

Achieving One Year without Polio in Africa

by Quentin Wodon

This brief is part of a series of seven briefs/case studies on increasing the impact of Rotary. If Rotary is to have a larger impact globally, it must rely on partnerships, innovation, and evaluation. Partnerships help to implement larger projects and benefit from the expertise of organizations that are among the best in their field. Without innovation, the contribution of Rotary is a drop in the development assistance bucket. But if Rotary innovates, successful pilots can be scaled up by other organizations with deeper pockets, achieving larger impact. Finally, evaluation is needed to demonstrate the impact of pilot projects. To encourage clubs and districts to think bigger and more strategically, the series to which this brief belongs showcases projects in the areas of focus of the Rotary Foundation that have relied on partnerships, innovation, and evaluation. This brief tells the story of an innovative financing mechanism for polio eradication.

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Polio Eradication

In August 2015, the Africa region achieved one year without a single case of polio, following a similar milestone achieved in Nigeria the previous month. This case study tells the story of how an innovative financing mechanism played a role in this success.

Polio eradication is Rotary's flagship program. PolioPlus, the first global campaign aiming to eradicate polio through mass vaccination of children, was launched thirty years ago in 1985 by Rotary. In 1988, Rotary became a spearheading partner in the Global Polio Eradication Initiative¹ (GPEI), a public-private partnership in which the Bill and Melinda Gates Foundation, UNICEF, the U.S. Centers for Disease Control and Prevention, the World Health Organization, and a number of national governments are also engaged and contributing. Rotary has also played a leading role in the area of advocacy in the case of polio.

Polio eradication campaigns have achieved impressive results. Polio used to be a devastating disease affecting 30,000 children per year in the United States alone in the mid-1950s. Thanks to vaccines and mass immunization, the number of polio cases worldwide has dropped to almost zero. In 2014, less than 370 cases of polio were confirmed worldwide versus about 1,000 cases per day in the 1980s. Substantial additional progress has been achieved in 2015.



Immunization through polio vaccination.
Photo credit to Rotary International.

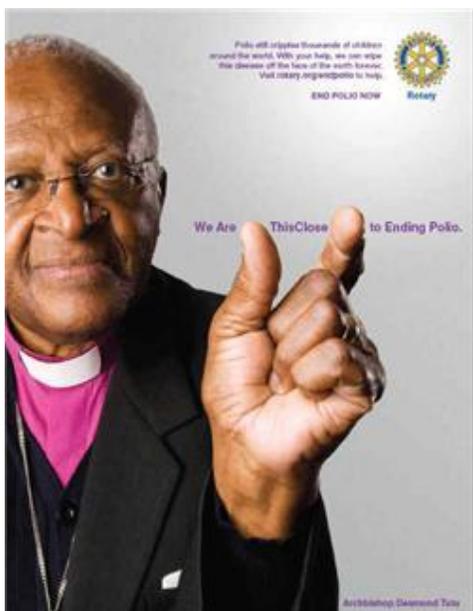
¹ To know more about GPEI, please visit the initiative's website at www.polioeradication.org.

Rotary's Contribution

According to data from the Global Polio Eradication Initiative, after the United States with \$2.2 billion in contributions and pledges towards polio eradication, the two largest donors for polio campaigns from 1985 to 2014 have been the Bill and Melinda Gates Foundation (\$1.9 billion) and Rotary International (\$1.3 billion). More than one million Rotarians have given their time and/or their personal resources towards polio eradication, including many through participation in vaccination campaigns.

The Last Mile

Rotarians are familiar with the award-winning public awareness campaign “*This Close*” launched by Rotary in 2013 and suggesting that we are on the verge of polio eradication. The high profile individuals that have appeared in the campaign include among others Bill Gates, Archbishop Desmond Tutu (pictured below in the Rotary International advertisement campaign), actress Archie Panjabi, actor Jackie Chan, golf star Jack Nicklaus and Korean pop-star Psy.



“*This Close*” advertising campaign.
Photo: Rotary International.

It is important however to keep in mind that polio outbreaks can occur. In 2014 the wild poliovirus spread in central Asia (from Pakistan to Afghanistan), in the Middle East (from the Syrian Arab Republic to Iraq) and in Central Africa (Cameroon to Equatorial Guinea). As a result, in May 2014 the World Health Organization declared that the spread of the virus constituted an “extraordinary event”. One year later the situation looks more promising, but polio outbreaks remain a threat.

