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South-East Asia Regional Certification Commission for Polio Eradication (SEA-RCCPE)

Report of the Ninth Meeting
Colombo, Sri Lanka, 7-9 December 2016

World Health Organization
Regional Office for South-East Asia

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Acronyms

AFP	acute flaccid paralysis
BMGF	Bill & Melinda Gates Foundation
bOPV	bivalent oral polio vaccine
CAG	containment advisory group
CCS	containment certification scheme
US CDC	United States Centers for Disease Control and Prevention
cVDPV	circulating vaccine-derived poliovirus
cVDPV1	circulating vaccine-derived poliovirus type 1
cVDPV2	circulating vaccine-derived poliovirus type 2
EB	Executive Board
Endgame Plan	Polio Eradication & Endgame Strategic Plan 2013-2018'
EOC	emergency operations centre
EPI	Expanded Programme on Immunization
ES	environmental surveillance
fIPV	fractionated inactivated polio vaccine
GAPIII	Global Action Plan to minimize post-eradication poliovirus facility-associated risk (third edition)
Gavi	Gavi, the Vaccine Alliance
GCC	Global Commission for Certification of the Eradication of Poliomyelitis
GPEI	Global Polio Eradication Initiative
IHR	International Health Regulations
IM	independent monitoring
IMB	Independent Monitoring Board
IPV	inactivated polio vaccine
MOH	Ministry of Health
mOPV	monovalent oral polio vaccine
mOPV2	monovalent oral polio vaccine type 2

NAC	National Authority for Containment
NCTF	National Containment Taskforce
NCCPE	National Certification Committee for Polio Eradication
NEAP	national emergency action plan
NID	national immunization day
OBRA	outbreak response assessment
OPV	oral polio vaccine
OPV2	oral polio vaccine type 2
OPV3	oral polio vaccine type 3
PEF	poliovirus essential facility
RCA	rapid coverage assessment
RCCPE	Regional Certification Commission for Polio Eradication
SAGE	Strategic Advisory Group of Experts on Immunization
SEA	South-East Asia
SEAR	South-East Asia Region
SEARO	Regional Office for South-East Asia
SIA	supplementary immunization activity
TAG	Technical Advisory Group
tOPV	trivalent oral polio vaccine
TOR	terms of reference
UNICEF	United Nations Children's Fund
VDPV	vaccine-derived poliovirus
VDPV2	vaccine-derived poliovirus type 2
VPD	vaccine-preventable disease
WHA	World Health Assembly
WHO	World Health Organization
WPV	wild poliovirus
WPV1	wild poliovirus type 1

Executive summary

The 'Polio Eradication & Endgame Strategic Plan 2013-2018' (Endgame Plan), endorsed by the World Health Organization (WHO) World Health Assembly in 2013, contains 'certification and containment' as one of its four key objectives. In view of this strategic approach, the continued risk of wild poliovirus (WPV) importation from an infected area or country and the close monitoring of the potential vaccine derived poliovirus type 2 (VDPV2) emergence after the global switch from trivalent oral poliovirus vaccine (tOPV) to bivalent OPV (bOPV) in April 2016 (the 'switch'), it is consider critical that the South-East Asia (SEA) Regional Certification Commission for Polio Eradication (RCCPE) meet on a regular basis to review annual progress reports from all countries.

The ninth meeting of the SEA-RCCPE was held in Colombo, Sri Lanka from 7 to 9 December 2016 with the following main objectives:

(1) To review updated reports from each Member State on maintaining polio-free status, including poliovirus laboratory containment, as per requirements of the Endgame Plan;

(2) To review the implementation status of the recommendations made at the eighth meeting of the SEA-RCCPE; and

(3) To update the Global Certification Commission (GCC) on the polio-free certification status of the SEA Region.

The meeting was attended by all 11 Commission members, chairpersons/members of the National Certification Committees for Polio Eradication (NCCPEs) of all 11 countries of the Region, representatives of the WHO African Region RCCPE, the US Centers for Disease Control and Prevention, the Sri Lanka Ministry of Health and a WHO secretariat.

The SEA-RCCPE reviewed the annual progress reports presented by the NCCPEs of all 11 countries of the SEA Region and welcomed the new formats used in reports and presentations. These formats focused on a structured analytical reporting approach and addressed key questions on population immunity, surveillance sensitivity, laboratory containment and outbreak preparedness. In addition to reviewing in detail these four areas which are key to maintaining polio-free status, the SEA-RCCPE reviewed

the global polio situation and the response to vaccine derived polioviruses (VDPVs) detected in India and Myanmar during 2015 and 2016. Based on the information presented and the discussions with NCCPE representatives, the SEA-RCCPE reached specific conclusions and made recommendations for the Region and for individual countries to address country-specific gaps. These were identified as gaps that could put the Region at risk of the spread of imported poliovirus and emerging VDPV, causing new polio outbreaks.

The SEA-RCCPE commended the SEA Region for maintaining its polio-free status for nearly six years and congratulated the countries for having successfully completed and validated the switch in 2016. However, the RCCPE was concerned that there is growing complacency due to the fact that the Region has been polio-free for many years. Countries should remain vigilant and continue to give priority to polio eradication activities. In this context, the SEA-RCCPE highlighted the continued importance of the NCCPEs' role, work and submission of high quality analytical progress reports for the SEA-RCCPE to oversee.

1. Introduction

The World Health Organization (WHO) World Health Assembly (WHA) endorsed global 'Polio Eradication & Endgame Strategic Plan 2013-2018' (Endgame Plan) contains 'certification and containment' as one of its four key objectives. In view of this strategic approach, the continued risk of wild poliovirus (WPV) importation from an infected area or country and the close monitoring of the potential vaccine derived poliovirus type 2 (VDPV2) emergence after the global switch from trivalent oral poliovirus vaccine (tOPV) to bivalent OPV (bOPV) in April 2016, it is considered critical that the South-East Asia (SEA) Regional Certification Commission for Polio Eradication (RCCPE) meet on a regular basis to review annual progress reports from all countries.

In this context the ninth meeting of the SEA-RCCPE was held in Colombo, Sri Lanka from 07 to 09 December 2016 with the following objectives:

(1) to review updated reports from each Member State on maintaining polio-free status, including poliovirus laboratory containment, as per requirements of the Endgame Plan with focus on:

- national and regional risk assessments in order to highlight gaps in the levels of immunity and the quality of surveillance at national and sub-national levels,
- updated national polio outbreak preparedness plans, and
- poliovirus laboratory containment requirements as per the Global Action Plan 3rd edition (GAPIII);

(2) to review the implementation status of the recommendations made at the 8th meeting of the SEA-RCCPE;

(3) to update the Global Certification Commission (GCC) on the polio-free certification status of the SEA Region.

2. Opening

The ninth RCCPE meeting was opened by the WHO Representative to Sri Lanka, Dr Jacob Kumaresan, on behalf of Dr Poonam Khetrapal Singh, WHO Regional Director for SEA. In her message, the Regional Director paid tribute to Professor MK Khan who passed away on 5 November 2016. She saluted Professor Khan for his outstanding contributions to polio eradication and public health, not only in Bangladesh and as chairperson of the National Certification Committee for Polio Eradication (NCCPE) but also in the WHO SEA Region.

The Regional Director highlighted that, globally, polio eradication efforts were seeing encouraging results in 2016. She particularly noted that the globally-synchronized switch from tOPV to bOPV took place in a smooth and successful manner in April 2016. The Regional Director congratulated countries in the WHO SEA Region for making this Region the first to complete the switch monitoring. For poliovirus laboratory containment, another very important initiative for polio eradication, the long-awaited containment certification scheme (CCS) was approved by the immunization Strategic Advisory Group of Experts (SAGE) in October 2016.

The Regional Director expressed grave concern about the detection of indigenous WPV type 1 (WPV1) in Nigeria in August 2016 after three polio-free years and noted that this indicated that poliovirus transmission continued in an area with ongoing conflict and compromised health service access. The Regional Director concluded that the most worrying aspect of this detection was that the virus sequence information suggested undetected transmission for at least four years, posing serious questions regarding the understanding of what high quality surveillance constitutes.

The Regional Director concluded that, while there have been many successes, there are also huge challenges and expressed her concern over polio surveillance in several countries and continued gaps in routine immunization coverage. She subsequently urged all countries to address these issues as they are serious challenges to the Region's polio-free status and the significant investments made. Finally, the Regional Director conveyed her sincere thanks to Professor Anthony Adams at the time of his resignation for his contributions to polio eradication during his eight-year membership in the SEA-RCCPE.

3. Global progress in polio eradication and implementation of the Endgame Plan by objective

The overall progress can be summarized as follows:

(1) In 2016, polio incidence has again declined markedly. There have been 34 WPV cases as of 07 December 2016, compared to 66 cases at the same time last year.

(2) Since August 2014, no WPV has been detected outside of the three endemic countries. Prior to that, outbreaks affected 2-12 countries every year this decade.

(3) Type 2 WPV was declared eradicated in September 2015 and type 3 WPV was last detected more than three years ago, in November 2012.

(4) The tOPV-bOPV switch was completed successfully, despite major shortfalls in inactivated polio vaccine (IPV) supply.

3.1 Objective 1: Interruption of polio transmission

Afghanistan

As of 07 December 2016, 12 WPV cases have been reported compared to 17 during the same period in 2015. Four of these were from a tiny (1.5 km^2) part of Kunar province, in the east bordering Pakistan. This area had been inaccessible for vaccination activities since 2012. Following complex negotiations, vaccinators were able to access this area in August 2016. The other cases were distributed across the country – in Helmand, Kandahar and Paktika. Programme delivery has substantially improved under the leadership of the Amman-based WHO Regional Office for the Eastern Mediterranean, with strengthening of the WHO and United Nations Children's Fund (UNICEF) country teams and establishment of the national and three Regional Emergency Operations Centres (EOCs). Vaccination coverage and population immunity are increasing as a result, but not yet sufficient to stop poliovirus transmission. There are severe access challenges in the south, north and east of the country. Particularly in the south, anti-government elements are increasingly demanding more than polio campaigns, threatening to ban the campaigns, and insisting on selecting the vaccinators. The latter demand makes delivering high-quality campaigns a

real challenge. Routine immunization and primary healthcare services are weak.

Pakistan

Wild poliovirus circulation in Pakistan was more widespread in 2016 than it was in Afghanistan during the same period. However, there were fewer cases of WPV in Pakistan in 2016 than there had been in 2015: 18 cases of WPV as of 07 December 2016 compared to 49 during the same period in 2015. In contrast to Afghanistan, WPV cases have also been found in environmental surveillance (ES) in numerous parts of the country. Programme delivery has strengthened markedly over the last two years thanks to strong government commitment and continued support by the WHO Regional Office for the Eastern Mediterranean. The use of community-based female vaccinators has been particularly successful. The support of the military and Ministry of the Interior has been effective, and access is no longer a real barrier to success. Fundamentally, transmission is continuing because the quality of vaccination campaigns is not yet uniformly high enough to stop transmission of poliovirus. Karachi and northern Sindh are the areas of greatest challenge. Across the country, surveillance has suffered in recent years as the programme has focused its resources on vaccination campaigns. Surveillance strengthening is now being given greater priority. The new National Emergency Action Plan (NEAP) recently endorsed by the Technical Advisory Group (TAG) puts more emphasis on further improving the quality of campaigns and surveillance.

Nigeria (and the Lake Chad Basin)

Until recent weeks, the last known case of WPV in Nigeria had been detected in July 2014. Nigeria had therefore been removed from the list of endemic countries, and hope of an imminent 'polio-free Africa' was gaining momentum. Unfortunately, in July 2016, two WPV cases were detected in Borno, north-east Nigeria. Genetic sequencing shows that these are related to a virus last detected in Borno in 2011. This means that the virus circulated without being detected for about five years in Nigeria and possibly in neighboring countries of the Lake Chad Basin. The Global Polio Eradication Initiative (GPEI) has been mounting an aggressive multi-country outbreak response. A regional task force has been in place for these countries since April, when a VDPV was detected in Borno. The response

includes Nigeria as well as the other countries bordering Lake Chad (Cameroon, Chad, Niger and Central African Republic). At the Regional Committee meeting, the ministers of health of these five countries declared this outbreak a sub-regional public health emergency. The fact that virus circulation was missed for five years illustrates the limitations of the programme's reach in Borno as well as the large size of the population which had, for the past several years, been trapped in this area, thus making it possible for the virus to continue to circulate undetected. These same access challenges are impeding both the vaccination response and efforts to strengthen surveillance. However, more areas are now being "liberated" through military action and the programme is now reaching displaced populations which had not been reached by immunization services for the past several years.

Vaccine –derived poliovirus

The April global switch from tOPV to bOPV removed type 2 oral polio vaccine (OPV) from use. The programme at country, regional and global levels is therefore tracking any detection of VDPV2 closely. Since April 2016, there have been two circulating VDPV2 detected globally - both in Borno, Nigeria. This is further evidence of suboptimal immunization and surveillance in Borno. Planning and implementing the campaigns to respond to both type WPV1 and VDPV2 is an operational challenge in an already complex area. In addition to this single outbreak, there have been 11 VDPV2 events (i.e. detections with no evidence of circulation) since April 2016 which have occurred in six countries (Egypt, India, Nigeria, Pakistan, Ukraine, West Bank-Gaza and Yemen). The WHO Director General authorized release of type 2 monovalent OPV (mOPV2) from the global stockpile in response to three of these (Jigawa, Nigeria; north-east Nigeria and Lake Chad countries; and Quetta, Pakistan), as recommended by the Advisory Committee

Surveillance strengthening

It is very concerning that poliovirus transmission went undetected in Borno, Nigeria for a period of five years. The WHO Regional Offices for Africa and for the Eastern Mediterranean have both started to re-examine the polio surveillance networks in their regions and other regions will follow suit. The WHO Regional Offices for Africa and for the Eastern Mediterranean are assessing the likelihood of similar situations occurring elsewhere and

planning risk mitigation measures. Strong surveillance is particularly crucial at this point in the programme – to facilitate rapid response to any virus, and then to enable eradication to be confidently certified.

