

# Pandemic vs. endemic vs. outbreak: Terms to know

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Understanding epidemiological terms such as pandemic, endemic and outbreak can be confusing, especially as more news emerges about Zika virus and dengue fever.

Mayo Clinic infectious diseases specialist Dr. Prithish Tosh offers some insight.

## WHAT IS THE DIFFERENCE AMONG A PANDEMIC, ENDEMIC AND AN OUTBREAK?

A pandemic refers to a [global epidemic](#) - one that has spread over several countries or continents affecting a large number of people.

"In epidemiologic terms, an outbreak refers to a number of cases that exceeds what would be expected," says Tosh. "A [pandemic](#) is when there is an outbreak that affects most of the world. We use the term endemic when there is an infection within a [geographic location](#) that is existing perpetually.

"When we're talking about endemic infections, we're talking about viruses, bacteria and pathogens that exist within a geographic location," he says.

## TERMS TO KNOW

- Outbreak: refers to the number of cases (disease) that exceeds what would be expected
- Endemic: an infection within a geographic location that is existing perpetually
- Pandemic: a global epidemic

## DENGUE FEVER

"An example of this is dengue fever," says Tosh. "There are parts of the world where dengue fever is endemic, meaning that there are mosquitoes that are carrying dengue fever and transmitting it from person to person. But we also see imported cases and imported outbreaks in parts of the world where a disease is not endemic.

"Most recently we saw an outbreak in the Big Island of Hawaii where somebody, unknown, must have come in with dengue fever, got bitten by mosquitoes, and then you had local chains of transmission where those mosquitoes then bit other people, they got dengue fever, and so on and so on. In this case, [dengue fever](#) is not endemic in the Big Island, however, there was an [outbreak](#) due to an imported disease with subsequent transmission."

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