



NIGERIA KEEPING POLIO@ZERO

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Chairman's Address

POLIO CAMPAIGNS IN THE MIDST OF THE COVID-19 PANDEMIC



The COVID-19 pandemic continues to ravage our communities and creating obstacles in the way we were doing things. At the beginning, it was a rude shock because it was new. None of us has lived in a pandemic before so we had to "learn on the job" as it were. And learn we did. It affected every aspect of our lives including social, economic and health. It has impacted our physical and emotional health and negatively impacted the resources at our disposal to respond to it. Our polio eradication effort is no exception. We had to pause our campaigns even though circulating vaccine derived polio virus was spreading like wild fire across West, Central and East Africa as well as the horn of Africa. Routine immunisation suffered a setback because mothers were hesitant to take their children for immunisation or the facilities were not functioning. To add salt to the injury the scarce human and financial resources earmarked for polio had to be repurposed to fight COVID-19. But then as we have always done since the beginning of our efforts to

eradicate polio, we rose to the challenge. Rotarians and our GPEI partners restructured and we resumed our campaigns in October 2020 with outbreak response activities to curtail the spread of vaccine derived polio virus and now we have resumed normal mass immunisation campaigns in several states to catch up with children we have missed. The last campaign which began on the 16th January was scheduled to run for four days. This campaign is targeting 15 million children in 8 States in the country. resources earmarked for polio had to be repurposed to fight COVID-19. But then as we have always done since the beginning of our efforts to eradicate polio, we rose to the challenge. Rotarians and our GPEI partners restructured and we resumed our campaigns in October 2020 with outbreak response activities to curtail the spread of vaccine derived polio virus and now we have resumed normal mass immunisation campaigns in several states to catch up with children we have missed. The last campaign which began on the 16th January was scheduled to run for four days. This campaign is targeting 15 million children in 8 States in the country.

This has always been a huge logistical undertaking involving tens of thousands of field workers but now COVID-19 has added to this undertaking to include

training of vaccinators regarding COVID-19 and its prevention protocols with provision of masks and sanitisers.

Now that the COVID-19 vaccine is about to be deployed we are also including demand creation for the vaccine in our to-do list. This involves advocacy to the traditional and religious leadership and involving local influencers in our efforts to dispel rumours and create a pool of people who will readily accept the vaccine and influence others to do the same. We are drawing from our experience with polio vaccine rejection in the early days of our campaigns to surmount any challenges to the introduction of the COVID-19 vaccine.

While we wait for the COVID-19 vaccine to be deployed and well beyond its deployment, we must continue to distance ourselves from the virus by staying home as much as is possible, wearing our mask once out of our home, keeping safe distances from other people even when they are masked and washing our hands frequently or using hand sanitisers.

I want to use this forum to commend our frontline workers, our GPEI partners and Rotarians who despite the risk are joining our field workers to ensure a quality campaign and help resolve vaccine refusals.

FROM EDITOR'S DESK

THE POWER OF PERSISTENCE

"There is nothing more brave than a candle persisting to live in the wind." -Atticus

Rotary International is one member of the Global Polio Eradication Initiative that has always been there. Regardless of the challenges both locally and internationally, Rotarians have always maintained a commitment to the fight to rid the world of polio and give the next generation the gift of a polio-free world. Even in the face of conflicting responsibilities, priorities and even at times of extreme paucity and shortages of resources, we have persisted.

The persistence of our commitment is the main reason that we've succeeded in pushing polio to the verge of extinction. The Chinese have a saying that "persistence can grind an iron beam into a needle" and we have demonstrated this with polio. It is the reason that we can guarantee that the world will very soon see its last case of this terrible debilitating disease.

Rumours haven't stopped us. War, insecurity and insurgency may have knocked us a little bit off our stride but they didn't stop us. Hard times and moments of global economic peril may have shaken us but they haven't stopped us. And now, the global novel coronavirus pandemic will not be able to stop us.

The global novel coronavirus pandemic has had a really negative effect on almost everything except the science of vaccine

development. There has been a global economic decline with several countries including Nigeria going into recession meaning that resources available to support immunization services have also declined. This decline, coupled with the pause to immunization services lasting several months in the last year, has meant that we have been playing catch up in terms of the numbers we need to immunize to keep childhood illnesses, including polio, at bay. We have an outbreak of vaccine derived polio that we're struggling to respond to even in the midst of a rapidly escalating second wave of the novel coronavirus pandemic.

