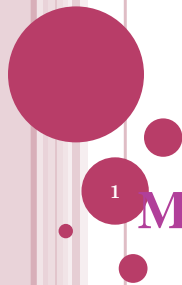


INTRODUCTION TO PUBLIC HEALTH



1 Maha Nubani Husseini

THREE QUESTIONS

- What is health ?
- what is public health ?
- who is responsible for the health of the individual & the population?



2

What is Health?

- Persons are healthy when they are doing their activities with no apparent symptoms of disease.
- Health is a state of being well and free from disease (oxford students dictionary, 1991)



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WHAT IS HEALTH?

From professional points of view:

- Health is defined as a measure of the state of the physical bodily organs, and the ability of the body as a whole to function.
- It refers to freedom from medically defined diseases.

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Health is like a mirage –
it is unattainable,
but worth pursuing!”

Dubos, 1959



Healthy ----- **Sick**

An attorney who has been very successful. He was an associate in a very well respected firm. He had a large house etc. He has a loving family, but at the moment he is unemployed and now has a much smaller apartment.



Healthy ----- Sick

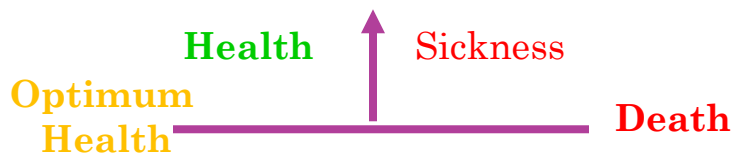
An attorney who is very successful. He is an associate in a very well respected firm. He has a large house etc. He has a loving family. 5 years ago he was involved in a car accident and is now confined to a wheelchair.



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The Concept of Health

- * The concept of Health depends on culture, values and lifestyle.
- The state of Health is dynamic and can be viewed as on a continuum:



- * The concept of Health is personal and subjective and affects everything a person does and how he feels about himself and his environment

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HEALTH - A DEFINITION

- A complete state of physical, mental and social wellbeing and not merely the absence of disease.



WHO 1948

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WHO definition of health

Health is the extent to which an individual or group is able, on the one hand to realize aspirations and safety needs; and, on the other hand, to change or cope with the environment.

It is to be seen as a resource for everyday life and not merely the objective of living.

It is a positive concept emphasizing social and personal resources as well as physical capacities.

WHO 1986

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WHAT IS PUBLIC HEALTH ?

Public Health is "the Science and Art of Prolonging Life and Promoting Health through the Organised Efforts of Society"

Lewis in Holland et al, 1991



PUBLIC HEALTH IS

The Science and Art of

1. Preventing disease

2. Prolonging life

C.E.A Winslow, 1920



PUBLIC HEALTH IS

The Science and Art of

3. Promoting health and efficiency through Organized Community Effort:

C.E.A Winslow, 1920



PUBLIC HEALTH IS

- a. The sanitation of the environment
- b. The control of communicable infections
- c. The education of the individual in personal hygiene.

C.E.A Winslow, 1920



PUBLIC HEALTH IS

d. The organization of medical & nursing services for the early diagnosis and preventive treatment of disease, and

e. The development of the social machinery to ensure everyone a standard of living adequate for the maintenance of health




PUBLIC HEALTH IS

**SO ORGANISING THESE
BENEFITS AS TO ENABLE
EVERYONE TO REALISE HIS
BIRTHRIGHT OF HEALTH
AND LONGEVITY**



THE MISSION OF PUBLIC HEALTH

**The mission of public health is:
"Fulfilling society's interest
in assuring conditions in
which people can be
healthy"**



PUBLIC HEALTH IS

**The process of mobilising and
engaging local, state, national
and international resources to
assure the conditions in which
people can be healthy"**

Detels & Breslow, 2002



Dimensions of Health



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PHYSICAL HEALTH

- is concerned with anatomical integrity and physiological functioning of the body. It means the ability to perform routine tasks without any physical restriction. E.g., Physical fitness is needed to walk from place to place.

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MENTAL HEALTH

- is the ability to learn and think clearly and coherently. E.g., a person who is not mentally fit (retarded) could not learn something new at a pace in which an ordinary normal person learns.

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SOCIAL HEALTH

- is the ability to make and maintain acceptable interaction with other people. E.g. to celebrate during festivals; to mourn when a close family member dies; to create and maintain friendship and intimacy, etc.

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EMOTIONAL HEALTH -

- is the ability of expressing emotions in the appropriate way, for example to fear, to be happy, and to be angry. The response of the body should be congruent with that of the stimuli.

Emotional health is related to mental health and includes feelings. It also means maintaining one's own integrity in the presence of stressful situation such as tension, depression and anxiety.

