



It is well known fact that the man is controlled by the nature in which he resides. The environment shapes the health of the individual and of society. A disease occurs and spreads out of specific conditions of environmental set up, which cannot be drastically changed. Disease is nothing but a disturbance in the delicate balance between man and his environment. The nature, occurrence and spatial distribution of a disease invariably depends on the socio-cultural elements which are subject to modifications. Indeed, man is a product of socio-cultural environment and environment is itself shaped by man and his activities. Hence environmental factors (physico-socio-cultural) are responsible in spreading the diseases in the community.

The work undertaken by the author in the field of 'Medical Geography of Vidarbha Division' is mainly explaining the relationship between environmental factors and distribution of major diseases in the Vidarbha division.

While studying the environment and its effect on the distribution of diseases in Vidarbha division, it is found out that the low death rate is remarkably found in the southeastern and northeastern hilly region of Buldhana and Amrati districts and in the hilly areas of Bhandara district. The river plains show high incidence of spread of many diseases. The water-borne diseases show their higher prevalence in the river basins of Wardha-Wainganga, Purna and Painaganga river valleys. It is also

found that climate plays an important role in distributing the diseases seasonally.

While studying the impact of socio-cultural factors, it is noted that number of deaths in the working age group (15 to 59 age group) and that of old age above 60 years are increasing rapidly.

Comparatively, the infants and young population is much more safer in the Vidarbha. It is interesting to note that 1 to 14 years age group of male and female is the most safest age group as the occurrences of number of deaths are minimum. Due to negligence of parents in taking health care, the female deaths in the age of 1-14 years are much more than the male of same age. It is also observed that maximum infant deaths are occurring within one month of their lives. Systematic propoganda of health education, increase in percentage of literacy, facilities of immunization and vaccination to the children and availability of special clinics for mother and children are specifically needed in the villages so as to reduce the high incidence of existing infant mortality. Working population is much victimised by certain diseases like T.B., Cancer, Diarrhoea, Pneumonia and Tetanus. Atmospheric pollution, mining activities and use of unsafe and polluted drinking water is mainly responsible for spread of these diseases in the region. The maps of districtwise and citywise cause specific death rates and the ranking techniques show that diarrhoea, tuberculosis

and cancer are the major diseases of all ages of people in Vidarbha division. The causation and spread of the respiratory diseases is much more in the major cities of the Vidarbha division. Deaths due to tetanus and pneumonia cannot be ignored as they occupy the dominant position in the ranking list. The dominance of these diseases might be the result of atmospheric pollution, mining and agricultural activities conducted in the region.

The study of spatial patterns of diseases in cities has proved the direct relationship between altered environment and spread of selected major diseases. The overcrowding, urban pollution due to rapid industrialization, mining activities, the improper sanitary provisions are the predisposing factors for the spread of T.B., Cancer, Diarrhoea, Pneumonia and Tetanus in the major cities like Nagpur, Kamptee, Yeotmal, Amrati, Bhandara and some others. Deaths due to T.B. and Cancer are increasing every year in much of the cities of Vidarbha. Wardha is the city where deaths due to tetanus are highest in order of importance. In the disease-wise ranking of cities, Yeotmal city ranks first amongst all the 18 cities of Vidarbha division. Highest deaths have been recorded due to T.B., Diarrhoea, Leprosy, Cancer and Tetanus in the Yeotmal city. It also ranked first in the case of general death rate amongst all other cities.

Bhandara, Amrati, Akola, Chandrapur, Khamgaon and Nagpur are the cities where deaths due to all diseases are also much more

in number. Deaths due to water-borne diseases like diarrhoea and jaundice occur more in much of the cities. Even today the cities are not getting safe, unpolluted water for drinking purpose. Basic sanitary provisions are below the average in many of the cities. Underground drainage system is found only in the cities like Nagpur and Kamptee.

The pattern of existing health care system of Vidarbha shows uneven distribution and the number of facilities are far deficient to the requirement of the people. Although Vidarbha division has recorded considerable growth in the medical facilities in last few decades, it's uneven distribution has created regional disparities. The disparities might be responsible for higher increase in morbidity and mortality rates. The heavy concentration of medical facilities is observed in the big cities as they possess more than their fair share. Nagpur, Wardha and Amraoti districts are better served by medical facilities and they are in surplus than their requirements. While Buldhana, Akola, Yeotmal, Bhandara and Chandrapur districts are getting less medical facilities than their fair share. The districts, in which percentage of urban population is more are having good medical facilities. Large number of villages of almost all districts have to rush to adjoining cities for simple and basic treatment. In general, better medical facilities are available only at district headquarter or in few major cities of each district. Many of the villages are deprived off basic

health aid and medical facilities. Primary health centres are not sufficient and good enough to serve the demands of villagers. Water-borne diseases are found in the epidemic form in the villages. Deaths due to Diarrhoea, Cholera, Jaundice and Tetanus can be observed more amongst the illiterate poor population. It is necessary to give more attention towards the health of villagers in this region. The deaths by T.B., pneumonia and cancer are increasing every year, in the cities. Systematic and planned efforts should be made in controlling these diseases. The increasing rate of air pollution due to industrialization, illiteracy, ignorance about health measures, expansion of mining activities, lack of sanitation, non-availability of safe and unpolluted drinking water, injuries in the activities of agriculture and low standard of living might be some of major factors behind the high death rate of T.B., Pneumonia, Cancer, Tetanus and major water-borne diseases. These rural health problems may be partially solved by providing more medical facilities in the villages. There is a need of diversifying the medical services or at least the new services may be established in the areas where they are badly needed instead of concentrating them in the cities who are already heavily saturated.

The districts like Bhandara, and Chandrapur required more medical facilities for proper treatment. The labour population, who are engaged in ginning, pressing factories and in mining activities are more susceptible to cancer, pneumonia

and T.B., hence proper medical aid and labour hospitals should be located at factory site. To minimise the time and distance between patient and dispensary, there is a urgent need of increasing the number of primary health centres and rural hospitals. These medical services should be properly linked at lower hierarchy, so as to create more effective and prompt medical help to the villagers.

For improving the health status of the Vidarbha people the following measures may be taken up by health planning authorities.

- 1) Supply of safe and unpolluted drinking water to all people of the division.
- 2) Health planning may be based on population distribution and as per their needs and demands.
- 3) Separate clinics for kids and mothers are badly needed in the rural areas of the region.
- 4) The prompt, proper and timely immunization and vaccination may be made available to all the children especially residing in villages.
- 5) Attention should be given towards providing good sanitation facilities in every village and town.
- 6) Proper health education to the villagers and people of low economic group, residing in towns is needed.
- 7) Hospitals and health centres should be located at central places and there should be proper linkage between the lower order centres and upper order centres providing health care system.

- 8) There is an urgent need of diversifying basic preventive and curative services in the rural areas rather than concentrating them in the few cities.

The aforesaid suggestions, if brought in practices, may solve some of the existing problems about the health standard of Vidarbha region.