

Biology Class 12 NCERT Solutions: Chapter 8 Human Health and Part 1

Q.1 What are the various public health measures, which you would suggest as safeguard against infectious diseases?

Answer:

Public health measures are preventive measures which are taken to check the spread of various infectious diseases. These measures should be taken to reduce the contact with infectious agents.

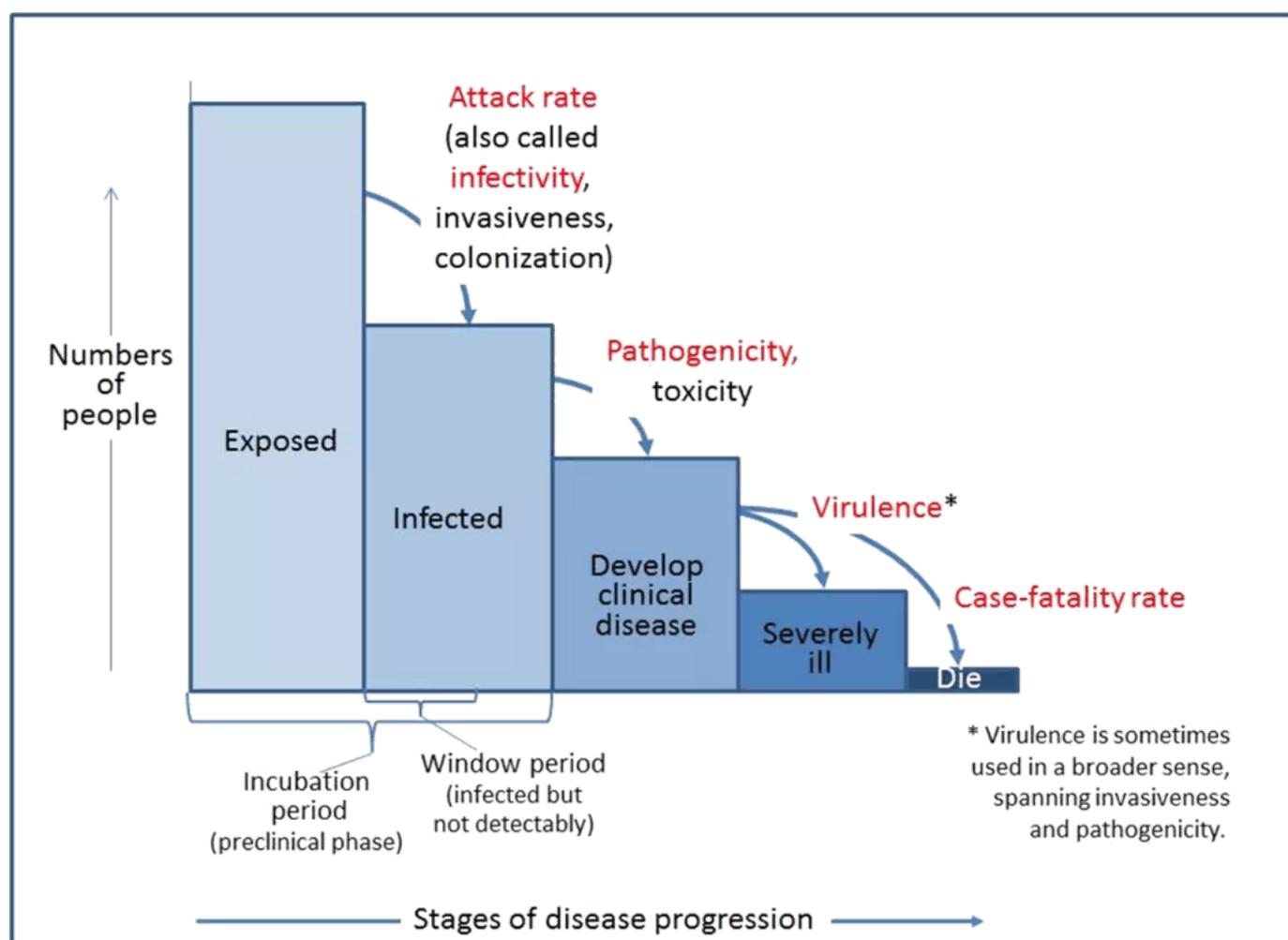


Image of Infectious Diseases

Some of these methods are:

1. Maintenance of personal and public hygiene: It is one of the most important methods of preventing infectious diseases. This measure includes maintaining a clean body, consumption of healthy and nutritious food, drinking clean water, etc. Public hygienic Includes proper disposal of waste material, excreta, periodic cleaning, and disinfection of water reservoirs.

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2. Isolation: To prevent the spread of air- borne diseases such as pneumonia, chicken pox, tuberculosis, etc., it is essential to keep the infected person in isolation to reduce the chances of spreading these diseases.
3. Vaccination: Vaccination is the protection of the body from communicable diseases by administering some agent that mimics the microbe inside the body. It helps in providing passive immunization to the body Several vaccines are available against many diseases such as tetanus, polio, measles, mumps, etc.
4. Vector Eradication: Various diseases such as malaria, filariasis, dengue and chikungunya spread through vectors. Thus, these diseases can be prevented by providing a clean environment and by preventing the breeding of mosquitoes. This can be achieved by not allow mg water to stagnate around residential areas. Also, measures like regular cleaning of coolers, use of mosquito nets and insecticides such as Malathion in drains ponds, etc. can be undertaken to ensure a healthy environment. Introducing fish such as Gambusia in ponds also controls the breeding of mosquito larvae in stagnant water.

Q.2 In which way has the study of biology helped us to control infectious diseases?

Answer:

- Various advancements that have occurred in the field of biology have helped us gain a better understanding to fight against various infectious diseases.
- Biology has helped us study the life cycle of various parasites, pathogens, and vectors along with the modes of transmission of various diseases and the measures for controlling them.
- Vaccination programmes against several infectious diseases such as small pox, chicken pox, tuberculosis, etc. have helped eradicate these diseases.
- Biotechnology has helped in the preparation of newer and safer drugs and vaccines. Antibiotics have also played an important role m treating infectious diseases.