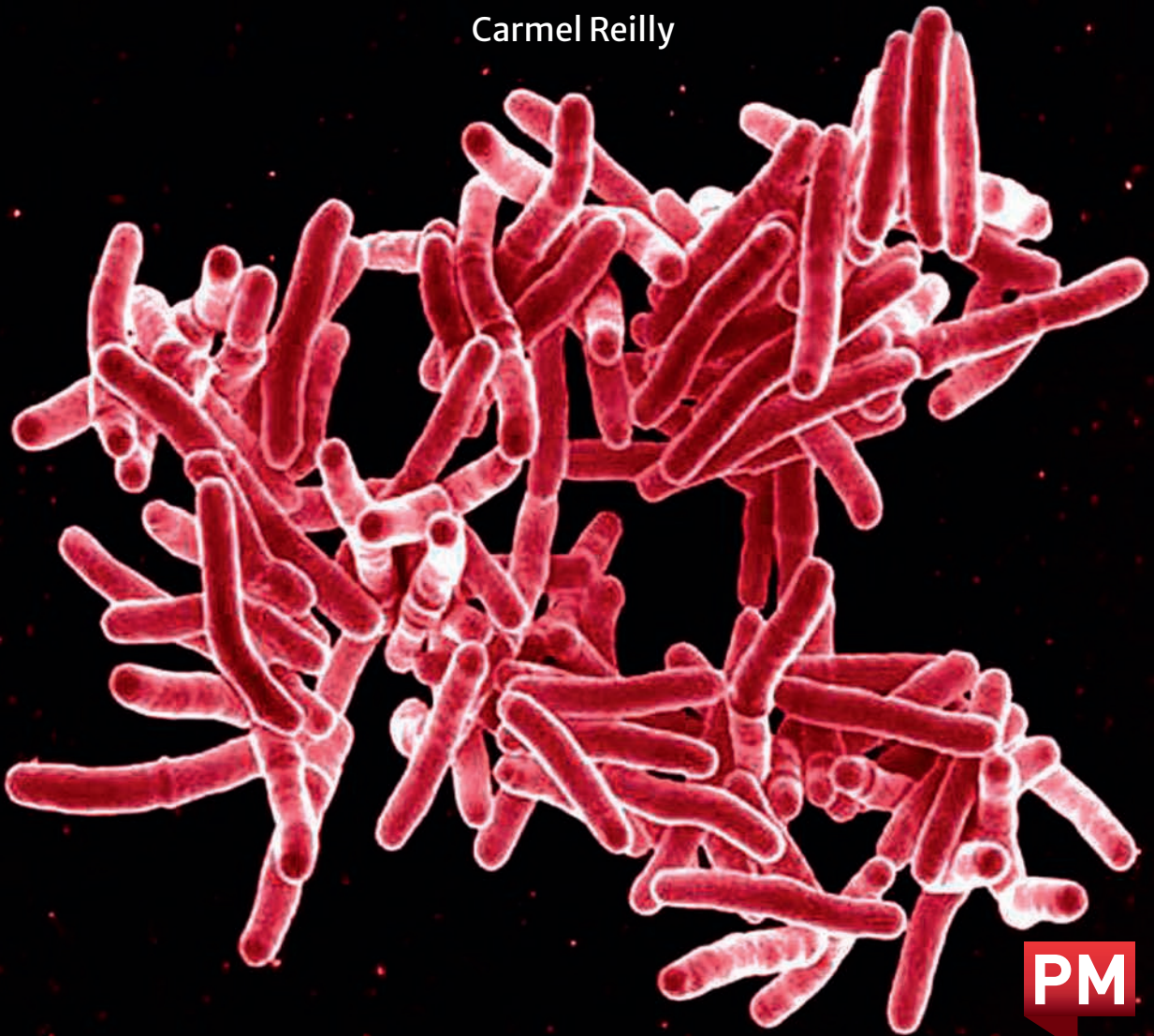


Fighting Deadly Diseases

Carmel Reilly



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Fighting Deadly Diseases

Dangerous Diseases

There is nothing that can affect human life more than disease. Some diseases, such as cancer, target one person at a time and cannot be spread to others. However, there are many diseases that can be passed on either from person to person, or from insects and animals.

Diseases that can be caught from others are called “infectious” diseases. Although many infectious diseases can be mild, such as colds, others, such as malaria, can be deadly. For most of human history, infectious diseases have been the most dangerous illnesses.

Even mild diseases can affect us, by preventing us from participating in our everyday activities.

