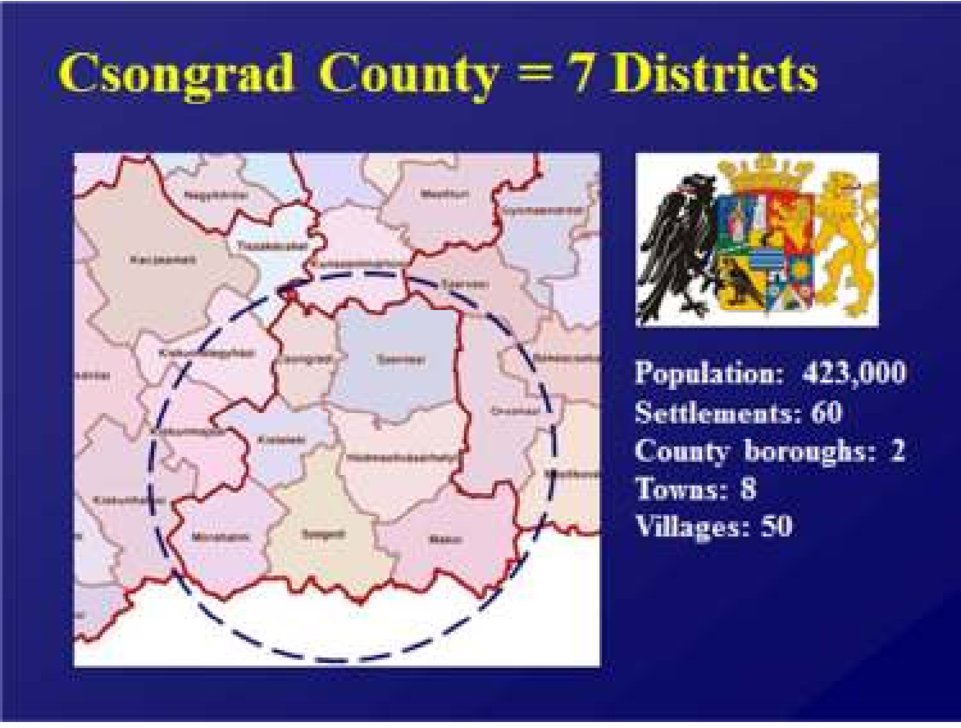
Functions of public health authorities:

Beyond the classic authority functions (health policy, collecting money for public financing and management of health related data) mandatory medical care (e.g. immunization) is performed by the health care system. Nevertheless, public health agencies are also involved in health promotion programs, albeit without any law enforcement entitlement.

The National Public Health and Medical Officer Service (NPHMOS) is Hungary's central health authority located in the capital Budapest.
Hungary has approximately 3,100 settlements (the capital, towns and villages). In the country there are 19 counties and Budapest as main administrative units and they have 168 districts.

The marked unit is a county in the Southern Great Plain.

In this specific county there are 7 districts. Public Health Agencies are operating as a first tier in Budapest and the 19 counties and as a second tier in every district.



The least territorial unit of the Public Health Administration is the precinct. However, there are no civil servants only the primary health care (see below) physicians mandated for specific authority functions (e.g. issuing death certificates).

Structure of central (federal) health authorities in the USA:

Topics suggested for students' oral presentations:

1) History and present structure and functions of public health authorities in my home country

6.2. Prevention strategies

6.3. Basics of health care systems

Health care system means a permanent, legally set structure and function of providing individual health services. Functioning systems are classified by

- Professional level and spatial structure of specialization
  - → primary (basic), nearest to the residents
  - → secondary (specialized), and
  - → tertiary (sub-specialized) care fit to the regional (geographical) units
- Business structure and financing of services provided.

6.3.1. Professional level and spatial structure of specialization

6.3.1.1. Primary health care

According to the WHO definition (adopted at the International Conference on Primary Health Care, Alma-Ata, USSR, 1978) this type of service is "essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and the country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination."
Primary health care (PHC) is the first tier of health services. It is an essential part of the system in all countries of the world however it may be very different in low, middle and high income countries (LIC, MIC, HIC).

