

## A Comprehensive Review of Causes, Prevention Strategies, and Global Impact of Communicable Diseases

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### **Abstract:**

Communicable diseases are a significant public health concern worldwide, and their transmission is influenced by a complex array of factors, including environmental conditions, human behavior, and socioeconomic conditions. Geographical studies of communicable diseases can provide valuable insight into relationships between these factors and disease transmission, prevention, and control strategies. The primary objective of this research paper is to investigate the causes, prevention strategies, and global implications of communicable diseases.

### **Introduction:**

Communicable diseases can be classified into many types based on their transmission, motivational agent or other characteristics. Infectious diseases, also known as infectious diseases, are diseases that can be transmitted from one person to another, including direct contact, airborne transmission, and vector-borne transmission. These diseases have been a major public health concern for centuries, and their causes, prevention strategies, and global effects are important to control their spread.

### **Types of Communicable Diseases:**

Communicable diseases can be classified into many types based on their transmission, motivational agent or other characteristics. There are some common types of communicable diseases here.

#### **Bacterial Diseases:**

Tuberculosis (TB): A bacterial infection that mainly affects the lungs, but can also affect other parts of the body. Pneumonia: A bacterial infection that provokes airway infection in the lungs, causing cough, fever, and difficulty in breathing. Meningitis: A bacterial infection that inflames the protective membrane (meninges) around the brain and spinal cord.

#### **Viral Disease:**

Influenza: A viral infection that affects the respiratory system, causing symptoms such as fever, cough, and body pain. HIV/AIDS: A viral infection that attacks the body's immune system, making it difficult to fight other infections and diseases. Hepatitis: A viral infection that affects the liver, causing symptoms such as jaundice, fatigue, and loss of appetite.

#### **Fungal Disease:**

A fungal infection that affects the skin, causing a circular rash along the edges of the red, crusty skin. Candidiasis: A fungal infection that can affect different parts of the body, including the mouth, vagina, and skin.

#### **Parasitic Disease:**

Malaria: A parasitic infection transmitted by mosquitoes, which contains symptoms such as fever, chills, and flu. Toxoplasmosis: A parasitic infection that can affect different parts of the body, including the brain, eyes, and muscles.

#### **Vector-related diseases:**

Dengue fever: A viral infection transmitted by mosquitoes, causing symptoms such as fever, headache, and severe joint pain. Zika virus: A viral infection transmitted by mosquitoes, causing symptoms such as fever, rash, and joint pain.

#### **Waterborne diseases:**

Cholera: A bacterial infection that can cause severe diarrhea and dehydration, often spread through contaminated water or food. Typhoid fever: A bacterial infection that can cause symptoms such as fever, headache, and abdominal pain, often spreads through contaminated water or food.

**Airborne disease:**

Measles: A viral infection that can cause symptoms such as fever, cough, and a characteristic rash.  
 Tuberculosis (TB): A bacterial infection that can be spread through the air when an infected person coughs, sneezes, or talks.

**Causes of Communicable Diseases:****Poor hygiene:**

Inadequate hand washing, poor hygiene, and contaminated food and water can contribute to the spread of communicable diseases. For example, lack of access to clean water and hygiene facilities in many developing countries can cause watery diseases such as cholera and typhoid fever.

**Vector-based transmission:**

Mosquito, tick, and other vectors can transmit diseases like malaria, dengue fever, and Lyme disease. For example, mosquito-borne transmission of malaria is an important public health concern in many tropical and subtropical regions.

**Airborne Transmission:**

Diseases such as influenza and tuberculosis can be spread through the air when an infected person coughs or sneezes. The COVID-19 epidemic has highlighted the importance of air transmission in the spread of communicable diseases.

**Direct contact:**

Skin contact with skin, sexual contact, and contaminated physical fluids can also spread communicable diseases. For example, transmission of HIV/AIDS through sharing of unsafe sex and needles is an important public health concern.

**Prevention strategies****Vaccination:**

Vaccines can prevent many communicable diseases, including influenza, HPV and hepatitis. For example, extensive use of vaccines has led to a significant decline in the incidence of vaccine-preventable diseases such as measles and polio.

**Good hygiene:**

Repeated washing of hands, practicing proper hygiene, and eating safe food can help prevent the spread of communicable diseases. For example, promoting good hygiene practices in schools and communities can help reduce the spread of gastrointestinal diseases.

**Vector control:**

Eliminating breeding sites, using pesticides, and wearing protective clothes can help prevent V spread

**Conclusion:**

Transmissible diseases are an important public health concern worldwide, and understanding their causes, prevention, and global impact strategies is crucial to controlling their propagation. By promoting good hygiene, using vaccination and personal protective equipment, and implementing vector control measures, we can reduce the load of communicable diseases and improve health outcomes. A geographical study of communicable diseases can provide valuable information on relationships between environmental and socio-economic factors and disease transmission. Understanding these relationships can inform prevention and control strategies, such as vector control measures, health education, and behavioral interventions. Through the use of SIG and other geographical tools, researchers can identify high-risk areas and develop specific interventions to reduce the load of communicable diseases. Transmissible diseases can be caused by a variety of factors, including bacteria, viruses, fungi, and parasites. Understanding the different types of communicable diseases and their transmission modes can help inform prevention and control strategies.

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