

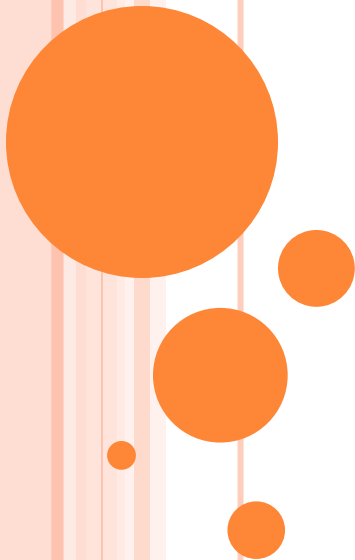
INTRODUCTION TO PUBLIC HEALTH

Kamil Barański

Based on presentation from
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Medical University of Silesia in Katowice,*

2016



WHO, 1948

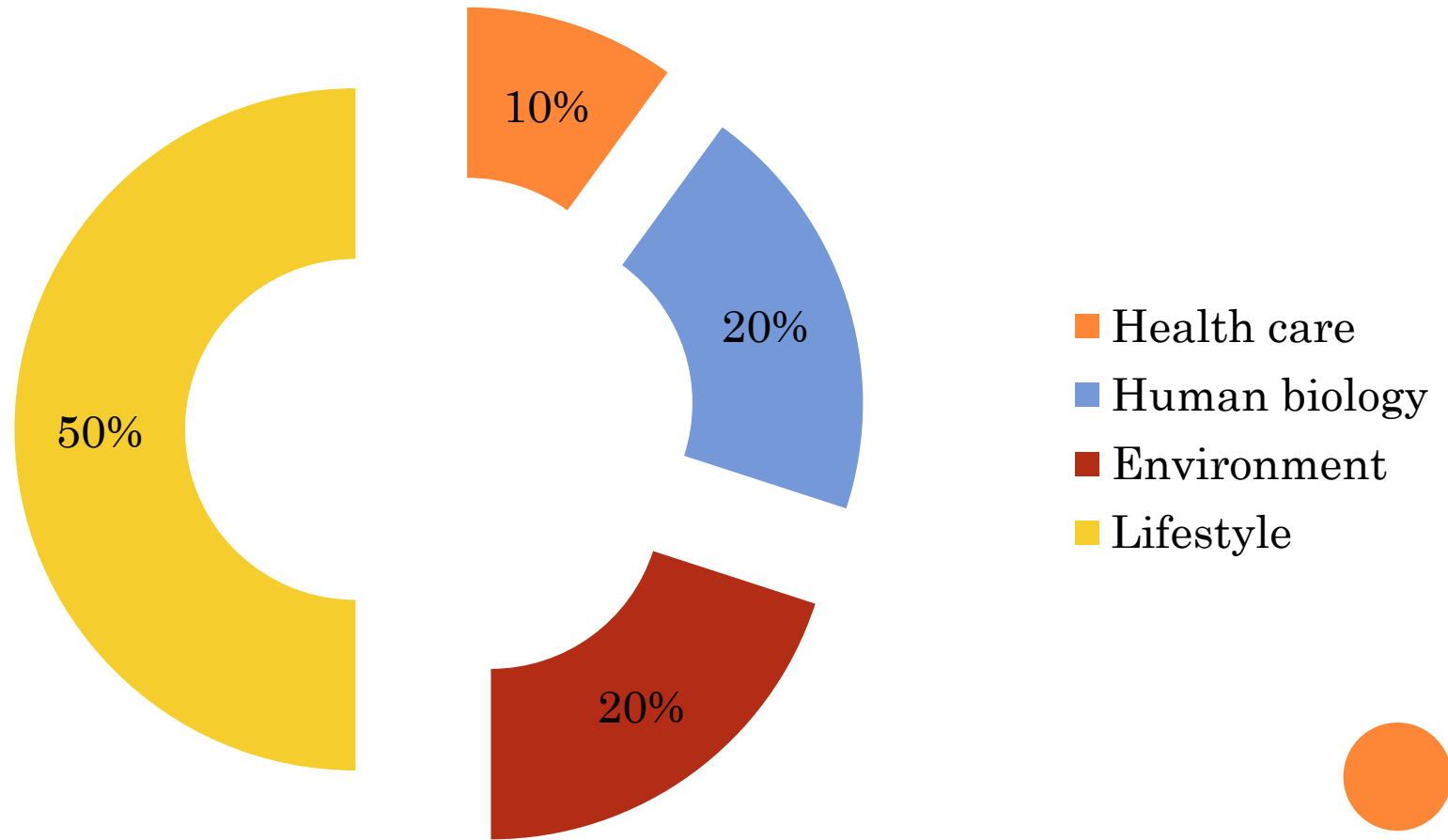
HEALTH



„Health is a state of complete physical, mental and social well-being and not only the absence of disease or infirmity”.

