LEARNING OBJECTIVES

By the end of this chapter the reader will be able to:

• define the term epidemiology
• define the components of epidemiology (determinants, distribution, morbidity, and mortality)
• name and describe characteristics of the epidemiologic approach
• discuss the importance of Hippocrates’ hypothesis and how it differed from the common beliefs of the time
• discuss Graunt’s contributions to biostatistics and how they affected modern epidemiology
• explain what is meant by the term natural experiment, and give at least one example

*Refer to Appendix F for a class activity for Chapter 1 and Appendix G for a Chapter 1 worksheet.

Study Questions

Instructions: Fill in the blanks with the terms below.

determinants
Edward Jenner
endemic
epidemic
epidemiology
Framingham Heart Study
Snow’s
Love Canal
morbidity
mortality
pandemic
plague
population
qualitative
quantification
surveillance

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1. __________ is concerned with the occurrence, distribution, and determinants of “health-related states or events.” (p. 8)

2. The ongoing __________, begun in 1948, is one of the pioneering research investigations of risk factors for coronary heart disease. (p. 41)

3. __________ work, a classic study that linked the cholera epidemic to contaminated water supplies, is noteworthy because it utilized many of the features of epidemiologic inquiry: a spot map of cases and tabulation of fatal attacks and deaths. (p. 30)

4. __________ are factors or events that are capable of bringing about a change in health. (p. 8)

5. Epidemiology examines disease occurrence among __________ groups rather than among individuals. (p. 13)

6. The former, __________, designates illness, whereas the latter, __________, refers to death. (p. 14)

7. __________ refers to the translation of qualitative impressions into numbers. (p. 17)

8. __________ sources of information about disease may be, for example, a physician’s observations derived through medical practice about the types of people among whom a disease seems to be common. (p. 17)

9. An __________ refers to an excessive occurrence of a disease. (p. 18)

10. __________ was a toxic waste disposal site located in Niagara Falls, New York. It was the location for burial of thousands of chemical-filled drums deposited by the Hooker Chemicals & Plastics Corporation. (p. 20)

11. Related to the term epidemic is the term __________, which refers to an epidemic on a worldwide scale. (p. 21)

12. The term __________ is used to characterize a disease that is habitually present in a particular geographical region. (p. 21)

13. The word __________ denotes the systematic collection of data pertaining to the occurrence of specific diseases, the analysis and interpretation of these data, and the dissemination of consolidated and
processed information to contributors to the surveillance program and other interested persons. (p. 21)

14. During the medieval period, the Black Death, aka the ____________ killed more than 25% of the European population. (p. 23)

15. ____________ is credited with the development of the smallpox vaccination, a lower-risk method for conferring immunity against smallpox than variolation. (p. 27)