

Let's Make It All Simple!



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Terms and Conditions of COVID-19

Scientists and medical researchers have for years have differed over the exact definition of a pandemic, but one thing everyone agrees on is that the word describes the widespread occurrence of disease, in excess of what might normally be expected in a geographical region.

Cholera, bubonic plague, smallpox, and influenza are some of the most brutal killers in human history. The outbreaks of these diseases across international border are properly defined as pandemic, especially small pox, which throughout history, has killed between 300-500 million people in its 12,000 years of existence. Beginning in December 2019, in the region of Wuhan, China, a novel ("new") coronavirus was noticed in human beings. It is named as COVID-19 (a shortened form of "coronavirus disease of 2019"). This new virus spreads incredibly quickly between people, due to its newness.

"No one on earth has any immunity to Covid-19, because no-one has had Covid-19 until 2019."

While it was initially seen to be an epidemic in China, the virus spread world wide within months. The WHO declared Covid-19 a pandemic in March, and by the end of that month, the world saw more than a half million people infected and nearly 30,000 deaths. The infection rate in the US and other nations is still spiking. The push for humans to survive the pandemic has become the primary concern in the world. The outcome of COVID-19 is impossible to predict for now, but we can learn from our previous pandemics that happened in our world history to help ourselves survive the current pandemics.



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Here is a list of pandemics through our recorded history:

Name of the pandemic	Time period	Causative agent and pre human hosts	Estimated deaths
Antonine Plague	165-180	Believed to be either smallpox or measles disease	5 Million
Plague of Justinian	541-542	<i>Yersinia pestis</i> (bacteria) Pre human host: Rats, fleas	30-50 Million
Black Death	1347-1351	<i>Yersinia pestis</i> (bacteria) Pre human host: Rats, fleas	75-200 Million
Italian plague	1629-1631	<i>Yersinia pestis</i> (bacteria) Pre human host: Rats, fleas	1 Million
Cholera Pandemics 1-6	1817-1923	<i>Vibrio cholerae</i> (bacteria)	Around 1 Million
Third Plague	1885	<i>Yersinia pestis</i> (bacteria) Pre human host: Rats, fleas	12 Million (China and India)
Yellow Fever	Late 1800s	Virus (unknown) Pre human host: Mosquitoes	100,000-150,000 (U.S.)
Russian Flu	1889-1890	Believed to be H2N2 (avian origin)	1 Million
Spanish Flu	1918-1919	H1N1 virus Pre human host: Pigs	40-50 Million
Asian Flu	1957-1958	H2N2 virus	1.1 Million
Hong Kong Flu	1968-1970	H3N2 virus	1 Million
HIV/AIDS	1981-present	Virus Pre human host: Chimpanzees	25-35 Million
Swine Flu	2009-2010	H1N1 virus Pre human host: Pigs	200,000
SARS	2002-2003	Coronavirus Pre human host: Bats, Civets	770
Ebola	2014-2016	Ebolavirus Pre human host: Wild animals	11,000
COVID-19	2019-Present	Coronavirus Pre human host: possibly pangolins (still unconfirmed)	444.9K (As of June 17 2020, John Hopkins University)

(Note: Many of the death toll numbers listed above are best estimates based on available research. Some, such as the Plague of Justinian and Swine Flu, are subject to debate based on new evidence)

“Despite the persistence of disease and pandemics throughout history, there’s one consistent trend over time – a gradual reduction in the death rate.”

Healthcare improvements and understanding the factors that incubate pandemics have been powerful tools in mitigating their impact.

You probably now know that COVID-19, the illness caused by the new coronavirus SARS-CoV-2, is a pandemic. But what's the difference between a pandemic, an epidemic, and an outbreak? And when does a disease become a public health concern?

Lets try and find answer to some questions related to this and other pandemics, epidemics and outbreaks!

What is an Outbreak?

An outbreak is when an illness happens in unexpected high numbers. It may stay in one area or extend more widely. An outbreak can last days or years. Sometimes, experts consider a single case of a contagious disease to be an outbreak. This may be true if it's an unknown disease, if it's new to a community, or if it's been absent from a population for a long time.

What is the Difference between an epidemic and pandemic?

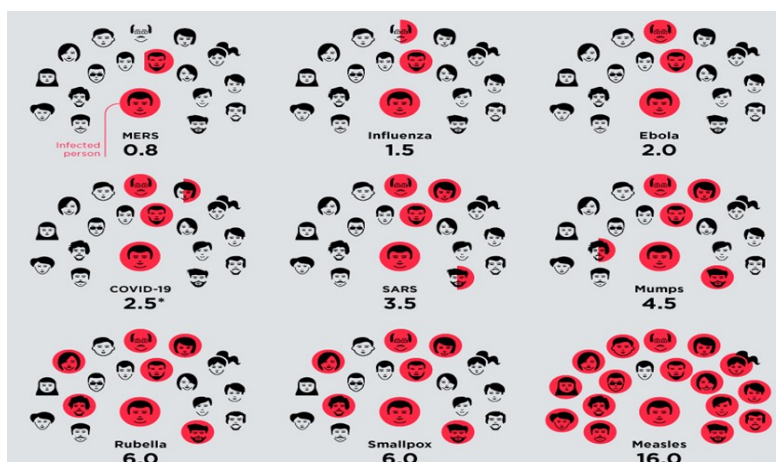
An epidemic is when an infectious disease spreads quickly to more people than experts would expect. It usually affects a larger area than an outbreak and a pandemic is a disease outbreak that spreads across countries or continents. It affects more people and takes more lives than an epidemic. The World Health Organization (WHO) declared COVID-19 to be a pandemic when it became clear that the illness was severe and that it was spreading quickly over a wide area.

