

HEALTH AND HABITAT

1 - Introduction

Habitat in simple term is man made living environment. It is his home, his neighbourhood and his urban setting at large. Those three successive space circles have direct effect on his well-being, in particular his health. The relevance to health of the habitat environment has long been established. Medical and urban planners became fully aware, long ago, of environment and health interdependencies. They came to believe that housing, in essence, is a sustained and specific 'health issue'. It was Florence Nightingale who once wrote "The connection between health and the dwellings of the population is one of the most important that exists".

Subject of housing and health was dealt with traditionally under such topics as sanitation, water supply, sewage disposal, or simply public health. Urban poverty, overcrowding, high population density and deteriorated housing conditions are further variables that are recently used in analysing disease and its prevention. Along with food and clothing, shelter has long been regarded as a basic need of human life. Beside providing protection against the stresses of natural environment and outside hostilities, it offers the adequate space for performing a wide range of essential human living activities. It also satisfies man's psychological need for security and a 'place' of his own as well as a focus for the basic social unit; the family. Appropriate housing layout promotes physical ties with the community and culture and helps for an integrated social life.

In brief, adequate housing conditions help to promote physical health, psychological well-being and social vigour. On the other hand poor housing conditions provide weak defence against diseases and death or even increase vulnerability to them.

II - Healthy Housing Conditions

In order to examine the health hazards that came with the fast and unplanned urban changes during the last four decades, basic requirements for a healthy housing environment should be clearly identified.

1 - Adequate supply of safe and potable water

Water in a reasonable quantity is required for personal and domestic hygiene. Dwellers must be protected against biologically contaminated water. Supply of safe and potable water assists in preventing the spread of gastrointestinal diseases as well as other infant and adult diseases. An estimate by the WHO indicated that 1200 million people lack access to safe water supply in 1990.

2 - Sanitary disposal of excreta

Sanitary disposal of excreta reducing the faecal-oral transmission of disease and the breeding of insect vector. An estimate by the WHO indicated that 1800 million people were without adequate sanitary facilities in 1990.

3 - Disposal of solid wastes

Adequate and safe disposal of solid domestic wastes reduces health risks and helps to provide a more pleasant living environment. Appropriate methods of storage and disposal discourage insect and rodent vectors of disease and protect dwellers against poisonous substances and harmful objects.

4 - Building design

Proper house design provides safe and comfortable space that shelters residents against extremes of climate and recurring hazards of nature. Natural ventilation and lighting should be adequate for people to function properly and to enjoy the human setting. Well designed and constructed dwellings, free of toxic and irritating substances, reduces the risks of chronic respiratory diseases and malignancies.

Interior space should be of enough area to house all family domestic activities without overcrowding or overlapping. Twelve meter square has been estimated as an optimum area per person in the developing societies, and occupancy rate should not exceed 1.2 person per room, to allow reasonable degree of privacy and comfort.

5 - Siting of dwellings

Residential neighbourhoods should be free from all causes of air pollution as industry, dust or excess of motors exhaust. They should be located far away from all sources of smoke or objectionable odors. The siting should reduce to a minimum exposure to noise and provide contact with greenery. The planting of vegetation in housing areas, trees along the streets, patches of greenery, helps to improve climatic conditions by absorbing dust, regulating humidity, reducing excessive exposure to sun and wind beside it adds a touch of beauty to the environment .

6 - Access to essential services and amenities

The housing environment should provide not only the services required for maintaining health and socio-economic activities such as water supply, sanitary disposal and control of pollution, but also a setting and amenities that promote the quality of life for both the individual and his community. Health and social services should be physically accessible for both preventive and curative purposes. Dwellers should have easy access to education, cultural and commercial facilities in their neighbourhood and in the central district of their city. The provision of space for play, sports and recreation and the encouragement of participation in communal activities promote a sense of belonging that contributes to personal health as well as community well-being.

7 - Reduction of psychological and social stresses

Adequate housing and a congenial habitat helps people's social and psychological development and minimize the mental and social stresses deriving from inappropriate dwelling environment . All through man's history, people have felt the home to be a refuge, a heaven from physical danger, from the rigours of everyday work and from the stresses of social interaction, a place for privacy, intimacy and self identity. Home provides a deep sense of personal and family security. In reality it is the birthplace of personality formation and emotional structure of the individual which will last with him the rest of his life.

