The Role and Organization of Health Care Systems

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HEALTH: SYSTEMS - LIFESTYLES - POLICIES A Handbook for Teachers, Researchers and Health Professionals	
Title	**The role and organization of health care systems**
Module: 1.1	**ECTS (suggested): 1.0**
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Keywords	Health care; health systems; health systems organization and performance; primary health care; hospital care; health care reforms
Learning objectives	After this module, students and health professionals should: • increase understanding of health care systems organization, their historical development and respective functions; • distinguish national health care systems based on sources of funding (Beveridge, Bismarck and Private Insurance model); • be able to describe scope of activities of health organizations on different levels (self care, primary, secondary and tertiary level of care); • be able to classify health service organizations depend on various criteria • describe three generations of reforms in health system; • identify main goals and objectives of national health systems; and • identify common problems and new challenges of health care systems.
Synopsis (Abstract)	The health of the people is a national priority. Health Care System (HCS) infrastructure includes services, facilities, institutions/establishments and organizations. They provide individuals, families and communities with promotive, protective, preventive, diagnostic, curative and rehabilitative measures and services. There are different HCSs all over the world, which are strongly influenced by nation's history, traditions, socio-cultural, economic, political and other factors. But, regardless of all present differences, there are common characteristics, typical for all HCS. In this module three levels of healthcare (primary, secondary, tertiary) are described, as well as their historical development. Concerning sources of funding, there are three main models of National HCS: the Beveridge model, the Bismarck model and the Private Insurance model. HCS are continuously evolving. The quality of HCS is expressed through coverage, access, equity, but also efficiency in use of resources, and financing. HCS facing new challenges, among them are aging of the population, new medical technology, innovations, increasing costs, lack of community involvement and intersectoial actions.
Teaching methods	Teaching methods include lectures, literature search and interactive group discussion.
Specific recommendations for teacher	This module should be organized within 1 ECTS, out of which one third are lectures and group discussion supervised by the lecturer. The rest is individual work (searching published literature and Internet mainly) in order to prepare seminar paper.
Assessment of students	Assessment should be based on the quality of seminar paper, which presents the national health system of the students' country. Oral exam is also recommended.

THE ROLE AND ORGANIZATION OF HEALTH SYSTEMS

Doncho Donev, Luka Kovacic, Ulrich Laaser

Introduction

Health systems have a vital and continuing responsibility for people`s health throughout the lifespan. They are crucial to the healthy development of individuals, families and societies everywhere. The real progress in health towards the United Nations Millennium Development Goals* and other national health priorities depends vitally on stronger health systems based on primary health care (1).

Improving health is clearly the main objective of each health system, but it is not the only one. The objective of good health itself is really twofold: the best attainable average level – *goodness* - and the smallest feasible differences among individuals and groups – *fairness*. Goodness means a health system responding well to what people expect of it, and fairness means it responds equally well to everyone, without any kind of discrimination (2).

According to the World Health Organization (WHO), each national health system should be directed to achieve three overall goals: *good health, responsiveness to the expectations of the population,* and *fairness of financial contribution*. Progress towards them depends crucially on how well systems carry out four vital functions. These are: *service provision, resource generation, financing* and *stewardship*. Comparing the way these functions are actually carried out provide a basis for understanding performance variations over the time and among countries. There are minimum requirements which every health care system should meet equitably: access to quality services for acute and chronic health needs; effective health promotion and disease prevention services; and appropriate response to new threats as they emerge (emerging infectious diseases, ageing of the population and growing burden of non-communicable diseases and injuries, and the health effects of global environmental changes), (1-3).

Health systems have contributed enormously to better health for most of the global population during the 20th century and beyond. Today, health systems, in all countries, rich and poor, play a bigger and more influential role in people's lives than ever before. Health systems of some sort have existed for a long as people have tried to protect their health and treat diseases. Traditional practices, often integrated with spiritual counseling and providing both preventive and curative care, have existed for thousands of years and often coexist today with modern medicine. Many of them are still the treatment of choice for some health conditions, or are resorted to because modern alternatives are not understood or trusted, or fail, or are too expensive. Health systems have undergone overlapping generations of reforms in the past 100 years, including the founding of national health care systems and the extension of social insurance schemes. Later the promotion of primary health care came as a route to achieving affordable universal coverage – the goal of health for all. In the past two decades there has been a gradual shift of vision towards what WHO calls the "new universalism". Rather than all possible care for everyone, or only the simplest and most basic care for the poor, this means delivery to all of high-quality essential care, defined mostly by criteria of effectiveness, cost and social acceptability. This shift has been partly due to the profound political and economic changes of the last 20 years or so with transformation from centrally planned to market-oriented economies, reduced state intervention in national economies, fewer government controls, and more decentralization (2).