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SPIRITUAL HEALTH

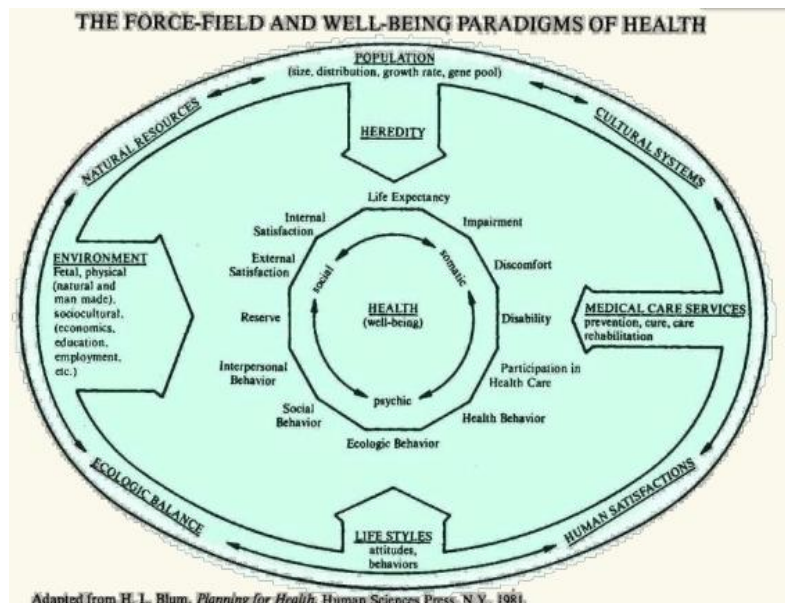
- Some people relate health with religion; for others it has to do with personal values, beliefs, principles and ways of achieving mental satisfaction, in which all are related to their spiritual well being.

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DETERMINANTS OF HEALTH

- Health or ill health is the result of a combination of different factors. There are different perspectives in expressing the determinants of health of an individual or a community.

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THE HEALTH FIELD CONCEPT

- According to the “Health field” concept. There are four major determinants of health or ill health.
 - A. Human biology
 - B. Environment
 - C. Lifestyle behaviour
 - D. Health care organization

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A. HUMAN BIOLOGY

- Every Human being is made of genes. In addition, there are factors, which are genetically transmitted from parents to offspring. As a result, there is a chance of transferring defective trait. The modern medicine does not have a significant role in these cases.
- a. **Genetic Counseling:** For instance during marriage parents could be made aware of their genetic component in order to overcome some risks that could arise.
- b. **Genetic Engineering:** may have a role in cases like Breast cancer.

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B. ENVIRONMENT:

- is all that which is external to the individual human host. Those are factors outside the human body. Environmental factors that could influence health include:
 - a. Life support, food, water, air etc
 - b. Physical factors, climate, Rain fall
 - c. Biological factors: microorganisms, toxins, Biological waste,
 - d. Psycho-social and economic e.g. Crowding, income level, access to health care
 - e. Chemical factors: industrial wastes, agricultural wastes, air pollution, etc

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C. LIFE STYLE (BEHAVIOR):

- is an action that has a specific frequency, duration, and purpose, whether conscious or unconscious. It is associated with practice. It is what we do and how we act. Recently life style by itself received an increased amount of attention as a major determinant of health. Life style of individuals affects their health directly or indirectly.
- For example: Cigarette smoking, Unsafe sexual practice, Eating contaminated food.... etc

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D. HEALTH CARE ORGANIZATION

- Health care organizations in terms of their resource in human power, equipments, money and so on determine the health of people.

It is concerned with

- a. Availability of health service:
- b. Scarcity of Health Services
- c. Acceptability of the service by the community
- d. Accessibility : in terms of physical distance, finance etc
- e. Quality of care that mainly focuses on the comprehensiveness, continuity and integration of the health care.

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FOUR DIFFERENT FACTORS AFFECTING HEALTH

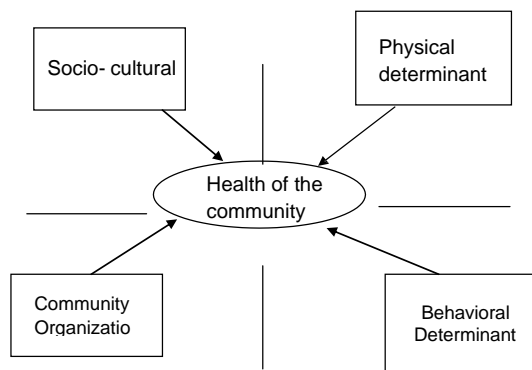


Fig-1- Factors affecting health of community

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PHYSICAL DETERMINANTS

- The physical factors affecting the health of a community include: the geography (e.g. high land versus low land), the environment (e.g. manmade or natural catastrophes) and the industrial development (e.g. pollution occupational hazards)

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SOCIO – CULTURAL DETERMINANTS

- The socio- cultural factors affecting the health of a community include the beliefs, traditions, and social customs in the community. It also involves the economy, politics and religion in the community.

