

World Health Organization

TECHNICAL ADVISORY GROUP ON POLIO ERADICATION FOR THE HORN OF AFRICA COUNTRIES

14th Meeting Report

16 to 18 February 2016
Nairobi, Kenya

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List of acronyms

AFP	Acute flaccid paralysis
AFRO	African Regional Office (WHO)
BMGF	Bill and Melinda Gates Foundation
bOPV	Bivalent oral polio vaccine
C4D	Communication for Development
cVDPV2	Circulating vaccine-derived poliovirus type 2
CDC	Centers for Disease Control and Prevention
EMRO	Eastern Mediterranean Regional Office (WHO)
EPI	Expanded Programme on Immunization
HOA	Horn of Africa
HSS	Health Systems Strengthening
HtR	Hard to Reach
IFRC	International Federation of the Red Cross
IPV	Inactivated poliovirus vaccine
LQAS	Lot quality assurance sampling
NID	National immunization day
NPEV	Non-polio enterovirus
OPV	Oral poliovirus vaccine
PIRI	Periodical Intensification of Routine Immunization
REC	Reach Every Child approach
RED	Reach Every District approach
RI	Routine immunization
SIAD	Short interval additional dose
SA	Supplementary immunization activity
SNID	Subnational immunization day
SOP	Standard operating procedure
TAG	Technical Advisory Group
tOPV	Trivalent oral poliovirus vaccine
UNICEF	United Nations Children Fund
USAID	United States Agency for International Development
VDPV	Vaccine-derived poliovirus
WHO	World Health Organization
WPV	Wild poliovirus
UNHCR	United Nations High Commission for Refugees
IOM	International Organization for Migration
WFP	World Food Programme

Executive Summary

The 14th Meeting of the Horn of Africa (HOA) Technical Advisory Group (TAG) was held from 16 to 18 February 2016 in Nairobi, Kenya under the chairmanship of Dr. Jean-Marc Olivé. In the context of the HOA wild poliovirus (WPV) and circulating vaccine-derived poliovirus (cVDPV) outbreaks, the 14th HOA TAG meeting had the following four objectives:

1. To review the sensitivity of AFP surveillance in HOA countries and provide recommendations to strengthen the ability to detect WPV transmission.
2. To review the risks of outbreaks following WPV importation/ cVDPV emergence, outbreak response preparedness, and risk mitigation strategies, and provide recommendations.
3. To review and make recommendations on communication strategies that address the remaining challenges in the HOA and activities in the post-outbreak phase.
4. To review and make recommendations on the plan for strengthening of routine immunization (RI) in high risk areas using polio resources, and to assess polio transition planning in three focus countries in HOA: Ethiopia, South Sudan, and Somalia.

The TAG commends the participation of all the ten HOA countries and partners.

The TAG noted as follows:

Some 18 months have passed since the last WPV in the HOA, and 17 months since the last cVDPV. The TAG endorsed the conclusion that the WPV outbreak in the HOA was over, and noted that the cVDPV outbreak in South Sudan may be declared over following the assessment planned for 14-18 March 2016. Regrettably some 1.5 million children remain inaccessible in Somalia, South Sudan, Sudan and Yemen, increasing the risk of importation of WPV into the HOA. In addition, there is risk of cVDPV emergence, particularly in countries with low routine immunisation (Somalia, South Sudan and Ethiopia).

All HOA countries have begun or completed outbreak response plans in line with the new WHO SOPs, and 3 countries have conducted simulation exercises to “test” and improve those plans.

The TAG noted the criticality of cross border activities and the necessity for continued funding thereof.

While the communication/ social mobilisation effort across the HOA has gone from strength to strength, the rapidly declining budgets for these crucial activities - particularly in Ethiopia, Somalia, and South Sudan - pose a risk in case outbreak response is necessary. There is insufficient time to transition these polio programme assets to support other immunisation activities. Polio programme asset transitioning is a key challenge that must be met with full government involvement and leadership.

Commendably all countries have submitted “switch” plans and begun implementation, although Tanzania and Eritrea will experience delays in IPV introduction due to global supply issues.

The TAG endorsed the proposed SIA calendar, with a few modifications.

Subnational surveillance gaps in some six countries of the Horn continue to pose a risk to rapid detection of transmission.

While acknowledging the significant contribution the polio programme makes to immunisation health systems, the TAG regretted that there is no common understanding on what the legacy planning and transition process entails.