Infectious diseases are caused by germs, which are tiny life forms that can only be seen with a microscope, such as **bacteria**, **viruses** and **parasites**. Once germs enter the human body, they can begin to damage certain parts of it. This damage leads to people having **symptoms** of an illness. Symptoms often include fevers, coughing, rashes, aches and pains, headaches and vomiting.



Germs, like these cells from a virus, are so small that they can only be seen under a microscope.

Before the 1900s

Until the twentieth century, infectious diseases killed more people than any other cause of death. Before the 1900s, most people had poor diets, worked unsafe jobs and lived in overcrowded housing. Water supplies were often unclean, and only a few places had **sewerage** systems to clear waste. Unhealthy environments meant infectious diseases could spread easily. In addition, people did not know about the importance of **hygiene** for killing germs, and there were no drug treatments or **vaccines**. The only way to stop a disease from spreading was to keep sick people apart from others, or for many people to become immune after recovering from a disease.

The immune system is a network, made up of cells in different parts of the body, that works to protect the body from bacteria and viruses that can cause illness. When a person recovers from a disease or receives a vaccine, they can become immune to it. Having immunity to a disease means they will not get the disease again, or will only get it mildly.

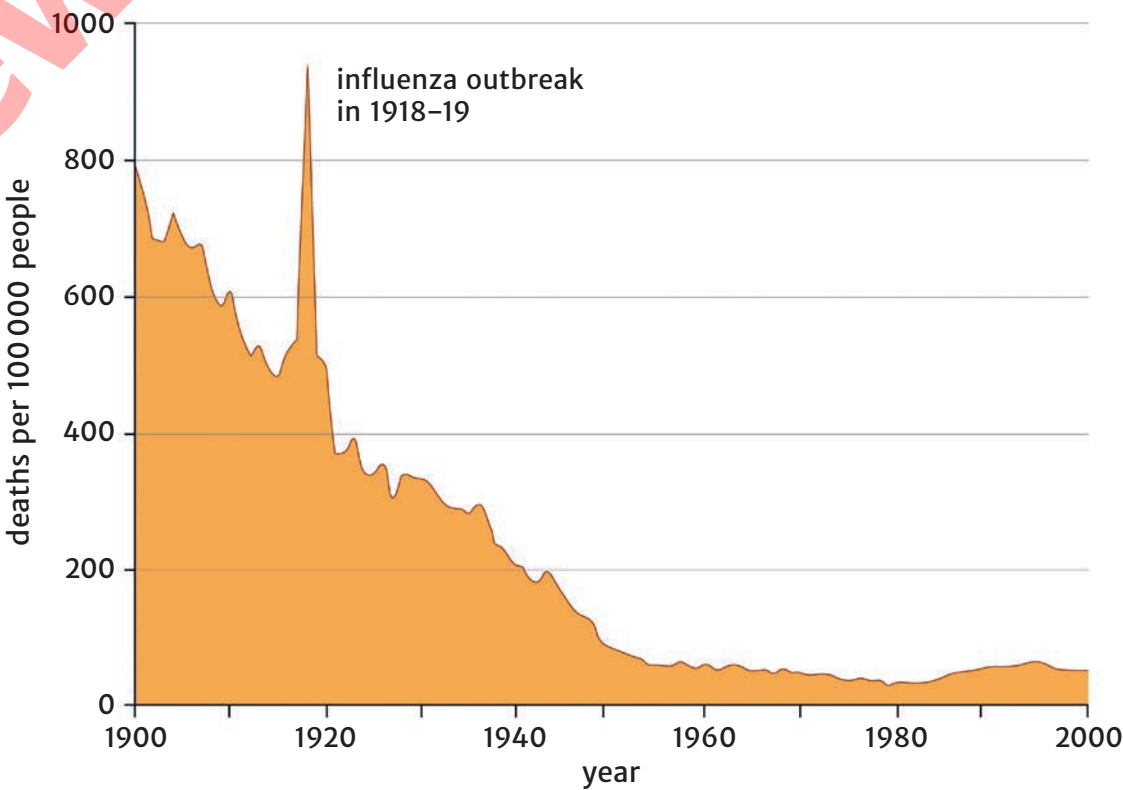


In the past, many people weren't able to practise good hygiene because of their poor living conditions.

Infectious Diseases Today

Over the past two centuries, hygiene has improved and people have generally become **healthier**. Scientific breakthroughs have also helped people to understand more about infectious diseases and how to stop their spread. As a result, bubonic plague is now rarely seen, and smallpox has been wiped out. However, other diseases, such as tuberculosis (TB), are still affecting millions of people every year, and new diseases, such as Covid-19, will keep appearing.

