ANNUAL REPORT

2016

POLIO GLOBAL ERADICATION INITIATIVE

ERADICATION WITHIN REACH...

World Health Organization | Rotary | CDC | unicef | Bill & Melinda Gates foundation

GLOBAL POLIO ERADICATION INITIATIVE

Annual Report 2016

World Health Organization Rotary CDC unicef Bill & Melinda Gates foundation

WHO/Polio/17.01

Published by the World Health Organization (WHO) on behalf of the Global Polio Eradication Initiative.

© World Health Organization 2017

All rights reserved. Publications of the World Health Organization are available on the WHO website (http://www.who.int) or can be purchased from WHO Press, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland (tel.: +41 22 791 3264; fax: +41 22 791 4857;
email: bookorders@who.int).

Requests for permission to reproduce or translate WHO publications – whether for sale or for non-commercial distribution – should be addressed to WHO Press through the WHO website (http://www.who.int/about/licensing/copyright_form/en/index.html).
The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

Cover photo: A young girl shows ink mark on her finger, which confirms that she has received polio vaccine during Sehat Ka Ittehad campaign, in Peshawar city, Khyber-Pakhtunkhwa Province, Pakistan. (c) Unicef/PAK/Asad Zaidi.

Printed by the WHO Document Production Services, Geneva, Switzerland
Design by Inis Communication – www.iniscommunication.com

CONTENTS

Acronyms iii

Executive summary 2

Stopping poliovirus transmission 6

Current situation: Setbacks and steps towards a polio-free world in 2016 6

Polio in Nigeria 6

Progress in Afghanistan and Pakistan 7

Circulating vaccine-derived polioviruses 8

Global progress since 1988 and focus for 2017 9

Trivalent oral polio vaccine to bivalent oral polio vaccine switch – start of the phased removal of oral polio vaccines globally 12

Containment and certification 16

Transitioning the Global Polio Eradication Initiative 19

Securing the legacy of the GPEI through transitioning its infrastructure 19

Financing the Polio Eradication & Endgame Strategic Plan 22

2016 GPEI contributors 22

ACRONYMS

bOPV	Bivalent oral polio vaccine
CCS	Containment certification scheme
cVDPV	Circulating vaccine-derived poliovirus
cVDPV2	Circulating vaccine-derived poliovirus type 2
GAPIII	WHO Global Action Plan to minimize poliovirus facility-associated risk after type-specific eradication of wild polioviruses and sequential cessation of oral polio vaccine use
GCC	Global Commission for the Certification of the Eradication of Poliomyelitis
GPEI	Global Polio Eradication Initiative
IPV	Inactivated polio vaccine
mOPV	Monovalent oral polio vaccine
mOPV2	Monovalent oral polio vaccine type 2
OPV	Oral polio vaccine
OPV2	Oral polio vaccine type 2
SAGE	Strategic Advisory Group of Experts on immunization
TIMB	Transition Independent Monitoring Board
tOPV	Trivalent oral polio vaccine
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VAPP	Vaccine-associated paralytic polio
VDPV	Vaccine-derived poliovirus
VDPV2	Vaccine-derived poliovirus type 2
WHO	World Health Organization
WPV	Wild poliovirus
WPV1	Wild poliovirus type 1
WPV2	Wild poliovirus type 2
WPV3	Wild poliovirus type 3

© WHO/S. Ramo

© WHO/R. Akbar

WHAT WE WANT YOU TO TAKE AWAY FROM THIS REPORT...

Global Polio Eradication Initiative – The worldwide eradication of a disease

- Polio is a devastating disease, which paralyses children for life.
- There is no cure for polio – but a simple and effective vaccine protects a child for life.
- In 1988, a global movement was started to ensure that every child is vaccinated against polio.
- At that time, every year more than 350 000 children were paralysed by the disease, in more than 125 countries.
- In 2016, only 37 cases were reported, from just 3 countries: Pakistan, Afghanistan and Nigeria.
- The world has never been closer to being polio-free. But if we do not succeed, polio will come roaring back. Within ten years, 200 000 children could again be paralysed all over the world – every single year!
- Please help us eradicate polio once and for all. For just US$ 0.50, you can protect a child for life against this terrible disease.

Together, let's achieve something historic!

Let's make sure that no child will ever again be paralysed by polio.

EXECUTIVE SUMMARY

In 2016, fewer children were paralysed by polio than in any other year in history, and the world moved closer still to eradicating polio. Circulating in a few areas of Pakistan, Afghanistan and Nigeria, wild poliovirus (WPV) is more geographically constrained than ever before. Every country using trivalent oral polio vaccine (tOPV) switched to bivalent oral polio vaccine (bOPV) thanks to the eradication of wild poliovirus type 2 (WPV2), which had been certified in September 2015. This progress continues to be made possible by the over 20 million volunteers and front-line staff who vaccinate over 400 million children worldwide each year as part of the Global Polio Eradication Initiative (GPEI).

ERADICATING ALL POLIOVIRUSES

After circulating undetected for several years, WPV reared its head in north-eastern Nigeria. Despite persistent improvements in operational quality accompanied by marked innovations, children in Pakistan and Afghanistan continue to be paralysed by polio. As WPV teeters on the edge of eradication, response to vaccine-derived polioviruses (VDPVs) takes on a larger role. And as the public health community zeros in on all poliovirus, containing any virus in safe, essential facilities becomes more urgent.

Pakistan and Afghanistan both continued to intensify eradication efforts and implement their respective national emergency action plans, overseen by their heads of state. The countries treat virus transmission as a single epidemiological block and emphasize the coordination of activities across their common border. In Pakistan, the proportion of children who have never had a dose of polio vaccine continued to decline in 2016, as more children are now being immunized than ever before, in particular in historical reservoir areas. In Afghanistan, 9 out of 10 areas tested met the coverage standards for vaccination campaigns. Both countries introduced a number of innovations, including the recruitment of community-based vaccinators (often female), increased environmental testing to complement the surveillance of observed cases of acute flaccid paralysis, additional cross-border vaccination teams, and remote monitoring of the quality of operations in inaccessible areas through mobile technology and independent monitors.

© WHO/R. Akbar

In August, Nigeria was dealt a sober reminder of the fragility of progress and of the dangers of any subnational surveillance gap and low-level virus transmission, with the detection of wild poliovirus type 1 (WPV1). A regional public health emergency to the outbreak was declared, and an emergency outbreak response across Nigeria and the Lake Chad basin was launched.

