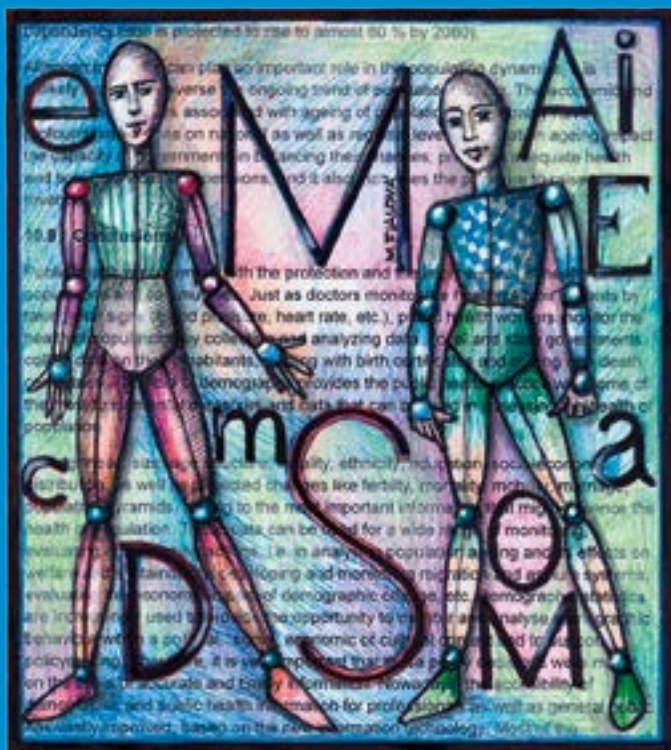


učební texty Univerzity Karlovy

SOCIAL MEDICINE

An Introduction to New Public Health



Libuše Čeledová, Jan Holčík et al.

SOCIAL MEDICINE

An Introduction to New Public Health

Libuše Čeledová, Jan Holčík et al.

Reviewed by:

doc. MUDr. Bohumil Seifert, Ph.D.

doc. MUDr. František Németh, Ph.D.

prof. PhDr. Jiří Mareš, CSc.

Published by Charles University

Karolinum Press

Typeset by DTP Karolinum Press

First edition

The text has not been revised by the publisher

© Charles University, 2019

© Libuše Čeledová, Jan Holčík et al., 2019

Cover illustration © Magdalena Fialová, 2019

ISBN 978-80-246-4276-5

ISBN 978-80-246-4307-6 (pdf)



Charles University
Karolinum Press 2019

www.karolinum.cz
ebooks@karolinum.cz

CONTENTS

1 An Introduction to Social Medicine (<i>Jan Holčák</i>)	9
1.1 The definition and the goal of Social Medicine	9
1.2 The scope of Social Medicine	10
1.3 The role of Social Medicine	11
1.4 Concise notes on history of population health	12
1.5 Origins and evolution of Social Medicine	14
2 Health and Disease (<i>Jan Holčák</i>)	17
2.1 Health	17
2.2 A bio-medical model of health and disease	18
2.3 A socioecological model of health	19
2.4 The lay understanding of health	20
2.5 Health as value	20
2.6 Health is a basic human right	20
2.7 Disease	21
3 Determinants of Health (<i>Jan Holčák</i>)	25
3.1 Genetic factors	25
3.2 The environment	26
3.3 Lifestyle	26
3.4 Health care and health services	26
3.5 Social determinants of health	26
3.5.1 Social gradient	27
3.5.2 Stress	27
3.5.3 Early life	27
3.5.4 Social exclusion	28
3.5.5 Work	28
3.5.6 Unemployment	28
3.5.7 Social support	29
3.5.8 Addiction	29
3.5.9 Food	29
3.5.10 Transport	30
3.6 Social determinants of health are an important health strategy issue	30
4 The World health Organization (<i>Jan Holčák</i>)	33
4.1 Origin and development of health cooperation	33
4.2 The creation of the World Health Organization	34
4.3 Constitution of the World Health Organization: Principles	34