III - Socio-Economic Changes

As direct result of socio-economic changes, urban setting has formed itself during the last four decades into new and unprecedented realities. The general world-wide social trends could be identified as follows:

1 - Population growth

Population has grown rapidly in the last half of the Twentieth Century , particularly in the Third World. The population of Egypt, for example, has tripled in that period. It increased from 20 million in mid-century to about 65 million towards the end of it. The fast increase of population is due mainly to the advancement of medical sciences and practice, and to the wide spread of medical services to cover all sects of the society, urban and rural. The considerable decrease of infant mortality rate has been coupled with continuous increase of life expectancy for both men and women.

Populations have grown at rates that outrun the pace of economic development with inequitable distribution of the benefits of this development. Distortion between population growth and economic development has led from time to time to social unrest and political instability. Housing programs seem to be unable to cope up with the growing needs of population particularly the pressing need of the newly formed families for separate and independent units.

2 - The general trend towards urbanization

Heavy investment in big urban centers, and uneven economic development have led to continuous migration from rural areas to urban centers. As a result, cities have grown far beyond their administrative capabilities and their planning mechanisms. Cairo as an example had 4 million inhabitants in 1950 and now it has four times as much; 12 million. The same is true with Alexandria and to a lesser degree with other smaller towns in the Delta and Upper Egypt. Most of the immigrants came without special training and satisfy themselves with marginal work. The transition from rural to urban life requires adjustment to radically different life style, occupation, social relationships coupled with disruption of family associations and ties. They

become more vulnerable and turn to be a social group with severe and costly urban problems.

Rapid and unprecedented urbanization has resulted in unplanned city growth and over-stretching of the infrastructural and institutional capacities of local governments to provide the necessary services. Inability to provide adequate housing forced the new comers to live in slum areas, squatter settlements and informal neighbourhoods. Urbanization is causing now a myriad of social and environmental problems in addition to the rapid disappearance of arable land and green areas around cities. With the inadequacy of services, the excess of noise, pollution and congestion and the absence of green and open spaces, the urban housing habitat is far from ideal.

3 - Social change

There has been persistent attempts by governments of the Third World to break social barriers between different classes of the society and open channels between them. New opportunities are opened in front of lower classes. New groups entered the housing market and looking for social services and amenities unexperienced by them before. The need for housing, education and health services has increased considerably in the last few decades. It must be noted that with the disappearance of the old order, the new order has not yet been fully emerged.

IV - Urban Distortion

In most part, the socio-economic changes were not directed through proper planning and administration. They were let to run their own course. Industrial growth was also often unplanned, resulting in location of industries in urban housing areas or in the periphery of towns. This further exacerbates the congestion and pollution already existing due to overpopulation. Inadequate housing spread in a large scale within and around the cities. Traditional housing neighbourhoods were invaded by professional and commercial activities with little regard to land use or zoning laws. The major feature of urban distortion is the widespread of the so-called urban slums, squatter settlements and informal neighbourhoods. In general, urban, industrial and housing development schemes proceed without much

consideration for the impact they may have on health and environment.

1 - Informal housing

Because of the absence of an effectively implemented master plan and because of the absence of real care for low income housing and with the increase of migration from rural areas to urban centers, informal housing spread on vacant land within and around the cities. Informal housing exists outside the formal process of land acquisition, building permits and formal planning and zoning. Consequently, it exists entirely outside official housing production. Houses were put up on small subdivision by owners of limited means without much regard to building codes, structural requirements or basic principles of architecture design. They lack adequate natural lighting and ventilation. The physical configuration of the settlement defies the fundamental rules of urban planning. Closely packed dwellings and narrow dark streets make these quarters inaccessible to vehicles and services. There are shortage in water supply and sanitation services and in solid waste management as well as total absence of open and green spaces. Informal neighbourhoods lack basic social services as education, health and recreation and also other essential civic and municipal facilities. Recent survey showed that 12 million Egyptians are living in such housing environment, 6 millions out of them are living in Greater Cairo alone.

2 - Marginal housing

Marginal housing are those areas used temporary for dwelling but were originally built for entirely other functions such as mosques, archeological buildings and cemeteries. Marginal housing includes also single rooms used for living by multiple families sharing bathrooms. The same room is occupied by all members of the family of different ages and both sexes. Birth, death and all family living activities are herded together in one tight space. Marginal housing is generally spread in the old quarters of the cities, where run-down structures and sanitary services are deficient. According to a recent study, 18% of Cairo families are living in marginal housing. This ratio goes up to about 35% in the old sections of the city and down to 5% in well-to-do communities.