Health care services and health services organizations

Health care is the total societal effort, organized or not, whether private or public, that attempts to guarantee, provide, finance, and promote health. Health care consists of measures, activities and procedures for maintaining and improvement of health and living and working environment, rights and obligations acquired in the health insurance, as well as measures, activities and procedures which are undertaken in the field of health care for maintaining and improvement of people's health, prevention and control of the

* The goals in the area of development and poverty eradication (to reduce poverty and hunger and to tackle ill-health, gender inequality, lack of education, access to clean water and environmental degradation).These goals are included in the United Nations Millennium Declaration adopted at the Millennium Summit in New York in September 2000, and are now widely referred to as Millennium Development Goals.

diseases, injuries and other disorders of the health; early detection of the diseases and conditions of the health, timely and efficient treatment and rehabilitation, by application of professional medical measures, activities and procedures. It changed markedly during the 20th century moving toward the ideal of wellness and prevention of disease and disability. Delivery of health care services involves the organized public or private efforts that assist individuals primarily in regaining health, but also in preventing disease and disability (2,4).

Delivery of services to patients occurs in a variety of organizational settings ("patient" is anyone served by a health services organization). Health services is a permanent countrywide system of established institutions, the multipurpose objective of which is to cope with the various health needs and demands of the population and thereby provide health care for individuals and the community, including a broad spectrum of preventive and curative activities, and utilizing, to a large extent, multipurpose health workers. All health services organizations can be classified by ownership and profit motive. In addition, they can be classified by whether the patient is admitted as an inpatient or outpatient and, for an inpatient, by the average length of stay (4,5).

Historically, hospitals and nursing facilities have been the most common and dominant health services organizations engaged in delivery of health services. They remain prominent in the contemporary health care systems, but other health services organizations have achieved stature. Among them are outpatient clinics, imaging centers, free-standing emergency care and surgical centers, large group practices, and home health agencies. Multi-organizational systems, both vertically and horizontally integrated, are wide-spread. Health maintenance organizations, sickness funds, preferred provider organizations, and managed care systems are financial and delivery arrangements that became prominent in USA and some European countries, in the 1980s and 1990s. These various health services organizations and others face new environments containing a wide range of external pressures, including new rules and technologies, changed demography and ageing, accountability to multiple constituents, and constraints on resources. As a result, health services organization must allocate and use resources more effectively and strive for continuous improvement and continued excellence in an increasingly restrictive environment (5).

What is a Health System?

In today's complex world, it can be difficult to say exactly what a health system is, what it consists of, and where it begins and ends. It means that the boundaries between health and welfare systems are not sharp and clear. Health system includes all the activities with the purpose to promote, restore and maintain health. It means that the health system is the complex of interrelated elements that contribute to health in homes, educational institutions, workplaces, public places, and communities, as well as in the physical and psycho-social environment and the health and related sectors. A health system is usually organized at various levels, starting at the most peripheral level, also known as the community level or the primary level of health care, and proceeding through the intermediate (district, regional or provincial) to the central level. The intermediate and central levels deal with those elements of the health system that provide progressively more complex and more specialized care and support. Health system infrastructure includes services, facilities, institutions or establishments, organizations, and those operating them for conducting the delivery of a variety of health services and programs. They provide individuals, families, and communities with health care that consists of a combination of promotive, protective, preventive, diagnostic, curative and rehabilitative measures. Health resources are all the means of the health care system available for its operation, including manpower, buildings, equipment, supplies, funds, knowledge and technology. Health sector includes governmental ministries and departments, organizations and services, social security and health insurance schemes, voluntary organizations and private individuals and groups providing health services. Intersectoral action is an action in which the health sector and other relevant sectors collaborate for the achievement of a common goal. Different sectors should be closely coordinated in the health actions. Multisectoral action is usually the synonymous term to the intersectoral action, the intersectoral emphasizing the element of coordination and the multisectoral the contribution of a number of sectors (4,6).

Health systems are defined by WHO as comprising all the organizations, institutions and resources that are devoted to producing health actions. A health action is defined as any effort, whether in personal health care, public health services or through intersectoral initiatives, whose primary purpose is to improve health (2,6). Formal health services, including the professional delivery of personal medical care, are clearly within these boundaries. So are actions by traditional healers, and all use of medication, whether prescribed by a provider or not, home care of the sick, which somewhere, especially in developing

countries and rural areas, between 70% and 90% of all sickness is managed. Such traditional public health activities as well as health promotion and disease prevention provided by different sectors, and other health-enhancing interventions like road and environmental safety improvement, are also part of the system. Beyond the boundaries of this definition are those activities whose primary purpose is something other than health – education, for example – even if these activities have a secondary, health-enhancing benefit. Hence, the general education system is outside the boundaries, but specifically health-related education is included. So are actions intended chiefly to improve health indirectly by influencing how non-health systems function – for example, actions to increase girls' school enrolment or change the curriculum to make students better future caregivers and consumers of health care (2,6).

Nearly all the information available about health systems refers only to the provision of, and investment in, health services: that is, the health care system, including preventive, curative, rehabilitative and palliative interventions, whether directed to individuals or to populations. Efforts are needed to quantify and assess those activities implied by the wider definition, so as to begin to gauge their relative cost and effectiveness in contributing to the goals of the health system. Even by this more limited definition, health systems today represent one of the largest, the most complex and the most costly sectors in the world economy. Global spending on health care was about 8% of world gross domestic product (GDP), in the first decade of the 21st century. According to OECD the U.S. health care costs in 2010 eat up 17.6 percent of GDP or $8,233 spent on health per person. The average spending on health care among the other developed OECD countries was $3,268 per person. (2,7).