Socioeconomic principles: PHC operates universally on 5 socioeconomic principles in all countries of the world:

1) *Accessibility* (form structural point of view = equal geographical distribution of settings): services must be equally shared by all the people irrespective of their race, creed or economic status. In LICs it is a priority to shift the accessibility of healthcare from the cities to the underserved rural areas with most needy and vulnerable population. In practical terms: all residents around the PHC setting should be able to access the service in reasonable time (e.g. 15-30 minutes) without any expensive way of transportation.
2) *Appropriate technology*: technology may be differently affordable in the LMHICs. Based on the economic circumstances, it must be scientifically sound, adaptable to local needs, and acceptable for personnel and patients alike.
3) *Health promotion*: involves all the important issues of health education, maternal and child health, and prevention, and control of infectious and non-communicable diseases. In LICs PHC is concerning also affordable nutrition, and sanitation.
4) *Community participation*: the community has to be involved in planning, implementing and maintaining "their own" health services. Mainly in the LICs this way can only be achieved the maximum utilisation of local resources, such as manpower, money and materials.
5) *Inter-sectorial collaboration*: other sectors like agriculture, education and housing have to contribute to the proper function of PHC.

PHC's professional pattern: In PHC settings health professionals are accessible without any referral. They act as a first point of medical consultation for all within the catch area of the practice. It means that PHC must involve the widest scope of health care, including all ages of patients throughout their lifetime. Thus PHC is characterized in the

Doctor-Patient relationship by

- *Diversity of diseases* (acute and chronic physical and mental health issues and as a result of ageing populations multiple chronic diseases). Consequently, a primary care practitioner must have a wide breadth of knowledge in many areas.
- *Continuity.* It is a key characteristic of PHC, as patients usually consult the same practitioner (by their free choice or by their insurance policy) for routine check-ups and every time if they require an initial consultation about a new health problem.
- *Long term confidentiality.* Common chronic illnesses (e.g. hypertension and diabetes) are usually controlled and followed up in PHC throughout the whole life of the patient.

PHC models: According to the professional principles and economic resources of distinct health systems, PHC may operate as an elementary or an extended model.
Elementary model:

- Primary care physician, named also as General Practitioner (GP) or family physician (doctors may also be specialized in whichever specialty),
- Physician assistant or nurse practitioner (providing also maternity and child health service).

Extended model: the basic service is completed separately with

- Pediatric care provided by pediatricians,
- Dental care by dental doctors
- Pharmaceutical care by pharmacists,
- Maternity and Child Health Care by special nurse practitioners (family planning, caring for expectant mothers, infants and vaccinations)
- Home Care for disabled people

Depending on their conditions, patients may be cured in PHC definitively or referred for secondary or tertiary care. In the United States, the National Health Interview Survey has been conducted since 1957 to estimate the health and the health behaviours of the population. In 2013, a study of 142,377 Midwest patients found the percentages below for the most common health issues (complaints/diseases):

- Skin disorders (42.7%),
- Osteoarthritis and joint disorders (33.6%)
- Back problems (23.9%),
- Disorders of lipid metabolism (22.4%), and
- Upper respiratory tract disease (22.1%, excluding asthma) were.

Percentages cannot be summed up because every distinct value represents a specific share contrasted to all other health issues.

PHC in Hungary

Hungary's PHC system is designed as the set of least administrative units (named precincts) of the NPHMOS. Nevertheless there are no medical officers appointed to the precincts because there are only sporadic authority functions involving specific actions of the concerning agency.
In this country, PHC physicians are empowered to issue health authority documents (e.g. death certificates) yet complete authority acts like this are limited to the lowest possible level. Instead, PHC doctors are usually involved as first stage experts of authorities in issuing a

wide variety of certificates and licenses (e.g. driving or handgun license, certificates for applying social benefits etc.).

Settlement level least units of the health administration = Precincts
(for public health commitments & financing reasons)

Precinct: in average for 2-3,000 inhabitants
Primary care provider (GPs, Dentists, Pediatricians) are self-employed and for a specific precinct contracted first by the local authority and afterward by the NHIF (Natonal Health Insurance Fund).
Maternity and Child Health Service: nurses are public employees repsonsible for a specific precinct.

