Tuberculosis in India

India has been stated to have the highest incidences of Tuberculosis (TB) in the world, producing up to more than a quarter of the global diagnosis. Determinants of TB in India can be grouped into social, environmental and political factors and in this write up we are going to explain the determinants and the measures that have been put in place to curb the disease and how they work in different income countries.

Some of the social determinants of Tuberculosis in India are discussed as follows. High population in India increases the chances of the spread of tuberculosis. TB is an airborne disease meaning it is transmitted through air when people breathe in infected air. The bacteria travel through air and other substances such as utensils. The population in India is among the highest populations in the world. This means overcrowding at social places and work places for example, schools, hospitals and offices. This increases the chances of TB spread because of poor ventilation and high exposure to the infected people.

Poverty has also increased the rate of transmission of TB in India. Poverty is accompanied by malnutrition because many families cannot access proper food due to high demand for the food and the jibs which could provide money for buying the food. The high population also affects agriculture because most of the land is occupied. The malnutrition increases the susceptibility of the victims to diseases and more importantly in this case, tuberculosis.

Late diagnosis has also been a major determinant in the Tuberculosis spread in India. The patients might be poor and cannot access transport means to the health care facilities on time, or they might fear stigmatization which might come with the positive diagnosis of the disease. Some of the people also lack the social support needed to help them go to the health care facilities to get some help on the disease.

With HIV being a major global concern, HIV/AIDS is also prevalent in India. HIV weakens the immune system of the patients hence allowing attack of other diseases which are collectively called opportunistic diseases. TB is one of the common opportunistic diseases and this affects many HIV patients in India causes the high prevalence of the disease.

Environmental factors that determine tuberculosis in India are discussed as follows;

Air pollution has been a major concern in India following the presences of industries and overpopulation in the country. The pollution of air exposes people to many bacteria and other microorganism that are disease-causing. Through this pollution, many people have been exposed to Mycobacterium tuberculosis which is the bacteria that causes TB.

Poor ventilation of places such a schools, offices, homes and entertainment places such as club s and bars have led to an increase in the spread of TB in India. The transmission through air is faster if the air is not in much motion due to poor ventilation.

Illiteracy and ignorance has had an impact on the spread of Tb in India. Some of the citizens of India are not aware of the symptoms of the disease. This affects diagnosis as they cannot know when to seek medical assistance.

Taking of unpasteurized milk has led to the infection of several people by the bovine TB. This is partly due to lack of knowledge and the poverty in the area.

Migration leads to an increased rate of TB in India. Migration is also related to poverty as poverty leads to the people moving from one side of the country to the other in the search of greener pastures. In the process, these people are exposed to the disease more than those who stay at specific points for long periods.

The occupation of the people in India has also been a determinant in the spread of the diseasae. Farmers for example, are more susceptible to tuberculosis compared to other professionals. Other people more exposred to the disease are the people who work in factories and industriualized areas. The pesticides for farmers, and chemicals released in industries are usually inhaled by the people. These chemicals affect the immune system of the victims making them more susceptible to respiratory diseases such as TB.

The World Health Organization (WHO) seeks to eliminate TB in India. By elimination, the mean to have one person infected by TB out of a population of 1 million. The National Strategic Plan 2017-2025 by the Indian government seeks to eliminate TB in the country by 2025. The government is also working to link the private health sectors to the National TB program because most people in India opt for these sectors than the public sectors. The people opt for these sectors because they desire privacy and confidentiality and are also not aware of the benefits provides by the public sector.

The WHO is also working to reach out to the less fortunate in the marginalized areas of the country, the migrated areas and the migrating populations to test and diagnose Tb and thereafter provide health care to them.

The governments in different countries are offering testing of TB in order to find the infected people and treat them with medicine to stop the infection from spreading because the medicine reduces the risks of spreading the disease to others, this method has been effective in high income countries such as the United States. Some countries mostly the low income and the middle income ones are struggling with the methods due to lack of funds.

Building of properly ventilated houses and other buildings in order to minimize the spread of TB has been effective in most countries except the highly populated low income countries because poverty and also the high populations. Building a well-ventilated house for the large family numbers would require a lot of money and land too.

Vaccination. This has been adopted by many counties including the low income countries. In many countries where TB has not already been eliminated, the infants and new-borns are vaccinated I immediately after birth to prevent them from getting infected by the disease. This method has been very effective in minimizing the spread of the disease.

Some governments have provided masks for people living and working next to factories and industries that release harmful substances to the environment. This has minimized TB infections in those areas greatly. This method is quite expensive because not all countries have enough resources to provide such services.

Education has also been of help in reducing he spread of Tuberculosis. Most countries offer TB education in hospitals and schools to inform the citizens on the symptoms and prevention methods. Knowledge of the symptoms enables people to know when they are sick and need medical attention. They are also taught how to minimize the spread of TB and also how to prevent contracting it. They are informed on the importance of ventilation in the houses, having masks while working in some factories and industries, the industries are also governed on the disposal of their waste especially the gaseous waste products. The mothers are taught the importance of taking their infants for TB vaccination to prevent them from being infected. The people with HIV are provides with cheap ARV drugs to minimize the spread of TB and also to prevent the contraction of it. People are also taught on the importance of preparation of food properly especially milk which could lead to spread of bovine TB if not handled properly.

The development in control of TB worldwide has grown tremendously. Directly Observed treatment-short course in India is the largest and covers the largest number of people in terms of providing treatment. This improves the control of the spread of TB. The WHO is also involved in the control by funding the treatment and overseeing development of treatment all over the world. The highest countries with TB are moistly found in Africa with 13 among the highest 15 coming from Africa. The highest mortality due to TB is also found in Africa due to poor treatment facilities and treatment as a whole, lack of funds for the prevention and also lack of knowledge and vaccination for other countries. The people lack knowledge on how to prevent TB and also the symptoms so that they can go for early diagnosis and treatment before they become worse. HIV has led to the increase in TB all over the world as an opportunistic disease and the pandemic is already impossible to contain because no cure has been found yet. The methods used to control TB all over the world are really effective as the improvement shown is really big and the WHO is working with the governments to make sure elimination is done in the next few years.

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