

AOHS

Global Health

Unit 1, Lesson 2

Health Status Indicators: Illness and Injury

Looking at how long people live is just one way to measure health

Country	Egypt
Life expectancy at birth (2013)	73 years
Infant mortality rate (2013)	23 deaths per 1,000 live births
Maternal mortality rate (2011)	66 deaths per 100,000 live births

What other information would you want to know about Egypt to determine the health of the population?

Information about illness and injury is also used to measure a health status

- What illnesses do people have?
- How quickly does an illness spread through a population?
- What percentage of the people in a population have the illness?
- How much does illness affect people's ability to enjoy life?

Morbidity is another word for illness and injury



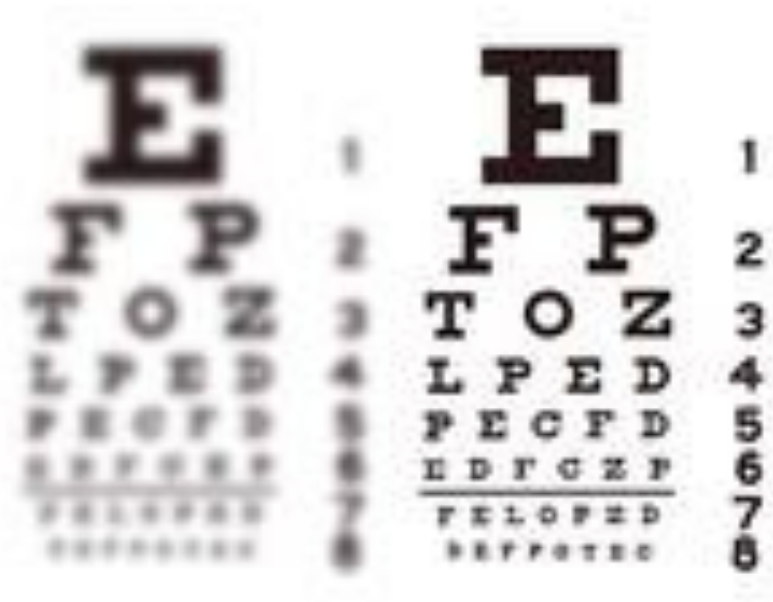
Car accidents are a common cause of morbidity around the world.

- Illnesses, such as cancer, HIV, or malaria, are common examples of morbidity.
- Morbidity also refers to injuries, such as a loss of limb due to war.

Think about a particular condition, such as HIV. What might professionals want to be able to measure about that condition?

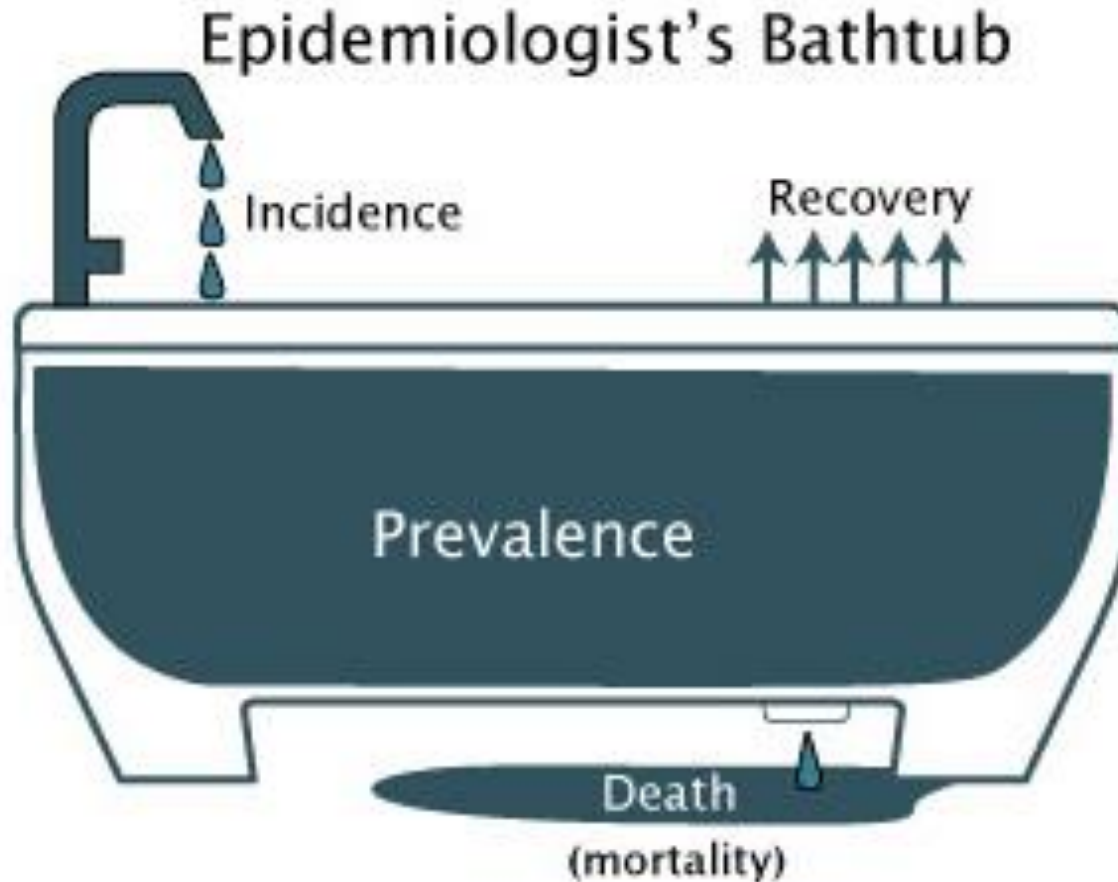
Disability is a physical or mental condition that limits a person's movements, senses, or activities

