

ONE LAST PUSH

STEPS TO ERADICATE
POLIO BY 2019



RESULTS
the power to end poverty

ACRONYMS

CDC	Centers for Disease Control and Prevention
FAC	Finance and Accountability Committee
GCC	Global Commission for the Certification of Poliomyelitis Eradication
GPEI	The Global Polio Eradication Initiative
IMB	The Independent Monitoring Board
IPV	Inactivated Polio Vaccine
OPV	Oral Polio Vaccine
PEESP	The Polio Eradication and Endgame Strategic Plan 2013 - 2018
POB	The Polio Oversight Board
WHO	The World Health Organisation
UNICEF	United Nations International Children's Emergency Fund

Author | Jim Calverley

Date of publication | 15th February, 2016

**For more information about this report, please
contact jim.calverley@results.org.uk**

Cover photo | Sanjit Das/ Panos Pictures

INTRODUCTION

WHERE ARE WE IN THE FIGHT TO ERADICATE POLIO?

Since 1988, polio cases have decreased by more than 99% from over 350,000 cases a year to 74 cases in 2015¹. Of the 1 in 200 cases that lead to paralysis, about 5 to 10% will die from the disease. The shrinking number of cases in recent years belies the fact that for every child that is paralysed, another 199 children can silently spread the disease. As long as a single child remains infected with polio, children in all countries are at risk.

The reduction in cases of polio is testament to the huge global effort that has been made to rid the world of the disease – an effort that has been spearheaded by the GPEI: a public-private partnership comprised of national governments and Rotary International, WHO, CDC and UNICEF. However, tackling the final 1% remains challenging and it is not yet the time for celebration.

The UK is widely recognised as a leader in development and in 2013, it pledged £300 million over a six year period to the GPEI. Despite this, the GPEI faces a significant shortfall and in the face of challenging times ahead, the UK must stay at the forefront of eradication efforts. By making a bold financial commitment, the UK can play a leading role in leveraging funding from other donors and ensure that the GPEI's strategy is fully funded.

Polio is an outbreak prone disease but it can only survive outside of the human body for a short time. It is a disease that can be eradicated and the world is in a strong position to do so. To pursue a strategy that involves anything less than eradication would allow polio to strike back from a losing position. It would also be an affront to the remarkable commitment at all levels, from the upper echelons of governments to tens of millions of vaccinators on the ground, who have enabled the world to be on the brink of eliminating a disease for only the second time in history.

¹ World Health Organisation. 2015. Poliomyelitis, Fact sheet N°114. [ONLINE] Available at: <http://www.who.int/mediacentre/factsheets/fs114/en/>. [Accessed 17 December 15].

1 | PROGRESS & CHALLENGES

1.1 WHAT PROGRESS HAS BEEN MADE?

There are currently historically low numbers of polio cases – 74 cases in 2015 as compared to 347 cases in 2014. Recent successes include:

- ◆ **Against all the odds, India was certified polio-free in 2014. Given the high population density, poor sanitation (conditions in which polio thrives), inaccessible terrain and vaccine rejection from some parts of the country, this was an extraordinary achievement and effectively removes any doubt over the technical feasibility of polio eradication.**
- ◆ **The last case of wild poliovirus in Nigeria was recorded in July 2014. Nigeria was removed from the endemic list in 2015 leaving Afghanistan and Pakistan as the last remaining endemic countries on the planet.**
- ◆ **Of the three wild poliovirus serotypes, WPV1, WPV2, and WPV3; WPV2 was confirmed as having been eradicated by the GCC in September 2015 and WPV3 has not been detected globally since November 2012 in Nigeria.**
- ◆ **Nigeria exploited the polio network and surveillance system to help track and contain an outbreak of Ebola in 2014.**
- ◆ **Despite challenging circumstances, potentially devastating outbreaks in the Horn of Africa and the Middle East have been contained pursuant to strategies that have been put in place by the GPEI.**

1.2 UNDERSTANDING & CONFRONTING CHALLENGES

Despite the progress, a number of external factors have stood in the way of eradication. By way of example, conflict and insecurity have led to outbreaks in the Middle East and Africa and have also led to limited access to children in parts of Pakistan. The Ebola outbreak in West Africa also led to resources being diverted away from the polio programme.