4.4	The structure of the WHO	35
4.4.1	World Health Assembly (WHA)	35
4.4.2	Executive Board	36
4.4.3	The Secretariat	36
4.4.4	Director-General	37
4.4.5	Regional offices	38
4.5	WHO collaborating centres	39
4.6	The main activities of WHO	39
4.7	Ethical principles	41
5	European Health Policy (Jan Holčík)	43
5.1	The concept of Health for All	43
5.2	Health 21, the WHO European Region's response to the global Health-for-All Policy	44
5.3	Health 2020: a European policy framework supporting action across government and society for health and well-being	45
5.3.1	The reasoning behind Health 2020	45
5.3.2	Key components of Health 2020	46
5.3.3	Strategic objectives of Health 2020	47
5.3.4	Priority areas of Health 2020	48
5.4	Looking forward	49
6	Health Literacy (Jan Holčík)	51
6.1	What is health literacy?	51
6.2	Three levels of health literacy	53
6.3	Why is health literacy important?	54
6.4	Health-literate settings	55
6.4.1	The healthy city movement	56
6.4.2	Educational settings	56
6.4.3	Marketplace and community settings	56
6.4.4	Health care settings	57
6.5	Promising areas for action	58
6.6	The European Health Literacy Survey and the level of health literacy in the Czech Republic	58
6.7	Conclusion	59
7	Health Systems (Jan Holčík)	61
7.1	The scope of a health system	61
7.2	The basic models of health care systems	62
7.2.1	The Beveridge model	62
7.2.2	The Bismarck model	63
7.2.3	The national insurance model	63
7.2.4	The out-of-pocket model	63
7.2.5	The totalitarian health care model	63
7.3	Goals and functions of a health system	64
7.3.1	Stewardship	65
7.3.2	Generating resources	65
7.3.3	Financing	66
7.3.4	Providing services	67
7.3.5	Responsiveness	67
7.3.6	Fair financial contribution	68
7.3.7	Health	68
7.4	Health systems strengthening	68
7.4.1	Towards people-centred health systems	68
7.4.2	Health systems governance	69

8 Public Health Insurance in the Czech Republic (<i>Roman Odložilík, Libuše Čeledová</i>)	71
8.1 General introduction	71
8.2 Legal regulations governing the system	71
8.3 Personal scope of the Public Health Insurance	72
8.4 Contributions to the system	73
8.5 Rights and duties of the insured	74
8.6 Regulatory fees and drugs surcharges	74
8.7 Material scope of the Public Health Insurance	75
8.8 Health services providers net	75
8.9 EU regulation application	76
8.10 Agreements on social security	79
9 Primary Care (<i>Svatopluk Býma, Rudolf Červený</i>)	81
9.1 Definition and goals of the field of general practical medicine	81
9.2 Definition of activities of the field of general practical medicine	82
9.3 Primary care in health systems in the world	82
9.4 Primary care in the Czech Republic	84
9.5 The teaching of general medicine at the faculties of medicine in the Czech Republic	86
9.6 The qualifications of a general practitioner	87
9.7 The future development of primary care in the Czech Republic	87
10 Demography and Its Importance for Public Health (<i>Lenka Hodačová</i>)	89
10.1 Demography – definition and importance	89
10.2 Methodological issues of demography, types of demography	90
10.3 Tools of demography	90
10.4 Population structure	91
10.5 Definitions of some commonly used events – indicators	92
10.5.1 Population	92
10.5.2 Births and fertility	93
10.5.3 Mortality	94
10.6 World population	94
10.7 Population of the European Union – basic demographic characteristics and trends	95
10.8 Conclusions	97
11 Biostatistics (<i>Květuše Zikmundová</i>)	99
11.1 Definition of statistics, method and content	99
11.2 Principles of statistical analysis	99
11.3 Basic terms	99
11.4 Tables and graphs	101
11.5 Statistical bias (errors)	102
11.6 Characteristics of sample and population	102
11.7 Normal distribution (normal curve)	103
11.8 Statistical estimation	104
11.9 Hypothesis testing	105
12 Study of Health Status (<i>Květuše Zikmundová</i>)	107
12.1 Health status	107
12.2 Methods of health status study	107
12.3 Health indicators	108
12.3.1 Mortality rate (death rate)	108
12.3.2 Measures of morbidity	111
12.3.3 Life expectancy	112
13 International Classification of Diseases and Related Health Problems (<i>Květuše Zikmundová</i>)	115
13.1 International Classification of Diseases (ICD) – last version	115