If the first wave was a time for global solidarity and a time during which we deployed resources of the largest public-private health initiative in the history to tackle the pandemic, the second wave will be a period that will require us to remain persistent in applying the synergistic attributes of our earlier global solidarity to see it through.

Fortunately, as I alluded to earlier, the pandemic has also led to rapid advances in vaccine science that have opened the door of opportunities to solutions we had only dreamed of in the past. We have developed safe and effective vaccines that are capable of protecting us from the novel coronavirus. We also have more vaccines in the works that will soon become available to further bolster our ability to respond to the global

pandemic. We have recently introduced new vaccines into the vaccine schedule and carried out massive campaigns such as the fractional IPV campaign with great results. Some of these techniques and experiences will be required in the coming months as we come together to fight the pandemic and because we have experience fighting a global virus to near extinction, we have a good chance of making a success of it.

All we need now is to maintain the doggedness and persistence with which we have attacked every goal. Like Bill Bradley said "Ambition is the path to success but persistence is the vehicle you arrive in."

It's our persistence is what will guarantee us victory.

Benjamin Franklin said "Energy and persistence conquer all things." We have the energy and we have shown that we can persist. Now it's time to tackle the coronavirus. Then we'll deliver a polio-free world.



Rotarian 'Gbenga Olayiwole
Editor, Poliostop

ROTARIANS SUSTAINING EFFORTS IN KEEPING POLIO @ ZERO 2020 AND BEYOND

Rotary International is an international service organization whose stated purpose is to bring together business and professional leaders in order to provide humanitarian service and to advance goodwill and peace around the world.

Polio eradication is Rotary's top philanthropic goal. Since the global initiative began more than 34 years ago, Rotary has contributed over \$1.8 billion and countless volunteer hours to the protection of more than two billion children in 122 countries. This has helped in reducing polio cases by 99.9 % worldwide. Rotary's roles within the initiative are fundraising, advocacy, and social mobilization.

Rotarians are dedicated to solving problems. This takes real commitment and vision. For more than 114 years, Rotary's people of action have used their passion, energy, and intelligence to take action on sustainable projects. From literacy and peace to water and health, we are always working to better our world, and we stay committed to the end.

Rotary International is organized into Districts. These Districts are divided into 34 Zones and Nigeria has four

Districts under Africa Zone 22 with over 35,000 Rotarians. The Districts in Nigeria are 9110 (Lagos and Ogun states); 9141 (South South states); 9125 (Abuja, Northern and all the South West states except Lagos and Ogun states) and 9142 (South East states).

Rotarians across the country while celebrating the achievement of a polio-free Nigeria and Africa did not relent in their efforts of polio eradication in line with the target of "Keeping Polio at Zero!" Clubs have jointly supported communities with food items as palliatives to ease the effect of the lockdown imposed as a result of the global pandemic and also in-order to support the COVID-19 response. They also engaged in supporting communities to stay home and keep to safety protocols.

Both independently and through the NNPPC, Rotarians have mobilized resources, procured and donated so far over 500 tricycles in 2020 alone to aid mobility of polio survivors across the country in addition to renovation of various health facilities, supply of essential drugs and equipments and also providing safe drinking water to communities.

Public enlightenment during World Polio Day celebrations, polio community advocacy to traditional leaders and awareness creation was also done alongside the distribution of sanitizers and facemasks to prevent the spread of COVID-19.

To surmount the remaining polio eradication challenges and to keep polio at zero in Nigeria and Africa, Rotarians need to do more in partnering with other community stakeholders to ensure adequate AFP Surveillance, monitoring and supervision of SIAs and resolution of noncompliance in order to improve OPV uptake in our communities and maintain our polio-free status. Let's always remember that the reward for hard work is more work.



AMINU MUHAMMAD
NATIONAL PROGRAMME COORDINATOR

HOW NIGERIA BEAT POLIO: FROM 'HIT-AND-RUN' VACCINE SQUADS TO DIGGING WELLS



Dr. Tunji Funsho Chair Rotary International's Nigeria National PolioPlus Committee

Dr Tunji Funsho, described by TIME as "the person who did more than any other to drive polio to continent-wide extinction" in Africa, could be forgiven for taking a break. In August 2020, that goal was reached: Nigeria, where Dr Funsho is based, was declared free of the wild polio virus, the last country on the continent to reach the milestone.

