

Appendix A.3, Lesson Three Glossary

**algal bloom**—a rapid increase or accumulation in the population of algae in an aquatic system which results from changes in the chemistry and/or temperature of the water

**anemia**—a deficiency of red blood cells that results in pallor and weakness

**asymptomatic**—the absence of symptoms

**bacterium**—a single-celled prokaryotic microorganism, capable of causing disease

**chemotherapy**—a chemical treatment used to kill and slow the growth of cancer cells in the body

**chronic disease**—a persistent and lasting illness or medical condition, or one that has developed slowly

**commensalism**—a relationship between two species in which one benefits and the other is neither benefited nor harmed

**crustacean**—any of various predominantly aquatic arthropods of the class *Crustacea*, including lobsters, crabs, shrimps, and barnacles, characteristically having a segmented body, a chitinous exoskeleton, and paired, jointed limbs

**cysticercosis**—infection caused by ingestion of food or water contaminated with feces containing tapeworm eggs

**deforestation**—the act or process of removing trees from or clearing a forest; can lead to erosion, drought, loss of biodiversity through extinction of plant and animal species, and increased atmospheric carbon dioxide

**dengue fever**—an acute, infectious tropical disease caused by a virus transmitted by mosquitoes, and characterized by high fever, rash, headache, and severe muscle and joint pain

**E. coli poisoning**—a bacterial disease and a type of food poisoning, symptoms include severe abdominal pain, watery or bloody diarrhea and sometimes a mild fever

**emerging disease**—a disease that is found to newly infect humans, to be newly present in a certain area or population, or to cause a new type of infection due to changing patterns of disease

**endemic disease**—a disease that is regularly found in a certain area or population

**epidemic**—a widespread occurrence of disease that exceeds the “normal” level in a particular area or population

**flora**—bacteria, fungi, and other microorganisms normally occurring on or in the bodies of humans and other animals

**fungus**—simple eukaryotic organism that lives by feeding on dead or living organic matter in which they grow and decompose; can infect humans and cause disease

**host**—an organism that acts as a home for a pathogen

**immunocompromised**—a term used to describe a person whose immune system is impaired and particularly susceptible to infection

**infectivity**—a measure of the ability of a pathogen to cause infection.

**jaundice**—a yellowing of the skin or whites of the eyes; can be due to liver disease

**monsoon**—a seasonal windstorm that brings heavy rainfall in the region of the Indian subcontinent and Southeast Asia

**mortality**—a large-scale measure of death in a given time or place

**mutualism**—a relationship between two species in which both species benefit

**neurological deficits**—a functional abnormality of a body area due to a decrease in the function of the brain, spinal cord, muscles, or nerves; examples include inability to speak, decreased sensation, loss of balance, weakness, mental function problems, visual changes, abnormal reflexes, and walking problems

**non-communicable disease**—non-infectious illness; a disease that cannot be spread from one host to another by an infectious agent

**opportunistic infection**—an infection caused by a pathogen that would not normally cause disease in an individual with a healthy immune system

**pandemic**—a particularly widespread epidemic that can infect and kill many more people than an epidemic across a broader geographic scale

**parasite**—a pathogen that lives in or on a host and depends on the host for nourishment

**parasitism**—a relationship between two species in which one benefits and the other is harmed

**pathogen**—an agent capable of causing disease, such as a bacterium, virus, parasite, or fungus

**prion**—a microscopic protein particle similar to a virus but lacking nucleic acid, thought to be the infectious agent responsible for certain degenerative diseases of the nervous system

**protozoan**—any of a large group of single-celled, usually microscopic, eukaryotic organisms, such as amoebas, ciliates, flagellates, and sporozoans

**rabies**—an acute, infectious, often fatal viral disease of most warm-blooded animals, especially wolves, cats, and dogs, that attacks the central nervous system and is transmitted by the bite of infected animals

**refugee**—a person who has been forced to leave their country in order to escape war, persecution, or natural disaster

**reproductive number**—the average number of people a person infects in the absence of control measures

***Salmonella***—a genus of rod-shaped bacteria, many of which are pathogenic, causing food poisoning, typhoid, and paratyphoid fever in humans and other infectious diseases in domestic animals

**sputum**—a mixture of saliva and mucus coughed up from the respiratory tract, typically as a result of infection or other disease and often examined microscopically to aid medical diagnosis

**surveillance**—systematic monitoring

**susceptible host**—an individual who is at risk for infection

**toxocariasis**—a disease caused by a parasitic worm of the genus *Toxocara*, transmitted to humans by ingestion of a substance, such as soil, that has been contaminated by dog or cat feces and typically affecting either the eye or the internal organs; can lead to permanent loss of vision

