

Social medicine and organization of health protection as science. Subject of method, meaning for practice of health protection

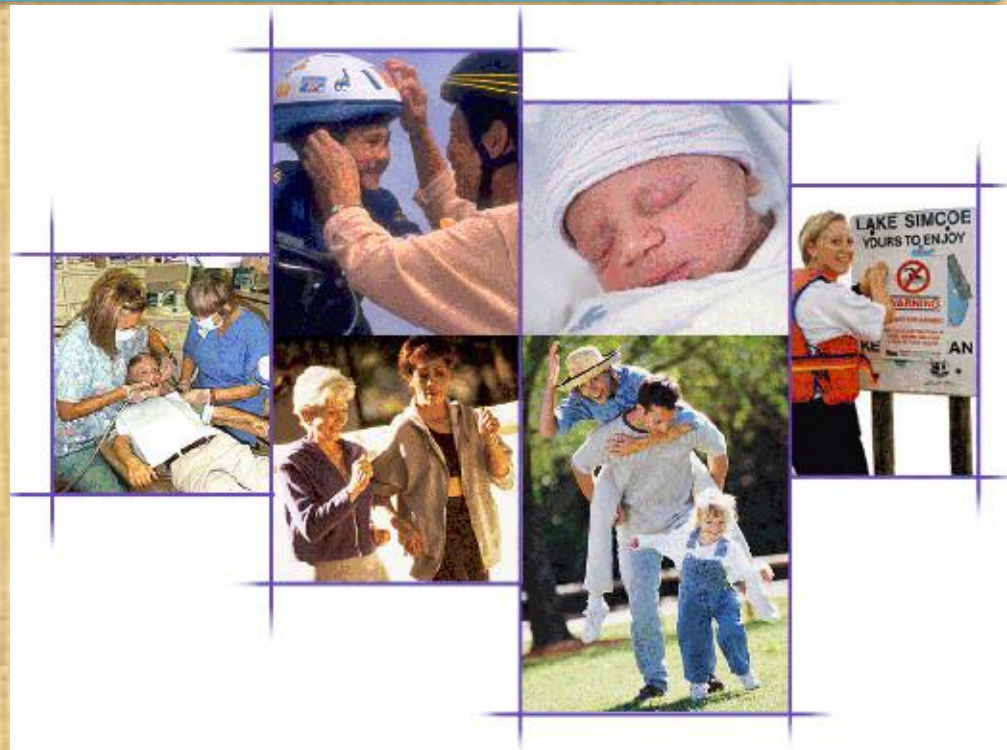


Lecturer – Pushina O.S..

PLAN.

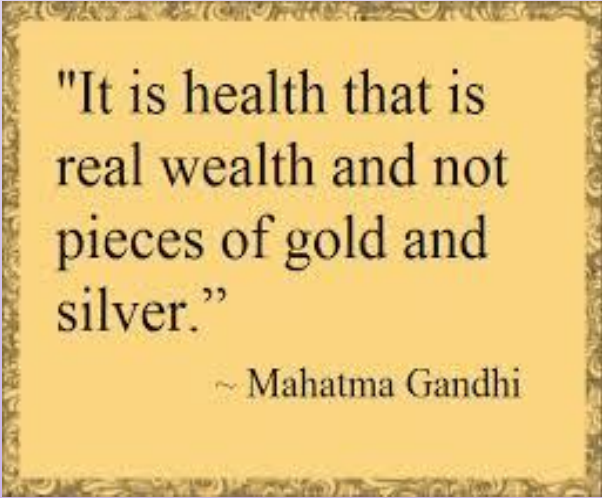
1. DEFINITION OF THE PUBLIC HEALTH.
2. WHAT IS HEALTH?
3. TASKS AND OBJECTIVES.
4. HISTORY OF PUBLIC HEALTH DEVELOPMENT.
5. HEALTH OF POPULATION, RISK FACTORS AND METHODS OF ITS STUDY.
6. RESEARCH METHODS IN SOCIAL MEDICINE.
7. QUALITY OF LIFE.

Public health is "the science and art of disease preventing , prolonging life and promoting health through the organized efforts and informed choices of society, organizations, public and private, communities and individuals" (1920, C.E.A. Winslow).



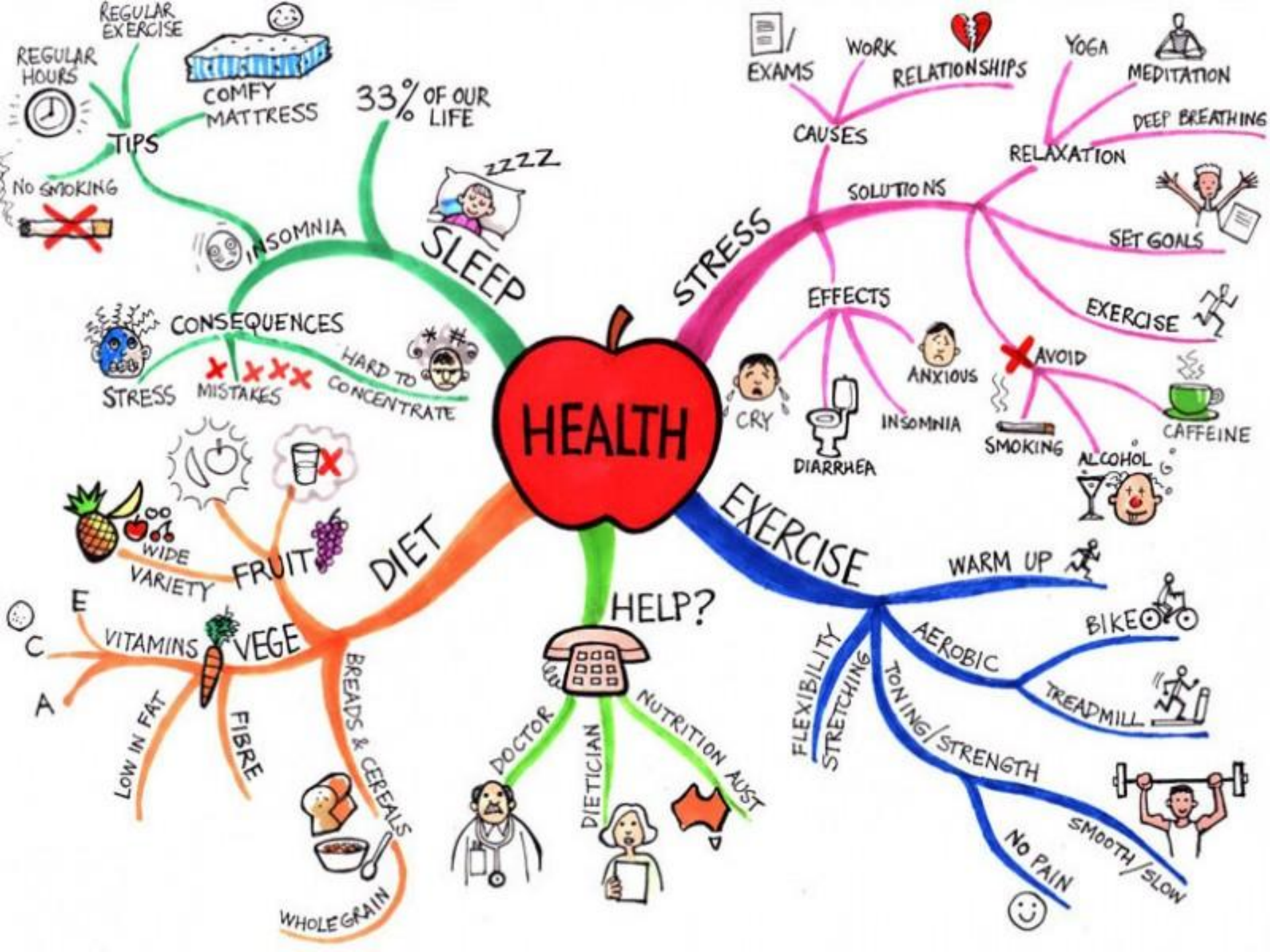
WHAT IS HEALTH?

