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Cho. 300L

Epidemiology Assignment

### Definition:

A susceptible host is a person or organism that can be easily infected by a disease-causing agent (pathogen) because their body lacks sufficient resistance or immunity to fight it off.

### Explanation:

For an infection to occur, three key factors must be present — known as the epidemiologic triangle:

1. Agent (the germ or pathogen, e.g. bacteria, virus)
2. Host (the person or animal that can get the disease)
3. Environment (the conditions that allow the disease to spread)

A susceptible host is the “weak link” — the one who can catch the disease if exposed to the agent under the right environmental conditions.

### Factors that make a host susceptible

1. **Age** – Infants and the elderly have weaker immune systems.
2. **Immune status** – People with low immunity (e.g. HIV patients, unvaccinated individuals).
3. **Nutrition** – Poor diet can weaken body defenses.
4. **Chronic diseases** – e.g. diabetes, cancer, or heart disease increase vulnerability.
5. **Genetic factors** – Some people inherit less resistance to certain diseases.
6. **Lifestyle factors** – e.g. lack of sleep, stress, drug abuse, or risky behaviors.
7. **Environmental exposure** – living in crowded or unsanitary conditions.

## Examples:

A child who has not been vaccinated against measles is a susceptible host.

A person with HIV/AIDS is more susceptible to tuberculosis (TB).

An elderly person is more susceptible to influenza.

## Prevention (How to reduce susceptibility)

Vaccination

Proper nutrition

Good hygiene

Adequate rest and exercise

Treatment of underlying diseases

Use of protective equipment (e.g., masks, gloves in hospitals)