PREPARING FOR THE ENDGAME

Following the successful globally coordinated switch from tOPV to bOPV in April, surveillance and response continued for WPV2. Guinea, Lao People's Democratic Republic and Madagascar responded to outbreaks of previously detected circulating vaccine-derived poliovirus type 2 (cVDPV2), with no new cases reported after January 2016. In Nigeria, the regional outbreak response to the detected WPV1 also addressed two separate cVDPV2s, in Borno and Sokoto states, while Pakistan was also affected by a new cVDPV2 in the second half of the year.

The year 2016 saw a continued alarming drop in the supply of inactivated polio vaccine (IPV), necessitating the careful management of global supplies. Fortunately, necessity can be the mother of innovation. Mounting clinical evidence shows that two fractional doses (at one fifth of a full IPV dose) administered intradermally protect against the poliovirus as well as – and potentially better than – a single full dose administered intramuscularly. Adopting this approach could substantially stretch limited supply further and is recommended by the Strategic Advisory Group of Experts on immunization (SAGE).

As poliovirus transmission is increasingly restricted, the consequence of any accidental release of polioviruses into the environment grows graver. Countries therefore stepped up their efforts to identify or destroy polioviruses, or plan for their safe handling and containment in vaccine manufacturing or research facilities, with priority given to type 2 polioviruses.

Nigeria's ability to respond to its polio outbreak in 2016 was attributed to its maintaining a fully functional polio infrastructure. While the first priority of the GPEI is to ensure that capacity is in place to interrupt polio transmission, a comprehensive transition planning process is under way to sustain the expertise, infrastructure, processes and policies that came out of the polio programme and to serve the broader public health needs of communities.

Reviewing all global epidemiological evidence, the International Health Regulations Emergency Committee concluded the situation remained a Public Health Emergency of International Concern, and advocated extending its temporary recommendations to key infected and high-risk countries.

© WHO/R. Akbar

© GPEI

MAINTAINING COMMITMENT

The generosity and commitment of stakeholders are what animate and enable the GPEI. Partners ranging from endemic country governments to public and private donors contributed almost US$ 1 billion for polio eradication efforts in 2016. In 2015, it was determined that full implementation of the Polio Eradication & Endgame Strategic Plan would require an additional US$ 1.5 billion to ensure that no child is ever again paralysed by polio. A polio-free world will result in global savings of US$ 50 billion, most in developing countries.

Now is the time to redouble efforts and cross the finish line to eradicate polio once and for all. It has been said that Edward Jenner, a country doctor in rural England who in 1796 developed the world's first vaccine (against smallpox), saved more lives than any other single human being who has ever lived. All of those working together to secure a polio-free world will follow in Dr Jenner's footsteps. That is the power of vaccination and disease eradication.

Rotary International, the World Health Organization, the US Centers for Disease Control and Prevention, UNICEF and the Bill & Melinda Gates Foundation stand ready to support all stakeholders, partners and countries in the final push to secure an everlasting polio-free world.

STOPPING POLIOVIRUS TRANSMISSION

© WHO/S. Ramo

STOPPING POLIOVIRUS TRANSMISSION

CURRENT SITUATION: SETBACKS AND STEPS TOWARDS A POLIO-FREE WORLD IN 2016

At the beginning of 2016, polio was more geographically constricted than ever before, as just two endemic countries remained: Afghanistan and Pakistan. Despite Nigeria returning to the list of endemic countries following the detection of wild poliovirus type 1 (WPV1) in August 2016, the year saw the lowest number of polio cases in recorded history – just 37, exactly half of the 74 cases reported in 2015.

POLIO IN NIGERIA

In August 2016, four new cases of paralysis due to WPV1 were detected from Borno state, Nigeria. Genetic sequencing of the isolated viruses suggested they were most closely linked to WPV1 last detected in Borno in 2011, indicating the strain had circulated without detection since that time. The Government of Nigeria immediately launched an aggressive outbreak response, conducting several rounds of supplementary immunization activities. The outbreak was declared a national public health emergency, and Nigeria was put back on the list of polio endemic countries. Furthermore, health ministers at the WHO Regional Committee for Africa declared the polio outbreak to be a regional public health emergency for countries in the Lake Chad subregion, generating a wider outbreak response covering Cameroon, Central African Republic, Chad, Niger and Nigeria. Improved access in some conflicted-affected areas was used to rapidly raise the immunity of newly accessible populations. Additional measures were implemented to strengthen the sensitivity of subnational surveillance.

The outbreak response was coordinated within the context of the humanitarian emergency in the region. The polio infrastructure contributed to the delivery of other critical health needs, such as measles vaccinations. Nigeria continued to have strong immunity to the virus in most locations, but the detection of these cases underscored the risk posed by low-level undetected transmission, and the urgent need to strengthen subnational surveillance everywhere.