But speaking to The Telegraph from his aptly named Polio House office in Lagos, Nigeria's economic capital, with a colourful woven cap emblazoned with the words 'End polio now' atop his head, Dr Funsho is not finished yet. "Nothing could be more satisfying than to live to see the day that Nigeria was certified free [of wild polio] under my leadership," he said. But he added that there was work to be done maintaining that status - and, moreover, work to be done elsewhere to achieve the same goal.

Polio, which has left hundreds of thousands of children globally paralysed or, in some cases, even dead, remains endemic only in Pakistan and Afghanistan, the last barriers to a wild polio-free world.

There may be lessons available in that final struggle from Nigeria's long journey to zero polio. It took decades of advocacy and vaccination drives, with major setbacks along the way and one huge need, according to Dr Funsho: money.

The 72-year old, a cardiologist by trade and chair of Rotary International's polio eradication programme in Nigeria for the last seven years, said the team has spent five times the amount of money in Africa alone that was originally budgeted to rid the entire world of the disease.

In 1996, when African governments partnered with the Global Polio Eradication Initiative (GPEI) - made up of Rotary, the World Health Organization, and others - on the Nelson Mandela-led 'Kick Polio out of Africa' campaign, Dr Funsho was part of a team that raised \$230 million to target 50 million children for vaccination and eradicate polio in Africa

by 2000. The money spent, he said, has surpassed the initial budget by far.



A child being vaccinated in a rural community in Nigeria

"It takes a lot to ask people to keep giving continuously," he said. "They give money this year and you have not finished the job, next year we come again and ask for more. It becomes tougher and tougher to raise funds."

That's despite the progress that has been made: about 75,000 African children annually were affected by poliomyelitis 20 years ago. The infectious disease is caused by poliovirus - gastrointestinal viruses that attack the nervous system of children under five and destroy nerve cells that allow for muscle movement. The virus transmits through a faecal-oral route, often through contaminated water or food, and causes lifelong paralysis in hours.

It was not just money, though. Vaccinators, try as they may, struggled to convince some populations of the usefulness of the polio vaccine and could not counter widespread rumours that the vaccine sterilized children.

In 2003, a state-backed vaccine boycott in the northern states of Kano, Kaduna and Zamfara caused a particularly devastating setback, rolling back years of progress at a time when Nigeria recorded nearly half of the polio burden in the world.

The boycott led to an alarming 30 per cent increase in polio prevalence. By 2008, polio cases originating from Nigeria had spread to 20 countries, reaching as far as Yemen and Indonesia and paralyzing 1,500 children.



Children queue to receive vaccinations in a camp for displaced persons in Nigeria

It took Nigerian scientists getting involved in testing and talking to religious leaders, and so-called "give-or-take" deals with communities, to end the boycott.

"You cannot be coming here and giving us all these drugs when we don't have clean water," villagers would tell Dr Funsho's team, and Rotary would dig wells or boreholes for them, he said.

Then came the rise of Boko Haram in 2009. With the terrorist war raging in Nigeria's northeast - now in its 11th year - vaccinators faced death or kidnap trying to reach children in conflict-ridden areas. In one instance in February 2013, female health workers gathered around a health centre in Kano, attending to mothers and their babies, when shots rang out from attackers on motorcycles, killing seven of them.

But they did not give up. Volunteers mounted "Hit-and-run" operations, landing in areas recently freed by the military to drop doses of oral polio vaccine (OPV) in kids' mouths and then fleeing before the terrorists regrouped. To get to Boko Haram-held territory, undercover vaccinators embedded in villages to distribute vaccines, sending back data with the help of chips hidden in their mobile phones. Soldiers were handed bottles of the vaccine in areas considered too dangerous for civilians. And to reach evasive nomadic tribes, data teams operating out of hubs in Abuja used GIS to map their trails as they walked their cattle.

It looked like all the immense efforts paid off by 2015, and WHO removed Nigeria from the endemic countries list. But in 2016, four cases of wild polio were discovered in displaced persons' camps in Borno state.

"2015 was a joyous moment," said Dr Funsho. "Unfortunately the insurgency put paid to that because we had missed immunizing children for two years in most of Borno."

More emergency vaccination drives were mounted, targeting under-fives in the camps. In 2018, a fresh round of rumours saying vaccines were infecting children with monkeypox virushook things up again. But then finally, in 2019, Nigeria was free - with its official status declared one year later, after four years without any new cases.

But health experts like Dr Funsho say it is no time to get carried away.