"a state of complete physical,
mental and social well-being and
not merely
the absence of disease
or infirmity",
as defined
World Health Organization.



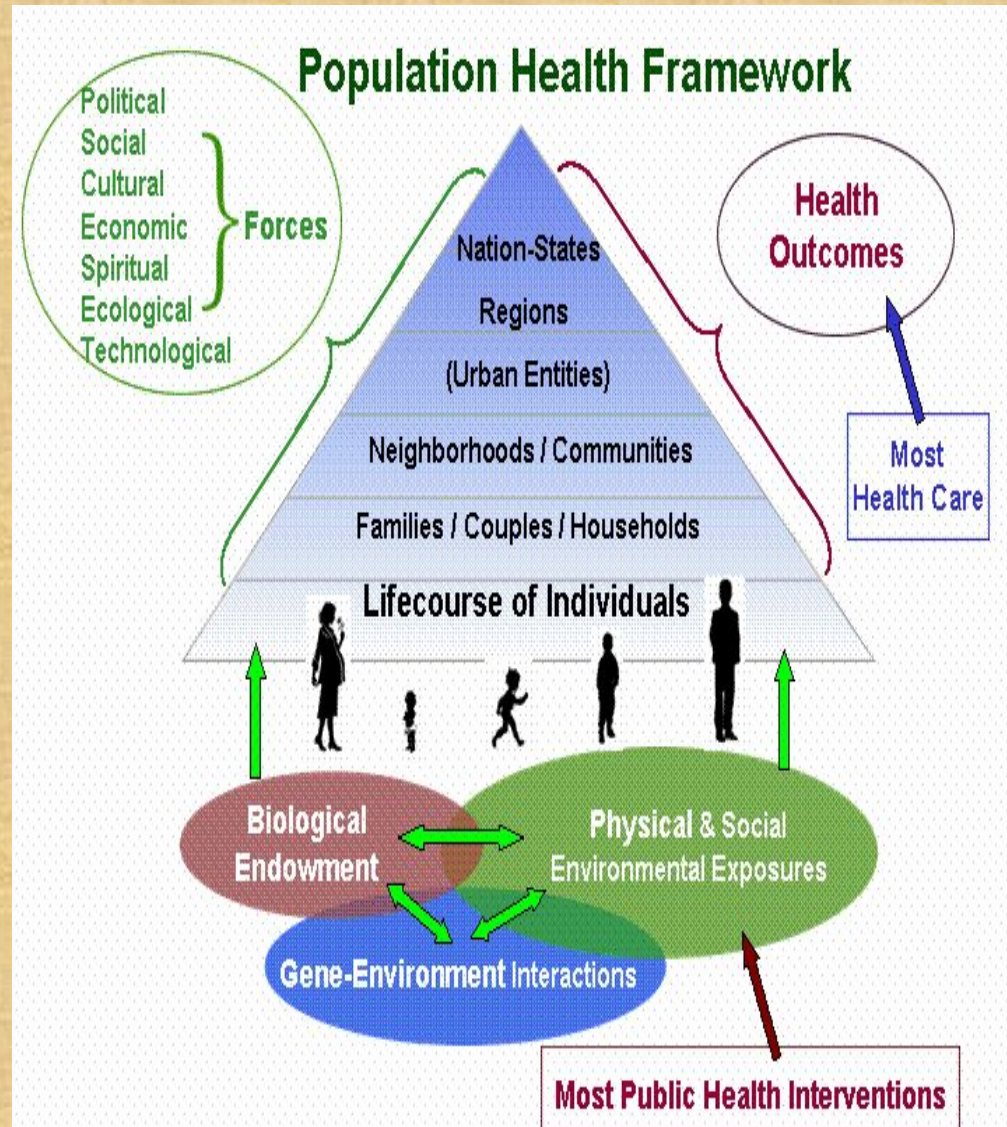
"It is health that is
real wealth and not
pieces of gold and
silver."

~ Mahatma Gandhi



WHO levels of health' study:

- 1 level – health of the individual human.
- 2 level – health of small or ethnic groups – group health.
- 3 level – population health, that is of people, who live in the state, city, region and etc.)
- 4 level – public health – public health, health of country, continent, of the world, of population, in whole.



The focus of public health intervention is to improve health and quality of life through the prevention and treatment of disease and other physical and mental health conditions, through surveillance of cases and the promotion of healthy behaviors.



Promotion of hand washing and breastfeeding, delivery of vaccinations, and distribution of condoms to control the spread of sexually transmitted diseases are examples of common public health measures.



PUBLIC HEALTH RECEPTION

Information



What kind of animal bit you?

How can I have a healthy pregnancy?

How can we get health insurance?

Where can I get nutritious food?

Do I have an STD?

Am I at risk for HIV?

I wonder what types of clinics are offered here?

What shots do we need?

I wonder if my son is contagious?

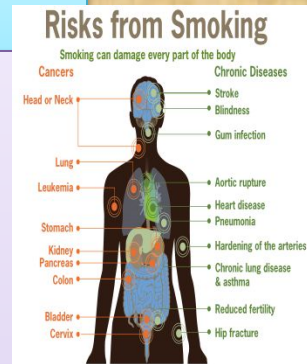


The three main public health functions are:

- The assessment and monitoring of the health of communities and populations at risk to identify health problems and priorities.
- The formulation of public policies designed to solve identified local and national health problems and priorities.
- To assure that all populations have access to appropriate and cost-effective care, including health promotion and disease prevention services.