PROGRESS IN AFGHANISTAN AND PAKISTAN

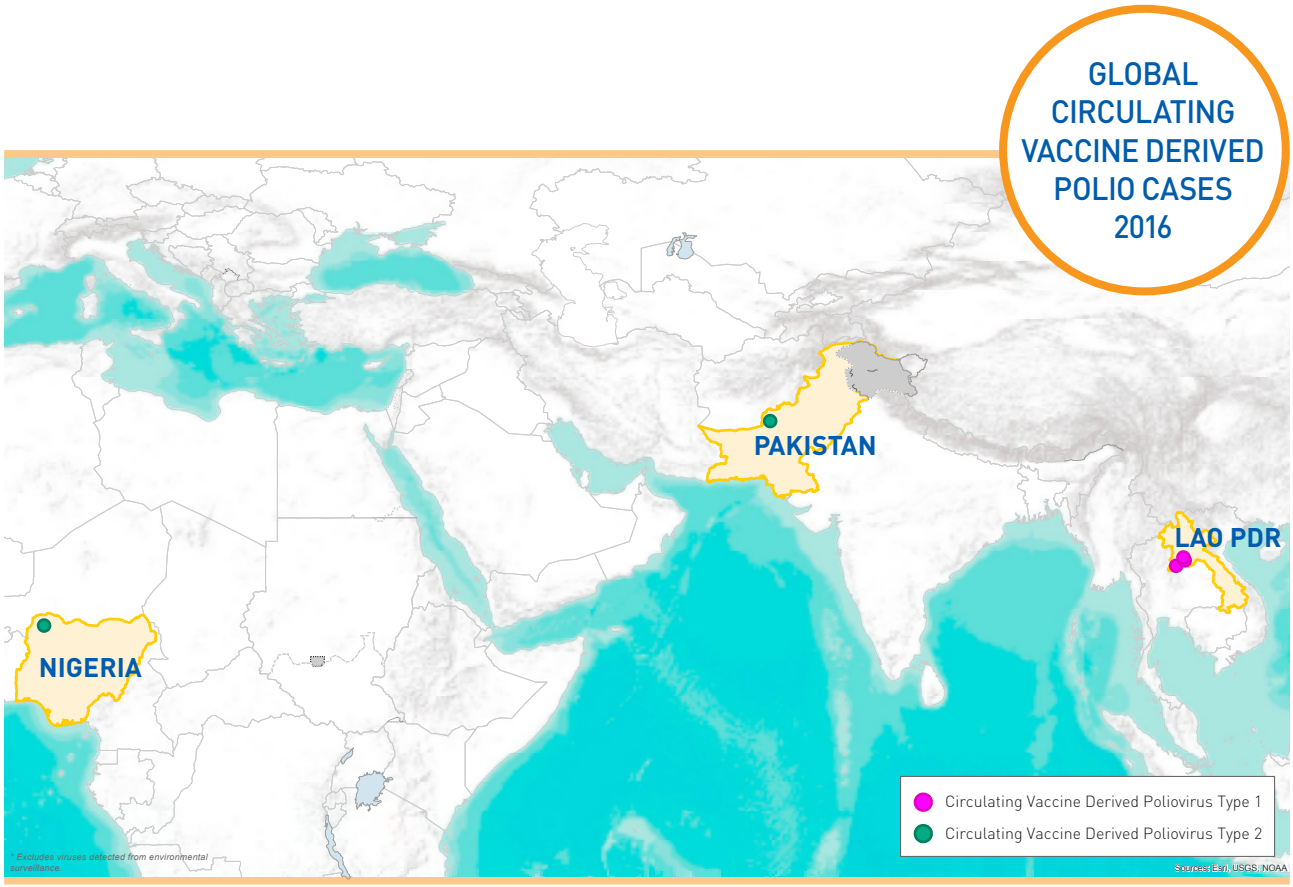
Cases in Afghanistan remained low in 2016; 13 cases were reported compared to 20 the year before. Most of the country remained polio-free, with no cases from the traditional reservoirs. The virus was mainly confined to two small, security-challenged areas: Kunar and Paktika in the east and south-east, and the northern parts of Helmand and Kandahar in the south. The programme continued to operate and adapt in the midst of a fluctuating security situation to reach the maximum number of children possible while maintaining its neutrality.

Significant improvements continued to be made throughout 2016 in Pakistan, with case numbers falling from 54 in 2015 to 20. Importantly, no polio cases were recorded in the traditional reservoir areas of Karachi, Khyber-Peshawar or the Quetta Block after February 2016, and the Global Polio Eradication Initiative (GPEI) had access to almost all children in the country. With the help of high numbers of community-based vaccinators, the programme delivered the highest vaccination coverage in the country's history. However, environmental surveillance showed that virus transmission continued around the country, enabled by population movements. With the number of environmental surveillance sites increased to 53, sensitivity was further increased.

Emergency operations centres continued to strengthen collaboration and government ownership within both countries, with strong national emergency action plans setting priorities. Both countries coordinated and worked closely together on immunization and surveillance activities. The priority remained on addressing cross-border transmission in the three corridors linking the two countries: eastern Afghanistan/Khyber-Peshawar, greater Kandahar/Helmand-Quetta and Paktika/Khost-Khyber Pakhtunkhwa/Federally Administered Tribal Areas.

Both countries positioned themselves to rapidly achieve success in 2017. Continued leadership and sustained operations are critical to success, as are ensuring remaining subnational population immunity and rapidly addressing surveillance gaps in the two countries.

© WHO/J. Jalali



CIRCULATING VACCINE-DERIVED POLIOVIRUSES

This year marked a historic step forward towards the eradication of all polioviruses.

An important part of the Polio Eradication & Endgame Strategic Plan is stopping circulating vaccine-derived polioviruses (cVDPVs), which have risen in significance for the GPEI as cases of wild poliovirus (WPV) drop. An important step forward in the fight against cVDPVs took place in 2016, with the withdrawal of the type 2 component of the oral polio vaccine (OPV).

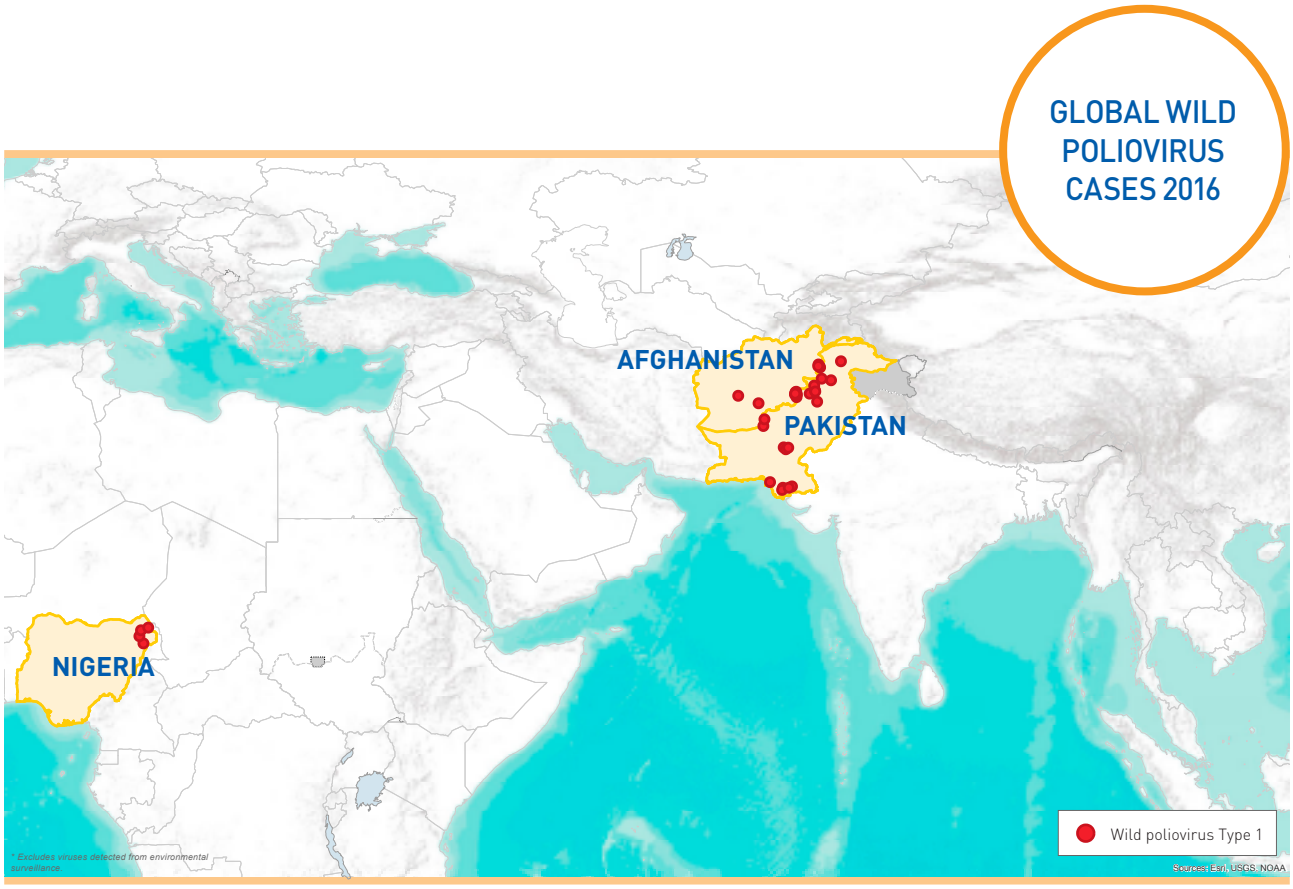
In 2015, the Strategic Advisory Group of Experts on immunization (SAGE) gave the go-ahead for a globally coordinated switch from trivalent oral polio vaccine (tOPV) to bivalent oral polio vaccine (bOPV), following the declaration that wild poliovirus type 2 (WPV2) had been eradicated. In April 2016, 155 countries and territories – all those still using tOPV – carried out the globally synchronized switch within the same two-week period. This historic event, the largest and fastest roll-out of a vaccine in routine immunization programmes ever, was followed by extensive monitoring to ensure that every health facility was no longer using any tOPV.