Nigeria not Lowering Guard Against Polio:

Vaccinates over 23 Million Children in high-risk States



To buoy up the immunity of eligible children, the Federal Government of Nigeria supported by the World Health Organization (WHO) and other partners vaccinated over 23 million children in the country as part of the Sub-National Immunization Plus Days (SNIPDs) campaign.

The mass vaccination campaign which was the first since the outbreak of COVID-19, followed a protocol for safe implementation in the COVID-19 context, whereby personal protective equipment (PPE) and enhanced infection prevention control measures have been assured by a collaborative initiative and agile support of the State Ministries of Health, NPHCDA and WHO field offices. Mrs Maryam Haruna, a mother of an infant in Layin Kuka of Yindiski, Dogo Nini ward of Potiskum, Local Government Area, Yobe State said despite the fear of Covid-19, she was not dissuaded from taking her daughter to the health facility for vaccination.

“I have seen the benefit of immunization as all my children grew up healthy and strong that now I have considered family planning” says Mrs Haruna, whose other children had also benefitted from the previous polio campaigns. Expressing her joy that wild poliovirus has been successfully eradicated from the country through vaccination, she said, “many children now live without the parents having fears that they could suddenly get paralyzed”.

A traditional ruler in the Fika Emirate Council, the Maki Dubun Fika in Potiskum Local Government Area, Alhaji Baba Hardo said the traditional council is channeling all its energy towards the campaign to ensure that polio is gone and it is gone forever. Alhaji Hardo who is also the PHC focal person, Fika Emirate council said “we will continue to support all efforts of the government and health authorities to ensure that we contribute to tackling other health issues that affect our people, such as malaria, adulteration of food items, fake drugs and quacks in our community”

Although the WHO Africa region was certified wild polio-free in August 2020 by the Africa Regional Commission for Certification of Polio Eradication (ARCC), the Nigerian government, WHO and partners have continued to prioritize immunization by implementing various campaigns across the country with a bid of sustaining polio immunity and reducing deaths from vaccine-preventable diseases. In Yobe State, for example, four days' the subnational polio immunization campaign to sustain population immunity post-polio certification was conducted with a total of 1,101,936 children under five vaccinated with bi-valent Oral Polio Vaccine (bOPV). The Commissioner for Health Dr Muhammad Lawan Gana said during the planning of the campaign that “while celebrating the certification of polio eradication in the Africa region, we are still mindful of the challenges of strengthening the health system, especially at the primary care level.”

Dr Gana said the state has not relented in its effort to eradicate all forms of polio as active surveillance on acute flaccid paralysis (AFP) is conducted by the state epidemiologists. There is a need to sustain immunity against polio through the strengthening of global polio eradication strategies of a robust routine immunization system, polio SIAs and mops ups and certification level AFP surveillance indicators.

The state is gradually recovering from the post insurgency attack and more recent, the scourge of the Covid-19 pandemic which resulted in a significant number of children unprotected against vaccine-preventable diseases and declining coverage of other essential PHC services. We will strategize to bridge access gaps in underserved communities, hard to reach areas displaced populations to strengthen PHC services”.

The WHO Country Representative (WR), Dr Walter Kazadi Mulombo, buttressing the importance of immunization and the supplementary campaigns, says high population immunity through vaccination is necessary to sustain gains of polio eradication and prevent future outbreaks.

“Booster doses given through campaigns reach more children and offer protection to a wider age group to close immunity gaps. Also, all children should receive at least four (4) doses of routine OPV before the age of one”, he added.

“Our next major challenge is to keep polio at zero, and to ensure that even if a child comes in contact with an imported virus, the child is sufficiently immunised to be protected,” he said.

But routine vaccinations cost money that may be hard to get from governments and donors, and Nigeria's primary health care system, which should help those in far-off areas readily access vaccines, is underfunded.

Dr Edmund Ogbe, the WHO lead in Bayelsa, a state in southern Nigeria, told Telegraph budgets for regular vaccinations are inadequate in most states.

“I feel sad seeing people jubilate because it will make the work ahead harder. We have not reached our destination yet, but many people will still say 'have we not already eradicated polio? Why are will still immunising if there is no outbreak?’”

And health workers are still not safe in their work. In 2020, a young local government worker attached to Dr Ogbe's unit in the restive Niger Delta was kidnapped by militiamen on a vaccination trip, and only freed after a ransom was paid by his family.