The biggest challenge remains the final two polio-endemic countries, particularly Pakistan, which accounted for 85% of the 359 wild poliovirus cases that occurred in the world last year². The porous borders between Pakistan and Afghanistan allow Pakistan to export the virus (largely through the Peshawar Valley, described as the 'conveyor belt of polio transmission' in the last IMB report), mainly to neighbouring Afghanistan. The number of cases has declined sharply in Pakistan, with 54 reported cases in 2015, compared with 235 cases at the same point in 2014. It is vital therefore that immunity gaps continue to be closed in Pakistan by locating and vaccinating every last child and improving routine immunisation coverage in high-risk areas.

² Centers for Disease Control and Prevention. 2015. *Progress Toward Polio Eradication — Worldwide, 2014–2015*. [ONLINE] Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6419a5.htm>. [Accessed 17 December 15].

2 | HOW CAN POLIO BE ERADICATED?

2.1 FINANCIAL REQUIREMENTS

The PEESP initially planned for the eradication of polio by 2018 and the budget to achieve that objective was \$5.5 billion. From the outset, it was planned that the programme would regularly assess progress. After a comprehensive review process, the POB (of which the UK government is an active participant) revised the budget from \$5.5 billion to \$7 billion and extended the programme by one year to 2019. Along with the POB, the FAC ensures that the GPEI maintains a strong focus on results and value for money.

2.2 NEXT STEPS

The additional budget requirements for the PEESP do not devalue the incredible achievements of the polio programme to date and the PEESP remains the roadmap for the eradication of polio. It also retains its four objectives which are as follows:

A | DETECT AND INTERRUPT ALL POLIOVIRUS TRANSMISSION

The interruption of poliovirus transmission by 2016 (stopping person-to-person transmission) is the first step towards eradication of the virus being certified.

B | STRENGTHEN IMMUNISATION SYSTEMS AND WITHDRAW OPV

High immunisation coverage is essential to achieving the goals of the PEESP and the GPEI has committed to working with immunisation partners to strengthen immunisation systems. OPV has a unique ability to stop person-to-person spread of polio and is orally administered which has allowed minimally trained health workers and volunteers to deliver the vaccine. However, due to the small risk of vaccine-derived strains of polio, OPV has to be withdrawn globally and replaced by IPV, which is an injectable form of the vaccine. IPV protects the individual from paralysis by polio but it does not stop transmission of the disease within a community. Since 2000, there have been less than 800 vaccine-derived cases of polio³ but the clear aim of the PEESP is to transition to IPV which requires trained health workers but crucially, does not risk the vaccine-derived cases.

C | CONTAIN POLIOVIRUS AND CERTIFY INTERRUPTION OF TRANSMISSION

The containment of poliovirus refers to the safe handling and containment of infectious and potentially infectious materials in laboratory and vaccine production facilities.⁴ A region can only be certified polio-

³ World Health Organisation. 2015. What is vaccine-derived polio?. [ONLINE] Available at: <http://www.who.int/features/qa/64/en/>. [Accessed 17 December 15].

⁴ Global Polio Eradication Initiative. 2015. Objective 3: Containment and certification. [ONLINE] Available at: http://www.polioeradication.org/Portals/0/Document/Resources/StrategyWork/PEESP_CH7_EN_US.pdf. [Accessed 17 December 15].

free only when all countries in the area demonstrate the absence of wild poliovirus transmission for at least three consecutive years in the presence of certification standard surveillance. The PEESP envisages the certification of the interruption of transmission by 2019.

D | PLAN POLIO'S LEGACY

Once the interruption of polio has been certified, the polio workforce, where applicable, will need support in directing their experience to other health interventions and to strengthen routine immunisation.

