



SNS COLLEGE OF NURSING

Saravanampatti (po), coimbatore.



DEPARTMENT OF NURSING
COURSE NAME : Bsc (Nursing) II Year.
SUBJECT : COMMUNITY HEALTH NURSING
UNIT : III
TOPIC : EPIDEMIOLOGY



LEARNING OBJECTIVES



The students will be able to:

- define epidemiology
- state the approaches of epidemiology
- mention about the epidemiological triad
- describe the agent, host and environmental factors of epidemiological triad



INTRODUCTION



Classically speaking

- Epi = upon/ among
- Demos = people
- Ology = science or study
- Epidemiology = the science which deals with what falls upon people.....
- Bridge between biomedical, social and behavioral sciences

INTRODUCTION contd.,



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DEFINITION

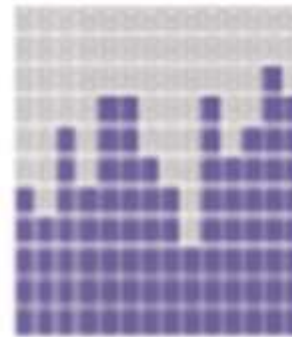
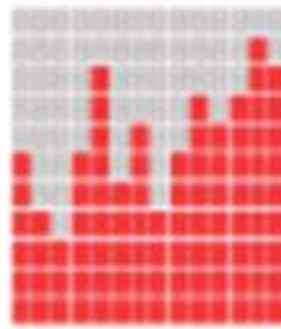
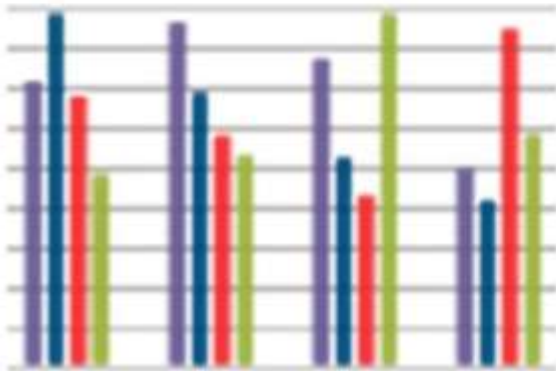
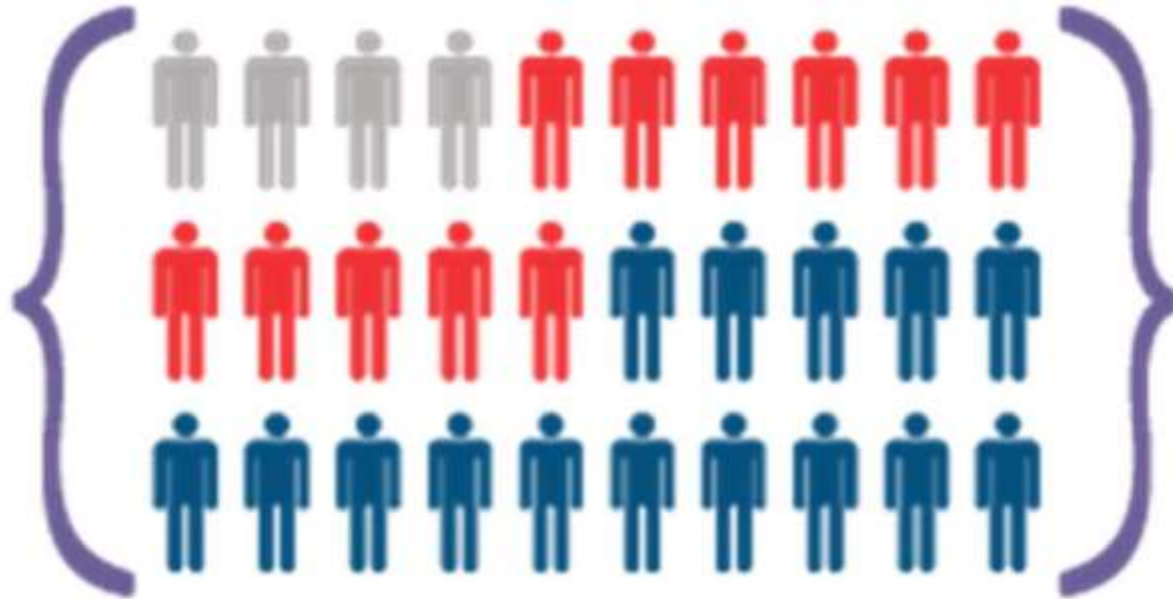


