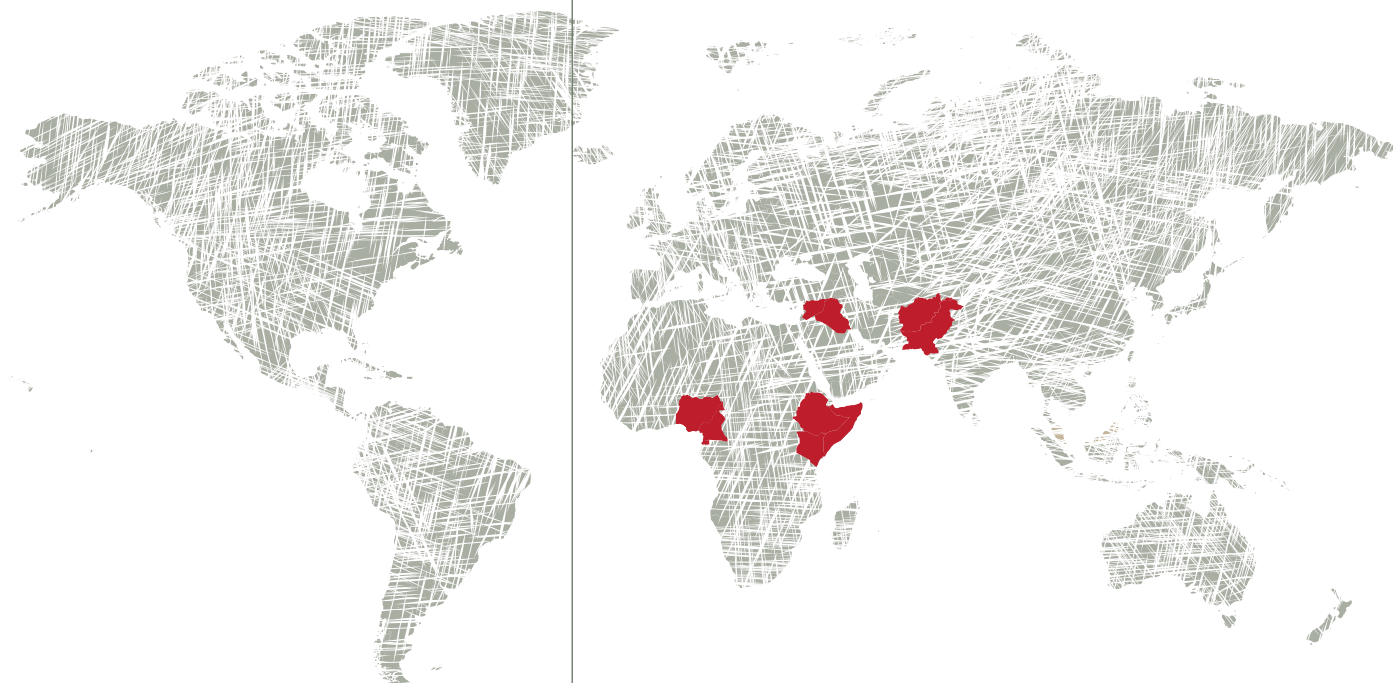


Independent Monitoring Board of the
Global Polio Eradication Initiative



Ninth Report – May 2014

IN MEMORIAM



Dr Ciro de Quadros

1940 – 2014

INDEPENDENT MONITORING BOARD OF THE GLOBAL POLIO ERADICATION INITIATIVE

May 2014

The Independent Monitoring Board provides an independent assessment of the progress being made by the Global Polio Eradication Initiative in the detection and interruption of polio transmission globally.

This ninth report follows our tenth meeting, held in London from 6 to 8 May 2014.

At our meetings, we benefit from the time and energy of many partners of the Global Polio Eradication Initiative. We value our open discussions with these people, but the views presented here are our own. Independence remains at the heart of our role. Each of us sits on the board in a personal capacity. As always, this report presents our findings frankly, objectively, and without fear or favour.

Sir Liam Donaldson (Chair)
Former Chief Medical Officer, England

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Assistant Minister of Health, Egypt

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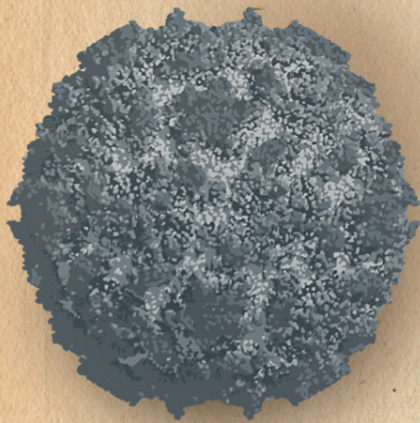
Professor Michael Toole, AM
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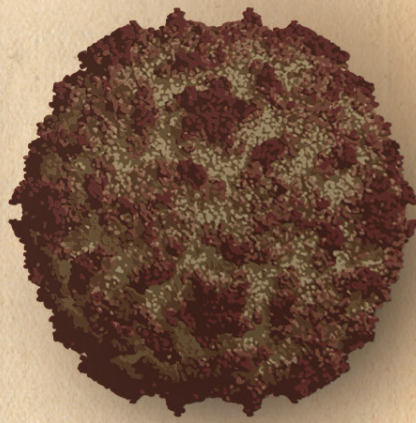
*Dr de Quadros was unable to participate in the meeting but endorsed this report

GLOBAL HEALTH HISTORIES

FIG XV. Agents of childhood paralysis



XVa. *Nigeria Polio Virus*



XVb. *Pakistan Polio Virus*

EXECUTIVE SUMMARY



EXECUTIVE SUMMARY

Eighteen months ago, as 2012 drew to a close, optimism was running high for the Global Polio Eradication Initiative. Polio transmission in India had been interrupted. The three remaining endemic countries (Pakistan, Nigeria, Afghanistan) had made significant programmatic improvements. Some believed that success was imminent; that polio would soon be history.

Within a matter of months, this optimism quickly unwound:

- Targeted killing of polio vaccinators in Pakistan shocked the world and created major operational constraints.
- Polio virus entered Waziristan, a part of Pakistan in which polio vaccination had been – and remains – banned by Taliban commanders.
- The national structure for managing polio eradication in Pakistan was dismantled at a time when it needed to be strengthened.
- Nigeria's security situation deteriorated. Here too, vaccinators tragically lost their lives and the program's operations were severely impaired.
- Nigeria polio virus was exported to southern Somalia, where it infected a population unprotected against polio because of an al-Shabab ban on vaccination that remains in place.
- Pakistan polio virus spread to Syria, causing a major outbreak amidst the country's civil war.
- Pakistan polio virus spread also to Israel, West Bank and Gaza, and Iraq, and Nigeria polio virus to Cameroon and Equatorial Guinea – each outbreak over-stretching the global program's resources and credibility.

In 2012, there were 223 polio cases in five countries. In 2013, there were 407 cases in eight countries.

During last year and the first few months of this year, much hard work has been undertaken by infected countries and their global partners to try to reverse the negative eradication trend that became established in 2013:

- Nigeria has markedly improved vaccination coverage in many areas, most notably in Kano and in the highest-risk Local Government Areas, and has been rewarded with a substantial decrease in polio transmission.
- Afghanistan has maintained strong performance and is on track to stop endemic transmission before the end of 2014, although importation of Pakistan polio virus will continue to pose a threat.
- In Somalia, the program responded strongly to the outbreak of Nigeria polio virus and transmission has now been substantially quelled as a result. Responding quickly to the IMB's criticism in October 2013, the program also strengthened its coordination across the Horn of Africa.
- In Pakistan, Peshawar and Karachi mounted innovative and determined campaigns to reach children with polio vaccine in a manner that maximizes the safety of the polio vaccinators – bright spots in an otherwise gloomy program.
- When Pakistan polio virus was detected in Syria, novel challenges mixed with some controversy over the program's approach in a complex conflict-affected environment. Despite this, in the IMB's view, the program responded well – in Syria and across the region.
- The global community, recognising the importance of polio eradication, requested WHO to convene an emergency committee under the International Health Regulations, as the IMB had recommended. On this committee's advice, WHO has recommended mandatory travel vaccination for residents and long-term visitors travelling internationally from countries exporting polio (currently Pakistan, Cameroon, and Syria); but the recommendation would also immediately apply to Nigeria or any other country in the event of a future export.

The global partnership has made considerable strides towards restoring the favourable position that the program had created in 2012. However, the IMB cannot conclude that the grip on polio control, and the positive trajectory, is yet as strong as it needs to be. This is particularly because, with just seven months left until the end-2014 deadline of stopping polio transmission, Pakistan has little hope of meeting this deadline, and Nigeria, on account of the impending elections, is at real risk of losing the vital window of opportunity that its good work has pushed open:

- Pakistan's situation is dire. Its program is years behind the other endemic countries. As currently constituted, the setup of the Prime Minister's Polio Monitoring Cell only allows shadow-boxing against the polio virus. A much stronger form of management and co-ordination is required. Currently Pakistan is firmly on track to be the last polio-endemic country in the world. It is an indictment of this country's program that even in the easier eradication context of the low-season, it has had almost as many cases in the first four months of 2014 as in the whole of 2012 – and nine times as many as in the same period last year. Whilst some progress has been made in Peshawar, Karachi and Quetta, this is not sufficient to stop polio transmission. It is absolutely vital that the Prime Minister and President urgently activate an emergency body with the resources, power and capability to turn this desperate situation around.
- Though Nigeria has reduced viral circulation to a new historic low, the country is in danger of failing to capitalize on this unprecedented opportunity to stop polio transmission once and for all. Its progress over recent months has been impressive, but the strain of forthcoming elections is already showing. The crisis of the kidnapped schoolchildren in Borno has heightened tension and danger in a key polio-affected area, strained relationships between national and local structures and unleashed hostility to government amongst communities and families. IMB sources are expressing the fear that "the wheels are at risk of coming off" the Nigeria program. The Nigeria program has many dedicated and talented leaders and front-line workers. It is vital that they recognize the need to re-double their efforts, and see that complacency is like a wolf waiting outside the door, just waiting for an opportunity to devour the fruits of their labours so far. Success this time would be wonderful for the country. It would be the key to establishing a polio-free Africa. Nigeria desperately needs to avert the major risk that it now faces of history repeating itself, and of Nigeria becoming the nearly-nation of polio eradication.

Globally, the flurry of outbreaks in 2013 has continued to menace 2014. Outbreak prevention and response remain an inappropriately undervalued part of the polio eradication effort:

- The Middle East outbreak response has been strong, and must remain so.
- Polio transmission in Israel appears to have come to a stop without causing any paralysis, but surveillance through the high season is required to confirm this absolutely.
- The Horn of Africa outbreak response is now in reasonable shape but is far from a 'done deal', with particular vulnerability in Somalia (where half a million children remain unvaccinated), Ethiopia (where the Somali region is of particular concern) and South Sudan (where surveillance gaps and vaccination deficits are potently mixed with armed conflict and extensive migration)
- In Central Africa, Cameroon's response to polio importation was worryingly slow and major weaknesses remain. The IMB is concerned and baffled by the global program's failure to replicate its model from the Horn of Africa and the Middle East – it is only now, seven months on, mounting a proper multi-country response in Central Africa. The program needs to ensure that this mistake does not hurt Central Africa, and learn from it so that all future outbreaks are met with a consistent, best-practice response.

- Given that the program has been running for 26 years, its approach to preventing outbreaks seems rudimentary. Robust plans are needed to deal with any major immunity gap and risk. Many countries are not being given clear advice about how to close their immunity gap. The 'Red List' now identifies the countries at greatest risk, but work to reduce their risk is slow and unsophisticated. The program must create a dedicated core of staff to rapidly improve its expertise in outbreak prevention. The current approach relies on multi-tasking by the very people who are concentrating on countries already infected. This is not in keeping with a 21st Century response to an emergency.