The overall conclusion was that the HOA remains vulnerable both to WPV1 importation and cVDPV emergence, due to the numbers of inaccessible children, massive population movements within and into the Horn, and persistent immunity gaps. Complacency must be avoided, and countries must maintain high quality surveillance, fill remaining immunity gaps, and address subnational surveillance gaps. Legacy planning and implementation, driven by Governments of the HOA, must ensure the transitioning of polio assets.

Cross cutting recommendations of the TAG included, inter alia:

- The disaggregation of surveillance and immunisation data analysis at least to the district level.
- Rigorous implementation of switch plans.
- Holding of the long planned international cross border meeting.
- Improvement in funds flow mechanisms within countries.
- Further country simulations of outbreak response plans.
- Adjustments to communication strategies to better resonate with target audiences.
- Much further work on analysis and inventory of polio assets as part of the legacy planning in each country.
- Finalisation of 2016 EPI plans, and implementation of routine immunisation accountability indicators.

Country specific recommendations were made for each country in the HOA. Among the most important were:

- Somalia: further efforts to reduce missed children
- Ethiopia: surveillance strengthening in low performing woredas, and development of a plan to retain existing polio communication capacity beyond June 2016
- Kenya: strengthening surveillance especially by actions at county level, and avoiding complacency
- South Sudan: creation of an Immunisation Operational Support Cell (OSC) to lead and drive all public health activities related to immunisation, improve surveillance in the conflict affected states, and improve quality of SIA activities

Further recommendations were made for the above countries, as well as for the other countries in the HOA. They are elaborated below.

I. Preamble

The 14th Meeting of the HOA TAG was held from 16 to 18 February 2016 in Nairobi, Kenya under the chairmanship of Dr. Jean-Marc Olivé. The meeting was opened by the Cabinet Secretary, Ministry of Health, Kenya in the presence of Kenya's WHO Representative. In attendance were representatives of Djibouti, Eritrea, Ethiopia, Kenya, Sudan, South Sudan, Somalia, Uganda, Yemen and Tanzania, and representatives of CDC, USAID, UNHCR, Red Cross, Core Group, Rotary and BMGF.

The last (13th) HOA TAG meeting was held on 18-20 August 2015 in Nairobi, Kenya, followed by a teleconference in November 2015 to discuss the implementation status of the 13th TAG recommendations.

Globally, the overall number of WPV cases decreased from 359 in 2014 to 74 in 2015. Only Pakistan and Afghanistan remained endemic in 2015. All outbreaks following WPV type 1 importations have ended. However cVDPV outbreaks are ongoing in five countries including two in Africa (Madagascar and Guinea).

In the context of the HOA WPV and cVDPV outbreaks, the 14th HOA TAG meeting was called with following four objectives:

1. To review the sensitivity of AFP surveillance in HOA countries and provide recommendations to strengthen the ability to detect WPV transmission.
2. To review the risks of outbreaks following WPV importation/cVDPV emergence, outbreak response preparedness, and risk mitigation strategies, and provide recommendations.
3. To review and make recommendations on communication strategies that address the remaining challenges in the HOA and activities in the post-outbreak phase.
4. To review and make recommendations on the plan for strengthening of routine immunization (RI) in high risk areas using polio resources, and to assess polio transition planning in three focus countries in HOA: Ethiopia, South Sudan, and Somalia.