Notable public health campaigns:

- Vaccination and control of infectious diseases
- Motor-vehicle safety
- Safer workplaces
- Safer and healthier foods
- Safe drinking water
- Healthier mothers and babies and access to family planning
- Decline in deaths from coronary heart disease and stroke
- Recognition of tobacco use as a health hazard.



Social medicine studies the problems of public and individual health, factors which determine a health, by developments of recommendations on strengthening of health of separate groups of population and on the improvement of activity of medical establishments.



Social Medicine

Health For All

History of public health



From the beginnings of human civilization, it was recognized that polluted water and lack of proper waste disposal spread communicable diseases (theory of miasma)

Early religions
attempted
to
regulate behavior.
That
specifically related to
health, from types of
food eaten, to regulating
certain indulgent
behaviors, such as
drinking alcohol or sexual
relations.



By Roman times, it was well understood that proper diversion of human waste was a necessary tenet of public health in urban areas.



The Chinese developed the practice of variolation following a smallpox epidemic around 1000BC. The practice of vaccination did not become prevalent until the 1820s, following the work of Edward Jenner to treat smallpox.



Black Death in Europe

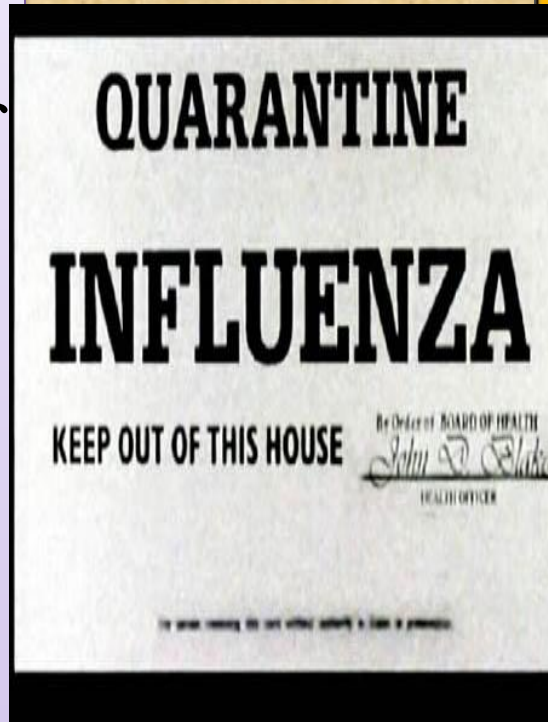
Removing bodies of the dead did little to stem the plague, which was most likely spread by rodent-borne fleas. Burning parts of cities resulted in much greater benefit, since it destroyed the rodent infestations.



Plague in 1665.



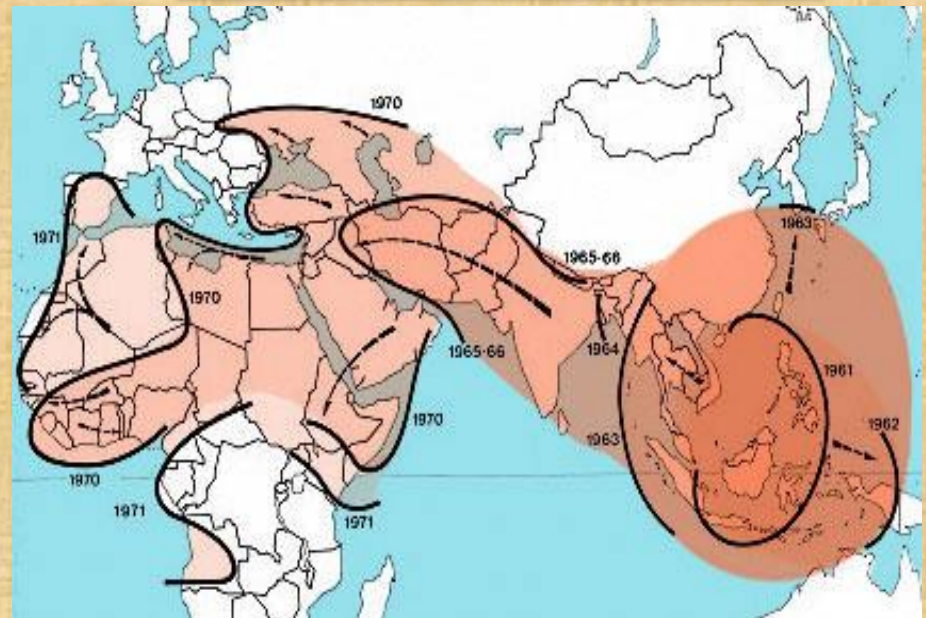
At Venice in 1348,
public officials
created a system of
sanitary control to
combat plague and
other infectious
diseases, with
observation
stations, isolation
hospitals, and
disinfection
procedures-
QUARANTINE



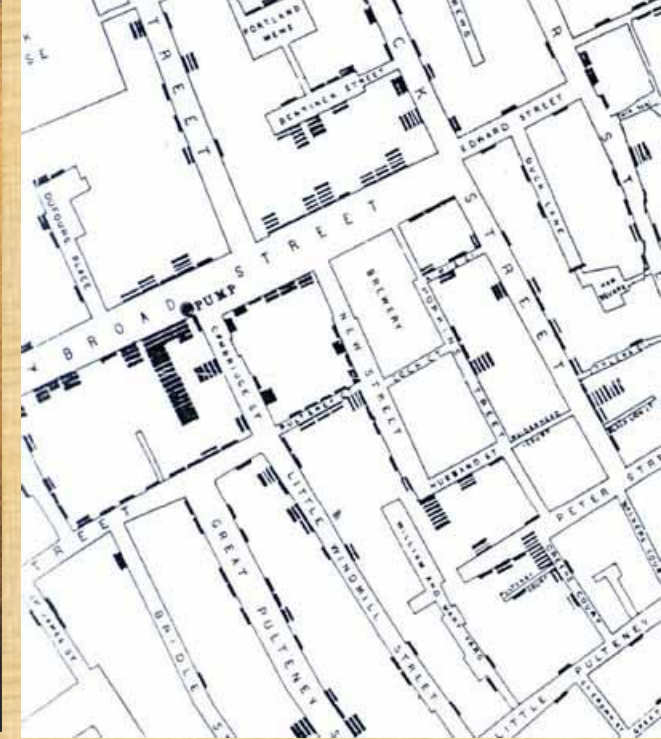
A Cholera pandemic devastated Europe between 1829 - 1851, and was first fought by the use of what Foucault called "**SOCIAL MEDICINE**", which focused on flux, circulation of air, location of cemeteries, etc.