With rare exceptions, even in industrialized countries, organized health systems in the modern sense, intended to benefit the population at large, barely existed a century ago. Hospitals have a much longer history than complete systems in many countries. Until well into the 19th century they were for the most part run by charitable organizations, and often were little more than refuges for the orphaned, the crippled, the destitute or the insane. And there was nothing like the modern practice of referrals from one level of the system to another, and little protection from financial risk apart from that offered by charity or by small-scale pooling of contributions among workers in the same occupation. Towards the close of the 19th century, the industrial revolution was transforming the lives of people worldwide. At the same time societies began to recognize the huge toll of death, illness and disability occurring among workers, whether from infectious diseases or from industrial accidents and exposures. About the same time, workers' health was becoming a political issue in some European countries, but for quite different reasons. Bismarck, Chancellor of Germany, in 1883, enacted a law requiring employer contributions to health coverage for low-wage workers in certain occupations, adding other classes of workers in subsequent years. This was the first example of a state-mandated social insurance model. The popularity of this law among workers led to the adoption of similar legislation in Belgium in 1894, Norway in 1909, Denmark in 1935 and in Netherlands a few years later. The influence of the German model began to spread outside Europe after the First World War (in 1922, Japan, in 1924, Chile), (2,8).

In the late 1800s, Russia had begun setting up a huge network of provincial medical stations and hospitals where treatment was free and supported by tax funds. After the Bolshevik revolution in 1917, it was decreed that free medical care should be provided for the entire population, and the resulting system was largely maintained for about eight decades. This was the earliest example of a completely centralized and state-controlled model.

Not least among its effects, the Second World War damaged or virtually destroyed health infrastructures in many countries and delayed their health system plans. Paradoxically, it also paved the way for the introduction of some others. Wartime Britain's national emergency service to deal with casualties was helpful in the construction of what became, in 1948, the National Health Service, perhaps the most widely influential model of a health system. The Beveridge Report of 1942 had identified health care as one of the three basic prerequisites for a viable social security system. The government's White Paper of 1944 stated the policy that "Everybody, irrespective of means, age, sex or occupation, shall have equal opportunity to benefit from the best and most up-to-date medical and allied services available", adding that those services should be comprehensive and free of charge and should promote good health, as well as treating sickness and disease (2,8).

Today's health systems are modeled to varying degrees on one or more of a few basic designs that emerged and have been refined since the late 19th century. One of these aims was to cover all or most citizens through mandated employer and employee payments to insurance or sickness funds, while providing care through both public and private providers. Much debate has centered on whether one way of organizing a health system is better than another, but what matters about a system's overall structure is how

well it facilitates the performance of its key functions. Socioeconomic growth of societies followed by the demographic expansion and increasing of the life expectancy, as well as the epidemiological transition with predominance of chronic non-communicable diseases, caused subsequent changes of the needs and demands of an aging population. It was followed by creation of more organized and institutionalized healthcare systems instead earlier fragmented services of competing health professionals and health institutions. Today, health facilities and human resources are unequally distributed within and between countries. Lower-income countries have three to four times lower rates of doctors and nurses than high income countries, and access to clinical services is still limited to certain groups and wealthy people. In these countries community health workers act as first-line contacts of the health system.

Models of national health care systems based on the sources of funding

Based on the source of their funding and degree of state intervention, three main models of national healthcare systems can be distinguished: the Beveridge model, the Bismarck model and the Free-market private insurance model (8-11), (Table 1).

Table 1. Three main models of health care systems based on the sources of funding (8-11)

Model of Health Care System and country in which the model exists	Source of funding	Main features	Type of providers
Beveridge model (UK, Ireland, Norway, Finland, Denmark, Sweden, Iceland, Spain, Portugal, Italy, Greece, Canada, Australia and New Zealand)	Taxation (State Budget) Not related to income	- Universal access to health care for all citizens based on residency - Comprehensive coverage with basic health benefits - Strong controls by Ministry of Health and finances facilities - Bureaucracy, underfunding, rigidness	Public: - Predominantly public providers and governmental ownership - National Health Service and self-employed GPs are PHC gatekeepers -Purchaser-provider split
Bismark model (Germany, Holland, Belgium, France, Austria, Switzerland, Israel, Japan, CSEE and FSU countries)	Compulsory health insurance, earmarked premiums paid by employers and employees Related to income	- Health care as guaranteed, insured good, Coverage of 60-80% with basic "basket" of health services - Intermediate role of the state in regulating the system - Client-friendly, professional autonomy, earmarked budgets - High costs difficult to control	Mixed: - Public and private providers with dominant social ownership
Free-market private insurance model (USA)	Private insurance and funding Medicare Medicaid	- Health care as a commodity - Weak state control, in general - Providers are private entrepreneurs	- Predominantly private providers with autonomy - Managed care

The Beveridge "public" model was inspired by the William Beveridge Report for social insurance presented in the English Parliament in 1942. Funding is based mainly on taxation and is characterized by a centrally organized National Health Service where the services are provided by mainly public health providers (hospitals, community GPs, specialists and public health services). In this model, healthcare budgets compete with other spending priorities. The countries using this model, beside United Kingdom, are Ireland, Nordic countries, Spain, Portugal, Italy, Greece, Canada and Australia (Table 1).

