

Glossary



CDC NERD Academy

The following glossary provides only the definition of each word specific to the context in which that word is used in CDC NERD Academy materials.

Active surveillance: See definition for “surveillance, active.”

Analytic epidemiology: See definition for “epidemiology, analytic.”

Antibody (module 6): A protein found in the blood that is produced in response to foreign substances (e.g., bacteria or viruses) invading the body. Antibodies protect the body from disease by binding to these organisms and destroying them.

Antibody test: See definition for “test, antibody.”

Antigen (module 6): A molecule usually found on the surface or produced by an infectious agent and that stimulates the production of a specific antibody.

Antigen test: See definition for “test, antigen.”

Area map (also called a chloropleth map): A visual display that uses different shading or color to show different statistical variables, such as population density, average household income, or rate of disease or other health condition. The intensity of shade or color reflects increasing numerical values.

Asymptomatic (person) (module 7): A person who has been infected with an infectious agent (such as a virus) who does not experience symptoms of disease during the infection. An asymptomatic person can still spread disease.

Bar graph: A visual display of categories of data, such as county of residence or favorite ice cream flavor. The height of each bar or column indicates the total number in each category. Bar graphs are used to display differences in size among categories.

Behavioral health science: The scientific study of the connection between a person’s behaviors and the health and well-being of the body and mind.

Behavioral factor: See definition for “factor, behavioral.”

Biological factor: See definition for “factor, biological.”

Biological sample: See definition for “sample, biological.”

Case (module 1): A single instance of disease, injury, or other health condition that meets selected criteria of clinical and laboratory findings and for person, place, and time.

Case, confirmed (module 8): A case that is confirmed by one or more of the laboratory methods listed in the case definition.

Case definition (for the purpose of surveillance) (module 4): A set of uniform criteria used to define a case or instance of disease for public health surveillance.

Case definition (for the purpose of outbreak investigation) (module 8): A set of uniform criteria used to determine which cases to include as part of the outbreak under investigation. The criteria identify cases in terms of who (person), where (place), when (time), and what (symptoms, laboratory-confirmed diagnosis).

Case investigation (module 7): Part of the process of supporting people with suspected or confirmed infection in which public health staff work with a person to help them recall everyone with whom they have had close contact during the time frame while they might have been infectious.

Chain of infection (module 2): The process that occurs when an infectious agent leaves its source or reservoir through a portal of exit and uses a mode of transmission to reach the portal of entry of a susceptible host.

Chronic disease: See definition for “disease, chronic.”

Close contact (module 7): Someone was physically close to a person who was potentially infectious. For NERD, a close contact is defined as anyone who was within 6 feet of an infected person for a total of 15 minutes or more.

Cluster (module 1): A group of cases of the same general health problem that occur in a limited geographical area without regard to the expected levels.

Confidentiality: The duty to keep patient information, such as medical records, secure. Confidentiality deals with how information will be used and who has access to this information (e.g., health care workers should not share confidential information with roommates, neighbors, or family members without the verbal or written consent of the patient).

Confirmed case: See definition for “case, confirmed.”

Consent (for the purposes of contact tracing): Permission granted by someone to share their name, location, or other identifying personal or medical information.

Contact tracing (module 7): The identification, monitoring, and support of a person who has been exposed to, and possibly infected with an infectious agent, such as a person who came in close contact with a person with a confirmed or probable case of disease.

Contagious disease: See definition for “disease, contagious.”

Continuous (common source) outbreak: See definition for “outbreak, continuous (common source).”

Demographic information (module 4): Personal characteristics of a person or group (e.g., age, sex, gender identity, race/ethnicity, residence, and occupation). Used in descriptive epidemiology to characterize patients or populations.

Descriptive epidemiology: See definition for “epidemiology, descriptive.”

Determinant (module 3): Any factor that brings about change in a health condition or other defined characteristic.

Diagnosis: The process of identifying a disease, condition, or injury from its signs and symptoms. Laboratory tests can be used to help with this process.

Diagnostic testing: See definition for “testing, diagnostic.”

Direct transmission: See definition for “transmission, direct.”

Disease: Sickness, illness, or loss of health.

Disease, chronic: A disease that lasts one year or more.

Disease, contagious: A disease caused by an infectious agent that spreads easily from person to person.

Disease, infectious: A disease caused by an infectious agent.

Disease, notifiable: A disease that is reported to the Centers for Disease Control and Prevention (CDC) by state health departments when a person meets certain criteria to become a case of a particular disease. CDC uses data to monitor, measure, and alert individual communities or the nation to outbreaks and other public health threats.

