

EPIDEMIOLOGICAL TRIAD

EPIDEMIOLOGICAL TRIAD • Useful in showing the interaction and interdependence of 1. Agent 2. Host 3. Environment And time

AGENT • Substance living or non living whose presence or absence of which may initiate a disease process • Cause of a disease

1. Biological agents-Viruses, bacteria, fungi, protozoa

2. Nutrient agents- Protein, fats, carbohydrate, vitamins, minerals

3. .Physical agents-Heat, cold, humidity, pressure, radiation, electricity,

sound

4. Chemical agents

a. Endogenous-produced inside the body, e.g., serum bilirubin (Jaundice), uric acid (Gout)

b. Exogenous - arising outside the body, e.g., allergens, fumes, dust, gases, metals

5. Mechanical agents-Mechanical forces like crushing & friction

6. Social agents-Poverty, smoking, alcohol, drug abuse

HOST - Person that harbors the disease

Demographic characteristics - Age, Sex,

Ethnicity

Biological characteristics Genetic makeup, immunity

Social characteristics - Socioeconomic status, occupation

Lifestyle factors - Fitness, Nutritional habits, physical exercise, behavioral patterns

ENVIRONMENT • Surroundings that allow disease transmission

• Biological, social, cultural & physical • All that which is external to the individual host, living or non-living with which he is in constant interaction

1. Physical environment - Air, water, soil,

radiation

2. Biological environment - microbial agents, animals, plants

3. Psychological environment - culture, customs, belief

TIME • Incubation period • How long a person is infected