

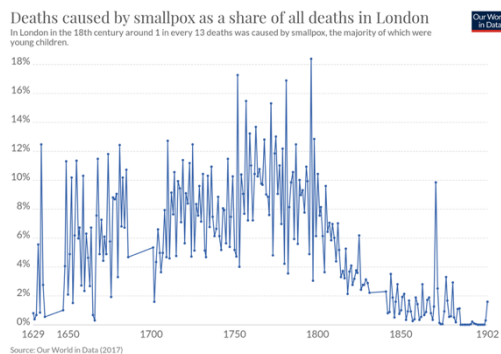
Smallpox- the pandemic success story

With the current coronavirus pandemic affecting over 1.5 million people and disrupting the lives of everyone all over the world. I chose to investigate past epidemics and the effects they had globally. Previous outbreaks such as the Spanish flu, cholera and smallpox had devastated the world by killing thousands of people. I have chosen smallpox as my topic for further research and investigation.

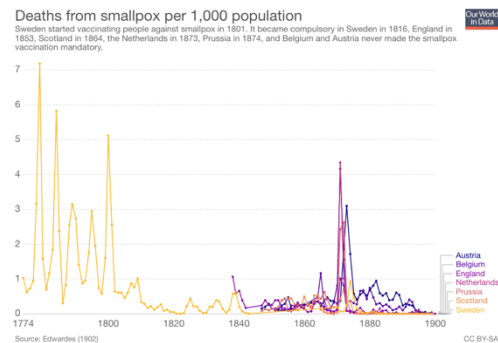
Smallpox is a disease caused by the variola virus, which only affects humans. When infected with the variola virus, symptoms usually will not appear until after the incubation period is over, which lasts for about 10-14 days. Only after this period of time will one start to notice symptoms such as fever, itchiness, severe pain, and insomnia. Pustules begin to slowly develop, and it usually takes 24 hours for the rash to cover the body completely. This disease is transmitted between humans via body fluids such as puss, saliva and tears. It also predominantly affects the youth more than the elderly.

Smallpox is the oldest disease known to mankind. There is archeological evidence of smallpox that was found on mummies. The first incidence of smallpox was in a human civilization along the Nile River in Egypt. It is said to have spread to south-Asia and Europe from there.

It can be clearly seen from the charts below that smallpox was a major problem through the last millennium until the number of cases drastically decreased from the 1960's onwards. Various charts show the extent of the epidemic in different centuries. From chart 1 we can see that approximately 12% of deaths in London were caused by smallpox from 1600- 1800. Deaths from smallpox in several parts of the world were also high between 1700 - 1900 as seen in chart 2.



(chart 1)



(chart 2)

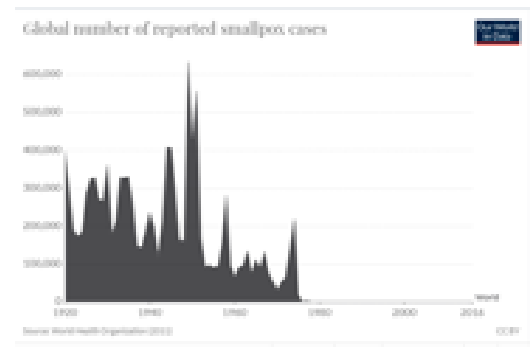
My Great Grandfather is a survivor of Smallpox. One day, he displayed symptoms of high fever and itchiness, so he was taken to the hospital and was diagnosed by the doctor with variola virus. In India, they used herbal remedies such as turmeric and neem paste to cure such infections. After he was given rigorous treatment, my grandfather slowly began to regain his normal sense of well-being. His community

had offered a lot of help for his recovery and they used completely natural methods to tackle the deadly disease.

Edward Jenner invented the first vaccine for smallpox in 1796. Britain acknowledged his contribution to the world in 1802 and gave him £ 30,000 as a reward. Smallpox is unique in that a person who once contracted the disease will not ever get infected again because they develop an antibody towards the virus. The 20th century was a crucial period in the history of smallpox because the epidemic broke out in several parts of the world, resulting in great calamity and the need for a vaccine was dire. The World Health Organization eventually began vaccinating one country after another. By 1980, smallpox was completely eradicated (Chart 4).



(chart 3)



(chart 4)

In light of the COVID-19 pandemic that has caused devastation on a global scale, I think it's important that we look to our past experiences with smallpox, since it was the only pandemic that has been eradicated to date. Even during the era of smallpox, social distancing measures were practiced in order to control the spread of the virus, so this phenomenon is not completely foreign to society. Deaths from smallpox decreased significantly only after a safe and sustainable vaccine was discovered, so until we develop one for coronavirus, we must be patient and take great precaution to fight through this global tragedy.

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