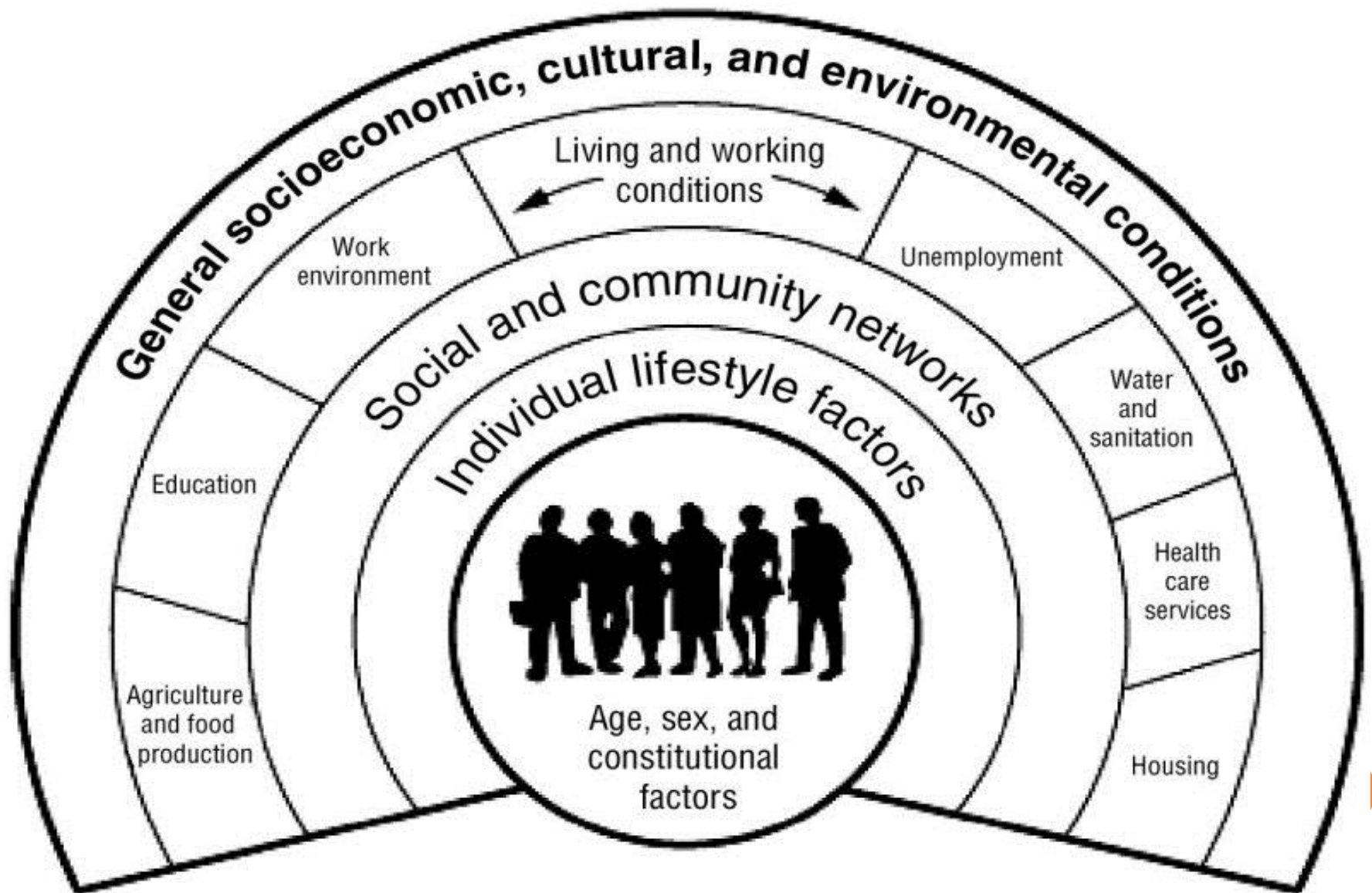


HEALTH FIELD BY *M. LALOND, OTTAWA* *1978)*



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G. DAHLGREN, M. WHITEHEAD, 1991



Level of the priority public health conditions framework	Major social determinants at play <i>(Numbers in brackets indicate the number of conditions in whose pathways the determinant has been identified)</i>
Socioeconomic context and position <i>Society</i>	Globalization and urbanization [7] Social status and inequality [9] Gender [10] Minority situation and social exclusion [8] Rapid demographic change, including ageing population [9]
Differential exposure <i>Social and physical environment</i>	Social norms [9] Community settings and infrastructures [9] Unhealthy and harmful consumables [8] Non-regulated markets and outlets [6] Advertisement and television exposure [6]
Differential vulnerability <i>Population group</i>	Poverty and unemployment [8] Hard-to-reach populations [7] Health care-seeking and low access to health care [7] Low education and knowledge [8] Tobacco use and substance abuse [8] Family and community dysfunction [6] Food insecurity and malnutrition [6]
Differential health care outcomes <i>Individual</i>	Poor-quality and discriminatory treatment and care services [10] Limited patient interaction and adherence [9]
Differential consequences <i>Individual</i>	Social, educational, employment and financial consequences [9] Social exclusion and stigma [7] Exclusion from insurance [7]

„CAUSES OF REASONS”

- The relative differences in income
 - Richard G. Wilkinson, 1996
