



MEDICAL CARE AND POPULATION

INTRODUCTION

Population growth refers to the growth of human population for a particular time and space. Population growth determines density, general distribution of population as well as population composition. It shows that 1950 onwards population growth is more distinctive between developed and developing countries. The world population has risen dramatically over the past century. The rapid growth in population is stressing health care resources the world over. Population is growing fastest and health care tends to be even less available in developing nations. There are older people, who typically have a greater need for health care.

As populations continue to grow and age, there will be increasing demand for acute curative services responsive to life threatening emergencies, acute exacerbation of chronic illnesses and many routine health problems that required prompt action. Emergency interventions and services should be integrated with primary care and public health measures to complete and strengthen health systems.



Mendelson and Schwartz (1993) blamed population ageing for the increase in health care expenditure. Since health care expenditure is a rising function of age – from the age of 60 onwards it takes the form of an almost exponentially rising curve – part of the increase in healthcare expenditure may, in fact, be due to population ageing.

MEDICAL CARE

Medical care is the maintenance and restoration of health by the treatment and prevention of disease especially by trained and licensed professionals. This may be done with surgery, the administering of medicine, or other alterations in a person's lifestyle. These services are offered through a health care system comprising of hospitals and physicians.



FUNCTIONS OF MEDICAL CARE

Medical care serves different distinct functions. It deals not only with problems of disease and injuries, but also with problems of birth, death and living. It also helps maintain the society in other ways, complementing the functions of schools, courts, law enforcement and other systems concerned with the abilities of individual persons to conduct their life in society. Medical care has several important functions other than restoring or maintaining health. These other functions are assessment and certification of health status, segregation of the ill to limit communication of illness and helping to cope with problems of illness. Thus, functions of medical care include:

1. Assessment of health status.
2. Separation of the ill from the well.
3. Care- helping to cope with illness.
4. Curing of illness.

5. Prevention of illness.

IMPORTANCE OF MEDICAL CARE

Medical care has great contribution in improving many people's functional ability and quality of life. It has increase the life expectancy of people all over the world. Mortality has greatly reduced due to the new discoveries of medical science. The greatest gains in life expectancy are treatment of cardiovascular diseases, diphtheria vaccination of children, treatment of diabetes, appendicitis, pneumonia and influenza. So, medical care is perhaps making the greatest contribution by improving the quality of life for people afflicted by disease.



Emergency medical care may crop up anytime and anywhere. It aims to provide the health to a person or many people while stuck in an unpleasant and unprecedented event. Emergency medical service should be active 24 hours a day.

POPULATION

Population means the numbers of peoples in a geographic area. Over the 300 years, the population of nearly every major area in the world has increased exponentially, so much so that certain places have instituted incentives to couples who agreed to have fewer children. Population has five important characteristics:

1. Population size and density-

Total size is generally expressed as number of individuals in a population and population density is the numbers of individuals per unit area or per unit volume of the environment.

2. Population dispersion or spatial-

Dispersion is the spatial pattern of individuals in a population relative to one another.

3. Age structure-

In most types of population, individuals are of different age. The proportion of individuals in each age group is called age structure of that population.

4. Natality (Birth rate)-

Population increases because of natality. It is simply the production of new individuals by birth.

5. Mortality (Death rate)-

Mortality means the rate of death of individuals in a population.

POPULATION EXPLOSION

Population explosion refers to the sudden and rapid rise in the size of population. It is not only a problem in India but has also reached a menacing proportion all over the world, especially in the poorer countries. In a developing



country like India, population explosion is a curse and is damaging the development of the country and its society. Overpopulation tends to increased poverty, malnutrition and other population related problem.

CAUSES OF POPULATION EXPLOSION

The main factors affecting the population change are the birth rate, death rate and migration. The recent increase in the world population is due to the increase in birth rate as a result of medical improvement and the decrease in death rate. The current rate of population growth in India is 1.58 percent and the total fertility rate is 3.11. The amount of resources that could have been available to one person a few years ago now need to be shared between two people which is not sufficient for either of them. The population increase has lead to air and water pollution, unemployment, poverty, lack of educational resources and even malnourish women and children.

MEASURES TO CONTROL POPULATION EXPLOSION

The Government of India has been organizing several programs for limiting the population increase and has been expending millions of dollars in controlling the birth rate. Some of the programs have been successful and the rate of increase has also reduced but has still to



reach the sustainable rate. Strict birth control measures like in China can be followed to decrease the birth rate. Several government funded agencies like the Family Planning Association of India spend thousands of dollars on promoting family planning. These organizations aim to promote family planning as a basic human right and the norm of a two-child family on a voluntary basis. However, the success of the family planning program in India depends on several factors like literacy, religion and region where the couple live.

POPULATION AND HEALTH

The world population explosion is straining medical care resources and access. If there are more babies born then there is greater need for all the resources required to prevent and treat illness. As the population of the world increases the demands upon the medical care system are increasing, which is costing more money and resources. If the basic resources of life - water, food shelter and clothing - are not met, people are more likely to get sick, putting a greater burden on the medical care resources. Population growth increases medical care costs through increased healthcare utilisation and the need for healthcare expansion.

The world population explosion can lead to habitat destruction and resources depletion, which creates unhealthy living environments for those same populations by damaging the ecosystems that support them. It is a 'double' problem in the sense that on one hand there are less resources for people to live a healthy life, and on the other there is less access to medicine for the resulting ailments.