Vaccine supply

The bOPV campaigns to respond to the outbreak in Nigeria require more vaccine than is currently available given the intensified activities in Pakistan and Afghanistan. As such, WHO is working with manufacturers to expedite supply where possible and also revised the calendar of vaccination campaigns for the remainder of 2016 and early 2017. In addition, WHO has identified some campaigns in lower-risk countries that could be delayed, reduced in scope or cancelled. With the guidance of the WHO Regional Office for SEA, India has delayed one of its national immunization days (NIDs) by three months to better meet the needs of the country and thus allowed available vaccine to be used in Africa.

3.2 Objective 2: OPV withdrawal and routine immunization system strengthening tOPV to bOPV switch

Thanks to a remarkable engagement of all countries under the leadership of Regional offices, all 155 OPV-using countries and territories have withdrawn tOPV from use as of 12 May 2016. Validation reports confirming that all tOPV has been removed from the cold chain have been received from 154 (99%) of 155 countries and territories. Iraq is yet to be validated – one million doses of tOPV remain at the national level, sequestered in the cold chain, pending final authorization for destruction. A validation report is expected once the vaccine is destroyed.

Withdrawal of tOPV continues to be monitored through ongoing supervision, and investigations should be initiated in the case of suspicion or indication of inadvertent use of tOPV. Recent reports from ES in India indicating a number of Sabin 2 detections led to the rapid launch of an investigation, which identified a few limited cases of continued tOPV use in the private sector. This situation highlights the importance of remaining vigilant and using all opportunities to look for tOPV when visiting health centres, as well as the need to conduct specific outreach to the private sector.

The switch was important, and was also a helpful 'rehearsal' for full oral polio vaccine withdrawal after polio eradication has been certified. This effort involved strong leadership by the regional offices and close coordination between the EPI and polio teams at all levels. The lessons learned from the switch are being documented jointly with GPEI partners.

IPV introduction

IPV has been introduced in 105 (83%) of 126 OPV using countries. The remaining 21 countries are delayed to late 2017 due to IPV supply constraints. Additionally, approximately 30 countries that have already introduced IPV will not be resupplied until late 2017 due to IPV supply constraints. The countries affected by the delay in introduction of IPV are lower risk (tier 3 and 4) as population immunity against type 2 poliovirus is high in these countries and thus the risk of VDPV2 emergence and spread is considered minimal.

Global IPV supply will remain extremely fragile until end-2018 and there are signals from one of the two vaccine manufacturers that the situation could deteriorate further. Additional mitigation strategies are being explored. With the withdrawal of type 2 OPV, an increasing number of newborns will not have any protection against type 2 poliovirus, thus will be susceptible should an outbreak occur.

No new IPV suppliers are expected to have a licensed product until 2019 at the earliest. Dose sparing using fractional dose IPV (2 dose fractionated IPV (fIPV) schedule) is an option endorsed by SAGE. Both India and Sri Lanka have now implemented this approach in their routine immunization programmes. Given that improved immunogenicity can be seen when administering two fractional doses of IPV intradermally when compared to one intramuscular full dose, and that countries eligible for funding from Gavi, the Vaccine Alliance (Gavi) are likely to be eligible for support to move to fractional use of IPV, countries should be encouraged to seriously explore this option.

3.3 Objective 3: Certification and containment

Containment of poliovirus – both wild and vaccine strains – is a crucial part of the polio endgame in which the Regional Offices are playing a critical role in the interaction with Member States. With the withdrawal of type 2

OPV, implementation of containment efforts has become urgent. It has two phases:

Phase 1: Substantially reduce the number of facilities holding type 2 poliovirus

It is anticipated that this phase will be completed in 2017. All 205 countries have provided reports outlining the facilities in their jurisdiction holding WPV. There is however an additional complexity to this effort. Poliovirus may be contained in stool, respiratory and other specimens collected for research purposes unrelated to polio. Understandably, researchers are reluctant to destroy their collections. WHO is now developing guidance which will stratify risks according to the type of specimen and provide guidance on safe approaches to handling potentially infected materials.

Phase 2: Safely and securely contain type 2 poliovirus within poliovirus essential facilities (PEFs)

So far, 20 countries have designated a total of 60 PEFs. These are vaccine production facilities, research facilities, and specimen repositories. Each will need to be certified by the National Authority for Containment (NAC) of the country where they are located. They will be guided by the newly developed CCS endorsed by the SAGE in October 2016. Implementation of this Scheme will be overseen by the GCC with the support of a working group of experts in biorisk and biosafety. WHO is currently establishing a Containment Advisory Group (CAG) to advise on technical issues, such as guidance for non-polio laboratories on specimen destruction or handling. WHO will facilitate and act as secretariat to this group. WHO will not actively participate in the inspection of facilities – this falls under the responsibility of NACs.

Global work on containment has fallen behind. The most pressing issue is to complete the containment of type 2 poliovirus material, because population immunity is waning following withdrawal of the type 2 oral polio vaccine. The measures set in train will then be expanded after all polioviruses are declared globally eradicated and strict laboratory containment must also apply to type 1 and type 3 polioviruses.

3.4 Objective 4: Post-polio transition planning

Cross-GPEI transition planning

There is a cross-GPEI programme of work to:

(1) ensure that the functions needed to maintain a polio-free world after eradication are mainstreamed into ongoing health programs;

(2) ensure that the knowledge generated and lessons learned from polio eradication are shared with other health initiatives; and,

(3) where feasible, desirable and appropriate, non-essential polio assets and capabilities are transitioned to support other health priorities.

This work has been started at country level and WHO is supporting 16 priority countries to map their GPEI-funded assets, have the appropriate discussions with stakeholders, and develop a transition plan. A new Polio Transition Independent Monitoring Board (IMB) is being set up and WHO will develop a Polio Post-Certification Strategy to define the polio-essential needs after certification and make GPEI's closure and funding plans clear.

WHO-specific transition planning

The end of polio and the GPEI will create issues for WHO that run far wider than the polio programme. Of particular concern to Member States are WHO's liabilities for staff separated from the organization at the end of the programme. The current best estimate of the total terminal liability, with proactive planning and progressive ramp down, is US$ 55 million. This – and a full analysis of polio-funded human resources – will be reported to the next WHO Executive Board (EB) meeting in January 2017, as an annex to the human resources report. Analysis shows that staffing numbers have increased by 10% since 2013 because of the need to intensify activities to interrupt transmission. Of greater concern, however, is the fact that 43% of the polio-funded staff are in countries which have been polio free for several years. Polio-funded personnel spend more than 50% of their time on non-polio activities. Polio funds 1 100 staff and an estimated 6 000 non-staff, across 66 countries. In 22 countries, polio-funded staff constitutes at least 20% and at times more than 70% of all WHO in-country staff.

Regional update on maintaining polio-free status

Following regional certification in 2014, the NCCPEs were instructed to remain operational and begin to focus on activities towards keeping countries and the Region free of polio; the NCCPE terms of reference (TORs) were supposed to be updated accordingly. All NCCPEs remain in place and meet regularly although at different frequencies.

The quality of acute flaccid paralysis (AFP) surveillance overall in 2015 was at the required level nationally in eight (73%) of 11 countries, with non-polio AFP rates below the operational target of 2 per100 000 population <15 years of age only in the Democratic People's Republic of Korea, Sri Lanka and Thailand. From January to September 2016 (data as of 10 October 2016), six countries (Bangladesh, Democratic People's Republic of Korea, India, Maldives, Myanmar and Nepal) had achieved an annualized non-polio AFP rate above the operational target. Adequate stool sample rates during calendar year 2016 were a challenge in countries with small populations (Bhutan, Maldives and Timor-Leste) as well as in Sri Lanka. Combined expanded programme on immunization (EPI) and vaccine preventable disease (VPD) surveillance reviews were conducted in Sri Lanka in November 2015 and Myanmar in 2016 [in conjunction with an external outbreak response assessment (OBRA)]. ES for polioviruses is ongoing in Bangladesh, India, Indonesia and Thailand and there is a plan to expand ES to Myanmar, Nepal, and Timor-Leste in 2017.

Six VDPV2 were detected in sewage samples during 2016 in the Region, as a part of routine ES. All six VDPVs were reported from India, two reported prior to the switch and four after; one each during the months of April and May, and two in June. All VDPVs detected in ES were adequately investigated to establish eventual genetic linkages and evidence of circulation in the Region. A mass fIPV vaccination campaign was conducted in India in 2016 subsequent to the detection of the VDPV2. Sabin-like type 2 polioviruses were reported in ES samples collected from two sites in India between August and December 2016 following which massive search operations for tOPV were conducted and the leftover tOPV detected, removed and destroyed.

Following confirmation of a circulating VDPV2 (cVDPV2) identified in two AFP cases from one township (Maungdaw) in Rakhine State, Myanmar, in December 2015 and subsequent response measures, an OBRA was conducted from 28 March to 5 April 2016. It mainly identified

requirements for strengthening AFP surveillance and conducting a fifth round of supplementary immunization activities (SIA) with tOPV to further close immunity gaps. The subsequent assessment was conducted in conjunction with a comprehensive EPI and VPD surveillance review from 26 September to 08 October 2016. The main rationale for combining both activities was common areas of focus on children missed in vaccination and how this situation could be addressed, the ability of surveillance to detect cases, particularly AFP cases, and how to strengthen future routine immunization and surveillance in a broader context. Three of the 11 review teams representing Myanmar's Ministry of Health and Sports, WHO, UNICEF, the United States Centers for Disease Control and Prevention (US CDC), Gavi, and the Bill & Melinda Gates Foundation (BMGF) visited Rakhine and Shan South States with specific OBRA objectives. These objectives focused on evaluating whether the additional SIA recommended during the previous OBRA had been of sufficient quality to ensure that poliovirus transmission had been interrupted and the AFP surveillance system strengthened to a level of sensitivity sufficient to detect transmission. The OBRA teams concluded that the Ministry of Health and Sports and supporting partners had demonstrated continued high commitment at all levels to implement effective polio outbreak control, with full implementation of the recommendations from the 3-month OBRA. A fifth SIA round was conducted in six high risk townships in Rakhine State, including Maungdaw Township (the site of the cVDPV2 outbreak), and reported over 95% coverage. Independent monitoring (IM) found slightly lower vaccination rates at 93% in children checked in four townships during a rapid coverage assessment (RCA), with variance at township level. While children identified during the IM RCA as not having been vaccinated during the SIA were immunized with polio vaccine by the monitoring teams, results of the IM RCA suggest that some areas were not as well covered as reported coverage from the SIA had initially indicated. Routine immunization in Rakhine State is now once more able to have access to all geographic areas, with some initial coverage trends appearing positive – however large immunity gaps in the population have accumulated due to past difficulties in achieving adequate access. Improvements in the AFP surveillance quality in Rakhine State in 2016 are adequate to reasonably conclude that cVDPV2 transmission has ceased. Interruption of transmission is further supported by the fact that no further VDPV2 cases have been reported since October 2015 while additional surveillance measures have been implemented, such as contact sampling from AFP cases. It is assumed that the five SIA rounds conducted from December 2015 to April 2016,

each of which reported high coverage, have increased population immunity in young children. The AFP surveillance quality in other parts of the country has also been strengthened to levels which are unlikely to miss ongoing poliovirus transmission. The assessment team stressed that, due to the fragility of the current situation, surveillance and routine immunization improvement activities must continue at least at current levels in Rakhine State. The risk that a new circulating VDPV (cVDPV) may emerge or an imported WPV be spread is also present in other parts of the country and must also be addressed; there is no room for complacency. The Government of Myanmar and relevant polio partners need to ensure availability of the required resources.

In addition to being a concern in Myanmar, routine immunization is also a concern in three other countries: India, Indonesia, and Timor-Leste. India continues to do multiple SIAs and routine immunization catch-up campaigns every year, and Timor-Leste targeted all children up to 15 years of age in the 2015 NIDs. Indonesia carried out an NID in March 2016. IPV introduction in the context of OPV2 removal been completed; with 11 countries having introduced the vaccine in December 2015 and Indonesia carrying out the introduction in July 2016. In view of the global shortage of IPV, India and Sri Lanka have changed to using fIPV and Bangladesh and Nepal are considering doing so in the near future.

Polio outbreak preparedness and response plans were developed by all countries in 2013–2014 and updated in India, Indonesia, Myanmar and Nepal to align these plans with the new outbreak response guidelines. However, conducting simulation exercises remains limited, although both India and Sri Lanka conducted efficient real-time response exercises following VPDV2 detection. Fortunately, the isolate in Sri Lanka was concluded to be due a laboratory contamination event.

National poliovirus laboratory containment task forces are active in every country and activities to contain type 2 polioviruses in facilities are progressing in the Region. PEFs have been identified to store and handle type 2 polioviruses in India and Indonesia. National authorities for containment have been established in both countries and processes to undertake certification of these facilities as per the global CCS have commenced. All countries are completing new surveys of biomedical laboratories to meet the requirements outlined in GAPIII. Special trainings on GAPIII requirements for national containment taskforces (NCTFs), PEFs, NACs and vaccine manufacturers were successively conducted by WHO in

January, February and October 2016, to be followed by training for CCS auditors in January 2017 and a Regional review and planning meeting in April 2017.

