Polio... it can be eradicated

Polio is a highly infectious disease caused by a virus. It invades the nervous system and can cause paralysis in a matter of hours. It can strike at any age, but affects mainly children under five.
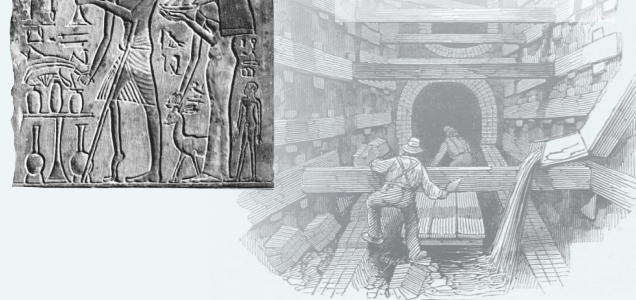
The beginning
3,000 BC

Ancient history
Ancient Egyptian paintings and carvings depict otherwise healthy people with withered limbs and young children walking with canes.
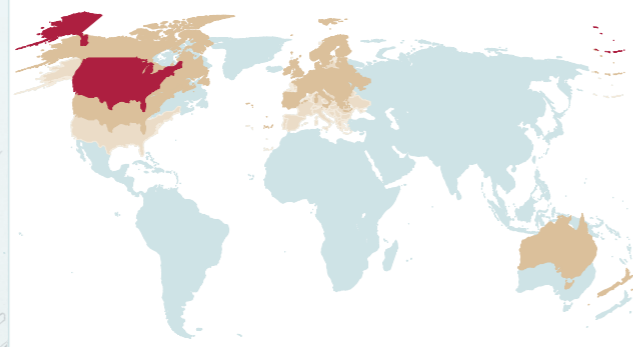
19th century
ca.1900

Late 1800s–early 1900s
Poor sanitation meant infants were constantly exposed to the virus, enhancing natural immunity. In the late 1800s to early 1900s, however, improved community sanitation reduced childhood exposure and immunity, leading to an increased number of children and adults at risk of paralytic polio infection.

The outbreaks
1900–1952

1900s
Small, localized paralytic polio epidemics in Europe and the United States.

By 1950s
Outbreaks reach pandemic proportions in Europe, North America, Australia, and New Zealand.

1952
Worst polio outbreak in the United States: 658,000 reported cases of which 3,145 died and 21,269 had mild to disabling paralysis.

The vaccine
1954–1970s

1954
Jonas Salk develops first vaccine against polio–an injected inactivated polio vaccine (IPV).

1962
Albert Sabin develops a "live" oral polio vaccine (OPV), which becomes the vaccine of choice for most national immunization programs worldwide because it is easy to administer.

With OPV, polio is brought under control in industrialized countries.

1970s
Launch of national immunization programs using OPV worldwide, which leads to control of the disease in many developing countries.

FREE POLIO SHOTS HERE

Polio Sabin
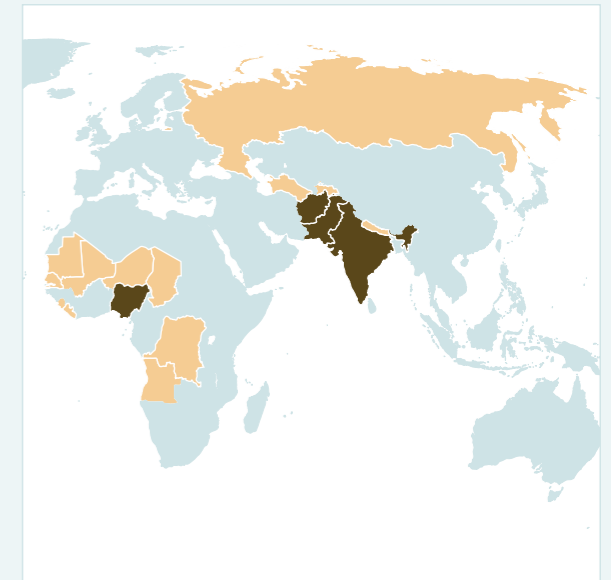
Push for eradication
1980s – onwards

1988
Polio still exists in 125 countries and paralyzes an estimated 350,000 children every year.

World Health Assembly passes a resolution calling for the global eradication of polio. Global Polio Eradication Initiative (GPEI) is created.