Then there is the circulating vaccine-derived (cVDPV) polio strain, first discovered in Madagascar in 2001. When a child vaccinated with oral polio vaccine (OPV) passes stool or urine in places with poor sewage facilities, where the sewage can get back into the body system, the weakened virus in the polio vaccine can mutate and become infectious against children who have not been immunised. However, it is rare: few cases were discovered in Nigeria in 2020 and several countries in the region are affected.

Plus, Dr Funsho said, cVDPV polio is less difficult to contain because it only speaks to low vaccination, not a total lack of it. Outbreaks can be put out in less than six months. Rotary and partners are also testing a more stable vaccine that cannot mutate and become infectious.

The focus now is to keep the mass vaccination levels up. Regular vaccine coverage in Nigeria, now at 60 per cent, doubled in the last three years and is expected to be near-total by 2023. The WHO recommends two doses to protect children fully. And to bar possible imports of polio, travellers coming into Nigeria from Pakistan and Afghanistan must be polio-vaccinated.

Because “as long as there is a case of wild poliovirus anywhere, no child is safe,” said Dr Funsho.



POLIO OVERSIGHT BOARD STATEMENT ON NEXT PHASE OF GPEI SUPPORT FOR COVID-19 RESPONSE

The COVID-19 pandemic has triggered a deep global health and economic crisis. The Polio Oversight Board (POB) remains steadfast in its resolve to secure a polio-free world, while reaffirming its commitment that polio-funded assets are at the service of countries to respond to this public health emergency, especially in the critical next phase of COVID-19 vaccine introduction and delivery. When the pandemic was declared, the POB issued a Call to Action for polio-funded assets to support the response, and for a pause in polio immunization campaigns to reduce the risk of COVID-19 transmission. The Call also emphasized the importance of maintaining essential polio eradication functions, including surveillance for poliovirus. Since then, the value of polio-funded staff and assets contributed to the COVID-19 response in more than 50 countries is estimated at USD \$104 million. In June 2020, faced with a concerning rise in polio cases and disruption to essential immunization, GPEI issued guidelines for safe implementation of house to house vaccination campaigns, developed with immunization partners. With the support of donors, polio campaigns have restarted in nearly 20 countries since August, while polio staff continue to simultaneously support the COVID-19 response. In November, UNICEF and WHO issued a joint Call to Action to respond POLIO OVERSIGHT BOARD STATEMENT ON NEXT PHASE OF GPEI SUPPORT FOR COVID-19 RESPONSE to polio and measles outbreaks and prioritize funding immunization in national budgets. Polio vaccination campaigns have served as an opportunity to educate communities about essential public health measures to protect against COVID-19 and to deliver other needed health interventions. The POB would like to express their appreciation to all polio-funded staff who have taken on these dual roles with unwavering commitment. GPEI's core competencies for the next phase of COVID-19 response – vaccine introduction and delivery. The POB

emphasizes the importance of maintaining GPEI's focus on urgently eradicating all forms of poliovirus. In view of the overwhelming public health imperative to end the COVID-19 pandemic, the POB commits to the polio programme's continued support for the next phase of COVID-19 response, COVID-19 vaccine introduction and delivery, through existing assets, infrastructure and expertise in key geographies. More than thirty years of eradicating polio has taught us that for vaccines to be effective, their delivery must be rooted in rapid and equitable access for everyone, everywhere, and that no one is safe until we are all safe. COVID-19 and to deliver other needed health interventions. The POB would like to express their appreciation to all polio-funded staff who have taken on these dual roles with unwavering commitment. GPEI's core competencies for the next phase of COVID-19 response – vaccine introduction and delivery. The POB emphasizes the importance of maintaining GPEI's focus on urgently eradicating all forms of poliovirus. In view of the overwhelming public health imperative to end the COVID-19 pandemic, the POB commits to the polio programme's continued support for the next phase of COVID-19 response, COVID-19 vaccine introduction and delivery, through existing assets, infrastructure and expertise in key geographies. More than thirty years of eradicating polio has taught us that for vaccines to be effective, their delivery must be rooted in rapid and equitable access for everyone, everywhere, and that no one is safe until we are all safe. The polio programme has core expertise in important areas of collaboration in vaccine introduction that can help in this phase of the pandemic, including campaign planning and monitoring; data collection; programme advocacy and resource mobilization; community engagement; microplanning; frontline worker training and cold chain management. These are areas in which polio-funded staff at country level can add value, under the leadership of national governments. In November 2020 the type 2 novel oral polio vaccine (nOPV2) was the first vaccine to receive a WHO Emergency Use Listing (EUL) recommendation, and will be used to respond to circulating vaccine-derived