PHC services as mandatory arrangements of local governments operate for 2-3,000 people in general practice and 10-12,000 people in dental practice. Within the general practice system pediatric practices may also be arranged for under aged population.

Primary health care
mandatory for all communities

1. General practitioners (adult, children and mixed-up practices) by public financing
2. Basic dental care (adult, children and mixed-up practices) by public financing, private financing between 18 and 62 years
3. School health service (general and dentistry)
4. Maternity and child health service

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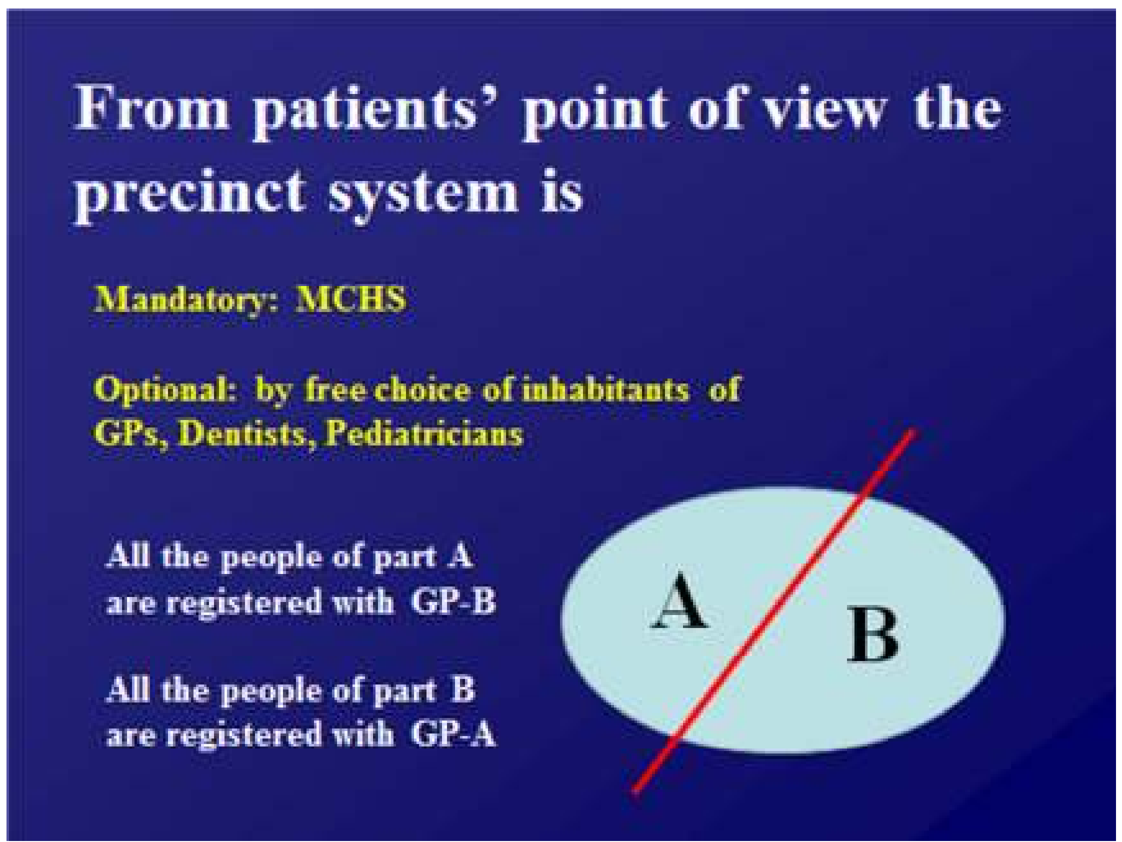
5. Optional home nursing service
6. Occupational health service mandatory for public institutions and private corporations

In Hungary, patients have a free choice of provider except the Maternity and Child Health Service (MCHS). The freedom is unlimited, thus if there are precincts A and B in a specific settlement, all people from A may register with a PHC doctor in B and the way around.