Planning for the transition of human resources and other polio assets in countries has been initiated to ensure that the existing polio networks and infrastructure can contribute to broader public health goals while countries maintain polio-free status. Polio assets – including the human workforce, infrastructure, equipment, systems and processes - are concentrated in five countries of the Region, namely Bangladesh, India, Indonesia, Myanmar and Nepal. These assets in the Region have been developed over the past two decades, and collectively contributed to the polio eradication initiative by supporting surveillance for poliovirus detection, achieving and maintaining high population immunity against polio through SIAs and by supporting response to polio outbreaks. Surveillance and laboratory infrastructure established for the polio eradication programme is a recognized source of technical expertise, not only for polio eradication efforts and national immunization programmes, but also for a wide range of other public health interventions. Maintaining continuity of this infrastructure is undoubtedly a programmatic priority which will go a long way in contributing to the achievement of immunization and wider public health goals. Depending upon the technical, financial and managerial capacity of the countries, it may or may not be feasible to transition the networks completely to the national governments. Without concerted efforts and investments by countries and the global health community, there is a high-risk of this fully institutionalized infrastructure, set up over the past two decades, being unsystematically dismantled. With strong leadership and oversight by the WHO executive management, all five countries with significant polio assets are progressing well in the development of systematic polio transition plans. The WHO leadership at the regional and country levels has engaged the senior government leadership with the purpose of building a consensus on the expectations from the polio network, articulating the risks associated with the ramp down and seeking alternative mechanisms to mitigate the risks to the other public health programs in the country. A country-by-country approach is being adopted in view of the variable capacities of the countries to absorb and/or support maintaining polio-free status and other public health interventions that are supported by the polio networks.

4. Review of country progress reports

At its ninth meeting, the SEA-RCCPE reviewed the progress reports from all 11 countries submitted by their NCCPEs. The RCCPE concluded that there was no room for complacency due to the following factors:

(1) the risk of WPV importation from the remaining polio affected areas for all countries in the SEA Region;

(2) the existence of populations with low immunization coverage prone to VDPV emergence; and

(3) polioviruses stored in laboratories posing another potential source of infection.

Based on these considerations, the SEA-RCCPE highlighted the need for independent assessments of national polio programmes by NCCPEs. The main objective of the 2016 progress reports was to address four key questions for each country; with independent conclusions and recommendations on these topics made by the NCCPEs. These questions were as follows:

(1) Is polio surveillance sensitive enough to rapidly and reliably detect imported WPV and VDPV should these emerge?

(2) Are polio immunization coverage and immunity levels high enough to prevent imported WPV circulating and the emergence of VDPV?

(3) Are polioviruses in laboratories adequately handled and contained under GAPIII requirements to prevent reintroduction into population and environment?

(4) Are levels of preparedness for timely and reliable detection of and response to poliovirus occurrence adequate and up to date?

5. Conclusions and recommendations

5.1 Global progress in polio eradication and implementation of the Endgame Plan

(1) The RCCPE noted that, with 34 WPV cases reported from Pakistan, Afghanistan and Nigeria in 2016 (as of 7 December), the level of reported WPV1 polio cases reported in 2016 is lower than in any previous year. Also, polio cases caused by cVDPV in 2016 were reported only from The Lao People's Democratic Republic (cVDPV type 1 (cVDPV1) - last case 11 January 2016) and Nigeria (cVDPV2 - last case 21 August 2016).

(2) The RCCPE noted that the situation in the Afghanistan-Pakistan epidemiological bloc - the main remaining endemic area globally – has further improved, with a decreasing number of cases and WPV1-positive samples. Progress in the Pakistan-Afghanistan epidemiological bloc was largely due to the effective use of polio EOCs in both countries. Under the leadership of the respective ministries of health, polio partners co-located in the EOCs continue to coordinate very closely to implement the TAG-approved detailed NEAPs, thus overcoming remaining weaknesses in SIA and AFP surveillance quality in Pakistan, and trying to mitigate the continuing problems in gaining access to children for vaccination in some areas, particularly in northeastern Afghanistan (Kunduz).

(3) The RCCPE noted that there is some reason for optimism, but commented that WPV importation remains a risk as long as there is WPV circulation in some parts of the world. Noting the global situation of cVDPV outbreaks in 2015 and 2016 to date, the RCCPE considered emergence of cVDPV in areas of low coverage to be at least as great a risk to polio-free status as an outbreak due to imported WPV.

(4) The RCCPE was very concerned that Nigeria, which had celebrated one year of absence of WPV1 in August 2015, experienced a setback with the renewed isolation in 2016 of both WPV1 and cVPDV2, with genetic features, for both WPV1 and cVDPV2, indicating prolonged circulation without detection. The eventual detection of both WPV1 and cVDPV2

occurred in conflict-affected, access-limited areas of Borno state in northeastern Nigeria. Since areas of bordering countries of the Lake Chad Basin (Chad, Cameroun, Niger) are affected by similar conflict and access limitations, a multi-country, multi-SIA 'Lake Chad response' outbreak response activity is currently underway. This activity has so far largely targeted the WPV1 that was detected, but also includes the use of mOPV2.

(5) The RCCPE warned that several of the risk factors and response challenges experienced in Nigeria do also exist in the South-East Asia Region and silent poliovirus transmission is a general concern in all areas with surveillance gaps. Equally concerning are growing immunity gaps as these represent the precondition for VDPV to emerge and reintroduced WPV to spread.

(6) In this context, the RCCPE highlighted that social conflict areas also exist in some countries in the Region, as do populations with limited access to health services and that these areas and populations need to be taken into consideration for successful programme implementation. In addition, the RCCPE noted that intensive population movements internally and between neighbouring countries require intensified cross border coordination, especially in areas of conflict.

(7) The RCCPE highlighted the continued importance of the recommendations of the International Health Regulations (IHR) Emergency Committee on polio and emphasized the relevance for countries in the South East Asia Region.

(8) The RCCPE commended the fact that the tOPV-bOPV switch was implemented globally according to plan, but urged country teams to be on the alert to detect and fully investigate any isolations of type 2 Sabin and type 2 VDPV. Sabin 2 was found after August 2016 in India and in Afghanistan, with investigations revealing that tOPV had continued to be used in some health facilities.

(9) In view of the Region having had its last indigenous WPV almost five years ago (in January 2011) and having been certified polio-free for almost three years, the RCCPE welcomed the GPEI having started work with selected Member States to ensure that polio 'transition plans' are in place to facilitate a successful

transition of key polio eradication assets (for example, AFP surveillance) to benefit other national public health efforts in the future. However, stakeholders should remain mindful not to potentially undermine the programme's ability to complete polio eradication in the process. In particular, decreasing resources for AFP surveillance from GPEI need to be met with funding support from other sources.

5.2 Regional general conclusions and recommendations

Conclusions

(1) The RCCPE welcomed the new format of progress reports and presentations and requested that this more analytical and interactive approach to discussing country situations with regard to maintaining polio-free status be developed further.

(2) The RCCPE commended the SEA Region (SEAR) for maintaining polio-free status for nearly six years and congratulated the countries for having successfully completed and validated the tOPV-bOPV switch in 2016. However, the RCCPE was concerned that there is growing complacency due to the fact that the Region has been polio-free for many years; countries should remain vigilant and continue to give priority to polio eradication activities.

(3) The RCCPE noted with satisfaction the response to the VDPVs detected in the Region during 2016.

(4) The RCCPE noted the impact of the global shortfall of IPV on countries in the SEAR. This global shortfall has resulted in delayed supplies and IPV stock-outs, especially in countries at low risk of VDPV emergence. The RCCPE noted the various risk mitigation actions that have been taken already as well as those that are planned in the Region, including the use of two fractional doses of IPV in the EPI programmes in India (16 states) and Sri Lanka to stretch the available supplies.

(5) The RCCPE noted with satisfaction that AFP surveillance is being conducted in all countries of SEAR and emphasized that this should remain the gold standard system to detect polioviruses (wild, VDPV and Sabin-like) in countries of the Region. The

RCCPE also noted that AFP surveillance is supplemented with ES in four countries of the Region (Bangladesh, India, Indonesia and Thailand) and that there are plans to initiate the same in Myanmar and Nepal by the first quarter of 2017.

(6) The RCCPE expressed concern at the quality of AFP surveillance in Indonesia and was also concerned at sub-national surveillance gaps in some other countries, most notably Myanmar (details in country reports).

(7) The RCCPE acknowledged that the laboratory network in the Region is very strong and was satisfied with the performance of the network. The RCCPE noted the efforts taken in the Region during the last 12 months with onsite accreditation visits and on-the-job training.

(8) The RCCPE commended the good progress and substantial capacity building undertaken on requirements of type 2 poliovirus laboratory containment but noted that there is still incomplete understanding of what type 2 poliovirus laboratory containment actually refers to; with the continued misconception that containment mainly refers to polio laboratories and biosafety level concepts used in the past.

Recommendations

(1) The RCCPE requested that the WHO Regional Office for SEA further refine the new approach in progress reports and develop respective competencies in NCCPEs and their secretariats with the summary sheets used in the RCCPE review process included as RCCPE report annexes. Systematic data analysis and consolidation, jointly with WHO, should be carried out prior to the next RCCPE meeting as critical basis for the performance analysis and presentation in NCCPE reports. The RCCPE also requested an analysis of the implementation status of RCCPE recommendations.

(2) Noting the concerns expressed by countries, the RCCPE recommended that the WHO Regional Office for SEA should continue to guide countries on actions that should be taken by these countries in response to the evolving situation with regards to the global IPV supply situation.

(3) Emphasizing the importance of maintaining focus on surveillance at the national and sub-national level in all countries of the Region, the RCCPE recommended that national programmes enhance advocacy with national leadership. The RCCPE also recommended that national programmes re-sensitize all health care providers, especially paediatricians, regarding the importance of continued reporting of all AFP cases. This is particularly important in countries such as Maldives, Sri Lanka and Thailand that have not seen a polio case for more than 20 years.

(4) The RCCPE recommended that the quality of case investigations be improved to ensure that all information is captured accurately, especially information on polio vaccination (OPV and IPV) dose history. This information would allow better quality estimates of population immunity to be generated through the OPV status of non-polio AFP cases.

(5) The RCCPE encouraged the Region to look for opportunities for further expansion of ES as appropriate and feasible. Decisions on areas for expansion should be based on WHO guidance.

(6) To maintain the good performance of the Regional polio laboratory network, the RCCPE recommended that the performance of the laboratories should continue to be monitored closely, the feedback process following accreditation should be streamlined, and appropriate actions taken in a timely fashion based on the findings of the accreditation visits.

(7) The RCCPE encouraged better data analysis coordination by national programmes and the WHO Regional Office for SEA and recommended that the process of risk assessment at the regional and national levels be revitalized. These assessments should have clear objectives, methodology and response strategies.

(8) Noting that outbreak preparedness plans have been updated in some countries and are in the process of being updated in others, the RCCPE recommended that the WHO Regional Office for SEA should conduct a systematic and standardized review of the outbreak plans followed by country-specific feedback and further updating of plans to align with the current global requirements. The RCCPE also recommended that simulation

exercises (or, at a minimum, table top exercises) should be conducted in countries of the Region. These exercises should include the participation of NCCPEs, and the NCCPEs should review and present the outcomes of the simulation exercises during the next RCCPE meeting.

(9) The RCCPE requested that all countries continue implementing poliovirus type 2 laboratory containment activities as per GAPIII and recommended that the WHO Regional Office for SEA continue its comprehensive technical support to countries. The magnitude of the requirements needs advocacy with senior decision makers as well as key players outside of the public health structure. The WHO Regional Office for SEA should also develop a process to assess the status/completion of phase 1 GAPIII. Global guidance is required on content, format and process of submission of GAPIII reports.

5.3 Country specific conclusions and recommendations

Bangladesh

The RCCPE

(1) welcomed the clear and analytical report and commended the continued good programme performance;

(2) noted the continued overall high performance of AFP surveillance, supported by a high quality national polio laboratory and supplemented by ES initiated in 2015;

(3) noted that routine immunization coverage remains universally high, although a few urban areas report rates lower than the national standard;

(4) commended the timely and adequate response to the cVDPV2 polio outbreak in neighbouring Rakhine State, Myanmar; and

(5) noted the good progress in and comprehensive approach to GAPIII laboratory containment phase 1, noting that such a thorough approach is required in view of the extensive international research collaboration.

RCCPE recommendations

(1) The RCCPE encouraged the national programme to continue its detailed analysis of subnational AFP surveillance and immunization coverage indicators and address performance gaps where identified.

(2) The RCCPE strongly recommended that the national outbreak preparedness plan be updated to meet current global requirements.

(3) The country being one of the key players in regional laboratory containment, the RCCPE recommended strong coordination with all key players in GAPIII implementation and continued collaboration with and support from WHO.

Bhutan

The RCCPE

(1) commended the clear and comprehensive NCCPE report;

(2) commended the active role of the NCCPE and recommended expanding the NCCPE's membership by one or two experts to share the oversight work;

(3) noted that, while the overall number of reported AFP cases met the expected rate, there were continued gaps in the quality of specific aspects of surveillance, particularly stool sample collection, domestic specimen transport and final case classification;

(4) noted that routine immunization coverage remains generally high; with some difficulties in gaining access to small groups of nomadic populations, as also reflected by recent measles outbreaks;

(5) commended the good progress with GAPIII phase 1 implementation for type 2 polioviruses; and

(6) commended the updating of the national preparedness plan.

The RCCPE recommended

(1) that Bhutan address the gaps in specific aspects of AFP surveillance, and recommend conducting refresher and sensitizing trainings for clinicians, public health workers and communities, as well as conducting retrospective record reviews in the capital Thimpu in view of continued underreporting of AFP cases; and

(2) regularly monitor coverage gaps in some special populations, and that these be addressed with the most appropriate "catch-up" vaccination strategy, while noting that overall immunization coverage remains high.

