Smallpox

*Research provided by the Kansas Association of Local Health Departments*

***What is Smallpox?***

Smallpox is a very contagious and deadly disease that has affected the population for centuries. With similar symptoms to Chickenpox, Smallpox appears 10 to 14 days after the infection period with flu-like symptoms. After its initial onset, red spots can appear on your hands, face, forearms. Within 48 hours, these spots will become painful blisters that will eventually fall off and leave deep scaring. Lesions can also form on your sinuses. Unlike many diseases, during the incubation period of Smallpox, the infected person is not contagious and will not infect others. Making it difficult to contact trace the disease.

*As of 2022, there is no cure for Smallpox other than prevention.*

***History***

Historians have been able to trace smallpox infection through civilization and exploration growth. First appearing in China in the 4th Century CE and India in the 7th century, it was spread through trade into other parts of Asia, Europe, and Africa. By the 17thCentury, Smallpox has spread to the United States through European settlers. Many historians believe that the puritans who celebrated the first Thanksgiving in the United States wiped out nearly half of the native tribes through disease, including Smallpox.

In Europe, smallpox spread quickly. On average, 3 out 10 people died from the disease. Those who survived had long lasting effects such as sinus problems, overall health problems, and scaring.

***Variolation & Early Disease Mitigation***

variolation was used as a mitigation measure for smallpox. People who had not been exposed to Smallpox were introduced to material from smallpox sores by scratching the material onto their skin. People typically developed Smallpox, but fewer deaths occurred.

***Vaccines are Born! (Kinda)***

We can thank Dr. Edward Jenner for creating the idea of vaccination as a disease mitigation tool. In 1796, Jenner determined that milkmaids who worked with cows and received “cowpox” (smallpox in cows) were protected from smallpox. He determined that “cowpox” could be used to prevent smallpox. He called his invention “inoculation” or the insertion of a dead animal virus into humans as a means of disease protection. As you, know – the rest is history.

*It wasn’t until the early 1800s that the word “vaccine” was used. The virus used to make the inoculation was changed from cowpox to the “vaccinia virus”. This word was derived from the Latin word “vacca” which means cow.*

***Vaccinate the Masses & Eradicate***

In 1959, the WHO determined that Smallpox needed to be fully eradicated from the world as outbreaks were still active. Unfortunately, this campaign suffered from a shortage of vaccine donations. It was not picked up again until 1967, when smallpox was all but eliminated in the United States and Europe.

***Full Eradication by May 8, 1980 & Vaccines Stop***

Smallpox was fully eradicated by 1975 after a 3-year-old Bangladesh child naturally contracted the disease. She was isolated until she was no longer contagious. The disease was considered fully eradicated by the World Health Assembly on May 8, 1980. Smallpox vaccines were officially stopped in the United States by 1972.

***What We Can Learn from Smallpox***

Smallpox has taught scientists and the medical community a lot about disease and the importance of countermeasures to combat disease spread. The Global Smallpox Eradication Program encouraged vaccination as a disease prevention measure. Through this program, we have learned that vaccines are the safest and most effective way to completely eradicate disease. To learn more, please visit this video: <https://www.youtube.com/watch?v=yqUFy-t4MlQ>

Sources:

<https://www.cdc.gov/smallpox/history/history.html>

<https://www.mayoclinic.org/diseases-conditions/smallpox/diagnosis-treatment/drc-20353032>

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<https://www.historyofvaccines.org/content/who-pushes-eradication-efforts>

<https://www.youtube.com/watch?v=yqUFy-t4MlQ>