The final section of this report examines areas of cross-cutting importance across the global program. Some clear programmatic improvements have been achieved in these areas since the IMB first started emphasizing their importance, but problems remain:

- Vaccinators must be able to answer parents' questions effectively and persuasively, in ways that generate trust. This means that first-class selection and training of vaccinators is crucial.
- Current program metrics do not make it easy to discern the contribution that social mobilisers are making, or to judge the quality of their work. Metrics that better enable this need to be developed and deployed.
- More engaged debate is needed between those who see potential for social mobilization to contribute to solving the program's remaining challenges, and those who are skeptical about this. Improved engagement of this kind would help better integrate and target the use of social mobilization techniques, and build more common ground between the believers and the skeptics.
- Insecurity has become a major and complex obstacle to eradication, and the program is changing to reflect this. The IMB's keen interest is in the extent to which partners are coordinating, in the speed of their work, and in their ability to draw upon the necessary expertise. Coordination, in particular, needs further attention.
- Key program funders still feel that they are not getting the information that they need, and some of the longest-standing partners of the program are on the verge of disillusionment.

Finally, the Polio Oversight Board has commissioned a review of the program's management, on the IMB's recommendation. This has the potential to transform the way the program operates, and must be allowed to do so. We offer comments and a recommendation to assist this.

In 1988 (26 years ago now) every country in the world resolved to eradicate polio. Most managed to do so by the year 2000. For the last 14 years, we have been witnessing the excruciatingly long tail of completing global eradication. The "last 1%", a phrase that only three years ago was an inspiring rallying call to finish the job, is becoming an open goal for eye-rolling cynics. Every additional polio year costs lives and money, saps morale, puts future donations at risk and holds the public health world back from making further health gains. The goal of stopping global polio transmission has been serially missed. The deadline year of 2000 came and went; so did 2004; and so too did 2012.

As the end-2014 deadline fast approaches, Nigeria and Pakistan are both at risk of failing to stop transmission in time (with Pakistan's risk extreme). There is a significant risk of one or more of the current outbreaks becoming prolonged. There is serious risk of failure to anticipate and prevent an outbreak elsewhere. Given these factors, the IMB's considered analysis is that the latest strategic plan goal of interrupting transmission by the end of 2014 stands at extreme risk.

The World Health Assembly has rightly declared polio eradication a programmatic emergency for global public health. WHO has rightly called the spread of polio a public health emergency of international concern. There is every reason why polio must be eradicated – and fast. Failure to do so is inexcusable. This last 1% cannot be allowed to drag on any longer. The program is failing children and families in the poorest parts of the world. These broken promises mean that every child paralysed in 2015 will be a child grossly let down, their paralysis an avoidable catastrophe.

All eyes must now be focused on minimising the number of such avoidable catastrophes – on ensuring that Nigeria succeeds in 2014; on Pakistan rebuilding a program that can succeed soon after; and on preventing and responding to outbreaks with consistency and vigour.

The IMB makes 11 recommendations:

1. We recommend the establishment of an Emergency Operations Center (EOC) in Pakistan, which builds upon Pakistan's recent experiences in responding to natural disasters and other countries' experiences in emergency polio response. Top-level civil servants, senior representatives of national, regional and local government, religious leaders as well as military leaders should be a key part of this process. We urge that this new body be fully operational by 1 July 2014.
2. We recommend that the heads of the Global Polio Eradication Initiative core partner agencies meet urgently with the President and Prime Minister of Pakistan to support their essential leadership of the Pakistan polio eradication program, and to offer every possible assistance in establishing the new EOC as a strong national body with the power, resources and capacity to drive transformative action.
3. We recommend that the President of Nigeria galvanizes action to gain the pledge of all national, state and local candidates in the forthcoming election, together with traditional and religious leaders, to protect the polio eradication program from disruption and politicization, returning it to its humanitarian role in saving the lives of Nigerian children.
4. We recommend that the Polio Oversight Board ensures that the promised Central Africa outbreak coordinator is installed by 1 July 2014, resourced appropriately, and that the Board formally investigates why the program's response in Central Africa has been much weaker than in the Horn of Africa or in the Middle East.
5. We recommend that a new, dedicated team be established at global level to focus on outbreak response, its first job being to substantially strengthen the outbreak response Standard Operating Procedures to ensure that future responses will be consistently excellent.
6. We recommend that a dedicated team be established at global level to rapidly improve the program's approach to outbreak prevention in the Red List countries and beyond. Scenarios and exercises should form a key part of its activities.
7. We recommend that the core partners meet in person to agree upon a way to address the three improvement aims for securing communities' greater trust, based on the analysis of social mobilisation in our report.
8. We recommend that WHO relax its grip on the training of vaccinators and their supervisors, allowing UNICEF, CDC and other partners to contribute, particularly to enhance the interpersonal communication skills of vaccinators
9. We recommend that Pakistan and Nigeria take urgent steps to license additional oral polio vaccines so that they can be used within the next six months, in order to create greater flexibility in global vaccine supply.
10. We recommend that current concerns and unease about the transparency and communication of the polio

eradication budget are properly and openly addressed. This might best be achieved by a frank discussion at the Polio Oversight Board.

11. We recommend, in relation to the management review that is underway, that the Polio Oversight Board appoints an advisory panel of four seasoned executives and management experts, who have experience of running or advising some of the most complex enterprises in the world, to help shape the management consultants' analysis and recommendations before they are finalized for the Polio Oversight Board.

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INTRODUCTION



Introduction

More than 99% of polio virus has been cleared from the world. Just three virus families cling on – Afghanistan polio virus, Nigeria polio virus, and Pakistan polio virus. Afghanistan polio virus is confined to Afghanistan, and is on the brink of extinction. Nigeria and Pakistan polio viruses remain more active, though, and have stubbornly refused to be contained within their home borders.

Almost to its end, 2012 was a year of strong progress for the Global Polio Eradication Initiative (simply called 'the program' within this report). India polio virus had been eradicated. Pakistan and Afghanistan markedly improved their eradication programs, and virus circulation dropped substantially as a result. There was only one new outbreak outside of the endemic countries – a single case caused by Nigeria polio virus in Niger.

As 2012 became 2013, the program entered a more difficult phase, buffeted by two major waves. The first was a wave of violence. In Pakistan, this was specifically directed at the program, and in Nigeria, the program was caught up in a deteriorating security situation. The second was a wave of outbreaks. Nigeria polio virus was exported to southern Somalia, where it infected a population unprotected against polio because of a ban on vaccination that remains in place. Pakistan polio virus spread to Syria, causing a major outbreak amidst the country's civil war. Pakistan polio virus spread also to Israel, West Bank and Gaza, and Iraq, and Nigeria polio virus to Cameroon and Equatorial Guinea – each outbreak stretching the global program's resources and credibility. These outbreaks were responsible for more than half of all polio paralysis globally in 2013.

In 2012, the number of children paralysed by polio had plummeted to 223, from 650 the year before. In 2013 it rose again, to 417.

During 2013 and the first few months of 2014, the infected countries and their global partners have worked hard to try to reverse this negative trend.

There are just seven months to go until the deadline, set by the 2013-18 Strategic Plan, of interrupting polio transmission globally by the end of 2014. This report examines the progress towards this goal.

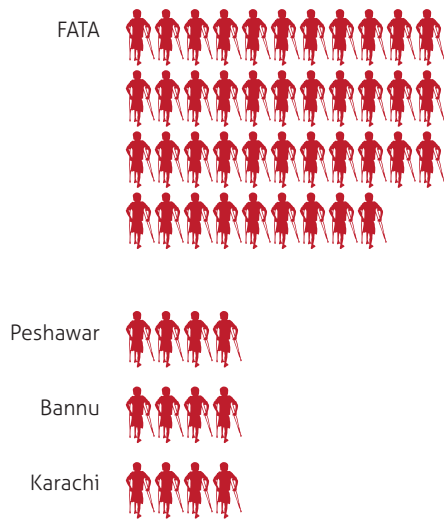
This report assesses:

- The current position in the endemic countries – the progress being made to cut off the Nigeria, Pakistan and Afghanistan polio viruses at source
- The global program's work in preventing and responding to outbreaks
- Five areas of cross-cutting importance across the global program: gaining trust, insecurity, vaccine availability, program finance, and global program management

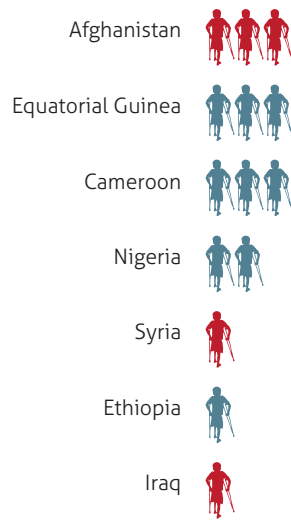
The report concludes with an overall assessment of progress towards stopping transmission globally, and with recommendations.

The world's polio paralysed children in 2014: four out of five are Pakistani

Pakistan



Rest of the World



Number of cases 1 January - 30 April 2014

 Pakistan Polio Virus  Nigeria Polio Virus

PAKISTAN



Pakistan

Two years ago, for most of 2012, Pakistan looked to be making good progress towards ridding itself of polio. The then-government was strengthening the eradication program, repairing its deep dysfunctions, mobilizing its district-level civil administrators, and bringing the virus under control. But, in December 2012, the program was devastated, and the world deeply shocked, by the targeted killing of polio vaccinators. Vaccinators' lives sadly remain threatened today, creating major operational constraints for the program. In 2013, this bad situation worsened when polio virus entered Waziristan, a part of FATA in which Taliban commanders prevent polio vaccination. Then, in May 2013, national elections and the subsequent government transition stunted the program's progress yet further.

Now, a year on from the elections, the program has made startlingly little progress, Pakistan now stands out for all the wrong reasons. So far in 2014, 54 children have been paralysed by polio in the country. This is four times as many as in the whole of the rest of the world. It is nine times as many as at this time last year. Despite the first four months of the year being the 'low season' in which colder weather impairs viral transmission, almost as many children have been paralysed so far in 2014 as in the whole of 2012.

The program's slow progress against the persistent polio virus in Pakistan is now a crisis. Major change is now urgently needed to Pakistan's polio eradication program. It is currently not fit for purpose.

The virus continues to paralyse children in three parts of Pakistan:

- In FATA, 42 have been paralysed so far this year. This is three times the number as have been paralysed in the entire rest of the world. Most are in Waziristan, where a Taliban ban on polio vaccination has left 250,000 children unprotected since June 2012. Others are in Khyber Agency, where army assistance with vaccination campaigns has yet to wholly protect the population against polio.
- In Peshawar, four children have been paralysed so far in 2014. The number would have been higher, had it not been for a major effort to deliver a series of vaccination campaigns under heavy police cordoning over recent months. Though a commendable development, a further step-up in quality is needed to wipe the virus from Peshawar.
- In Karachi, four children have already been paralysed by polio in 2014. Here too, there has been a series of vaccination campaigns with police protection. Here too, the campaign coverage is currently insufficient to stop polio, and the opportunity to stop transmission in the 2014 low season has now been missed.

More children have been paralysed by polio in each of Karachi and Peshawar than in any other entire country in the world so far this year. The number (four in each place) may seem small, but the fact that districts of Pakistan have more polio than entire countries elsewhere underlines the growing gap between progress in Pakistan and the rest of the world.

To these three polio-blighted areas, a fourth area of severe risk needs to be added. Not a single Union Council in the Quetta risk area (Pishin, Killa Adbulah, Quetta) has achieved 80% vaccination coverage during the last year. There has not yet been a case of polio here in 2014, but the IMB is deeply unimpressed. Environmental surveillance continues to find the virus. Progress here is fragile in the extreme.