The Bismarck "mixed" model was inspired by the 1883 Germany Social Legislation and National Health Insurance Plan for workers introduced by Otto von Bismarck, the Chancellor of Germany. Funds are provided mainly by a premium-financed social/mandatory insurance and, beside Germany, is found in countries such as Netherlands, Belgium, France, Austria, Switzerland, Luxembourg, Israel, Japan, Central and South East European (CSEE) countries and Former Soviet Union (FSU) countries. Also Japan has a

premium-based mandatory insurance funds system. This model results in a mix of private and public providers, and allows more flexible spending on healthcare.

The "private" insurance model is also known as the model of “independent” customer. Funding of the system is based on premiums, paid into private insurance companies, and in its pure form actually exists only in the USA. In this system, the funding is predominantly private, with the exception of social care for poor and elderly through Medicare and Medicaid governmental funded programs. The great majority of providers in this model belong to the private sector.

All three types of health system models to be seen as pyre types that can be found in many combinations and varieties. All three types are imperfect and expensive, too. They are aiming at "perfection", i.e. they try to achieve an optimal mixture of access to healthcare, quality of care and cost efficiency. According to the WHO, the healthcare systems present in different countries are strongly influenced by the underlying norms and values prevailing in the respective societies. Like other human service systems, health care services often reflect deeply rooted social and cultural expectations of the citizenry. Although these fundamental values are generated outside the formal structure of the healthcare system, they often define its overall character and capacity. Healthcare systems are therefore different all over the world and are strongly influenced by each nation’s unique history, traditions and political system. This has led to different institutions and a large variation in the type of social contracts between the citizens and their respective governments.

In some societies, healthcare is viewed as a predominantly social or collective good, from which all citizens belonging to that society should benefit, irrespective of whatever individual curative or preventive care is needed. Related to this view is the principle of solidarity, where the cost of care is cross-subsidized intentionally from the young to the old, from the rich to the poor and from the healthy to the diseased.

Other societies, more influenced by the market-oriented thinking of the 1980s, increasingly perceive healthcare as a commodity that should be bought and sold on the open market. These marketing incentives possibly allow a more dynamic and greater efficiency of healthcare services and a better control of growth in health care expenditure. But, nowadays, this concept, which perceive health care services as a commodity does not prevail in Europe.

Levels of organization of health care systems and health care delivery

All models of health care systems are imperfect and there is no one model which is the best and broadly accepted and recommended. There are big differences among countries in relation to the goals, structure, organization, finance and the other characteristics of the health care systems. These differences are influenced by history, traditions, social-cultural, economic, political and other factors. But, regardless of all present differences, there are same common characteristics, typical for all organized health care systems. First of all, those characteristics relate to the so called “levels of health care’.

In accordance with the size of the population served, and specificities of the diseases and conditions treated at certain level, as well as with some organizational characteristics, it is possible to recognize four levels of the health care system and health care delivery (8,10,12-17), (Chart 1).

Self care is the first level, which is nonprofessional care. It is performed within the family, and the population group counts from one to 10 persons. Self-care implies largely unorganized health activities and health-related decision-making carried out by individuals, families, neighbors, friends and workmates. These include the maintenance of health, prevention of disease, self-diagnosis, self-treatment, including self-medication, and self-applied follow-up care and social support to the sick and weak members of the family before or after contact with the health services. By community involvement and participation, individuals and families accept responsibility for their, and the community's health and welfare and develop the capability to contribute to their own and the community's development (4). This type of care has its own long tradition and it is a part of all cultures. WHO has shown interest and pointed out that traditional and alternative medicine consist big potential, which might be useful for improvement of the health status of the population. WHO strategy ”Health for all” and the concept of Primary Health Care paid an appropriate attention to self care and need for health education of the individuals, family and population as a whole in order to enable and to empower them in taking responsibilities and making decisions about their own health and the factors which influenced the health (6,13,17).

Health promotion advice on important lifestyle issues such as nutrition, exercise, consumption of alcohol and cessation of smoking is most effective if it is persistent, consistent and continuous, and if it is offered to families and communities at all levels. Within this population context, individual advice can be given on an opportunistic basis to those who attend health services for whatever reason (6, 18).