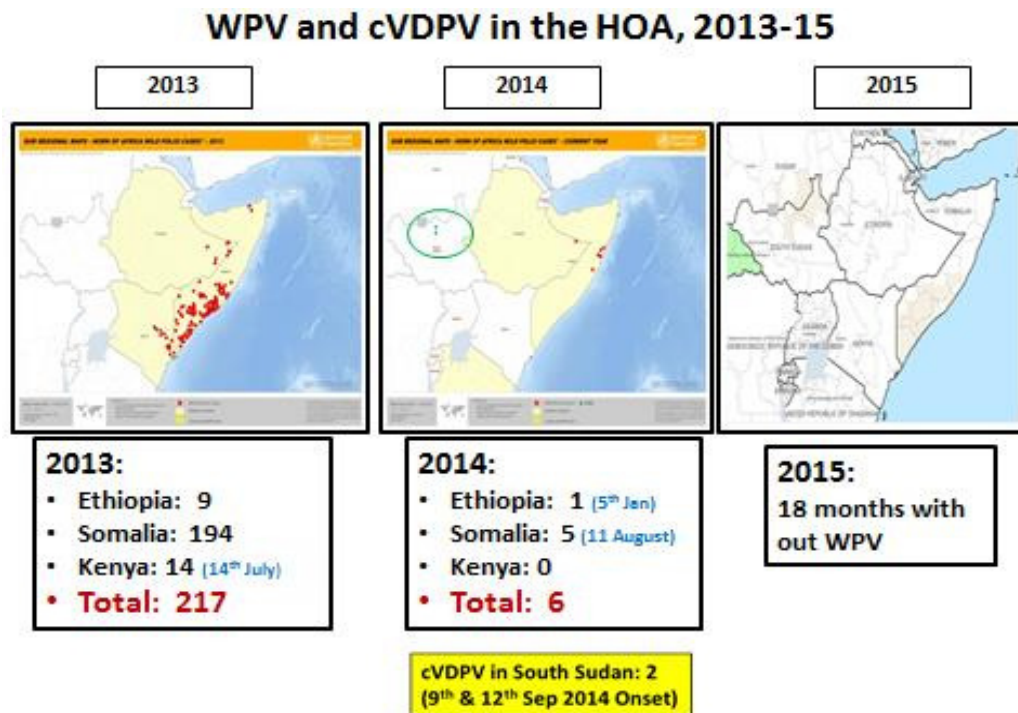
II. Conclusions and Recommendations

1. General Conclusions

The TAG commends the participation of all HOA countries in the 14th TAG meeting and appreciates country preparations required for the TAG teleconference and this meeting. The TAG also commends the HOA Coordination Office for its efforts in organizing the teleconference and the meeting, as well as HOA outbreak response activities.

The TAG thanks the Laboratory Focal Points for their first-time participation in the meeting and recognizes the exceptional polio laboratory support that has been provided in the face of an increased workload. The TAG also acknowledges the support of partners like BMGF, USAID, CDC, IFRC, Rotary, and CORE Group in helping to make the HOA polio-free.

The TAG acknowledges the enormous challenges in Somalia, South Sudan, and Yemen, and applauds the commitment and hard work of the programme staff in these countries. The TAG noted with regret the absence of the UNICEF Somalia Polio Team Leader in the meeting. The TAG is deeply saddened by the loss of four staff including two polio programme staff in Somalia.



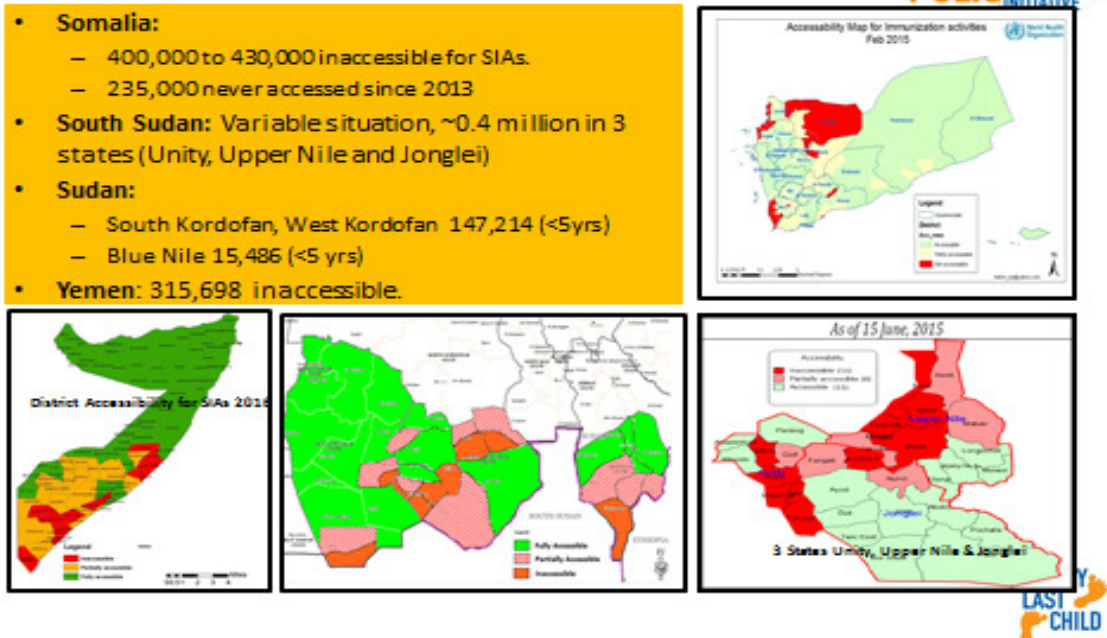
The TAG notes that 18 months have passed since the last WPV case in Somalia in August 2014, and 17 months since the last cVDPV2 outbreak in South Sudan in September 2014.