It is far from certain that the virus will remain contained within its current sanctuaries. Environmental surveillance is intermittently picking up the virus elsewhere – most recently in Rawalpindi and Lahore.

With campaign quality stagnant, it is very worrying to see acute flaccid paralysis (AFP) rates – a key marker of surveillance quality – on the decline. Our confidence that the virus will be quickly spotted elsewhere is waning. In addition to the security challenges, these quality concerns are major risks in the program.

It is impossible to accurately predict how many children will be paralysed by polio this year in Pakistan. A total of 54 cases already is alarming. The amount of polio virus circulating, particularly in FATA, poses the very real danger of hundreds of Pakistani children being paralysed in 2014, unless the government acts very quickly.

The children of Pakistan were promised that there would be no more polio after the end of 2014, and this promise is being broken. The country's program is years behind those of the other polio-endemic countries in its sophistication.

Ridding Pakistan of polio demands nothing less than the hands-on leadership of the Prime Minister and President. Their personal capabilities and the weight of their offices need to be brought to bear. The Prime Minister's Focal Person for Polio Eradication needs ready access to, the authority of, and absolute support from, both the Prime Minister and President.

It is a particular irony that the Pakistan government's great success in responding to environmental catastrophes (e.g. the recent floods and earthquake) is not being replicated for polio. Is this because polio eradication is not seen as the same level of emergency, or that the skills deployed in these other fields are siloed and cannot be transferred? The IMB is firmly of the view that the polio program does indeed need to be run as a true emergency. It needs to be led from a top-notch command center, with the capacity, structures and power necessary to lead the vaccination of every child, driving polio from the country. If the skills from the National Disaster Management Authority could also be incorporated, this would seem to the IMB to be an innovative move. The current Prime Minister's Polio Monitoring Cell is not enough.

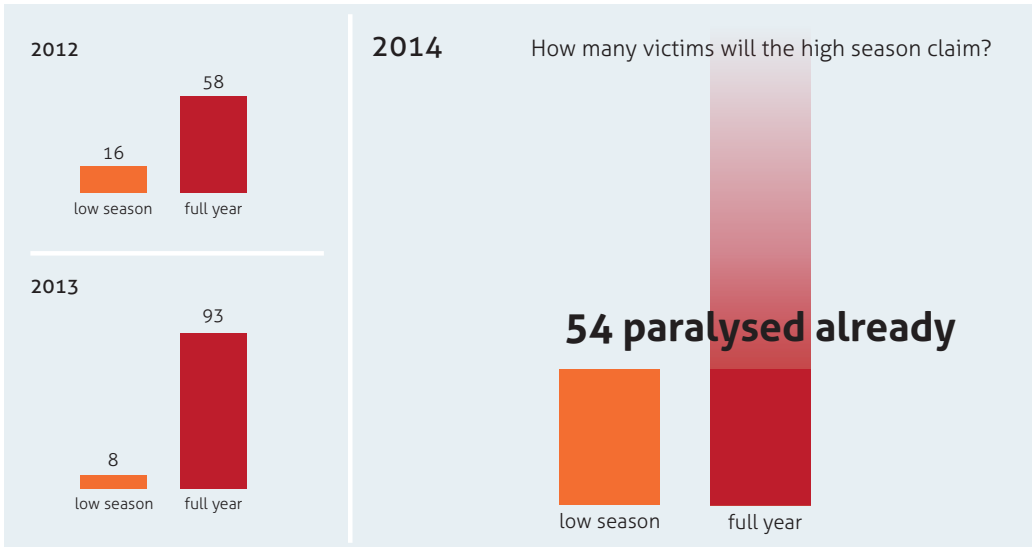
IMB sources indicate that the army is willing to help protect the country's children from polio. Some are uncomfortable with this idea, wanting to avoid militarizing a humanitarian program. But, in the complex situation of Pakistan and its eradication program, involving the army is a valid and important part of the solution.

The polio eradication program in Pakistan is in a dire situation - but if the country's leaders were to truly and wholly take on the mission of wiping polio from their borders, what now seems to some an impossible dream would fast become reality.

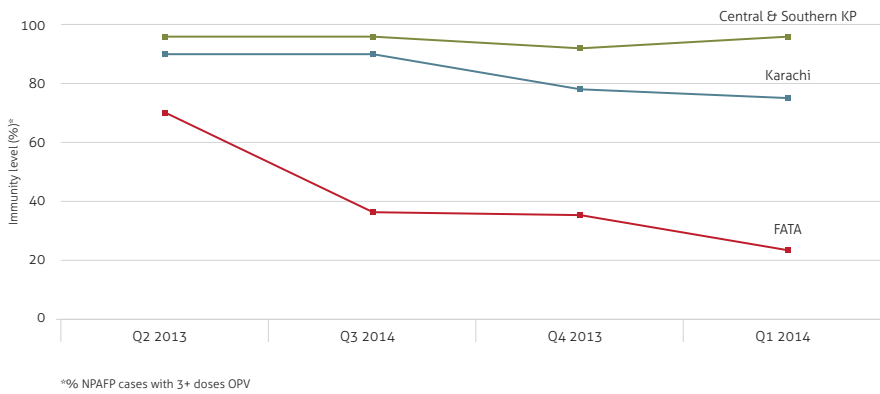
WE RECOMMEND THE ESTABLISHMENT OF AN EMERGENCY OPERATIONS CENTER (EOC) IN PAKISTAN, WHICH BUILDS UPON PAKISTAN'S RECENT EXPERIENCES IN RESPONDING TO NATURAL DISASTERS AND OTHER COUNTRIES' EXPERIENCES IN EMERGENCY POLIO RESPONSE. TOP-LEVEL CIVIL SERVANTS, SENIOR REPRESENTATIVES OF NATIONAL, REGIONAL AND LOCAL GOVERNMENT, RELIGIOUS LEADERS AS WELL AS MILITARY LEADERS SHOULD BE A KEY PART OF THIS PROCESS. WE URGE THAT THIS NEW BODY BE FULLY OPERATIONAL BY 1 JULY 2014.

WE RECOMMEND THAT THE HEADS OF THE GLOBAL POLIO ERADICATION INITIATIVE CORE PARTNER AGENCIES MEET URGENTLY WITH THE PRESIDENT AND PRIME MINISTER OF PAKISTAN TO SUPPORT THEIR ESSENTIAL LEADERSHIP OF THE PAKISTAN POLIO ERADICATION PROGRAM, AND TO OFFER EVERY POSSIBLE ASSISTANCE IN ESTABLISHING THE NEW EOC AS A STRONG NATIONAL BODY WITH THE POWER, RESOURCES AND CAPACITY TO DRIVE TRANSFORMATIVE ACTION.

Crisis: Pakistan polio paralysis in 2014



Polio immunity in Pakistan polio sanctuaries: dropping in Karachi, nose-diving in FATA



NIGERIA



Nigeria

Nigeria has been trying to eradicate polio for more than 20 years. Progress has been stop-start. On two previous occasions – in 2007 and 2010 – the program came very close to stopping polio transmission, but then lost momentum and allowed the virus to resurge. Far from being smooth, the program's track has been something of a rollercoaster. There have been sharp ups and downs, and unexpected twists and turns along the way.

In the last 18 months, the program has delivered strong improvements in performance. The upwards trajectory became clear in 2012, but flattened off in the first half of 2013 as insecurity worsened. Data from the last year clearly show that the upwards path has been restored. In the June 2013 vaccination campaign, just 58% of the highest risk Local Government Areas managed to reach 80% of children. Ten months later, this 58% had become 83%. This surpasses the program's target, which was to achieve 80% by June. Across the high-risk states as a whole, 74% in June 2013 rose to 86% by April 2014.

This progress is impressive. Nigeria has been rewarded with a substantial decline in polio circulation. There are fewer strains of Nigeria polio virus, circulating in fewer places than ever before. So far in 2014, there have been three cases of wild polio – two in Kano and one, reported after our meeting, in Yobe. This represents a decline of more than 80% in cases compared to the same period in 2013.

There is no mystery about these results. They reflect a program with many strong characteristics, including:

- First and foremost, the Nigerian government is firmly in the driving seat. It has the support of partners, but the program is a Nigerian one – led by the Nigerian government, for the children of Nigeria.
- The program's Emergency Operations Centers (one national, and several in key states) are succeeding. These bring the program's partners together under one roof, with the government in the lead.
- The program takes a robust, data-driven approach to identify poor-performing and high-risk Local Government Areas (LGAs) and wards, and prioritises its focus there.
- Social mobilization has become a key strength of the program. On vaccination days, town announcers, clowns, and street theatre groups join traditional and religious leaders and 10,000 permanent community mobilisers in talking with parents about the polio vaccine. Importantly, people who have been paralysed by polio also come out in force. Nobody could have more credibility in talking to uncertain parents about why the polio vaccine is valuable.
- There has been a major personnel surge, concentrated in the highest-risk areas. In addition to UNICEF's community mobilisers, there are more vaccination teams, more permanent WHO staff, and a strong NSTOP program.
- There is substantially strengthened accountability, in which people are held responsible for delivering results but are given flexibility in how they achieve them.
- There is a continual stream of innovations, including establishing 'health camps' on vaccination days to respond to communities' felt needs.

The IMB is particularly struck by the transformative change underway in Kano state. Historically, Nigeria polio virus has been assured of sanctuary in Kano, and has spread from here to surrounding states. Kano has made it clear that the virus is no longer welcome. In July 2013, just 45% of Local Government Areas were achieving their target of 80% coverage. Over the next nine months, this doubled – to 92% of LGAs in March 2014. This progress

is thanks to a cadre of strong leaders who have engaged with vaccinators and their supervisors, motivating them and holding them to account in equal measure. The state's journey is not yet complete, but it has built a far stronger vehicle than ever before.

Through this strong progress, Nigeria could stop polio transmission in 2014. But the country is at grave risk of missing out on this opportunity – of failing to capitalize on the current position of strength, and allowing the virus to resurge once more. Three major elements give the IMB cause for alarm:

- The gathering storm of forthcoming elections is already blowing an ill wind towards the program. IMB sources are expressing the fear that “the wheels are at risk of coming off” the Nigeria program. Historically, election season has been disastrous for the program. As those standing for election start up their campaigns, so the polio program receives far less of their attention. The fact that this phenomenon is already in evidence poses incredible danger to the program at its most critical point ever. True solidarity of all parties in Nigeria is needed, to avoid this golden opportunity to rid the country of polio from disintegrating as an all-too-predictable, direct result of the forthcoming elections.
- Insecurity remains a substantial threat in the states of Borno and Yobe, and over recent weeks has been felt elsewhere too. The program has substantially altered its operations in the north-east of the country, and we commend the staff working in difficult circumstances. But these states remain a fundamental risk, with both vaccination and surveillance threadbare in places. The crisis of kidnapped schoolchildren in Borno has heightened tension and danger in a key polio-affected area, strained relationships between national and local structures and unleashed hostility to government amongst communities and families. It demonstrates the threat that terrorist groups pose, and the government's difficulties in dealing with them. These events have created substantial international interest. This is helpful in some ways but may complicate the situation further.
- People within the Nigerian program must not be too ready to celebrate success. Polio transmission has not yet been stopped, and this prize is put at real risk every time anybody believes that success is inevitable. The Nigerian program has many dedicated and talented leaders and front-line workers. It is vital that they recognize the need to re-double their efforts and see that complacency is like a wolf waiting outside the door, just waiting for an opportunity to devour the fruits of their labours so far.

The global community and Nigeria's neighbours are hoping that the country will succeed this time. In the recent past, Nigeria polio virus has caused many serious outbreaks across Africa. If Nigeria allows the virus to resurge now, the risk of further spread will rise once more. Following WHO's recent recommendations under the International Health Regulations, Pakistan is establishing mandatory pre-travel vaccination for all citizens. In the event of Nigeria being responsible for any further spread beyond its borders, this same recommendation will immediately apply to Nigeria too.

