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A Rotarian's Primer on Polio Eradication and Polio Survivor Support



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1. What is the history of and how big is the effort to eradicate polio from the world?

The goal of the PolioPlus program is the global certification of polio eradication. By eradication, WHO, the Global Commission on Certification and Rotary mean the interruption of the transmission of the wild poliovirus.

The goal of the Global Polio Eradication Initiative is to ensure that no child will ever again know the crippling effects of polio. The Global Polio Eradication Initiative is the largest public health initiative the world has ever known.

By the time the world is certified polio-free, Rotary's contributions to the global polio eradication effort will exceed US\$1.2 billion to a program that is expected to total approximately US\$10 billion in donor funds. In addition, millions of dollars of 'in-kind' and personal contributions have been made by and through local Rotary clubs and districts for polio eradication activities. Of even greater significance has been the huge volunteer army mobilized by Rotary International. Hundreds of thousands of volunteers at the local level are providing support at clinics or mobilizing their communities for immunization or polio eradication activities. More than one million Rotarians worldwide have contributed toward the success of the polio eradication effort to date.

Globally, the number of polio cases has fallen from 350,000 annually in the mid-1980s to about 966 cases in 2010. The GPEI has succeeded in slashing the number of cases by 99 percent and decreased the number of polio-endemic countries from 125 to just 4: Afghanistan, India, Nigeria, and Pakistan.

But the news was not all positive. Rotary provided \$500,000 in emergency grants to UNICEF and WHO for immediate polio immunization efforts in Tajikistan in April and another \$500,000 in November for immunization efforts in the Republic of the Congo, following outbreaks of the wild poliovirus in those countries. Such outbreaks illustrate that all countries remain at risk for the importation of the poliovirus and show the urgent need to End Polio Now. These outbreaks, however, have also proven that we can eradicate polio because they were contained in a short period of time. Sufficient funding remains our greatest challenge.

As long as polio threatens even one child anywhere in the world, children everywhere remain at risk. The stakes are that high.



2. How many new cases of polio have happened in 2011 and how does this compare with 2010?

	1 month of 2011	1 month of 2010	Year End 2010
Total Cases Worldwide:	5	20	966

Current information available at <http://www.polioeradication.org/Dataandmonitoring/Poliothisweek.aspx>.

3. What are the main resources being used eradicate the polio virus?

Rotary International and the William and Melinda Gates Foundation: The Gates Foundation increased its challenge grant to a total of \$355 million. Rotary accepted the challenge raising the combined Rotary-Gates Foundation commitment to a total of \$555 million which will be spent in support of immunization activities carried out by the Global Polio Eradication Initiative in polio-affected countries. As of the end of 2010, Rotarians have raised about \$160 million of the US\$200 Million Challenge.

Rotary in Action: Eradicating polio has been Rotary's number-one priority since 1985. To date, Rotary has helped immunize nearly two billion children. With its community-based network worldwide over one million men and women of Rotary have donated their time and personal resources to help immunize nearly two billion children worldwide. Rotary is the volunteer arm of the global partnership assisting in vaccine delivery and logistical help as well as raising funds. Additionally, Rotarians prepare and distribute mass communication tools to get the message to people cut off from the mainstream by conflict, geography or poverty.

U.S. Centers for Disease Control and Prevention (CDC): The Atlanta-based CDC deploys epidemiologists, public health experts, and scientists to WHO and UNICEF. CDC also works as the "viral detective" of the four partners, using its state-of-the-art virological surveillance expertise (genetic fingerprinting) to investigate outbreaks of polio, identify the strain of poliovirus involved and pinpoint its exact geographical origin.

World Health Organization: WHO, through its headquarters, regional and country offices, provides the overall technical direction and strategic planning for the management and coordination of the Global Polio Eradication Initiative.



4. What are the strategies being used now to eradicate polio?

In 2009 and 2010, US\$700 million per year from all sources was needed in donor contributions to fund the final eradication phase. This level of expense is expected to decrease as wild polio virus transmission is interrupted in the four remaining polio endemic countries and outbreaks in previously polio-free countries are reduced in number.

Rotary and its partners helped develop the successful strategy that has nearly eradicated polio in Nigeria. It identifies four key groups: caregivers, vaccinators and traditional and religious leaders to systematically engage in advocacy and programming.

The bivalent oral polio vaccine is proving to be a potent weapon in the arsenal of Rotary and its partners in the [Global Polio Eradication Initiative](#). Developed to stop transmission of the type 1 and type 3 wild polioviruses simultaneously, the vaccine was introduced in all four polio-endemic countries -- Afghanistan, India, Nigeria, and Pakistan -- in late 2009 and early 2010, and has helped reduce the incidence of polio dramatically in both India and Nigeria.

5. What would happen if we just stopped the eradication effort and let these few cases of polio remain unchecked?

From the launch of the global initiative in 1988, 5 million people, mainly in the developing world, who would otherwise have been paralyzed, are walking because they have been immunized against polio. More than 500,000 cases of polio are now prevented each year by the efforts of governments and the partnership of the World Health Organization (WHO), Rotary International, the United Nations Children's Fund (UNICEF), the United States Centers for Disease Control and Prevention (CDC), and the overseas development agencies of donor nations.

A study published in the *Vaccine* journal, "[Economic Analysis of the Global Polio Eradication Initiative](#)," estimated that the initiative could prevent more than eight million cases of paralytic polio and save US\$40 billion to \$50 billion, if the wild poliovirus is eradicated in 2012 or shortly thereafter.