The removal of oral polio vaccine type 2 (OPV2) was the first stage in the longer-term cessation of all types of OPV, which will be completed when all WPV has been globally certified as eradicated. A stockpile of monovalent OPV type 2 (mOPV2) was established for use in case of an outbreak of type 2 poliovirus. This stockpile was put to use, with the authorization of the Director-General of WHO, to implement response activities in Cameroon (Lake Chad region), Chad, Niger, Nigeria and Pakistan.

In January 2016, three cases of cVDPV type 1 were reported from Lao People's Democratic Republic (with no further cases since then), and response continued as efforts were undertaken to strengthen subnational surveillance.

Before the switch, countries affected by outbreaks of circulating vaccine-derived poliovirus type 2 (cVDPV2) intensified their responses to ensure they were stopped. One case of paralysis caused by cVDPV2 was reported in 2016 in Balochistan, Pakistan, and separate and genetically unrelated cVDPVs were confirmed both in Borno and Sokoto states, Nigeria. The detection of VDPV2 strains was expected for a certain time after the switch, as children who had previously received tOPV would continue to excrete the type 2 strain originally contained in the trivalent vaccine for a limited period of time. Global surveillance for any type 2 poliovirus from any source was strong, and response capacity was available if necessary.

Polio remained a Public Health Emergency of International Concern throughout 2016.



GLOBAL PROGRESS SINCE 1988 AND FOCUS FOR 2017

In 1988, the World Health Assembly adopted the resolution that would set the world on its way towards the global eradication of polio.

At that time, more than 125 countries were endemic to polio and every year more than 350 000 children were paralysed for life by the virus. Today, only three countries remain endemic (Afghanistan, Nigeria and Pakistan), and, in 2016, 37 cases of polio were reported worldwide. Only one wild serotype continues to be detected (WPV1); WPV2 was officially declared eradicated and no case of polio due to wild poliovirus type 3 (WPV3) has been detected anywhere in the world since November 2012. The world stands on the brink of being polio-free, with fewer cases reported from fewer areas in fewer countries than ever before.

Thanks to the GPEI, more than 16 million people are walking today who otherwise would have been paralysed. An estimated 1.5 million childhood deaths have been prevented through the systematic administration of vitamin A during polio immunization activities. A global network of more than 20 million volunteers administer polio vaccines and other life-saving medicines to more than 400 million children worldwide every year. A polio-free world will result in global savings of US$ 50 billion (most in developing countries). Most importantly, no child will ever again be affected by lifelong paralysis from this terrible disease.

© WHO/S. Ramo

© WHO/S. Ramo

FOCUS FOR 2017

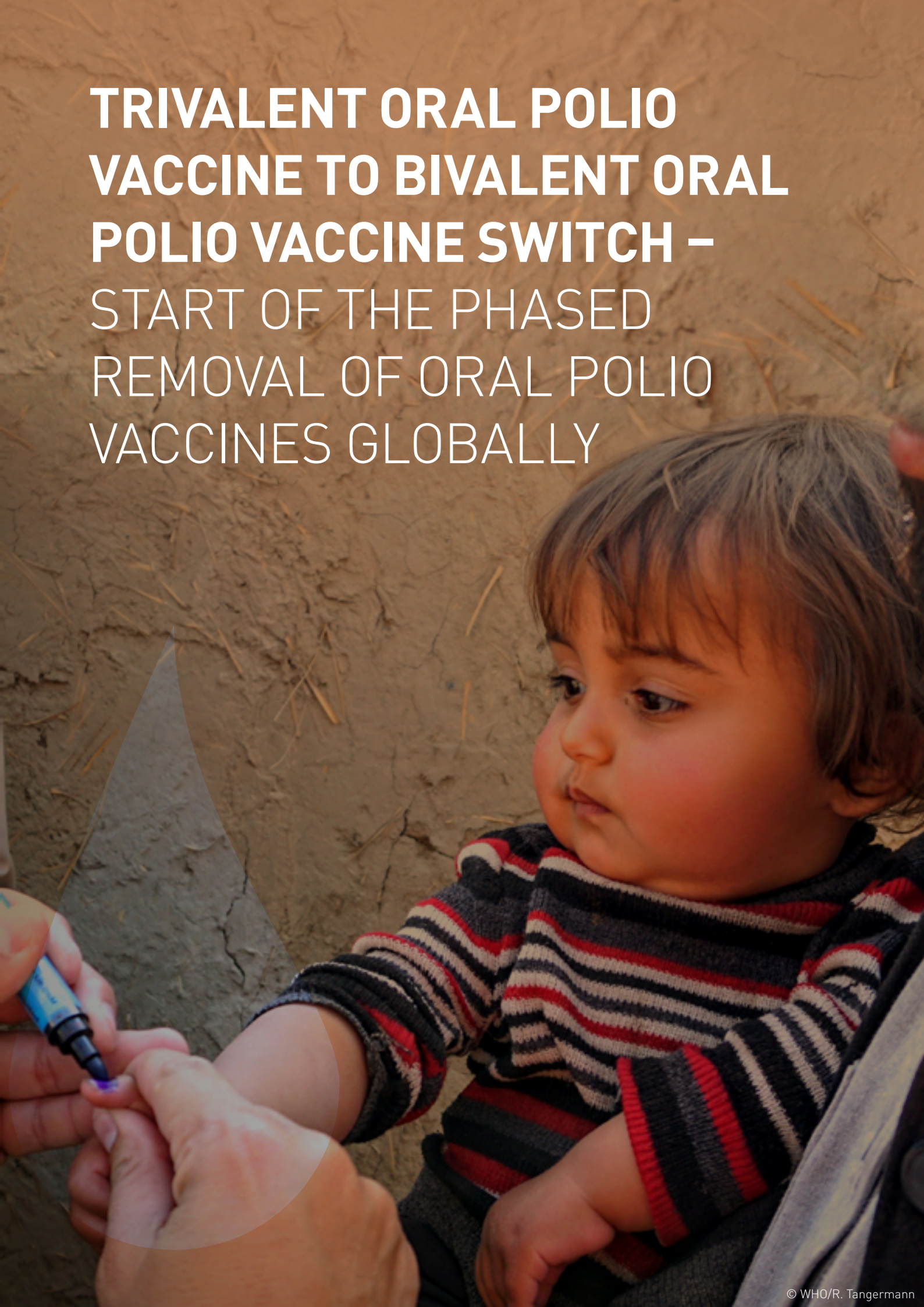
At its core, polio eradication is simple and straightforward, from a technical point of view: if enough children are immunized with sufficient doses of polio vaccine in any given area, the virus is unable to find susceptible children and it dies out. Conversely, any pockets of unimmunized or under-immunized children allow the virus continued space to circulate.