The key components of the polio legacy are threefold. First, the GPEI must ensure that the functions needed to maintain a polio free world after eradication (such as immunisation and surveillance) are mainstreamed into ongoing public health programmes. Second, the knowledge generated from polio eradication activities must be documented and shared with other health initiatives. Third, where it can, the GPEI will need to transition its capabilities and processes to support other health priorities and ensure the sustainability of the GPEI programme.⁵

WHAT WILL THE PROPOSED ADDITIONAL FUNDING FOR THE PEESP BE FOR?

- ▶ **Sustaining high-quality immunisation campaigns and social mobilisation activities in Afghanistan and Pakistan.**
- ▶ **Increased population immunity in places like Ukraine and West Africa that have seen their infrastructure weakened due to conflict and disease outbreak.**
- ▶ **Continued introduction of IPV.**
- ▶ **Ramping up surveillance in order to close all gaps and do everything possible to ensure the world can be certified polio-free by 2019**

⁵ Global Polio Eradication Initiative. 2015. Securing Polio's Legacy Transition Planning. [ONLINE] Available at:http://www.polioeradication.org/Portals/0/Document/Resources/StrategyWork/PolioLegacyPlanning_FAQ.pdf. [Accessed 17 December 15].

3 | WHAT HAPPENS IF THE FUNDING ISN'T OBTAINED?

A failure to fully finance the PEESP will jeopardise 25 years of investment of \$9 billion in eradication efforts. In its starkest terms, without adequate funding, there is a risk that the programme will be unable to undertake a number of key activities.

Since most people infected with polio do not show symptoms, the WHO treats any confirmed case as a potential epidemic. It would only take one traveller with polio from another country to bring polio back to the UK and the recent vaccine-derived cases in Ukraine make it clear that this is a disease that has no respect for borders. It could further encroach on European territory if given the opportunity to do so.

Given our increasingly inter-connected world, it is projected that if efforts are limited to routine immunisation only (rather than carrying out the activities set out by the PEESP), cases of polio could increase to 200,000 cases per year within 10 years⁶.

CONSISTENCY WITH THE GLOBAL GOALS

At the UK government's Leave No One Behind event on 27 September 2015 at the United Nations General Assembly, David Cameron spoke to the UK government's commitment to 'leave no one behind'. In reaching children in the most marginalised communities, the eradication of polio could prove to be one of the early milestones of this new era. In the same way that the eradication of polio in India invigorated the polio programme, so too the eradication of polio could reinvigorate both public and governmental faith in other global health and development initiatives.

⁶ World Health Organisation. 2015. Poliomyelitis - Key Facts. [ONLINE] Available at:<http://www.who.int/mediacentre/factsheets/fs114/en/>. [Accessed 17 December 15].

4 | THE UK'S ROLE

4.1 CONSISTENCY WITH UKAID STRATEGY

The UK government has always been at the forefront of the fight to eliminate polio. In November 2015, the UK announced a new aid strategy seeking to tackle 'global challenges in the national interest'⁷. The elimination of polio is consistent with each of its new four objectives:

◆ STRENGTHENING GLOBAL PEACE, SECURITY AND GOVERNANCE:

Of the first 20 countries on the Fragile States Index 2015⁸, 12 appear in the bottom 20 places of a health access index compiled by Save the Children⁹. The index comprises the 75 'Countdown to 2015'¹⁰ countries, and ranks those countries in terms of access to and use of health services. There appears therefore to be a clear correlation between the degree of stability in the Fragile States Index and the state of the health system in those countries.

The polio eradication programme already works in some of the most challenging, conflict-affected areas on earth – not least the porous border areas between Pakistan and Afghanistan and areas of Nigeria where Boko Haram operates.

All countries remain at risk of 'imported' cases of polio, particularly those countries that border endemic areas or when political instability prevents immunisation programmes. Academic evidence examining the provision of health services in fragile states, suggested that 'Health services can help break the vicious cycle in which fragility contributes to poor health, and poor health can cause fragility.'¹¹



Supporting the polio programme
(and indeed other health interventions) may help to address
the causes of fragility in fragile states.