Democratic People's Republic of Korea

The RCCPE

(1) commended the NCCPE for its efforts to prepare a detailed high quality report;

(2) noted that the AFP surveillance system appears to be robust with high levels of timeliness and completeness with regards to zero reporting and conduct of active surveillance;

(3) realized that, due to special circumstances, the challenges to support a fully functional national polio laboratory may continue for some time;

(4) noted that the reported routine immunization coverage remains very high; and

(5) noted the good progress with GAPIII phase 1 implementation for type 2 polioviruses and encouraged submission of a detailed report to WHO; following a standardized format which the country will be advised upon.

RCCPE recommendations

(1) In light of the significant contribution of the Democratic People's Republic of Korea to maintaining the polio-free status of the Region, the RCCPE encouraged regular sharing of updated AFP surveillance data with the WHO Regional Office for SEA (SEARO) to adequately reflect the country performance in

achieving the required targets of non-polio AFP rates and timely stool collection.

(2) The RCCPE recommended that, while the accreditation of the national polio laboratory is on hold, virological classification capacity be supplemented by an additional focus on clinical evaluation by the Expert Review Committee; in order to be able to reliably discard cases as non-polio AFP.

(3) The RCCPE encouraged the updating of the national outbreak preparedness plan in the near future to meet current global requirements.

India

The RCCPE

(1) commended India for its clear report and the continued efforts to maintain polio-free status and implement strategies as a part of the polio endgame;

(2) noted with satisfaction that surveillance performance has been maintained above certification standards as well as noting the recent initiatives to improve population immunity in areas with low routine coverage with the third dose of OPV (OPV3), including polio SIAs and Mission Indradhanush (Rainbow);

(3) took note of surveillance and immunization activities in the country in response to the VDPVs detected in the sewage samples, including the fIPV campaign conducted in Hyderabad;

(4) noted the proactive role that the NCCPE had played in monitoring and validating the successful tOPV to bOPV switch;

(5) commended the continued high quality performance of the polio laboratories in India which represent a substantial part of the regional network;

(6) observed that fIPV has been introduced in the routine immunization schedule in 16 states of India to stretch the available IPV supplies; and

(7) noted the good progress made in India following the actions taken to comply with the GAPIII requirements.

RCCPE recommendation

(1) The RCCPE encouraged India to continue to conduct subnational risk analysis to identify areas with surveillance and immunity gaps as well as focused actions to plug these gaps.

Indonesia

(1) The RCCPE expressed its grave concern over the existence of pockets of reported low routine immunization coverage, as well as of suboptimal reported SIA coverage in a large number of districts. Also, Indonesia is affected by the global IPV shortage, resulting in delays in the introduction of IPV.

(2) The declining overall non-polio AFP rate, with considerable gaps in the quality of sub-national surveillance (for example, an AFP rate below 2/100.000 children aged < 15 years in 19 (56%) of 34 provinces), in conjunction with sub-national gaps in population immunity, increase the risk of emergence of cVDPV and delays in detecting such as well as an importation of WPV1, subsequent spread and a new outbreak.

(3) The RCCPE noted the plan to convert the current research-style ES project in Yogjakarta province into a routine surveillance method, to be expanded to also include ES sites in the capital Jakarta. Outcomes of this supplemental surveillance will be very relevant for maintaining the country's and Region's polio-free status.

(4) The RCCPE also noted delays in achieving full accreditation of one the three poliovirus laboratories in Indonesia and looks forward to the outcomes of the next onsite visit, scheduled in the first quarter of 2017.

RCCPE recommendations

(1) The RCCPE recommended that Indonesia urgently accelerate efforts to revitalize and strengthen AFP surveillance, including conducting training and re-sensitization of doctors and health workers and involving the Indonesia Pediatric Association and its regional chapters. Opportunities should also be sought to

advocate for AFP surveillance at the regional and provincial levels in priority provinces.

(2) The proposed national-level polio outbreak simulation exercise will be very useful to highlight the continued need for maintaining surveillance and immunization activities at sufficient levels; the exercise should be conducted as soon as possible.

(3) The RCCPE also suggested that, with support from the WHO secretariat, high-level advocacy visits to Indonesia should be organized; these could include the visit of an RCCPE member. Objectives of the visits should be to raise awareness of and commitment to the continued need for high quality AFP surveillance and polio immunization activities through meetings with high-level health leaders.

(4) The RCCPE requested that the Indonesian NCCPE, after 6 months, provide an interim report to the RCCPE on the status of ongoing surveillance-strengthening efforts and update its conclusions on the ability of the surveillance system to reliably detect poliovirus circulation.

Maldives

(1) The RCCPE noted and was satisfied that activities to ensure maintenance of polio-free status in the Maldives largely continue at the expected level of quality.

(2) In view of the small total population, it is not possible to apply standard AFP surveillance quality indicators reliably at the subnational level. However, overall AFP reporting (also taking into account year-to-year reporting) continues with a sufficient number of AFP cases being reported, and stool specimen adequacy at > 80%. The RCCPE noted the concern of the national programme that active surveillance be further strengthened at major health facilities.

(3) The RCCPE was satisfied that reported routine immunization coverage remains high, and that special immunization activities continue, such as the polio vaccination of travellers to Mecca prior to their departure.

RCCPE recommendations

(1) To address the continued lack of active surveillance due to health staff constraints, the RCCPE recommended conducting weekly active surveillance visits to the three major hospitals in the country. Also required are more frequent and rapid shipments of stool samples to the regional reference laboratory when AFP cases are detected.

(2) Final classification of AFP cases is essential for documenting the country's polio-free status, needs to be supported by timely laboratory testing of stool samples.

(3) While it is understood that pooling of stool samples for shipment results in lower transportation costs than not pooling specimens, late detection of poliovirus could result in a situation with much larger costs associated with it than are associated with shipping unpooled stool samples. If necessary, support from polio partners for shipping costs should be sought.

Myanmar

(1) The RCCPE commended Myanmar on a clear report submitted by the NCCPE. The RCCPE noted the timely and appropriate outbreak response to the cVDPV2 outbreak (confirmed in December 2015). The RCCPE commended the government on its strong engagement, the multiple high quality polio SIAs that were conducted, the efforts to improve surveillance and routine immunization in focused areas, and actions to enhance cross-border collaboration and coordination following the confirmation of the outbreak. The RCCPE noted the conclusions and recommendations of the two OBRAs conducted in March/April and Sept/Oct 2016, including the 2nd OBRA conclusion that VDPV circulation is likely to have been interrupted.

(2) The RCCPE noted the increase in the AFP rate to >3/100 000 in the population aged <15 years but remained concerned at the sub-national gaps in some townships. It was also concerned that a lower proportion of Guillain-Barre syndrome and transverse myelitis cases have been detected in 2016 when compared to

2015, and recommended that the programme look at this closely. The RCCPE noted plans for initiating ES in early 2017.

(3) While OPV3 coverage had improved nationally from 68% in 2015 to 81% in 2016 and in Rakhine state from 72% to 82%, the RCCPE was concerned about the gap in population immunity against polio as demonstrated by sub-optimal routine OPV3 coverage (41 townships had <80% OPV3 coverage in 2015 and 54 townships had <80% OPV3 coverage in 2016). A significant number of AFP cases have had zero doses of polio vaccine, indicating coverage weaknesses. The RCCPE was concerned about the OPV3 coverage in Rakhine State, which has been the epicentre of poliovirus circulation in the past, as well OPV3 coverage in other areas with social conflict.

(4) The RCCPE commended the good progress with GAPIII phase 1 implementation for type 2 polioviruses and the updating of the national preparedness plan.

RCCPE recommendations

(1) The RCCPE recommended that improvements in routine immunization must be maintained and further strengthened in all townships with low coverage, focusing on hard-to-reach and underserved populations. Being concerned about the fragility of the progress in Myanmar, the RCCPE would like to see more details regarding actions taken to improve coverage and surveillance among migrant populations, both in Rakhine State and in other areas.

(2) The RCCPE recommended scrutiny of the subnational AFP surveillance performance to ensure that the surveillance system is picking up all AFP cases that could be polio.

Nepal

(1) The RCCPE commended the country on maintaining activities to ensure the maintenance of polio-free status despite having been affected by major natural disasters.

(2) The RCCPE noted that AFP surveillance quality indicators overall continue to be met at both the national and sub-national levels in Nepal, except in a few sparsely populated mountainous areas.

Stool adequacy is just below the 80% cut-off in some sub-national areas.

(3) The RCCPE also noted the country's plans to introduce ES in 2017 - as well as the NCCPE's concern that AFP surveillance quality may suffer if WHO/GPEI support is reduced too rapidly.

(4) Reported OPV3 coverage shows many gaps at the sub-national level, as well as a slightly decreasing trend from 2015 to 2016 - which may be due to changes in the population denominators used. However, reported SIA coverage is >90%.

(5) The RCCPE noted that the importation preparedness plan has been updated to reflect the current needs of establishing preparedness to respond to a type 2 poliovirus event post-switch; an outbreak simulation exercise is planned but has not yet been conducted.

RCCPE recommendations

(1) The RCCPE agreed that the use of ES in selected areas will be helpful; however, ES should only be considered as a supplemental method of surveillance which should not be considered as replacing high-quality AFP surveillance. Also, the implications of initiating ES in terms of increased laboratory workload should be carefully considered.

(2) The RCCPE also recommended that the Ministry of Health (MoH) and supporting polio partners, particularly WHO, should plan and coordinate the possible future 'ramp-down' of GPEI support, to avoid any negative impact on the quality of activities, particularly of surveillance for AFP.

Sri Lanka

(1) The RCCPE noted the very clear report presented by Sri Lanka and was satisfied that the reported routine immunization coverage remains at a very high level nationally in Sri Lanka, with coverage reported >80% from all sub-national areas. Sri Lanka is also one of two countries (the other being India) which has adopted the intradermal application of a fIPV dose.

(2) The RCCPE also understood that, in early 2016, the report of an isolation of VDPV2 in Sri Lanka, which later proved to be an erroneous report, provided an opportunity to test the updated emergency response plan in a way similar to a simulation exercise, and that the speed and efficiency of preparing for an outbreak response was considered very satisfactory.

(3) However, the RCCPE was concerned about the continued downward trend in AFP reporting in Sri Lanka overall, with projected 2016 non-polio AFP rates below 1/100 000 population aged <15 years in a number of sub-national and 'silent areas', although the populations of these areas are small.

(4) The RCCPE noted that a key contributing reason for the decrease in reported AFP may be the fact that many clinicians, particularly in the secondary and tertiary hospitals, could be reluctant to report cases as AFP for which they feel an accurate clinical diagnosis has been made.

RCCPE recommendations

(1) The RCCPE commended Sri Lanka for maintaining overall good and homogenous polio vaccination coverage and for leading in the Region in terms of adapting the use of intradermal fIPV for routine immunization and encouraged the programme to sustain its good performance.

(2) Noting the downward trend in AFP reporting over the last three years, the RCCPE recommended that the MoH urgently address this problem. The MoH should ensure that all AFP cases are completely reported by conducting additional training and sensitization workshops for health workers and doctors. This training should ensure that AFP reporting is based on the presence of AFP, irrespective of the diagnosis.

Thailand

(1) The RCCPE appreciated the clear and comprehensive report submitted by Thailand which shows good progress towards re-invigorating key approaches to maintaining and improving both AFP surveillance quality and routine immunization.

(2) The RCCPE was impressed by the use of innovative approaches, such as the 'rapid response teams' working to support, assess and fine-tune AFP surveillance at all levels, or the plan for targeted use of ES to supplement AFP surveillance.

(3) Thailand also successfully implemented the tOPV to bOPV switch and presented an insightful analysis and consideration of possible cross-border importation risks.

(4) The RCCPE also noted that some areas in the south continue to be affected by social unrest, even though the situation does not seem serious enough to negatively impact the implementation of public health interventions, or of AFP surveillance.

(5) The RCCPE noted good progress and a comprehensive approach to GAPIII laboratory containment phase 1 and noted that such a thorough approach is required in view of the country's international research collaboration.

RCCPE recommendations

(1) The RCCPE commended Thailand on its comprehensive report and encouraged the NCCPE and MoH to continue their efforts to maintain and further improve the quality of AFP surveillance and of immunization activities. The RCCPE appreciated in particular including detailed reporting of subnational polio immunization coverage data. The RCCPE requested that the programme continue reporting subnational polio vaccination coverage data.

(2) The RCCPE also noted that additional efforts will be needed to ensure that all health workers and doctors are sufficiently sensitized to the fact that cases should be reported as AFP solely on the basis of presence or absence of acute flaccid paralysis, regardless of the initial clinical diagnosis.

(3) While overall coverage appears high, the RCCPE encouraged the national programme to continue addressing routine immunization gaps – particularly in high risk communities – with specific strategies, and to carefully monitor their outcomes.

Timor Leste

The RCCPE

(1) appreciated the active NCCPE oversight and commended Timor Leste on the clear and comprehensive NCCPE report;

(2) noted the implementation of active AFP surveillance and improvements in AFP case reporting in 2016, thus meeting the required levels. However, the RCCPE also realized the continued gaps in the quality of specific aspects of surveillance, particularly in stool sample collection, domestic and international specimen transport and final case classification;

(3) considered the ongoing capacity building for VPD surveillance as vital for quality performance, and

(4) commended the good progress with GAPIII phase 1 implementation for type 2 polioviruses.

RCCPE recommendations

(1) While further enhancing the positive AFP reporting trends and strengthening active surveillance in key facilities in underreporting districts, the national programme needs to improve timely stool sample collection and final classification of AFP cases. This latter requires more frequent and rapid shipments to the regional reference laboratory.

(2) While it is understood that pooling of stool samples for shipment results in lower transportation costs than not pooling specimens, late detection of poliovirus could result in a situation with much larger costs associated with it t. If necessary, support from polio partners for shipping costs should be sought.

(3) The RCCPE encouraged Timor Leste to identify how informal health care providers could be part of the AFP reporting network.