6.3.1.2. Secondary and tertiary health care

Secondary care is a system of services provided by specialized medical doctors or other health professionals (e.g. specially trained nurses as physical, speech therapists and dietitians). Patients are generally referred to by PHC doctors who are acting this way as "gate keepers" between the primary and secondary care.
Depending on the organization and policies of the specific national health systems, patients may be required to see or even not to see a primary care provider for a referral they can access with the secondary care.
For example in the *United States*, which operates under a mixed private-public system, some physicians can voluntarily limit their practice to secondary care by requiring patients to see a primary care provider first, or some health insurance plans may impose this restriction on the patients under the terms of payment agreements. In other cases medical specialists may see patients without a referral, and patients may decide whether self-referral is preferred.
In the *United Kingdom and Canada*, patient self-referral is exceptional and prior referral from another physician (operating typically in PHC) is considered necessary, regardless of private or public funding.
In *Hungary*, there is a prior referral generally required for chronic conditions, yet self-referral is accepted in emergency cases (as in surgery or gynecology and obstetrics).

Basic professional types of services are the same as in PHC, namely

- Investigation and
- Therapy.

Nevertheless, these services to be provided need special skills and knowledge, equipment and devices as e.g. in the cardiology, neurology, gynecology and obstetrics, or dermatology or even in nursing homes for long term care of the elderly patients.
Services of the secondary care operate typically in a facility that has personnel and technical backup for advanced investigation and treatment. Yet it is not a general requirement as e.g. in psychiatry or dermatology.
Depending in the 24-hours immediate availability of the patient, there was a classic dividing line between the

- Out-patient and
- In-patient (hospital) care.

In-patients are hospitalized out-patients only contact the secondary care providers. In-patients may be classified as

- Short-term (for acute conditions as injuries, infections, deliveries etc.) and
- Long-term patients (for chronic diseases).

Today, there is a broad transition zone between the in-patient and out-patient services (e.g. the one-day-surgery). Delivery of pregnant women was generally hospitalized in the MHICs during the 20th century yet return (only partially in all probabilities) to home deliveries is an open-ended story even in these countries. Elderly people with multiple chronic diseases and terminally ill patients were cared for traditionally in their homes, but today they are served in long-term nursing homes or hospice units.

Tertiary care (or *sub-specialized care*) is a consultative health care, usually for inpatients and on referral from a primary or secondary health professional. This service is operating in a facility with the most advanced hospital engineering, high-tech devices and equipment. Historically, the general intensive care units were the first type of this service.
Specialties of tertiary care are e.g. cardiac surgery, neurosurgery, complex cancer management or treatment of extended severe burns or other complex medical and surgical interventions. The most typical and frequent example is the neonatology for low birth weight and preterm babies.