Despite its positive developments, the IMB is unable to conclude that the Nigerian program is on track to stop polio transmission this year. It has the potential to do so, but the elections, insecurity and complacency are putting this goal at risk. Nigeria has nearly eradicated polio twice before. Success this time would be wonderful for the country. It would be the key to establishing a polio-free Africa. Nigeria desperately needs to avert the major risk that it now faces of history repeating itself, and of Nigeria becoming the nearly-nation of polio eradication.

WE RECOMMEND THAT THE PRESIDENT OF NIGERIA GALVANIZES ACTION TO GAIN THE PLEDGE OF ALL NATIONAL, STATE AND LOCAL CANDIDATES IN THE FORTHCOMING ELECTION, TOGETHER WITH TRADITIONAL AND RELIGIOUS LEADERS, TO PROTECT THE POLIO ERADICATION PROGRAM FROM DISRUPTION AND POLITICIZATION, RETURNING IT TO ITS HUMANITARIAN ROLE IN SAVING THE LIVES OF NIGERIAN CHILDREN.

Nigeria: Which will it be?



AFGHANISTAN



Afghanistan

Afghanistan's polio eradication program has come a long way. At the time of our last IMB meeting, the country was on the brink of a year free of endemic polio transmission – the most recent case had been on 19 November 2012. Despite this, the children of Afghanistan suffered in 2013. In total, 14 were paralysed by polio – just one by Afghanistan's own polio virus (in Hilmand, in December 2013), the rest victims of Pakistan polio virus entering eastern Afghanistan. These were not 13 separate importations, demonstrating deficits in vaccination coverage that allow virus to circulate. Most were in areas that the UN designates as having an extreme or high security threat level – but the program is able to operate in most such areas.

There are some worrying signs of slippage in the Afghanistan program. Genetic viral analysis shows that cases are likely being missed. This is not a localized problem. The phenomenon has occurred in four separate areas, including Kabul. Weak surveillance is bad news, particularly at this stage in the program. More environmental surveillance, introduced over the last six months, is vital but traditional surveillance also needs to be strengthened.

Immunisation is being strengthened in 11 'low performing districts' of Hilmand and Kandahar. Permanent polio teams circulate, topping up immunity between the frequent campaigns. Campaign monitoring data are showing programmatic improvement – though they, and a slight adverse trend in immunity data, still give the program room to aim higher. The apparent interruption of vaccine-derived polio virus transmission in the south is promising.

The program has designated four high risk provinces in the East - Kunar, Nangarhar, Laghman and Nuristan. Vaccination campaign quality here still lags behind the south. The last year has been better, but monitoring data from March 2014 show more than 40% of districts not hitting 80% coverage. Kunar province is of greatest concern, with no improvement in access and vaccination coverage slipping.

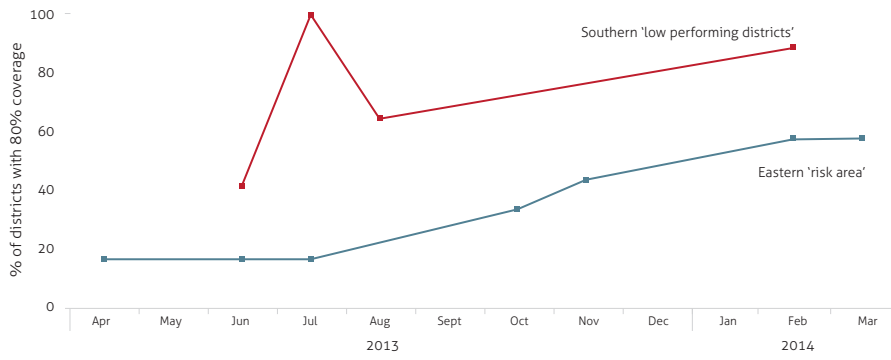
We observe a positive shift in managerial tone of the Immunization Communication Network. There is a welcome note of self-criticism – not playing down what has been achieved, but focusing on what more can be done. The program reports that its refusal rate has fallen far less in Afghanistan than in the other endemic countries. It is deploying strategies to strengthen community demand in the south. In the east, where access rather than refusals is the main problem, it is also recruiting more full-time social mobilisers to play a crucial negotiating and trust-building role.

The recent elections in Afghanistan were disruptive, particularly where anti-government elements impeded access in Hilmand. It is of considerable concern that two consecutive campaigns have now been missed in Hilmand. However, the fact that the elections did not cause more widespread disruption is a testament to the way that the program has been strengthened from the ground up, with a solid web of local ownership. It will be important to secure the new president's leadership, but the beating heart of the program lies in thousands of local communities. Maintaining and building this strength is vital.

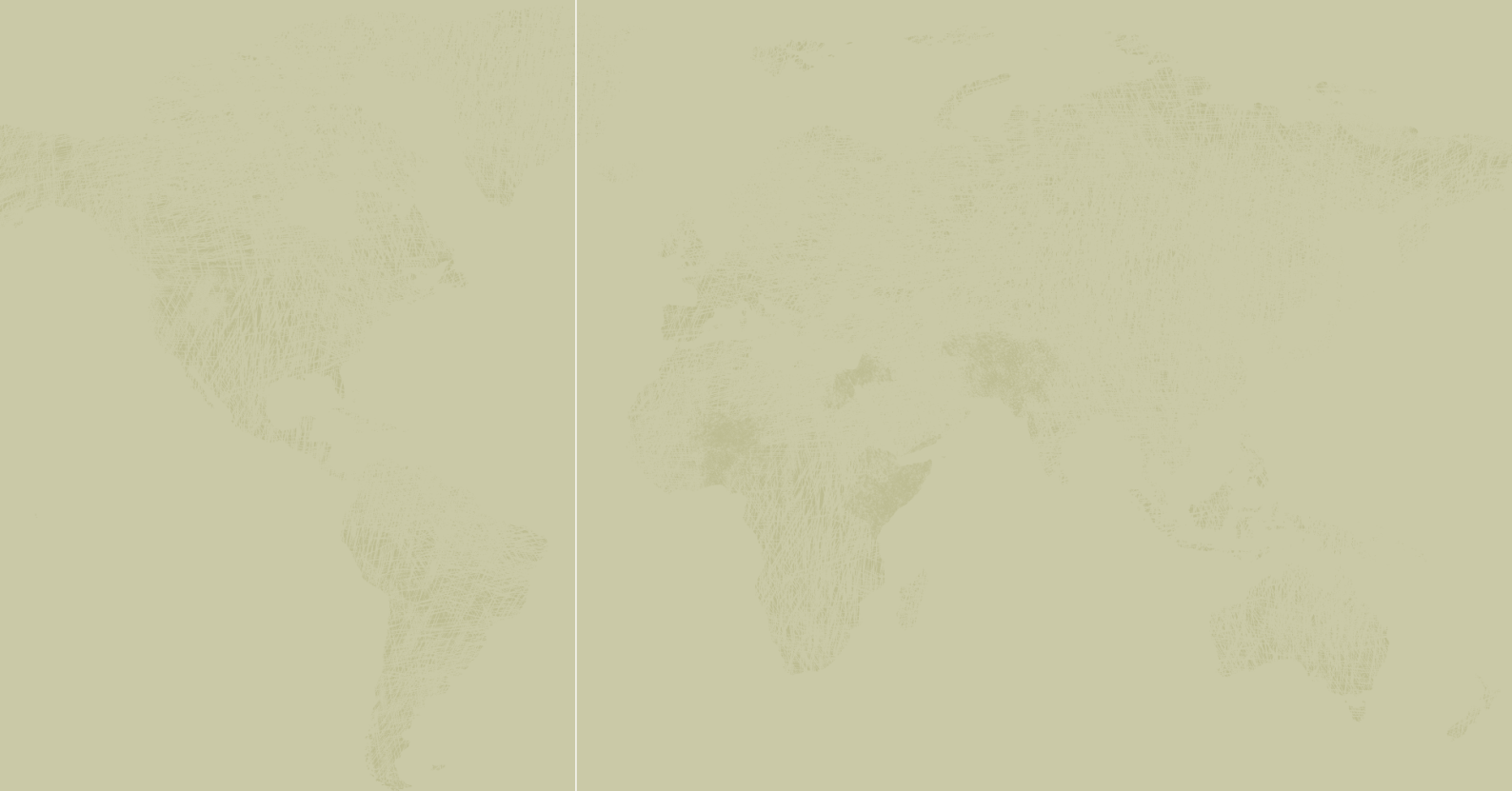
The high-level meetings between Afghanistan and Pakistan have dropped off; there were none in 2013. Given the cross-border flow of the polio virus, close co-operation between the two countries is vital.

The challenge for the Afghanistan program is still to tip the balance; to discover the final few changes that will finish the job, and particularly to develop new solutions in Kunar. It also needs to avoid slipping back – getting this far has not been easy, and we congratulate the program for its strong work to date.

Afghanistan: will the East continue to under-perform?



OUTBREAK RESPONSE



Outbreak response

Horn of Africa outbreak

The unwelcome arrival of polio virus into the Horn of Africa is all too familiar a scenario. The Horn's current outbreak started a year ago, when Nigeria polio virus made itself known in Banadir, southern Somalia. It also spread across Somalia's South-Central zone, into north-eastern Kenya, and into the Somali region of Ethiopia. In total, 218 children have so far been paralysed. The explosive outbreak caused more than half of all polio paralysis globally in 2013.

Somalia is a tame breeding ground for the polio virus. Its health system is barely functional. Vaccination coverage has been low for the last 20 years. There is extensive armed conflict, and al-Shabab does not allow vaccination across a substantial part of the south. But the country's response to polio importation has been strong. It has mounted an impressive total of 16 vaccination campaigns so far – most targeted at children under five years; some up to 10 years and some the whole population. Transit points reach children on the move. Mainly because of the vaccination ban, access has been the single greatest difficulty. But one-quarter of the paralysed children have lived in accessible areas, many of them let down by sub-standard vaccination campaigns. Outbreak response assessments have provided high-quality guidance to the country's program, on which it has generally acted well.

Somalia's strong work has borne fruit. No case of polio has been detected since December 2013. But nobody should be sleeping easily. Half a million children are still inaccessible to vaccinators. The virus may still be circulating, and could take hold again. Somalia is at very high ongoing risk, and there can be no let up. As the April 2014 outbreak assessment reveals, the program still needs improvement.

So far in this outbreak, 10 children in **Ethiopia's** Somali region have been paralysed by polio. The latest was in January 2014, the most recent case in the Horn of Africa as a whole. Ethiopia's outbreak response was substantially slower and weaker than that of Somalia. We take little reassurance from the independent monitoring data that now show campaign quality improving in the crucial Somali region – this region remains highly vulnerable.

Kenya's 14 paralysed children were all in the north-east, mainly in and around refugee camps in Dadaab. The most recent was paralysed in July 2013, suggesting that transmission is probably now over, although the potential for re-importation is real.

To the program's knowledge, **South Sudan** has not yet been infected. Here, there are substantial sub-national surveillance gaps and too many deficits in vaccination coverage. Armed conflict and extensive migration make the transmission of polio in South Sudan a real and worrying possibility.

Less discussed, **Djibouti** also has a potent combination of weak surveillance (indicators are suboptimal in four of its six districts) and patchy vaccination coverage (more than 90% in Djibouti City, but only around 70% in several other regions).

No country in the Horn of Africa is wholly safe. It would be too easy to assume that Uganda, for example, will not become infected, but it may.

Surveillance is a major issue for the Horn of Africa as a whole. Improvement across the region has been inconsistent. The area of greatest concern to the IMB is the Somali region of Ethiopia, but not one of the 10 countries in the region is free of surveillance problems. It is really quite possible that children are being paralysed by polio without the program knowing about them.