poliovirus type 2 outbreaks. The rollout of nOPV2 under the EUL recommendation can provide lessons and experiences for countries introducing COVID-19 vaccine, if emergency regulatory pathways such as WHO EUL are used, including in the areas of monitoring readiness-verification, safety surveillance, and regulatory considerations. Levels of support will vary by country and will be determined based on discussions with host national governments, ACT-A and COVAX partners, and availability of sufficient financial resources to ensure simultaneous support for COVID-19 vaccine delivery without significant delays to the urgent polio eradication effort. The POB is conscious that this decision may impact polio eradication, including programmatic and financial risks. However, the overwhelming need to end the COVID-19 pandemic and its ongoing impact on immunization coverage including polio, underlines the urgency of this action. The POB also believes that this will be mutually beneficial, as the polio programme can support COVID-19 response while also learning from the collaboration, including how best to integrate coordination, planning and service delivery. To best support this decision the POB encourages countries, donors and polio stakeholders to: Maintain certification-level disease surveillance as required for polio eradication. Conduct, as feasible and required, high quality polio immunization campaigns in endemic and outbreak countries. Seek opportunities actively to fund polio programme assets that can contribute to COVID-19 activities and future emergency response and continue to report to GPEI on the work of polio-funded staff in the COVID-19 response to ensure transparency and accountability for GPEI donors. Protect children from polio, measles and other vaccine-preventable diseases by continuing to ensure the recovery of immunization services from the disruption caused by the pandemic, and by including bOPV in preventive, multi-antigen, mass vaccination campaigns.

Source: polioeradication.org



A NEW POLIO VACCINE JOINS THE FIGHT TO VANQUISH THE PARALYZING DISEASE

After decades of work and mass vaccination campaigns that have spared millions of children from paralysis, the world is close to wiping out polio but a small number of outbreaks that have simmered in areas of low vaccination remain and some happened after weakened virus in the oral polio vaccine, over time, moved around a community and regained the ability to cause disease. No other vaccines made with weakened live viruses have caused outbreaks of disease.

To stamp out vaccine-derived polio outbreaks, the World Health Organization has granted emergency use for a new polio vaccine. The oral vaccine got the go-ahead on November 13.

“We are very, very enthusiastically looking forward to using this new vaccine,” says medical epidemiologist Chima Oluabunwo of Morehouse School of Medicine in Atlanta, who has worked on polio eradication in Africa for more than two decades. Along with continuing the crucial work of improving vaccination coverage in places where it is low, the new vaccine will “hopefully ... take us to the finishing line of polio eradication.”

Eight years after the WHO's 1980 declaration that the world was free of smallpox, the Global Polio Eradication Initiative launched to tackle polio. The disease was a promising candidate for eradication. An effective, easily administered and cheap vaccine was available. And poliovirus, which naturally infects only humans, doesn't hang around in other animals in between outbreaks.

Most people who become infected with poliovirus don't feel sick, while some have flu-like symptoms. But about one in 200 become paralyzed for life.

In the late 1980s, wild poliovirus paralyzed more than 1,000 children each day, according to the Global Polio Eradication Initiative. Since then, thanks to widespread vaccination campaigns, cases have plummeted by more than 99 percent, and two of the three types of wild poliovirus have been eradicated. The last cases from type 2 and type 3 were reported in 1999 and 2012, respectively. Only wild poliovirus type 1 remains, and only in two

countries.

Much of this progress has been possible because of the oral polio vaccine. “It's been the workhorse of the eradication campaign,” says virologist and infectious disease physician Adam Luring of the University of Michigan School of Medicine in Ann Arbor. Immunization with the oral vaccine has prevented more than 13 million cases of polio since 2000, according to WHO.

A big advantage of the oral vaccine, which is made of live but weakened poliovirus, is that it not only protects against paralysis — it also can stop wild poliovirus from spreading in a community. Poliovirus moves from person to person when someone ingests water or food contaminated with virus-containing stool. The oral vaccine prevents wild poliovirus from multiplying in the gut and being passed on. (There is another, more expensive, injected polio vaccine with killed virus that prevents paralysis but not viral spread.)