Funding for polio vaccination campaigns also remains an issue. In a 2014 report², UNICEF and WHO estimated the price tag for polio eradication for the period 2013-18 at \$5.5 billion. Contributions that were available at the time amounted to \$1.8 billion, with a remaining funding gap is at \$3.7 billion.

Private partners such as the Bill and Melinda Gates Foundation and Rotary International have been stepping up to the plate. According to its last available report, the Rotary Foundation disbursed \$232 million in program expenses in 2013-14. More than half (\$131 million) was allocated to polio, thanks in part to a generous 2-for-1 match whereby the Bill and Melinda Gates Foundation matches contributions by Rotarians up to a maximum of \$70 million per year. Still, more funding will be needed for polio eradication in the next few years.

Cost Effectiveness

Does it make sense to spend that much money on a disease that seemed to affect only a few children worldwide? The available research suggests it does, not only from an ethical point of view, but also as an economic or investment. This is because the cost of a spreading virus could be much higher.

² Global Polio Eradication Initiative, 2014, *Financial Resource Requirements 2013-18*, Geneva: World Health Organization.

A 2014 brief³ by the Global Polio Eradication Initiative suggests that previous investments of \$9 billion since the creation in 1984 of the Global Polio Eradication Initiative (GPEI) may have already generated \$27 billion in net benefits out of \$40-50 billion in potential benefits estimated by researchers in an economic analysis of the GPEI. While investments in polio eradication campaigns have higher initial costs than routine immunization, they have greater long term payoffs.

Polio in Nigeria

Until recently, only three countries had not been able to stop transmission of the wild poliovirus: Afghanistan, Nigeria, and Pakistan. Less than a decade ago, hundreds of cases of polio were still observed annually in Nigeria. In July 2015 however, Nigeria achieved for the first time the milestone of one full year without any case of polio. The same milestone was achieved by the Africa region as a whole one month later. This leaves only Afghanistan and Pakistan on the list of polio-endemic countries.

Achieving one year without polio in Nigeria required unusual courage. In some areas, professionals and volunteers who led the polio campaigns risked their life as Boko Haram assassinated nine polio vaccinators in 2013 in the north of the country. In some areas vaccinators have had to rely on “hit and run” tactics to reduce exposure to risk, vaccinating children quickly in the morning and leaving these areas by the afternoon.

Nigeria’s polio immunization campaigns also required substantial efforts and persistence from multiple agencies, ranging from the Ministry of Health of Nigeria to UNICEF and the World Health Organization (WHO). What is perhaps less

well known is the fact that Nigeria’s gains were also achieved in part through an innovative buy-down financial mechanism implemented by the World Bank, the Bill and Melinda Gates Foundation, and Rotary International through the United Nations Foundation.



Nigeria President Buhari vaccinates his 3-month-old granddaughter to mark one year without polio. Photo courtesy of Dr. Andrew Etsano.

Polio Buy-down Mechanism

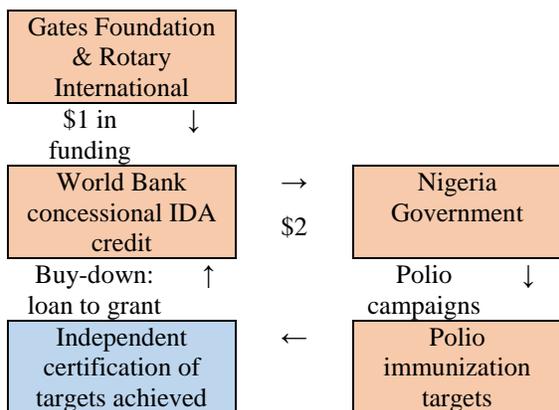
Eradicating polio costs money. In order to maximize the impact of every dollar provided for polio eradication, an innovative buy-down mechanism was put in place so that the cost for Nigeria of borrowing from the World Bank for its polio eradication campaigns could be offset at a discount by funds from Rotary International and the Bill and Melinda Gates Foundation.

In the case of Nigeria, two World Bank projects worth \$285 million (including additional financing) were implemented over the last dozen years⁴. The projects were funded by IDA (the International Development Association), which is the concessional arm of the World Bank for poor countries. The projects included clauses that allowed the loans to Nigeria to become grants (thereby waving repayment for the country) if Nigeria achieved a high level of polio immunization coverage.

³ Global Polio Eradication Initiative, 2014, *Economic Case for Eradicating Polio*, Geneva: World Health Organization. The analysis in this brief is based in part on Tebbens, R., et al., 2011, Economic analysis of the global polio eradication initiative, *Vaccine*, 29: 334-43.