(4) The RCCPE noted that reported routine immunization coverage has increased but cautioned that the new denominators used (based on 2015 census data) may be too low, as several districts have reported over 100% immunization coverage. The reported high coverage of the 2015 wide age range multi antigen NID

was acknowledged, but immunity gaps need to be further addressed by strengthening access of all children to routine immunization. It is important to include formal and informal health care providers.

(5) The RCCPE encouraged the updating of the national preparedness plan.

Annex 1

Agenda

(1) Opening

(2) Status update of the Global Polio Eradication Initiative and four objectives of the Polio Endgame implementation

(3) Stopping wild poliovirus in Afghanistan and Pakistan (20min)

(4) Polio situation in the WHO African Region (20min)

(5) Updates from the Regional Certification Commission (RCC) European Region

(6) Updates from Regional Certification Commission (RCC) Western Pacific Region

(7) National Certification Committee for Polio Eradication (NCCPE) presentations on country situation

(8) Update on maintaining polio-free status in the WHO South-East Asia Region

(9) Regional update on the poliovirus laboratory network and GAPIII poliovirus laboratory containment

(10) Conclusions and recommendations

(11) Priorities for 2017

Annex 2

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Annex 3

Summary Sheets of NCCPE Progress Report

Bangladesh	Country polio progress report 2016
NCCPE	
Signed cover letter	Included and executive summary signed by NCCPE
NCCPE current membership	There were no changes during reporting period but on 5 Nov 2016 chairperson Prof Khan passed away
NCCPE active	2 meetings in in 2015 and 3 meetings in 2016; very active advocacy role with national programme; also functions in switch validation
NCCPE TORs	No changes
Executive summary	Included
4 key questions addressed	Comprehensively addressed for Q1, 2 and 4
Country background updates	Info included on 2015 population data, high risk populations and population movements
Performance of polio surveillance	
Structure of polio surveillance system	Described in some detail
Completeness of routine reporting	97% in 2015 and 99 in 2016 (Jan-Sep)
Timeliness of routine reporting	92% in 2015 and 97% in 2016 (Jan-Sep)
Completeness of active surveillance	100% in both years
Non-polio AFP rate 2015	2.78 per 100,000 <15 years
Subnational non-polio AFP rates 2015	In 2015, all administrative units achieved the target except one district (Comilla: 1.74) and two City Corporations (Comilla and Narayanganj City Corporations 0.94 and 1.42 respectively) and all of these administrative units have achieved target in 2016.
Adequate stool specimen collection rate 2015	97%

Bangladesh	Country polio progress report 2016
Adequate subnational stool specimen collection rate 2015	All subnational units >80%
Non-polio AFP rate 2016 (Jan – Sep; annualized)	3.9 per 100,000 < 15 years
Subnational non-polio AFP rates 2016 (Jan-Sep)	Two other districts (Faridpur: 1.93, and Nilphamari: 1.96) and two City Corporations (Khulna City Corporation 1.56 andSylhet City Corporation 1.82) yet to achieve the NP-AFP rate of ≥2.
Adequate stool specimen collection rate 2016 (Jan – Sep)	99%
Adequate subnational stool specimen collection rate 2016 (Jan-Sep)	All but one subnational units >80%
Expert review committee	Regular meetings (2 in 2015 and 1 in 2016); case review and classification process described
Polio compatible cases	None identified
AFP cases reviewed by ERC and final diagnosis	Details included
AFP case final diagnosis	2015: 55.8% GBS; 2016 (Jan-Sep): 56.9% GBS
Additional polio surveillance activities	Regular retrospective record reviews during weekly active surveillance visits, regular formal and on-the-job orientations and periodic performance feedback.
VDPV surveillance	No VDPV detected but preparedness levels increased in border area with Myanmar (cVDPV2)
Laboratory activities	NPL fully accredited for virus isolation and ITD, compliant with GPNL Guidance paper No.1 for safe handling and storage of PV2
Polio immunization	
Routine immunization policy	Switch on 23 April 2016
National OPV3 coverage 2015	94.1%
Subnational OPV3 coverage 2015	All districts >80%
Immunization status AFP cases	2015: 792/827 ≥OPV3 0-5 years old and 580/586 ≥OPV3 6-15 years old. 2016: 572/603 ≥OPV3 0-5 years old and 563/570 ≥OPV3 6-15 years old

Bangladesh	Country polio progress report 2016
National OPV3 coverage 2016 (Jan-Sep)	100%
Subnational OPV3 coverage 2016 (Jan-Sep)	All districts >80%
IPV immunization status	Introduction in March 2015. Country achieved 73% (administrative data) coverage in 2015. As a matter of fact due the global shortage of IPV supply, the country achieved 28% coverage in 2016 before the vaccine was out of stock.
Immunization in high risk areas / populations	Country has fairly homogenous high OPV3 coverage and no such population sub-group at high risk due to low immunization coverage.
SIAs 2015-2016	In response to detection of cVDPV in Myanmar, Bangladesh conducted 2 rounds of "Mop-up" campaign in 3 bordering upazila under 2 districts targeting children less than 5 years synchronized with Myanmar (1st round was 23 Jan and 2nd round was 27 February 2016. Both the round was followed by 4 days house-to-house search for missed children). The administrative data shows 100% coverage in both the rounds.
tOPV to bOPV switch	Detailed validation report included
Laboratory containment	
National taskforce	In place and active
National action plan / survey activities under GAPIII	New survey ongoing; to date 30% response rate
National inventory of WPV2/VDPV2 infectious and potentially infectious materials	As per 2015 NCCPE report no WPV2/VDPV2 materials stored in the country; re-survey is checking for potentially infectious foreign materials brought into the country for research collaboration projects but none identified so far
Storage condition of WPV2/VDPV2 infectious and potentially infectious materials	Assessment for potentially infectious materials still ongoing

Bangladesh	Country polio progress report 2016
National inventory of Sabin2/OPV2 infectious and potentially infectious materials	Assessment still ongoing; so far 4 laboratories identified
Storage condition of Sabin2/OPV2 infectious and potentially infectious materials	Currently under BSL-2
Potential essential facilities	No final decision yet
National laboratory containment authority	Depends on decision on PEF
Polio outbreak preparedness preparation	
Conduct of risk assessment	Ongoing basis
Status of national action plan	Currently under review as per GPEI SOP; to be finalized in Q1 2017
Vaccine type use in future outbreaks	Will depend on outbreak type and WHO guidance
Simulation exercise	National plan has been exercised in "Mop-up campaign" in response to detection of cVDPV in Myanmar in early 2016. NCCPE recommended for "Mop-up campaign" on 06 January 2016 and implemented on 23 January 2016.
NCCPE conclusions and recommendations	Included in executive summary
Any other relevant aspects	

Bhutan	Country polio progress report 2016
NCCPE	
Signed cover letter	Executive summary signed
NCCPE current membership	Membership included
NCCPE active	2 meetings in 2015, 1 in 2016 and on adhoc basis. Besides formals with the national programme, there is continuous communication on AFP reporting, vaccine supply and stocks and any other alerts regarding polio eradication.
NCCPE TORs	No changes
Executive summary	Included
4 key questions addressed	Addressed
Country background updates	Very comprehensive info on population data, high risk populations, population movements and the health care system
Performance of polio surveillance	
Structure of polio surveillance system	Described in detail
Completeness of routine reporting	100% in 2015 and 2016 (Jan-Sep)
Timeliness of routine reporting	79% in 2015 and 78% in 2016 (Jan-Sep)
Completeness of active surveillance	100% in 2015 and 2016 (Jan-Sep)
Non-polio AFP rate 2015	4.4 per 100,000 <15 years
Subnational non-polio AFP rates 2015	Lower reporting from Thimpu
Adequate stool specimen collection rate 2015	60%
Adequate subnational stool specimen collection rate 2015	Below target in 5 districts
Non-polio AFP rate 2016 (Jan – Sep; annualized)	3.5 per 100,000 < 15 years; 6/8 cases still await final classification
Subnational non-polio AFP rates 2016 (Jan-Sep)	Lower reporting from Thimpu

Bhutan	Country polio progress report 2016
Adequate stool specimen collection rate 2016 (Jan – Sep)	63%
Adequate subnational stool specimen collection rate 2016 (Jan-Sep)	Below target in 2 districts
Expert review committee	Membership updated in 2015; regular meetings (3 in 2015 and 1 in 2016)
Polio compatible cases	None identified
AFP cases reviewed by ERC and final diagnosis	Details included
AFP case final diagnosis	1 GBS case in 2016; other diagnoses included
Additional polio surveillance activities	No specific other activities conducted but regular refresher trainings to health workers
VDPV surveillance	No VDPV detected
Laboratory activities	No NPL; samples are shipped to RRL in Thailand with support from NL. The long distance of health centers from Thimphu where the national laboratory is located and the infrequency of vehicle movement is one of the factors for delayed submission of samples.
Polio immunization	
Routine immunization policy	IPV given at 14 weeks, switch on 25 April 2016
National OPV3 coverage 2015	94%
Subnational OPV3 coverage 2015	No district <90%
Immunization status AFP cases	16 AFP cases 2015-2016 were recorded as ≥OPV3; for one case (>5 yrs) immunization status had no info
National OPV3 coverage 2016 (Jan-Sep)	84% (partial)
IPV immunization status	Introduction in 2015. Coverage Jan-Sep 2016 76%

Bhutan	Country polio progress report 2016
Immunization in high risk areas / populations	Small groups of nomadic communities living in the Northern region with an estimated population of 30,000. Although they are difficult to reach, immunization coverage at the district level where these communities are located is over 90%. No coverage estimation has been conducted at the sub-district level, however with strategic location of health centers, it is expected that over 80% of the population is immunized.
SIAs 2015-2016	In view of high routine immunization coverage no SIAs conducted
tOPV to bOPV switch	Summary provided
Laboratory containment	
National taskforce	Active
National action plan / survey activities under GAPIII	New survey completed
National inventory of WPV2/VDPV2 infectious and potentially infectious materials	As per 2015 NCCPE report no WPV2/VDPV2 materials stored in the country; confirmed by re-survey
Storage condition of WPV2/VDPV2 infectious and potentially infectious materials	Not applicable as none held
National inventory of Sabin2/OPV2 infectious and potentially infectious materials	Re-survey completed; none identified.
Storage condition of Sabin2/OPV2 infectious and potentially infectious materials	Not applicable as none held
Potential essential facilities	Not applicable
National laboratory containment authority	Not applicable

Bhutan	Country polio progress report 2016
Polio outbreak preparedness preparation	
Conduct of risk assessment	Recommended by NCCPE
Status of national action plan	Updated in July 2016
Vaccine type use in future outbreaks	mOPV1 or mOPV3
Simulation exercise	Not done
NCCPE conclusions and recommendations	Key findings, main challenges and recommendations in executive summary
Any other relevant aspects	

DPRK	Country polio progress report 2016
NCCPE	
Signed cover letter	Awaited
NCCPE current membership	Membership unchanged
NCCPE active	2 meetings in 2015, 2 in 2016
NCCPE TORs	No changes
Executive summary	No provided
4 key questions addressed	To be addressed in presentation
Country background updates	Population data provided except for children under 15 years; for calculation of non-polio AFP rates 2004 SEARO IVD data were used. MoPH will provide updates after the RCCPE9 meeting
Performance of polio surveillance	
Structure of polio surveillance system	Described in good detail
Completeness of routine reporting	99.8% in 2015 and 99.7% 2016 (Jan-Sep)
Timeliness of routine reporting	98.7 in 2015 and 98.5% in 2016 (Jan-Sep)
Completeness of active surveillance	99.7% in 2015 and 99.6% in 2016 (Jan-Sep)
Non-polio AFP rate 2015	1.55 per 100,000 <15 years
Subnational non-polio AFP rates 2015	All 11 provinces above 1 per 100,000 <15 years
Adequate stool specimen collection rate 2015	100%
Adequate subnational stool specimen collection rate 2015	All 100%
Non-polio AFP rate 2016 (Jan – Sep; annualized)	1.64 per 100,000 < 15 years while AFP rate is 1.8; 8 cases still await final classification
Subnational non-polio AFP rates 2016 (Jan-Sep)	11 provinces above 1 per 100,000 <15 years
Adequate stool specimen collection rate 2016 (Jan – Sep)	100%

DPRK	Country polio progress report 2016
Expert review committee	Membership unchanged; monthly meetings (every first Tuesday)
Polio compatible cases	None identified
AFP cases reviewed by ERC and final diagnosis	Details included
AFP case final diagnosis	Diagnoses included
Additional polio surveillance activities	Enterovirus surveillance, healthy person stool survey and environmental sampling mentioned (limited extent)
VDPV surveillance	No VDPV detected
Laboratory activities	NPL accreditation on hold due to constraints in bringing reagents, supplies and equipment into the country. Currently, no options to send samples to reference laboratory outside DPRK (joint WHO HQ and SEARO mission April 2016)
Polio immunization	
Routine immunization policy	IPV given at 14 weeks, introduced in April 2015. Switch on 18 April 2016
National OPV3 coverage 2015	98.9%
Subnational OPV3 coverage 2015	No district <97%
Immunization status AFP cases	All AFP cases 2015-2016 were recorded as ≥OPV3
National OPV3 coverage 2016 (Jan-Sep)	98.8%% (partial)
IPV immunization status	Introduction in April 2015; since April 2016 stock-out. Coverage 2015 98.9% and Jan-Mar 2016 98.7%
Immunization in high risk areas / populations	All population has access to immunization services
SIAs 2015-2016	In view of high routine immunization coverage no SIAs conducted
tOPV to bOPV switch	Summary provided