What is the Incubation Period?

The incubation period is the time it takes for symptoms to appear after a person is infected. This time can be critical for prevention and control, and it allows health officials to quarantine or observe people who may have been exposed to the virus. The new coronavirus has an incubation period of two to 14 days, according to the CDC, with symptoms appearing about five days after infection in most cases.

What is R naught Value?

The R-naught, or R_0 , is a virus's basic reproductive number - an epidemiologic metric used to describe the contagiousness of infectious agents. If the R_0 is above one, each case is expected to infect at least one other person on average, and the virus is likely to keep spreading. If it's less than one, a group of infected people are less likely to spread the infection. Following image depicts R_0 value for various infections.



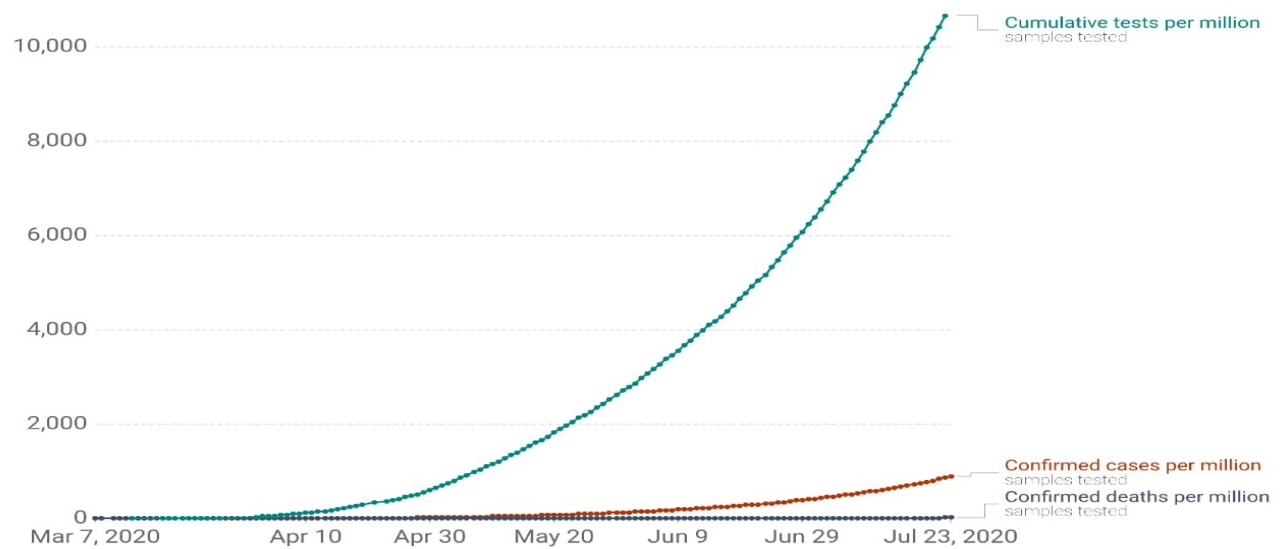
What are asymptomatic carriers?

Being asymptomatic means that you have no symptoms. However, there are reports of loss of sense of smell in asymptomatic people. Technically even that is a symptom. If you live in a house with people with probable COVID-19 infection and you have no symptoms, you may have an asymptomatic case. It is possible that a large proportion of the population will have COVID-19 yet have no symptoms at all.

What is the mortality rate for COVID-19?

A mortality rate is a measure of the frequency of occurrence of death in a defined population during a specified interval. Eventually, scientists hope to have a more comprehensive number called the infection mortality rate, which includes everyone who was infected with the virus. The WHO estimates the mortality rate of the new coronavirus to be about 3%, based on current data, but experts suggest 1% is more realistic.

Total COVID-19 tests, confirmed cases and deaths per million people, India Our World in Data
The confirmed counts shown here are lower than the total counts. The main reason for this is limited testing and challenges in the attribution of the cause of death.



Source: Official data collated by Our World in Data; European CDC – Situation Update Worldwide

OurWorldInData.org/coronavirus • CC BY

ourworldindata.org

So this brings us to the end of this blog!

Let us know any word ,phrase or anything COVID-19 related makes you curious! We will get the answers to you!

Hope you liked our blog and see you with our next one.

Great resources to learn more about the Corona virus and the COVID-19 pandemic:

◆ Center for Disease Control, USA:

<https://www.cdc.gov/>

◆ World Health Organization:

<https://www.who.int/>

Coming up next: “QUARANTIME”

Sources for this blog:

- ◆ www.webmd.com/cold-and-flu
- ◆ www.cdc.gov
- ◆ ourworldindata.org
- ◆ www.visualcapitalist.com
- ◆ www.nursingcenter.com

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