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The study of the distribution and determinants of health related states or events in a specified populations, and the application of this study to prevent and control of health problems

- - John M Last(1988)

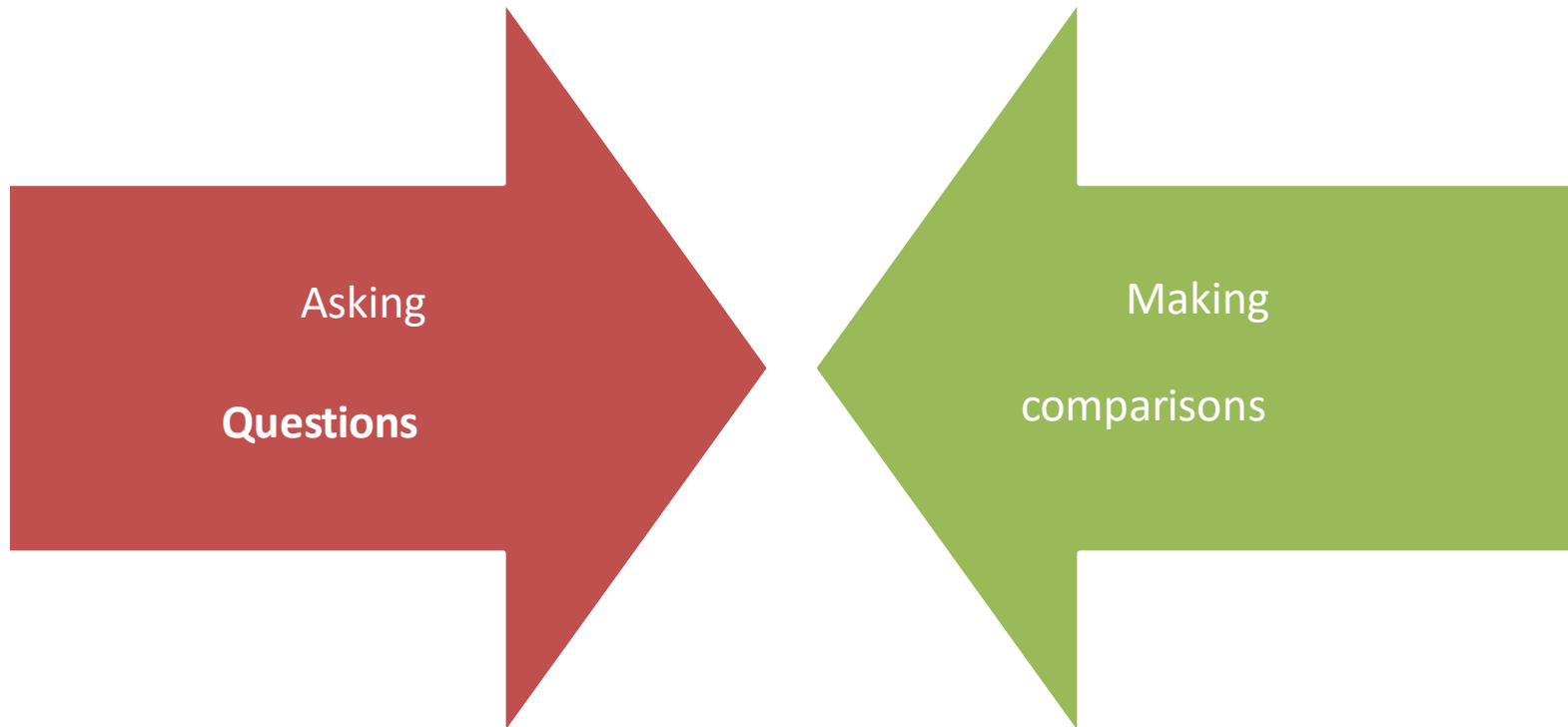
EPIDEMIOLOGICAL APPROACH





EPIDEMIOLOGICAL APPROACH

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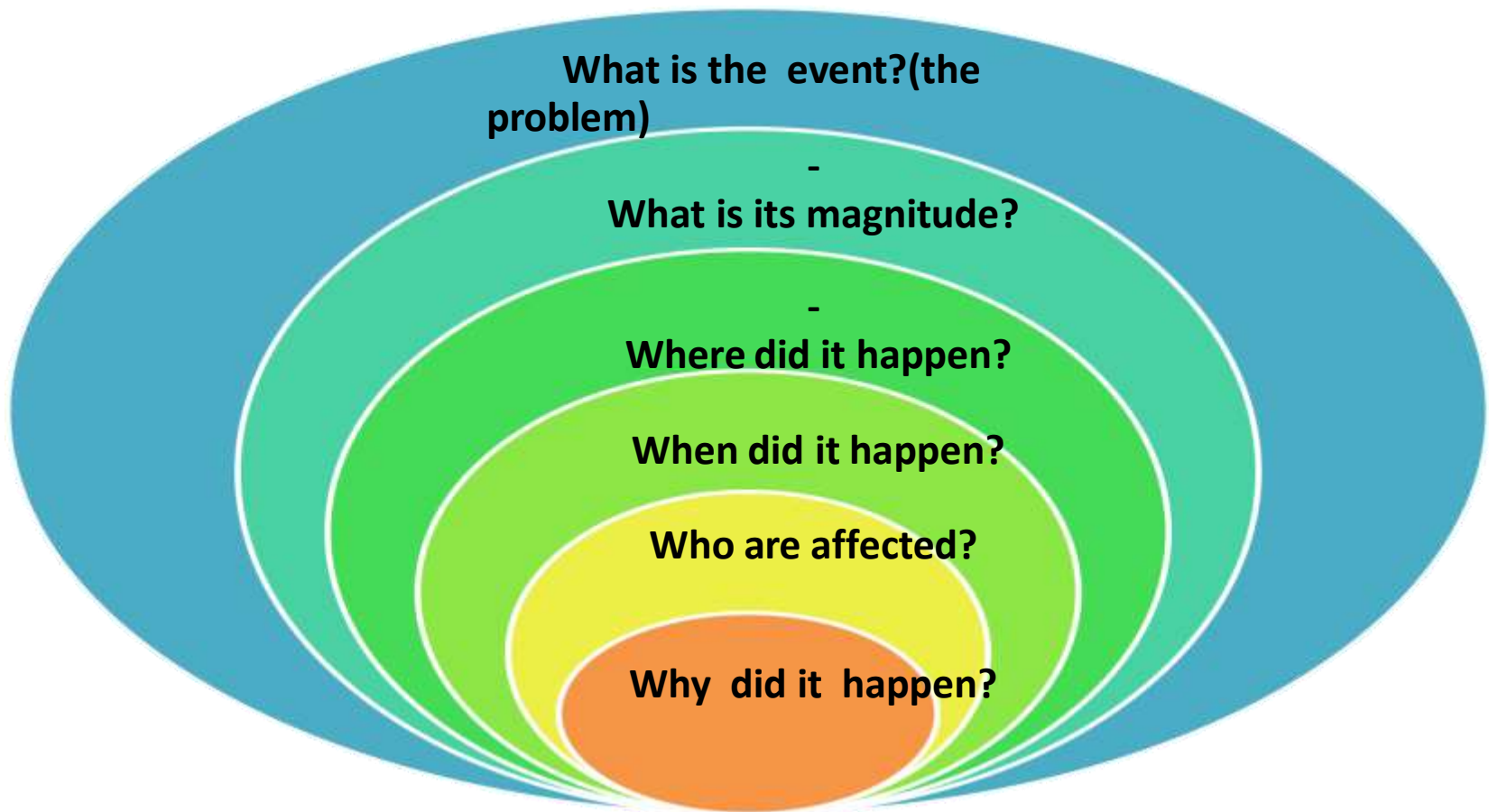


ASKING QUESTIONS



Epidemiology has been defined as “a means of learning or asking questions... and getting answers that lead to further questions”. For example the following questions could be asked.

HEALTH EVENTS





HEALTH ACTION

What can be done to reduce this problem and its consequences?

How can it be prevented in the future?

What action should be taken by the community? By the health services? By other sectors? Where and for whom these activities be carried out?

What resources are required? How are the activities to be organized?

What difficulties may arise, and how might they be overcome?



MAKING COMPARISONS



- The basic approach in epidemiology is to make comparisons and draw inferences
- This may be comparison of two (or more groups)- one group having the disease (or exposed to risk factor) and the other groups not having the disease (or not exposed to risk factor) or comparison between individuals.
- By making comparisons, the epidemiologist tries to find out the crucial differences in the host and environmental factors between those affected and not affected.