13.2 History	116
13.3 Characteristics, coding scheme	116
13.4 Meaning, practical use	116
13.5 Tabular list of ICD-10 – current version	117
13.6 International Classification of Functioning, Disability and Health (ICF)	117
13.7 The future	118
14 Institute of Health Information and Statistics of the Czech Republic (Květuše Zikmundová)	119
14.1 Introduction	119
14.2 Characteristics, aims	119
14.3 Cooperation	119
14.4 Principles for the provision of information from National Health Information System (NHIS)	120
14.5 Registers and information systems of NHIS	120
14.6 Use of data	120
15 Czech Medical Chamber (Tereza Pastirčáková, Libuše Čeledová)	121
16 Gerontology (Zdeněk Kalvach)	125
16.1 Old age	125
16.2 Gerontology and geriatrics	128
16.3 Elder abuse and neglect	130
16.4 Assistance services to seniors	131
17 Medical Assessment Service in the Czech Republic (Libuše Čeledová, Rostislav Čevela)	133
17.1 Social Security System	133
17.1.1 Medical Assessment Service in the Social Security System	135
17.1.2 Role of Medical Assessment Service	136
17.2 Assessment of Medical Condition for the Purposes of Sickness Insurance	136
17.3 Assessment of Medical Condition for the Purposes of Pension Insurance	138
17.4 Assessment of Medical Condition for the Purposes of Social Services	140
17.5 Assessment of Medical Condition for the Purposes of Benefits to Disabled Person	142
17.6 Assessment of Medical Condition for the Purposes of Employment, physically disadvantaged person	143
18 History of Medicine (Karel Černý)	145
18.1 Introduction	145
18.2 Ancient Medicine	146
18.3 Greek Medicine	146
18.4 Medieval and Arabic Medicine	147
18.5 Early Modern Period	150
18.6 Enlightenment and the 19 th Century	150
Annex	155
The Ottawa Charter for Health Promotion	155
The Ljubljana Charter on Reforming Health Care, 18 June 1996	161
The Astana Declaration on Primary Health Care, 25–26 October 2018	165

1 AN INTRODUCTION TO SOCIAL MEDICINE

Current demographic, medical, social and economic development challenge health care systems which are confronted with the difficult task of providing accessible needs-oriented, high quality and cost-effective health care services to everyone.

Orientating health policy solely towards the health care sector is too limited. Modern health policy combines scientific, organizational and political efforts in order to promote the health of populations or defined population groups and creates health care systems which, for their part, show a stronger focus on people's needs and efficiency.

Quality, effectiveness, efficiency, free access, equitable and needs-oriented health services constitute the basis for an optimal level of health care services offered to the population in the long term. There is a need of new information, methods, research and analysis.

The scope of medicine has expanded during the last few decades to include not only health problems of individuals, but those of communities as well. Health development is essential to socio-economic development as a whole. Since health is an integral part of development, all sectors of society have an effect on health. The scope of medicine has extended from the individual to the community. Studying health and disease in the population is an important part of study and it copes with health challenges.

1.1 THE DEFINITION AND THE GOAL OF SOCIAL MEDICINE

Social Medicine is a socio-medical and interdisciplinary study focused on the characteristics, dynamics and determinants of population health and on health systems helping to protect, maintain, and increase the level of human health.

In the other words, Social Medicine is the study of health and disease in the population, of their determinants and the provision of health care.

Social Medicine is mainly concerned with the health situation, with the measurement of population health, and with genetic, social, and environmental factors influencing human health, disease and disability, health needs and demands, health care system and its components (structure and function), health policy (health programmes), evaluation of health systems and services, health legislation, health economy, health insurance, the relation between health and social care, informatics, and health management.

The goal of Social Medicine is to contribute to the population health, to define the health problems and needs, to identify means by which these needs can be met, and to evaluate the extent to which the health services and other activities do meet these needs.

1.2 THE SCOPE OF SOCIAL MEDICINE

At the risk of over-simplifying a complex picture, three main questions can be asked to create the framework of Social Medicine: (1) What are the level and the distribution of health?, (2) Why?, (3) What can be done to improve health? These questions are studied within the complex social environment (Fig.1.1).

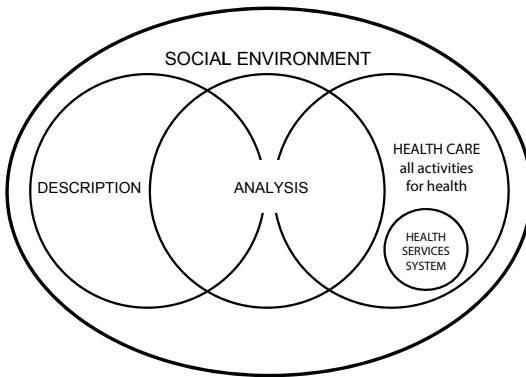


Fig. 1.1 The scope of Social Medicine

The first question concerns the description of the health status of a defined population and the comprehensive health situation of the society. There are some additional questions namely: what?, who?, where?, when?, how much / how many? Of much help are data and methodology of descriptive epidemiology which studies the occurrence of disease or other health-related characteristics in the human population. Major characteristics can be classified under the following headings: persons, place, and time. There are a lot of health indicators (mortality, morbidity) and large databases which can be used for detailed description.