DPRK	Country polio progress report 2016
Laboratory containment	
National taskforce	Active
National action plan / survey activities under GAPIII	New survey completed
National inventory of WPV2/VDPV2 infectious and potentially infectious materials	As per latest survey no WPV2/VDPV2 materials stored in the country
Storage condition of WPV2/VDPV2 infectious and potentially infectious materials	Not applicable as none held
National inventory of Sabin2/OPV2 infectious and potentially infectious materials	Re-survey apparently completed; none identified.
Storage condition of Sabin2/OPV2 infectious and potentially infectious materials	Not applicable as none held
Potential essential facilities	Not applicable
National laboratory containment authority	Not applicable
Polio outbreak preparedness preparation	
Conduct of risk assessment	
Status of national action plan	Requires updating
Vaccine type use in future outbreaks	bOPV provided through UNICEF
Simulation exercise	Not done
NCCPE conclusions and recommendations	Conclusions to 4 key questions to be included in presentation
Any other relevant aspects	

India	Country polio progress report 2016
NCCPE	
Signed cover letter	To be received
NCCPE current membership	No changes
NCCPE active	3 meetings in 2016; very active advocacy role with national programme and professional bodies; also functioned in switch validation
NCCPE TORs	No changes since Aug 2015 when NCCPE also became measles verification committee
Executive summary	Included
4 key questions addressed	Very comprehensively and analytically addressed
Country background updates	Info included on 2015 population data, high risk populations and population movements and specific actions taken
Performance of polio surveillance	
Structure of polio surveillance system	Described and discussed in great detail
Completeness of routine reporting	94% in 2015 and 93% in 2016 (Jan-Sep); discussions included on districts which did not meet target and actions taken
Timeliness of routine reporting	91% in 2015 and 90% in 2016 (Jan-Sep); discussions included on districts which did not meet target and actions taken
Completeness of active surveillance	High; discussed by active case search frequencies and prioritization of reporting sites. Role and performance of SMOs vs DIOs analysed.
Non-polio AFP rate 2015	10.77 per 100,000 <15 years
Subnational non-polio AFP rates 2015	2 (smaller) states did not meet target (Nagaland and Sikkim)
Adequate stool specimen collection rate 2015	86%
Adequate subnational stool specimen collection rate 2015	3 states and 2 union territories did not meet target

India	Country polio progress report 2016
Non-polio AFP rate 2016 (Jan – Sep; annualized)	10.39 per 100,000 < 15 years
Subnational non-polio AFP rates 2016 (Jan-Sep)	5 (smaller) states did not meet target
Adequate stool specimen collection rate 2016 (Jan – Sep)	87%
Adequate subnational stool specimen collection rate 2016 (Jan-Sep)	4 states and 1 union territory did not meet target
Expert review committee	Regular meetings (6 in 2015 and 9 in 2016); case review and classification process described
Polio compatible cases	11 cases in 5 states in 2015 and 4 cases in 4 states in 2016 (Jan-Sep)
AFP cases reviewed by ERC and final diagnosis	Details included
AFP case final diagnosis	2015: 8.9% GBS; 2016 (Jan-Sep): 7.1% GBS
Additional polio surveillance activities	AFP case contact sampling, environmental surveillance (EV) in 33 sites in 8 states
VDPV surveillance	3 VDPV in AFP cases 2015-2016 (2 type 2 and 1 type 1) and 4 VDPV isolations from EV samples in 2016 (all type 2; after switch); all fully investigated and considered low risk
Laboratory activities	All 8 NPL fully accredited for virus isolation and ITD, compliant with GPNL Guidance paper No.1 for safe handling and storage of PV2
Polio immunization	
Routine immunization policy	Switch on 25 April 2016
National OPV3 coverage 2015	88%
Subnational OPV3 coverage 2015	9 states/UT >80%
Immunization status AFP cases	2015: 0-5 yrs 20,647/25644 (81%) ≥OPV3 6-15 yrs 14780/21326 (69.3%) ≥OPV3
National OPV3 coverage 2016 (Jan-Oct)	83%

India	Country polio progress report 2016
Subnational OPV3 coverage 2016 (Jan-Sep)	13 states/UT >80%
IPV immunization status	20 states with full dose, 8 states with fractional intradermal dose and 8 states to shift to fractional dose
Immunization in high risk areas / populations	Detailed presentation on identification of migratory and settled population high risk areas and implementation of Mission Indradhanush to increase RI coverage
SIAs 2015-2016	2015: 2 NIDs, 3 SNIDs, 3 mop-ups 2016: 2 NIDs, 3 SNIDs, 1 mop-up
tOPV to bOPV switch	Detailed validation report included
Laboratory containment	
National taskforce	In place and active; serves also as NAC
National action plan / survey activities under GAPIII	New survey ongoing; to date 30% response rate
National inventory of WPV2/VDPV2 infectious and potentially infectious materials	WPV2/VDPV2 materials stored in BSL4 laboratory at National Institute of Virology; one of the designated PEFs. aVDPV2 and iVDPV2 materials stored at ERC; the other designated PEF.
Storage condition of WPV2/VDPV2 infectious and potentially infectious materials	BSL4 at NIH, BSL2 at ERC; GAPIII certification to commence in near future
National inventory of Sabin2/OPV2 infectious and potentially infectious materials	Sabin2/OPV2 materials only at ERC but potentially infectious materials in 8 laboratories
Storage condition of Sabin2/OPV2 infectious and potentially infectious materials	Currently under BSL-2/VDPV2 and one for Sabin2
Potential essential facilities	One for WPV2
National laboratory containment authority	NCTF supported by national laboratory biosafety board

India	Country polio progress report 2016
Polio outbreak preparedness preparation	
Conduct of risk assessment	Ongoing basis
Status of national action plan	Updated in March 2016 as per GPEI SOP
Vaccine type use in future outbreaks	Will depend on outbreak type and WHO guidance
Simulation exercise	National plan has been exercised in response to detection of VDPV in 2016 past switch
NCCPE conclusions and recommendations	Included in executive summary
Any other relevant aspects	

Indonesia	Country polio progress report 2016
NCCPE	
Signed cover letter	Still to be received
NCCPE current membership	No changes since new NCCPE appointed in March 2015
NCCPE active	2 meetings in 2015 and 2 in 2016, mainly in line with switch validation
NCCPE TORs	No info
Executive summary	Included
4 key questions addressed	Commented on
Country background updates	Info included on 2015 population data and population movements
Performance of polio surveillance	
Structure of polio surveillance system	Described in some detail
Completeness of routine reporting	66.7% in 2015 and 42.1 in 2016 (Jan-Sep); pls refer to discussions in report on issues
Timeliness of routine reporting	57.6% in 2015 and 37.1% in 2016 (Jan-Sep); pls refer to discussions in report on issues
Completeness of active surveillance	61.1% in 2015 and 22.3% in 2016; main reason given is discontinuation of WHO funding support
Non-polio AFP rate 2015	2.02 per 100,000 <15 years
Subnational non-polio AFP rates 2015	19/34 provinces non-polio AFP rate >2
Adequate stool specimen collection rate 2015	87.5%
Adequate subnational stool specimen collection rate 2015	19/34 provinces >80%
Non-polio AFP rate 2016 (Jan – Sep; annualized)	1.31 per 100,000 < 15 years based on classified cases (679/946); AFP rate is 1.8
Subnational non-polio AFP rates 2016 (Jan-Sep)	11/34 provinces non-polio AFP rate >1

Indonesia	Country polio progress report 2016
Adequate stool specimen collection rate 2016 (Jan – Sep)	86.6%
Adequate subnational stool specimen collection rate 2016 (Jan-Sep)	20 provinces >80%
Expert review committee	Regular meetings (2 in 2015 and 2 in 2016); case review and classification process described
Polio compatible cases	None identified
AFP cases reviewed by ERC and final diagnosis	Details included
AFP case final diagnosis	2015: 9.59% GBS; 2016 (Jan-Sep): 9.56% GBS
Additional polio surveillance activities	Some retrospective recrd reviews are conducted during active searches but not yet systematically recorded. Enterovirus surveillance is a by product of AFP surveillance. Environmental surveillance continued in Yogyakarata as special project until 2015 and is to be also started in Jakarat in early 2017.
VDPV surveillance	No VDPV detected
Laboratory activities	2 NPLs fully accredited for virus isolation and ITD. NPL in Bandung provisionally accredited. All 3 NPLs are compliant with GPNL Guidance paper No.1 for safe handling and storage of PV2
Polio immunization	
Routine immunization policy	Switch on 04 April 2016; IPV introduction in July 2016 at 4 months
National OPV3 coverage 2015	93%
Subnational OPV3 coverage 2015	150 districts (29.2%, representing 15.2% of target children) >80%
Immunization status AFP cases	2015: 0-5 years olds 68% with ≥OPV3 2016: 0-5 years olds 77% ≥OPV3

Indonesia	Country polio progress report 2016
National OPV3 coverage 2016 (Jan-Sep)	60.2 (Partial)
IPV immunization status	Introduction in July 2016 but no routine implementation due to global vaccine shortage until November 2016. Lately IPV has been supplied to all provinces.
Immunization in high risk areas / populations	In general, there is no major problem of refusal, migrant or refugee populations. Low coverage in some areas mainly caused by geographically difficult to reach areas causing lack of access to services.
SIAs 2015-2016	To boost the immunity against polio in the population, prior to the switch from tOPV to bOPV, in March 2016 Indonesia conducted one round of nationwide polio national immunization days using tOPV. Reported cocverage was 96.5% and independent rapid coverage assessment found coverage at 92.7%. 47/509 districts (9.2%) reported coverage <80%. This is the last time of the use of tOPV. After that, starting 4 April 2016, all remaining tOPV were withdrawn and destroyed. There is a small refugee group in Kepulauan Riau Province, which consist of people from 7 countries including Afghanistan and Pakistan. During that NID all 280 people of all ages were immunized with tOPV.
tOPV to bOPV switch	Summary provided.
Laboratory containment	
National taskforce	Re-appointed after MoH restructuring end of 2015
National action plan / survey activities under GAPIII	New survey ongoing; to date 30% response rate
National inventory of WPV2/VDPV2 infectious and potentially infectious materials	As per 2015 NCCPE report relevant materials are only stroed at Biofarma (vaccine producer)

Indonesia	Country polio progress report 2016
Storage condition of WPV2/VDPV2 infectious and potentially infectious materials	Kept at BSL-2+ and upgrading to meet GAPIII requirements ongoing
National inventory of Sabin2/OPV2 infectious and potentially infectious materials	New surveyed recommended
Storage condition of Sabin2/OPV2 infectious and potentially infectious materials	Depends on new survey outcomes
Potential essential facilities	At Biofarma
National laboratory containment authority	Currently being established.
Polio outbreak preparedness preparation	
Conduct of risk assessment	
Status of national action plan	Updated in March 2016 as per GPEI SOP
Vaccine type use in future outbreaks	bOPv or mOPV2
Simulation exercise	None conducted
NCCPE conclusions and recommendations	Included in executive summary
Any other relevant aspects	

Maldives	Country polio progress report 2016
NCCPE	
Signed cover letter	To be received
NCCPE current membership	Updated membership included
NCCPE active	5 meetings in 2015 and 3 in 2016. Communications with Maldives technical group on immunization (MTAGI) and Stakeholders of Immunization were carried out on regular and event basis. Advisory support for IPV introduction. Advisory support for tOPV to bOPV switch. Awareness activities. Policy level advocacy and sensitisation on financing and human resources.
NCCPE TORs	No changes
Executive summary	Included
4 key questions addressed	Addressed
Country background updates	Comprehensive info on population data, population movements and the health care system
Performance of polio surveillance	
Structure of polio surveillance system	Described in detail
Completeness of routine reporting	100% in 2015 and 2016 (Jan-Sep)
Timeliness of routine reporting	100% in 2015 and 2016 (Jan-Sep)
Completeness of active surveillance	Active surveillance not carried out to the nominated sites due to the continued lack of human resources in the program. It is though expected that AFP cases will be notified through the event based surveillance.
Non-polio AFP rate 2015	5.35 per 100,000 <15 years
Subnational non-polio AFP rates 2015	AFP cases in 2015 and Jan-Sep 2016 have been reported from the capital Male (3 cases), the Male Atoll, Haa Alifu Atoll, Kaafu Atoll and Gaafu Dhaalu Atoll (1 case each). In

Maldives	Country polio progress report 2016
	previous years the minimum expected number of cases was identified each year and relatively equally distributed across the country.
Adequate stool specimen collection rate 2015	60%
Adequate subnational stool specimen collection rate 2015	Not applicable, case number too small
Non-polio AFP rate 2016 (Jan – Sep; annualized)	2.14 per 100,000 < 15 years; 1/2 cases still await final classification
Subnational non-polio AFP rates 2016 (Jan-Sep)	See above
Adequate stool specimen collection rate 2016 (Jan – Sep)	63%
Adequate subnational stool specimen collection rate 2016 (Jan-Sep)	Not applicable, case number too small
Expert review committee	No change in membership; regular meetings
Polio compatible cases	None identified
AFP cases reviewed by ERC and final diagnosis	Details included
AFP case final diagnosis	1 TM case in 2015
Additional polio surveillance activities	Due to the continued shortages in human resources active searches and retrospective record reviews (RRR) could not yet been performed. As in previous years, AFP surveillance while ultimately identifying the expected number of AFP cases (which suggests the functionality of the event based surveillance) has its chronic challenges and these are: • Adequate stool sample collection. • Delays in shipping stool samples to the RRL outside of the country. • High courier costs requiring pooling of samples for shipment.