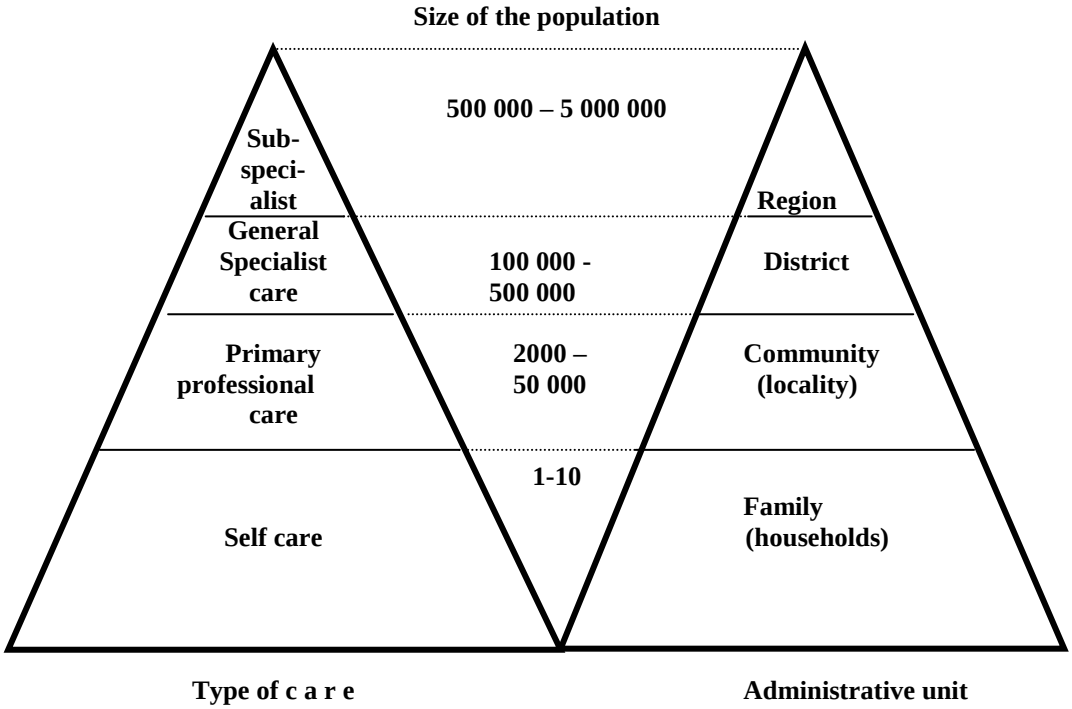

Chart 1. Levels of Care within the Health Care System (Common structure)

Primary professional (medical) care is a care of the "first contact" of the individual with the health care service, which is provided in ambulatory settings by qualified health professionals (general practitioner-GP, family doctor, or nurse) when a patient came, usually for the first time, with certain symptoms or signs of disease. The primary professional level of care includes a doctor and members of its team: nurse, birth attendant, home visiting nurse, social worker, and sometimes a physiotherapist, too. The administration/ territorial unit for this type of care is a local community, and the population size vary from 2000 persons per one GP or family doctor to 10.000-50.000 inhabitants per health facility within the community/ municipality (health station, health center). Beside medical care (diagnostics, treatment and rehabilitation) the primary professional care team performs various activities toward maintenance and improvement of the health and prevention of diseases. The most common role of the physician is "gate keeper", which means that the doctor is motivated and empowered to treat and cure broader scope of illnesses and conditions (up to 85% of health care problems in a community without recourse to specialist), and to select and refer patients to higher levels of the health care system when necessary.

Secondary or intermediate level of care is general specialist care, delivered by "general specialist doctor" for more complex conditions, which couldn't be resolved by the general practitioner or primary professional care level. General specialists (surgeons, internal medicine specialists, gynecologists, psychiatrists etc.) usually deliver this type of care through specialized services of district or provincial "general hospitals". The administrative unit for secondary level of care is a district, and the population size is from 100.000 to 500.000 inhabitants. Usually patient is directed by the general practitioner from primary professional level to the secondary level as the first referral level of care through referral.

Tertiary or central level of care is sub-specialist care including highly specific services, which might be delivered in specialized institutions or by highly specialized health professionals - sub-specialists i.e. neurosurgeons, plastic surgeons, nephrologists, cardiologists etc. The specialized institutions, which provide this type of care are, also, educational institutions for health manpower (university hospitals,

university clinics, etc.). The administrative unit for tertiary level of care is a region, and the population size is from 500.000 to 5.000.000 inhabitants. In some countries, mainly developing countries, this level of care is the same as the national level. A patient should be referred to this level from primary or secondary level of care.

Secondary and tertiary care support primary health care by providing technologically-based diagnosis, treatment and rehabilitation. WHO recommend that in most Member States, secondary and tertiary care should more clearly serve and support primary care, concentrating on those functions that cannot be performed effectively by the latter. Planning secondary and tertiary care facilities in accordance with the principle of a population-based "regionalized" system allows for more rational use of expensive technologies and of the expertise of highly trained personnel (6).

Typical functions of the overall health care system are:

- Health services (environmental, health promotion, prevention of diseases and injuries, primary care, specialist medicine, hospital services, services for specific groups, self-help);
- Financing health care (mobilization of funds, allocation of finances);
- Production of health resources (construction and maintenance of health facilities, production and distribution of medicines, production, distribution and maintenance of instruments and equipment);
- Education and training of health manpower (undergraduate training, postgraduate training);
- Research and development (health research, technology development, assessment and transfer, quality control);
- Management of a National Health System (health policy and strategy development and it's implementation by action plans, information, coordination with other sectors, regulation of activities and utilization of health manpower, physical resources and environmental health services).

The main objectives of each national health system (8) should be: 1) universal access to a broad range of health services; 2) promotion of national health goals; 3) improvement in health status indicators; 4) equity in regional and socio-demographic accessibility and quality of care; 5) adequacy of financing with cost containment and efficient use of resources; 6) consumer satisfaction and choice of primary care provider; 7) provider satisfaction and choice of referral services; 8) portability of benefits when changing employer or residence; 9) public administration or regulation; 10) promotion of high quality of service; 11) comprehensive in primary, secondary, and tertiary levels of care; 12) well developed information and monitoring systems; 13) continuing policy and management review; 14) promotion of standards of professional education, training, research; 15) governmental and private provision of services; and 16) decentralized management and community participation.