Dehydrated Cholera victim



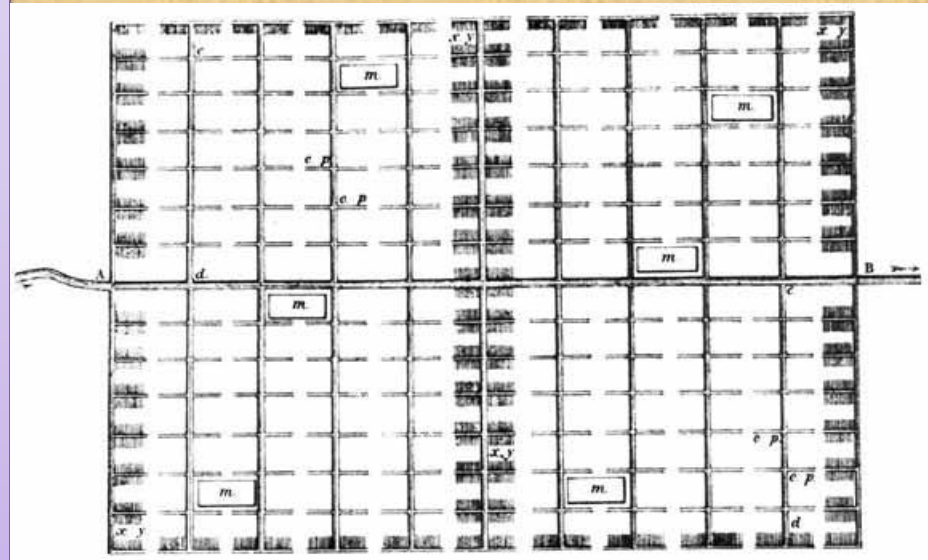
The science of epidemiology was founded by John Snow's identification of a polluted public water well as the source of an 1854 cholera outbreak in London. Dr. Snow believed in the germ theory of disease as opposed to the prevailing miasma theory.



John Snow (1813-1858) anesthetist wrote [On the Mode of Communication of Cholera](#) (1855)

- cholera is contagious
- humans become sick with cholera by ingesting "morbid matter" possessing a cellular structure and the capacity to reproduce its own kind
- cholera can be prevented by purifying the water supply

- **Edwin Chadwick** (1800-1890) pioneer in "sanitary awakening" in England
- wrote *Sanitary Condition of the Labouring Population of Great Britain* (1842)
 - principal cause of disease is miasma
 - disease cannot be cured
 - must rely on prevention
 - government can and must remove the causes of disease
 - need for ceramic water pipes
 - need for straightline water and sewer networks
 - need for water-closets for private homes and public places
 - need to end practice of storing night-soil in cellars



Chadwick's sanitary sewer plan

PUBLIC HEALTH ACHIEVEMENTS IN THE 20C.

- Vaccination programs and control of many infectious diseases including polio, diphtheria, yellow fever and smallpox;
- effective health and safety policies such as road traffic safety and occupational safety;



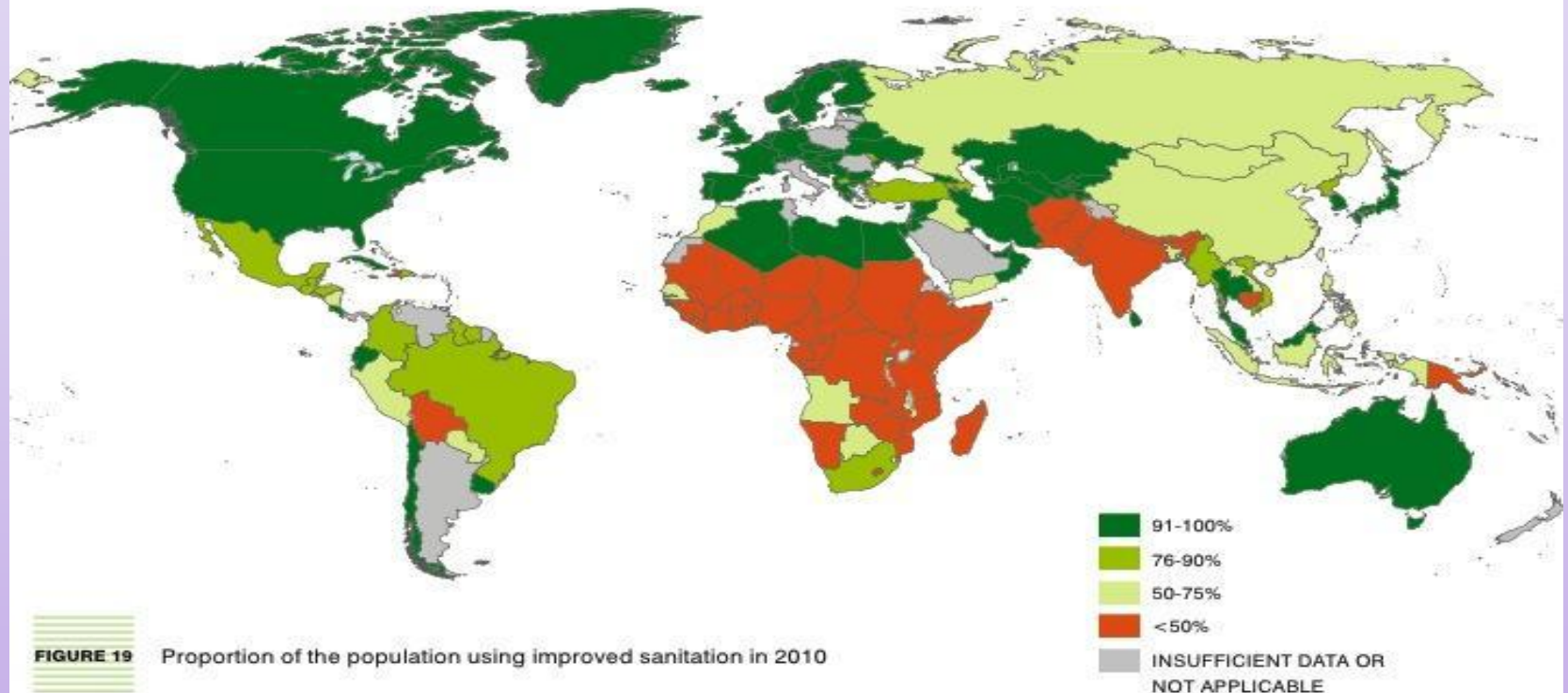
PUBLIC HEALTH ACHIEVEMENTS IN THE 20C.

- improved family planning
- tobacco control measures;
 - programs designed to decrease non-communicable diseases by acting on known risk factors such as a person's background, lifestyle and environment.



One of the major sources of the increase in average life span in the early 20th century was the decline in the "urban penalty" brought on by improvements in sanitation.