⁴ The buy down mechanism has also been used – and continues to be used – in Pakistan, although unlike Nigeria, Pakistan did not always succeed in meeting the required immunization targets.

Figure 1: Buy-down Mechanism



Source: Author.

In other words, if immunization targets indicated in the loans were achieved by the country and verified through audits by independent third party observers, the government of Nigeria would receive grant funding for polio eradication without the need to repay any loan.

For the government of Nigeria, this was a great deal if the immunization targets could be achieved. For the Bill and Melinda Gates Foundation and for Rotary International, this was also a good investment. Indeed, due to the concessional nature of IDA loans (long-term zero or low-interest loans with grace repayment periods), for every dollar contributed to the buy-down, the actual amount of resources that could be transferred to the government for the polio campaigns was about twice larger.

The buy-down funds were transferred by the Bill and Melinda Gates Foundation and Rotary International (through the United Nations Foundation) to a trust fund managed by the World Bank at the start of the project. As Nigeria achieved the immunization targets, the loan was cancelled and transformed into a grant.

As a result of this innovative buy-down mechanism, every dollar invested in the Nigeria polio immunization campaigns by the Bill and Melinda Gates Foundation and Rotary International generated about \$2 in grants for the World Bank.

The buy-down mechanism also had innovative built-in incentives to encourage strong implementation performance by the government of Nigeria since the loans would be transformed into grants only if specific immunization targets were achieved. These targets were set in order to be achievable, but not without some effort. The same buy-down mechanism has been used – and continues to be used – in Pakistan for polio eradication, but unlike Nigeria, Pakistan has not always been able to meet the required immunization targets.

Finally, the mechanism was also based on a rigorous monitoring and evaluation framework whereby an independent third party (a consulting firm) had to verify that the immunization targets that were claimed to be met by the Government of Nigeria were indeed met. This certification was required before the polio credits could be bought down and thereby transformed into grants.

Potential for Replication

At the time of the creation of the first buy-down mechanism for polio, then-World Bank President James. D. Wolfensohn stated that: *“The partnership to buy-down loans to grants on the basis of good performance is an example of the innovative thinking occurring in the private sector and the World Bank about how to increase finances for the fight against global diseases. This financial innovation is bringing the goal of a polio-free world one large step closer to becoming reality.”*⁵

A number of conditions have to be met for this type of buy-down mechanism to be successful. But in the case of polio eradication in Nigeria, the mechanism has been successful.

Could similar buy-down mechanisms be applied in other areas? This

⁵ Quotes excerpted from a press release from the Bill and Melinda Gates Foundation available at <http://www.gatesfoundation.org/Media-Center/Press-Releases/2003/04/Help-Eradicate-Polio-Worldwide>.

was certainly the hope when this innovative mechanism was created for polio a dozen years ago. It was thought that it could potentially be used for other areas in global health. It is, however, unclear whether the idea has been replicated in other development areas, even though it has been mentioned in a number of reports, including in a Results for Development report on education⁶.

Conclusion

The buy-down mechanism was instrumental in helping Nigeria achieve one year without a single polio case. It is a great example of a Rotary investment based on partnerships, innovation, and evaluation. The partners included the Nigerian authorities as well as the World Bank, the Bill and Melinda Gates Foundation, the United Nations Foundation through which Rotary's funds were channeled, and other partners from the Global Polio Eradication Initiative active in Nigeria such as UNICEF and the World Health Organization. The financial mechanism was innovative, serving both the needs of Nigeria and the desire of donors to maximize the impact of their funds. Finally, a rigorous monitoring and evaluation mechanism was put in place to certify that the immunization targets agreed upon were achieved before transforming the credits into grants.

Even if the buy-down mechanism itself is perhaps not as well-known as it should be as a financial innovation, it has been beneficial to Rotary and the partners in the Global Polio Eradication Initiative. The mechanism has helped in mobilizing resources and expertise from partner organizations. It has also helped indirectly in making the contribution of Rotary to development better known to wider audiences. The milestone of one year without polio achieved by Nigeria in July 2015 was covered fairly broadly in the media, including in stories with TIME, the BBC, National Public Radio, and several prominent newspapers. Many of these stories often mentioned Rotary as one of the key partners of the Global Polio Eradication Initiative, and several of the stories relied in part on interviews with Rotarians.

⁶ Burnett, N., et al., 2014, *Final Report on Buying Down Loans for Education to the Global Partnership for Education*, Washington, DC: Results for Development Institute.