The TAG appreciates the HOA outbreak response assessments conducted in Somalia and South Sudan and endorses the need for a follow-up assessment in South Sudan (confirmed for 14-18 March 2016).

The TAG notes the availability of new outbreak response standard operating procedures (SOPs), and appreciates that all countries have begun or completed an update of their country plans per these new SOPs. The TAG compliments Uganda, Sudan and Djibouti and the HOA Coordination Office for conducting outbreak simulation exercises.

The TAG is concerned about the substantial number of inaccessible under 5 years old children in Somalia, South Sudan, Sudan, and Yemen due to ongoing conflicts, and recognizes the ongoing risk of poliovirus transmission in these countries.

Children in inaccessible areas-2015



Strategies being used:

- Permanent vaccination points around inaccessible areas (>200,000 children/ month)
- Preparedness for conducting SIADs as soon as any area becomes accessible
- Opportunistic Vaccinations

The TAG appreciates the country achievements in implementing the 13th meeting recommendations. However, the TAG is concerned that their recommendations on improving fund flow, conducting simulation exercises, and investigating unknown doses for AFP cases have not been fully implemented. The TAG acknowledges the progress made by WHO and UNICEF in making funds available to countries. However, it notes that challenges remain in releasing the funds to the lowest operational levels in Kenya, Uganda, South Sudan, Eritrea and Djibouti.

The TAG reiterates the importance of cross border activities and the criticality of continued funding for these activities.

The TAG applauds the strengthened evidence-based communication programme, where robust research, mature social mobilization networks, and widespread involvement of clan structures, religious leaders, and the media contribute to polio campaign success. However, the TAG deeply regrets the rapidly decreasing budgets for social mobilization networks in Ethiopia (June 2016), Somalia (December 2016) and South Sudan (December 2016) which does not allow sufficient time for transitioning these polio programme assets.

The TAG commends the HOA countries on continued reporting on vaccine management. Tracking vaccine utilization and stronger vaccine management gain even greater importance in the context of withdrawal of tOPV following the switch.

The TAG notes with appreciation that all countries have submitted their switch plans and started implementation. However, Tanzania and Eritrea are experiencing delays in IPV introduction due to global supply shortages.

The TAG notes that polio programme asset transitioning is a key challenge that must be carefully planned with full government involvement and leadership. In this context, the TAG regrets the absence of Gavi, the Vaccine Alliance at the meeting, as a critical partner for ensuring the sustainability of FI funding.

2. Conclusions specific to the meeting objectives

The TAG endorses the HOA plan presented, including the proposed 2016 SIA calendar.

Country	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Somalia		100%	100%		25%			25%		100%	100%	
Ethiopia		33%	100%		33%				33%		33%	
Kenya			20%	100%								
South Sudan		33%	100%						100%		100%	
Sudan			50%						50%			
Uganda		50%	100%									
Djibouti			100%									
Eritrea												
Tanzania												
Yemen			100%		100%				100%			

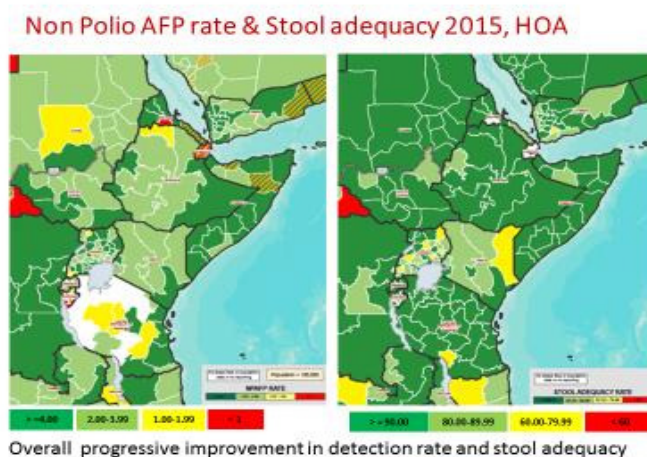
tOPV ■

bOPV ■

Objective 1: To review the sensitivity of AFP surveillance in HOA countries and provide recommendations to strengthen the ability to detect WPV transmission.