Our October 2013 report criticized poor coordination across the Horn of Africa. The **regional response** is now clearer. It takes in 10 countries, across two WHO regions (AFRO and EMRO), and is now implementing a phase two response plan. On our recommendation, the program has appointed a senior coordinator for the Horn of Africa. This has certainly improved the situation, although coordination between countries and between partner agencies is still not 'seamless'. These arrangements should remain in place, and the program now has an opportunity to learn how to strengthen them further.

The Horn of Africa Technical Advisory Group met in February 2014. It thoroughly reviewed the program, and we endorse its recommendations. These make it clear that campaign quality and surveillance both need further work in many different parts of the region. It also highlighted the need to focus on reaching nomadic populations, and on concentrating resources particularly into high-risk areas.

The Horn of Africa outbreak is not over. There is a real risk of more cases, and of further international spread. The program is making good progress. There should be no reduction in the number of staff working in the Horn of Africa, or in the intensity of their work.

Middle East outbreak

The Middle East was free of polio for more than a decade, until Pakistan polio virus found its way into **Syria**. The country was vulnerable. Historically its vaccination rates have been very high, but they plunged as the current conflict began. Discovered in October 2013, the initial epicenter of polio infection was in Deir Al Zour, in the east of the country. Children were also paralysed in the north and the west. Genetic analysis suggests virus circulation as long as a year before detection. There have been 36 known cases – the most recent of them in January 2014.

Unlike in the Horn of Africa, the program was very quick to establish a coordinated, whole-region response. This was absolutely right. There are 1.3 million Syrian children living as refugees outside the country's borders – most of them mixing within host communities rather than in refugee camps.

A vaccination campaign was mounted in Syria within five days of the first case being announced. It ran for a month, as the conflict's challenges were analysed and overcome. Around 300,000 children under the age of five years live in areas that are under siege or otherwise hard to access. Four more campaigns have now been delivered. There are parts of the country in which UN agencies are not allowed to operate, but the program's web of partners has done a very good job of reaching many children in difficult circumstances.

So far, there has been just one case outside of Syria – in Baghdad, **Iraq**. The country had already run several vaccination campaigns before the case occurred, which does raise some questions about the quality of those campaigns. The six-month-old boy who was paralysed had been offered OPV, but his parents refused it, fearful of rumored side-effects.

The regional response includes seven countries. Outside of Syria and Iraq, **Lebanon** is the country of greatest concern to the IMB. With more than a million Syrian refugees here, work to strengthen Lebanon's program needs particular focus.

Phase one of the regional outbreak response plan aimed to stop transmission by the end of March 2014. No case has been detected since then, but it is far too early to declare success. The region is now implementing its phase two plan, which runs through to the end of 2014. This plan is strong, drawing from a high quality review of the regional response that was conducted in March 2014. This highlights the need to further improve campaign quality, particularly by using independent monitoring data to identify, and reach, missed children. Correcting weaknesses in surveillance, routine immunisation and communications are the plan's other vital components.

The scale of the communications challenge is clear. In Syria, families have more immediate concerns than polio. In countries that are hosting a lot of Syrian refugees, anti-Syrian sentiment is unfortunately growing. Across the region's vaccination campaigns, most instances of a child being missed have been because the parents were not aware of the campaign, perceived no need for the vaccine, or feared its side-effects. Given the complex communications challenge, the IMB is concerned that the program feels it is not appropriately resourced to mount the communications response required. This must be resolved.

We commend the program for its outbreak response in the Middle East, which has been quick, well-coordinated, and flexible in difficult circumstances. The slow-down in cases must not create false reassurance. Major risk remains, with thousands of Syrian children still not vaccinated and extensive population movement. The second phase of the response must continue with vigour.

Israel has, for most of the last year, been experiencing a phenomenon previously unseen in the history of polio. Pakistan polio virus has been circulating there, without causing even a single case. Multiple environmental samples have demonstrated that it is circulating amongst people. But, because vaccination coverage with IPV is high, nobody so far has been paralysed.

Responding to this novel situation posed a real policy and communications challenge, compounded by the fact that there is a sizeable body of anti-vaccination sentiment within the population. Israel conducted just one full vaccination round with OPV, despite strong recommendations that it should do more. Transmission continued through the 2013-14 low season. But now, much to the country's relief, transmission seems to have stopped.

Polio virus circulation posed a risk not just to Israel, but also to countries that are connected to it by frequent travel, where vaccination coverage is less strong – notably including Ukraine, about which a wide range of observers are concerned. It is vitally important that Israel maintains strong ongoing surveillance, particularly through the coming high season, to absolutely confirm that the virus has gone. Contingency plans are in place should the virus show itself again. If required, these must be implemented in full.

Central Africa outbreak

In October 2013, **Cameroon** detected its first case of wild polio since 2010. Over the next four months, at least seven children were paralysed in four of the country's ten regions, and the virus also spread south to Equatorial Guinea. The challenges of re-introduction of polio into Cameroon are formidable. The biggest problem is

achieving vaccination coverage in the two largest cities - Douala and Yaounde - that have a combined population in excess of five million. There are also many hard-to-reach areas, some inaccessible by land and air. There are even areas that may never have been reached by vaccination programs.

The response to the Cameroon outbreak has been totally inadequate. Its five campaigns have been deeply dubious in quality. February 2014 campaign monitoring data made clear that only half of areas were achieving coverage standards. The main reason for children not being vaccinated was that no vaccinator had visited their home. Communication plans exist, but are barely being implemented. There are major resource shortfalls. The number of vaccination and monitoring teams is just not enough. Students are being recruited to expand the workforce but much more is needed than this.

The circumstances of this outbreak point to deep malaise at many levels of the eradication program. Genetic analysis reveals that the virus found paralysing children in late 2013 has been circulating undetected since 2011, when it was last seen in south-west Chad. The genetic diversity of the seven detected viruses suggests that there will have been other, undetected cases. Did these findings provoke a rapid, definitive response? On the contrary, any sense of urgency seems to have been lacking.

Now, six months into the outbreak, there are signs of life in the response. Efforts are concentrating on Yaounde and Douala, where vaccination performance is worst. The recent outbreak response assessment demanded substantial improvements. These must now be implemented with pace.

Nestled to the south-west of Cameroon, tiny **Equatorial Guinea** is home to fewer than a million people. A major oil producer, it is the richest country in Africa per capita. It had been polio-free for 15 years. In January of this year, polio was back in the country. Three children were paralysed.

Like Cameroon, all the indications are that polio immunity levels in Equatorial Guinea were low, making it a 'sitting duck' for importation of the virus. The country's surveillance record is also weak. Given population size, the public health authorities should detect around three cases of acute flaccid paralysis in a typical year. None were found in 2013, and just two in the past five years.

The first national immunisation campaign was not scheduled until late April 2014, a very slow response. It is vital that the country has every bit of help it needs to ensure that both surveillance and vaccination campaign quality are quickly brought up to the mark.

Infection in Cameroon and Equatorial Guinea is a direct threat to surrounding countries that were glowing bright red with risk even before this. The Central African Republic is very seriously at risk. Civil conflict has severely degraded the country's healthcare infrastructure, weakening both surveillance and vaccination coverage. Major population movement and active fighting make operations very difficult. If the polio virus gets into the Central African Republic, stopping transmission will be a formidable task. From Cameroon, the polio virus is within easy reach of Chad, DR Congo and Angola – three countries that have been repeatedly infected in the past and in which significant vulnerabilities remain. Congo and Gabon also have both surveillance and vaccination problems.

The global program's response to this **Central Africa outbreak** has been very worrying. The arrival of polio in

Cameroon should have set alarm bells clanging. There should have been a great deal of consternation when it was found that polio virus has been circulating undetected for two years – perhaps in Cameroon, perhaps elsewhere in the region. No such reactions appear to have occurred. The so-called “three month outbreak response assessment” in Cameroon was conducted in April 2014. This was a full six months after the outbreak began. Only now is the WHO AFRO seeking to create a coordinator post to lead a regional response.

The global program allowed Cameroon to run weak vaccination campaigns. Such a laid-back approach is entirely out of kilter with WHO’s declaration that the international spread of polio virus is a public health emergency of international concern.

The contrast between the program’s Middle East and Central Africa responses could not be starker. Both outbreaks started in October 2013. Both needed a quick and comprehensive response. At the IMB meeting seven months into the outbreaks, the specifically appointed Middle East coordinator described impressive completion of phase one of a regional outbreak response. A plan for phase two of the response was already in place. Meanwhile, Central Africa had not yet even appointed a coordinator. The program has taken some action in surrounding countries, but this does not come close to the professional response in the Middle East. The IMB is concerned. The program seemed wounded by our October 2013 report that characterized its Horn of Africa response as insufficient. Yet, the management of the major subsequent Central Africa outbreak has been lackluster.

The program must urgently rectify major weaknesses in its Central Africa outbreak response. The Polio Oversight Board could provide valuable leadership by ordering an urgent investigation into the differences between the program’s Middle East and Central Africa responses. It could also identify the process of decision-making that allowed such inconsistency to occur.

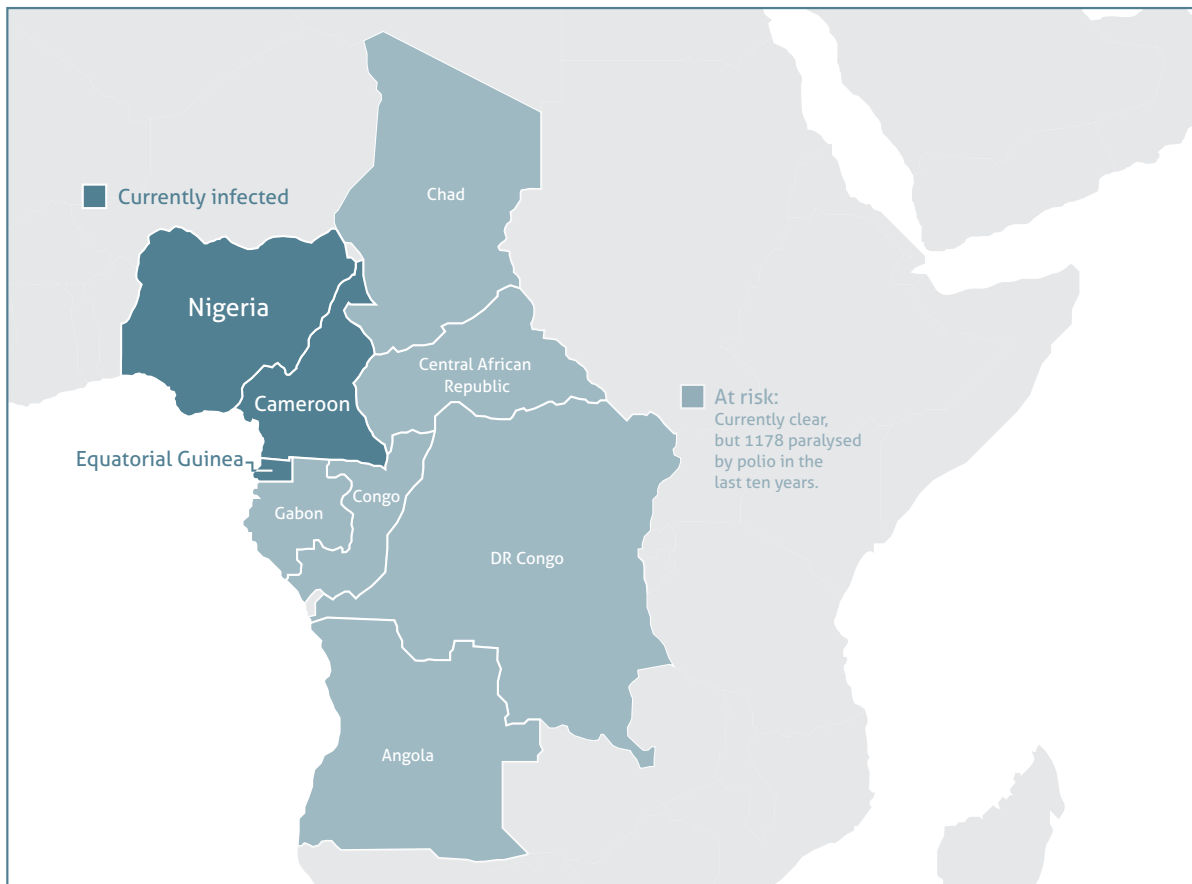
WE RECOMMEND THAT THE POLIO OVERSIGHT BOARD ENSURES THAT THE PROMISED CENTRAL AFRICA OUTBREAK COORDINATOR IS INSTALLED BY 1 JULY 2014, RESOURCED APPROPRIATELY, AND THAT THE BOARD FORMALLY INVESTIGATES WHY THE PROGRAM’S RESPONSE IN CENTRAL AFRICA HAS BEEN MUCH WEAKER THAN IN THE HORN OF AFRICA OR IN THE MIDDLE EAST.