The second question deals with determinants of health. All of them are physical, biological, social, cultural, and behavioural factors that influence health. A methodological tool is constituted by analytical epidemiology which examines associations that are commonly putative or which hypothesize causal relationships. The analytic study is usually concerned with identifying or measuring the effect of health-related causes (risk and protective factors) or has to do with the health effects of a specified exposure.

The third question is very broad. Answering it concerns health care, all that is done and can be done for better health by individuals, families, organizations, and institutions. In most illnesses, care is provided by non-professionals, including the patient himself, and is delivered in the context of the home and the family. Only a small proportion of the care required is referred to the primary care team, and an even smaller amount to the hospital and specialist sectors.

A specific area is health services system with all its health facilities and health professionals. Some help is offered by applied epidemiology. It includes application of descriptive and analytical findings, health strategy, setting of priorities and evaluation of health programs,

policies and services. Social Medicine make use of a lot of other research methods in the area of health services system, for example health services research, health system research, medical audit, health impact assessment, and health technology assessment.

The social environment is a powerful determinant of health. It refers to the immediate physical and social setting in which people live or in which something happens or develops. It includes the culture that the individual was educated or lives in, and the people and institutions with whom they interact.

In some types of social variables such as socioeconomic status (SES) or poverty, robust evidence of their links to health has existed since the beginning of the official record keeping. In other kinds of variables — such as social networks and social support or job stress, evidence of their links to health has accumulated over the past thirty years. Socioeconomic differences in health are large, persistent, and widespread across different societies; they display diverse ranges of health outcomes.

Social environment influences the description and the analysis of population health as well as the health care and the health services. Social Medicine is interested in all aspects of social environment, in its risk and protective factors, as well as in the relations among health, social environment, health care, and provision of health services.

The core principles of Social Medicine:

- (a) Health and well-being constitute public goods and assets for human development and of vital concern to the lives of all persons, their family and community. The study of the comprehensive health situation is the first step of creating an evidence-based health policy and health improvement activities.
- (b) Social and economic conditions have an important effect on health, disease and the practice of medicine, and these relations must be subjected to scientific investigation.
- (c) Measures taken to promote health and combat disease must be social as well as medical. A responsible governance and effective leadership throughout society can bring about better result for health. Empowering of people, citizens and patients is critical for improving health outcomes, health system performance and patient satisfaction.

1.3 THE ROLE OF SOCIAL MEDICINE

There are five significant roles of Social Medicine:

- (a) **Cognitive and methodological role** – Social Medicine deals with facts which can be defined, measured, and explained, it formulates and tests hypotheses.
- (b) **Educational role** – people’s knowledge and information are important determinants of population health. That’s why Social Medicine is interested in the learning process, health education, health promotion, and health literacy.
- (c) **Moral role** and the influence of human values and human rights – they are based on the fact, that health is an important human value and that health care means care for people. Health professionals have become increasingly aware of the ethical questions involved in medical practice and research.
- (d) **Organizational role** is one of indispensable contributions of Social Medicine to health policy, health governance and health management. Social Medicine serves as a theoretical base of health care administration.

(e) **Integrative role** of Social Medicine – holistic approach helps to consider all aspects of health and it develops and evaluates the health system.

Social Medicine reflects the philosophy, religion and economic condition, the form of government, educational system, science, values and aspirations of any given period. It is widely believed that the level of society depends on the quality and distribution of health in the general population. Health in turn depends on human advancement and community development in various spheres.

1.4 CONCISE NOTES ON HISTORY OF POPULATION HEALTH

Excavations have revealed that Egyptians coped with a lot of issues of community health. Herodotus described the hygienic customs of the Egyptians as early as in the fifth century B.C – issues such as personal cleanliness, frequent bath, and simple dress were emphasized.

Hammurabi, a great king of Babylon who lived in the 18th century B.C., formulated a set of laws called the Code of Hammurabi that governed the conduct of physicians and provided for good health practices.

Early Hebrew society extended Egyptian concepts of disease and the community promotion of health by means of regulation of human conduct by the Mosaic Law or code which established the personal and community responsibility for health, maternal health, control of communicable diseases, segregation of lepers, fumigation and decontamination of buildings, protection of water supplies, disposal of waste, protection of food, and sanitation of campsites. Without the aid of fundamental knowledge of the nature of infectious diseases, the Hebrews managed to define conditions unacceptable for health and mobilized community forces against them.

