**PANDEMICS: PAST AND PRESENT**

(4 min read)

In this article, we look at two of the most effective infographics we came across during our study of COVID-19. The first one compares most of the pandemics that have taken place since 200AD while the second one shows the basic reproduction rate of those pandemics.

In the first infographics, we see the death toll for every pandemic the world has ever seen. The infectious Coronavirus has resulted in a surging number of cases and death rate all over the world. The world came to a standstill and it shows that pandemic and disaster can destabilize everyday social arrangements and assumptions, and catalyst profound social change Also, we saw that R0 of COVID 19 is 2.5. This shows that the need of the hour is to socially distance ourselves and break the chain of the virus.

**Figure 1**

*Timeline of the history of pandemics*

Chart, diagram, funnel chart

Description automatically generated

*Note. [[1]](#footnote-1)*

Humanity has faced several other viruses and pandemics over the centuries. While the COVID pandemic is being termed as a threat to all humankind, we thought it'd be good to look back at all the deadly viruses and epidemics that humans have faced and see if COVID is really "a threat to humanity."

This visualization by Visual Capitalist represents the deadliness, i.e., the death toll, of pandemics in human record. The bubonic plague and the smallpox are two of the deadliest pandemics of history causing 200M and 56M deaths, respectively. How many deaths had COVID-19 caused as of 29 Sept? A million. It is not the right time to be questioning humanity's existence. While COVID- 19 has definitely created a wave of panic and a sense of fear all around the globe but we, as humans, have endured hazards much more perilous than this. There is no point in questioning science and technology this early.

Arguments to this statement stand. Back in the years, science and technology had not made significant leaps and did not claim to be omnipotent and advanced as it does now. Now even though humans claim to know everything about science, they are gasping for revival and upliftment.

COVID-19 has caused more deaths than any other virus has had in the 21st century. Keep in mind, we still are not done with it. Time can only tell if it’ll emerge to be the deadliest virus the world has ever faced. And this is what we seek to question and hopefully, answer through this engaging visualization.

This infographic above is a representation of all the pandemics that have taken place since 200AD. The figures here represent each pandemic and its size with respect to how many people died due to the disease. It aims to compare the pandemics that have occurred in the past with each other, keeping COVID in focus. Even though COVID does not seem very deadly, we must not forget the fact that COVID has been in existence for just about 9 months while the rest have existed for as long as 40 years.

We chose this representation because of how effective it is at comparing the pandemics according to their deadliness. It is also visually appealing with the color scheme and layout.

**Figure 2**

*Tracking infectiousness using RO*

Chart

Description automatically generated

Note. [[2]](#footnote-2)

This picture represents the basic reproduction number. Basic reproduction number is used to measure the transmission potential of a disease. It is the average number of secondary infections produced by a typical case of an infection in a population where everyone is susceptible. Let us take an example from the figure itself. R0 of COVID 19 is 2.5. This means on an average one infected person is expected to infect 2.5 other people (R0 excludes new cases produced by the secondary cases.) These figures depend on 3 factors: -

a) The rate of contacts in the host population

b) The probability of infection being transmitted during contact

c) The duration of infectiousness.

This takes us to the rationale behind social distancing. Social distancing, defined as measures taken to reduce physical contact, is the first line of defense for containing an infectious disease like COVID-19. That’s because these infections spread when people cough, sneeze, or touch surfaces on which the virus resides. The above estimates are just the results of mathematical estimations. Scientists have various other angles like timing and stimulations.

Conclusion

By analyzing these two infographics we come to the conclusion that - the death toll for every pandemic the world has ever seen. The infectious Coronavirus has resulted in a surging number of cases and death rate all over the world. The world came to a standstill and it shows that pandemic and disaster can destabilize everyday social arrangements and assumptions and is a catalyst to profound social change. Also, we saw that R0 of COVID 19 is 2.5. This shows that the need of the hour is to socially distance we and break the chain of the virus. One of the main reasons for implementing lockdown in India at an early stage was just this. Reports have shown that if India had not imposed lockdown at that stage, the current situation would have been much worse.

TEAM 3

1. (LePan, 2020). Visualizing the History of Pandemics. Visual Capitalist <https://www.visualcapitalist.com/history-of-pandemics-deadliest/> [↑](#footnote-ref-1)
2. (LePan, 2020) . A visual history of pandemics. World Economic Forum <https://www.weforum.org/agenda/2020/03/a-visual-history-of-pandemics> [↑](#footnote-ref-2)