CHAPTER - X

EFFECTS OF ENVIRONMENTAL POLLUTION ON HUMAN HEALTH

Rapid industrialization and urbanization are two prominent phenomena in developing countries that have generated health hazards. Although health hazards were expressed by many scientists, the impact of such development on the status of health in urban areas have not been studied and quantified.

Urbanization has brought with it a host of problems, which has arisen as a result of industrialization, migration, crowding, pollution etc. Consequently, urban growth has left millions of people with inadequate homes, incomes, diets and services. Urban growth has outstripped municipal capacity to deal with solid waste collection and disposal with air pollution from road traffic, industrial activities and other sources, etc. It is likely that at least 600 million urban dwellers in the developing countries live in what might be termed “Life and Health Threatening” homes and neighbourhoods (WHO, 1992). Poor neighbourhood in urban areas has indicated high infant mortality rates (180/1000). This is largely because of crowded and cramped conditions that are common in most homes and neighbourhood of the poor. Here diseases such as tuberculosis, influenza and meningitis are easily transmitted from one person to another, their spread often being helped by low resistance among the inhabitants due to Malnutrition (WHO, 1992).

A Study of 100 slum households in 12 slums of Bangalore City covering all the ranges of the city indicates the following health hazards associated with poor and crowded neighbourhood. The personal hygiene in almost all the slums is very poor, which is reflected in clothing and living conditions. Hence slums are the houses for the both acute and chronic diseases like dysentery, intestinal disorders, cough, cold, fever etc. The chronic diseases like tuberculoses, nerve weakness, asthma, cancer, heart attach and gastroenteritis are reported in Anandapuram. Ashoka talkies, Maharaja mills and Agrahara dasarahalli slums.
Besides health hazards as a result of poor housing and unhygienic conditions where there is a dominance of infectious diseases the citizen of Bangalore City faces numours hazards arising as a result of urban growth and consequent pollution. Industries have know to have created health hazards to the people though difficult to direct studies on a single cause for the rising incidence of diseases such as respiratory diseases especially asthma. Factors such as air pollutants, allergic pollen dust, parthanium, etc., are also known to cause allergies. Industrial pollutants from both large and small-scale industries as indicated in chapter no. 6 are known to diseases such as hypertension, metabolic acidosis, blood cancer, skin cancer, diarrhea, genetic mutations, acute renal discharge etc. (Shivaram, 1992).

Of all the citizens exposed to pollution and health hazards the most significant are the traffic policemen. The traffic constables are exposed for at least 8 to 10 hours to industrial and automobile pollution. Hence a study on the health of 50-traffic personals aged 25 to 50 was made in the city. Due to want of time the sample was restricted in size. The study revealed that the traffic policemen suffered from allergies, respiratory problems, headache, backache, pain in the neck and arm, problems related to burning eyes, ear ache etc. Pollution had revealed not only one occupational health hazard, but also a whole chain reaction which affected the overall health of the traffic policemen. A detailed study is indicated below.

Most of the respondents are uneducated youths aged between 25-35 and almost 44 percent of the respondents have SSLC and 50 percent of the respondents have PUC as their basic qualification. It is obvious that unaware of health hazards involved these policemen forced have taken it as their profession.

It is evident from the study that about 22 percent of the traffic policemen have a monthly income of less than Rs. 5000 and 60 percent between Rs. 5001 to Rs. 8,000 per month. A majority of 60 percent are living in the rented houses, 30 percent staying in government quarters and rest in their own house. Almost all the respondents living in the rented house, facing severe problems like over congestion, crowding and unhygienic conditions similar to an urban slum area due to their low income.
About 33 percent of the respondents have specific problems like allergies and pain in the legs in all age groups. The reason behind these hazards is exposure to air pollutants and continuously standing during duty hours. About 16 percent of the respondents have complained of pain of the arms, neck and back towards the last few hours of their duty.

**Occasional Health Problems**

Allmost all respondents frequently experience common problems of suffering from headache. About 20 percent of the respondents have the problems like burning sensation, watering in their eyes and respiratory problem. About 14 percent of the respondents feel the suffocation at traffic junctions. The reason for this may be attributed to continuous exposure to air pollutants especially SPM, SO2, CO, etc., which are emitted from the continuously vehicular traffic in the city. About 20 respondents suffer common cold and cough very frequently. Continuous exposure to air pollution have reported cases of breathlessness when coughing. Two of the respondents have reported chronic lung diseases.

About 25 respondents have reported problems of ear ache. The reason for this is the continuous exposure to the noise generated from vehicles and horn blowing. A majority of the policemen (80%) visit government hospital and rest to the private practitioners for treatment.

**Concept Of Healthy Cities**

Over crowding, intense mobility, environmental pollution and lack of urban services pose challenges in urban settlement (Aggarwal, 1996). This with the lack of sanitation, inadequacy of water supply, insufficient solid waste disposal etc., have given rise to many water borne disease-especially in slums and low income areas. The healthy city's concept promoted by WHO in 1986 largely in the developed countries and more recently in developing countries has tended to evolve health strategies to reduce health burdens in their own population. The concept needs to take holistic view of health by interactions of social, economic and environmental domains of our settlement for better
health. Here NGO’s, CBO’s and private sector communities should help in building the city’s resources to achieve a healthy city. All these institutions can build the city’s resources by adopting and monitoring inventions in three domains (a) Physical and emotional health, (b) Sustainable environment and (c) Livelihood and prosperity, the health conditions of all people can be improved and sustained (Aggarwal, 1996).

CONCLUSION

Environmental changes due to pollution from all sources have definite impact on health in giving rise to both infectious and chronic diseases which affect mortality pattern. Attempts have been made in this chapter to study the impacts for both these aspects of health, but result had not been very obvious. Nevertheless studies on a cross section of the slums and the traffic personal that are most exposed and vulnerable to pollutants have been studied as an exploratory sample. The results revealed that slum dwellers were more prone to infectious diseases due to low standard of living conditions and poor hygiene, while the traffic policemen was faced with a number of chronic health problems ranging from headache, bodyache to alargies and these pertaining to respiratory and lung diseases. If time had permitted attempts could have been made to make detailed studied for better results.

Reference


SHIVARAM CHOODIE (1992), “Bangalore’s Toxic Sewage”, Deccan Herald, June 12, P.IV.