WE RECOMMEND THAT A NEW, DEDICATED TEAM BE ESTABLISHED AT GLOBAL LEVEL TO FOCUS ON OUTBREAK RESPONSE, ITS FIRST JOB BEING TO SUBSTANTIALLY STRENGTHEN THE OUTBREAK RESPONSE STANDARD OPERATING PROCEDURES TO ENSURE THAT FUTURE RESPONSES WILL BE CONSISTENTLY EXCELLENT. SCENARIOS AND EXERCISES SHOULD FORM A KEY PART OF ITS ACTIVITIES.

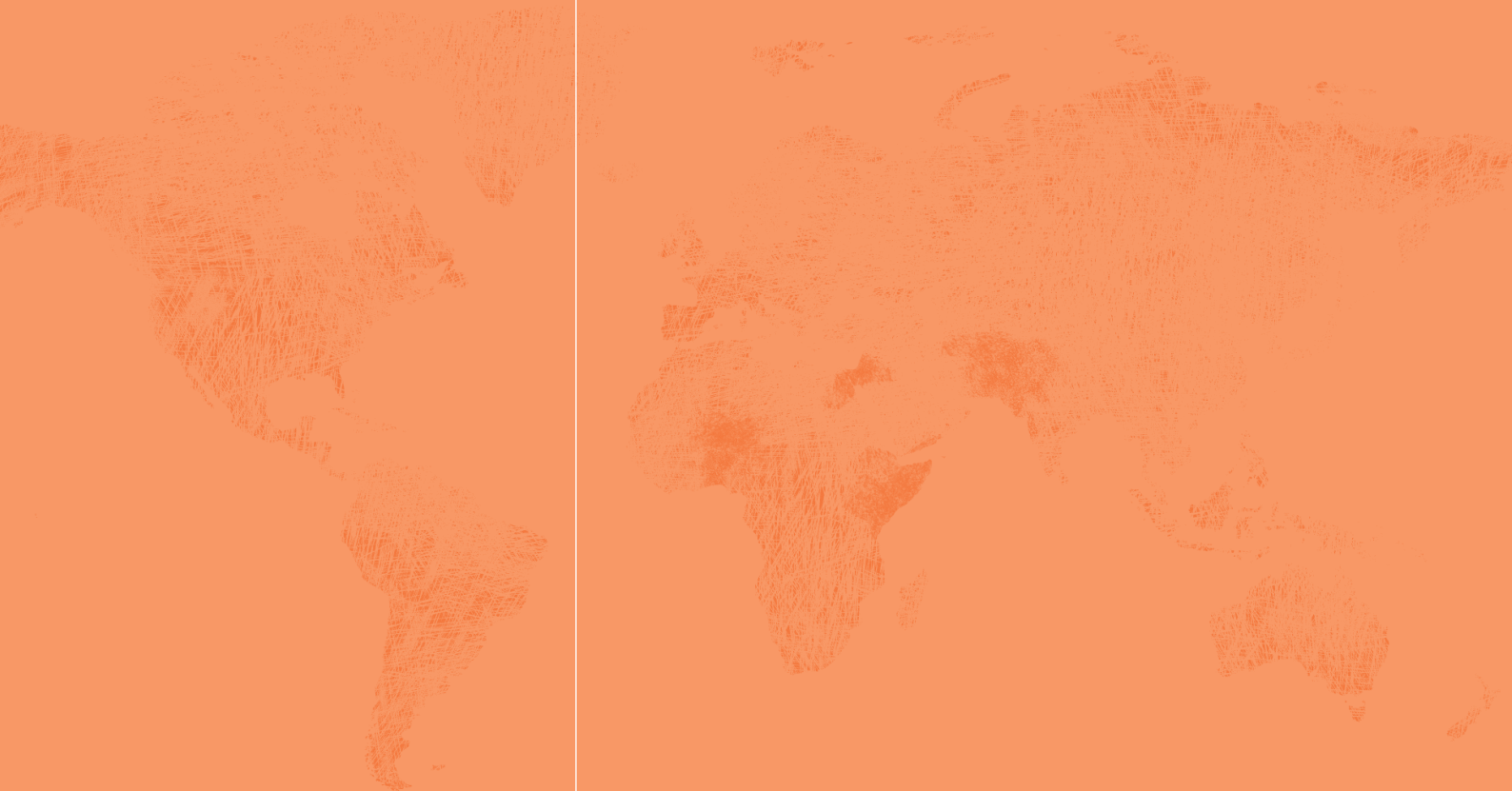
Polio in Cameroon: no one was saying "emergency"

- EMERGENCY** Two years of viral circulation entirely unaccounted for
- EMERGENCY** Virus geographically dispersed
- EMERGENCY** Major conflict in neighbouring Central African Republic
- EMERGENCY** Surveillance and vaccination weaknesses in surrounding countries

Central Africa: polio is a light sleeper



OUTBREAK PREVENTION



Outbreak prevention

The global program's main focus is on stopping polio transmission in the remaining three endemic countries. But as the program has been working to do this, both Nigeria and Pakistan polio virus have repeatedly spread beyond their home borders. Since 2011, they have caused outbreaks in 20 other countries, paralysing nearly 500 children. In 2013, more than half of all children paralysed by polio lived outside the endemic countries.

The program spends a great deal of money trying to prevent these outbreaks. In 2013, 450 million doses of vaccine (one-third of the global program's total) were given in countries not infected by polio. Despite this, children in eight outbreak countries were paralysed in 2013 and early 2014 – in five countries by Nigeria polio virus, in three by Pakistan polio virus. In other words, the program is paying precious dollars for mediocre program delivery.

Too many shrug their shoulders at this. There is an ideological strand here. Some hold that only endemic polio matters: get rid of this and all other polio locations will wither away. A number advocate a wait-and-see attitude to outbreaks. They say that it is difficult to interest governments or communities in polio vaccination until their populations are threatened directly by the virus – so responding to outbreaks is easier than preventing them. The IMB deplors these attitudes. If the program took outbreak prevention very seriously, it could make better use of the significant resources that are already allocated to this goal.

Preventing these outbreaks is vitally important – particularly at this late stage, when stopping transmission globally requires stopping it everywhere simultaneously. It would be all too possible for Nigeria polio virus to re-establish a hold in a country such as war-torn Central African Republic, and potentially then return back home after Nigeria had otherwise stopped its own transmission.

The IMB has strongly advocated two measures – first, that the International Health Regulations be used to introduce mandatory vaccination for people travelling internationally from polio-infected countries. Second, that the program establish a 'Red List' of the countries at greatest risk of an outbreak, and work harder on how to mitigate their risk.

In recent weeks, the first of these measures has come into being. The Director-General of WHO convened an emergency committee under the International Health Regulations, prompted by the IMB's recommendations and a groundswell of support for them amongst member states. Based on that committee's work, WHO recommended on 5 May 2014 that Pakistan, Syria and Cameroon – the three countries judged at highest risk of exporting polio virus in 2014 – should introduce measures to ensure that their residents and long-term visitors are vaccinated against polio before they leave the country. The IMB welcomes this important step. Sound implementation is now vital.

One country – India – had not waited for the International Health Regulations committee to report. India now requires entrants from most of the polio-infected countries to provide proof of vaccination against polio. WHO's subsequent recommendation does not directly suggest that receiving countries confirm travellers' vaccination status – but, because travellers should be provided with certificates to prove their vaccination, this option is available to other countries receiving travellers from polio-infected countries.

As well as recommending pre-travel vaccination and other specific actions, WHO declared the international spread of wild poliovirus a 'public health emergency of international concern'. The IMB agrees with this assessment. Countries that are currently free of polio still need more protection.

In response to the IMB's October 2013 recommendation, the program has identified a 'Red List' of countries that should be prioritized for risk mitigation measures. This list was constructed by considering countries' risk of virus importation, the likely consequences of an importation (worse in countries with low vaccination coverage or civil conflict, for example), and their risk of a delay in detection due to surveillance deficits. The current Red List contains 10 countries – all of them in Africa. This is not a full list of all high-risk countries. Some are already receiving attention as part of one of the regional outbreak responses (such as South Sudan, in the Horn of Africa) and are therefore not included on the Red List. But the existence of regional outbreak plans and the Red List must not create a sense that no risk exists elsewhere – this is far from the truth.

The program has made a start on plans to reduce the risk of an outbreak in each Red country. A substantial number of vaccination campaigns have been planned here during 2014. Children in Chad and Niger, for example, should on average receive more than five doses of vaccine this year.

The plans are not just about quantity of campaigns. There is work to improve their quality, such as by introducing the pre-campaign dashboards that have been helpful in endemic countries. There are also plans to improve routine immunisation, for more technical assistance in support of surveillance, to heighten advocacy, and to ensure that immunisation and surveillance are consistently part of humanitarian response.

Having defined the Red List, the global program needs to communicate much more clearly with countries about what is expected of them to close their immunity gaps – and on what time scale. This is particularly important in countries that have had no polio for some years, and have dismantled the infrastructure for undertaking campaigns. Despite its 26 years of experience, the program's command of these matters still seems very rudimentary. At least part of the problem is that outbreak prevention is a responsibility allocated to people whose central task is to support endemic countries. Prevention is different and complex. It needs specialists who are not bonded to the programs of individual endemic countries. This is not simply a matter of asking existing teams to work more closely together. It is about a high-level team whose sole day-job is to anticipate and prevent outbreaks, with their success measured against the number zero.

WE RECOMMEND THAT A DEDICATED TEAM OF FULL-TIME STAFF BE ESTABLISHED AT GLOBAL LEVEL TO RAPIDLY IMPROVE THE PROGRAM'S APPROACH TO OUTBREAK PREVENTION IN THE RED LIST COUNTRIES AND BEYOND. SCENARIOS AND EXERCISES SHOULD FORM A KEY PART OF ITS ACTIVITIES.

Countries under attack - since 2011

From Nigerian polio virus

- CHAD
- GABON
- MALI
- NIGER
- GUINEA
- CAMEROON
- CENTRAL AFRICAN REPUBLIC
- COTE D'IVOIRE
- KENYA
- ETHIOPIA
- SOMALIA
- EQUATORIAL GUINEA

423 children paralysed

From Pakistan polio virus

- AFGHANISTAN
- CHINA
- IRAQ
- SYRIA

68 children paralysed

ACROSS THE GLOBAL PROGRAM



Families and communities: a question of trust

Eradicating polio requires that millions of parents allow their children to be given dose after dose of polio vaccine. Properly engaging them is key to success. They need to trust the program, its vaccinators, and its vaccine. They need a reason to allow – and ideally to demand – polio vaccination.