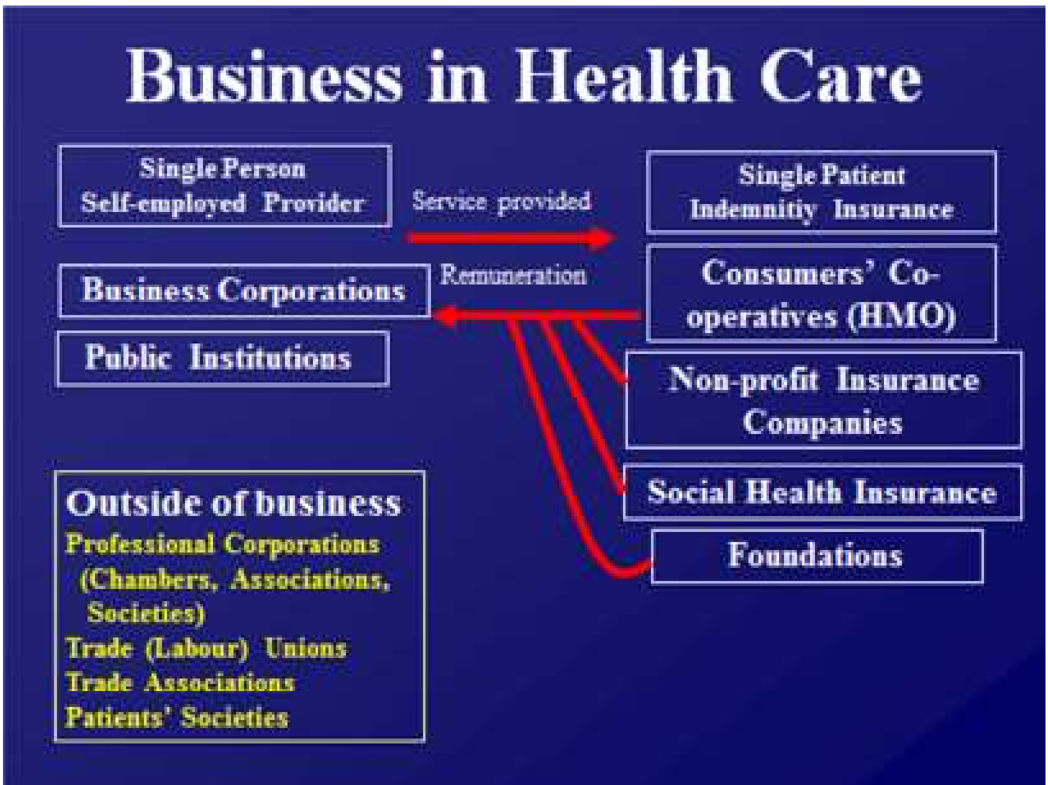
6.3.2. Business structure and financing of services

In economic terms, the health care is a business providing services that are consumed by the patients. Financing is a monetary background of this business activity.
Services are usually paid for first after the delivery thus preparations for providing services are generating expenses. In other words, it means costs in advance to be covered by the provider. Therefore the money paid for service is remuneration.
Contrasted to this ancient pattern of doctor-patient relationship, provider contracted to a single payer (e.g. royal courts or aristocratic families throughout the Middle Ages) might have been given a lump sum of money in advance for future services. This is a pre-paid system that was also applied later on when doctors were contracted to business corporations since the dawn of the Industrial Revolution.
In the classic pre-industrial doctor-patient relationship there were no professional levels (primary, secondary, tertiary) and no sophisticated methods of economic measurement of services provided. They were developed in the first and second half of the 20th century respectively.

6.3.2.1. The business structure

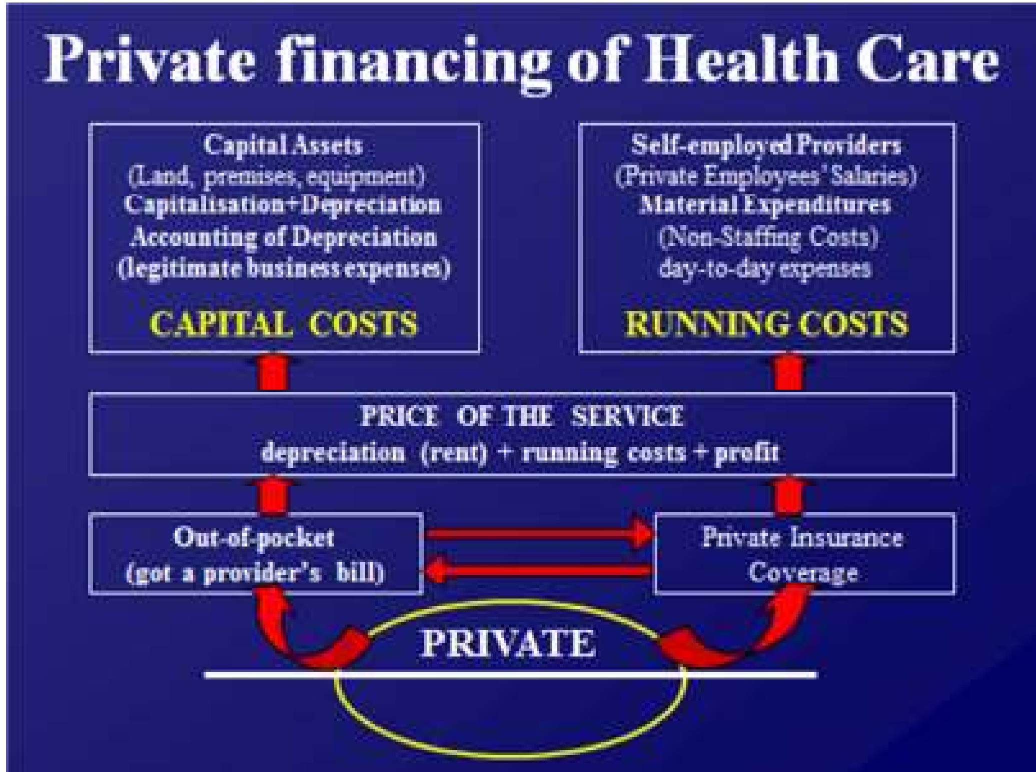
Business partners on the health care market:

The table below shows the multitude of interactions. It must be emphasized that corporations, chambers, associations, unions and societies are not engaged immediately in the business.

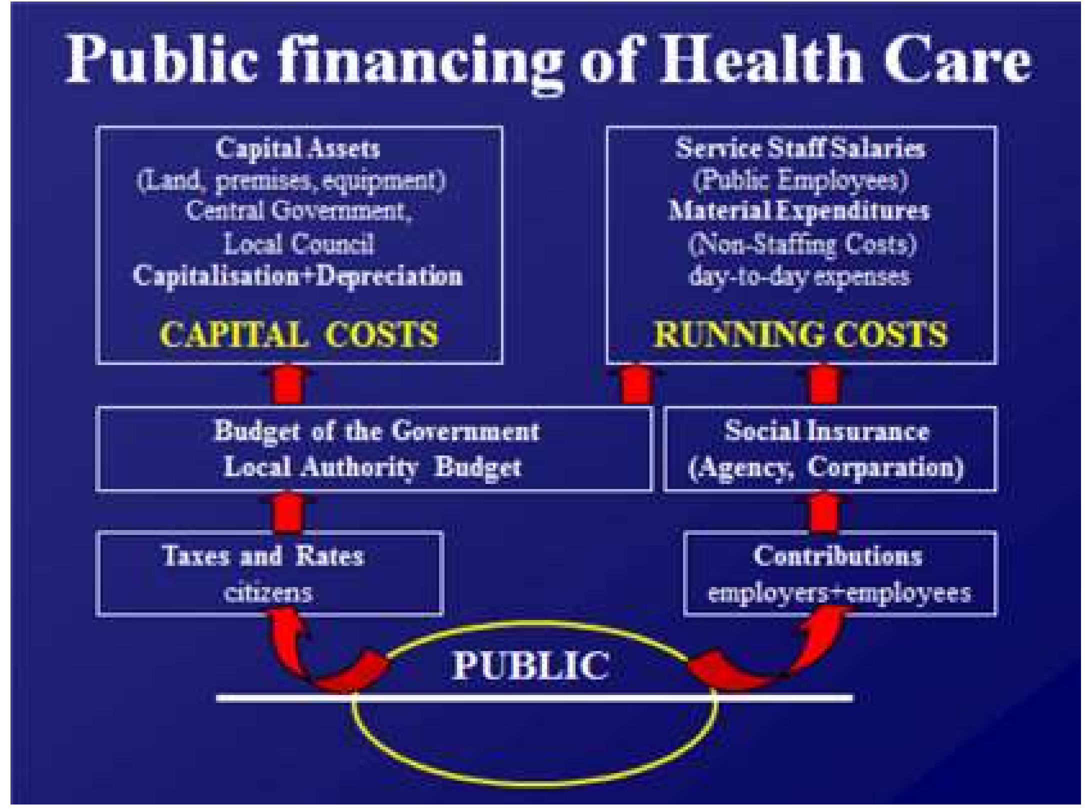


6.3.2.2. Financing of services

Counting the costs and price calculations in *private financing* of the health service:



Counting the costs and price calculations in *public financing* of the health service:



Methods of financing

Services classified for financial reasons are paid on units as

- Fee-for-service for simple procedures (as a digital examination of the rectum)
- Diagnosis Related Groups (DRGs) for a comprehensive set of procedures (as in-patient care for acute appendicitis)
- Per diem as for a 24-hours hospital stay (independent of the specific condition)
- Capitation (for a single person over a specific time, e.g. a month)
- Global budget usually for a financial year for all patients and services.

