

# **Health –Definition, Concepts, Dimensions, Spectrum & Determinants**

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# Objectives

After attending this lecture, students will be able to understand:

- Dimensions of health
- Determinants of health
- Concept of disease control
- Levels of prevention

# Definition

- WHO defines health as a “state of complete physical, mental and social well being and not merely the absence of disease or infirmity.”
- Operational definition- health is a condition or quality of human organism expressing the adequate functioning of the organism in given conditions, genetic or environmental.

# Changing Concepts of Health

- 1- **Biomedical** : “ health is the absence of disease” - Germ theory of disease.
- Minimized the role of : Environmental, Social, Psychological, Economic, Cultural and other determinants.
  - Germ theory could not solve : Nutritional, Chronic diseases, Accidents, Substance abuse, Psychological diseases, pollution, population explosion and other non communicable health problems.

## 2- Ecological Concept:

- Health is a Dynamic Equilibrium between Man and his Environment. Imbalance results in Disease.
- Adaptation of Man to his Environment leads to better health and longer life expectancy even in the absence of Modern health services.

### 3-Psychosocial concept:

Biomedical ( Biological) in addition to:  
Psychological, Social, Cultural , Economic, Political  
factors.

### 4-Holistic concept:

Include all the factors of the other concepts  
in addition to all human activities such as  
education, communication, agriculture, industry,  
housing , recreation etc...  
Emphasis on Promotion and Protection of Health.

# Dimensions of health

- There are three major dimensions of health: *Physical, Mental And Social*
- There are various other dimensions- *spiritual, emotional, environmental.*
- Positive physical health- this is a state in which every cell and organ functions at optimum capacity and perfect harmony with the rest of the body

# The 6 dimensions of Health

- *Physical*
  - Includes body functioning, physical fitness, Activities of Daily Living (ADL)
- *Mental*
  - Ability to think clearly, reason objectively
- *Social*
  - Ability to have satisfying relationships

