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Health Aspects of Habitable Dwellings for Low Income Groups

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The health implications for an individual, family or household groups would be incomplete if divorced from the totality of man's ecological environment. Man as an individual or in groups is continuously adapting to his ecologic environment whose outcome is either health or disease.

The major elements in this environment are physical, biologic and socio-economic. The adaptability of man in this environment depends on his genetic endowment and his acquired characteristics. Thus all men may be created equal but biologically they are not equal even for the newborn infants. In the course of growth and development of individuals, further differences, both biological and behavioral become evident. These differences whether inherent or acquired between individuals and between groups influence the occurrence of health and disease. Habits and customs can create unhealthy situations while in others they can lead to eradication of certain diseases.

#### HUMAN FACTORS IN HEALTH AND DISEASE

The human host factors that are important to healthful living or otherwise could be summarised as under:-

The first derives from the inherent and acquired characteristics that make the personality. Inherent characteristics may contribute to susceptibility or resistance to specific diseases like tuberculosis. Herd immunity is an important aspect of disease resistance. Customs and behaviour differ substantially between individuals and between groups. Both these aspects contribute to health and disease e.g. infectious hepatitis or tapeworms. The way groups or individual use water, diet and food handling habits, disposal of human excreta and personal and general hygiene may influence the course of diseases which use such vehicles for transmission and distribution. Forms of personal contact, household hygiene, occupation and recreational activities are also important in disease causation or avoidance.

The next important consideration is the host-agent interaction whose outcome may be detectable illness or no illness at all.

If the portal of entry by the pathogens is wrong or the defence mechanisms are adequate and well mobilised for a mop up operation, no disease would occur. Human host defence systems are geared to protecting the individual from the ever constant attacks by both innate and animate or indeterminate agents of disease.

Age, sex, family and in some cases ethnic or racial groups play an important part in the causation of disease. For example, poliomyelitis and measles are predominantly childhood disease due to lack of immunity and high risk of

exposure. Ethnic or racial considerations are usually blurred by environmental factors, behavioural patterns and racial prejudices. Familiar associations are compounded by environmental factors and closeness in households but there is evidence that some predisposing factors are genetically transmitted in cases where twins have been studied.

General health status, e.g. nutritional status and intercurrent infections are important in disease causation. It is boosted or lessened by the immunity and immunologic response of the individuals and of community groups.

### ENVIRONMENTAL OR ECOLOGICAL FACTORS

To those who are responsible for providing community services, it is imperative to appreciate that environment is an all inclusive term that embraces the entire ambient external to individual human host and so includes not only the agent but also host's fellow man. More explicitly, it includes physical chemical (innate) which includes geologic, geographic and climatic or meteorologic features; biological (animate) which comprises all fauna and flora (including pathogenic parasites and other living diseases agents) and lastly the socio-economic which includes among other things man's relation to his fellow man. This broad concept implies that disease or disease syndromes have multifactorial aetiologies unlike the "germ theory" at the turn of the centuries.

### PHYSICAL ENVIRONMENT

Climatic conditions which are governed by topography, water bodies, etc. determine the biologic environment and many aspects of human activities and consequently some disease determinants. Geography also influences the socio-economic environment like natural paths for overland travel, natural waterways, harbours which may determine population concentrations and location of industries.

Geologic factors like soil structure determine to a large extent the trees and food that can grow in an area and the animal life. Some disease cycles are determined by the nature of the soil and climatic factors. Geologic formation determines water table levels, fuel like coal and minerals.

### BIOLOGIC ENVIRONMENT

Biologic environment includes all living things, plants, animals, bacteria, and viruses. It influences human health favourably or unfavourably in many direct and indirect ways.