Maldives	Country polio progress report 2016
	• Further delays in completing case investigation may result from 60 day follow-up not on time and/or non-availability of ERC members.
VDPV surveillance	No VDPV detected
Laboratory activities	No NPL; samples are shipped to RRL in Sri Lanka; challenges listed above
Polio immunization	
Routine immunization policy	IPV given at 6 months, switch on 18 April 2016
National OPV3 coverage 2015	99.4%
Subnational OPV3 coverage 2015	No atoll <95%
Immunization status AFP cases	All 7 AFP cases 2015-2016 (Jan-Sep) fully immunized
National OPV3 coverage 2016 (Jan-Sep)	99.6% (partial)
IPV immunization status	Introduction in March 2015. Coverage 99%
Immunization in high risk areas / populations	None identified
SIAs 2015-2016	In view of high routine immunization coverage no SIAs conducted
tOPV to bOPV switch	Summary provided
Laboratory containment	
National taskforce	Active
National action plan / survey activities under GAPIII	New survey completed
National inventory of WPV2/VDPV2 infectious and potentially infectious materials	None. Wild poliovirus type 2 and VDPV2 have never been isolated in the country; as such containment requirements do not apply for such materials. The theoretical possibility of wild poliovirus type 2 potentially infectious materials being brought into the country through faecal or respiratory secretion samples collected for any purpose in a time and geographic area of wild poliovirus

Maldives	Country polio progress report 2016
	(including VDPV) circulation is considered nil as a) there is no such research capacity in the country and 2) import of such biological specimens would require a Ministry of Health and Gender (MOHG) permit. Storage practices at the Indira Gandhi Memorial Hospital (IGMH; the only tertiary government hospital in the country) and the ADK hospital (secondary private hospital) were reviewed in June 2016 with WHO regional laboratory containment coordinators and no relevant materials are kept.
Storage condition of WPV2/VDPV2 infectious and potentially infectious materials	Not applicable as none held
National inventory of Sabin2/OPV2 infectious and potentially infectious materials	To meet GAPIII requirements for Sabin2/OPV2 infectious and potentially infectious materials, under the leadership of the NCTF, the national list of biomedical laboratories will once more be updated and all laboratories subjected to a new standard questionnaire. Information to be collected will focus on laboratory functions, type of specimens handled including samples of foreign origin, freezer capacity and inventory and storage practices. Laboratories will be requested to ensure that all relevant materials (stool and respiratory samples as per GAPIII definitions) collected before 31 July 2016 is properly destroyed.
Storage condition of Sabin2/OPV2 infectious and potentially infectious materials	Not applicable as none held so far
Potential essential facilities	Not applicable
National laboratory containment authority	Not applicable

Maldives	Country polio progress report 2016
Polio outbreak preparedness preparation	
Conduct of risk assessment	
Status of national action plan	To be updated in Q1 2017
Vaccine type use in future outbreaks	bOPV
Simulation exercise	Not done
NCCPE conclusions and recommendations	Key findings, main challenges and recommendations in executive summary
Any other relevant aspects	

Myanmar	Country polio progress report 2016
NCCPE	
Signed cover letter	Included
NCCPE current membership	Included; 3 new members
NCCPE active	3 meetings in 2016; very active advocacy role in cVDPV2 outbreak response, also involved in switch validation
NCCPE TORs	No change since updated in 2015
Executive summary	Included
4 key questions addressed	To large extent
Country background updates	Info included on 2015 population data, high risk populations and population movements
Performance of polio surveillance	
Structure of polio surveillance system	Described in detail
Completeness of routine reporting	99% in whole period covered by the report
Timeliness of routine reporting	95% in 2015 and 96% in 2016 (Jan-Sep)
Completeness of active surveillance	100%
Non-polio AFP rate 2015	2.34 per 100,000 <15 years
Subnational non-polio AFP rates 2015	10/17 states/regions (1st administrative subnational level) >2 ; all others >1
Adequate stool specimen collection rate 2015	93%
Adequate subnational stool specimen collection rate 2015	15/17 states/regions >80%
Non-polio AFP rate 2016 (Jan – Sep; annualized)	3.08 per 100,000 < 15 years
Subnational non-polio AFP rates 2016	16/17 states/regions >2 ; Rakhine (cVDPV2 outbreak site) >3
Adequate stool specimen collection rate 2016 (Jan – Sep)	96%
Adequate subnational stool specimen collection rate 2016 (Jan-Sep)	All 17 states/regions >90%

Myanmar	Country polio progress report 2016
Expert review committee	2 new members, regular meetings; case review and classification process described
Polio compatible cases	1 in 2015; in cVDPV2 outbreak area (Maungdaw Township in Rakhine State); ORI conducted
AFP cases reviewed by ERC and final diagnosis	Details included
AFP case final diagnosis	2016: 23.5% GBS; 2016 (Jan-Sep): 8.9% GBS
Additional polio surveillance activities	Active case searches, AFP contact sampling, environmental surveillance to commence shortly
VDPV surveillance	cVDPV2 outbreak in Rakhine State in 2015 (2 cases from same township; response activities described in great detail – pls refer also to OBRA1 and OBRA2 reports (external reviews) and the MoHS 12 months report
Laboratory activities	NPL performance high; fully accredited (Sep 2016) for virus isolation and ITD, compliant with GPNL Guidance paper No.1 for safe handling and storage of PV2
Polio immunization	
Routine immunization policy	Switch on 29 April 2016
National OPV3 coverage 2015	89%
Subnational OPV3 coverage 2015	3/17 states/regions <80%
Immunization status AFP cases	2015: 0-15 years OPV3 77%; 2016 (Jan-Sep): 0-5 yrs OPV3 87% and 6-15 yrs OPV3 80%
IPV immunization status	Introduction in Dec 2015; given at 4m. Coverage Jan-Aug 2016 74%
Immunization in high risk areas / populations	Crash immunization (for all antigens and children up to 3 years) in 101 high risk townships launched; Reaching Every Community (REC) provides all antigens for children up to 2 years and plans to strengthen integrated immunization services in under 5 clinics in high risk areas

Myanmar	Country polio progress report 2016
SIAs 2015-2016	SNID in Jan 2016 (reported coverage 99.8%) and NID in Feb 2016 (reported coverage 98%) and 3 SIAs in cVDPV2 outbreak area
tOPV to bOPV switch	Validation report summary included; for further details pls refer to Regional switch validation report
Laboratory containment	
National taskforce	In place and active
National action plan / survey activities under GAPIII	New survey conducted; with specific focus on Rakhine State as area of cVDPV2 in 2015
National inventory of WPV2/VDPV2 infectious and potentially infectious materials	Updated; all VDPV2 infectious and potentially infectious materials destroyed, phase 1a GAPIII completed
Storage condition of WPV2/VDPV2 infectious and potentially infectious materials	Not applicable as none held
National inventory of Sabin2/OPV2 infectious and potentially infectious materials	Updated; all Sabin2/OPV2 infectious destroyed. Plan developed to also destroy retained oral fluid samples; this – together with some outstanding validation work will shortly complete phase 1b of GAPIII
Storage condition of Sabin2/OPV2 infectious and potentially infectious materials	Oral fluid samples at DMR at BSL-2 level; for future destruction.
Potential essential facilities	None planned
National laboratory containment authority	Not applicable
Polio outbreak preparedness preparation	
Conduct of risk assessment	Conducted in 2015 for township level; in view of results and cVDPV2 outbreak large scale SNID conducted in Jan 2016 and NID in Feb 2016
Status of national action plan	Updated in 2016 as per GPEI SOP

Myanmar	Country polio progress report 2016
Vaccine type use in future outbreaks	Will depend on outbreak type, if monovalent oral polio vaccine (mOPV) or bOPV and GPEI guidance
Simulation exercise	Planned in 2017 and included in WHO biennium workplan
NCCPE conclusions and recommendations	Concludes with OBRA2 and key EPI&VPDS review findings; that is: Successes include: Strong evidence of increasing government commitment with increased funding, committed and hard-working staff, successful introduction of new vaccines and dramatic decrease in VPDs. Challenges include: Complex factors leading to pockets of unimmunized children, surveillance for AFP strongest of VPD surveillance systems, but recent in depth evaluation has shown some gaps; other VPD surveillance adequate to detect outbreaks but needs to be strengthened to guide programme; and need to plan for long term financial sustainability.
Any other relevant aspects	

Nepal	Country polio progress report 2016
NCCPE	
Signed cover letter	Included
NCCPE current membership	No changes
NCCPE active	2 meetings in 2016; active advocacy role with national programme; involved in switch validation
NCCPE TORs	No changes
Executive summary	Included
4 key questions addressed	Briefly addressed
Country background updates	Info included on population data, high risk populations, population movements and polio programme support systems
Performance of polio surveillance	
Structure of polio surveillance system	Described in detail
Completeness of routine reporting	94% in 2015 and 96% in 2016 (Jan-Sep)
Timeliness of routine reporting	88% in 2015 and 89% in 2016 (Jan-Sep)
Completeness of active surveillance	2015: 50% and 2016 (Jan-Sep): 57%. SMOs visit every other week. SMOs required in earthquake response in 2015 and 2016 (immunization strengthening and multiple (non-polio) outbreak responses) had led to some performance gaps in AFP surveillance in a few districts.
Non-polio AFP rate 2015	3.99 per 100,000 <15 years
Subnational non-polio AFP rates 2015	Data analysis presented for districts with small populations over period 2012-2016
Adequate stool specimen collection rate 2015	95%
Adequate subnational stool specimen collection rate 2015	No data
Non-polio AFP rate 2016 (Jan – Sep; annualized)	5.99 per 100,000 < 15 years

Nepal	Country polio progress report 2016
Subnational non-polio AFP rates 2016 (Jan-Sep)	Detailed analysis presented that persistently under-reporting districts have very small and sparse population in the high mountain region. Some of the other districts which had reported less than expected number of AFP cases between Jan-Sept 2016 have reported cases after Sept 2016.
Adequate stool specimen collection rate 2016 (Jan – Sep)	97%
Adequate subnational stool specimen collection rate 2016 (Jan-Sep)	Most districts 100%; only 2 districts <80%
Expert review committee	One meeting so far in 2016, another one scheduled in Dec; case review and classification process described
Polio compatible cases	None identified
AFP cases reviewed by ERC and final diagnosis	Details included
AFP case final diagnosis	2015: 19% GBS and 10% TM; 2016 (Jan-Sep): 17% GBS and 7% TM
Additional polio surveillance activities	Active case search for additional AFP cases in communities where cases were found. Environmental surveillance to commence in Q1 2017.
VDPV surveillance	No VDPV detected
Laboratory activities	No NPL; samples are shipped to RRL in Thailand. Shipment times Jan-Sep 2016: 32% within one week of 2nd sample collection, 44% within 1-2 weeks and 25% after 2 weeks
Polio immunization	
Routine immunization policy	Switch on 17 April 2016
National OPV3 coverage 2015	90.41%
Subnational OPV3 coverage 2015	Presented as combined 2015 and 2016; 31/75 districts report <80%

Nepal	Country polio progress report 2016
Immunization status AFP cases	2015: 6m-5 years OPV3 175/182; 2016 (Jan-Sep): 6m-5 yrs OPV3 191/202
National OPV3 coverage 2016 (Jan-Sep)	79.38%
Subnational OPV3 coverage 2016 (Jan-Sep)	Presented as combined 2015 and 2016; 31/75 districts report <80%
IPV immunization status	Introduction in Sep 2014; given at 14 weeks. Coverage 2015 59.07% and Jan-Sep 2016 71.70%. Stock out since Oct 2016
Immunization in high risk areas / populations	Village development committees and ward level health workers line list un-immunized and partially immunized children and ensure that they are immunized. Sensitization of communities to reach every child. Increasing access to immunization through re-allocation of session sites.
SIAs 2015-2016	SNID 2015 in 22 districts (bOPV); reported coverage 91% (1 district <80%). Note: SEARO IVD database also has SIA reports for campaign 15 Aug to 15 Sep 2015 (14 districts, tOPV, 90% reported coverage) and 07 Feb to 12 Apr 2016 (61 districts, tOPV, 101% reported coverage)
tOPV to bOPV switch	Validation report included
Laboratory containment	
National taskforce	In place and active
National action plan / survey activities under GAPIII	New survey ongoing; to date ~30% response rate
National inventory of WPV2/VDPV2 infectious and potentially infectious materials	As per 2015 NCCPE report no WPV2/VDPV2 materials stored in the country
Storage condition of WPV2/VDPV2 infectious and potentially infectious materials	Not applicable as none held

Nepal	Country polio progress report 2016
National inventory of Sabin2/OPV2 infectious and potentially infectious materials	Re-survey ongoing; none identified so far.
Storage condition of Sabin2/OPV2 infectious and potentially infectious materials	Not identified so far
Potential essential facilities	Not applicable
National laboratory containment authority	Not applicable
Polio outbreak preparedness preparation	
Conduct of risk assessment	Done in Sep 2014
Status of national action plan	Updated in 2016 as per GPEI SOP
Vaccine type use in future outbreaks	Will depend on outbreak type, if mOPV, bOPV or IPV and GPEI advice
Simulation exercise	Not done
NCCPE conclusions and recommendations	NCCPE is satisfied about quality of AFP surveillance. However, active case search frequency should improve. IPV stock out situation should be resolved. Environmental surveillance should be initiated as per timeline in q1 2017. GPEI partners should pursue polio transition planning process with Government and other stakeholders.
Any other relevant aspects	

Sri Lanka	Country polio progress report 2016
NCCPE	
Signed cover letter	Received
NCCPE current membership	No changes in membership
NCCPE active	3 meetings in 2015, 2 in 2016. Frequent communications with the Epidemiology Unit which oversees the programme, with Regional Epidemiologists and Medical Officers of Health, as well as with the Advisory Committee on Communicable Diseases (ACCD) and the College of Pedestrians. Participated in the validation of the polio Switch.
NCCPE TORs	No changes
Executive summary	Provided by NCCPE chairperson
4 key questions addressed	Addressed
Country background updates	Comprehensive info on population data, high risk populations, vaccination of travelers and refugees.
Performance of polio surveillance	
Structure of polio surveillance system	Included; also fo supplementary activities
Completeness of routine reporting	100% in 2015 and 2016 (Jan-Sep)
Timeliness of routine reporting	97% in 2015 and 90% in 2016 (Jan-Sep)
Completeness of active surveillance	191% in 2015 and 2016 (Jan-Sep)
Non-polio AFP rate 2015	1.33 per 100,000 <15 years
Subnational non-polio AFP rates 2015	1 province >2; 7 provinces rate >1 but <2; 1 province <1. Analysis done for districts with small populations for 2010-2016
Adequate stool specimen collection rate 2015	74%
Adequate subnational stool specimen collection rate 2015	4/9 provinces >80%
Non-polio AFP rate 2016 (Jan – Sep; annualized)	1.2 per 100,000 < 15 years

