

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 kept at 60 minutes for 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 scientific or graphing calculators will be allowed) at SLC.
**Please note that basic handheld calculators WILL be provided at the International Leadership Conference (ILC).*

PLEASE NOTE THE FOLLOWING DIFFERENCES IN HOW THIS EVENT WILL BE RUN AT HOSA CANADA'S SECONDARY/POST-SECONDARY VIRTUAL CONFERENCE:

1. Written test time shortened to 40 minutes (still 50 questions). 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.

*****DISCLAIMER: virtual secondary competitor participation in any Competitive Event through the virtual membership is not ranked and not eligible to advance to the International Leadership Conference (ILC)*****

Epidemiology

Emergency Preparedness Event

Eligible Divisions: Secondary & Postsecondary / Collegiate	Round 1: 50 Q test in 60 minutes	Digital Upload: NO
Solo Event: 1 competitor		



New for 2025-2026

The number of test items has been changed to 50 questions in a 60-minute time period. Numerous websites have been retired. The following website has been added:
<https://courses.activepi.com/> The test plan has been updated. Editorial updates have been made.

Event Summary

Epidemiology allows members 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. In the event of a tie, the essay will be judged to break the tie. Competitors must 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 erasers

HOSA Conference Staff will provide equipment and supplies as listed in [Appendix I](#).

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, 2025:
 - a. [PH 101 Series](#)
 - b. [ActivEpi](#)
 - c. [Environmental Medicine Education Resources](#)
 - d. [CDC: Morbidity and Mortality Weekly Report](#)

Written Test

3. [Test Instructions](#): The written test will consist of 50 multiple-choice items in a maximum of 60 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. **Test Plan**

The test plan for the Epidemiology Test is:

- Introduction to Epidemiology: (30%)
 - Basic concepts
 - Types of case studies
 - Measuring health and disease
 - Causation
 - Surveillance
- World and Government Response to Infectious Diseases (20%)
 - WHO Infectious Diseases
 - CDC Activities
 - Governments responses
- CDC: Morbidity and Mortality Weekly Report (50%) (CDC: Morbidity and Mortality Weekly Report)
 - Case studies, investigations, surveillance summaries, scientific information, and recommendations

8. **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

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

Future Opportunities

Graduating from high school or completing your postsecondary/collegiate program does not mean your HOSA journey has to end. As a HOSA member, you are eligible to become a HOSA Lifetime Alumni Member - a free and valuable opportunity to remain connected, give back, and help to shape the future of the organization. Learn more and sign up at hosa.org/alumni.