⁷ [www.gov.uk. 2015. Policy paper UK aid: tackling global challenges in the national interest. \[ONLINE\] Available at: https://www.gov.uk/government/publications/uk-aid-tackling-global-challenges-in-the-national-interest. \[Accessed 17 December 15\].](https://www.gov.uk/government/publications/uk-aid-tackling-global-challenges-in-the-national-interest)

⁸ [Fragile States Index. 2015. Fragile States Index 2015. \[ONLINE\] Available at: http://fsi.fundforpeace.org/. \[Accessed 17 December 15\].](http://fsi.fundforpeace.org/)

⁹ [Save the Children. 2015. A Wake-up Call Lessons from Ebola for the world's health systems. \[ONLINE\] Available at: http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/WAKE%20UP%20CALL%20REPORT%20PDF.PDF. \[Accessed 17 December 15\]. Data was not available for South Sudan and Zimbabwe.](http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/WAKE%20UP%20CALL%20REPORT%20PDF.PDF)

¹⁰ [Countdown to 2015 tracks coverage levels for health interventions proven to reduce maternal, newborn and child mortality. Countdown to 2015. 2015. Countdown to 2015 home page. \[ONLINE\] Available at: http://www.countdown2015mnc.org/. \[Accessed 17 December 15\].](http://www.countdown2015mnc.org/)

¹¹ [William Newbrander, MHA, PHD. \(2007\). Rebuilding Health Systems and Providing Health Services in Fragile States. Available: https://www.msh.org/sites/msh.org/files/rebuilding-health-systems-and-providing-health-services-in-fragile-states.pdf. \[Accessed 17 December 2015\].](https://www.msh.org/sites/msh.org/files/rebuilding-health-systems-and-providing-health-services-in-fragile-states.pdf)

◆ **STRENGTHENING RESILIENCE AND RESPONSE TO CRISES:**

That prevention is better than cure could not be better exemplified than by disease outbreaks. By way of example: the amount committed by external donors to fight Ebola in Sierra Leone, Guinea and Liberia was over \$4 billion – fifteen times the annual national health budgets of the three countries combined.¹² In 2003-2004, rumours in Nigeria about the safety of the polio vaccine meant that five states in the country stopped delivering the vaccine. The GPEI spent more than \$220 million on the resulting outbreak in Nigeria and a further \$150 million in 2006 on outbreaks that reached 19 other countries.¹³ Through its extensive surveillance networks, the polio infrastructure in Nigeria played a significant part in limiting Ebola in Nigeria to a relatively small number of deaths rather than the extensive outbreaks that happened to Nigeria's neighbours.



Continued support of the GPEI might in the short-term be more expensive than relying on existing routine immunisation systems but in the long run, these surveillance experts will transform the current response and disease surveillance in the future, improving the UK's ability to respond to any future disease outbreak.

◆ **PROMOTING GLOBAL PROSPERITY:**

An economic study in 2011 calculated that the investment of \$9 billion since the GPEI's inception in 1988 will generate economic benefits of \$40-50 billion¹⁴. Much of those benefits will be seen in low-income countries. This figure does not include the benefits of eradication for countries that eliminated polio before the GPEI started¹⁵. The programme has already generated net benefits of \$27 billion. From 1988 to 2010, it is estimated that GPEI workers administered up to 1.3 billion doses of Vitamin A during the course of polio campaigns, averting at least 1.1 million deaths and creating an economic benefit of at least \$17 billion.¹⁶

¹² *Ibid*, 9

¹³ Global Polio Eradication Initiative. 2013. *Economic Case for Eradicating Polio*. [ONLINE] Available at: <http://www.polioeradication.org/portals/0/document/resources/strategywork/economiccase.pdf>. [Accessed 17 December 15].