- Biological embedding
 - Clyde Hertzman
- Hispanic Paradox
 - Buttenheim AM, i wsp. 2008



NORWEGIAN EXPERIENCE

- The strength and direction of the determinants
- Upstream
 - accessibility to housing, the amount of taxes, labor market
- Midstream
 - Reducing risk: the environment, lifestyle, health, psychosocial
- Downstream
 - Reduction effect: health care

=

Reducing social inequalities in health



PUBLIC



Strengthening human health based on an organized community effort rather than individual effort and treatments

Sygit M.: Zdrowie Publiczne, 2010

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CHARLES EDWARD AMORY WINSLOW (1877-1957)

FIRST CHAIRMAN OF DEPARTMENT OF PUBLIC HEALTH IN YALE

SCHOOL OF EPIDEMIOLOGY & PUBLIC HEALTH



profesor, bacteriologist,
higenist, initiator
American Journal of
Public Health

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Public Health

- Definition of public health by Ch.E.A. Winslowa (1920 r.) :

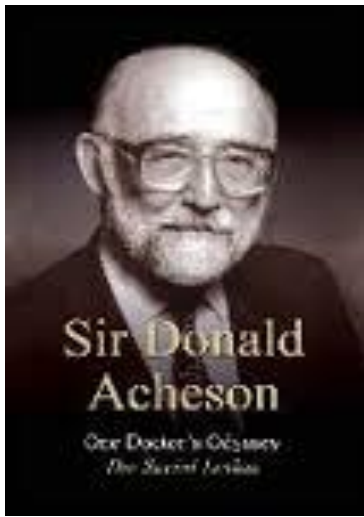
„Public health is the science and the art of preventing disease, prolonging life, and promoting physical health and efficiency through organized community efforts for the sanitation of the environment, the control of community infections, the education of the individual in principles of personal hygiene, the organization of medical and nursing service for the early diagnosis and preventive treatment of disease, and development of the social machinery which will ensure to every individual in the community a standard of living adequate for the maintenance of health.

