



SIR ARTHUR LEWIS COMMUNITY COLLEGE
ACADEMIC YEAR (2024/2025) - SEMESTER TWO
END OF SEMESTER EXAMINATION

COURSE CODE : HEA208
COURSE TITLE : Public Health Surveillance
LECTURER(S) : Edward Emmanuel
DATE : 22 April 2025
TIME : 1:00pm – 3:00pm
DURATION : 2 hours
STUDENT ID # : _____

GENERAL INFORMATION AND INSTRUCTIONS

- Students must sign **IN** and **OUT** on the examination class list.
- Write your ID number on the question paper.
- This paper has 80 multiple choice questions.
- Circle the correct answer on the question paper.

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO

Instruction: Answer all questions by circling the most appropriate answer on the question paper.

1. It provides information that can be used for health action by public personnel, government leaders, and the public to guide public health policy and programs:
 - a) Health Education
 - b) Goal of Public Health Surveillance
 - c) Public Health
 - d) Disease Control
2. It is used by Public Health Officials to monitor and evaluate the impact of interventions:
 - a) Monitoring
 - b) Data Collection
 - c) Health system
 - d) Surveillance
3. Public health surveillance can be described **primarily** as which of the following?
 - a) A program to control disease outbreaks
 - b) A system for collecting health-related information
 - c) A system for monitoring persons who have been exposed to a communicable disease
 - d) A method to monitor occurrences of public health problems
4. Current public health surveillance does not target which of the following?
 - a) Communicable diseases
 - b) Chronic diseases
 - c) Occupational hazards
 - d) Non-health related behaviours
5. Data collected through which of the following methods is not commonly used for surveillance?
 - a) Population surveys
 - b) Disease notifications
 - c) Randomized clinical trials
 - d) Vital registration
6. Which Public Health Emergency of International Concern (PHEIC) was declared in 2014?
 - a) Zika
 - b) Ebola (Kivu)
 - c) Ebola (West Africa)
 - d) H1N1
7. What would not constitute declaration of a Public Health Emergency of International Concern (PHEIC)?
 - a) A health event that would potentially require a coordinated international response
 - b) A health event that would create public health risk through international spread of disease
 - c) A serious, unusual or unexpected situation that would affect a state's border and require international action or intervention
 - d) An outbreak of hand-foot and mouth disease at a primary school in Denbigh which was contained
8. Which body should the WHO Director-General take advice from prior to declaring a Public Health Emergency of International concern(PHEIC)?
 - a) The New York Stock Exchange
 - b) Information provided by a State Party
 - c) Advice of the Emergency Committee
 - d) Scientific principles, scientific evidence and other relevant information

9. Which of the following is considered a syndrome under surveillance at the regional level?
 - a) Cholera
 - b) Plague
 - c) Fever and Haemorrhagic Symptoms
 - d) Yellow Fever (Urban or Sylvatic)
10. Which of the following individuals would not normally be a member of the National Surveillance and Response Team in St. Lucia?
 - a) National Epidemiologist
 - b) Chief Medical Officer
 - c) Student at Sir Arthur Lewis Community College
 - d) Principle Nursing Officer
11. On a weekly basis in the laboratory surveillance of communicable diseases in St. Lucia:
 - a) The National Epidemiologist reports to CARPHA positive tests for STI's
 - b) The National Epidemiologist reports to CARPHA positive tests for all communicable diseases except STI's
 - c) The National Epidemiologist reports to the CDC positive tests for STI's
 - d) The National Epidemiologist reports to the WHO positive tests for STI's
12. Which of the following documents does not detail rules and regulations with regard to managing communicable diseases in St. Lucia
 - a) SI Instrument 12 of 1978
 - b) Public Health Food Act No 70 of 1980
 - c) Public Health Act No 8 of 1975
 - d) Affiliation Ordinance of 1996
13. Which of the following is not captured in the Legal Framework of Public Health in St. Lucia
 - a) Communicable diseases and syndromes stipulated by the Chief Medical Officer
 - b) Communicable diseases and syndromes stipulated by the Chief Veterinary Officer
 - c) Communicable diseases under IHR
 - d) Communicable diseases not under IHR
14. Which of the following would not be considered an unusual event?
 - a) Occurrence of the event itself is unusual for the area, season, or population
 - b) The event is caused by an unknown agent, or the source, vehicle or route of transmission is unusual or unknown
 - c) Evolution of cases more severe than expected (including morbidity or case fatality) or with unusual symptoms
 - d) The event occurs yearly with no disruption to public health
15. Which of the following is not a communicable disease?
 - a) Syphilis
 - b) Cancer
 - c) Sars CoV
 - d) Cholera
16. Which of the following do not require reporting to the WHO?
 - a) Small pox
 - b) Poliomyelitis
 - c) A broken arm
 - d) Human Influenza caused by any new subtype
17. Which of the following bodies makes a declaration of a Public Health Emergency of International Concern (PHEIC)?
 - a) The PAHO
 - b) The CDC
 - c) The WHO
 - d) The IMF