- Over a billion people, about 15% of the world's population, have some form of disability.
- Rates of disability are increasing due to the population aging and increases in chronic health conditions, among other causes.



Vision problems, hearing loss, and mental disorders are the most common causes of disability around the world.

Professionals use incidence and prevalence to measure the occurrence of disease in a population



- **Incidence** = newly diagnosed cases of a disease in a particular population over a specific time period.
- **Prevalence** = the number of people in a specific population who contracted a disease and are still living with it.

Health professionals use incidence rate to track the spread of disease in a specific population

Bay Town Flu Season, 2013

Total population in Bay Town:	1,000
People who got the flu in Bay Town in 2013:	100
Incidence rate:	$100/1,000$ or 100 out of 1,000

- The **incidence rate** is shown by creating a fraction.
- The **numerator** (the top part of the fraction) is the number of newly developed cases of a health condition over a specific period of time, such as one year.
- The **denominator** (the bottom part of the fraction) is the total population.

Let's figure out the incidence of mononucleosis at Grant High School

- Grant High School has a population of 1,200 students.
- During the 2012–2013 school year, 10 students got the virus mononucleosis.
- Therefore, 10 out of 1,200, or 1 in 120 students, got mononucleosis during that school year. That's the incidence rate.

Out of 1,200 students at Grant High School, there were four cases of measles during the 2012–2013 school year. What was the incidence rate for measles?

Prevalence measures how many people in a population are living with a disease

Depression in Bay Town, 2013

Total population in Bay Town:	1000
People who have been diagnosed and are living with depression:	50
Prevalence:	$50/1,000$ or 50 out of 1,000

- Like the incidence rate, **prevalence** is determined by creating a fraction.
- The **numerator** (top part) is the total number of individuals in a population suffering from a disease at a point in time.
- The **denominator** (bottom part) is the total population.

Let's figure out the prevalence of obesity at Grant High School

- Grant High School has a population of 1,200 students.
- In 2013, 200 students at Grant High School were considered obese. This number includes students who had been obese before 2013 and were still obese, and students who were diagnosed for obesity that year.
- Therefore, 200 out of 1,200 students are obese. That's the prevalence rate.

If there are 80 students with asthma at Grant High School, what is the prevalence rate?

Let's look at the incidence and prevalence of arthritis in Bay Town

Incidence of arthritis in Bay Town, 2013

25 out of 1,000

Prevalence of arthritis in Bay Town, 2013

200 out of 1,000

How many new cases of arthritis were diagnosed in Bay Town in 2013? How many people in Bay Town in 2013 had arthritis but had been diagnosed prior to that year?

Health-adjusted life expectancy (HALE) is a measure of how many years you can expect to live in good health

HALE evaluates the quality of life. In other words, while life expectancy measures the total number of years you might live, HALE measures the number of years that you are likely to feel well enough to enjoy your life.

Country	2013 Life Expectancy	2013 HALE
Afghanistan	61	50
Cameroon	57	49
United States	79	69

Health status indicators help professionals understand the status of health around the world

- Tracking the incidence of a disease in a population shows us if the number of new cases of diseases like polio is decreasing.
- Tracking the prevalence of a disease shows if people are living longer with chronic illnesses such as HIV.
- HALE measures the number of years a person can expect to live in reasonably good health.