Disease, reportable: A disease that is reported to public health departments when a person is diagnosed with a particular disease. This information is used to locate the source of an outbreak and prevent spread.

Disease, respiratory (module 2): A disease that typically involves the lungs and airways within the nose and throat.

Discrimination: Unequal, and often unfair, treatment of different categories of people based on physical characteristics or social group, especially race, ethnicity, age, sex, or disability.

Endemic (module 1): The constant amount of a specific disease that is usually present in a geographic location, like a state or country.

Environmental factor: See definition for “factor, environmental.”

Epidemic (module 1): Similar to an outbreak, but with a larger number of cases or occurring over a greater area or both.

Epidemic (epi) curve (module 5): A histogram that displays the number of new cases of disease over time.

Epidemiology (module 1): The study of disease and other health outcomes, their occurrence and causes in a population, and the application of this study to control health problems.

Epidemiology, analytic (module 8): The aspect of epidemiology concerned with using comparison groups to identify and measure the associations between exposures and outcomes. Used to test hypotheses about of the cause (how and why) of a health problem.

Epidemiology, descriptive (module 8): The aspect of epidemiology concerned with organizing and summarizing data to identify patterns among cases or in populations by person, place, and time (who, where, and when). Used to develop hypotheses about the causes of the patterns or factors that increase the risk of disease.

Ethnicity: The quality or fact of belonging to a population group or subgroup made up of people who share a common cultural background or descent.

Expected level (baseline) (module 1): An observed amount of disease that is usually present in a community or geographic location, like a state or country, known through historical counts or public health surveillance, and often used for comparison in identifying outbreaks or measuring the effectiveness of public health actions.

Exposure (modules 3, 7): Contact with something that causes, or having a factor that influences, a particular health problem. Exposures can be disease-causing (e.g., infectious agent or ultraviolet radiation) or preventative (e.g., sunscreen).

Factor: Characteristic or behavior that influences a person's development and health outcomes.

Factor, behavioral: Any factor having to do with a behavior, or pattern of behaviors, such as tobacco use, physical activity, or sexual activity.

Factor, biological: Any factor having to do with the body, such as age, genetics, and brain structure.

Factor, environmental: Any factor having to do with the physical and social surroundings where people work, learn, live, and play.

Factor, risk (module 3): Characteristic or behavior that some people have that increases the risk for that person experiencing a negative health outcome, such as being exposed to an infectious agent or experiencing severe disease if infected.

Factor, protective: Characteristic or behavior that some people have that contributes to or enhances health and well-being.

Flatten the curve (module 5): Slowing transmission with the goal of decreasing the number of new cases to a level manageable for the existing healthcare system and aiming to lower the overall number of cases.

Gene: A particular segment of a DNA molecule that determines the nature of an inherited trait, such as what a person might look like and whether a person might have or be likely to have certain diseases.

Genetics: The study of how genes or groups of genes are involved in health and disease.

Health equity (module 3): A state in society in which everyone has an equal opportunity to be as healthy as possible.

Health outcome: A change in health that results from a particular exposure, behavior, or intervention.

Healthy lifestyle: A way of living that lowers the risk for disease and improves physical, mental, and social well-being, such as through healthy eating, regular physical activity, avoiding tobacco use, and reducing stress.

Histogram: A visual display of the frequency distribution (how many) of continuous data, such as weight, height, or quiz scores. Because these data are continuous, they are grouped into specified intervals and the height of each bar or column indicates the frequency within that data range. Histograms are used to display differences in size over time.

Host: A person or other living organism that can be infected by an infectious agent under natural conditions.

Hygiene: Refers to behaviors that can improve cleanliness and lead to good health, such as frequent hand washing, face washing, and bathing with soap and water.

Hypothesis: A proposed explanation, supported by observation or previous research, that can be tested through study or experimentation.

Illness: A condition of being in an unwell or unhealthy state of mind or body.

Immunity (or immune): Resistance developed in response to an antigen, often through infection or vaccination.

Incidence (module 6): The number of new cases, or people who tested positive for a disease, in a population over a specific period of time.

Incubation period (modules 5, 7): The time interval between when a person is exposed to an infectious agent and when they begin to develop symptoms.

Indirect transmission: See definition for “transmission, indirect.”

Infection: The invasion and growth of organisms (e.g., bacteria, viruses, parasites, or fungi) in the body that can cause disease.