The Greek era was extended over many centuries, but the Classic Period was represented by years about 480 to 146 B.C. Greeks excelled in physical aspects of personal health. Games, gymnastics, and other exercises were directed towards their ideal of physical strength, endurance, dexterity, and grace. The guiding philosophy was a harmonious development of all faculties. Physical exercises were supplemented by measures of personal cleanliness and in dietetics. The Classic Period emphasized the individual. As consequence, little attention was paid to environmental sanitation. Yet Hippocrates created the definitive treatise on environment and health in his trilogy *Airs, Waters, and Places*.

With the destruction of Corinth in 146 B.C., the health knowledge and practices of the Greeks migrated to Rome and were welcomed by the rising Roman Empire. In the philosophy of the Romans, however, it was the state rather than the individual which was of primary importance. The Roman advanced military, administrative, and engineering sciences all reflected many community health projects. Registration of citizens and slaves and periodic censuses were helpful in the planning of community health measures.

The downfall of the Western Roman Empire in 476 A.D. was related to social degeneration. The term “Byzantine”, which refers to the Eastern Roman Empire, connotes bureaucracy, luxury, and sloth. Even in this period, Galen (130-201 A.D.) conducted experiments relating to health, however, the value of his work was limited by dogmatism. Suffice it to compare Galen’s attempts to understanding disease with the later statement of Saint Augustine (354-430 A.D.): “All diseases are to be ascribed to demons.”

The early years (476-1000 A.D.) of the medieval period of history are usually referred to as the Dark Ages. Western civilization was in a chaotic, almost formless condition. As the

only educated class was the clergy virtually the entire emphasis of that time lay on the spiritual aspects of life. Rejection of the body and glorification of the spirit became the officially accepted pattern of behaviour.

During the sixth and seventh centuries, Islam arose and, after the death of Mohammed, an era of pilgrimages to Mecca began. Each series of them was followed by a cholera epidemic. All through history, migrations have been a vehicle of disease spread.

The later medieval period is of special interest, because of severe pandemics of the time and the attempts to deal with the spread of disease. Leprosy spread from Egypt to Asia Minor, and then to Europe. Most nations decreed lepers unacceptable and “civilly dead”, stripping them of their civil rights. In 1348 bubonic plague, or the Black Death, followed a path of devastation from Asia to Africa, to Crimea, Turkey, Greece, Italy and on through Europe. The Italian writer Boccaccio reported, that in the terrible outbreak in Florence that year, pity and humanity had been forgotten and families had deserted their sick ones. In England two million died, representing approximately half of the total population of the country.

Some communities took steps toward establishing control measures. In 1377 at Ragusa (Dubrovnik) it was required that travellers from plague areas stop at designated places and remain there for two months before being allowed to enter the city. Technically, this is the first official quarantine method on record. In 1383, Marseilles passed the first quarantine law and erected the first official quarantine station. Measures to control disease spread were not much effective. There was need for a scientific understanding of the occurrence and nature of the disease and its spread.

The Renaissance is associated with revival of learning which was germinated in Italy. This was stimulated by the fall of Constantinople in 1453. In many historians, the “Renaissance” as the term applied to western and northern Europe encompasses the period from 1453 to 1600. That era was particularly important because of its movement away from scholasticism towards realism.

An age of individual scientific endeavour, it ushered in a spirit of inquiry that would lead to the understanding of the cause and nature of several diseases. Fracastorius (1478-1553), a physician of Verona, theorized in 1546 that disease is caused microorganisms. He recognized that syphilis was transmitted from person to person during sexual relations.

Between 1600 and 1665, Europe suffered three severe pandemics of bubonic plague. In 1665, one of five of London’s residents died from plague. In 1658, an English investigator Thomas Sydenham, made a differential diagnosis of scarlet fever, malaria, dysentery, and cholera. Sydenham is generally regarded as the first distinguished epidemiologist.

In the 1796 Edward Jenner, a British physician, showed that inoculation with cowpox virus can produce immunity against the smallpox virus and he scientifically demonstrated the effectiveness of smallpox vaccination.

The industrial revolution of the 18th century while bringing affluence also brought new problems – slums, accumulation of refuse and human excreta, overcrowding and a variety of health and social problems. Filth and garbage were recognised as man’s greatest enemies and this led to a great sanitary awakening.

New discipline Public Health was officially recognized in England in 1837 when legislation relating to community sanitation was enacted. An important role was played by the “Chadwick’s report” – the “Report on the Inquiry into the Sanitary Condition of the Labouring Population of Great Britain” – which was published in 1842. Edwin Chadwick, a civilian who had a special interest in social problems, presented more than just a popular appeal. His

colourful descriptions of the deplorable conditions of the time aroused the determination of well-meaning people to improve the conditions of the labouring class, particularly those of the child employment. Chadwick's report led to the establishment of kind of board of health in 1848 and John Simon was appointed the first health officer of London.