Thus, the rate of population growth affects long-range planning of community health and medical facilities. Alterations in age composition, internal migration of racial or industrial groups, changes in population density and urban-rural movement require current adaptation of the health program to solve the new problems thus created. Among the various characteristics of recent population trend, aging of the population is one of the most fundamental in its bearing on national health. The social and economic effects of an aging population have long been recognized. Dr. Louis I. Dublin appraised the problem of old age in some detail in 1926, when the

provision of economic security for the aged was the dominant theme of contemporary discussion.

HEALTHCARE DEMAND

The demand on the medical care system is not the same around the world. One reason for this is that population growth is greater in poorer (underdeveloped) nations. In wealthier developed nations (like Canada and the United States) there are more medical care resources and less population growth. Thus more babies are being born in places with less resource to care for them, like India. India is the second most populous country in the world.

Another manner in which the population influences demand in medical care resources is in terms of the age of the population. The greatest need for medical care comes in the last few years of a person's life. Elderly people tend to have far greater medical care needs than young people. Local population factors,

such as where people choose to live also impacts the quality of and access to medical care. People all over the world are migrating to cities seeking employment and a better life, and consequently urban populations are growing. Not all cities are ready for this population growth, so the migration results in the creation of crowded slums. These are generally unhealthy places, with inadequate water and sanitation which has a negative impact on health. However, cities often provide greater access to education or medical care both of which are associated with better health of a population.



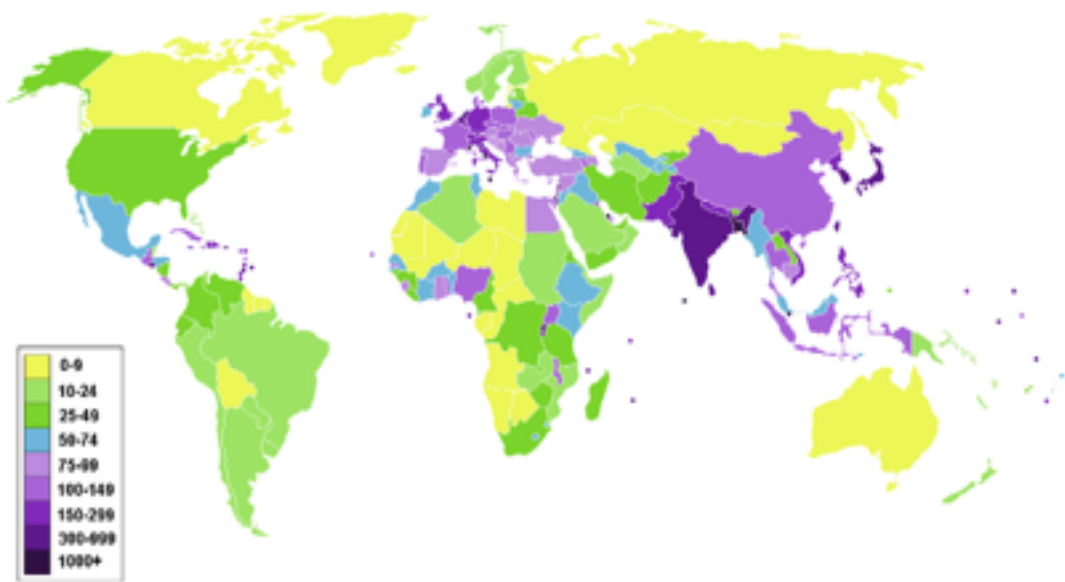


Figure: Countries of the world by population density in people per km². India (dark purple) is among the most densely populated countries in the world. This has an impact on access to medical care for the people of India (Source: Wikimedia Commons).

IMPACT OF THE AGEING POPULATION

The impact of the ageing population on medical care services is hard to predict. It may lead to increased costs or the growing number of older people may create new economic and social opportunities. There are many factors suggesting that the ageing population will increase costs such as-

1. The annual costs of medical care are significantly greater for older people.
2. The number of elective and non-elective hospital admissions for older people has increased more rapidly than the growth in absolute numbers.
3. Current projections suggests that a high proportion of older people in the future will be living on their own and are therefore likely to acquire formal care.

4. The number of older people with care needs is expected to rise by more than 60 percent in the next twenty years.

BOON AND CURSE OF MEDICAL CARE

The fall in death rates that is decline in mortality rate is one fundamental causes of overpopulation. Owing to the advancement in medicine, man has found cures to the previously fatal diseases. The new inventions in medicine have brought in treatments for most of the dreadful diseases. This has resulted in an increase in the life expectancy of individuals. Mortality rate has declined leading to an increase in population.

Owing to modern medications and improved treatments to various illnesses, the overall death rate has gone down. The brighter side of it is that we have been able to fight many diseases and prevent deaths. On the other hand, the medical boon has brought with it, the curse of overpopulation.

New discoveries in medical science have been able to bring in an increase in the fertility rates of human beings. Medicines can boost the reproductive rate in human beings helping in conception which results in an increase in birth rate. This is certainly a reason to be proud of and happy but advances in medicine have also become a cause of overpopulation.

CONCLUSION

The root of overpopulation is the difference between the overall birth rate and death rate in populations. Medical advancement is perhaps the biggest reason why the balance has been permanently disturbed. Medical science made many discoveries that were able to defeat a whole range of diseases. Illnesses that had claimed thousands of life till now were cured because of the invention of vaccines. Combining the increase in food supply with fewer means of mortality tipped the balance and became the starting point of overpopulation.

So, one of the most important measure to control population is through education. Educating the masses helps people especially in a developing country like India understands the need to have only one or two children at the most. Family planning and efficient birth control can help women in making their own choices. As population of this world is growing at a rapid pace, creating awareness and letting them know about sex education is an important approach.