Infectious agent (module 2): Organisms (e.g., bacteria, viruses, parasites, or fungi) that can cause disease or other poor health outcomes as a result of multiplying or undergoing development in a susceptible host.

Infectious disease: See definition for “disease, infectious.”

Infectious period (module 7): The time when a person is able to pass the virus to others.

Intermittent (common source) outbreak: See definition for “outbreak, intermittent (common source).”

Intervention: Any effort, program, or policy that is intended to improve the health of a population.

Isolation: See definition for “self-isolation.”

Laboratory test: See definition for “test, laboratory.”

Line list (module 8): Table containing a list of people with a specific disease or exposures.

Measure of association (module 3): Quantifies or assigns a numerical value to the strength of the statistical association between an exposure and outcome. Measures of association can be compared.

Microbes (or microorganism): Small living things (e.g., viruses, bacteria, or fungi) that are so small they can only be seen with a microscope.

Mode of transmission (module 2): The process by which an agent moves from its source or reservoir to a susceptible host, either directly or indirectly (e.g., respiratory droplets, airborne, direct contact, vehicleborne, or vectorborne).

Notifiable disease: See definition for “disease, notifiable.”

Novel virus (module 1): A virus that has not been seen before or is a virus that is known but has not infected humans before.

Outbreak (modules 1, 8): A higher number of cases than expected in an area within a certain time period.

Outbreak, continuous (common source) (module 5): A type of common source outbreak where there is a single, common source of the agent, but exposure takes place over a longer period. As a result, cases are spread out over time.

Outbreak, point source (module 5): A type of outbreak where there is a single source of the agent and a narrow period of exposure.

Outbreak, propagated (module 5): A type outbreak where infection takes place through person-to-person spread.

Outbreak, intermittent (common source) (module 5): A type of common source outbreak where there is a single, common source of the agent. However, the exposure is not continuous or steady, but intermittent, occurring at irregular intervals over time.

Pandemic (module 1): Similar to epidemic, but has spread over several countries or continents, usually affecting a large number of people.

Passive surveillance: See definition for “surveillance, passive.”

Pathogen: An organism (e.g., bacteria, viruses, parasites, or fungi) that causes disease in people or other living organisms.

PCR (polymerase chain reaction) test (module 6): See definition for “test, PCR.”

Portal of entry (module 2): The pathway taken by an infectious agent to enter a host (e.g., nose, mouth, or break in skin).

Portal of exit (module 2): The pathway taken by an infectious agent to exit a host (e.g., nose, mouth, anus, or blood).

Pre-symptomatic (person) (module 7): A person who has been infected with an infectious agent (such as a virus) and does not yet show any symptoms of disease but will go on to develop symptoms. A presymptomatic person can still spread disease.

Prevention strategies (module 2): Actions that reduce the spread of disease.

Privacy (module 7): The duty to protect a patient's sense of being in control of the access others have to their experiences, behaviors, or thoughts. Privacy deals with people (e.g., health care workers should not share the name or location of the patient to a close contact without the permission or consent of the patient).

Propagated outbreak: See definition for "outbreak, propagated."

Protective factor: See definition for "factor, protective."

Point source outbreak: See definition for "outbreak, point source."

Public health (module 1): The science and art of protecting and improving the health of people and their communities.

Public health surveillance: See definition for "surveillance, public health."

Quarantine: See definition for "self-quarantine."

Racism: A system consisting of structures, policies, practices, and norms, which assigns value and determines opportunity based on the way people look or the color of their skin. This results in conditions that unfairly advantage some and disadvantage others throughout society.

Rate: A quantity measured per unit of something else (e.g., miles per hour). In public health, this is often number of cases that occur in a defined population over a specified period of time (e.g., 70 new cases of cancer per 1,000 people in a certain county per year).

Reportable disease: See definition for "disease, reportable."

Reservoir (module 2): The natural habitat (e.g., an animal, water, or soil) where an infectious agent lives, grows, and multiplies.

Resistant: To be not affected or harmed by something. For example, antibiotic-resistant bacteria that develop the ability to not be harmed by the medicine (e.g., antibiotics) designed to kill them.

Respiratory disease: See definition for "disease, respiratory."

Risk: The likelihood that an individual will experience a certain event that will cause injury, illness, or other unintended outcome.

Risk factor: See definition for "factor, risk."

Risk ratio (module 3): A comparison of the risk for disease among one group with the risk among another group. The risk ratio also quantifies how strongly associated a factor is to a disease.