2007
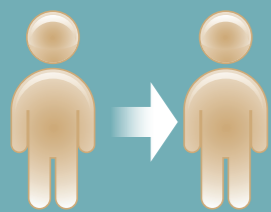The World Health Organisation declares that polio has been eradicated in the Americas, Europe, and the Western Pacific.

Today
2010

■ Polio is now endemic in only four countries: **Nigeria, India, Pakistan,** and **Afghanistan.**

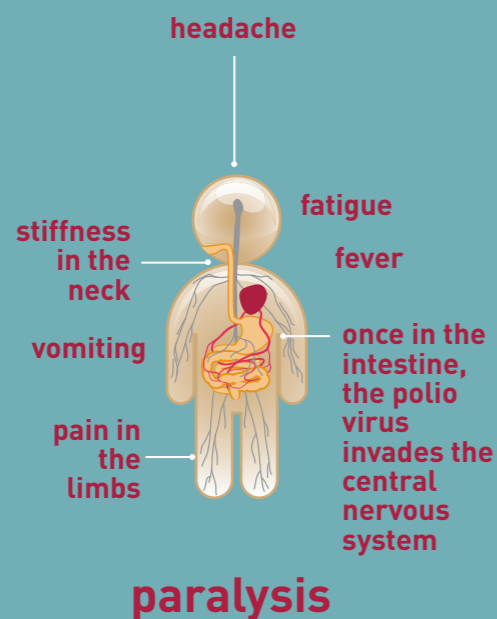■ Polio outbreaks still occur in **some countries** in Africa and Asia.

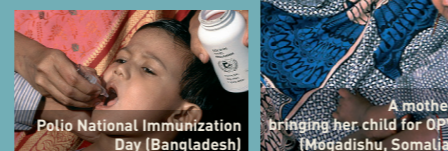## How does polio spread?
By person-to-person contact.

virus → infected → poor sanitation

What are the symptoms?
Almost three-quarters have no symptoms at all.

- headache
- fatigue
- fever
- stiffness in the neck
- vomiting
- pain in the limbs
- once in the intestine, the polio virus invades the central nervous system
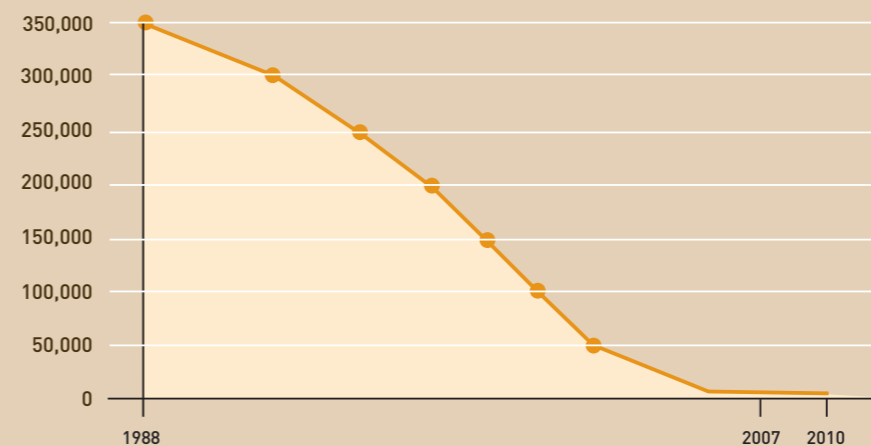
paralysis

Preventing polio
Polio can be prevented through childhood immunization. The oral polio vaccine (OPV), given multiple times, almost always protects a child for life.

Central Africa National Immunication Day (Congo river Island two hours from Kinshasa)

OPV is given to every child under five during an NID. This baby is 15 hours old (Angola)

Polio National Immunization Day (Bangladesh)

A mother bringing her child for OPV (Mogadishu, Somalia)

Estimated number of polio cases per year

350,000 / 300,000 / 250,000 / 200,000 / 150,000 / 100,000 / 50,000 / 0

1988 ... 2007 ... 2010

Source: Years 1980 - 1993. UNICEF estimates. Years 2000 - 2009, WHO reported cases.

From 350,000 cases in 1988 to just over 1,500 cases in 2009

99 percent reduction
since 1988

Infectious diseases eradicated
1. Smallpox (1979) ✔
2. Polio . . .

Photos courtesy of WHO

BILL & MELINDA GATES foundation