The IMB's May 2013 report focused firmly on this issue. Although engaging with parents and communities has been a vital part of the program's success historically, it was being grossly under-emphasised at the program's strategic level and under-addressed in the field.

A year on, there is clear improvement. In May 2013, there were just six people in the polio team at UNICEF headquarters. The other 13 posts sat empty. The team is now four times the size, with 22 people. In the three endemic countries, more than 13,000 social mobilisers are now in place. This number has doubled in the last year. The program has established formal partnerships on communications and social mobilization with more than 30 institutions worldwide. Formal studies have been conducted into community perceptions. Above all, there has been real progress where it matters the most – on the doorstep. In the three endemic countries, the number of children going unvaccinated because their parents refuse the vaccine has been cut in half. This is impressive.

We strongly welcome the work of the Islamic Advisory Group. Not all communities are local. Some have global reach. The Islamic Advisory Group is vitally important. Its members include some of the most important Islamic scholars in the world, drawn from institutions such as Al Azhar University, and the Organization of the Islamic Conference. These important leaders in the global Muslim community work in strong support of polio eradication. At the close of its meeting in Jeddah in February 2014, the two co-chairs made important statements about the polio vaccine being acceptable to Sharia, denouncing "fallacious and distorted fatwas and claims" against polio vaccines, and condemning violent attacks on polio vaccinators.

But the vital work of improving trust amongst families and communities is not over. The IMB identifies three key areas for improvement.

WE RECOMMEND THAT WHO RELAX ITS GRIP ON THE TRAINING OF VACCINATORS AND THEIR SUPERVISORS, ALLOWING UNICEF, CDC AND OTHER PARTNERS TO CONTRIBUTE, PARTICULARLY TO ENHANCE THE INTERPERSONAL COMMUNICATION SKILLS OF VACCINATORS

Improvement aim 1: Measure and raise the standard of social mobilisers' performance

Nearly a third of parents surveyed in the key infected areas of Nigeria and Pakistan do not realise that polio is incurable. A fifth of parents in the key infected areas in Pakistan, and a third in Nigeria, see no need to vaccinate their children on every vaccination round. Households that refuse vaccination often occur in clusters, creating opportunity for the virus to circulate.

No-one has been able to tell the IMB how to properly tell well-performing social mobilisers from mediocre ones. The program should rapidly refine the metrics that it uses to monitor the quality of social mobilisers work, and we will ask to be briefed on this at our next meeting. We would like to see the program establish what core measures it will repeatedly collect, to establish a data set that can be properly tracked over time.

Improvement aim 2: Enhance vaccinators' interpersonal skills for their difficult conversations

The program describes its front-line workers in two tribes – the vaccinators, who find the children and offer the vaccine, and the social mobilisers, who promote the campaign and then investigate instances in which the vaccine is being refused. These groups need to be better integrated. Vaccinators must be equipped to be successful in the sometimes-difficult negotiation with reluctant parents.

Similarly, a social mobiliser, when gathering data on the reasons for a refusal, is well placed to become the vaccinator of that child. UNICEF data from Pakistan are showing promise. For example, social mobilisers given the task of following up children missed in a vaccination round are achieving a 40% success rate in reaching these children – a good start, but with more potential. The success rate needs to be doubled, and quickly.

The IMB has repeatedly emphasized vaccinators' importance in the program.

Fielding the right people as vaccinators is key. They need to be appropriately accountable, ideally local, adults. IMB sources have pointed to the deleterious effect of so-called 'ghost vaccinators' and substitutions in the vaccine team. Essentially, this means that the people who have been trained for the job do not end up vaccinating. The program has made good progress on these issues, establishing clear standards and measuring the achievement of them.

The program polled parents in high-risk districts in Pashtun communities of FATA. Just a quarter thought that vaccinators cared a great deal about children in the community, and the same proportion trusted vaccinators 'a great deal'. There is major room for improvement here, and such improvement could well be important when some degree of physical access is achieved. It is important that there is a multi-agency approach to training vaccinators. It should not solely be the domain of WHO to lead this vital task.

Gender mix is also often important, amongst both vaccinators and social mobilisers. Though the communities like to hear from women, just 21% of social mobilisers in Pakistan, and 28% in Afghanistan, are female.

Improvement aim 3: Create common ground on the value of social mobilization in addressing the program's greatest remaining challenges

When the IMB examined the state of social mobilization in the program a year ago, we were struck by the fact that the potential transformational value of social mobilization work was not accepted by all in the partnership. Some consider its role in achieving high vaccine coverage as being separate from, and subsidiary to, the challenge of gaining access in conflict-affected areas. UNICEF has not yet been as effective as it could be in really making the case for the essential nature of social mobilization strategies in achieving access to areas and to houses. A year later, little has changed.

The skeptics need to better engage with those who believe in the promise of social mobilisation. We would predict two benefits of this engagement. The skeptics would see evidence of social mobilisation's impact. And the believers, in response to the skeptics' challenge, would make a more persuasive and focused case for where precisely investment in social mobilization can help.

WE RECOMMEND THAT THE CORE PARTNERS MEET IN PERSON TO AGREE UPON A WAY TO ADDRESS THE THREE IMPROVEMENT AIMS FOR SECURING COMMUNITIES' GREATER TRUST, BASED ON THE ANALYSIS OF SOCIAL MOBILIZATION IN OUR REPORT.

Insecurity: resilience in the face of unprecedented violence

The polio program is operating in the face of: targeted violence, with more than 25 front-line workers having been killed because they are associated with the polio program; bans in some areas on vaccination in general, or on polio vaccination in particular; wider insecurity, restricting the program's ability to operate even in the absence of any direct threat. To an unprecedented level, polio eradication is caught up with politics, local and global conflict. The situation changes almost daily. Even when the polio program is not directly entwined, insecurity makes its operating environment complex. In the week following the IMB meeting, Nigeria became deeply affected by violence and illegality. The situation of the kidnapped schoolchildren in northern Nigeria was escalating. Bomb attacks killed substantial numbers of people in other cities.

This is deeply disturbing. It is abhorrent that a program seeking to improve global public health should be in this situation. Dealing with these circumstances is largely a matter for the affected countries, whose governments have both the responsibility and power to take them on. But it is also important that the global program properly adjusts to this significant shift in its operating environment, because these situations pose a grave risk to the program's success.

The program has strengthened its internal capacity, through the recruitment of security analysts. It has strengthened links with other parts of the United Nations system. The partners have adopted a five-stranded 'Joint Security Approach', and a Security Working Group is now operational.

These are all positive steps. Our major concern now is that the program ensures both coordination and pace in dealing with the greatest challenges.

Speaking to partner agencies individually, we have been concerned to hear some quite different analyses of the situation on the ground, and different ideas about the way forward.

It did not help that there was a year's delay before the first in-person meeting between the core partners. We were pleased that the partners held a further meeting whilst attending the IMB in London this month. Such coordination is key - to improve their collective understanding of the obstacles, and ensure that their approach is logical and unified. In whatever way the situations may unfold on the ground, the IMB will remain keenly interested in the extent to which partners are coordinating, in the speed of their work, and in their ability to draw upon the necessary expertise.

Availability and use of vaccine: making every drop count

At each of its meetings, the IMB receives an update on global vaccine supply and on the polio vaccination campaigns that are planned.

The program has recently determined its campaign calendar for the second half of 2014. In doing so, it does seem to have applied the correct principle – that the campaign calendar should be primarily based on epidemiological need, not on funding available. If there is a need to seek further funding, so be it.

Ensuring smooth vaccine supply is no mean feat. The program generally performs well in this, though problems do occur. Three particular actions would help here:

- Currently Pakistan and Nigeria have each licensed oral polio vaccine from only one manufacturer. This constrains the program's ability to allocate supplies between countries. If each of these two countries licensed more than one product, this would give the global program far more flexibility in allocating supplies.
- Countries often request more vaccine stock than they actually require, because their request does not take into account stock already held in the country. This is wasteful, potentially constraining the amount of vaccine that can be deployed elsewhere. Tighter inventory control would help significantly.
- The program has already used IPV in combination with OPV in some vaccination campaigns, and plans to make more widespread use of this approach. It has not yet finalized formal plans about how much IPV will be required for this, where, and when. Doing so quickly will greatly assist the smooth provision of vaccine.

We make a formal recommendation to address the first of these issues, and ask that the global program takes steps to address the latter two in addition.

The IMB welcomes WHO's recommendation, issued on 5 May 2014, that Pakistan, Syria and Cameroon ensure that all residents and long-term visitors are vaccinated against polio before they undertake international travel. This measure, which we have been recommending for some time, will reduce the risk of international polio spread. It is important that the global program make sufficient vaccine available to enable this recommendation to be consistently implemented.

WE RECOMMEND THAT PAKISTAN AND NIGERIA TAKE URGENT STEPS TO LICENSE ADDITIONAL ORAL POLIO VACCINES SO THAT THEY CAN BE USED WITHIN THE NEXT SIX MONTHS, IN ORDER TO CREATE GREATER FLEXIBILITY IN GLOBAL VACCINE SUPPLY.

Funding: making it clear, fair and accountable

This program's funding is about more than pledges, budgets and cash flow. There is deeper, fundamental importance about the question of who pays for polio to be eradicated from the world.

'Ownership' is a much-used word in the program, describing that the task of clearing a country of polio should belong to that country. When a government takes to heart the mission of protecting its children from polio, success is far more likely than if its program is run as, and felt to be, an externally owned endeavour. One indication of true ownership is surely financial. Ideally, infected countries would be the first to contribute towards the program's costs. With their base of funding in place, it is appropriate for others to contribute in support. We are concerned to hear that Nigeria's pledged funds are much delayed in coming through. Other countries with a great deal of program activity, such as Chad, could also afford to contribute more to the program than they do.

The whole world – not just the currently infected countries - will feel the benefits of global eradication. It will be a global public good, its rewards felt now and into the future. This was the spirit of the 1988 World Health Assembly resolution that established the program. This spirit remains important. A number of governments have been major funders of the program, faithful to the goal despite the program's twists and turns. In terms of global democracy – not just finance – they are important partners in the eradication effort. We would hope to see more governments join them.

The IMB has been alarmed to hear ongoing concerns from program funding partners – particularly governmental partners. A number feel that they still lack meaningful engagement with the program. They feel they do not receive the information (financial and otherwise) that they need. As one meeting participant put it, "the program just keeps asking for money. The donors keep asking for accountability." They want to understand where the money is being spent. Typical of a widely-held view was a comment by a senior official of a supportive government: "it is difficult for us to produce a business case for the current situation that would convince my ministers to give more money".

The program's funding flows are complex. Funds flow through multilateral and bilateral agreements; globally and nationally; from infected countries domestic resources and from other donors. The program's current budget covers four objectives, of which stopping polio transmission is just one. It is important that all partners can get better clarity about the collective commitments, funding channels and funding flows, to be able to assess the funding status for the program as a whole. A particular need amongst many funding partners is to have a simple way of ensuring that when funds are given for polio and routine immunisation, they are properly allocated and it is clear what the proportionate spend has been. There is a growing concern about this area, because policy makers are no longer content to support a vertical program without looking to the future. Though not straightforward, these are neither impossible nor unreasonable requests.

The program does have an established system of financial reporting. It has a Polio Partners Group, and other fora in which funding partners can participate. The Polio Oversight Board has recently instituted a set of mechanisms to more closely involve the largest donors. There is a major disconnect between what the program feels it is providing, and what some funding partners feel they are receiving. Funders' concerns have been known for a long time but, the program has not addressed them. This must be resolved definitively and quickly. These concerns are

coming most loudly from the very funders who have been most faithful to the program, and who represent many taxpayers' longstanding commitment to the goal of eradicating polio.