The key is therefore to ensure that all children are reached and vaccinated. It sounds straightforward and self-evident, but it is complicated by the fact that the reasons for missing children vary greatly from area to area and therefore require area-specific operational plans.

That is precisely the focus for 2017: all three remaining endemic countries have national emergency action plans in place, which primarily aim to identify area-specific reasons for continuing to miss children (whether from a lack of infrastructure, insecurity, inadequate planning and oversight, large-scale population movements, or the lack of community engagement, etc.), and are putting in place precise plans to overcome these challenges. Overseen at the head-of-state level, national and provincial emergency operations centres ensure real-time monitoring, and foster accountability and oversight. Thus their goal for 2017 is to fully implement the national emergency plans across all areas in the remaining three countries.

The full implementation of these plans will result in the rapid interruption of any remaining poliovirus strains and ensure that never again will a child anywhere be paralysed by this disease.

TRIVALENT ORAL POLIO VACCINE TO BIVALENT ORAL POLIO VACCINE SWITCH – START OF THE PHASED REMOVAL OF ORAL POLIO VACCINES GLOBALLY



© WHO/R. Tangermann

TRIVALENT ORAL POLIO VACCINE TO BIVALENT ORAL POLIO VACCINE SWITCH – START OF THE PHASED REMOVAL OF ORAL POLIO VACCINES GLOBALLY

OPV is extremely safe and effective at protecting children against lifelong polio paralysis. Over the past 10 years, more than 10 billion doses of OPV have been administered to nearly 3 billion children worldwide. Over 16 million cases of polio have been prevented, and the disease has been reduced by more than 99%. The vaccine is the appropriate means to achieve global polio eradication.

OPV contains attenuated polioviruses. On extremely rare occasions, the use of OPV can result in cases of vaccine-associated paralytic polio (VAPP) and cVDPV.

© Unicef/T. Moran

© WHO/L. Dore

For this reason, the global eradication of polio requires the cessation of all OPV in routine and supplementary immunization as soon as possible after the eradication of WPV transmission.

Different types of OPV are available: tOPV contains all three serotypes (1, 2 and 3); bOPV contains serotypes 1 and 3; and monovalent OPV (mOPV) contains one serotype (1, 2 or 3). A mix of all types is used to eradicate polio during supplementary immunization activities but, until early 2016, tOPV was the only oral vaccine used in routine immunization programmes.

As WPV2 transmission was successfully interrupted in 1999, the subsequent cases of type 2 polioviruses were caused by the type 2 serotype component in tOPV. Over 90% of cVDPV cases were due to this component, which was also responsible for up to 38% of VAPP cases.

Thus the switch from tOPV to bOPV was implemented in April 2016 in routine immunization programmes, even before the remaining strains of WPV1 and WPV3 transmission are eradicated. Following their eradication, the use of all OPV in routine or supplementary immunizations will be stopped.

The switch is associated with significant public health benefits as polio will no longer be caused by the type 2 component of tOPV. In addition, OPV2 cessation provides the GPEI with the thrust to end all OPVs. OPV cessation is feasible in practice and the lessons learned from the switch ensure the process can be implemented in a safe and efficient manner.

The tOPV to bOPV switch was a major undertaking, and Member States prepared rigorously for its success. And while the switch proved to be a major success and milestone towards the achievement of a lasting polio-free world, a global supply constraint of inactivated polio vaccine (IPV) emerged, which had not been anticipated. This supply constraint was actively managed, and available supply was prioritized to areas at highest risk of cVDPV2.

© WHO/L. DORE

FOCUS FOR 2017

Following the switch, highly sensitive surveillance for all polioviruses continued, including for type 2, both to document the elimination of type 2 poliovirus transmission (including residual cVDPV2) and to rapidly detect the potential reintroduction or re-emergence of WPV2 or cVDPV2. At the same time, outbreak response capacity was maintained, including ensuring the supply and management of the stockpile of mOPV2, should it be needed. The GPEI continued to explore options to stretch the available IPV supply, including through the increased administration of fractional doses (one fifth of a full dose), demonstrated to be a viable option. Some countries, notably India, Bangladesh and Sri Lanka, have already adopted this approach, and SAGE recommended that countries adopt a fractional dose schedule in lieu of full dose IPV.

CONTAINMENT AND CERTIFICATION

© WHO Afghanistan/R. Akbar

CONTAINMENT AND CERTIFICATION

In September 2015, the Global Commission for the Certification of the Eradication of Poliomyelitis declared that WPV2 has been eradicated. However, the virus is still retained in laboratories and other facilities worldwide, for activities such as vaccine production and research. The handling and storage of poliovirus type 2 materials* in facilities pose the potential risk of the release and reintroduction of the virus into the environment.

The GPEI supports countries in the implementation of the *WHO Global Action Plan to minimize poliovirus facility-associated risk after type-specific eradication of wild polioviruses and sequential cessation of oral polio vaccine use* (GAPIII). Key measures to minimize risk include destroying poliovirus type 2 materials or containing them in a certified poliovirus-essential facility that adheres to the GAPIII requirements.