Source: *The Untilled fields of public health. Science N. 8. Vol. LI. NO. 1306*



V PRINCIPALS OF DEATH IN THE REGISTRATION AREA OF THE US CAUSED BY EACH (IN 1916):

○ Heart Diseases	114,000
○ Tuberculosis	101,000
○ Pneumonia	98,000
○ Bright's disease	75,000
○ Cancer	58,000



DEFINITION BY D. ACHESONA (AUTOR OF INDEPENDENT INQUIRY INTO INEQUALITIES IN HEALTH REPORT, THE UNITED KINGDOM, 1998 YEAR.)

„Public health is the science and art of promoting health, preventing disease, and prolonging life through the organized efforts of society”

"Smoking is an important component of differences in mortality between social classes."



**DEFINITION BY KULIK T.B., LATALSKI M.
(LUBLIN 2002 YEAR.)**

*„Public health is
scientific discipline including public health
issues , the relationship between the state
of health of the living conditions and the
forms of health care in relation to the
individual, family and community”*



**DEFINITION BY J. NOSKO
(HEALTH PUBLIC SCHOOL, NOFER INSTITUTE OF
OCCUPATIONAL MEDICINE IN ŁODZI, 2005 YEAR.)**

„Public health is a concern for the preservation and strengthening of the health in macro-social, local and environmental dimension, involving the scientific diagnosis of the health status and health needs of the community and initiate a **coordinated effort of government, local government and NGOs in order to achieve the desired health standards.** ”

**DEFINITION BY J. NOSKO
(HEALTH PUBLIC SCHOOL, NOFER INSTITUTE OF
OCCUPATIONAL MEDICINE IN ŁODZI, 2005 YEAR.)**

"This object is achieved by controlling the environmental factors , creating health-promoting socio-economic conditions, prevention of infectious diseases and non-social, universal and **equal access to medical care** and, above all as a result of forming healthy lifestyle habits in the context of school education and the school and the implementation of health promotion programs in the environment of adults . "