The Epidemiological Triad





EPIDEMIOLOGICAL TRIAD contd.,



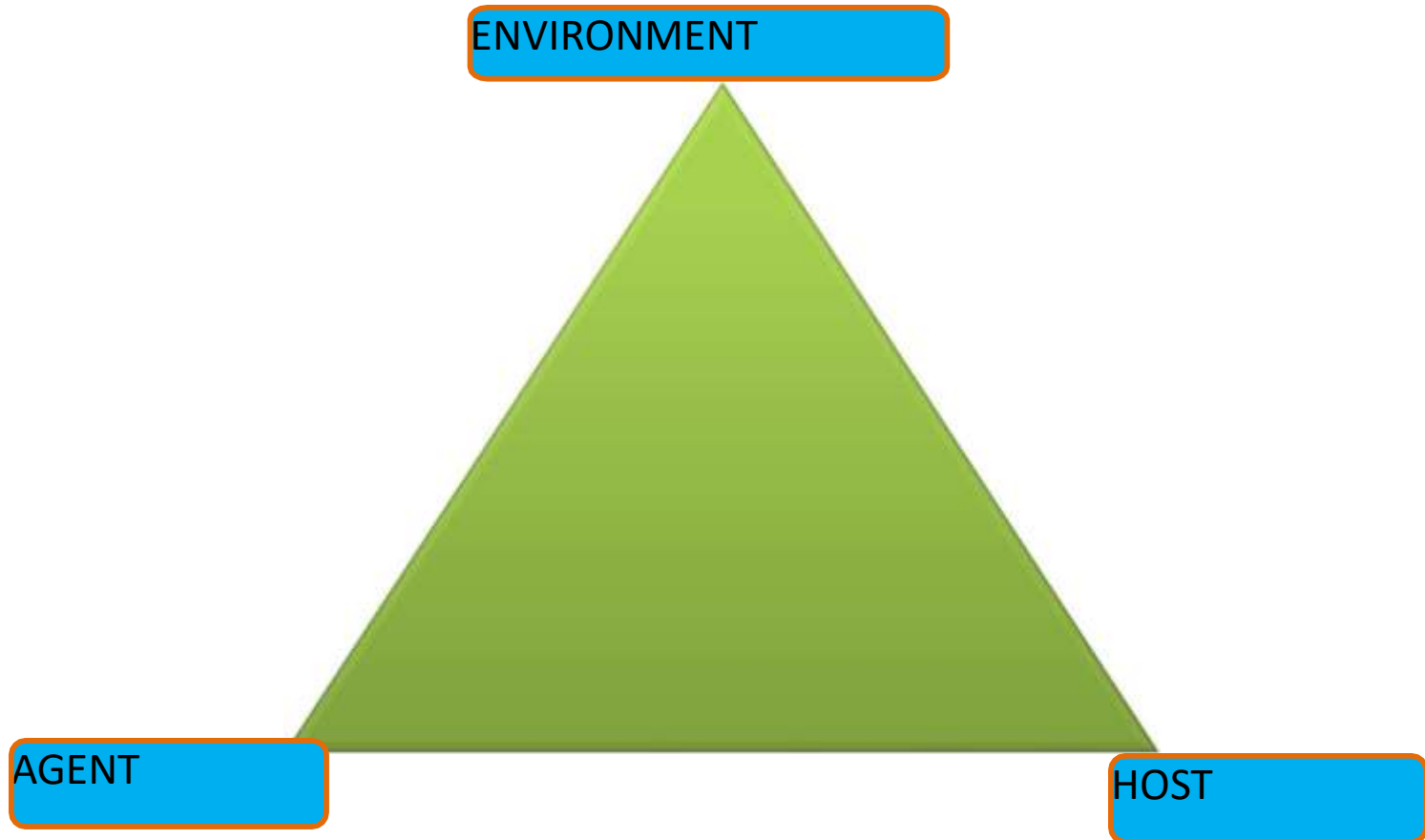
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Disease results from a complex interaction between man, an agent (or cause of disease) and the environment.

- The term epidemiological triad is a key concept in epidemiology.
- Each disease has its own unique natural history of causes, which is not necessarily the same in all individuals.



EPIDEMIOLOGICAL TRIAD contd





AGENT FACTORS



The disease agent is defined as a substance, living or non-living or a force, tangible or intangible, the excessive presence or relative lack of which may initiate or perpetuate a disease process

AGENT FACTORS contd.,





HOST FACTORS



The human host is referred to as “soil” and the disease agent as “seed”.