In 2016, countries continued to prepare for the containment of poliovirus type 2 materials (Phase I of GAPIII). In this phase, countries reported on the inventories of the facilities that handled or stored these materials, the destruction of unneeded materials and the designation of poliovirus-essential facilities to retain the needed materials.

In 2016, countries with designated poliovirus-essential facilities started conducting activities in Phase II of GAPIII. Of the 30 countries holding these facilities, 17 nominated a national authority for containment, which is responsible for the facilities' containment certification. In Phase II, designated poliovirus-essential facilities must demonstrate they have implemented the biorisk management requirements described in GAPIII. Since February 2015, WHO has conducted 17 workshops, involving over 300 participants from facilities, national

* including all materials containing or potentially containing WPV2, VDPV2, OPV2 or Sabin type 2 viruses.

authorities for containment and other stakeholders in all regions, to help countries strengthen their capacity for GAPIII implementation and certification.

To guide the certification process, WHO developed the *Containment Certification Scheme to support the certification of facilities against the WHO Global Action Plan for poliovirus containment* (GAPIII-CCS), endorsed by SAGE in October 2016. Since January 2017, WHO has conducted workshops to train future auditors to inspect facilities and ensure containment requirements against GAPIII using the mechanism described in the GAPIII-CCS.

FOCUS FOR 2017

In 2017, efforts will continue towards completing Phase I and implementing the Phase II activities of GAPIII.

Key activities for the year:

- All countries hosting designated poliovirus-essential facilities must establish a national authority for containment.
- Designated poliovirus-essential facilities are expected to apply for certification to their national authority for containment. The national authority for containment will review and process applications in consultation with the Global Commission for the Certification of the Eradication of Poliomyelitis (GCC). Designated poliovirus-essential facilities whose applications are accepted will begin the certification process.
- WHO will continue to conduct workshops for auditors on the GAPIII-CCS and will develop a roster of auditors who can support countries with designated poliovirus-essential facilities that are entering the certification process.

In early 2017, three new groups began supporting global poliovirus containment. The Containment Working Group supports the GCC in its role as the global oversight body for poliovirus containment activities. The Containment Advisory Group provides guidance and makes recommendations to the Director-General of WHO on technical issues related to GAPIII. The Containment Management Group provides GPEI oversight, partner coordination and management support for containment, as detailed in the Polio Eradication & Endgame Strategic Plan.

© WHO/PAHO/Harold Ruiz

TRANSITIONING THE GLOBAL POLIO ERADICATION INITIATIVE

© WHO/L. Dore

TRANSITIONING THE GLOBAL POLIO ERADICATION INITIATIVE

SECURING THE LEGACY OF THE GPEI THROUGH TRANSITIONING ITS INFRASTRUCTURE

After polio eradication is certified, the GPEI will "sunset", having achieved its goal. Sustaining essential polio functions, such as containment, surveillance and outbreak response, within well-performing health systems will be critical to maintain a polio-free world. Thus the focus of a GPEI effort initiated at the end of 2016 is to develop a post-certification strategy. This highly consultative process will be completed in 2017.

In addition, at the core of the transition planning objective (previously referred to as "legacy planning") is ensuring that the investments made in the polio infrastructure and the lessons learned over the past three decades benefit the broader health agenda.

The broader benefits that can be achieved with the human and technical infrastructure of the Polio Eradication & Endgame Strategic Plan are already in evidence; in countries with strong polio programmes, polio staff and systems are supporting other global health needs, such as surveillance, routine immunization, maternal and child health requirements, and emergency and outbreak response. For example, Nepal's polio eradication programme has reported on cases of measles, rubella, neonatal tetanus and Japanese encephalitis since 2004. In Angola, surveillance for Marburg virus disease was greatly facilitated by basic communications infrastructure that was put in place for polio. In Ethiopia, polio staff have worked to control cholera outbreaks and provide training on outbreak detection and response in general. In India, polio surveillance and social mobilization

© WHO/H. Dicko

© WHO/ R. Akbar

networks have responded to kala-azar outbreaks and prevention campaigns.

The polio programme's footprint in each country is quite different. To reflect this diversity, it is important for polio transition planning to be driven at the country level, under the leadership of national governments. Among the 16 countries selected as priorities for transition planning (Afghanistan, Angola, Bangladesh, Chad, the Democratic Republic of the Congo, Egypt, Ethiopia, India, Indonesia, Myanmar, Nepal, Nigeria, Pakistan, Somalia, South Sudan and Sudan), all except Afghanistan and Pakistan (where the focus remains squarely on interrupting transmission) have started their transition planning efforts. The transition plans ensure that polio-essential functions are mainstreamed into national health systems and explore opportunities for transitioning the infrastructure to other health programmes after eradication.

Progress towards transition planning gained pace in 2016. By the end of the year, the majority of the priority countries had established national steering committees to oversee and manage the planning process, and had mapped out their GPEI-funded assets to match them to national priorities.

FOCUS FOR 2017

The development of a post-certification strategy will require intensive consultation and discussions with stakeholders, with a view to its endorsement by the Polio Oversight Board in December 2017.

A Transition Independent Monitoring Board (TIMB) was established at the global level to monitor progress. The TIMB will meet biannually until 2019 to evaluate progress, timelines and implementation.

While most GPEI assets were established at the country level, the significant regional and global polio-funded assets and resources must be mapped out and, where feasible, transitioned into other health programmes. The Global Polio Laboratory Network is one example. Each GPEI agency will therefore need to develop individual, agency-specific transition plans, assessing the risks associated with the decrease in polio funding, proposing relevant risk-mitigation measures and, where possible, leveraging on opportunities. In 2016, all GPEI agencies started their individual internal transition planning process, which will continue in 2017. For instance, WHO has set up a Global Steering Committee on Transition Planning to mitigate the human resource, programmatic and operational capacity risks associated with the loss of polio funding and to explore opportunities that can help contribute to other health programmes currently benefiting from the polio infrastructure. In January 2017, the WHO Executive Board requested a report on polio transition planning, which was presented to Member States at the World Health Assembly in 2017.

FINANCING THE POLIO ERADICATION & ENDGAME STRATEGIC PLAN

© WHO/S. Ramo

FINANCING THE POLIO ERADICATION & ENDGAME STRATEGIC PLAN

Rotarians in Germany raising funds and helping save the environment. Collecting recyclable plastic bottle caps, Rotarians are taking the opportunity to raise awareness and funds for polio eradication, and doing something good for the environment. In total, more than 175 tons of plastic bottle caps were collected through more than 950 collection points around the country. © Rotary International/D. Kissel

Thanks to the strong and continued support of GPEI partners and donors and to the commitment of endemic countries, the 2016 GPEI budgetary requirements were fully met. In particular, domestic contributions from endemic countries were critical to ensure the financial needs were in place, including for unanticipated costs related to the outbreak in Nigeria to permit an effective emergency response across the Lake Chad subregion. Following confirmation of the outbreak, GPEI partners announced an emergency appeal for funding, to which donors responded generously.