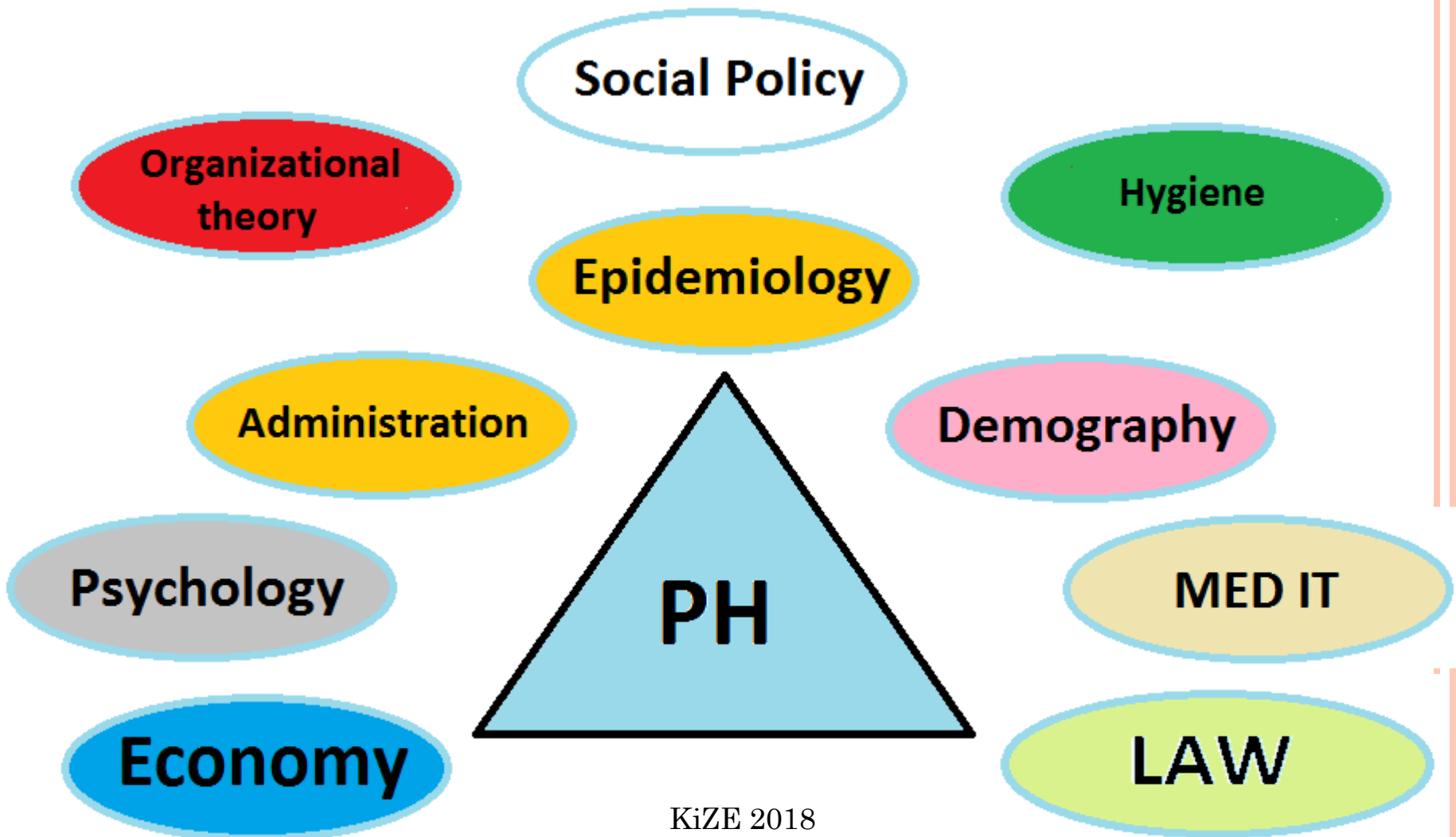
DEFINITION OF NEW PUBLIC HEALTH IN BY M. MILLER I M.J. WYSOCKI (IZP PZH IN WARSZAWIE, 2003 Y.):

„The New Public Health (NPH) is a science and comprehensive process aimed at preserving and strengthening the public health dimension of macro- and local levels. The basis of this procedure is the scientific recognition of the health and health needs of the community and initiating and organizing the coordinated effort of government, local government and NGOs in order to achieve the desired health standards . ”

DEFINITION OF NEW PUBLIC HEALTH IN BY M. MILLER I M.J. WYSOCKI (IZP PZH IN WARSZAWIE, 2003 Y.):

" This aim is achieved through the implementation of the basic functions of public health, especially by forming healthy lifestyle habits, programs of health promotion, prevention of infectious diseases and non-communicable of social importance, control of environmental factors, the creation of health promoting socio-economic conditions and to provide universal and equal access to medical care. "

PUBLIC HEALTH BY WŁODARCZYK. C, KRAKÓW 2000



PUBLIC HEALTH

WG OXFORD TEXTBOOK OF PUBLIC HEALTH 2001

PUBLIC HEALTH–

- Professionals
- EBM
- Constant values– justice in availability
- Constant targets
- Variable priorities

HEALTH POLICY

- Different aims
- The superficiality of value - declarations depending on the social sentiment
- Researchers – instrumental use

