**Diploma in Public Health**

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**MODULE 3 ASSIGNMENT**

1. Distinguish between descriptive epidemiology and analytical epidemiology.

Descriptive epidemiology is the type of epidemiology which is refer to as “Pattern” meaning the occurrence of health related events by times, places and person. However time pattern may be annual, seasonal, weekly, daily, hourly, weekdays or weekend.

While analytical epidemiology is a kind of epidemiology that deal with causes and the effects of the health related issues, why and how they occurred in numbers in a given populations. It’s also use to quantify the association between exposures and outcomes and to test hypotheses about casual relationships.

2. Write down and explain the mathematical expression of the following.

i. Incidence

Method of calculating incidence rates

Number of new cases of disease or injury during specified period/ time each person was observed, totaled for all persons. X10N

Method of calculating incidences proportion

Number of new cases of diseases or injury during specified periods/ size of the population at start of the period. X10N

ii. Prevalence:

Method of calculating prevalence of disease

All new and pre-existing cases during a given time periods/ population during the same times periods.

Method of calculating prevalence of an attribute

Persons having a particular attribute during a given time periods / population during the same time periods

3. Apart from Randomized trials, describe four (4) other epidemiological research designs.

Descriptive epidemiological research designs: This is used to detail and estimate the number of people affected by the diseases or with a relevant health conditions or characteristics, including symptoms and signs at a population level. However, prevalence and incidences are the two example use in this research design.

Correlational epidemiological research designs: This’s sometimes refer to as observational epidemiological studies which is use to examine event exposure, diseases prevalence and risk factors in a given population or a communities.

Quasi- experimental epidemiological research designs: this sometimes refer to as nonrandomized experiments or observational studies. It’s therefore use to estimate the causal impact of an intervention on the target population or communities without randomized assignment.

Experimental epidemiological research studies: It’s a studies where researchers introduce an intervention and study the effects of the disease at all level. They are usual randomized meaning their subjects are grouped by chances.

4. Data from hospital records are one of the most important sources of information in

Epidemiologic studies.

1. Outline the limitations of using hospital data.

Hospital detected cases are not inclusive because they are selected according to, personal characteristics, e.g. age, race sex, and socioeconomic status, severity of diseases with a tendency to advance cases, associated conditions and administrative condition policies.

Difficulty of finding adequate control groups.

Hospital records or data are not primarily designed for research because, they are incomplete and unstandardized information and Diagnostic variability among hospitals.

The community and the population at risk can’t be properly and precisely defined.

Duplicate admission raise problems in determining the incidence and prevalence rates.

1. Describe the possible sources of error in interview surveys

Questions wording: a question will convey to the respondent the meaning of the interest from the interviewer. However question wording is seen as one of the major problems in interview surveys.

Misunderstanding from the respondent: this imply that the quest must be frame to the level and understanding of the respondent so that he or she can comprehend the whole ideas and be able to speak his or her mind freely.

Interviewers as sources of survey error: tis include reading questions as its written, variation in interviewer’s ability to perform the proper task, like proving sufficient task, proper recoding of respondent response, voice characteristics and socioeconomic characteristics.

5. Explain the main determinants of health

Below are the main determinants of health:

Income and social status: higher income and social status are linked to better health. The greatest the gap between the richest and the poorest people, the greater the difference in health.

Level of education: low education level are linked with the poor health, more stress and lower self-confidence.

Physical environment: safe drinking water and clean air, healthy work places, safe houses, communities and roads all contribute to the good health. Employment and working conditions. People employed are healthiest than unemployed and particularly those who have more control over their working environment.

Social support network: greater support from families, friends and communities is linked to better health. Cultures, customs and traditions and the belief of the families and communities all affects health.

Genetics: inheritance plays a part in determining a lifespan, healthiest and the likelihood of developing certain illnesses. Personal behaviors and coping skills, balance eating, keeping active, smoking, drinking, and how we deal with life’s stress all affects our health.

Health services: access and use of services that prevent and treat diseases influences health.

Gender: men and women super from different types of diseases at difference ages.

References

Alfonse T. Masi, M.D, Dr. P.H, F.A.P.H.A

African institute for project management online resources

Greenland S. Morgenstern H. classification schemes for epidemiological research designs. J Clin Epidemiol 1988; 41:715-16.