Sample, biological: A sample (e.g., blood, tissue, urine) taken from a human or animal.

Screening testing: See definition for “testing, screening.”

Self-isolation (modules 6, 7): The practice used to keep a person who is currently infected with an infectious agent (such as a virus) away from others during their infectious period to prevent transmission of an infectious disease.

Self-quarantine (modules 6, 7): The practice used to keep a person who may have been exposed to an infectious agent (such as a virus) away from others while they monitor themselves for signs of illness during their potential infectious period to prevent possible transmission of an infectious disease.

Signs (of disease): Any physical indication of disease seen by a patient or health care provider.

Social determinants of health (module 3): Conditions in the places where people live, learn, work, and play that affect a wide range of health and quality-of-life risks and outcomes.

Socioeconomic status: The social standing or class of an individual or group. Socioeconomic status (or SES) is often measured as a combination of education, income, and occupation.

Statistics: A branch of mathematics that deals with collecting, reviewing, summarizing, and interpreting data or information. Statistics are used to determine whether differences between study groups are meaningful.

Susceptible host (module 2): A host (e.g., human, animal, or environment) that an infectious agent can enter and that is not resistant to that agent, which then may cause disease.

Surveillance, active (module 4): The collection of disease data that occurs when public health agencies contact health care providers, laboratories, hospitals, the population, and others to seek information about health conditions.

Surveillance, syndromic (module 4): The collection of data on syndromes (i.e., set of symptoms that are consistently associated with the disease) rather than a diagnosed infection or disease. Syndromic surveillance can be an active or passive system and is often done automatically (e.g., through electronic reporting).

Surveillance, passive surveillance (module 4): The collection of disease data that occurs through regular reporting by health institutions (e.g., hospitals, doctors’ offices) to health authorities (e.g., state or local health departments).

Surveillance, public health (module 4): The ongoing systematic collection, analysis, and interpretation of disease data, essential to the planning, implementation, and evaluation of strategies to prevent disease and promote health.

Symptomatic (person) (module 7): A person who has been infected with an infectious agent (such as a virus) and is showing symptoms of disease. A symptomatic person can spread disease.

Symptoms (of disease): Any indication of disease felt by a patient.

Syndrome: A combination of signs and symptoms characteristic of a disease or health conditions.

Syndromic surveillance: See definition for “surveillance, syndromic.”

Test, antibody (module 6): A type of laboratory test that looks for antibodies produced by the body's immune system soon after being infected or vaccinated.

Test, antigen (module 6): A type of laboratory test that looks for antigens from infectious agents which indicate a current infection. This test can be used for diagnostic or screening purposes.

Test, laboratory: A test conducted in a laboratory on a sample taken from a patient or from the environment, including those tests used by medical professionals to help diagnose disease and those tests used by public health experts to help identify potential public health problems in a community.

Test, PCR (module 6): A type of laboratory test that looks for genetic material such as DNA or RNA from an infectious agent, which indicates a current infection. This test can be used for diagnostic or screening purposes.

Testing, diagnostic (module 6): Laboratory tests conducted for the purpose of helping diagnose a current disease in a person with signs and symptoms of disease.

Testing, screening (module 6): Laboratory tests conducted for the purpose of identifying a disease or other health state in a person who does not currently have signs or symptoms of disease.

Trace map (module 7): A visual or model that displays how a disease spread from person to person in a community or population.

Transmission (of infection): The process by which an infectious agent is spread to a susceptible host.

Transmission, direct (module 2): The close and immediate transfer of an infectious agent from a source or reservoir to a susceptible host by direct contact (e.g., skin-to-skin contact, or kissing) or respiratory droplets (i.e., droplets that spread through coughing, sneezing, talking, or breathing).

Transmission, indirect (module 2): The transfer of an infectious agent from a source or reservoir to a susceptible host through an extra step that may include suspended air particles (airborne), inanimate objects (vehicleborne), or living intermediaries (vectorborne).

Trend: Movement or change in frequency over time, usually upwards or downwards.

Urban: Areas that are densely populated, including cities.

Vaccine (module 6): A product that stimulates a person's immune system to produce immunity to a specific disease, protecting the person from that disease.

Vector: A living organism that carries an agent from a reservoir to a susceptible host.

X-axis (module 5): The vertical axis of an epidemic curve, representing the number of new cases of the disease.

Y-axis (module 5): The vertical axis of an epidemic curve, representing the number of new cases of the disease.