**transmissible**—or infectious; the ability for a disease to be passed from one host to another

**transmission**—the action or process passing something on from one place or person to another

**vector**—an organism that carries and transmits a pathogen from one animal or plant to another

**virus**—an infective agent that typically consists of a nucleic acid molecule in a protein coat, is much smaller than bacteria, and requires a host cell to replicate

**West Nile virus**—a virus that can cause encephalitis (inflammation of the brain); West Nile is predominantly a fatal infection of birds but can be transmitted to humans by mosquitoes; the virus was originally confined to Africa, the Middle East, and Southeast Asia but has spread to Europe and North America

**zoonosis**—an infectious disease of animals, such as rabies, that can be transmitted to humans

Appendix A.4, *Lesson Four Glossary*

**average life expectancy**—a health indicator measuring the age at which the average person dies

**biostatistician**—a person who studies the branch of statistics that deals with biological and medical data

**causation**—the relationship between cause and effect; when one factor is the result of another

**chain of infection**—a model used to understand the infection process; each of the following links must be present and in sequential order for an infection to occur: pathogen, reservoir, place of exit, mode of transmission, place of entry, and susceptible host

**chronic disease**—a persistent and lasting illness or medical condition, or one that has developed slowly

**correlation**—when two or more factors are related in some way, not necessarily by cause and effect

**demographic**—characteristics of a given population, such as average age, race, ethnicity, and sex

**developed country**—a term used to describe nations that have a high level of development according to some criteria. Which criteria, and which countries are classified as being developed, is a contentious issue and is surrounded by fierce debate. Criteria may include income per capita, industrialization, life expectancy and /or education level

**developing country**—a term generally used to describe a nation with a low level of material well-being, where the average income is much lower than in industrial nations, where the economy relies on a few export crops, and where farming is conducted by simple methods. Since no single definition of the term developed country is recognized internationally, the levels of development may vary widely within so-called developing countries

**epidemiologist**—a person who studies how and why specific diseases affect specific populations

**funding agency**—an organization that provides money for a particular purpose

**health care infrastructure**—a system to respond to community health needs, includes health professionals, data and information systems, and facilities

**health determinant**—a factor that influences a person's health, such as income, social status, education, social support network, health services, physical environment, or individual characteristics and behaviors

**health disparity**—a difference in the health status or quality of health care between two populations

**health educator**—a person who helps people to improve their health by informing them about the causes and prevention of health problems, especially those that relate to lifestyle, work, and cultural factors

**herd immunity**—the protection that unvaccinated individuals have from a disease due to the vaccination or immunity of other individuals within the same population.

**incidence**—the proportion of people in a given population that develop a disease or condition over a period of time.

**infant mortality rate**—a health indicator measuring the number of babies per thousand that die before their first birthday

**isolation**—a method used to break the chain of infection in which an infected individual is kept away from others until he or she is no longer able to spread the disease

**maternal mortality rate**—a health indicator measuring the number of mothers giving birth per one hundred thousand who die as a result of complications during childbirth

**microbiologist**—a scientist that studies microscopic organisms such as bacteria and viruses and their effects on other living organisms

**mode of transmission**—refers to the way in which an infectious organism is spread

**non-profit organization**—a group, institution, or corporation formed for the purpose of providing goods and services under a policy where no individual (e.g., stockholder, trustee) will share in any profits or losses of the organization; examples include governments, charities, universities, religious institutions, and some hospitals

**pathogen**—an agent capable of causing disease, such as a bacterium, virus, parasite, or fungus

**place of entry**—where the infectious agent enters the body; entrance to the host generally occurs through the mucosa in orifices like the oral cavity, nose, eyes, genitalia, anus, or open wounds

**place of exit**—where the infectious agent leaves the reservoir, in humans it can be the nose, mouth, urethra, open wound, vagina, or rectum

**population**—a group of individuals sharing a common characteristic, such as age, race, ethnicity, or geographic location

**population level health indicators**—statistics (such as infant mortality rates and average life expectancy) that help public health officials measure the health of entire populations

**prevalence**—the proportion of people in a given population that have a specific disease or condition at one point in time

**primary prevention measures**—steps taken to stop a disease or condition from ever occurring within an individual

**reservoir**—any person, animal, arthropod, plant, soil or substance (or combination of these) in which an infectious agent normally lives and multiplies, on which it depends primarily for survival, and where it reproduces itself in such manner that it can be transmitted to a susceptible host

**resilient**—able to withstand or recover quickly from difficult conditions

**secondary prevention**—steps taken to identify and treat a disease in an individual after he or she has already developed the disease so as to avoid transmission to other people

**socioeconomic status**—a measure combining factors such as one's educational level, occupation, and income

**susceptible host**—an individual who is at risk for infection

**tetanus**—or lockjaw, an acute disease caused by the toxin of the bacterium *Clostridium tetani*, which typically infects the body through soil contamination of a deep wound; marked by muscle spasms and rigidity, convulsions, and extreme pain