The Rise and Spread of Infectious Disease

From the beginning, humans have shared the world with tiny organisms that cause disease. Early humans carried harmful bacteria, viruses, and parasites but did not know it. When civilization brought humans closer together, infectious diseases emerged. While people have tried throughout history to find the best way to prevent the spread of infectious diseases, it was only about 200 years ago that an English physician, Edward Jenner, finally succeeded.

In the late 18th century, English physician Edward Jenner (1749-1823) developed the first vaccine for smallpox. Jenner noticed that milkmaids who caught cowpox, a mild form of smallpox, rarely got the more severe and deadly smallpox. In 1796, Jenner successfully vaccinated a boy with material from a cowpox lesion. The boy remained healthy, and Jenner went on to vaccinate others. His work laid the foundation for modern vaccination programs.

Jenner's vaccine was later improved and expanded. In 1881, Louis Pasteur developed the first rabies vaccine. In 1896, Jonas Salk introduced the first polio vaccine. These vaccines have saved countless lives and drastically reduced the spread of infectious diseases.

The advent of modern medicine and vaccines has made infectious diseases much less common today. However, the risk of new pandemics remains, and continued research and development of vaccines and treatments are essential to protect public health.

“Medical progress has brought powerful new tools for preventing and treating infectious diseases. However, the threat of new pandemics remains, and we must work together to keep them at bay.”

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Karl Landsteiner, D.M.D. (1868-1943) originated from Austria in 1917 and settled in Boston in 1919. He, with his wife, developed his pioneering research in genetics and medical research, which has been recognized with various prestigious awards.
The Golden Age of Microbiology

Without even understanding what caused diseases or how diseases spread, Dr. Edward Jenner laid the foundations for modern immunology when he created a vaccine for smallpox in 1796. During the Golden Age of Microbiology that followed (1857-1914), scientists, with the help of microscopes, proved that germs cause disease. This led to the development of more vaccines.

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In the 20th century scientists discovered that the injection of a bacterial infection, called the one hand, could prevent the other. This, the only way to prevent diseases. Since the time of the Edward Jenner, more than 200 vaccines were developed on the skin, through that trigger immunity. Today, scientists are working on gene-altering techniques.