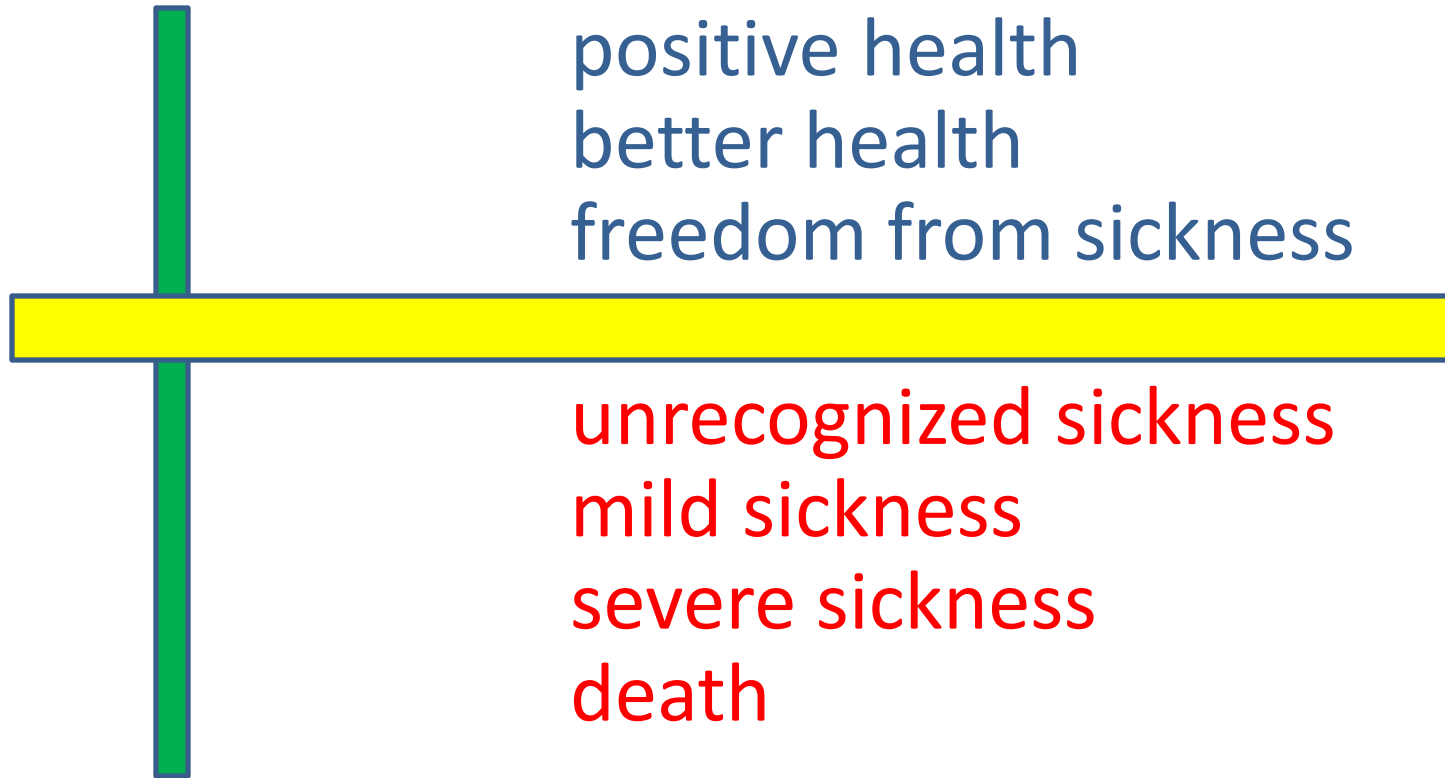


# The 6 dimensions of Health

- *Emotional*
  - Self-efficacy and self-esteem
- *Spiritual*
  - Feeling as if part of a greater spectrum of existence
- *Environmental*
  - Appreciation of the external environment and one's role in caring for it

# Health-Sickness Spectrum

There are degrees or levels of health as there are degrees or severity of illness.



# Spectrum Of Health

- Health is not static in an individual, it is a dynamic phenomenon subject to process of continuous change.
- No single cut off point and state of health needs to be reviewed.
- Lowest point is death and highest point is positive health.
- Transition from positive health to death is often gradual and difficult to point out where one state ends and other begins.
- It includes unrecognized sickness at midpoint and off shoot to mild, severe sickness and death .
- Another scenario is freedom from sickness, better health , positive health.

# Concept of well being

Two components- Subjective and Objective.

- Objective component is the standard of living /level of living
- Subjective is the quality of life.
- Standard of living- WHO defines it as income, occupation , housing standards , sanitation and nutrition, level of provision of health, human rights, social security, educational, recreational and other services.
- It is expressed in per capita GNP & GDP.

# GDP

- An estimated value of the total worth of a country's production and services, calculated over the course of one year
- $\text{GDP} = \text{consumption} + \text{investment} + (\text{government spending}) + (\text{exports} - \text{imports})$
- Total value of products & Services produced within the territorial boundary of a country

# GNP

- GDP (+) total capital gains from overseas investment (-) income earned by foreign nationals domestically
- $\text{GNP} = \text{GDP} + \text{NR}$  (Net income from assets abroad (Net Income Receipts))
- Total value of Goods and Services produced by all nationals of a country (whether within or outside the country)

# Concept of Well Being

- Quality of life- is the subjective component of well being.
- It is defined by WHO as the condition of life resulting from combination of effects of complete range of factors such as those determining health, happiness, education, social and intellectual attainments , freedom of action, justice and freedom of expression

# Concept of Well Being

- Steps to improve quality of life include reduction in mortality and morbidity, provision of primary health care and improving physical, mental and social well being.
- Provision of primary health care- to all sections of the population i.e. it must be equally distributed, accessible and acceptable to all at a cost that the country, community & individual can afford.

# Determinants of Health

Health is influenced by many factors .

It is the result of interaction of these factors which may be positive or negative.

A constant harmonious interaction of these factors determine health.

1. **Biological factors**- health to certain extent is influenced by genetic make up of the individual.
- Positive expression of potentialities of genetic heritage is possible only by establishing healthy relationship with the environment in which the individual live.



# Determinants of Health

## 2-Behavioral and social factors-

- The concept of lifestyle is gaining prominence with the increasing incidence of non communicable diseases.
- Ischemic heart disease , obesity and lung cancer are related to lifestyle of an individual.
- Lifestyle- is the way people live, it is influenced by cultural, behavioral patterns , personal habits which is related to the knowledge and attitude of individual.
- Promotion of healthy lifestyle (primordial prevention) is the key for prevention of a multitude of diseases.

# Determinants of Health

## 3-Environmental factors –

- Need healthy environment to achieve positive health.
- Physical, social, mental well being and environment are closely linked.
- 2 types of environment- internal and external.
- Internal environment involves interaction among various organs, tissues and systems of the body.
- External: safe water and clean air, healthy workplaces, safe houses, communities and roads all contribute to good health. Employment and working conditions – people in employment are healthier, particularly those who have more control over their working conditions

# Determinants of Health

- 4-Socioeconomic factors- include literacy, occupational health and economic status.(GNP)
- Also the existing political system of the country.
  - Policy decisions on health, GNP directed towards health care, political commitment and effective leadership have far reaching positive effects on health.

