

Epidemiology



New for 2022 – 2023

There will be NO verbal announcements during testing.

Event Summary

Epidemiology provides members with the opportunity to gain knowledge about health and disease in populations. This competitive event consists of a written examination of concepts related to the study of epidemiology with a tiebreaker essay question. 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.

Dress Code

Competitors shall wear proper business attire or official HOSA uniform. Bonus points will be awarded for [proper dress](#).

Competitor Must Provide:

- [A Photo ID](#)
- #2 lead pencils (not mechanical) with eraser

General Rules

1. Competitors in this event must be active members of HOSA and in good standing.
2. **Eligible Divisions:** Secondary and Postsecondary/Collegiate divisions are eligible to compete in this event.
3. Competitors must be familiar with and adhere to the "[General Rules and Regulations of the HOSA Competitive Events Program \(GRR\)](#)."
 - Per the [GRRs #11](#) and [Appendix H](#), HOSA members may request accommodation in any competitive event. To learn the definition of an accommodation, please read [Appendix H](#). To request accommodation for the International Leadership Conference, [submit the request form here](#) by May 15 at midnight EST.

- To request accommodation for any regional/state level conferences, please work with your local and state advisor directly. Accommodations must first be done at state in order to be considered for ILC.

4. All competitors shall report to the site of the event at the time designated for each round of competition. At ILC, competitor's [photo ID](#) must be presented prior to ALL competition rounds.

Official References

5. 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, 2022:

6.	Principles of Epidemiology	8%
	An Introduction to Epidemiology	
	Investigating an Outbreak	
7.	Environmental Health Resources	8%
	Agency for Toxic Substances and Disease Registry: Environmental Health	
8.	Basic Epidemiology – World Health Organization	10%
	<i>What is Epidemiology?</i>	
	Measuring Health and Disease	
	Types of Studies	
9.	Infectious Diseases	8%
	Tuft University School of Medicine Center for Science Education	
10.	Public Health Careers	3%
11.	CDC: Disaster Epidemiology and Response	7%
	▪ 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	
12.	Office of Assistant Secretary for Preparedness & Response	6%
	▪ Under the response operations tab	
	○ Public Health Response and Recovery	
	○ National Disaster Medical System	
	○ Medical Reserve Corps	
13.	CDC: Morbidity and Mortality Weekly Report	50%
	▪ Case studies, investigations, surveillance summaries and scientific information and recommendations	

Written Test

14. [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.

15. 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.

16. At the International Leadership Conference, HOSA will provide basic handheld calculators (no graphing calculators) for addition, subtraction, division, multiplication and square root.
17. All competitors will receive two (2) 8.5x11" sheets of blank paper for use during the test.
18. **Time Remaining Announcements:** There will be NO verbal announcements for time remaining during ILC testing. All ILC testing will be completed in the Testing Center, and competitors are responsible for monitoring their own time.
19. **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? (WHO pp 35)
 - A. **Attributable risk**
 - B. Risk benefit
 - C. Cohort study
 - D. Odds advantage
 2. In an epidemiology study, how is the specified population identified? (CDC Intro 1-4)
 - 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
 3. Which type of epidemiological study is best characterized as a survey? (CDC ATSDR)
 - A. Case-control
 - B. Cohort
 - C. Relational
 - D. **Cross-sectional**

Final Scoring

20. An essay tiebreaker will be administered with the original test. In case of a tie, this written response will be judged and used to break the tie.