Outpatient care

Outpatient care is very important part of the health care system representing the first contact of the consumer with the professional health care and the first step of a continuous health care. Outpatient care is delivered to a “moving” patient (not tight to bed), through institutions in which the consumer come for a short visit for consultation, examination, treatment and follow-up, usually once a week or rarely, and in the most of the cases, the contact is realized with an individual health worker. Such kind of services and institutions might be a part of the hospital, community health center or certain polyclinic and dispensaries (4,12,15,17).

Historically beginnings of outpatient care appeared in 16^{th} century, when medical care organized mainly through in-patient institutions connected to churches and monasteries started to change and move to be under the state authorities. Differentiation within the medical profession started by dividing the doctors into two basic groups: the first group continue to be tighten to hospitals, but delivering also outpatient services from the position of specialists or consultants, and the other group of doctor were oriented to work in out-patient offices for poor or in doctor’s offices with advanced payment for treatment for defined period of time, usually for a week. In that way started differentiation of the profession, which is a synonym for outpatient care – a general practitioner? An official Act on health insurance was adopted in Great Britain in

1911 and a doctor of general medicine or general practitioner was authorized as a main provider of outpatient care, usually through independent doctor's offices for general medicine and, later on, through health centers. The importance of the outpatient care and responsibility of the governments for improving the health status of the population in their own countries was emphasized by WHO at the historical Conference on Primary Health Care, held in Alma Ata in 1978, based on the core principles of primary health care formulated in the Declaration of Alma-Ata: universal access and coverage on the basis of need; health equity as part of development oriented to social justice; community participation in defining and implementing health agendas; and intersectoral approach to health (8,19).

Primary health care is essential health care made universally accessible to individuals and families in the community by means acceptable to them and at a cost the community and country can afford, with methods that are practical, scientifically sound and socially acceptable. Everyone in the community should have access to it, and everyone should be involved in it. It means that "people have the right and duty to participate individually and collectively in the planning and implementation of their health care. Related sectors should also be involved in it in addition to the health sector. At the very least, it should include education of the community on the health problems prevalent and on methods of preventing health problems from arising or of controlling them; the promotion of adequate supplies of food and of proper nutrition; sufficient safe water and basic sanitation; maternal and child health care, including family planning, the prevention and control of epidemic and locally endemic diseases; immunization against the main infectious diseases; appropriate treatment of common diseases and injures; and the provision of essential drugs. Primary health care is the central function and main focus of a country's health system, the principal vehicle for the delivery of health care, the most peripheral level in a health system stretching from the periphery to the centre, and an integral part of the social and economic country development. The form it takes will vary according to each country's political, economic, social, cultural and epidemiological patterns. The relationship between patient care and public health functions is one of the defining characteristics of the primary health care approach (1,4,19).

Outpatient institutions and services

There is a variety of organizational forms of the outpatient care across the world. The main objective of the outpatient care is to reduce hospitalization and to provide treatment of diseases and injuries in much cheaper conditions, whenever it is possible. The outpatient departments of hospitals were the first institutions described which are still available nowadays. They provide services in some urgent and life threatening conditions, in some acute diseases that require urgent intervention, in chronic diseases that require follow-up and control measures, as well as act as a referral level for primary health care or make decision for hospital admission when necessary.

The reorganization and reform of the outpatient care, after establishment of the Ministry of Health in Great Britain, in 1919, was directed toward creating a new institution of outpatient care so called Health Center. Health Center, in accordance with the Bertrand Dawson's Commission for health care reform in Great Britain in 1920s, is an institution which is responsible to integrate preventive and curative activities, to provide health care to the population living within certain territorial units, and to collaborate with the local authorities for all issues related to the health of the population. Additional equipment for laboratory and x-ray diagnostic services within the health center should be available, as well as general practitioners and nurses for team work. And, later on, in 1948, when National Health Service in Great Britain was established, the general practitioner became the most important gate-keeper at the entrance to the other levels of health care system. The development of health centers in Great Britain was facilitated by the act on family doctor, adopted in 1966. The idea for establishing health centers for outpatient care was accepted in many European countries, especially in former Soviet Union after the Bolshevik Revolution (2,8).

After the Alma Ata Conference, held in 1978, Primary Health Care became more and more important part of the health care system in each country – member of WHO. Even health services continued to have various organizational forms in different countries the health center was the most typical institution for outpatient care.

The institutions for Primary health care have special importance playing a role as institutions of the "first contact" of the patient with health care system. Beside primary medical services those institutions contribute to maintain and improve overall physical, mental and social health and well being of the individuals, groups and of the population as a whole. The institutions for primary health care provide

individual and group practice/ services delivered through health centers or independent outpatient doctor's offices, as well as within the home of the patient, school and workplace.

Consultative-specialist health care is an intermediary level of providing health care, between primary health care and hospital treatment, where in the shortest period of time all necessary examinations and analyses should be performed, and a decision should be brought whether the patient is going to be referred to hospital treatment or sent back to the level of primary health care, usually with precise diagnosis and certain directions for further treatment.