Sri Lanka	Country polio progress report 2016
Subnational non-polio AFP rates 2016 (Jan-Sep)	1 province >2; 5 provinces rate >1 but <2; 3 provinces <1. Analysis done for districts with small populations for 2010-2016
Adequate stool specimen collection rate 2016 (Jan – Sep)	82%
Adequate subnational stool specimen collection rate 2016 (Jan-Sep)	5/9 provinces >80%
Expert review committee	No changes in membership; 5 meetings in 2015 and 2016
Polio compatible cases	None identified
AFP cases reviewed by ERC and final diagnosis	Details included
AFP case final diagnosis	GBS 77.5% in 2015 and 80% in 2016
Additional polio surveillance activities	➢ Surveillance of immunodeficient children ➢ Enterovirus identification is being done in AFP contact samples (5 of the AFP contact children are tested for polio and other enteroviruses at the laboratory
VDPV surveillance	No VDPV detected
Laboratory activities	Polio reference laboratory fully accredited for virus isolation and ITD
Polio immunization	
Routine immunization policy	IPV introduced in June 2015; due to global supply shortage country has switch to fractional dose in July 2016, given at 2 and 4 month. Switch on 30 April 2016
National OPV3 coverage 2015	98.1%
Subnational OPV3 coverage 2015	All district <95%
Immunization status AFP cases	16 AFP cases 2015-2016 were recorded as ≥OPV3; for one case (>5 yrs) immunization status had no info
National OPV3 coverage 2016 (Jan-Sep)	97.3%

Sri Lanka	Country polio progress report 2016
Subnational OPV3 coverage 2016 (Jan-Sep)	Partial but all districts already >80%
IPV immunization status	Collaborative ongoing study on the boosting of mucosal immunity following fractional dose of IPV.
Immunization in high risk areas / populations	Population sub groups with specified categories deprived of health services do not exist in Sri Lanka and all are having equal access and uniform health service provision throughout the country. In the case of refugee returnees, a mechanism is in place to inform Ministry of Health by UNHCR and one dose of bOPV, Polio vaccination is given to all returnees at the airport. In addition, all children (<15 years) are provided with one bOPV dose at Medical Officer of Health (if they have not received at the Airport) in districts where returnees are resettled. All people those who are temporary staying (sponsored by UNHCR) or resettled will be included to routine services and continue with routine vaccinations.
SIAs 2015-2016	In view of high routine immunization coverage no SIAs conducted
tOPV to bOPV switch	Summary provided
Laboratory containment	
National taskforce	Appointed in April 2016
National action plan / survey activities under GAPIII	New survey initiated
National inventory of WPV2/VDPV2 infectious and potentially infectious materials	As per 2015 NCCPE report no WPV2/VDPV2 materials stored in the country
Storage condition of WPV2/VDPV2 infectious and potentially infectious materials	Not applicable as none held
National inventory of Sabin2/OPV2 infectious and potentially infectious materials	Re-survey ongoing

Sri Lanka	Country polio progress report 2016
Storage condition of Sabin2/OPV2 infectious and potentially infectious materials	Not applicable as survey not yet completed
Potential essential facilities	Not applicable
National laboratory containment authority	Not applicable
Polio outbreak preparedness preparation	
Conduct of risk assessment	
Status of national action plan	Updated in July 2016
Vaccine type use in future outbreaks	mOPV1 or mOPV3 and IPV for type 2
Simulation exercise	This has already occurred in a situation where the regional laboratory erroneously informed the country of a VDPV case due to laboratory error in February 2016.
NCCPE conclusions and recommendations	Key findings in executive summary
Any other relevant aspects	

Thailand	Country polio progress report 2016
NCCPE	
Signed cover letter	Included
NCCPE current membership	Included; Dr Supachai has been confirmed as new chairperson on 15 Nov 2015. MoPH Secretariat has changed.
NCCPE active	5 meetings in 2016; very active advocacy role with national programme; also functions as measles verification committee
NCCPE TORs	No change since updated in 2015
Executive summary	Included
4 key questions addressed	Comprehensively done
Country background updates	Info included on 2015 population data, high risk populations and population movements
Performance of polio surveillance	
Structure of polio surveillance system	Described in detail
Completeness of routine reporting	86.23% in 2015 and 94.10% in 2016 (Jan-Sep)
Timeliness of routine reporting	86.23% in 2015 and 88.58% in 2016 (Jan-Sep)
Completeness of active surveillance	No active surveillance conducted
Non-polio AFP rate 2015	1.56 per 100,000 <15 years
Subnational non-polio AFP rates 2015	30 provinces >2; 21 provinces <2 but >1 and 26 provinces <1. Analysis done for 32 provinces with small populations; 10 of them had no cases reported in 2015 and 2016 (Jan-Sep).
Adequate stool specimen collection rate 2015	65.03%
Adequate subnational stool specimen collection rate 2015	Of provinces with cases (61) 27 ≥80%
Non-polio AFP rate 2016 (Jan – Sep; annualized)	1.95 per 100,000 < 15 years

Thailand	Country polio progress report 2016
Subnational non-polio AFP rates 2016 (Jan-Sep)	30 provinces >2; 18 provinces <2 but >1 and 29 provinces <1
Adequate stool specimen collection rate 2016 (Jan – Sep)	78.26%
Adequate subnational stool specimen collection rate 2016 (Jan-Sep)	Of provinces with cases (58) 30 ≥80%
Expert review committee	Regular meetings (6 in 2015 and 7 in 2016); case review and classification process described
Polio compatible cases	None identified
AFP cases reviewed by ERC and final diagnosis	Details included; one VAPP case in 2015
AFP case final diagnosis	2016: 20.2% GBS; 2016 (Jan-Sep): 15.1% GBS
Additional polio surveillance activities	Regular retrospective record reviews in low performing provinces; details of unreported cases provided. Environmental surveillance has commenced.
VDPV surveillance	No VDPV detected but preparedness levels increased in border areas with Myanmar (cVDPV2) and Lao PDR (cVDPV1)
Laboratory activities	NPL performance high; fully accredited for virus isolation and ITD, compliant with GPNL Guidance paper No.1 for safe handling and storage of PV2
Polio immunization	
Routine immunization policy	Switch on 29 April 2016
National OPV3 coverage 2015	88.22%
Subnational OPV3 coverage 2015	8/76 provinces <80% (Bangkok not included but survey results included suggesting >90% OPV3)
Immunization status AFP cases	2015: 6m-4 years OPV3 56/70; 2016 (Jan-Sep): 6m-4 yrs OPV3 68/77
National OPV3 coverage 2016 (Jan-Sep)	97.57%
Subnational OPV3 coverage 2016 (Jan-Sep)	76 provinces ≥80%; 64 >90%

Thailand	Country polio progress report 2016
IPV immunization status	Introduction in Dec 2015; given at 4m. Coverage Dec 2015 92.57% and Jan-Sep 2016 86.21%
Immunization in high risk areas / populations	Regular SIAs conducted (2 rounds) and data disaggregated by Thai and foreign children; in 10 provinces in 2015, reported coverage high (>90% except in 2nd round in foreign children = 86%)
SIAs 2015-2016	See above
tOPV to bOPV switch	Detailed validation report included
Laboratory containment	
National taskforce	In place and active
National action plan / survey activities under GAPIII	New survey ongoing; to date 30% response rate
National inventory of WPV2/VDPV2 infectious and potentially infectious materials	As per 2015 NCCPE report no WPV2/VDPV2 materials stored in the country; re-survey is checking for potentially infectious foreign materials brought into the country for research collaboration projects but none identified so far
Storage condition of WPV2/VDPV2 infectious and potentially infectious materials	Not applicable as none held
National inventory of Sabin2/OPV2 infectious and potentially infectious materials	Re-survey ongoing; none identified so far. Sabin2 reference strains at RRL destroyed.
Storage condition of Sabin2/OPV2 infectious and potentially infectious materials	Not identified so far
Potential essential facilities	No final decision yet
National laboratory containment authority	Depends on decision on PEF
Polio outbreak preparedness preparation	
Conduct of risk assessment	Ongoing basis
Status of national action plan	Currently under review as per GPEI SOP
Vaccine type use in future outbreaks	Will depend on outbreak type, if mOPV, bOPV or IPV

Thailand	Country polio progress report 2016
Simulation exercise	None yet but NCCPE has recommended
NCCPE conclusions and recommendations	No polio virus, or VDPV, or a compatible polio case was found in Thailand under well-established surveillance during the period under review. With strong disease surveillance, rapid outbreak response capacity, satisfactory OPV immunization coverage and a fully accredited high quality national polio laboratory, the NCCPE of Thailand is confident that Thailand has successfully pursued its commitment to maintain its polio-free status and has been moving forward with fellow Member States toward a world free of polio.
Any other relevant aspects	

Timor Leste	Country polio progress report 2016
NCCPE	
Signed cover letter	Included
NCCPE current membership	Updated membership, included
NCCPE active	Regular meetings held on needs basis; active advocacy role with national programme; involved in switch validation; also serving as measles verification committee. Chairperson is NITAG chair as well.
NCCPE TORs	No changes
Executive summary	Included
4 key questions addressed	Largely addressed
Country background updates	Info included on population data, high risk populations, population movements and routine immunization strengthening initiatives
Performance of polio surveillance	
Structure of polio surveillance system	Described in detail
Completeness of routine reporting	100% in 2015 and 2016 (Jan-Sep)
Timeliness of routine reporting	47% in 2015 and 66% in 2016 (Jan-Sep)
Completeness of active surveillance	86% in 2015 and 100% in 2016 (Jan-Sep)
Non-polio AFP rate 2015	0.65 per 100,000 <15 years
Subnational non-polio AFP rates 2015	3/20 districts reported cases. Analysis done by district on cases over past 5 years and Dili as capital and with largest population reports cases at target rate
Adequate stool specimen collection rate 2015	100%
Adequate subnational stool specimen collection rate 2015	All 3 districts 100%
Non-polio AFP rate 2016 (Jan – Sep; annualized)	0.7 per 100,000 < 15 years; AFP rate is 2.36 while 7/10 cases still await final classification due to recent notification

Timor Leste	Country polio progress report 2016
Subnational non-polio AFP rates 2016 (Jan-Sep)	4/20 districts reported cases
Adequate stool specimen collection rate 2016 (Jan – Sep)	50%
Adequate subnational stool specimen collection rate 2016 (Jan-Sep)	One district 100%, the other 3 <80%
Expert review committee	Membership updated in 2015; meets on needs basis
Polio compatible cases	None identified
AFP cases reviewed by ERC and final diagnosis	Details included
AFP case final diagnosis	2015: GBS 1/3; 2016 (Jan-Sep): GBS 2/6 so far classified
Additional polio surveillance activities	Refresher trainings in referral hospitals
VDPV surveillance	No VDPV detected
Laboratory activities	No NPL; samples are shipped to RRL in Thailand with support from NHL. Domestic and international shipment remains a huge challenges and leading to delays in case classification
Polio immunization	
Routine immunization policy	Switch on 18 April 2016
National OPV3 coverage 2015	99%
Subnational OPV3 coverage 2015	2/20 districts <80%
Immunization status AFP cases	All 13 AFP cases 2015-2016 were 0-5 years and 10/13 recorded as ≥OPV3
National OPV3 coverage 2016 (Jan-Sep)	103%
Subnational OPV3 coverage 2016 (Jan-Sep)	1/20 districts <80%
IPV immunization status	Introduction in Feb 2016. Coverage Jan-Jun 2016 81%

Timor Leste	Country polio progress report 2016
Immunization in high risk areas / populations	
SIAs 2015-2016	OPV given as part of wide age group MR NID in 2015; reported coverage 97%; all districts >90%
tOPV to bOPV switch	Validation report included
Laboratory containment	
National taskforce	Membership updated in line with GAPIII requirements
National action plan / survey activities under GAPIII	New survey ongoing; almost complete
National inventory of WPV2/VDPV2 infectious and potentially infectious materials	As per 2015 NCCPE report no WPV2/VDPV2 materials stored in the country
Storage condition of WPV2/VDPV2 infectious and potentially infectious materials	Not applicable as none held
National inventory of Sabin2/OPV2 infectious and potentially infectious materials	Re-survey ongoing; none identified so far.
Storage condition of Sabin2/OPV2 infectious and potentially infectious materials	Not identified so far
Potential essential facilities	Not applicable
National laboratory containment authority	Not applicable
Polio outbreak preparedness preparation	
Conduct of risk assessment	Still to be done
Status of national action plan	Will be updated in Q1 2017
Vaccine type use in future outbreaks	Yet to be decided
Simulation exercise	Not done

Timor Leste	Country polio progress report 2016
NCCPE conclusions and recommendations	• Timor Leste has remained polio-free since certification. • Several measures have been implemented to maintain polio-free status by maintaining high population level immunity and improving VPD surveillance to strengthen routine immunization. • An IPV dose has been incorporated into the routine immunization schedule at 14 weeks successfully and the switch from tOPV to bOPV completed in April 2016. • The national action plan for poliovirus laboratory containment requirements under GAPIII will be completed by end of November 2016. • The national polio outbreak response plan is scheduled for updating in early 2017 which will increase response capacities to the current global requirements.
Any other relevant aspects	