- Health gaps- the contrast in health scenario between developing and developed countries.
- Developed countries have a longer life expectancy, lower infant and child mortality rates when compared with developing countries.
- Health care advocates promotive and preventive activities as well as treatment, and oriented to the needs of entire population.

- Health care involves appropriate technology and broad range of health personnel including doctors, nurses, community health workers.
- Characteristics of health care- an ideal health system relevant to the local needs of the population, comprehensive (preventive, promotive and curative), adequate, accessible and affordable to all sections of the community.

- For efficient delivery of health care , coordinated effort among workers both Medical and Non Medical is needed
- The members of the team are physicians, nurses, social workers, community health workers etc.
- The leader of the team being the doctor evaluates the work of the team and is the decision maker and planner.
- The goal of the team while carrying out their assigned responsibilities is towards achieving 'health for all'.

# Levels of Prevention

- **Primordial Prevention**
- **Primary Level of Prevention**
- **Secondary Level of Prevention**
- **Tertiary Level of Prevention**

# Primordial Prevention

- Primordial prevention is defined as prevention of risk factors themselves, beginning with change in social and environmental conditions in which these factors are observed to develop, and continuing for high risk children, adolescents and young adults.
- A relatively new concept, is receiving special attention in the prevention of chronic diseases. For example, many adult health problems (e.g. obesity, hypertension) have their early origins in childhood, because this is the time when lifestyles are formed.



# Primary Level of Prevention

- Control the underlying cause or condition that may result in disability.
- e.g. maternal antiretroviral therapy to reduce the risk of mother-to-child transmission of HIV; fortification of the food supply to prevent birth defects such as spina bifida and iodine deficiency disorders.
- Immunization against infectious diseases
- Edu. & legislation about proper seatbelt & helmet use.

*Cont'd*

# Primary Prevention

- Education about good nutrition, the importance of regular exercise, & the dangers of tobacco, alcohol and other drugs.
- Regular exams and screening tests to monitor risk factors for illness
- Controlling potential hazards at home and in the workplace.

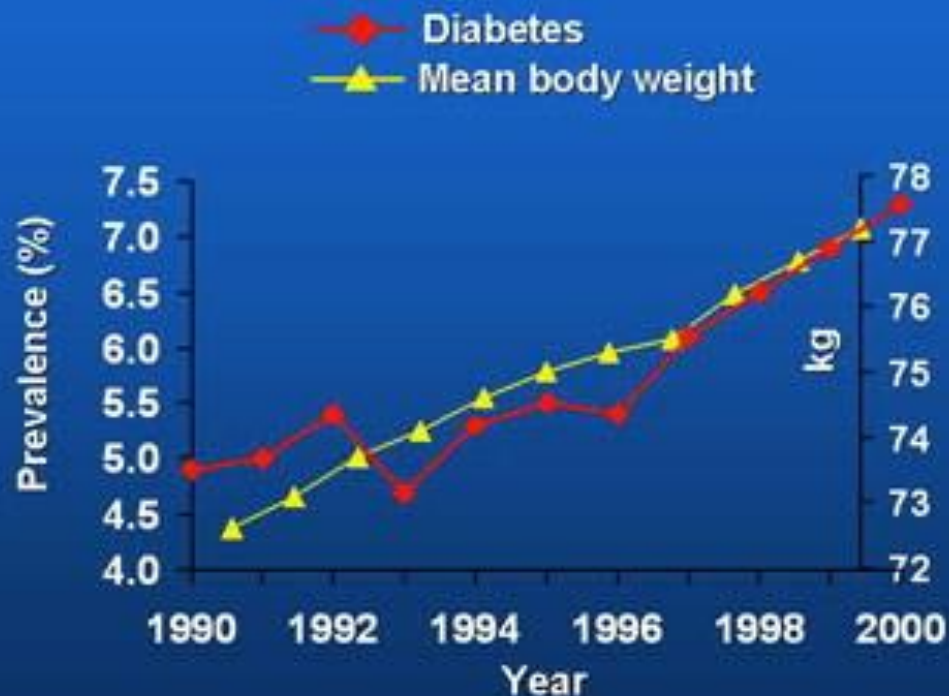
# Secondary Level of Prevention

- Aims at preventing an existing illness or injury from progressing to long-term disability
- e.g. telling people to take daily, low-dose aspirin to prevent a 2<sup>nd</sup> heart attack or stroke.
- Providing suitably modified work for injured workers; effective emergency medical care for head injury

# Tertiary Level of Prevention

- Rehabilitation and special educational services to mitigate disability and improve functional and participatory or social outcomes once disability has occurred.
- e.g. rehabilitation of post-stroke patients.
- Chronic pain management programs.
- Patient support groups.