The bacteriology phase was initiated by the work of Louis Pasteur, Robert Koch, and other bacteriologists who demonstrated that a specific organism causes a specific disease. The French bacteriologist Louis Pasteur (1822-1895) discovered the fowl cholera bacillus and developed a method of inoculation against rabies. Robert Koch (1843-1910) discovered the tubercle bacillus and the streptococcus; he also discovered cholera vibrio which, as he demonstrated, was transmitted by water, food and clothing.

The modern era represent an organized attack on problems of health and disease, health care and society. Attention has been oriented on social insurance, the right to health care, health inequalities, determinants of health, health resources, prevention and health promotion, health systems, health programming etc.

1.5 ORIGINS AND EVOLUTION OF SOCIAL MEDICINE

The term "social medicine" was first used in 1848, when the French Revolution took place in February. In March of the same year, when revolutionary hopes were still running high, the French orthopaedist Jules René Guérin (1801-1886) used the term in *Gazette Médicale de Paris*. In his writing, he appealed to the French medical profession to act for the public good and to help create a new society as expected from the revolution. Guérin argued that the goal could be effectively achieved if knowledge and information regarding the relationships among medical issues, social factors and public affairs were systematically integrated into the framework of Social Medicine.

In Germany, a group of medical doctors and others led by Salomon Neumann, Rudolf Virchow and Rudolf Leubuscher promoted a health care reform after the revolution in March 1848. They came to understand the effect of social factors on health problems.

Virchow was a pathologist who provided empirical data supporting the argument that social conditions are important factors in the outbreak of an epidemic. His report, produced in 1848, on the typhus epidemic in the Upper Silesia region of Prussia is considered as a classic in the history of Social Medicine.

People are organisms biological and social simultaneously, human health and disease being thus affected by factors that are social as well as biological. Included in the basic idea and in the concept of Social Medicine is the fact that the interdisciplinary program between medicine and social science would provide medicine with the knowledge and the skills needed to analyse the social causes of health and illness in the same way as the alliance between medicine and laboratory sciences had provided new insights into the biological, chemical and physical bases of disease.

Rudolf Virchow and his colleagues proposed three basic principles regarding the academic and practical aspects of Social Medicine. They are as follows: (a) health of the population is a matter of direct social concern; (b) social and economic conditions have an important effect on health, disease and the practice of medicine, and these relations must be subjected to scientific investigation; and (c) steps must be taken to promote health and to combat disease, and the measures involved in such activities must be social as well as medical. These prin-

ciples have been retained until now, with no fundamental changes, even while being adapted to different societies and conditions over an extended period of time.

Social Medicine as a scientific medical discipline was established by Alfred Grotjahn (1862-1931), general practitioner in the workmen districts of Berlin who studied the relations between diseases and social living conditions. The results of his studies formed the base of a new branch – “Social Pathology”, later called “Social Hygiene”.

In the Czech medical society, Social Medicine emerged for the first time during the Fourth Conference of the Czech Natural Scientists and Medical Doctors (1908). The topics of that section were health insurance, social care, hospital care, children care, protection of the motherhood, and the fight against tuberculosis. The chairman of the above mentioned section, František Procházka (1864-1934), was later to become the first Czech university professor of Social Medicine. In one of his books (1925), he presented Social Medicine as a “sum of all health needs of social care”.

The second Czech professor of Social Medicine, František Hamza (1868-1930) was I in a considerably advance of his time. He founded a sanatorium for children suffering from tuberculosis in Luž in 1900. He was the head of a department of the Ministry of Health (1919-1922) and also published the book “The Cogitation on Social health Care” (1921). He founded the Institute of Social Medicine at the Masaryk University in Brno in 1922 and became its first head.

The first modern textbook of Social Medicine was written by Hynek Pelc (1895-1942) in 1937.

Social Medicine being closely connected with the social and political life was in a difficult situation in Czechoslovakia after World War II with the Soviet pattern of the health care system implemented in health governance. Social Medicine as science was, however, still oriented on people’s health and on a systemic approach in health care.

Nowadays, Social Medicine has to cope with many new problems that emerged in this period of political, economic, and social development. Every country needs specialists with good professional qualification in biostatics, epidemiology, health economy, health legislation and health management. Social Medicine is an important part of the medical curriculum and a Social Medicine course is offered at many medical schools in European countries.

