

# Endemics, Epidemics and pandemics

## Introduction:

Infectious diseases are spread by either bacterial or viral agents and are ever-present in society usually infected cases are present in numbers below an expected threshold but every once in a while there may be an outbreak, a new strain or a new disease that has a significant impact at either a local or global level.

**Endemic:** describes a disease that is present permanently in a region or population.

**Epidemic:** is an outbreak that affects many people at one time and can spread through one or several communities

Pandemic :  
is the term used to describe  
an epidemic when the spread is  
global.

**Endemic :-**

Endemic is derived from  
Greek en meaning and demos meaning  
people.

It is used to describe a  
disease that is present at an  
approximately constant level within a  
society or country.

Each country may have  
a disease that is unique, for  
example,

\* Caribbean dengue is still  
present due to a failure to eradicate  
the *Aedes aegypti* mosquito.

\* varicella, more commonly  
known as chicken pox in the UK.

\* It is more common in children under the age of 10, who often only experience mild symptoms and after exposure develop a natural immunity to the virus.

\* Although there is a vaccine available it is only offered to those who are seen as vulnerable.

\* Malaria is another infectious disease that is endemic to Africa; through education and implementing countrywide edu. strategies the causes of malaria are now falling

### Epidemic :-

\* An epidemic is derived from Greek epi meaning upon or above and demos meaning people and is the term used to describe a situation where a disease spreads rapidly to a large number of people in a given population over a short time period.

\* The rise in obesity globally over the last 3 decades, the United States has seen an increase in the number of people who have a BMI higher than the recommended average

\* When the term epidemic is used in connection with infectious diseases it is due to the sudden rise of cases usually resulting from a new infectious agent or a change in an existing agent, for example;

\* An agent moving between host populations, for example moving from animals to humans

\* A genetic change in the infectious agent, e.g. bacteria, virus, fungi or parasite

\* Introduction of new pathogens to a host population.

## Pandemic :-

- \* A pandemic is derived from Greek pan meaning all and demos meaning people and is the term used to describe the rapid spread of a transmissible infections over several continents or worldwide.
- \* Affects a wide geographical area, often global
- \* Infects a very large number of people.
- \* Often caused by a new virus or a new strain of a virus that has been dormant for many years.
- \* Spreads quickly in humans as there is little to no existing immunity.
- \* Can cause a high number of deaths
- \* Because of the need control the spread of the disease there is often disruption, unrest and economic loss.