The TAG endorses the conclusion of the Somalia outbreak response assessment conducted in October 2015 that ‘transmission in Somalia has stopped’. The TAG concludes that the WPV outbreak in the HOA is closed with the last WPV case in Somalia (onset on 11 August 2014). The TAG notes that the cVDPV2 outbreak in South Sudan is not yet closed and is looking forward to the findings from the outbreak follow up assessment planned for 14-18 March 2016.

Despite improvement of AFP performance indicators at the national level, the TAG is concerned with subnational surveillance gaps in Ethiopia,



Kenya, South Sudan, Djibouti, Eritrea and Uganda. The TAG urges these countries to take immediate and specific steps to address these gaps.

[Objective 2: To review the risks of outbreaks following WPV importation/ cVDPV emergence, outbreak response preparedness, and risk mitigation strategies, and to provide recommendations.](#)

The TAG concludes that the risk of WPV outbreaks in HOA countries exists until circulation is interrupted globally. The risk of VDPV emergence remains high in countries with low routine immunization (i.e., Somalia, South Sudan, and Ethiopia). The TAG notes that over 1.5 million children under 5 are inaccessible due to ongoing conflicts in Yemen, Somalia, South Sudan and Sudan, which heightens their risk.

The TAG notes that Uganda, Sudan and Djibouti conducted outbreak simulation exercises and updated their plans accordingly. Lessons learned from these exercises should be shared within the HOA. Outbreak simulation exercises are needed in Ethiopia, Eritrea, Tanzania, Kenya, and Yemen.

[Objective 3: To review and make recommendations on the communication strategies that address the remaining challenges in the HOA and activities in post-outbreak phase.](#)

The TAG acknowledges the communication and social mobilization efforts made in sustaining the public momentum needed for successful polio campaigns in 2015, and appreciates the on-going efforts to transition polio communication assets in support of routine immunization.

Two years into the outbreak response, vaccine acceptance is very high, but evidence shows that caregivers are becoming fatigued with multiple campaigns. With no cases in the region for over one year, and with the insecurity and conflict in Somalia, South Sudan, Yemen and Sudan there is a reduced risk perception about the disease and the importance of repeated vaccination. There is a risk that continuing to provide facts and information about polio - without reframing communication messages within the social and cultural context - may stop having resonance and impact with communities.

The TAG commends Ethiopia and Somalia for building and strengthening social mobilization networks to engage with communities at the lowest levels. Skills in communicating about polio and other diseases should now be transferred to the vaccinators. A well-trained, motivated, and skilled vaccinator will maximize our success each time a vaccinator interacts with a caregiver. A strong and cohesive frontline workforce will be an asset to all vaccine preventable diseases.

[Objective 4: To review and make recommendations on the plan for strengthening of FI in high risk areas using polio resources, and to assess polio transition planning in three focus countries in HOA: Ethiopia, South Sudan, and Somalia.](#)

The TAG acknowledges the significant contributions made by the polio programme on immunization health systems, and reiterates that any reduction in programme funds or staff will have a detrimental impact on FI, surveillance, communication networks, and laboratory capacity.

The TAG is very concerned that there is no common understanding on what the legacy planning and transition process entails, or on how to engage government leadership and relief and development partners in creating and implementing transition plans.

The lack of funds compromises the implementation of the RED/REC approach in selected districts in high risk zones in South Sudan. Also in South Sudan, NGOs do not always include RI in their programme implementation.

In summary:

The TAG concludes that HOA remains vulnerable to WPV1 circulation and VDPV emergence, due to:

- more than 1.5 million inaccessible children under 5 in Yemen, Somalia, South Sudan, and Sudan,
- massive population movement within and into the HOA, and
- persistent immunity gaps due to suboptimal SIA quality and low RI.

The TAG reiterates that until polio is eradicated, there is no place for complacency. Countries must maintain high quality surveillance and fill remaining immunity gaps. Subnational surveillance gaps exist in Ethiopia, Kenya, South Sudan, Djibouti, Eritrea, and Uganda.