Is the eradication effort worth the cost? A child can be protected against polio for as little as US\$.60 worth of vaccine. Once polio has been



eradicated, the world will reap substantial financial, as well as humanitarian dividends due to foregone polio treatment and rehabilitation costs. Depending on national decisions on the future use of polio vaccines, these savings could exceed US\$1 billion per year.” The savings in human suffering are immeasurable.

6. How many polio survivors are there in the world today? In the USA?

In 1998, the World Health Organization estimated that 10 million polio survivors were living in the world with some degree of disability caused by polio. It was estimated that the number would increase to 12 million by 2000.

According to an analysis of statistics from the National Center for Health Statistics and the United States Public Health Service done by Post-Polio Health International in 2006, approximately 770,000 polio survivors are living in the US today (See FAQs at post-polio.org)

7. Is there an ongoing health threat to polio survivors after they have “recovered” from polio itself?

Yes. The survivors of polio began reporting new health problems in the late „70s and early „80s. The most common symptoms, new weakness, pain and fatigue, interfered with the ability of polio survivors to carry out their daily activities. New breathing problems also reduced the activity of some polio survivors. The numbers of individuals were substantial because those seeking medical help were part of the major epidemics of the late „40s and „50s. This condition is now called post polio syndrome (PPS)

8. How do polio survivors protect themselves from post-polio syndrome?

Post-polio syndrome (PPS) is defined as a new neurologic condition affecting polio survivors after years of stability of function. It is believed to be caused by the failure of motor units (the nerve cell and muscle combination that enables movement). At this time, there is no medication that can stop the nerve loss. In addition, polio survivors also can have musculoskeletal problems, such as wear and tear on joints and increased scoliosis due to new muscle weakness. The goal is to protect their muscles and joints from overuse while maintaining their ability to function and to participate fully in life. The goal can be accomplished with judicious exercise and appropriate assistive devices based on their individual



conditions. It is very important that polio survivors focus on general good health measures to prevent and treat other health problems that can exaggerate their functional losses.

9. Is this PPS protection/treatment expensive?

It depends. In most cases, a thorough examination and sound advice on lifestyle changes to prevent further musculoskeletal problems can counter new pain, weakness and fatigue. The assistive devices needed can be as simple and inexpensive as a cane and as complex and expensive as a breathing device. A major challenge some survivors face is accepting the changes health professional recommend, such as new bracing or a wheelchair, because they think using these devices represents "failure." Support from other survivors through face-to-face and online support groups can help them adjust to the options available to them.

10. Do all polio survivors contract PPS?

Studies vary in their conclusions but the range is 25%-40%. The variance can be explained by how post-polio syndrome is defined by the researcher. Regardless of the studies and definitions, people who had acute poliomyelitis, depending on the extent of the original infection and the amount of weakness, will most likely notice some change in their abilities to function as they age and/or as they experience other conditions that are typical of aging.

11. What is being done in the USA to support polio survivors?

Post-Polio Health International and several other similar post-polio support organizations have published information for the survivors of polio since 1960. Their modus operandi is networking and many post-polio related groups have developed around the country meeting the needs of the community. PHI compiles an online Post-Polio Directory that lists self-identified health professionals and support groups and provides supportive materials to the groups.

PHI, a membership organization, publishes a quarterly newsletter – Post-Polio Health, and answers specific questions from individuals and their families. It coordinates periodic international conferences; advocates for architectural accessibility, affordable health care, and the rights of people with disabilities; promotes research and awards a grant every other year. PHI collaborates with John P. Murtha Neuroscience and Pain Center,



Johnstown, Pennsylvania in offering monthly conference calls for health professionals to educate about post-polio medical problems

12. Is PPS a greater threat to polio survivors from other countries than for US survivors?

The assistance that US polio survivors receive can be thought of as re-rehabilitation. They and all survivors who received care and rehabilitation after acute poliomyelitis will continue to need medical rehabilitation advice as they age. Polio survivors who received no rehabilitation or less than optimal care after the acute disease, which is the case in many other countries, will need additional levels of services.

13. What sort of Rotary projects might be suitable and contributive to aid support for post-polio survivors?

- Orthopedic surgeries such as are found in India and other developing countries,
- Purchasing wheelchairs, crutches for polio survivors internationally or to local post-polio groups to assist members in need with the purchase of assistive devices.
- Creation of rehabilitation clinics or expanding existing clinics to address assistive devices needs as well as proper therapies
- Addressing vocational training and education for the disabled
- Sponsor a local survivor to attend an important meeting, conference or retreat.
- Collaborate with other groups to provide surgery, assistive devices, vocational training and education for people with disabilities through Rotary Foundation Matching Grants..
- Co-sponsor a regional educational conference about PPS in countries such as Argentina, Bolivia, South Viet Nam, Cambodia, etc. Consider raising funds to send teams of post-polio experts and survivors to join the teams of PolioPlus workers in endemic countries to locate and organize local polio survivors in order to identify their needs, and begin to provide educational and advocacy efforts for appropriate medical and rehabilitative services.



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These are all capable of funding through Rotary Foundation Matching Grants with clubs and districts and the assistance of the Polio Survivors & Associates RAG.

There are at least fifty rehabilitation centers that have some specialty in polio rehabilitation. Listed below are some good websites to visit to learn more.

www.rotarypoliosurvivors.com

www.post-polio.org

www.rotary.org

www.polioeradication.org

www.frankdevlyn.org/endpolio

www.europeanpolio.eu

www.marchofdimes.ca/poliocanada