In some situations, host factors play a major role in determining the outcome of an individual’s exposure to infection. Eg. Tuberculosis

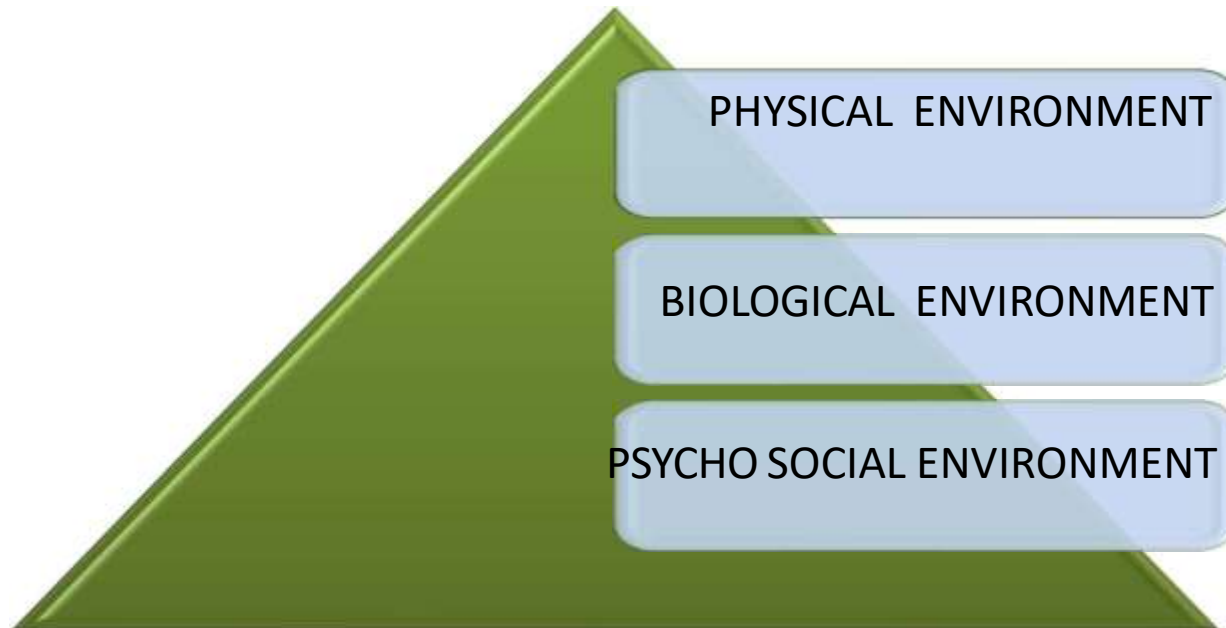


ENVIRONMENTAL FACTORS



The external or macro environment is defined as all that which is external to the individual human host, living and non-living, and with which he is in constant interaction. This includes all of man's external surroundings such as air, water, food housing, etc.

ENVIRONMENTAL FACTORS contd.,





PHYSICAL ENVIRONMENT



- Its apply to non living things and Physical factors such as Air,Water,Soil,Housing Etc With Which man is in constant interaction.
- Man has altered practically every thing in his physical environment to is advantage which has created new health problems such as air, water & noise pollution, Urbanization and Radiation hazards.



BIOLOGICAL ENVIRONMENT



It's the universe of living things which surrounds man including man himself the living things are the viruses, and other microbial agents, insects, rodents, animals and plants



PSYCHO SOCIAL ENVIRONMENT



It includes a complex of psycho social factors which are defined as “those factors affecting personal health, health care and community, well-being that stem from the psychosocial make-up of individuals and the structures and functions of social groups”,



SUMMARY



Man today is viewed as an agent of his own diseases, his state of health is determined more by what he does to himself than what some outside germ or infectious agent does to him.



SUMMARY



- The epidemiologist are so much concerned with psychosocial environment as with physical or biological environment in search of etiological causes of disease



EXPECTED QUESTIONS



Essay: (15 marks)

- Describe about the Epidemiological triad in detail
- **Short Notes: (5 marks)**
- Explain about the approaches of epidemiology
- Discuss the Physical agents in detail
- **Short Answers:(2 marks)**
- Draw epidemiological triad
- Mention the factors of environment
- State about the psycho social environment



REFERENCES

- K.PARK, “Essentials of Community Health Nursing” Banarsidas Bhanot Publishers, 20th edition
- Prof.Dr.E. Vijay, “Textbook of Community Medicine” 2nd edition, Beacon zen publishers
- Kasthuri Sundar Rao, “Introduction to community Health Nursing”, 4th edition B.I. Publications