

## The Story of the End of Polio

Throughout human history, we have battled poliomyelitis. An ancient Egyptian tablet carries the first recorded image of a polio victim, his leg twisted and stunted by the paralyzing effects of the highly contagious poliovirus.

But now the battle is nearly at an end. Less than two decades after the launch of a dedicated campaign to wipe out polio, victory is now in sight. Cases have plummeted 99 per cent to under 2000 in 2005. Only four countries have yet to stop the virus. After five thousand years, we are nearly rid of polio.

The polio story is an extraordinary tale of dedication and effort. It presents humanity at its very finest – from governments to the poorest individuals. The drive to eradicate polio has linked millions, if not billions of people around the world in a common cause. This is our largest joint endeavour in peacetime, and one of the most successful public health campaigns in history.

The war against polio has been waged in the deserts of Sudan and the jungles of Congo, from the mountains of Nepal to the refugee camps of Afghanistan. On the frontline, a benevolent army of millions of vaccinators continue to face hardship and danger to sweep the disease from countries and continents.

For only the second time ever, human dedication and ingenuity has brought a scourge of all nations to the brink of extinction. In a world beset by fraction and folly, this success goes against the grain – proving beyond doubt that we can work together for the benefit of all. So how did we get this far? And how far do we still have to go before the fear of polio is gone forever?

Striking without warning and able to cripple or kill within hours, polio deserves its reputation as one of the world's most feared diseases. At its peak, it paralyzed and killed over half a million people every year in almost every country on earth. There is no cure for polio. And for most of our history we have been absolutely defenceless against it.

During the 1950s and 1960, many countries, including Canada, the United States and United Kingdom were hit by waves of polio epidemics, terrifying families and filling hospital beds. Unlike most infectious diseases, which normally take their greatest toll on the poor, polio knocked on the door of every level of society. Rich and poor, adults and children – no-one was safe.

The first glimmer of hope that the world could beat polio came in 1955. Dr. Jonas Salk, a New York-born physician, unveiled the world's first ever vaccine against the virus, freeing millions of families from daily fear. And in 1961, this invention was followed by Dr. Albert Sabin's oral polio vaccine, more easily administered, and more effective as a tool for driving the virus out of large populations.

These new weapons had an immediate and dramatic effect. Polio began to disappear from country after country. A flame had been lit, sparking global determination to banish the disease forever.

In 1988, world leaders resolved that the time to end polio had come. The Universal Childhood Immunization Initiative, launched jointly by UNICEF and WHO, was already

making enormous gains across the world. Global leaders, such as UNICEF Executive Director James Grant, and Rotary International, the global service organization, were calling for the world to take the plunge and immunize all children against the disease.

Emboldened by the victory over smallpox, and spurred by Rotary International (who championed and funded mass polio immunization campaigns), the Global Polio Eradication Initiative was launched by unanimous vote in the World Health Assembly. The race to end polio was on.

For the past 17 years, the polio eradication effort has been steered by a unique public-private partnership of global organizations: the World Health Organization, Rotary International, the U.S. Centres for Disease Control and Prevention and UNICEF. This “Polio Partnership” enlisted the aid of governments, international organizations partners, civil society, religious leaders, private sector, academic institutions and health workers – the biggest global alliance ever formed.

Their strategy to beat the disease rested on four pillars: routine immunization, mass polio immunization drives, surveillance to detect the disease and “mop-up” local immunization campaigns to hit viruses wherever they cropped up.

The motto of the effort was “reach every child” – the tool, National Immunization Days (NIDs). These door-to-door immunization campaigns are held as often as six times a year in countries where polio is still a threat.

Every NID sends tens of thousands of vaccinators set out to deliver the vaccine to every child under five at their doorsteps, many of them living in some of the most dangerous and remote places on earth.

This can be a heroic task. To reach children, vaccinators travel however they can - on foot or on horseback, by bicycle or in boats. The vaccine travels with them, in plastic or styrofoam boxes slung around their shoulders. Their routes take them miles each day, using maps to seek out villages and settlements. They brave the burning heat of the dry season and the torrential rains of monsoon. On the high mountains of Pakistan they face blizzards - and on the killing fields of Somalia, sub-machine guns.

UNICEF helps countries organise the vast logistics of these campaigns. Staff members work hand in hand with local government officials and partners, and often travelling with vaccinators to ensure vaccine reaches every child safely. In every country, UNICEF supports a “cold-chain” of refrigeration units and ice-boxes to keep the vaccine at the right temperature on its way to remote regions.

