**Concepts of health and disease, with respect to community.**

**Health:**

1. Health is a state of complete physical, mental and social wellbeing and not merely an absence of disease or infirmity.(WHO 1948)  
2. Operational definition of Health by WHO – a condition or quality of the human organism expressing the adequate functioning of the organism in given conditions, genetic or environmental.

**Health and wellbeing**  
**Positive health** – it implies the notion of perfect health in body and mind. It cannot become a reality, it always remain a dream because everything in our life is subject to change.  
“**Wellness** is a multidimensional state of being describing the existence of positive health in an individual as exemplified by quality of life and a sense of well-being.”

**Good health triad**

**Involves:** physical status, social and mental status.

The combination of these three defines what good health is.

**Determinants of health**

Determinants are defined as those predisposing factor, which influence the health of a particular community.  
1. Host factor (intrinsic)-   
Host is ‘soil’ and disease agent is ‘seed’. Host predisposing factors are:-  
i)It includes age, sex, ethnicity, biological characteristics such as genetic factors, blood groups, etc,   
ii)Socio-economic factors such as status, education, occupation, stress, etc.   
iii)Life style such as personality traits, drugs, alcohol, smoking, behavior patterns.

2. Environmental factors (extrinsic)-   
It is complex and defined as all that which is external to individual human host, may be living or non living and with which he is in constant interaction. Environment of man is divided into three components – physical, biological and psychological.

3.Risk factors-

* Defined as an attribute or exposure that is significantly associated with the development of the disease.
* Risk factors are often suggestive, i.e. presence of a risk factor does not imply that the disease will occur, and in its absence diseases will not occur.
* Risk factors may be causative (e.g. smoking for CA lung), contributory (lack of physical exercise for CHD) or predictive (e.g. illiteracy for prenatal mortality).

**DIMENSIONS OF GOOD HEALTH & WELL BEING**  
1.**Physical**  
A healthy body maintained by good nutrition, regular exercise, avoiding harmful habits, making informed decisions about health and seeking medical assistance when necessary.  
2.**Emotional**  
The ability to understand your own feelings, accept your limitations, achieve emotional stability and become comfortable with your emotions.  
3.**Spiritual**  
The sense that life is meaningful and has a purpose; the ethics, values and morals that guide us and give meaning and direction to life. (also included here is the sense that there exists a supernatural being whom we must all account).  
4.**Intellectual**  
A state in which your mind is engaged in lively interaction with the world around you. It involves continued learning, problem solving and creativity.  
5.**Environmental**  
It reflects the fact that personal health depends on the health of the planet. Environmental wellness also requires learning about and protecting yourself against environmental hazards.   
6.**Social**  
The ability to relate well to others, both within and outside the family unit. It encourages contributing to a healthy community by supporting a healthy living environment and initiating better communication with others.

**Dimensions of Wellness**  
Wellness is a multidimensional state of the existence of positive health in an individual . It is exemplified/ demonstrated by quality of life and a sense of well-being.  
Social Wellness.  
Occupational Wellness.  
Spiritual Wellness .  
Physical Wellness.  
Intellectual Wellness.  
Emotional Wellness.  
Environmental Wellness.  
Financial Wellness.  
Mental Wellness.  
Medical Wellness.

**WHO Dimensions of Health And Wellness**1.Overall good health and wellness are inter-dependent on five dimensions, namely physical, intellectual, emotional, social and spiritual.   
These good health parameters have been set by the World Health Organization (WHO) in 1948.   
Our body and mind are tuned to send us signals for any non functional activity, generally referred to as symptoms.   
It is important to read and understand them in time, to ensure balance of mind, spirit and body.

**Concept of Disease**  
**Sickness**: is a state of social dysfunction. Likes/ desire to remain away from social activities.  
**Illness**: is a subjective state of person who feels aware of not being well with evident signs and symptoms.  
**Disease process**  
**Disease**: is maladjustment (Physiological/ Psychological of the human being to its environment.)

**Epidemiological Triad of disease**  
Agent, Host, Environment.  
-(Stage of Equilibrium)  
The concept of disease is based on the concept of fire. Fire occurs when there is an interaction between factors: Oxygen, Fuel and Ignition.  
Similarly disease process starts, when there is an interaction between ‘Agents’, Hosts and Environment.

**Classification of factors of triad of epidemiology**

**Agent factors**

|  |  |
| --- | --- |
| Biological | Bacterium, virus, fungi, protozoa etc |
| nutritional | Iron deficiency, Iodine deficiency, high fluoride- etc cholesterol. |
| Physical | Heat, Frost, Humidity, Altitude, sound, electricity. |
| Chemical | Endogenous- lime acid, calcium, oxalates. |
|  | Exogenous- Allergens, insecticide. |
| mechanical | Friction, accident, trauma. |
| hereditary | Polycystic disease, sickle cell, thallacesemia. |
| social | Poverty. Illiteracy, alcohol /drug abuse. |

**Host Factor**: Age, sex, race, religion, behavior, believes and practices.   
**Environmental Factor**: Physical, Social, Climatic, Economic, Biological.

**Natural History of Disease**

**Interaction Of Agent, Host and Environment**

ENVIRONMENT

AGENT HOST

Pre-pathogenesis

Strong immunity, ineffective

Sickness dose of agent, unsuitable

Pathogenesis environment

Signs & Symptoms Effect neutralized

Illness Status of Equilibrium

Diagnosis and Treatment

Recovery Chronic stage

Disability Death

Source: http/hospiad.blogspot.com

Dr. N. C. Das

* **Concept of Prevention**  
  Prevention is always better than cure. As per the natural history of disease, epidemiology has derived 4 levels of prevention of Disease.  
  Level of prevention

Disease Prevention  
Primordial Prevention: It is a new concept emerging out, where efforts are made to prevent emergence development of risk factor, through change of food habits, smoking, exercise, naturopathy and yoga.  
Health Promotion: Through Health education, nutritional intervention, life style behavioral changes, regular exercises  
Specific Protection: Through Immunization, Chemo-prophylosis, Nutritional Supplements, Pollution free environment carcinogen noise control and standardization of consumer product control accident  
Early diagnosis and Prompt treatment: Regular Health Checkup of community, check up of children pregnant mothers and elder people. Health checkup of high risk groups like smokers, obese alcoholic sedentary worker and factory worker.  
Disability Limitation: Through proper exercise physio and occupation therapy. Corrective, plastic surgery to improve mobility.  
Rehabilitation: - Mental and Physical makeup to become productive.  
Occupational therapy depending on the nature and extend of disability.  
Establishing independence and status in the society

* Preventive medicine strategies are classified into the primary, secondary, tertiary and quaternary prevention levels. In addition, the term "primal prevention" has been used to describe all measures taken to ensure fetal well-being and prevent risk factors in any long-term health consequences.

**Summary of concept of Disease prevention**

Epidemiology has derived 4 concept of disease prevention.

|  |  |  |  |
| --- | --- | --- | --- |
| **Primordial prevention**.  1.Prevent emergence or development of risk factors. | **Primary prevention.**  1. Health promotion  2. Specific protection | **Secondary prevention.**  1.early diagnosis.  2. prompt treatment.  3. prevent complication | **Tertiary prevention.**  1.Disability limitation.  2.Rehabilitation. |