

Epidemiology

New for 2020-2021

Competitor orientation deleted from ILC.
The time of the test has been reduced from 120 minutes to 90 minutes.

Event Summary

Epidemiology provides members with the opportunity to gain knowledge in regard to health and disease in populations. This competitive event consists of a written examination of concepts related to the study of epidemiology. Competitors are expected to recognize, identify, define, interpret and apply these concepts in a multiple choice test. This event aims to inspire members to be proactive future health professionals and improve their scientific literacy as well as provide insights into public health careers.

Official References

The test plan percentages as well as official references for the development of the test items is as follows. Content is posted as of September 1, 2020 :

- **CDC website – 8%**
- <https://www.cdc.gov/csels/dsepd/ss1978/index.html>
An Introduction to Epidemiology
Investigating an Outbreak

- **CDC website – 8%**
Agency for Toxic Substances and Disease Registry: Environmental Health
- <https://www.atsdr.cdc.gov/sites/brownfields/pdfs/epidemiology-508.pdf>

- **Basic Epidemiology – World Health Organization – 10%**
http://apps.who.int/iris/bitstream/10665/43541/1/9241547073_eng.pdf
What is Epidemiology?
Measuring Health and Disease
Types of Studies

- **Emerging and Re-emerging Infectious Diseases – 8%**
https://science.education.nih.gov/supplements/nih_diseases.pdf
Understanding Emerging and Re-emerging Infectious Diseases

- **Public Health Careers – 3%**
<http://www.publichealth.org/careers/>

- **CDC: Disaster Epidemiology and Assessment – 7%**
<http://www.cdc.gov/nceh/hsb/disaster/epidemiology.htm>
 - CDC Activities
 - Mission, goals and objectives
 - Application and service in disaster settings: surveillance and rapid needs assessment

- Applied research to prevent injuries, illnesses and deaths
- Consultation and training
- Field investigations
- **Office of Assistant Secretary for Preparedness & Response – 6%**
<http://www.phe.gov/preparedness/Pages/default.aspx>
 - Under the preparation tab
 - Responders, Clinicians & Practitioners
 - International Preparedness & Response
 - Public Health Emergency Response
- **CDC: Morbidity and Mortality Weekly Report – 50%**
<https://www.cdc.gov/mmwr/index.html>
 - Case studies, investigations, surveillance summaries and scientific information and recommendations

Written Test

Test Instructions: The written test will consist of 75 multiple choice items in a maximum of 90 minutes. Written case studies, investigations, surveillance summaries, and scientific information will be a part of the test and will include background information about selected public health situations with a series of multiple choice questions related to the data.

- Test will be taken during the online testing window between February 22-March 5, 2021
- One essay question will be administered with the original test. In case of a tie, the essay question will be judged and used to break the tie.

Sample Test Questions

1. What is the term for the proportion of a disease or other outcome in exposed individuals that can be credited to the exposure?
 - A. Attributable risk**
 - B. Risk benefit
 - C. Cohort study
 - D. Odds advantage
 WHO pp 35
2. In an epidemiology study, how is the specified population identified?
 - A. People affected by the condition/disease.
 - B. Conditions where large numbers of people were affected.
 - C. People exposed to a condition/disease.**
 - D. People who died from a disease/condition.
 CDC Intro 1-4
3. What is the likely cause of the re-emergence of some infectious diseases, such as the diphtheria outbreak in Russia in the 1990s?
 - A. Improper sanitation.
 - B. Lapses in vaccination programs.**
 - C. Malnutrition which compromises the immune system.
 - D. Radiation from nuclear accidents.
 NIH