Home care or "hospital at home" is treatment at home of the diseased, which includes examination, diagnostic procedures, therapeutic and rehabilitation measures. Home care, as alternative of in-patient/hospital/stationary treatment, is a combination of medical and non-medical treatment and a factor that connects primary and hospital health care. It should be conducted in an organized way by hospitals and in accordance with certain programs, which in addition to health service include other factors, such as: social protection services, children's public care, health insurance and pension-invalidity insurance funds as well as local communities. Home visiting by a doctor and medical technicians in the function of home care should be performed in a series and successively, according to a program defined by the same physician, and keeping evidence should be performed on special hospital-temperature lists, which are going to be a base for compensation of the performed tasks and services. Several researches have demonstrated that for about 30%, or even more, of the treated patients in hospitals there were no real indications for hospital treatment, which means that their treatment could successfully be conducted through introduction of "substitution policies" i.e. day care hospitals, ambulatory care or organized home care by hospitals if there is satisfactory standard for accommodation of the patient at home, under supervision of the team for primary health care (4,6).

Home visiting by a doctor and medical technician considered as an "emergency medical service" is performed without formerly determined plan and on a patient's call and are shown as individual services through ambulatory protocols and reports for the performed home visiting.

In-patient care and institutions

In-patient/hospital care means admission into hospital or other stationary health organization, including diagnosis, treatment and rehabilitation, with in-patient care and treatment of the most severely ill patients who cannot be treated in ambulatory-polyclinic institutions or at home. Stationary health organizations are institutions, which, in addition to supplying diagnosis, treatment and medical rehabilitation, also provide hospital accommodation, treatment, care and food. They include hospitals, nursing homes, health resorts and rehabilitation centers. Hospital is a health organization which provides consultative-specialist health care and hospital in-patient care with accommodation, treatment and food for the patients in a certain area and for more types of diseases and for persons of all ages, or only for persons diseased from certain illnesses, or for certain group of citizens (4,12).

Hospitals have been present in a variety of forms for millennia. Almost 5,000 years ago, Greek temples were the first, but similar institutions can be found in ancient Egyptian, Hindu, and Roman societies. These "hospitals" were very different than the hospitals of today, and over the span of time they have gone through a dramatic evolution from temples of worship and recuperation to almshouses and pesthouses and finally to sources of modern-day health in-patient institutions (5,12). In late 1980s (quasi-) market model had been promoted in UK with purchaser-provider split and contracting services from competing hospitals. Many of these ideas were picked up by policymakers in South East Europe (SEE) and over the past two decades the health systems in SEE have undergone far-reaching reforms, triggered by the search for more effective and efficient health care provision (20).

Hospitals are institutions whose primary function is to provide diagnostic and therapeutic medical, nursing, and other professional services for patients in need of care for medical conditions. Hospitals have at least six beds, an organized staff of physicians, and continuing nursing services under the direction of registered nurses. The WHO considers an establishment a hospital if it is permanently staffed by at least one physician, can offer in-patient accommodation, and can provide active medical and nursing care (8).

By convention of common use a *general (community or district) hospital* is an acute care hospital that provides diagnoses and treatment for patients with a variety of medical conditions or for more than one category of medical discipline for general medical and surgical problems, obstetrics and pediatrics. The

title is used whether the hospital is not for profit or for profit. A general hospital provides permanent facilities, including inpatient beds, continuous nursing services, diagnosis, and treatment, through organized professional staff organization, for patients with a variety of surgical and non-surgical conditions. This is in contrast to *special hospitals*, which admit only certain types of patients by age or sex, or those with specified illnesses or conditions. Such type of hospitals are children's, maternity, psychiatric, tuberculosis and chronic disease hospitals, as well as geriatric, rehabilitation, or alcohol and drug treatment centers, which provide a particular type of in-patient services to the majority of their patients (5,8).

Hospital bed is any bed that is set up and staffed for accommodation and full-time care of in-patients and is situated in a part of the hospital where continuous medical care is provided. A bed census is usually taken at the end of a reporting period. The supply of hospital beds is measured in terms of hospital beds per 1000 population. This varies widely between and within countries. Increasing or decreasing/closing of hospital beds is one of the difficult and controversial issues in health planning and health policies. It is even more difficult and painful procedure to close redundant or uneconomic hospital beds, because this means a loss of jobs in the community unless coupled with transfer of personnel to other services. Total beds per 1000 population include all institutional beds utilized for in-patient medical care, but not geriatric custodial care. Acute care bed ratio is a more precise and comparable indicator representing the number of general, short-term care beds per 1000 population.

Hospitals are increasingly technologically oriented and costly to operate. Hospital services in the European Region underwent considerable expansion in during the 1960s, 1970s and the beginning of the 1980s but have since experienced increasing difficulties. Managing health systems with a fewer hospital days requires reorganization within the hospital to provide the support services for ambulatory diagnostic and treatment services as well as home care. The interaction between the hospital-based and community-based services requires changes in the management culture and community-oriented approaches. Many developed countries are actively reducing hospital bed supplies, facilitating alternatives to hospital care, using incentive payments to shorten the length of stay by increasing the efficiency in diagnostic procedures, decreasing unwarranted surgical procedures and adopting less traumatic procedures, and to promote day-hospital treatments, ambulatory and home care. In the more eastern part of the Region, the very large number of hospital beds (a legacy of health care policy in the past), combined with a severe economic crisis during the 1990s has created an extremely difficult situation characterized by dilapidated buildings, worn-out equipment, lack of basic supplies and a financial inability to profit from new breakthroughs in hospital technology (6). During 1980s and 1990s in USA, especially in California, an intensive process of mergers or acquisitions of for-profit hospitals was taking place aimed to increase organization's capacity, financial viability and efficiency of the new unit, and ability for competition in its current markets (8, 21).