For those delivering the program, cash flow remains a major challenge. Funding partners could help by reducing the extent to which their contributions are earmarked for particular countries or activities. A lot of time and effort goes into matching program activities against funds that have been provided with particular conditions. In some instances, vaccination campaigns are delayed because of the inflexibility that earmarking creates. When the program's objectives were broadened and extended by the 2013-18 Strategic Plan, this issue grew. The IMB strongly advises funding partners to reduce the earmarking of funds. There is potential for reciprocity, with the program enhancing its reporting and engagement arrangements, and funding partners reviewing the flexibility of their arrangements.

WE RECOMMEND THAT CURRENT CONCERNS AND UNEASE ABOUT THE TRANSPARENCY AND COMMUNICATION OF THE POLIO ERADICATION BUDGET ARE PROPERLY AND OPENLY ADDRESSED. THIS MIGHT BEST BE ACHIEVED BY A FRANK DISCUSSION AT THE POLIO OVERSIGHT BOARD.

Global program management: modern and dependable

The IMB's reports have repeatedly returned to the subject of the global program's management. How this complex global partnership operates internally has a major impact – for better and for worse – on its achievements.

The program's management has improved over the time that the IMB has been commenting on it. The Polio Oversight Board now meets frequently, appropriately elevating supervision of this high priority program to the most senior level. One rung below, the Polio Steering Committee meets monthly and is helping to improve the speed and clarity of decision-making. There is an improving sense of unity among partners.

So much for the committee structure where the improvements are welcome, and demonstrate that change can happen. There is a need for far more. We welcome the Polio Oversight Board's decision to commission a management review of the program, on our October 2013 recommendation.

It is essential that the management review creates the space, independence of analysis and clarity of diagnosis to bring about a genuine transformation in the way the program operates, despite the beneficial changes in management style of the program's leaders in response to the IMB's critique. Even in gathering information for this latest report, the IMB found striking recurrences of dysfunctions that have become endemic to the program's management structure. Although these have featured in our previous reports, we raise them again to ensure that there is full recognition of their deep-seated nature and their potential to remain unless tackled head on.

The program continues to lack a true culture of quality improvement, with all that entails including the style of leadership, the culture of teamwork, and the practical tools and processes that are widely used in other fields to bring about rapid improvement in an organisation's performance. The weakness in this area manifests itself in many ways. For example, the long delays between ideas and implementation – such as the 29 month gap between the IMB suggesting the combined use of IPV and OPV in campaigns (an idea that was already well-known to the program) and it first being tried. The program needs to work out what the delays are and slash them.

In another section of this report, we highlight the inconsistency in adopting and standardizing good practice in a way that reacts to changing circumstances, not to the historic pattern of structures and leadership arrangements. The program has delivered an excellent response in the Middle East, a fairly good response in the Horn of Africa, and a weak response in Central Africa. This is a disturbing phenomenon that introduces unnecessary risk. It gives the polio virus a freer rein than it deserves.

Our previous IMB report discussed the complexities of coordination between agencies. This is inherently a complex challenge, but the partners' approach seems to make it more complicated rather than simpler. At global and headquarters level, most staff wear many different hats. They split their time, for example, between supporting endemic countries, outbreak response and outbreak prevention – as well as between different technical areas. This fuels death-by-teleconference. It makes it more likely that something (like responding properly to the Central Africa outbreak) will be missed. It does not readily help expertise to develop. In our view, the management review could usefully consider an alternative in which individuals and teams are more clearly allocated to a specialist area on which they spend most or all of their time. This would help both speed

and consistency. However, it would be up to the most senior leaders to ensure that areas of specialism do not become silos.

The global partnership does not function in a collegial way. The IMB would not wish to criticize the cadre of dedicated, passionate and hardworking staff as individuals. However, the relationships between individuals working from their organizational base into the partnership is currently marked by competitiveness, power imbalances, and unsatisfactory sharing of information. The program will not improve its performance by addressing its structural issues, unless it can also address these deeper cultural issues.

There is still too great a tendency to accept slippage in timelines, bureaucratic constraints, and suboptimal solutions. There are plenty of data that demonstrate gaps in the program – in surveillance, in the performance of vaccinators, in internal processes – but these data will only make a difference if the program is hungry to look at them and learn from them. Eradicating polio will not require perfection. But there remains more room for challenge and self-criticism.

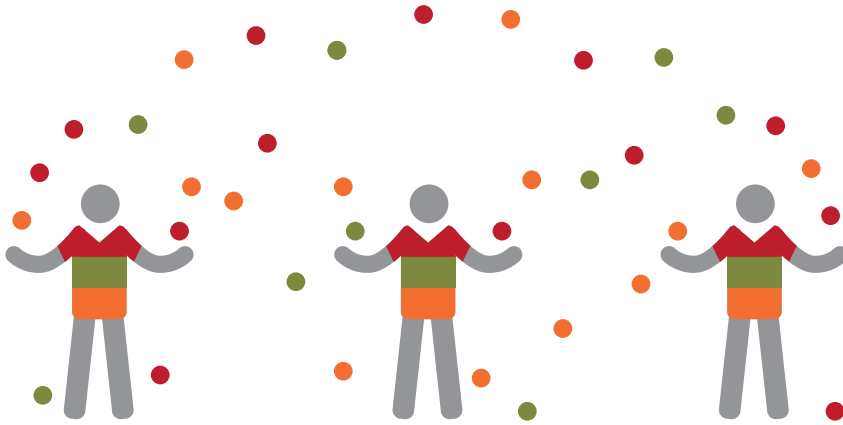
Do partner agency staff see themselves, first and foremost, as being part of the Global Polio Eradication Initiative, or of their particular agency? The former would be healthier, but the latter seems more common. In its private discussions, the IMB hears few expressions of warmth when one agency is talking about another. It is almost as if, at times, the administrative boundary becomes a magic circle which cannot be crossed. We have also heard of several instances in which one partner agency rejected the offer of useful contributions by other partners. As one senior representative commented: "fight the virus, not the partners".

The program is a different organisation than it was three years ago, and now has real potential to build on its progress through the forthcoming management review. It is important that this delivers the greatest possible benefit, and that all within the program are receptive to it. In a number of meetings with senior program representatives, we have suggested an enhancement to the management review process that we believe would bear fruit. We repeat this here as a formal recommendation.

WE RECOMMEND, IN RELATION TO THE MANAGEMENT REVIEW THAT IS UNDERWAY, THAT THE POLIO OVERSIGHT BOARD APPOINTS AN ADVISORY PANEL OF FOUR SEASONED EXECUTIVES AND MANAGEMENT EXPERTS, WHO HAVE EXPERIENCE OF RUNNING OR ADVISING SOME OF THE MOST COMPLEX ENTERPRISES IN THE WORLD, TO HELP SHAPE THE MANAGEMENT CONSULTANTS' ANALYSIS AND RECOMMENDATIONS BEFORE THEY ARE FINALIZED FOR THE POLIO OVERSIGHT BOARD.

GPEI multi-tasking: a different approach needed?

If everybody does everything, incoordination and dysfunction occurs:



If teams specialise, focus improves and expertise builds:



The cost of organizational complexity: good ideas have to wait

Idea



Combined OPV/IPV would boost immunity in hard-to-access populations (IMB recommendation July 2011)

Action

Combined OPV/IPV used in Kenyan refugee camp



Mandatory pre-travel vaccination would reduce the risk of international spread (IMB recommendation Nov 2012)

WHO recommends mandatory pre-travel vaccination

CONCLUSIONS AND RECOMMENDATIONS



IMB assessment: progress against plan

	Afghanistan	Nigeria	Pakistan
Endemic transmission			
Stop by end 2014	On track	At risk	At extreme risk
Outbreaks			
Stop within six months	At risk		
Anticipate and prevent	At risk		
Global transmission			
Stop by end 2014	At extreme risk		

Conclusions and recommendations

In 1988 (26 years ago now) every country in the world resolved to eradicate polio. Most managed to do so by the year 2000. The last 14 years, has witnessed an excruciatingly long tail of completing global eradication. The “last 1%”, a phrase that only three years ago was an inspiring rallying call to finish the job, is becoming an open goal for eye-rolling cynics. Every additional polio year costs lives and money, saps morale, puts future donations at risk and holds the public health world back from making further health gains. The goal of stopping global polio transmission has been serially missed. The deadline year of 2000 came and went; so did 2004; and so too did 2012.

As the end-2014 deadline fast approaches, Nigeria and Pakistan are both at risk of failing to stop transmission in time (with Pakistan’s risk extreme). There is a significant risk of one or more of the current outbreaks becoming prolonged. There is serious risk of failure to anticipate and prevent an outbreak elsewhere. Given these factors, the IMB’s considered analysis is that the latest strategic plan goal of interrupting transmission by the end of 2014 stands at extreme risk.

The World Health Assembly has rightly declared polio eradication a programmatic emergency for global public health. WHO has rightly called the spread of polio a public health emergency of international concern. There is every reason why polio must be eradicated – and fast. Failure to do so is inexcusable. This last 1% cannot be allowed to drag on any longer. The program is failing children and families in the poorest parts of the world. These broken promises mean that every child paralysed in 2015 will be a child grossly let down, their paralysis an avoidable catastrophe.

All eyes must now be focused on minimising the number of avoidable catastrophes – on ensuring that Nigeria succeeds in 2014; on Pakistan rebuilding a program that can succeed soon after; and on preventing and responding to outbreaks with consistency and vigour.

This report makes eleven recommendations:

- 1.** We recommend the establishment of an Emergency Operations Center (EOC) in Pakistan, which builds upon Pakistan's recent experiences in responding to natural disasters and other countries' experiences in emergency polio response. Top-level civil servants, senior representatives of national, regional and local government, religious leaders as well as military leaders should be a key part of this process. We urge that this new body be fully operational by 1 July 2014.
- 2.** We recommend that the heads of the Global Polio Eradication Initiative core partner agencies meet urgently with the President and Prime Minister of Pakistan to support their essential leadership of the Pakistan polio eradication program, and to offer every possible assistance in establishing the new EOC as a strong national body with the power, resources and capacity to drive transformative action.
- 3.** We recommend that the President of Nigeria galvanizes action to gain the pledge of all national, state and local candidates in the forthcoming election, together with traditional and religious leaders, to protect the polio eradication program from disruption and politicization, returning it to its humanitarian role in saving the lives of Nigerian children.
- 4.** We recommend that the Polio Oversight Board ensures that the promised Central Africa outbreak coordinator is installed by 1 July 2014, resourced appropriately, and that the Board formally investigates why the program's response in Central Africa has been much weaker than in the Horn of Africa or in the Middle East.
- 5.** We recommend that a new, dedicated team be established at global level to focus on outbreak response, its first job being to substantially strengthen the outbreak response Standard Operating Procedures to ensure that future responses will be consistently excellent.
- 6.** We recommend that a dedicated team be established at global level to rapidly improve the program's approach to outbreak prevention in the Red List countries and beyond. Scenarios and exercises should form a key part of its activities.
- 7.** We recommend that the core partners meet in person to agree upon a way to address the three improvement aims for securing communities' greater trust, based on the analysis of social mobilisation in our report.
- 8.** We recommend that WHO relax its grip on the training of vaccinators and their supervisors, allowing UNICEF, CDC and other partners to contribute, particularly to enhance the interpersonal communication skills of vaccinators
- 9.** We recommend that Pakistan and Nigeria take urgent steps to license additional oral polio vaccines so that they can be used within the next six months, in order to create greater flexibility in global vaccine supply.
- 10.** We recommend that current concerns and unease about the transparency and communication of the polio eradication budget are properly and openly addressed. This might best be achieved by a frank discussion at the Polio Oversight Board.
- 11.** We recommend, in relation to the management review that is underway, that the Polio Oversight Board appoints an advisory panel of four seasoned executives and management experts, who have experience of running or advising some of the most complex enterprises in the world, to help shape the management consultants' analysis and recommendations before they are finalized for the Polio Oversight Board.