Deaths Caused by Infectious Diseases from 1900–2000

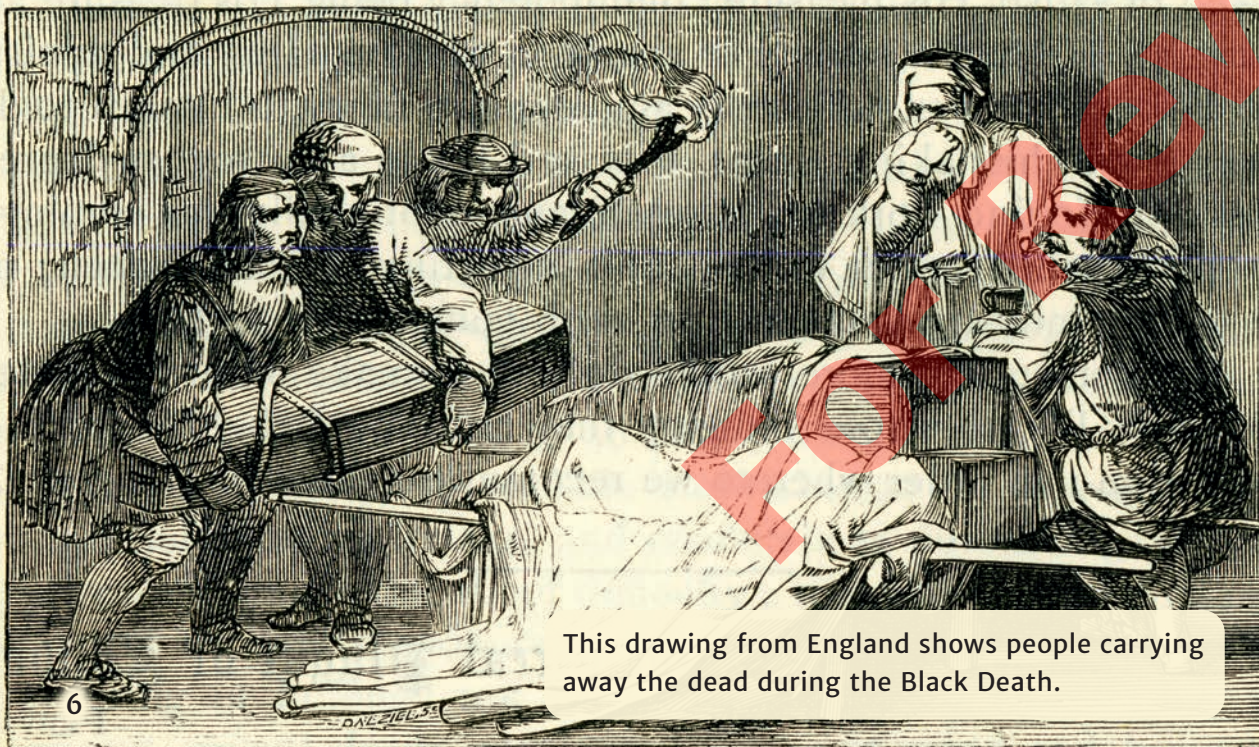


Major Deadly Diseases

For most of human history, infectious diseases from bubonic plague to influenza have caused millions of deaths. But in the past hundred years or so, people have found several ways to fight back.

Bubonic Plague

Bubonic plague is a deadly infectious disease that has taken the lives of hundreds of millions of people over thousands of years. People can catch bubonic plague through contact with infected, or diseased, animals, or from being bitten by parasites such as fleas that have fed on infected animals. Symptoms of bubonic plague include high fever, cramps, and swelling and pain in certain parts of the body.



This drawing from England shows people carrying away the dead during the Black Death.

Bubonic Plague over Time

Scientists believe that bubonic plague has existed for around 5000 years. It was first written about in the 500s CE following a large outbreak, or **pandemic**, that affected the Mediterranean, a region covering southern Europe and northern Africa. This pandemic lasted for around 200 years and might have killed 25 million to 100 million people.

The largest known outbreak, also known as the “Black Death”, occurred in the 1300s in the Middle East and Europe. It is believed to have wiped out a third of Europe’s population. The last major outbreak started in Hong Kong and spread to various seaports around the world between 1894 and 1922.

It is believed that the name “Black Death” referred to the blackening of the skin in some people who caught bubonic plague.

During the Black Death, doctors would wear special masks that they thought would protect them from catching the disease.