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COMMUNITY ORGANIZATION -

- Community organization include the community size, arrangement and distribution of resources (“relations of productions”)

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BEHAVIORAL DETERMINANTS-

- The behavioral determinants affecting health include individual behavior and life style affecting the health of an individual and the community. E.g. smoking, alcoholism and promiscuity

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GLOBALIZATION AND HEALTH

- Globalization is the process of increasing political and social interdependence and global integration that takes place as capital, traded goods, persons, concepts, images, ideas and Values diffuse across the stated boundaries (Hurrell & Woods 1995).
- Globalization must ensure that people, particularly the poor, enjoy better health that is the most important factor in improving the economic wellbeing of the population in general and in reducing poverty in particular.
- The effects of Globalization on health are diverse; these can be positive, negative or mixed. Some of the effects of Globalization are listed here under.

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EFFECTS OF GLOBALIZATION ON HEALTH INCLUDES

- Externalities of some diseases due to increased communication decreased human mobility
- Accelerated economic growth and technological advances have enhanced health and life expectancy in many population
- Increasing effects of international and bilateral agencies (structural adjustment programs and Global initiatives)
- Jeopardizing population health Via erosion of social and environmental conditions and exacerbating inequalities

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OTHER HEALTH RISKS OF GLOBALIZATION INCLUDES

- Fragmentation and weakening of labor markets due to greater power of mobile capital
- Tobacco induced diseases
- Food markets & obesity as well as chemicals in food
- Rapid spread of infectious diseases
- Depression in aged and fragmented population
- Adverse effects on the environment

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MODEL OF DISEASE CAUSATION THEORIES

- A model is a representation of a system that specifies its components and the relationships among the variables. E.g. includes graphs, charts, and decision trees

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I – NINETEEN-CENTURY MODELS

1. Contagion theory
2. Supernatural theory
3. Personal behavior theory
4. Miasma theory

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1. CONTAGION THEORY

- Beginning of the 19th century: illness is contagious.
- It required:
 1. Keeping sick away from well
 2. Quarantine of ships (forty days *la quarantaine*)
 3. Setting up military cordons around infected towns
 4. Isolation of households, and
 5. Fumigating or washing the bedding and clothing of the sick.

WHY NOT ACCEPTED: too many instances where people become ill regardless of their isolation from human contact

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2. SUPERNATURAL THEORY

- supernatural forces cause disease.
- Disease prevention important to the religious people: Disease is a **punishment** for transgression of God's laws.
- Rich, the healthier rich, can employ it on poor, for sinful behavior i.e. presumed idleness, intemperance and uncleanness.
- This theory expressed a political philosophy. People could not advocate the belief that sin causes disease without, at the same time, implicitly supporting the idea that government need to redress poverty.

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3. PERSONAL BEHAVIOR THEORY

- **Wrong personal behavior.**
- Responsibility to individuals to control their own lives.
- Source of the disease was not tied up with the mysterious ways of God, instead people caused their own disease by living fully unhealthy.
- **Improper diet, lack of exercise, poor hygiene and emotional tension become the focus of preventive actions.**
- **NOT the poor, but the middle-class life.**

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4. MIASMA THEORY

- Disease is caused by the odor of decaying of organic materials.
- Back to the **Hippocratic idea** that disease is related to climate.
- It contrasted sharply from the other three theories since it conceptually separated the source of the disease from the victim of the disease.

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II – TWENTY-CENTURY MODELS

- Although economic and ideological considerations influenced the 19th century disease prevention policy, sound research determines policy today. The 20th century theory focuses on:
 1. **The Germ Theory**
 2. **The Life Style Theory**
 3. **The Environmental Theory**
 4. **The Multi Causal Theory**

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1. THE GERM THEORY

- Explanations of disease causations.
- Microorganisms cause diseases and it is possible to control diseases using antibiotics and vaccines.
- There was criticism on this theory by Thomas Mckeown that stated as the incidence of all major infectious diseases begun to fall several decades before the introduction of vaccines and antibiotics.
- Thus rising of living standards was responsible for the reduction of disease not the discovery of antibiotics and vaccines.

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2. THE LIFE STYLE THEORY

- Unhealthy lifestyles are causes for diseases.
- It blames stress, lack of exercise, the use of alcohol and tobacco improper nutrition for most chronic diseases.
- It rejects the notion central to the classic germ theory, that a single disease has a single etiology.
- It emphasize the interrelatedness of many variables in disease causality, principally those under the control of the individual.

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3. THE ENVIRONMENTAL THEORY

- Significant number of chronic disease caused by toxins
- First aspect concentrates on: Disease prevention, instead of requiring medical treatments or personal hygiene, demands change in the industrial production.
- Second concentrates focus on concentrates on toxic substances in the air water and soil (advocates of this theory places particular emphasis on radioactivity)
- Third aspect focus on synthetic additives to foods **“organic foods”**.
- Two scientific disputes surround the hypothesis viz the suitability of extrapolating from animals to humans and the concept of threshold levels.

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4. THE MULTI CAUSAL THEORY

- Also called “Web of disease causation”.
- It states: “Multiple factors for a cause of a single disease entity”.
- It suggests that “Effective disease prevention policy as the theories it replaces”.
- Its shortcomings are it gives few clues about howto prevent disease, the actual prevention policies it implies are inefficient in many ways and there is a gap between what it promises and what epidemiologist’s deliver.

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