18. Which of the following is no longer considered a Public Health Emergency of International Concern (PHEIC)?
- a) Polio
 - b) Monkey Pox
 - c) Swine Flu
 - d) Covid-19
19. Which of the following is not an Internationally Notifiable Disease?
- a) Smallpox
 - b) SARS
 - c) Hand foot and mouth disease
 - d) Poliomyelitis (wild type)
20. Which of the following would not be found in a case definition?
- a) Information related to person
 - b) Information related to time
 - c) Information related to clinical symptoms
 - d) Information related to spokesperson in Outbreak Investigation Team
21. Which of the following is not a key element of a surveillance system?
- a) Collection of data
 - b) Analysis and interpretation of data
 - c) Detection and notification of health event
 - d) To send out health alerts to friends
22. Which of the following is not a use for surveillance?
- a) Assess the public health impact of health events or determine and measure trends
 - b) Monitor effectiveness of prevention and control measures and intervention strategies
 - c) To create flexible health systems
 - d) Develop hypotheses that lead to analytic studies about risk factors for disease causation, propagation or progression
23. "How many of the reported cases meet the case definition?" What surveillance system attribute is represented by this statement?
- a) Stability
 - b) Sensitivity
 - c) Predictive Value Positive
 - d) Flexibility
24. What would be a good way to increase the sensitivity of a public health surveillance system?
- a) Collect data on fewer cases
 - b) Have a smaller sample size
 - c) Have more controls than cases
 - d) Have broad case definitions
25. Vital statistics are important sources of data for which of the following?
- a) Mortality
 - b) Randomized controlled clinical trials
 - c) Disease Control
 - d) Syndromic surveillance
26. The primary reason for preparing and distributing periodic surveillance summaries is which of the following?
- a) For randomized controlled clinical trials
 - b) A method to monitor occurrences of public health problems
 - c) For disease control
 - d) To provide timely information on disease patterns and trends to those who need to know it

27. Which of the following is not a step in planning a public health surveillance system?
- Develop a case definition
 - Disease control
 - Establish objectives
 - Determine data collection instruments
28. Public health surveillance includes all of the following activities except one. Which is the exception?
- Morbidity
 - Disease control
 - Mortality
 - A method to monitor occurrences of public health problems
29. Which of the following attributes answers "how many of the reported cases meet the case definition?"
- Representativeness
 - Sensitivity
 - Stability
 - Predictive value positive
30. The case definition used for surveillance of a health problem should be the same as the case definition used for clinical (treatment) purposes
- True
 - False
31. Which of the following is true of syndromic surveillance?
- It is expensive
 - It uses case definitions based on clinical features or symptoms
 - It involves only passive surveillance
 - It involves only active surveillance
32. Which of the following is not true of passive surveillance?
- It is inexpensive
 - Health agencies contact health providers seeking reports
 - It is simple
 - It is limited by variability of quality
33. Which public health surveillance attribute measures how quickly a system can adapt to change?
- Usefulness
 - Timeliness
 - Simplicity
 - Flexibility
34. The Ministry of Health in St. Lucia contacts health care providers in Dennery every Wednesday to determine the number of patients examined with Hantavirus. What type of surveillance is this?
- Sentinel
 - Syndromic
 - Rumor
 - Active
35. Which of the following men is not known for contributing pioneering work in the field of public health?
- Johann Peter Frank
 - John Snow
 - Abraham Lincoln
 - Hippocrates