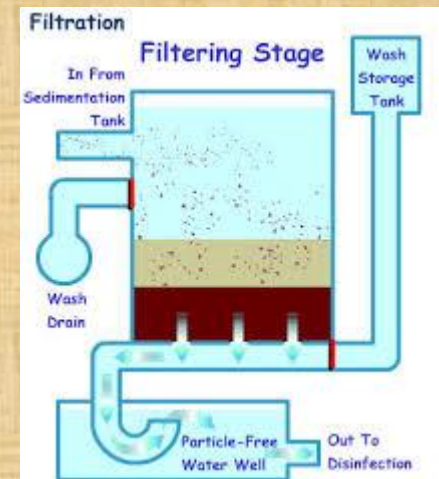
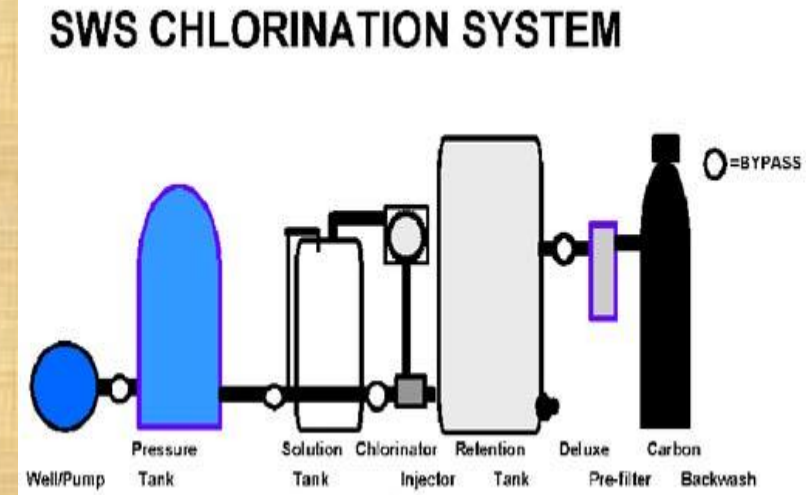
In many countries of sub-Saharan Africa and Southern Asia, sanitation coverage is below 50 per cent



These improvements included:

- chlorination of drinking water,
- filtration
- sewage treatment

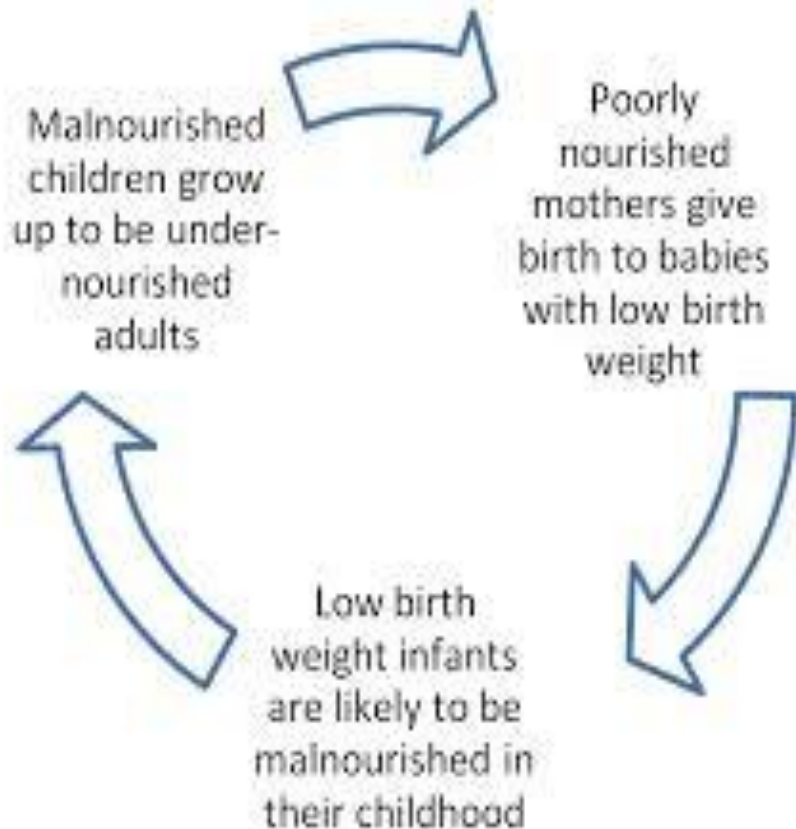
which led to the decline in deaths caused by infectious waterborne diseases such as cholera and intestinal diseases.



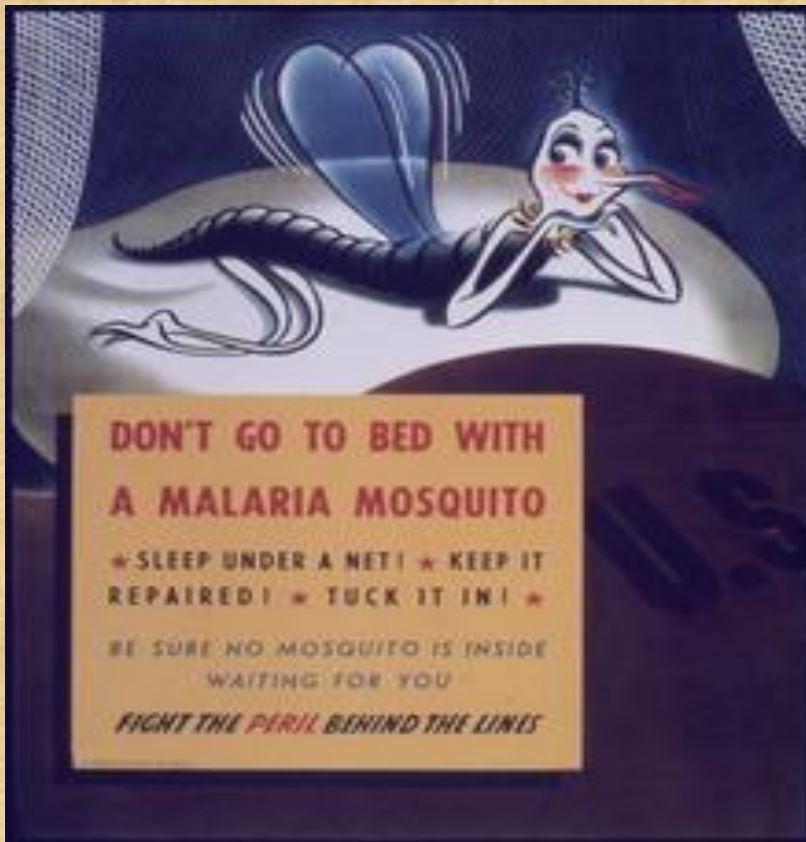
Developing world
-preventable/
treatable infectious
diseases and poor
maternal and
child health
outcomes,
exacerbated by
malnutrition and
poverty.



The WHO reports that a lack of exclusive breastfeeding during the first six months of life contributes to over a million avoidable child deaths each year.



Intermittent preventive therapy aimed at treating and preventing malaria episodes among pregnant women and young children is one public health measure in endemic countries.