Today, technical sophistication of modern medicine is no more a sufficient answer to everyday common health ailments of the whole population. Great efforts need to be made to promote sustainable health for the entire population. Social, economic and organizational aspects of health and disease have been accorded a new priority. That’s why Social Medicine is an important part of scientific and political health strategy for 21st century.

References and recommended readings

- Detels, R., Gulliford, M., Karim Q. A., Tan, C. C. 2015. *Oxford Textbook of Global Public Health*. 6th ed. New York: Oxford University Press.
- McKenzie, J. F., Hanson, G. R., Pinger, R. R. et al. 2015. *An Introduction to Community and Public Health*. 8th ed. Burlington: Jones and Barlett Learnin.
- Rosen, G. A. 1958. *History of Public Health*. New York: MD Publications.
- Tulchinsky, T. H., Varavikova, E. A. 2014. *The New Public Health*. 3rd ed. San Diego: Elsevier Academic Press.

2 HEALTH AND DISEASE

2.1 HEALTH

Health of the people is not only the concern of health care providers. It is also the responsibility of individuals, families, and the community, their duty to identify and solve their own health problems through their active participation. Health is a social, economic and political issue and, above all, a fundamental human right. Inequality, poverty, exploitation, violence, and injustice are at the root of ill-health.

Health is no longer given in advance, it is produced, maintained, and enhanced. To be a passive and compliant patient who follows the physician's instructions is no longer sufficient. Enabling people to have control over their health and its determinants strengthens communities and improves lives. Without people's active involvements, many opportunities to promote and protect their health and increase their well-being get lost.

The World Health Organization described health in 1948, in the preamble to its constitution as **a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity**. At that time this formulation was ground-breaking because of its breadth and ambition. It overcame the negative definition of health as absence of disease and included the physical, mental, and social domains. Although the definition has been criticised over past seventy years, it has never been adapted.

There are, of course, a lot of other definitions of health, for example:

- Health is a state characterized by anatomic, physiologic, and psychologic integrity; by the ability to personally perform valued roles in family, at work, and in community; by the ability to deal with physical, biologic, psychologic, and social stress; by the feeling of well-being; and by the freedom from the risk of disease and of an untimely death.
- Health is a dynamic condition resulting from the body's constant adjustment and adaptation in response to stresses and changes occurring in the environment aimed at maintaining an inner equilibrium called homeostasis.
- Health is primarily a measure of each person's ability to do and become what the person wants to become.
- Health is seen as a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources as well as physical capacities. Health promotion is, therefore, not just the responsibility of the health sector but it goes beyond healthy lifestyles and well-being.

Current views of health and illness recognize health as more than just the absence of disease. Realizing that humans are dynamic beings whose state of health can change from day to day or even from hour to hour it is better to think of each person as being located on a graduated scale or continuous spectrum (continuum) ranging from the state of optimum functioning in every aspect of one's life to an obviously dire illness through the absence of discernible disease (Fig. 2.1).

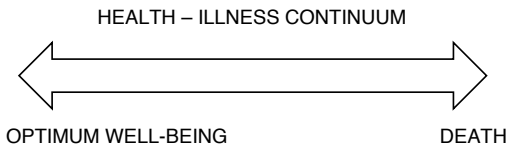


Fig. 2.1 A common concept of health as a continuum ranging from optimum well-being at one end to illness culminating in death at the other end

High-level well-being is described as a dynamic process in which the individual is actively engaged in moving toward the fulfilment of his or her potential.

In the first decade of the 21st century, the conceptualization of health as ability opened the door for self-assessments to become the main indicators in judging the performance of efforts aimed at improving of human health. It also created an opportunity for every person to feel healthy, even in the presence of multiple chronic diseases, or a terminal condition, and for a re-examination of determinants of health, away from the traditional approach that focuses on the reduction of the prevalence of diseases.

Within the context of health care, health can be considered less as a state, and more in terms of the ability to achieve one's potential and to respond positively to the challenges of the environment.

In these terms, health is seen as a resource of everyday life; it is a positive concept of emphasizing social and personal sources as well as physical capacities.

Basic resources for health are income, shelter and food. Improvement in health requires a secure foundation in these basics, but also information and life skills; a supportive environment, providing opportunities for making healthy choices among goods, services and facilities; and conditions in the economic, social, and physical environments by which health is enhanced.

The word "health" is derived from the Old English "hal", meaning whole, sound in wind and limb.

2.2 A BIO-MEDICAL MODEL OF HEALTH AND DISEASE

In the medical practice, the dominant model of health and disease is bio-medical. This is based on the assumption that disease is generated by specific aetiological agents which lead to changes in the body's structure and function.