36. In which of the following places were tavern keepers required to keep track of patrons with contagious diseases in 1741?
- Paris
 - Italy
 - London
 - New York
37. In the public health process, what question does "surveillance" answer?
- What is the cause?
 - What works?
 - How do you do it?
 - What is the problem?
38. Which of the following is not an objective of surveillance?
- To develop hypotheses and stimulate research
 - To measure trends and characterize diseases
 - To ignore changes in infectious and environmental agents
 - To identify patients and their contacts for treatment and intervention
39. Which of the following statement is true?
- A good surveillance system should use passive and active surveillance methods to collect and report the most complete data
 - During a surveillance process in your community data should be collected even though it will not be used
 - A major purpose of public health surveillance is to detect an epidemic after it spreads very far
 - Regular recording and reporting are not necessary for a good quality surveillance system
40. Which of the following should not be specified by a case definition during an outbreak investigation?
- Place
 - Hypothesized exposure
 - Clinical features
 - Time
41. What measure of risk is used in a case-control study?
- Attack rate
 - Incidence rate
 - Odds Ratio
 - Relative risk
42. What is the key feature of an analytic (epidemiologic) study?
- Use of Epi Info to analyze the data
 - Analysis by time, place, and person
 - Presence of a comparison group
 - Calculation of a risk ratio or odds ratio
43. Which is the most common way that a local health department uncovers outbreaks?
- Receiving calls from affected residents
 - Reviewing all case reports received each week to detect common features
 - Receiving calls from healthcare providers
 - Performing time series analysis to detect deviations from expected values based on the previous few weeks and comparable periods during the previous few years
44. A case where many factors point to a diagnosis and for which there is lab verification is called
- Suspected
 - Probable
 - Confirmed
 - not a case

45. Which is the first logical step in the investigation of an outbreak?
- Conduct active surveillance for additional cases
 - Analyze data by person, place, and time
 - Confirm that the number of cases exceed the expected number
 - Generate hypotheses
46. Which of the following represents the scenario: 40 cases of *Salmonella* Enteritidis in 1 week were traced to a single meal served at a cafeteria (usually none)
- Epidemic
 - Cluster
 - Outbreak
 - None of the above
47. What is a histogram showing the course of a disease or outbreak called?
- Outbreak chart
 - Attack rate
 - Epi Curve
 - 2 x 2 table
48. You are called to help investigate a cluster of 20 persons who developed liver cancer in an area over the last couple of years. Most, perhaps all, are alcoholics. Which study design would you choose to investigate a possible association between alcohol use and liver cancer?
- case control
 - retrospective cohort
 - prospective cohort
 - randomized control trial
49. 20 cases of cancer were diagnosed over a 2-year period among residents of a village. Previous data is not available. What does this represent?
- Endemic
 - Epidemic
 - Cluster
 - Outbreak
50. Which of the following would be represented by a spot map?
- Attack rate of disease by area
 - Incidence rate of disease by area
 - Prevalence rate of disease by area
 - Geographic location of exposure of each case-patient
51. Which of the following would not be useful in generating hypotheses in an outbreak setting?
- Look at the outliers
 - Look at the descriptive epidemiology
 - Review of media equipment
 - Talk with a few of the case-patients
52. What is required to validate a hypothesis?
- Active surveillance
 - Epi curve
 - Laboratory verification
 - Clinical information
53. This phenomenon provides information that can be used for health action by public health personnel, government leaders, and the public to guide public health policy and progress.
- Health Education
 - Goal of Public Health Surveillance
 - Public Health
 - Disease Control

54. This process is used by Public Health Officials to monitor and evaluate the impact of intervention.
- Monitoring
 - Data Collection
 - Health Systems
 - Surveillance
55. Select the appropriate premise by which effective disease control programmes rely on:
- Effective surveillance
 - Response system
 - Control measures
 - Effective surveillance and response
56. Surveillance should be a common public health service using which of the following aspects:
- Structures, processes and resources
 - Detection, confirmation, analysis, response
 - Training, supervision, communications, resource management
 - All the above
57. A measurable factor that allows decision makers to estimate objectively the size of a health problem and monitor the processes, the products, or the effects of an intervention on the population.
- Measurement
 - A System
 - Indicator
 - Proportion
58. A system employing staff members to regularly contact health care providers **or** the population to seek information about health conditions.
- Active surveillance
 - Surveillance
 - Health System
 - A System
59. A system by which a health jurisdiction receives reports submitted from hospitals, clinics, public health units, or other sources.
- Active surveillance
 - Effective surveillance
 - Surveillance
 - Passive Surveillance
60. A system in which regular reports about diseases and programs are completed by public health staff members, hospitals and clinics.
- Routine Health Clinic
 - Routine Health Clinic
 - Health Reports
 - Information System
61. A system by which routine reports about financial, logistic, and other processes involve in the administration of public health and clinical system can be used for surveillance.
- Health Information
 - Management System
 - Routine Health
 - Health Information and management System
62. An active or passive system that focuses on one or more diseases or behaviours of interest to an intervention program.
- Categorical Surveillance
 - Surveillance
 - An infectious disease
 - Health