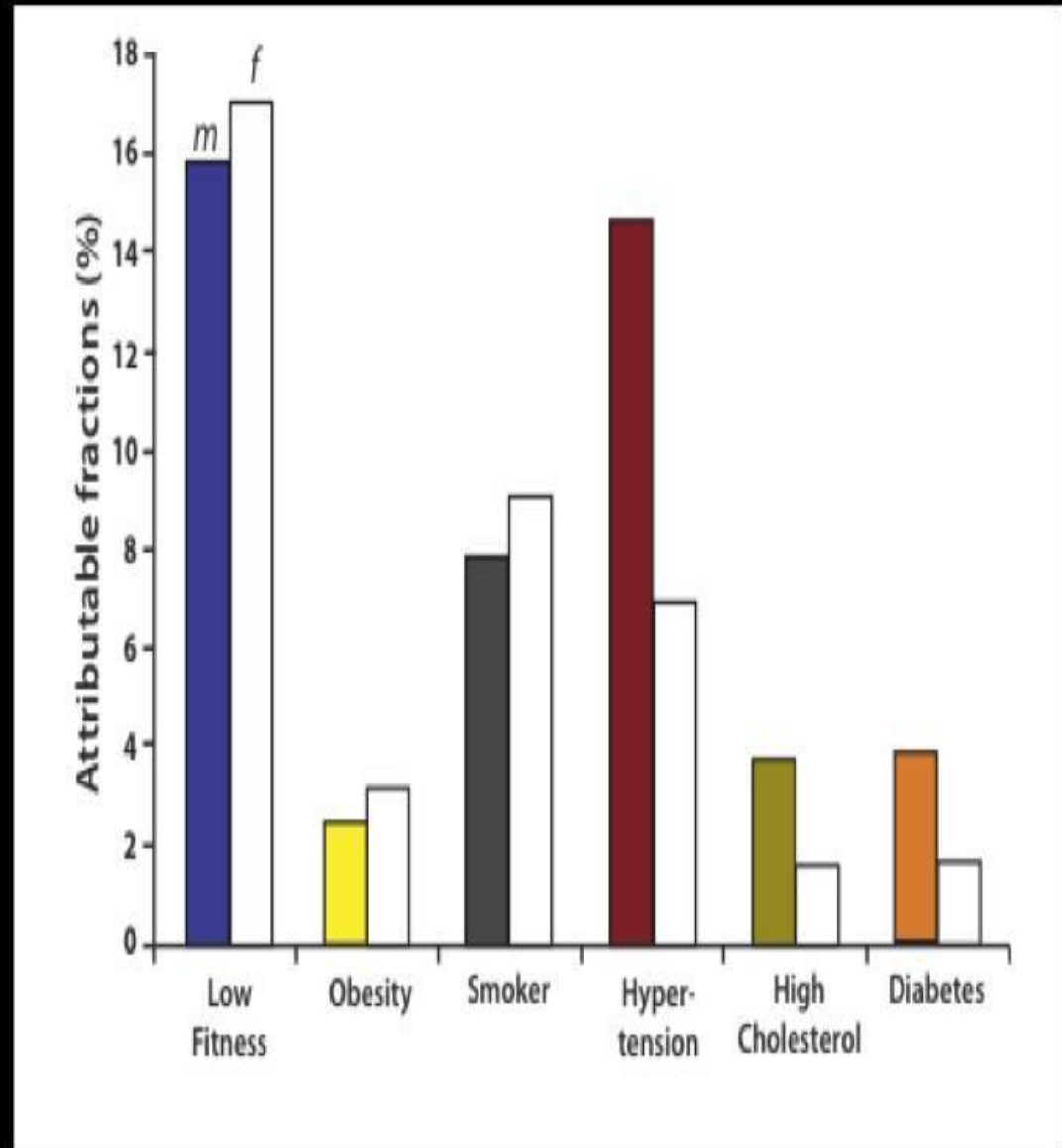


Since the 1980s, the growing field of population health has broadened the focus of public health from individual behaviors and risk factors to population-level issues such as inequality, poverty, and education.



Which risk factor kills more people?

As the prevalence of infectious diseases decreased through the 20th century, public health began to put more focus on chronic diseases such as cancer and heart disease.



What are the risk factors of diseases?

A risk factor is potential dangerous factor of behavioral, biological, genetic, ecological, social character, surrounding and production environment, promoting probability of disease' development, its progress and unfavorable end for a health



GROUPS OF RISK FACTORS

- **1. Socio-economic factors** (terms of labour, housing terms, material welfare, level and quality of food, rest and etc.)
- **2. Social-biological factors** (age, sex, the inherited diseases and etc).
- **3. Ecological and natural-climatic factors** (contamination of environment, average annual temperature, presence of natural-climatic extreme factors and etc).
- **4. Organizational or medical factors** (material well-being of population by medicare, quality of medicare, availability of medical-social help and etc).

The academician RAMN of Y.P.Lisitsin proposed a next grouping health risk factors (table. 1.1).

Sphere of influence of factors on a health	Groups of factors of risk	Specific gravity (in %) of risk factors
Life-style	Smoking, use of alcohol, unbalanced nutrition; stress situations (distresses); harmful terms of labour; hypodinamia; bad material conditions of life; consumption of drugs, abuse by medications; flimsiness of families, loneliness; low cultural and educational level; high level of urbanization	49-53
Genetics, biology of man	Predisposition to the inherited illnesses and to the so-called degenerative illnesses (inherited predisposition to the diseases)	18-22
External environment	Contamination by carcinogens and other harmful matters of air, water, soil; sharp changes of the atmosphere; promoted helicomic, magnetic and other radiations	17-20
Health protection	Uneffective of prophylactic measures; low quality and inopportuneness of medicare	8-10

LIFESTYLE

A way of living of individuals, families (households), and societies, which they manifest in coping with their physical, psychological, social, and economic environments on a day-to-day basis.