While the oral vaccine has nearly wiped out wild poliovirus, it has a vulnerability. Weakened poliovirus in the vaccine has genetic changes that keep it from causing disease. As vaccine virus multiplies in the gut, it can lose key genetic changes, bringing it closer to behaving like wild poliovirus. And altered vaccine virus “can be spread to others and establish community transmission,” says biologist Raul Andino of the University of California, San Francisco School of Medicine. That can be a problem if not enough people have been immunized against polio.

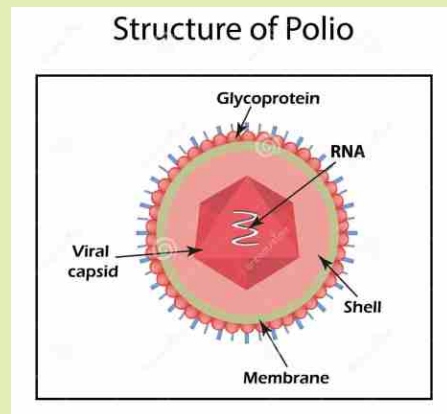
More than 80 percent of children need to be vaccinated to keep poliovirus from spreading in a community. The first vaccine-derived polio outbreak to be detected occurred in the Dominican Republic and Haiti two decades ago, in areas with low vaccination. That allowed altered vaccine virus, shed in the stool of the immunized, to spread largely unchecked and, over time, return to a form that causes paralysis. The full process of vaccine virus reverting to disease-causing virus is rare and takes many months of moving around a community.

Today, vaccine-derived outbreaks are primarily found in Afghanistan, Pakistan and countries in Africa. Most of these

outbreaks — which have been responsible for more polio cases in the last few years than the remaining type of wild poliovirus — are linked to vaccine virus type 2. Vaccination campaigns, which had used an oral vaccine containing weakened versions of all three types of poliovirus, switched to using a formulation with just types 1 and 3 in 2016.

However, the way to stop a type 2 vaccine-derived outbreak is with an oral vaccine containing only the weakened type 2 virus. Hence the quest for a new and improved poliovirus type 2 oral vaccine, one that kept the good parts of the original but with tweaks to try to prevent problematic genetic changes. “It's a wonderful vaccine, so we didn't want to change the characteristics” that induce the body's immune response, Andino says. “The only thing we wanted to do is prevent the reversion” to a disease-causing virus. Andino and colleagues modified the type 2 vaccine virus in several places. The researchers altered a part of the virus's genetic instruction book, or genome, to make the virus less likely to develop a “gatekeeper” change: a first, critical step along the road to regaining the ability to cause disease.

Poliovirus can swap pieces of its genome with related viruses called enteroviruses. So, the researchers moved a string of genetic letters the virus needs to make more copies of itself close to the “gatekeeper” modification. That way, if the vaccine virus was able to ditch that modification by way of a swap, it would lose this necessary string of genetic letters too, and die out.



UK STEPS UP FOR POLIO ERADICATION DURING COVID-19 PANDEMIC

Finally, the team tinkered with an enzyme that RNA viruses, including poliovirus, use to help replicate themselves. The enzyme is sloppy and can introduce a lot of genetic changes, Andino says. That's advantageous for the viruses, which "are continuously trying to adapt to a new environment," he says. Andino and colleagues modified this enzyme in the vaccine virus to introduce fewer mistakes, "so the virus cannot evolve so quickly."

The new oral polio vaccine was shown to be safe and to produce an immune response similar to that seen with the original vaccine in infants and children, researchers reported online December 9 in the *Lancet*. The hope is that the modifications will slow the evolution of the new vaccine virus such that it can end the existing outbreaks without creating new ones.

The vaccine-derived outbreaks are a significant, yet surmountable hurdle to polio eradication, says Ohuabunwo, and "science is helping." But the key to ending polio is "very high vaccination coverage." Obstacles including war, migrating populations, difficult terrain and lack of vaccine acceptance have created pockets of inaccessible children, he says.

Reaching all children requires engaging community leaders, providing culturally sensitive information and finding out how to meet other community needs, says Ohuabunwo. For example, while working in Nigeria, he and his colleagues made progress with nomadic populations. It meant "sometimes combining vaccinating their children with vaccinating their animals." The nomads' cattle would be immunized against brucellosis and anthrax bacterial infections. Protecting the animals also protected the nomads from these infections, he says, and motivated their cooperation towards having their children receive polio vaccine: "a win-win."