Critical to achieving a lasting polio-free world is the rapid mobilization of the additional funds needed. The GPEI is currently working to mobilize US$ 1.5 billion identified in the 2015 midterm review as the additional resources needed, through global certification, now anticipated in 2020. In addition to the significant humanitarian benefits associated with polio eradication, the effort is also associated with substantial economic benefits. A polio-free world will reap savings of more than US$ 50 billion, funds that can be used to address other pressing public health and development needs.

In 2016, the GPEI released its *Investment Case* for polio eradication, providing the economic and humanitarian rationale for continued investment into the GPEI. It was updated in early 2017 and is available on the GPEI website at www.polioeradication.org.

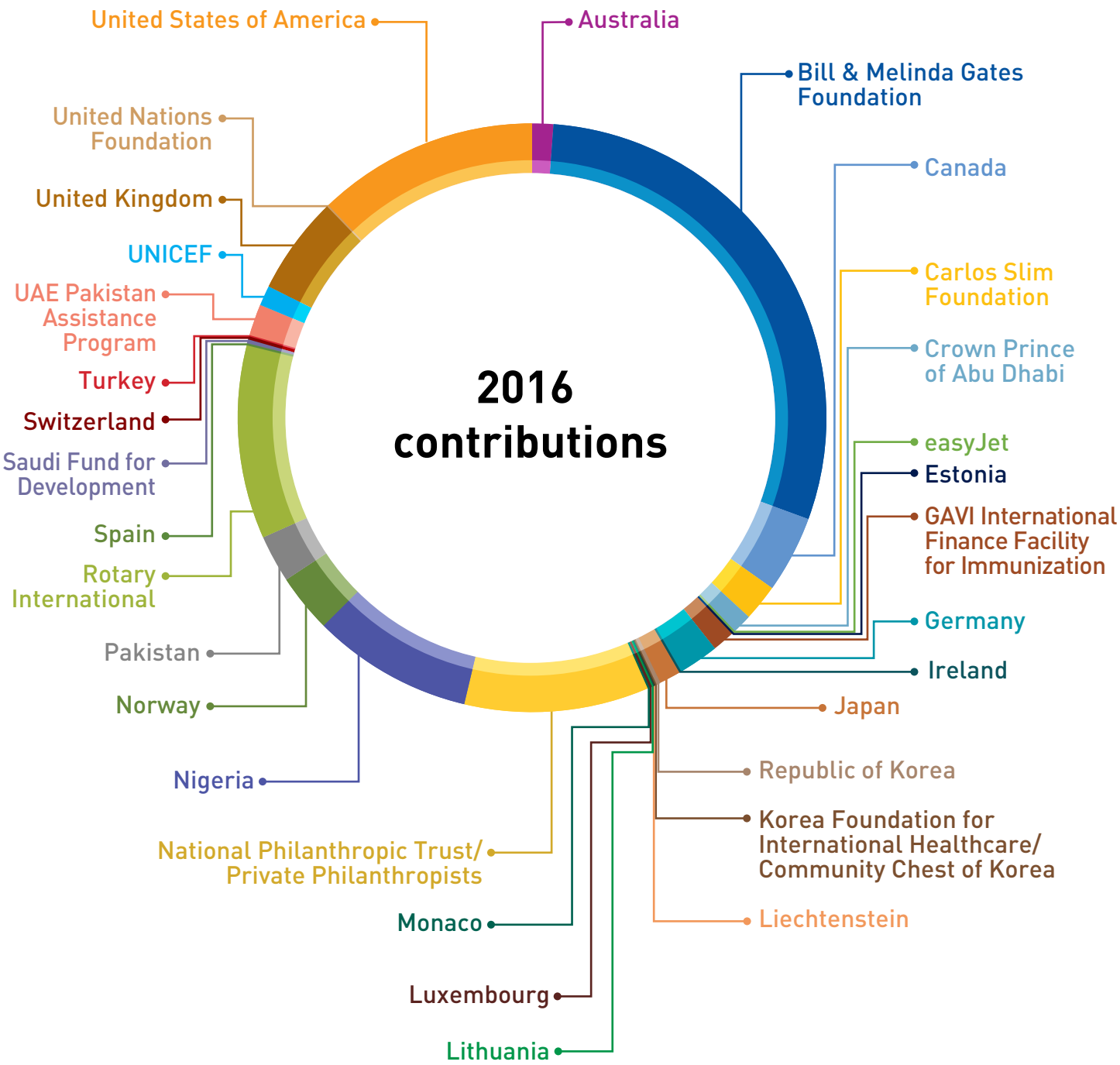
In May 2016, under Japan's Presidency, the G7 heads of state reaffirmed their commitment to reaching polio eradication targets. Additionally, in the "G7 Ise-Shima Vision for Global Health", the G7 leaders recognized the "significant contribution that the polio related assets, resources and infrastructure will have on strengthening health systems and advancing universal health coverage".

In June 2017, Rotary International and Rotarians from around the world will celebrate the 100th anniversary of the Rotary Foundation at its annual convention in Atlanta, USA, the birthplace of the Foundation. The event will bring together Bill and Melinda Gates as well as other public- and private-sector dignitaries and partners to mark an opportunity to publicly recommit to the GPEI and the global effort to rid the world of polio once and for all.

2016 GPEI CONTRIBUTORS

The GPEI thanks the following generous donors for their contributions to the initiative in 2016, which helped ensure that the activities described in this Annual Report were implemented during the year. This long-standing and generous support by the international development community is a critical factor in bringing the world to the threshold of being polio-free. In total, almost US$ 1 billion was committed globally to polio eradication by contributors across the world, as outlined in the chart below.

CONTRIBUTORS TO THE GPEI, 2016



Australia disbursed US$ 11.57 million, as part of a multi-year commitment to support the Polio Eradication & Endgame Strategic Plan, made after the Rotary International Convention in Sydney in June 2014.

The **Bill & Melinda Gates Foundation** provided US$ 292 million in 2016 funding, and continues to match funds raised by Rotarians two to one as part of the ongoing fundraising partnership between the two organizations.