Classification of hospitals

Hospitals are classified in several ways: *length of stay*, *type of service*, and *type of control or ownership*, as well as *size of the hospital* (4-6,8,12,14).

Length of stay is divided into acute care (short term) and chronic care (long term). Acute care (of short duration or episodic) is a synonym for short term. Chronic care (or long duration) is a synonym for long term hospitals. Short-term stay hospitals are those in which more than half of patients are admitted to units in the facility with an average length of stay shorter than 30 days. Long-term stay hospitals are those in which more than half of patients are admitted to units in the facility with an average length of stay of more than 30 days (7). The most of hospitals are short term. Community hospitals are acute care (short term). Rehabilitation and chronic disease hospitals, nursing homes and hospices are long term. Psychiatric hospitals are usually long term. Some acute care hospitals have units to treat acute psychiatric illness. Hospitals in the European Region now often serve both acute and chronic patients, but these two categories need to be better differentiated in order to optimize the use of resources and staff expertise (6).

Day care hospitals provide stay and treatment of patients during the day-time in the premises of the hospital, not including accommodation for lodging. Day care hospital is an important novelty in the hospital treatment, which has positive social, psychological and economical implications, if its work is adequately organized. There are three main types of day hospital: 'day treatment programmes', 'day care centres' and 'transitional' day hospitals. (4,6,14,22).

Types of service denote whether the hospital is “general” or “special”. General hospitals provide a broad range of medical and surgical care, to which are usually added the specialties of obstetrics and gynecology; rehabilitation; orthopedics; and eye, ear, nose, and throat services. “General” can describe both acute and chronic care hospitals, but usually applies to short-term hospitals. “Special” hospitals offer

services in one medical or surgical specialty (e.g., pediatrics, obstetrics/gynecology, rehabilitation medicine, or geriatrics) or treatment to certain diseases or groups of diseases (TBC, psychiatric diseases, heart and lung diseases etc.). Although special hospitals are usually acute, they may also be chronic. A tuberculosis hospital is an example of the latter. University hospital as a special or specialized health institution for the education and training of health manpower with secondary and advanced training in health with university degrees in medicine, medical research and specialist treatment of in-patients (4,12).

A third classification divides hospitals by *type of control or ownership*: for profit (investor owned), or not for profit, governmental (federal, state, local, or hospital authority), religious or voluntary organizations.

Functions of the hospitals

The basic function of acute care hospitals is to diagnose and treat the sick and injured. The nature and severity of a patient's illness determine the care received and, to some extent, the type of hospital in which it is provided. Care might be delivered on an in-patient or out-patient basis. All acute care hospitals treat the sick and injured. Their emphasis on the other functions noted here depends on organizational objectives (5).

A second function is preventing illness and promoting health. Examples are instructing patients about self-care after discharge, referring them to other community services such as home health services, conducting disease screening, and holding childbirth and smoking cessation classes. The competitive environment has caused hospitals to mix illness prevention and health promotion with generous amounts of marketing.

A third function is educating health services workers. Physician education in residencies and fellowships is common. Acute care hospitals train staff such as nurse aides who will work in them. Clinic is a health organization that performs sub- or super-specialist health care in certain field and educational activities, professional training of health workers (medical students, physicians in specialist training, and others highly qualified health professionals) and scientific-research activity. The clinic performs the most complex types of health care from a certain medical branches, that are from dentistry, creates and carries out professional and medical doctrinaire criteria from their field and offers professionally-methodological help to the health organizations from the related medical branch or dentistry.

A fourth function is research. Clinical trials for new drugs and medical technology, assessing the procedure and quality of care, patient satisfaction surveys, and others are the most common researches in the hospital.

Conclusion

Health care delivery system is the organized response of a society to the health problems and needs of the population. Countries differ considerably by the levels of income and economic potential, diversity of health problems and needs, the way they organize their response, as well as in the degree of central management, sources of financing and control of their health care system regarding coordination, planning and organization. The quality of healthcare system is expressed through coverage, access, equity, but also efficiency in use of resources, and financing. Healthcare systems are facing new challenges, among them are aging of the population, widespread lifestyle risk-factors and growing burden of non-communicable diseases, new medical technology, innovations, increasing costs, lack of community involvement and intersectoral cooperation and actions. Substantial changes in the health systems are necessary to be implemented with greater role of the primary health care, increasing the efficiency by market forces and the use of economic incentives for providers of health care.

EXERCISE: The role and organization of health care system

Task: Students should visit www.observatory.dk to become familiar with different Health Care Systems and actual reforms initiatives. Students are encouraged to write draft describing HCS in their respective country or district.

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