Polio eradication has been a long journey, "but we're getting close," Ohuabunwo says. The new oral polio vaccine "is another light in the tunnel."

Source: [sciencenews.org](https://www.sciencenews.org)



The COVID-19 pandemic has brought the need for strong health systems and global health security into sharp focus. Last week, the United Kingdom's Foreign, Commonwealth and Development Office (FCDO) agreed a £30 million increase in the first payment to the World Health Organization of their 2019 – 2023 pledge, meaning that the total amount released for polio eradication activities is £70 million. Coming amidst challenges posed by the COVID-19 pandemic, including a growing immunity gap, this gesture is a testament to the UK government's strong commitment to investing in high impact programmes that strengthen global health security – including the polio programme.

Throughout the COVID-19 pandemic, the Global Polio Eradication Initiative (GPEI) has played an integral role in the global response, contributing physical assets, outbreak response expertise and a trained workforce to slow the spread of the novel coronavirus. This

support was largely made possible thanks to donors like the United Kingdom.

The United Kingdom is a historic donor to efforts to end polio, committing an exceptional £400 million to eradication activities in the period from 2019 – 2023. Since 1985, the UK has contributed over US \$1.6 billion, and has played an integral role in preventing the paralysis of more than 18 million children.

Widespread polio vaccination efforts over the past 30 years have led to a 99.9% decrease in global polio cases. Health workers, local governments, global partners and generous donors have made this progress possible. The increased payment by the UK will ensure that this progress against polio is not lost due to disruptions by the COVID-19 pandemic, and that the polio programme can continue to play an essential role in supporting pandemic response efforts around the world.

As the U.K. prepares to host the upcoming G7 meeting, the GPEI is hopeful that issues around global health security and health systems strengthening, to which polio can contribute, will be prioritized.

Source: polioeradication.org

PUBLIC SERVICE ANNOUNCEMENT ON COVID-19 VACCINE



Dear Nigerians, the second wave of the COVID-19 pandemic is spreading very fast and evidence shows that the virus is significantly more transmissible, leading to a sharp rise in infections and in some instances, deaths.

The Federal Government is determined to stop the spread of the virus in Nigeria and has commenced the process of accessing WHO approved vaccines, to be administered free of charge.

The National Primary Health Care Development Agency, which is the Federal Government Agency charged with the responsibility for all vaccine matters, is currently working with the Presidential Task Force on COVID-19, the Federal Ministry of Health, NAFDAC and the National Assembly, to make COVID-19 vaccines available and accessible to Nigerians.

Dear fellow Nigerians, while we focus on ensuring the wellness of our nation, we urge you to please disregard any misleading rumours, videos and misinformation that are against the COVID-19 vaccine. Remember, your health is your life, and your life is your right!

Protect yourselves, your families and loved ones from COVID-19. Get vaccinated.

This message is brought to you by the National Primary Health Care Development Agency.

Signed:
Dr. Faisal Shuaib
Executive Director/CEO
NPHCDA

Governor Ganduje urges LG Chairmen to utilize the experience of polio eradication in tackling COVID-19



Governor Abdullahi Ganduje of Kano State has called on the Local Government Chairmen in the state to treat COVID 19 pandemic, in the same manner, they treated and eradicate polio. Ganduje expressed how impressed he is with the way the chairmen dealt with polio ceaselessly with vigor and determination and wants the same treatment to be given to COVID 19 in the state by the chairmen. "You know how you treated Polio tirelessly with all seriousness and genuine feeling of responsibility, I want you to give COVID-19 similar treatment. Or even more than that. "You know we fought the battle against Polio together, since when I was the Deputy Governor. It should still be fresh in your memories, how we worked round the clock and with Allah's Blessing we gave our possible best for our dear country to become Polio-Free nation" the governor stated. He, therefore, directed the chairmen to raise Committees at Local Government and Ward Levels Against COVID-19, which, according to him, would help in taming the pandemic from all fronts, insisting that, the action is absolutely necessary. "We have produced and secured millions of face masks. You will all be given for distribution to your people. All hands must be on deck."

*Adapted from the reporting of
Abdulmumin Murtala for
vanguardngr.com*

KEPING POLIO@ ZERO

Monitoring of the January 2021 SIPDs. Thank you to the vaccination teams for their efforts and dedication to reach every child.





Every vaccination campaign is a great opportunity for you to boost your child's immunity and a greater shield of protection against polio virus.



NIGERIA NATIONAL POLIPLUS COMMITTEE