The table below shows the cross-tabulation of service levels and financing methods to be applied reasonably independent of business type of providers and public or private financing.

Service Types and Payments

Service levels	Financing methods				
	Fee-for-service	DRG	Per Diem	Capitation	Global Budget
Primary Health Care					
Out-patient Care					
In-patient Care					

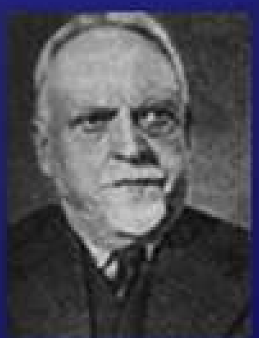
6.3.3. Historically based types of health care systems

There is a substantial similarity of health care systems concerning the professional nature and levels of services provided. The main difference lays in priority setting of cure versus prevention. Priority of preventive services means a relative overweight of public health agencies providing also services for the population.
Health care systems accepted worldwide as models differ in ways and means and are classified as

- State run centralized bureaucratic model established in the former Soviet Union and the satellite Communist countries and
- Market economy models as introduced first in Germany, in the UK as National Health Service (NHS) in the USA as traditionally private system.

Basics of the *Soviet model* as established even today in Communist countries:

1. nationalization (Communist-type) of the whole infrastructure, functioning by bureaucratic planning
2. central (state) budget financing (single chanel system)
3. coverage for all by a formal social insurance as a part of the central budget
4. generally no private practice and financing (exceptional licence for priviledged physicians in the out-patient care)



Nicolay Alecsandrowitch Semashko
1874-1949

Basics of the *German model* named also after the chancellor *Bismarck* or as a mandatory social health insurance model operating since 1883:

