

# Concept of Causation

# Early Theories of Disease Aetiology

## **Supernatural Theory of Disease**

Believed illnesses were caused by supernatural forces and curses.

## **Theory of Humours**

Suggested that imbalances in bodily fluids led to diseases.

## **Idea of Contagion**

Associated diseases with the transfer of invisible particles from one person to another.



# Germ Theory of Disease

(Disease agent - Man - Disease)







## **Microbiological Discoveries**

Revolutionized the understanding of disease causation.

## **One-to-One Correspondence**

Believed diseases are caused by a oneto-one relationship between a pathogen and illness.

## **Drawbacks of Germ Theory**

Overlooks the contribution of host and environmental factors to disease.

# Epidemiological Triad

### **Host Factors**

Not everyone exposed to a pathogen will develop the disease due to other agent and environmental factors.

The host is usually a human, that harbours the disease.

## **Agent Factors**

Introduced a comprehensive approach that combined agent, host, and environment in disease causation.

Agent means the cause of disease, may be its bacteria, virus or any other pathogen.

## **Environment Factors**

Illustrates the interdependent nature of agent, host, environment, and time in disease transmission.

These are the surroundings and conditions that allow disease transmission.

## Multifactorial Causation

## **Idea of Multiple Causes**

Challenges the old notion of diseases caused by a single agent.

## **Complex Causes of Modern Diseases**

Modern diseases are influenced by social, economic, cultural, genetic, and psychological factors.

## **Understanding Non communicable Diseases aetiology**

These diseases are influenced by a variety of factors including excessive fat consumption, smoking, inactivity, and obesity.



## Contributions of Epidemiology

## **Focus on Lifestyle and Behavior**

Explores the role of lifestyle and behavior in disease causation.

## Identification of multiple factors

Non communicable diseases identifies multiple factors of causation of disease, disability, injury and death.



# Practical Application

## **Behavioural Considerations**

Considers the impact of individual behavior in disease causation and prevention.

#### **Public Health Interventions**

Aims to break the link between environment, host, and agent to prevent outbreaks.



# Web of Causation Given by MacMohan and Pugh

According to this, disease never depends upon a single isolated cause rather it develops from a chain of causation in which each link is a result of complex interaction of preceding events.