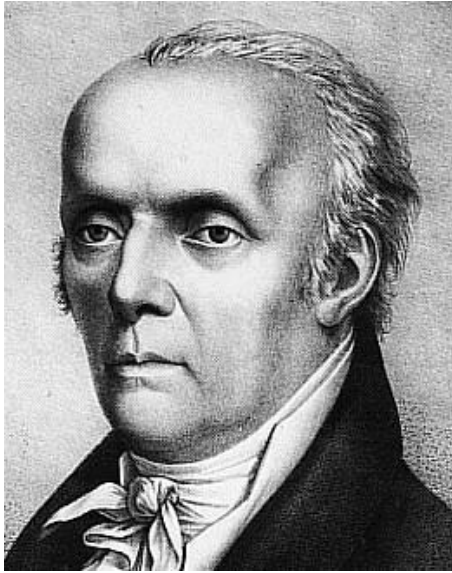


HISTORY OF PUBLIC HEALTH - FACTS

1. Hippocrates (400-377 BC.)– tractat 'On airs, waters and places' – pioneer of medicine
2. Bernardino Ramazzini (1653-1714) – tractat 'De morbis artificum diatriba' – precursor of work medicine
3. Antony Leeuwenhoek (1632-1723) – grinder, the inventor of microscope, described blood cells, sperm, structure of bones and muscles
4. Gotfryd Wilhelm Leibnitz (1646-1716) – philosopher, mathematician i lawyer, demanded to create health care system
5. John Graunt (1620-1674) – precursor of epidemiology demography, analyzed the changes in the health status of the British people, status based on births and deaths reports
- 6. William Farr (1807-1883) – sorted and developed a system of medical statistics, set the main rules of the epidemiology



JOHANN PETER FRANK (1745-1821)



Professor of Medicine in Gottingen, Pavia, Wien i Petersburg, author of basis of public health
‘System einer vollständing medizinischen Polizei’

**Postulates to the goverment for
the good health of the general**

- * The obligation of health certificates before marriage
- * Providing care for motherhood
- * Provide assistance in disease
- * Unit of schools and teaching in conformity with the requirements of health
- * Work against alcoholism and prostitution
- * Water supply and sewage disposal



HISTORY OF PUBLIC HEALTH

- 8.** the work of nineteenth century scholars on the prevention of infectious diseases - the golden age of public health - **Jenner** (vaccinia smallpox vaccine); **Semmelweis** (aseptic); **Pasteur** (vaccinations p. Anthrax and rabies); **Koch** (discoverer of anthrax bacilli, Mycobacterium tuberculosis, Vibrio cholera); **Pettenkofer** (hygiene Experimental); **Lister** (founder of antiseptics); **Snow** (mastery of the cholera epidemic)
- 9.** The law limiting working time England for youth <18 years to 12 hours a day and prohibiting child labor <9 years (1883)
- 10.** Health Act 'Public Health Act' in 1848 and 1875 to ensure the creation of local health authorities in England
- 11.** Bismarckian social insurance system (1883-9)
- 12.** Joseph Polak (1857-1928) - the journal 'Public Health'



HISTORY OF PUBLIC HEALTH

13. Alice Hamilton (1869-1970) - the mother of public health in the United States

14. Report Marc Lalonde, Canada 1974 - determinants of the health of Canadians

15. World Health Organization, the Conference of the Ouch-Ata 1978: Strategy "Health for All by the Year 2000" - HFA 2000 - alignment of health inequalities globally

16. Ottawa Charter 1986 - marked out of action for health promotion

17. National Health Programme for 2007-2015, Poland



Kamil Barański

PUBLIC HEALTH

MONITORING OF POPULATION HEALTH STATUS

Based on presentation from Dr n. med. Bogumiła Braczowska

KiZE 2018

MORTALITY RATE

- Raw mortality rate
- Number of deaths caused by selected disease or group of diseases / number of people from selected time (interval)* 100 tys.

FATALITY RATE

- Number of deaths caused by selected disease/number of people who have this disease.



INCIDENCE RATE

- Number of new registred cases of selected disease by 100 thousand peoplein selected time (interval).



MORBIDITY RATE

- Number of people with selected disease (new and old cases) by thousands people in selected time (interval).



SYNTHETIC HEALTH STATUS RATIOS

DALY (Disability Adjusted Life Years)

QALY (Quality Adjusted Life Years)

DALE (Disability Adjusted Life Expectancy)

PYLL (Potential Years of Life Lost)

PEYLL (Period Expected Years of Life Lost)

HALE (Healthy Life Expectancy)