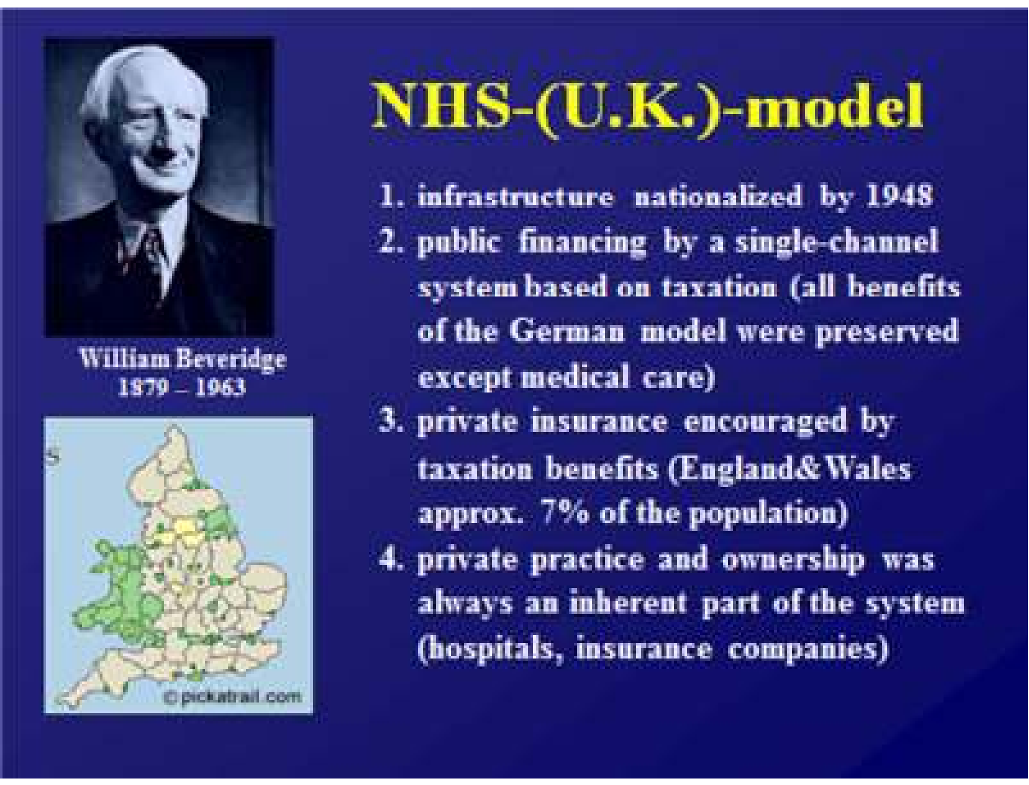
German system

1. mandatory social health insurance with income limit
2. private ownership in the primary and outpatient care
3. hospitals owned by local governments for-profit and non-profit corporations are also in function

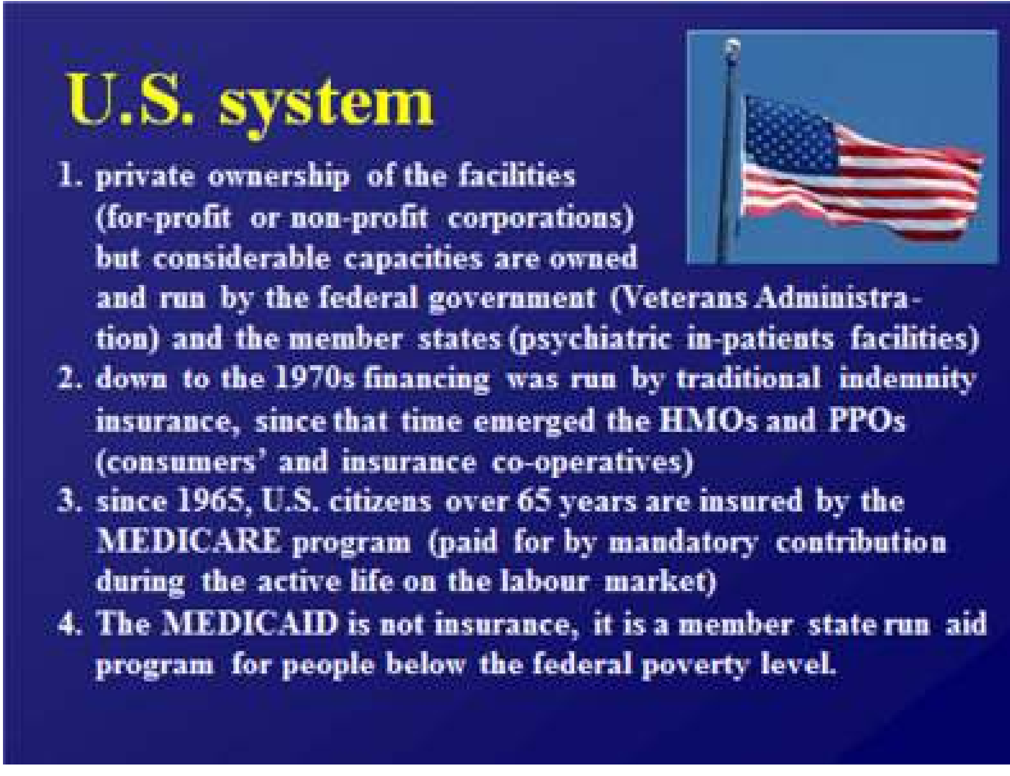
Otto von Bismarck
(1815-1898)

4. private facilities and private insurance for people above the income limit of social health insurance (in Germay about 10% of the whole population)
5. in West-Germany continuous since 1883, rehabilitation of the system in the former GDR after 1990

The *NHS model* introduced first in 1948 separately for England and Wales, Scotland and Northern Ireland:



The US model known as the most conservative one preserving the traditional private feature of health care developed in the first wave of industrialization:



Topics suggested for students' oral presentations:

1) History and present structure, functions and responsibilities of public health authorities in my home country.
2) Questions of prevention strategies…
3) Health Care Service structure and financing in my own country compared with worldwide accepted basic models (German, UK and US types)