# Diabetes and Obesity: The Continuing Epidemic

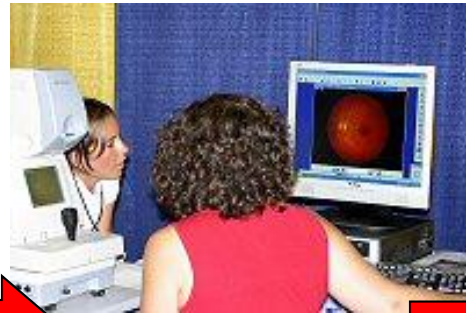


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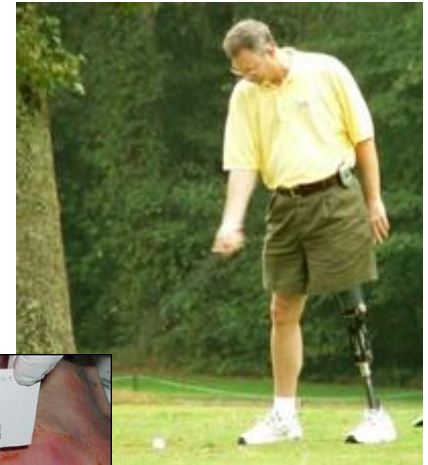
# PRIMARY