As global polio eradication nears, polio funds will decrease from 2016. A careful analysis is critically needed of key polio inputs in the health system to ensure that achievements are sustained. A gradual transitioning of polio programme funds must be planned for, with financial commitments made by national governments and partners that have traditionally financed health system strengthening.

3. Recommendations

Cross cutting recommendations

Surveillance and immunization data monitoring

- All surveillance and immunization data analyses should be disaggregated at least down to the district level; districts should be ranked to monitor performance.
- Countries must take specific steps to reduce surveillance gaps, document these steps, and report on them at the next TAG.
- External surveillance reviews should be conducted in Kenya and Somalia before the next TAG and in Sudan and South Sudan before the end of 2016.

Switch

- Countries should fully implement their switch plans (including pre-switch tOPV SIAs) and provide an implementation status report during the next TAG teleconference. The table below summarises the switch implementation dates:

Country	Target date
Somalia	20 TH Apr, 2016
Djibouti	26th Apr, 2016
Yemen	23rd Apr, 2016
Sudan	25 th Apr, 2016
Eritrea	30 th Apr, 2016
Ethiopia	18 th Apr, 2016
Kenya	18 th Apr, 2016
South Sudan	28 th Apr, 2016
Uganda	26 th Apr, 2016
Tanzania	18 th Apr, 2016

- The TAG stresses the importance of achieving the highest quality possible during the final tOPV rounds of SIAs.

Cross border

- The HOA Coordination Office should facilitate cross border meetings and document outcomes for the next TAG Meeting. The long planned international cross-border meeting must take place before the next TAG Meeting.
- Permanent/Transit vaccination points must be maintained, and wherever feasible, other antigens administered.

Funding

- The TAG reiterates the need for developing mechanisms, and monitoring (e.g. dashboards), to identify bottlenecks and improve funds flow mechanisms within countries.
- Gavi funding platforms should be considered as opportunities to support essential programme components currently funded by the polio programme.
- Global Health Security Agenda-funded countries (Tanzania, Kenya, Ethiopia, and Uganda) should prioritize and implement country action packages that enable early detection and response to vaccine preventable diseases, high levels of vaccine-derived population immunity, and outbreak risk mitigation.

Outbreak preparedness and response

- To enable a rapid and high quality response to any poliovirus outbreak/ event, countries should:
 - ensure implementation of outbreak response protocols,
 - assess and update country outbreak preparedness and response plans, and
 - conduct outbreak simulation exercises before the end of 2016 in Eritrea, Tanzania, Yemen, Ethiopia, and Kenya.
- In addition, to mitigate the risk of new emergences of VDPV countries should:
 - ensure high quality, pre-switch campaigns in February and March 2016,
 - increase routine IPV coverage in high risk areas, and
 - maintain highly sensitive surveillance.

Communication

- The TAG notes that sufficient data are now available on media impact, parental beliefs, and pastoralists to drive communication strategies. Based on this evidence, the countries should undertake adjustments to the creative approaches, communications content, and social mobilization strategies so that they better resonate with target audiences.
- Governments, WHO, and UNICEF should review the revamped training package for frontline workers to enhance vaccinator skills.

Legacy

- Under the leadership of country health system/immunization managers, legacy plans should be developed in full collaboration with the Ministries of Health and their partners. Ethiopia, Kenya, South Sudan and Somalia must submit their plans by end of 2016.
- As part of legacy plans, careful analysis and inventory of essential polio assets that contribute to improved health outcomes should be done in each country. These findings should be followed by government-led implementation planning that is supported by all health sector partners at the global, regional, and country level.

Routine Immunization

- Partners should continue to support surge capacity in Ethiopia, South Sudan, and Somalia until transition plans are developed.

- Countries should finalize 2016 EPI plans with full integration of all polio activities. These plans should include national and partner financing, and impact monitoring of Penta3 coverage in high risk districts.
- Countries should implement RI accountability indicators (scorecards) on outcome, process, and data quality to be shared with regional partners.

Country specific recommendations

Somalia

- Continue to implement effective strategies to reduce missed children such as Village Polio Volunteers, Permanent Transit Polio Vaccination Points, SIADs, and Hard to Reach populations.
- Expand LQAS to South and Central zones.
- Roll out the mapping project in Puntland and Somaliland.
- Finalise and implement a specific plan for improving access to unreached children.
- Develop and implement a Polio Plus strategy to improve RI coverage particularly in densely populated and inaccessible areas.
- Before the next TAG, develop a concrete plan and timeline to sustain existing polio communication capacity beyond 2016.
- Partners to advocate for additional EPI resource mobilization.