3 - Squatter settlements

Squatter settlements are usually built on the fringes of cities, of mud or stone huts and tin or wood boards box-like shelters. This deteriorated environment is characterized by absence of any provision for sanitation, social service or civic facilities, severe overcrowding and a multitude of hazards to physical and mental health. The living condition is in effect a violation of all the principles of healthy housing .

The underlying forces that condemn people to informal housing, marginal housing and squatter settlements are poverty, inadequate socio-economic development, population growth and migration from rural to urban centers. Rooted in poverty with environmental hazards aggravated by the malnutrition and illiteracy of population, these settlements negate the very concept of public health and decent living. The inhabitants are exposed to overcrowding, filth and physical danger. The sources and vectors of disease are encouraged by the conditions in which people live: drinking and bathing in contaminated water, direct exposure to insects and rodents that breed in rotting refuse and breathing polluted air. Overcrowding, particularly in conjunction with poverty and inadequate facilities has been shown to increase the transmission rates of communicable diseases. Persons sleeping in close proximity in poorly ventilated rooms are more exposed to the spread of airborne infections. Housing situation in these settlements is not conducive to good mental health, which is related to the notion of home as refuge and to the socio-cultural functions of space. Overcrowding in dwellings, uncertainty of tenure, excessive noise, the struggle for survival, the fear of crime and other threats to physical security, discomfort and ugliness of the surroundings are frequent sources of psychological stresses. Lack of privacy and means supporting self identity and the continuous exposure to humiliation and suppression lead to aggression and personality disorder. These settlements turned to be a breeding ground for crimes and social diseases.

In brief, risks to physical health in inadequate housing conditions are compounded by the psychological and social effect of being defenceless and vulnerable, of struggling along on the edge of survival.

V - An Urban Health Agenda

With proper understanding of the importance of health and habitat interdependability, efforts should be directed towards two major compatible directions, scientific research and health program.

1 - Research

Much research is being conducted relevant to health and conditions of living space, neither the pace of scientific research nor its transfer into practical application has kept up with the rapidity of urban complexities. New knowledge about how living space and human health interactions actually operate, requires commitment to scientific study far beyond current level. Research into all aspects of habitat environment need to be intensified.

Important research area with specific focus on vulnerable urban settlement should include overcrowding, adequate living space, indoor hygienic conditions, social and psychological stresses, as well as natural environment and sanitary facilities. The complexity of the research area requires interdisciplinary efforts in the fields of health, medicine, sociology, architecture, engineering and urbanism. The research need to be provided with- in education, research and operational institutions.

Multinational cooperation is required to assess scientific priorities and sponsor research programs. Collaborative research program in areas of common interest might need the support of national governments and international agencies. The scientific approaches that find application in one urban location often are useful in other areas of the world. New communication networks are required to link international and regional research centers and facilitate communication among researchers and urban planners.

2 - Health program

Comprehensive program of health delivery should be developed whereby both prevention and care are placed within the context of a general environmental policy . The program should include the following:

- measures to prevent and respond to diseases resulting from poor urban and environmental conditions.
- developing within the community the knowledge, attitudes and practices required to improve personal and community hygiene.

- prevention and control of diseases related to air, water and soil pollution.
- improving indoor space conditions to ensure psychological health of the occupants.
- provision of basic sanitation facilities, water supply and garbage collecting.

The health program, in its planning and implementation should be tuned to the very special urban conditions of inadequate housing settlements as squatters and informal areas. To ensure its sustainability it should include community sharing and participation in all phases.

REFERENCES

- 1 - Health Principles of Housing
WHO, Geneva 1989
 - 2 - Environmental Health in Rural and Urban Development and Housing
WHO, Regional office for the Eastern Mediterranean, 1990.
 - 3 - Housing and Health, WF Bynum MD PHD
British Medical Journal, 1991.
 - 4 - Which way for housing and human settlements? Robin Philipp &
Neil Wood
World Health Forum Vol 13, 1992
 - 5 - Health in Housing and Urban Environment - Criteria, Methods
and Strategies.
Regional seminar, Damascus, Syrian Arab Republic.
WHO, EM/ES/409-E , 1990
 - 6 - Housing and Health, Dr Rederick J. Lawrence
Centre for Human Ecology and environmental Sciences
University of Geneva, Switzerland.
-