



Title : Communicable Diseases in Public Health

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Communicable or infectious diseases are major threat to the public health all over the world including India. A communicable disease is an illness due to a specific infectious (biological) agent or its toxic products capable of being directly or indirectly transmitted from man to man, from animal to man, from animal to animal, or from the environment (through air, water, food, etc.) to man. These agents can be bacteria, viruses, parasites, etc.

The most common infectious diseases in India are respiratory diseases (Tuberculosis, Influenza, common cold, etc.), diarrheal diseases (like Cholera, typhoid, rotavirus, etc.), sexually transmitted diseases (like AIDS, Syphilis, etc.), vector borne diseases (like malaria, filariasis, etc.).

It is very important to understand changes of the pattern of infectious diseases in the community to eliminate and control the factors affecting the contamination and spreading process.

Also there is possibility that some chronic diseases have an infective origin. There are certain unique features of these Communicable diseases, e.g., a case may also be a source and some people may be immune. Preventive measures need to be planned scientifically on urgent basis.

Communicable diseases often have a chain of infection. The starting point for the occurrence of a communicable disease is the existence of a reservoir or source of infection. Then there are various modes of transmissions like direct (droplet, skin contact, STDs, etc. and indirect (air, water, food, vectors, etc.). An infectious agent seeks a susceptible host who is not immune. Once we know this chain for a particular communicable disease, we can identify weak link and then break so that further transmission of the disease can be prevented, controlled, eliminated or eradicated. We have so far been able to eradicate only Smallpox from the entire world. Poliomyelitis, Guinea worm infestations are few diseases which are on the verge of eradication.

Food and nutrition also plays very important role in the entire chain of transmission of the communicable diseases. Food and water borne infections are the major problem in both rural and urban (especially slums) India. Malnutrition (either under or over nutrition) reduces the immunity and makes human being susceptible to these diseases. Bad habits related to food and sanitation (e.g., eating junk food, not covering the prepared food, not washing hands before eating food, etc.) are the main cause of various communicable diseases. There is a need to provide proper information, education and communication (IEC) to common man, policy makers, and implementers to reduce the burden of infectious diseases.

There are newer challenges coming along with unfinished agenda of eradicating several communicable diseases. Drug resistance tuberculosis is a major threat to Indian population today. Very few new drugs and vaccines are being discovered which are effective and efficient against these resistant type of tuberculosis.. Developing countries like India are still focusing on secondary prevention (early diagnosis and treatment) and tertiary prevention (disability limitation and rehabilitation) rather than primary prevention (health promotion and specific protection) and primordial prevention. If India is able to eliminate poverty through overall socio-economic development, improve the sanitary condition then prevention of various communicable diseases can be under control.