63. Five essential functions of a public health system include.
- Health, Injury, Disease control, Injury prevention, Population assessment.
 - Health, Assessment, Injury control, Disease control, Analysis.
 - Health Surveillance, Health promotion, Health protection, Disease and injury prevention, and Population health assessment.
 - Surveillance, Education, Analysis, Disease prevention, Assessment.
64. He was a famous physician, widely recognized as a leading pioneer in development of anaesthesia in Britain, as well as one of the founding fathers of epidemiology.
- Thomas Sydenham
 - Hippocrates
 - John Graunt
 - John Snow
65. Select the appropriate type of disease reporting that is; reported by health care providers, simple and inexpensive, limited by incompleteness of reporting and variability of quality.
- Random
 - Active-Passive
 - Selective
 - Passive
66. This attribute measures how well the reporting data represents the population that is under surveillance.
- Predictive value
 - Representative
 - Acceptable
 - Effective
67. This describes the continuous and systematic collection, orderly consolidation and evaluation of pertinent data with prompt dissemination of results to those who need to know, particularly those who are in position to take action.
- Public Health
 - Community assessment
 - Public Health Surveillance
 - Community Surveillance
68. Select the goal of public health surveillance:
- Give the public health personnel policies to regulate.
 - To keep the public aware of new disease
 - To provide information used for public health action
 - To give public health personnel policies to regulate.
69. Reporting to World Health Organization is required for which of the following cases:
- Smallpox, Polio, Human Influenza, SARS
 - Smallpox; Human Influenza; SARS
 - Polio; Human Influenza; SARS
 - Polio; Smallpox; and SARS
70. According to the International Diabetes Federation, approximately 11.8% of adults in St Lucia live with Diabetes. This statistic identifies St. Lucia as what category of population group in relation to the six categories of uses of public health surveillance.
- High-risk population
 - High prevalence of Diabetes
 - Global Concern
 - Multifaceted issue
71. It is defined as “an extraordinary "event which is determined, as provided in these regulations:
- International Health Regulations
 - A serious and unusual situation
 - Public Health Emergency of International Concern
 - Health Regulations

72. It provides the legal basis for important health documents applicable to international travel and transport and sanitary protections for the users of international airports, ports, and ground crossings.
- a) Public Health
 - b) International Health Regulations (2005)
 - c) Public Health Law
 - d) Environmental Health Law
73. It is established in Public Health to meet many objectives:
- a) Evaluation
 - b) Assessment
 - c) Surveillance
 - d) Programs
74. Which is not a step in planning a public health surveillance system?
- a) Establish objectives; develop case definitions; determine data sources and data -collection mechanism
 - b) Determine data – collection instruments; field -test methods; develop and test analytic approach
 - c) Develop unscientific assumptions
 - d) Develop dissemination mechanism; Assure use of analysis and interpretation
75. There are several steps in evaluating a public surveillance system. Identify which step is incorrect?
- a) Is the system communicating with data sources? Is there communication and feedback between the different administrative levels?
 - b) The information provided is dubious.
 - c) Does the system provide useful information? Is it leading to public health action?
 - d) Are the findings provided to, and used by, policy makers? Support from stakeholders is necessary.
76. There is no value to a surveillance system unless the information is used for:
- a) Action
 - b) Prevention
 - c) Actions that prevent or control diseases
 - d) Actions that minimize condition
77. Identify the three most important categories to consider for evaluating a surveillance system.
- a) Total number of cases, mortality, and incidence
 - b) Incidence and case-fatality, and incidence
 - c) Total number of cases, incidence and prevalence. Indices of severity such as mortality rate and case-fatality; and preventability
 - d) Incidence, prevalence, and mortality
78. There are several steps in evaluating a public surveillance system. Circle the correct answer.
- a) List the objectives of the system; describe the health event(s) under surveillance; state the case definition for each event; draw a flow chart of the system.
 - b) Describe the health event(s) under surveillance; state the case definition for each event ; draw a flow chart of the system
 - c) Draw a flow chart of the system; state the case definition for each event;
 - d) Describe the health event under surveillance; state the case definition; and draw a flow chart of the system
79. There is no value to a surveillance system unless the information is used for actions that :
- a) Exacerbate health issues
 - b) Negatively impact on clients
 - c) Prevent or control diseases
 - d) Impact negatively on children

80. Surveillance data analysis includes:
- a) Who will analyze the data?
 - b) What methodology will be used?
 - c) How often will they analyze the data
 - d) All the above

END OF EXAMINATION