# SECONDARY



# TERTIARY









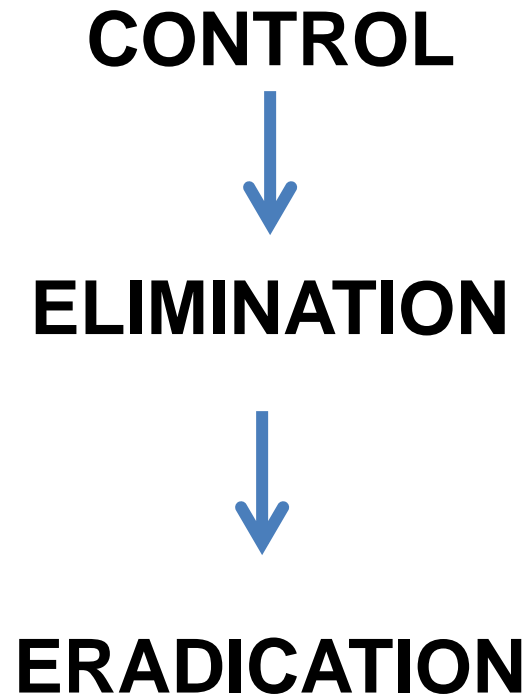


# Concept of Disease control:

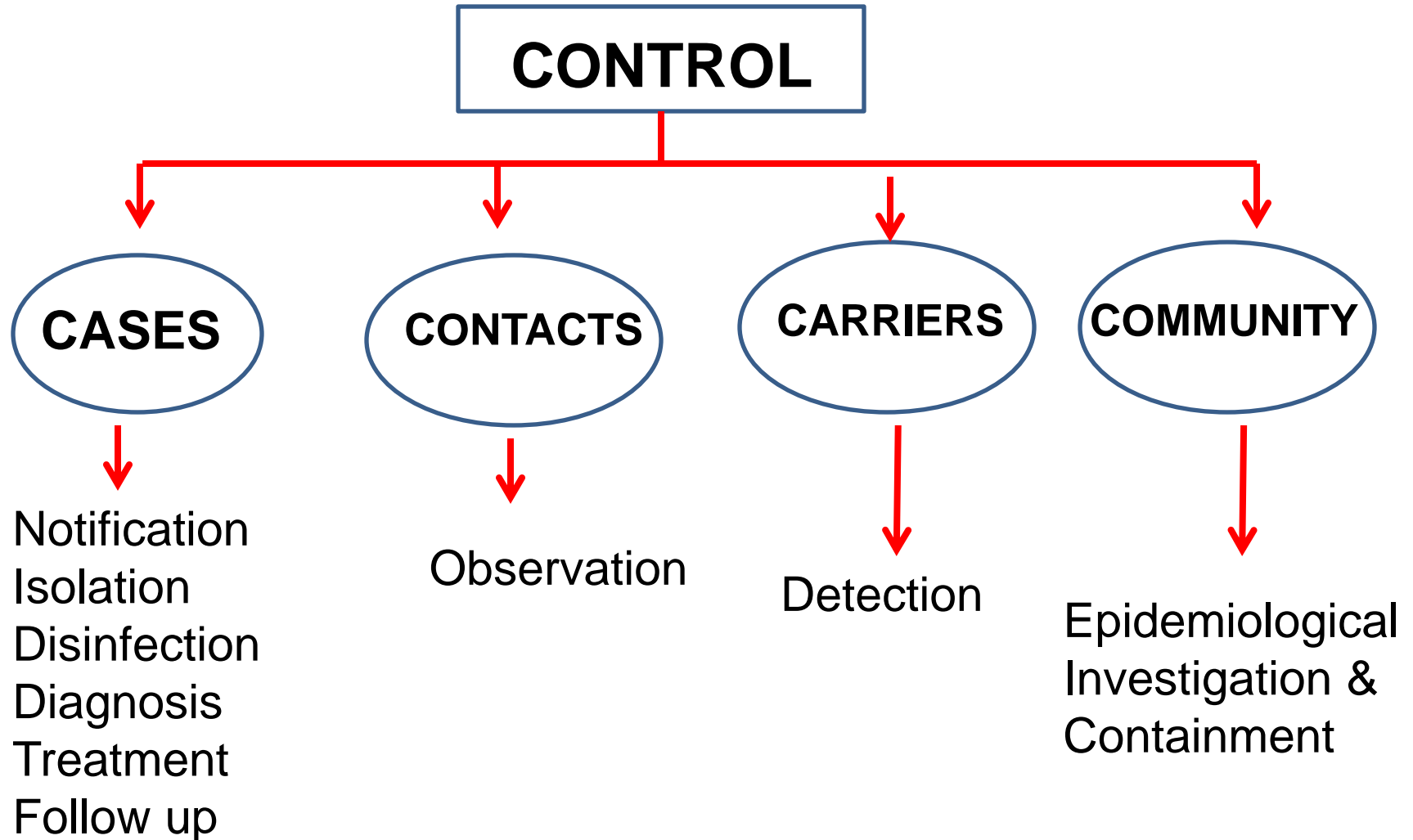
The term disease control describes ongoing operations aimed at reducing:

- The incidence of disease
- The duration of disease and consequently the risk of transmission
- The effects of infection, including both the physical and psychosocial complications
- The financial burden to the community.

Control activities focus on primary or secondary prevention, but most programs combine both.



# Control of infectious diseases (the 4 “C”s)



# Disease Elimination

- Between control and eradication, an intermediate goal has been described, called "regional elimination"
- The term "elimination" is used to describe interruption of transmission of disease, as for example, elimination of measles, polio and diphtheria from large geographic regions or areas
- Regional elimination is now seen as an important precursor of eradication

# Disease Eradication

- Eradication literally means to "tear out by roots".
- It is the process of “Termination of all transmission of infection by extermination of the infectious agent through surveillance and containment”.
- Eradication is an absolute process, an "all or none" phenomenon, restricted to termination of an infection from the whole world. It implies that disease will no longer occur in a population.
- To-date, only one disease has been eradicated, that is smallpox.

Disease control can be achieved by on-going

## **MONITORING & SURVEILLANCE**

# Monitoring

- Monitoring is "the performance and analysis of routine measurements aimed at detecting changes in the environment or health status of population" (Thus we have monitoring of air pollution, water quality, growth and nutritional status, etc).
- It also refers to on -going measurement of performance of a health service or a health professional, or of the extent to which patients comply with or adhere to advice from health professionals.

# SURVEILLANCE

- surveillance means to watch over with great attention, authority and often with suspicion
- According to another, surveillance is defined as "the continuous scrutiny (inspection) of the factors that determine the occurrence and distribution of disease and other conditions of ill-health"



# The main objectives of surveillance are:

- to provide information about new and changing trends in the health status of a population, e.g., morbidity, mortality, nutritional status or other indicators and environmental hazards, health practices and other factors that may affect health
  - to provide feed-back which may be expected to modify the policy and the system itself and lead to redefinition of objectives, and
  - provide timely warning of public health disasters so that interventions can be mobilized.