¹⁴ Duintjer Tebbens RJ, Pallansch MA, Cochi SL, Wassilak SGF, Linkins J, Sutter RW, Aylward RB, Thompson KM. (2011) *Economic analysis of the Global Polio Eradication Initiative*. Available at: http://www.who.int/immunization/sage/10_economic_analysis_gpei_DuintjerTebbens_Vaccine_2010_10_26_apr_2011.pdf [Accessed 17 December 2015]

¹⁵ Bill and Melinda Gates Foundation. 2015 POLIO STRATEGY OVERVIEW. Available at: <http://www.gatesfoundation.org/What-We-Do/Global-Development/Polio> [Accessed 18 December 2015]

¹⁶ *Ibid*, 14



Continued support of the GPEI constitutes an intervention that has already demonstrated proven results for the global economy and will continue to do so.

◆ **TACKLING EXTREME POVERTY AND HELPING THE WORLD'S MOST VULNERABLE:**

Polio is a disease of poverty which affects some of the most vulnerable children in the world: it thrives in areas of low sanitation, high population density and low vaccination coverage. Even countries that have been certified polio-free need to maintain disease surveillance, containment and prepare for outbreaks and will need to incorporate part of the polio workforce, within a post-certification context. In India, that workforce is also now applying its experience to other health interventions and is being used to deliver measles and Japanese encephalitis vaccines, to provide counselling to pregnant women on breastfeeding and to provide Oral Rehydration Salts and Vitamin A supplements. India is but one example where the polio infrastructure is helping to deliver integrated health interventions. In South Sudan, 73% of the time of polio-funded workers is spent on other health services, providing the basic infrastructure to detect and address cholera, measles and meningitis outbreaks as well as strengthening routine immunisation.



Continued support of the GPEI can influence policy and programming in a way that leverages polio to the advantage of improved public health and health services overall.

PLEDGING SUPPORT

FOR THE UK GOVERNMENT

Over the past decade, 10 billion doses of OPV have been given to 2.5 billion children, preventing an estimated 3.5 million of cases of polio¹⁷. Not only this, but the lessons and knowledge that have been fine-tuned over decades of work in some of the most marginalised, unstable places on earth are now being translated to enhance other health initiatives. Continued support of the GPEI is consistent with the UK's new aid strategy and demonstrates how the scale and ambition of the Global Goals can be achieved.

Polio can be eradicated and during

this parliamentary term: global efforts have increasingly aligned to make this a reality.

The scale of such an achievement should not be under-estimated and the UK's leadership is something that it should be proud of. However, the political will to ensure that efforts continue is not a given.

Governmental and institutional donors from around the world have an important part to play in ensuring that the political will is maintained, especially in light of external factors such as conflict which create incredibly challenging

environments in which the GPEI must and will continue to operate.

During the 2015 Commonwealth Heads of Government Meeting in Malta, the UK re-affirmed its commitment to fighting polio. By pledging to the updated PEESP In 2016, the UK has the opportunity to continue its leading role, thereby encouraging other countries to pledge and reach millions of children across the world. We urge the UK government to translate the commitment demonstrated at Malta into the concrete financial pledge that will allow the GPEI to fully implement its plan.

¹⁷ Global Polio Eradication Initiative. 2011. Polio Pipeline No.8 - Summer, 2011. [ONLINE] Available at:<http://www.polioeradication.org/Research/PolioPipeline/No8Summer2011.aspx>. [Accessed 17 December 15].

THE ONE LAST PUSH IS AN ONLINE PLATFORM THAT SEEKS TO MOBILISE BOTH PARLIAMENTARY & PUBLIC SUPPORT FOR THE ERADICATION OF PROGRAMME. IF YOU ARE A PARLIAMENTARIAN AND YOU WOULD LIKE TO PLEDGE YOUR SUPPORT TO THE ERADICATION OF POLIO DURING THIS PARLIAMENTARY TERM, PLEASE DO SO BY VISITING

<http://onelastpush.org/polio-champions/>