In 2016, the **Government of Canada** continued to deliver on the Can$ 250 million pledge made at the 2013 Vaccine Summit, disbursing approximately US$ 41.94 million for the global implementation of the Polio Eradication & Endgame Strategic. This included funding for the Democratic Republic of Congo, Afghanistan, Pakistan, Nigeria (including routine immunization) and UNICEF-Rotary match funding. Canada is the third largest government contributor to the GPEI, with total commitments of more than US$ 566 million.

Since 2011, His Highness Sheikh Mohamed bin Zayed Al Nahyan, **Crown Prince of Abu Dhabi** and Deputy Supreme Commander of the UAE Armed Forces, has pledged US$137 million towards polio eradication activities through WHO and UNICEF as well as the **UAE Pakistan Assistance Program**. A total of US$ 102.63 million has been disbursed of which US$ 30.42 million in 2016.

Passengers on **easyJet** flights contributed generously to polio eradication through a partnership with UNICEF. In 2016 alone, US$ 535,164 were raised throughout Europe bringing the total amount donated to end this crippling disease to US$ 3.75 million since 2014.

Estonia continued its support to polio eradication, providing US$ 20,000 to the effort, bringing its total contribution to more than US$ 230 000.

Gavi, the Vaccine Alliance, provided US$ 12.30 million from the International Finance Facility for Immunisation to maintain the vaccine stockpile.

Germany continued its multi-year support to polio eradication in the remaining endemic countries, contributing US$ 22.28 million. The country is a long-standing partner, having provided more than US$ 545.6 million.

In response to the need for a multi-country outbreak response after detecting WPV in Nigeria, the Government of **Ireland** urgently released US$ 760 870 to polio eradication, finalizing the disbursement of the pledge it made at the 2013 Vaccine Summit.

Japan continued to show leadership and strong commitment to polio eradication, contributing US$ 11.8 million in grant funding to Pakistan and Afghanistan, bringing its total contribution to more than US$ 550 million.

The **Government of Korea** joined the Global Polio Eradication Initiative through an innovative financing mechanism titled the "Global Disease Eradication Fund". Thanks to this air-ticket solidarity levy, US$ 4 million were pledged for outbreak response and surveillance. In 2016, US$ 2 million was disbursed.

Through its partnership with the **Community Chest of Korea, The Korea Foundation for International Healthcare**, a specialized organization under the South Korean Ministry of Health and Welfare, remained fully engaged in the polio eradication efforts in Nigeria. In 2016, it made a grant of US$ 1 million to strengthen surveillance in Nigeria, bringing its total contribution for Nigeria to US$ 4 million.

Liechtenstein continued its support to polio eradication efforts, providing US$ 25 201 and bringing its total contribution to over US$ 170 000.

In response to the vaccine-derived polio outbreak in the Ukraine, **Lithuania** gave US$ 54 825, its first contribution to the initiative.

Luxembourg contributed US$ 566 893 in support of polio eradication operations worldwide and announced new funding commitments of at least US$ 500 000 million until 2019 at the Global Citizen Festival.

Monaco's extraordinary commitment to polio eradication efforts remains as strong as ever and contributed US$ 167 598 to polio eradication operations in Niger.

Private philanthropists provided a total of US$ 104 million in 2016 through **the National Philanthropic Trust.** In addition, the **Carlos Slim Foundation** contributed to polio eradication with US$ 20 million. Almost US$ 370 million has now been contributed by private philanthropists worldwide. New announcements of US$ 70 million were made on World Polio Day 2016 from Bloomberg Philanthropies and an anonymous donor, and US$ 30 million pledged by Ray Dalio, Chairman and Chief Investment Officer at Bridgewater Associates, and the Dalio Foundation.

In 2016, **Nigeria** provided over US$ 87 million in direct budget support and World Bank Loan funding as well as through a Japan International Cooperation Agency Loan Conversion with the Government of Nigeria and in partnership with the Bill & Melinda Gates Foundation. The country has now contributed more than US$ 353 million

in resources to the effort until 2017. Domestic resources are becoming more and more a vital source of funding to the global eradication effort.

Norway continued to provide critical contributions to the GPEI. In 2016, the country provided US$ 31.78 million for polio eradication operations worldwide, including IPV through Gavi, the Vaccine Alliance. This brings its total contributions to more than US$ 285 million as part of the pledge it made at the Vaccine Summit until 2019.

As part of its strong commitment to polio eradication, the Government of **Pakistan** finalized a second loan package with the Islamic Development Bank for US$ 100 million, of which US$ 26 million was disbursed to WHO in 2016. This new loan brings the Government's loan funding from the Bank to US$ 327 million over 2013–2018.

Rotary International, in addition to being a spearheading partner of the GPEI, is also the second largest private-sector donor. The more than 1.2 million Rotarians worldwide have personally contributed US$ 1.6 billion to the effort; they provided more than US$ 106.30 million in 2016 alone. This funding included an exception grant of US$ 500 000 for the Lake Chad regional outbreak response. Additionally, Rotarians have leveraged their influence with both donor governments and governments of countries that remain affected or at high risk of polio to help secure political and financial support for polio eradication at all levels. Thank you Rotary!

The **Saudi Fund for Development** released US$ 3 million for polio eradication activities in Sudan and Yemen. This was the final disbursement of its US$ 30 million pledge.

The Government of **Spain** provided US$ 21 000 to WHO for polio eradication as part of its overall annual contribution to the agency. This brings its total contribution to over US$18 million.

Switzerland made a commitment of US$ 1 million to support transition planning in the African region and has released US$ 510 725 thus far.

Since 2008, **Turkey** has continued its annual support to eradicate polio by providing an additional US$ 60 000 in 2016.

In 2016, the spearheading partner **UNICEF** provided US$ 11 million for polio eradication activities from its regular resources.

In 2016, the UK Department for International Development (DFID) disbursed more than US$ 53.62 million to the GPEI following a successful annual performance review, as part of its Vaccine Summit pledge. The **United Kingdom** is the second largest public-sector contributor with total commitments of US$ 1.5 billion until 2018.

The **United Nations Foundation**, as part of its Shot@Life campaign, continued its critical support by providing an additional US$ 761 000 to the global effort. The United Nations Foundation is an important and long-standing partner, having contributed more than US$ 45 million over the years.

The **United States of America** remains the largest public-sector donor to the GPEI. The US Congress has allocated more than US$ 2.84 billion to the effort through the US Centers for Disease Control and Prevention and USAID, both of whom provide crucial technical and management assistance for eradication in priority countries. In 2016, US$ 121 million was disbursed to WHO and UNICEF.

The GPEI provides regular updates on the status of pledged funds and new commitments through its website, www.polioeradication.org.

YOUR NOTES

YOUR NOTES

YOUR NOTES

EVERY LAST CHILD

www.polioeradication.org

WHO/Polio/17.01