



Last updated: October 31st, 2024

## **Epidemiology**

**PLEASE NOTE THE FOLLOWING DIFFERENCES IN HOW THIS EVENT WILL BE RUN AT HOSA CANADA'S FALL LEADERSHIP CONFERENCE (FLC):**

1. Written test time shortened to 60 minutes (still 75 questions) at FLC only. This test includes a tiebreaker portion, the details of which are specified in the guidelines below.
2. Written test will take place online and be open book at FLC only.

**PLEASE NOTE HOSA CANADA'S SPRING LEADERSHIP CONFERENCE (SLC) WILL BE IN-PERSON AND THIS EVENT WILL BE RUN ACCORDING TO THE GUIDELINES IN THE FOLLOWING PAGES, EXCEPT FOR THE FOLLOWING DIFFERENCE:**

1. There will be a verbal announcement when there are 30 minutes and 5 minutes remaining to complete the written test at SLC.  
*\*Please note that NO verbal announcements will be made at the International Leadership Conference (ILC).*
2. Competitors MUST provide their own basic handheld calculators (no graphing or scientific calculators will be allowed) at SLC.  
*\*Please note that handheld calculators WILL be provided at the International Leadership Conference (ILC).*

# Epidemiology

## Emergency Preparedness Event .....

<b>Eligible Divisions:</b> Secondary & Postsecondary / Collegiate	<b>Round 1:</b> 75 Q test in 90 minutes	<b>Digital Upload:</b> NO
<b>Solo Event:</b> 1 competitor		



### New for 2024 – 2025

Resource link for CDC Disaster Epidemiology and Response has been updated. Editorial updates have been made.

### Event Summary

Epidemiology provides members with the opportunity to gain knowledge about health and disease in populations. This competitive event consists of a written exam 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. The event aims to motivate members to become proactive future health professionals, enhancing their scientific literacy and offering valuable insights into careers in public health.

### Dress Code

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

### Competitor Must Provide:

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

### General Rules

1. Competitors must be familiar with and adhere to the [General Rules and Regulations](#).

### Official References

2. The references below are used in the development of the test questions. Content is posted as of September 1, 2024:
  - a. [PH 101 Series](#) - 8%
    - An Introduction to Epidemiology
  - b. [Environmental Health Resources](#) - 8%
    - Agency for Toxic Substances and Disease Registry: Environmental Health
  - c. [Basic Epidemiology – World Health Organization](#) - 10%
    - *What is Epidemiology?*
    - Measuring Health and Disease
    - Types of Studies
  - d. [WHO Fact Sheets: Infectious Disease](#) - 8%
  - e. [Public Health Careers](#) - 3%
  - f. [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

- g. [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
- h. [CDC: Morbidity and Mortality Weekly Report](#) - 50%
  - Case studies, investigations, surveillance summaries and scientific information and recommendations

### Written Test

3. **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.
4. One essay question will be administered with the test.
5. At the International Leadership Conference, HOSA will provide basic handheld calculators (no graphing calculators) for addition, subtraction, division, multiplication and square root.
6. **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 time.

### 7. 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

8. In case of a tie, the essay will be judged and used to break the tie.