For estimation of public health WOHP recommends the following indexes:

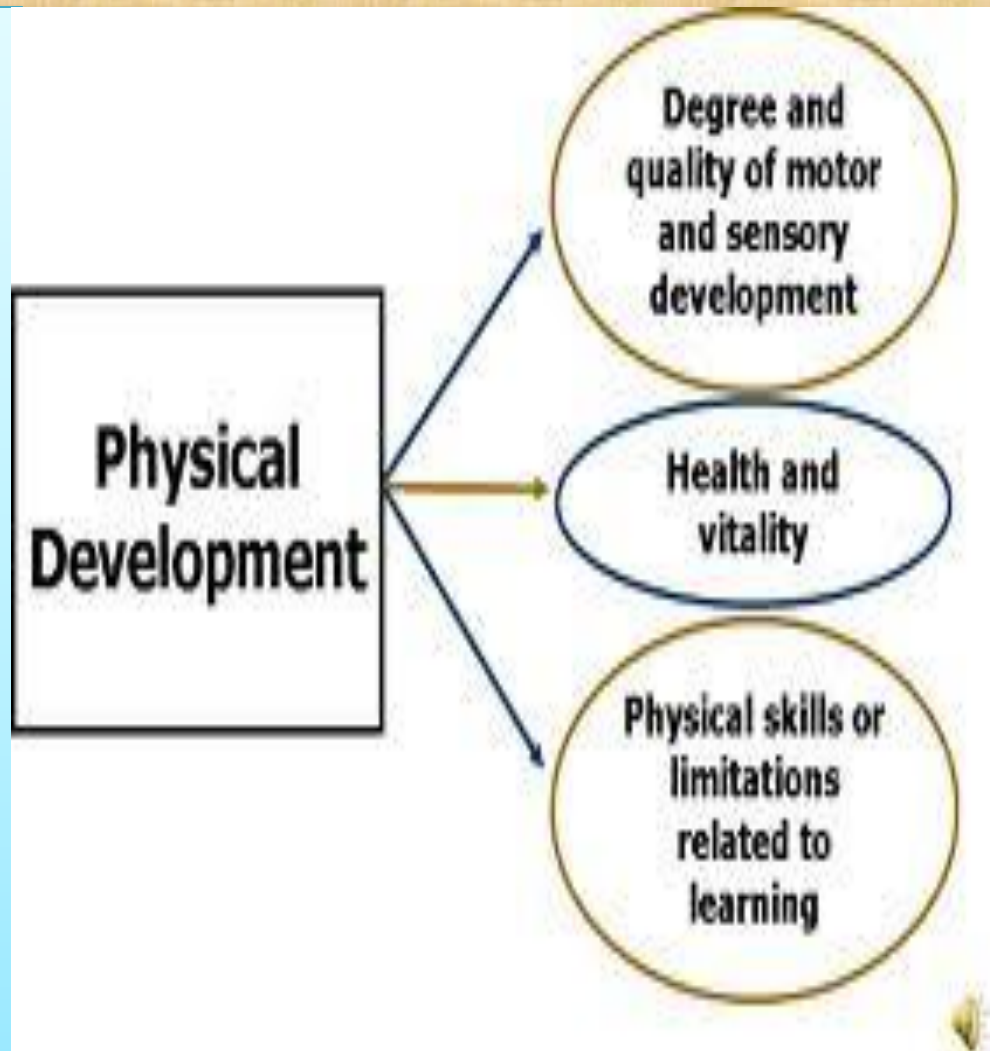
- 1. Deduction of gross national product on the health protection.
- 2. Availability of primary medico-social help.
- 3. Scope of population by medicare.
- 4. Level of immunization of population.
- 5. Degree of inspection of pregnant by skilled personnel.
- 6. State of nutrition, including nutrition of children.
- 7. Level of child's death rate.
- 8. Middle time of forthcoming life.
- 9. Hygienic literacy of population.

Health of population consists of:

1. Medico-demographic indexes.
2. Indexes of morbidity.
3. Indexes of disability.
4. Indexes of physical development of population.

Physical development

is the complex of morphological and functional properties of organism, determining mass, closeness, form of body, structural-mechanical qualities and expressed by the supply of his physical forces.

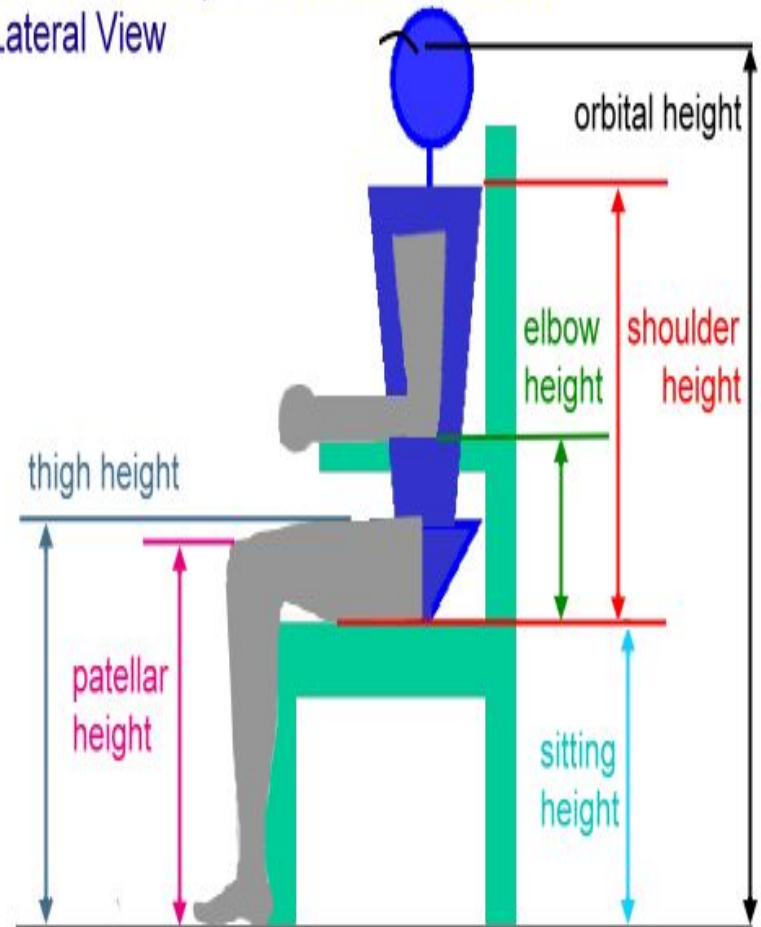


The basic signs of physical development are:

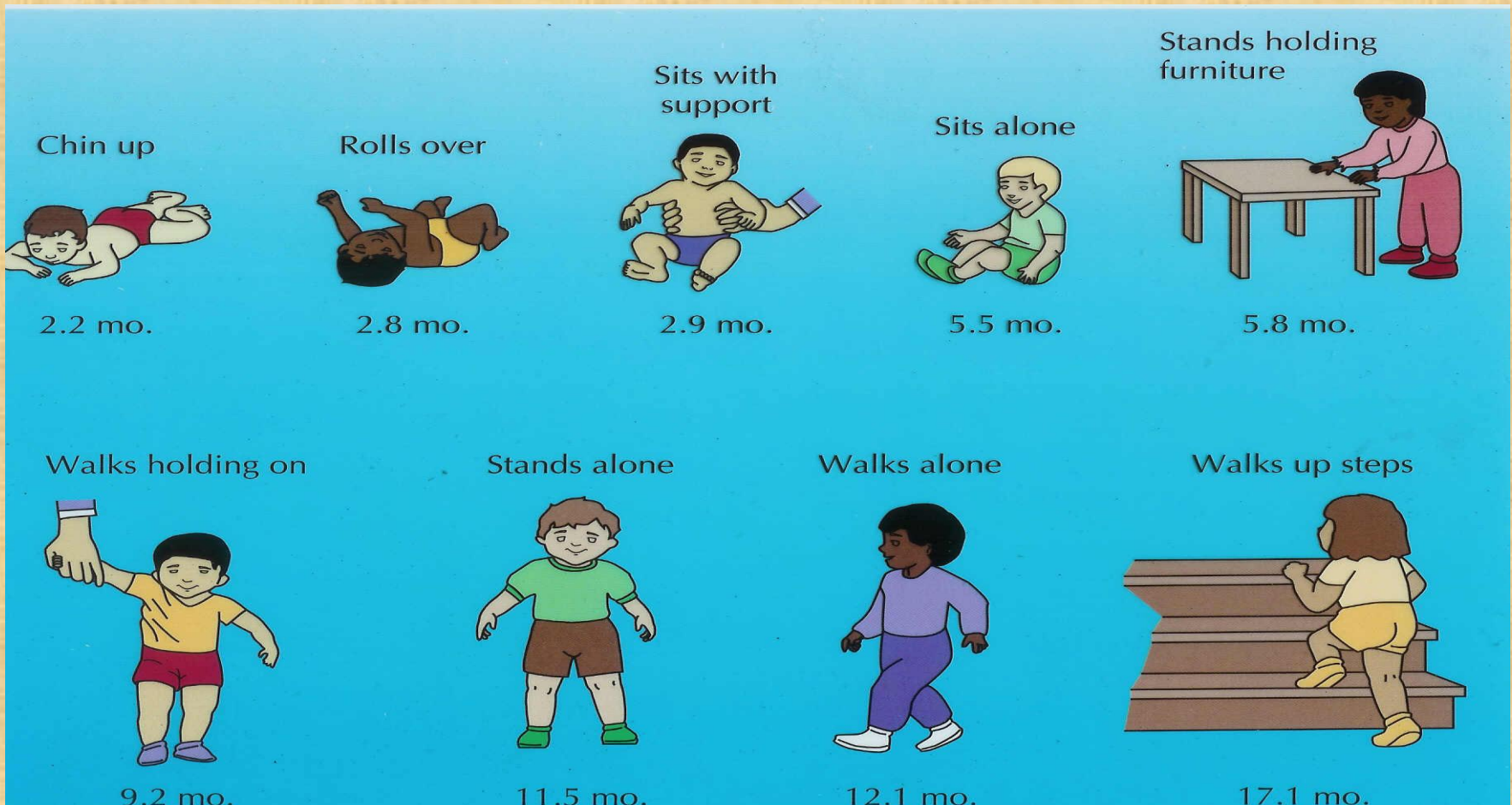
1. Anthropometric, which is based on the change of sizes of body, skeleton of man and including:
 - a) somatometric - sizes of body and its parts;
 - b) osteometric - size of skeleton and its parts;
 - B) kranimetric - sizes of skull
2. Antroposkopic
3. Physiometric

Vertical Anthropometric Measurements

Lateral View



Antropometric indexes – are used for control of children's physical development and efficiency of health measures.



Quality of life.

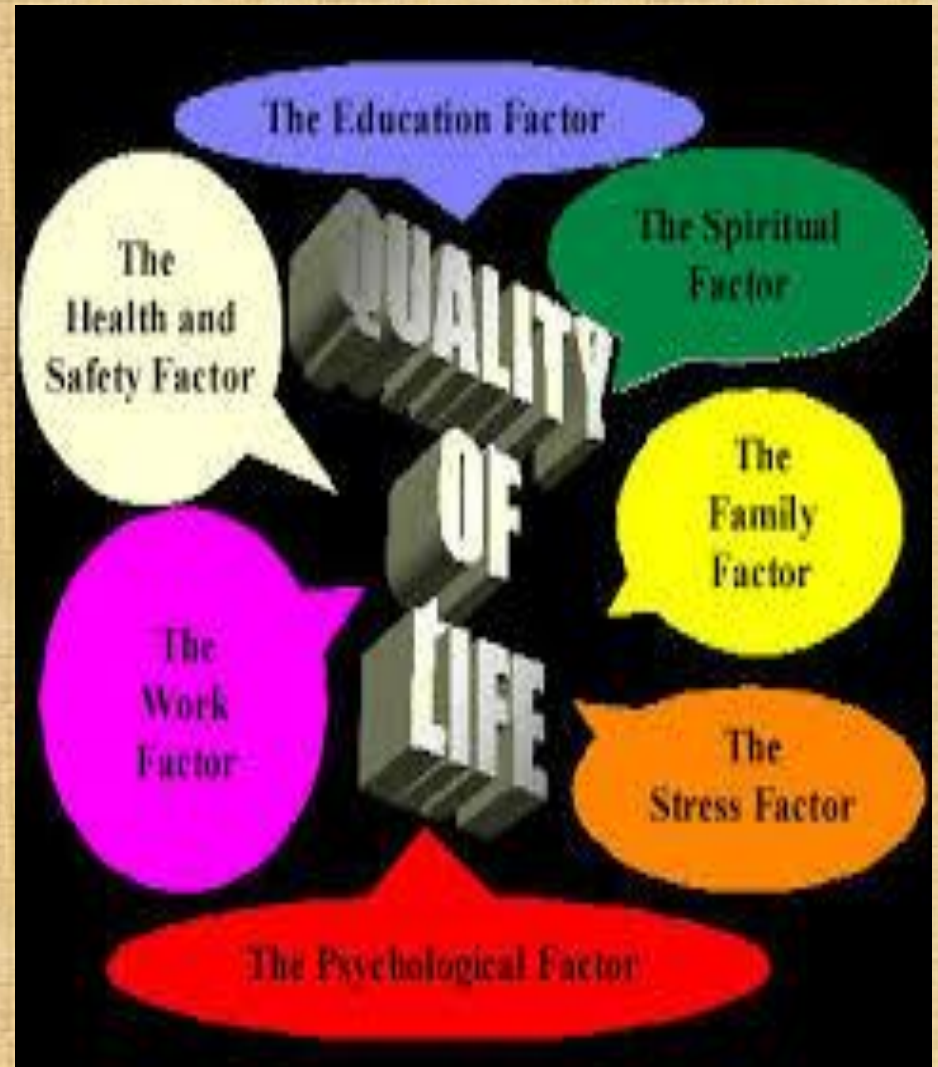
**Individuals' perception
of their position in life
in the context of the
culture and value
systems
in which they live and in
relation to their
goals, expectations,
standards and
concerns.**

**IT'S NOT HOW LONG
LIFE IS BUT THE
QUALITY OF OUR LIFE
THAT IS IMPORTANT.**

· ROGER DAWSON

Quality of life.

It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of their environment.





Thank you very much
for your attention!