Ethiopia

- Continue to improve data on unknown immunization status of AFP cases.
- Develop and implement a surveillance strengthening plan that focuses on low performing woredas.
- Investigate the low non-polio enterovirus rate and monitor the reverse cold chain. Present data at the next TAG Meeting.
- Expand LQAS in high risks areas.
- Investigate the poor performance of 2015 December campaign; use findings for corrective actions in upcoming campaigns.
- Urgently develop a mitigation and prioritization plan to retain existing polio communication capacity beyond June 2016; present the status at the next TAG Meeting.
- As previously recommended, ensure that a waiver is granted to allow efficient importation of high quality cell cultures for the laboratory.
- Ministry of Health to ensure that the laboratory destroys all type 2 polioviruses before the switch.

Kenya

- Intensify advocacy with central authorities to ensure that momentum is regained and that issues of staff turnover and funding are addressed.
- Strengthen surveillance (including community-based surveillance) by implementing strategies targeting underperforming counties. In particular, country level funding and logistic support for surveillance activities must be secured.
- Implement targeted communication and immunization strategies for North Eastern Kenya that are informed by the Mixed Migration and Mobile Population study.
- Ensure that sufficient permanent vaccination points are set up along international borders.

South Sudan

- Given the ongoing conflict resulting in the need for partners to support the government capacity to implement priority public health programmes, create an Immunization Operational Support Cell (IOSC) to lead, drive, and coordinate all public health activities related to immunization throughout the country. The cell should:
 - Be led by a senior Ministry of Health official who reports directly to the Minister of Health.
 - Co-locate and coordinate all partners and NGOs involved in the health sector.
 - Implement an accountability framework and have one implementation plan for immunization activities.
- Use the outbreak follow-up assessment (14-18 March) to discuss the feasibility of implementation of the IOSC Cell with senior officials of the Ministry of Health, UNICEF, and WHO.
- Improve surveillance in the three conflict-affected states by fully engaging NGOs on the ground, conducting healthy children stool sampling, and carrying out contact/community sampling.
- Conduct a comprehensive EPI review before the next TAG Meeting.
- Rapidly scale up permanent vaccination points around inaccessible areas.
- In accessible areas, review and address issues of SIA quality (e.g., team performance, micro-planning) before the next SIAs.
- Implement targeted communication strategies that are informed by the Mixed Migration and Mobile Population study.
- Accelerate implementation of the social mobilization cVDPV2 outbreak response plan in all conflict-affected states.

Djibouti

- Strengthen surveillance through immediate implementation of the existing surveillance plan and provide a status report on the next TAG teleconference.
- Rapidly start contact sampling.
- Continue vaccination of refugees/migrants through RI, SIAs, and transit point vaccination teams; coordinate these efforts with UNHCR, IOM, and WFP, and share vaccination data through the HOA Bulletin.
- Develop a targeted communication strategy for mobile populations as part of risk mitigation.

Yemen

- Develop and implement a specific plan for improving access to unreached children.
- Introduce LQAS in addition to independent monitoring.
- Prioritise 'hot-cases' for fast-track lab testing.

Sudan

- The WHO Regional Office should conduct high level advocacy to address senior management turnover (5 EPI managers in 2 years).
- Use tOPV (pre-switch) instead of bOPV in the March sub-NID.
- Provide information to the TAG on evidence-based communication strategies and innovations well in advance of the next meeting.

Uganda

- Government and partners should urgently address within country delays in fund flow due to accountability issues.
- Implement targeted communication strategies that are informed by the Mixed Migration and Mobile Population study.

Tanzania

- Strengthen surveillance by implementing strategies that focus on underperforming districts.

Laboratory

- When samples are batched in significant quantities, countries should prioritize specific samples (e.g. from 'hot cases') to fast-track testing and avoid potential delays of critical interventions.
- Governments and donors should ensure that polio lab assets are maintained to support the polio programme while it is being transitioned.

Next meeting of the TAG

The next meeting of the HOA TAG is proposed for 6-8 September 2016 in Nairobi, Kenya. The TAG will also meet via teleconference on 24 May 2016 at 16:00 hours Nairobi time.