In most cases UNICEF has also supplied all the oral polio vaccine for these campaigns - over 10 billion doses since 1988 to immunize over 2 billion children against polio.

Community awareness and participation are fundamental to the success of polio immunization campaigns. UNICEF works with local NGOs and partners like Rotary International to foster alliances with religious and traditional leaders to build up local knowledge about the value of immunization and the threat of polio. A fundamental part of this work includes a drive to increase access to routine immunization against polio and other childhood diseases.

Polio campaigns have unified people in the most difficult of times. In Afghanistan and Iraq, while bombs fell, vaccinators set out to do their job. In Somalia, Angola, Sierra Leone and

Darfur, UNICEF and its partners brokered temporary ceasefires for the sake of the polio campaigns. Combatants have laid down their arms, allowing vaccinators to pass. Vaccine carriers have been handed willingly across hard-fought battle-lines. In Cote d'Ivoire and Sudan, vaccines have been airlifted to reach children cut off by war.

Polio immunization campaigns have also become a critical vehicle for delivering other health services to children. Vitamin A capsules are often given along with polio drops, to strengthen the child's immune system. In post-Taliban Afghanistan, polio vaccinators supported the country's first birth registration campaign. Health systems strengthened by polio eradication campaigns have been used to hold anti-measles drives, and boost basic health awareness in the world's poorest communities.

The results have been unparalleled. Two billion children have been immunized at their doorsteps. From 350,000 polio cases per year at the start of the campaign, a mere 2000 were reported in 2005. Niger and Egypt were removed from the list of polio-endemic countries in 2006. Only four countries have yet to stop polio – Nigeria, India, Pakistan, and Afghanistan – an all-time low. And the grip of the virus is slipping from these final strongholds.

The end is in sight – but there are still challenges ahead.

In 2004, a polio epidemic in west and central Africa, compounded by civil conflict in the region, re-infected many countries that had been polio-free – including far-away Indonesia, Yemen and Saudi Arabia. Africa responded to the threat by launching the largest series of immunization campaigns the world has ever seen. Throughout last year, 25 African nations united in a co-ordinated drive to reach over 100 million children. The Horn is still under severe threat, with polio returning to Somalia and Ethiopia.

On the other side of the world, in the fraught border regions of Pakistan and Afghanistan, insecurity continues to hamper access to children.

These setbacks have proved that polio anywhere is a threat to children everywhere. And they have strained the resources of the global campaign. The polio partnership is urgently requesting multi-year financing to help the eradication effort achieve its goal of stopping polio transmission in the near future. \$150 million is needed by July for 2006 activities.

We cannot afford *not* to fund these campaigns. The world is deeply vulnerable to a return of polio. And US\$4 billion has been invested in the certainty that polio will be beaten at last, plus the hard work of over 20 million volunteers.

This effort remains the benchmark for all future multilateral, public-private partnerships. It has opened the door to the world's poorest children, offering hope that we can reach them with other kinds of help. If it achieves its goal, it could bring renewed faith and momentum to our struggle against other global scourges like malaria, measles and HIV/AIDS.

It is in our power to turn the dream of a polio-free world into reality for all children. Our common future is at stake – and everyone has a role to play. We cannot falter in these final footsteps. Just ask the five million children walking today, who would otherwise have been paralyzed.

**Key dates:**

- 1991** Last case of polio in The Americas;
- 1994** The Americas certified polio-free;
- 1996** The “Kick Polio out of Africa” campaign was launched by Nelson Mandela. By 2003, African polio had been driven back from 46 countries to 3 (Nigeria, Niger and Egypt);
- 1999** House to house polio campaigns begin;  
Polio type 2 disappears;
- 2000** Kofi Annan addresses Global Polio Partners Summit, where governments pledged to achieve a polio-free world by 2005;  
Western Pacific certified polio-free;
- 2002** Europe certified polio-free;  
Outbreak of polio in Uttar Pradesh, India;
- 2003** Polio immunization suspended in Kano, Nigeria, leading to polio outbreak across Africa. So far, polio from Nigeria has travelled to 14 polio-free countries and re-infected six (Burkina Faso, Central African Republic, Chad, Côte d’Ivoire, Mali, and Sudan);
- 2004** World’s largest public health campaign takes place in Africa - a mass polio immunization campaigns across 22 countries, reaching 80 million children.
- 2005** Next generation “monovalent” polio vaccines types 1 & 3 introduced to build faster immunity against individual polio strains.
- 2006** Egypt and Niger removed from the list of polio endemic countries, bringing the global number of endemic countries to an all-time low of four.