Health is defined as body that operates efficiently just like a machine. Any breakdown in the body system means that the latter is not healthy. The model is based on an assumption of scientific rationality, on an emphasis put on objective measurement and an emphasis laid on physical and chemical data. With the bio-medical model, health is seen in terms of absence of disease.

The bio-medical model distinguishes between **disease** and **illness**. Disease involves a set of signs and symptoms and medically diagnosed pathological abnormalities. Illness is primarily about how individuals experience disease. Disease is viewed as more objective, involving a professional rather than a lay diagnosis.

This model defines health care services as a scientific approach to health. Medical practitioners have had many years of training, and the bio-medical model maintains that they are the only people suitable to deal with our sick bodies. Hospitals and other clinical environments with a specialist medical equipment are the places where treatment should be given and received. Doctors have power in the bio-medical model and are also able to maintain it.

Specific advantages of the bio-medical model consist in the fact that the patient's main concern is about the best possible treatment and recovery, and this model shows clear guidance in this regard. Furthermore, this approach is supported by scientific research. There are, however, some disadvantages, namely that patients are known not as the individual persons they are, but as the person's diagnosis.

Limitations of the bio-medical model have been widely recognised. The model was accused of being too mechanistic and of ignoring the social, psychological and other aspects. What biomedicine has not done well is considering the disease within the context of the life of people with disease.

Social medicine has been more concerned with social and economic factors that affect health.

2.3 A SOCIOECOLOGICAL MODEL OF HEALTH

This model recognises that our health is influenced by a wide range of factors that are individual, interpersonal, organizational, social, environmental, political, and economic.

Health, and what makes people healthy, can only be fully understood by exploring the myriads of interactions and influences that emerge out of the complexity of human experience and of the various inter-relationships of mind, body, environment, and society.

There is plenty of evidence that people who live in marginalized, low socio-economic communities die younger and have poorer health than people from higher socio-economic communities. Health is remarkably sensitive to social environments and thus it is a complex problem needing to be addressed at multiple levels.

The human body is simultaneously social, psychological, and biological. It is much more than simple biology, physiology, and anatomy.

Health is cultural. The ways in which health is perceived and in which the experience of disease and illness is expressed vary from one culture to another.

Health is political. Political decisions and processes have a big impact on health and on social determinants of health.

Other voices matter. It is important to hear the voices of people outside the medical profession as they can provide valuable insights and ideas.

In the current neoliberal political climate there is also a real risk that approaches to social determinants of health "privatize the risk and the responsibility". Such approaches see people's individual choices and failings as being responsible for poverty, unemployment etc., and ignore the influence of macro- and structural issues.

Social models of health imply the fact that there is social responsibility to ensure that people have healthy living and working environments. It should compel us to consider not only the strategies that promote health at an individual level, but also those that improve the context in which people live, work, and play by means of social change at a political, structural, and economic level.

2.4 THE LAY UNDERSTANDING OF HEALTH

An increasing theme in health literature is the recognition that ordinary people may not see health in the same way as health professionals. People find it harder to define health than illness, probably because health is a complex concept that combines a number of different dimensions.

There are three domains relating to the definition of health that have been recognized as the main: (a) Health is a simple not being ill. (b) Health is a necessary prerequisite for the function of life. (c) Health is a sense of well-being expressed in physical and mental terms.

Comprehending the various ways in which health is understood is an important background for appreciating the change in the thinking about health. This kind of approach to health called for a policy innovation in the domain of health and brought about a broad population involvement in health care, with its emphasis on the social, environmental, and economic determinants of health.

2.5 HEALTH AS VALUE

Health and well-being are public goods and assets for human, economic, and social development and they are of vital concern to the life of every person, his or her family and community. Good health is a resource and a capacity that can contribute to the achievement of strong, dynamic and creative societies. Poor health wastes potential, causes despair, and drains resources across all sectors.

Health contributes to increased productivity, to a more efficient workforce, to a healthier coming of age, it decreases expenditures on sickness and social benefits as well as on lost tax revenues. Good health can support economic recovery and development.

2.6 HEALTH IS A BASIC HUMAN RIGHT

The right to health was first proclaimed in 1948 in the preamble of the WHO Constitution and later the same year in Article 25 of the Universal Declaration of Human Rights. In 1976, the International Covenant on Economic, Social, and Cultural Rights entered into force, reaffirming in its Article 12 the enjoyment of the highest attainable state of health as human right under international law.

The right to health means that governments are required to create conditions in which everyone can be as healthy as possible. Such actions range from ensuring the availability, affordability, and accessibility of health services to taking measures for healthy and safe working conditions, for adequate housing and nutritious food as well as for other conditions