Annexure: 1 – Country Summaries

Somalia

Background: Somalia is celebrating over 18 months since the last case of polio was reported in Mudug region in August 11, 2014. The 5th outbreak assessment mission conducted on 12-19 October 2015, concluded that WPV transmission in Somalia has been interrupted.

AFP surveillance: The overall national and sub-national AFP surveillance indicators are above the recommended international standards. The system at its current state is considered robust enough to detect any WPV transmission if it occurred. There are 638 active AFP reporting sites (579 in 2014, 10% increase) distributed across Somalia. A total of 281 AFP cases have been reported in 2015 and 16 AFP cases in 2016 as of 11 February 2016. The 2015 annualized non-polio AFP rate is 4.8/100,000, case detection within 7 days is 83% and stool adequacy is 96%. The surveillance system has been strengthened through innovative strategies including:

- a. **Community Surveillance:** Community surveillance in Somalia is well established. VPVs, local community members and vaccinators are involved in the detection and reporting of AFP cases. In 2015, approximately 72% of all AFP cases were reported outside active surveillance sites; 39% by VPVs and 33% by members of the community and vaccinators. There are currently 469 VPVs countrywide, 19% additional VPV in 2015 and approximately 57% of them are operating in the South Central Zones. VPVs are well distributed across the country with 108/115 (94%) of the districts having at least one VPV. The Somalia programme is in the process of rationalizing VPVs to increase their footprint and role in inaccessible areas and in all zones.
- b. **AFP Case Validation:** Guidelines were circulated to all zones, and the validation exercise started in July 2015. Since July 2015, 30% of reported cases were validated. Validation is done through visits or phone interviews by IFP, ZPOs and RPOs. Of the 30 cases validated, 10 were from urban, 11 from rural and 9 from nomads. 13 of the validated AFP cases were reported by VPVs. Similarly, 22 of the validated cases were from accessible areas compared to 3 from partially accessible and 5 from inaccessible areas. In terms of the validation results: no major discrepancies, except for 2 cases.
- c. **Zero-dose Investigation:** There were 41 zero-dose AFP cases reported in 2015; 34 (85%) from inaccessible areas of South/Central zones, median age 27 months, and 16/41 (40%) classified as nomadic; 22/41 (52%) as rural. Approximately 32% (13/41) reported zero-dose cases were investigated; 6/8 from Central, 4/4 Puntland, 2/2 Somaliland and 1/27 in South. The two main reasons for zero-dose status were: “no vaccination team visit” (7/13) and “area inaccessible” (4/13).

- d. **Healthy Child Sampling:** The programme is collecting samples from healthy children from districts that are silent for 8 or more weeks. This activity is ongoing but 5 regions are overdue and are being encouraged to conduct healthy child sampling as soon as possible by the end of 2015.

SIAs: For the period Jan- Dec 2015, three zones (South, Central and Puntland) conducted five NIDs, and two SNIDs. South and Central zones also carried out three 'Hard to Reach (HtR)' SIAs, while Puntland conducted only one HtR (Dec 2015) and Somaliland conducted 2 HtR. Somaliland conducted 4 NIDs (both NID Round 5 and HtR 3 were cancelled due to misunderstanding between UNICEF and Ministry of Health in Hargeisa). The majority of the rounds used bOPV; 3 NID rounds and 1 SNID used tOPV.

Monitoring SIA Quality: The programme utilized independent monitoring (IM) and LQAs to assess the quality of the SIAs in the Country. IM expanded from 47 districts to 89 districts in 2015. As of June, IM was done in 92% of the districts conducting SIAs. Overall there are improvements in IM coverage in Puntland, South and Central zones. However, there are chronic issues with IM coverage in Somaliland; this was corroborated by the LQAs done during the NID Round 4 in January 2016. The programme introduced electronic mobile phone based LQAs in Puntland and Somaliland to provide more independent and real time data. It was conducted in Puntland during SNIDs 1, SNIDs2, NID4 and NID5. In Somaliland, LQAs was conducted during NID Round4, results showed that 20/27 lots failed. The programme is looking into addressing the Somaliland issues. LQAs will be introduced in major accessible towns in South and Central Zones in 2016.

Mapping Pilot: The programme conducted a pilot mapping project in Garowe and Burtinle districts in Puntland zone. The objective of this project is to create reliable base maps to improve and expand polio vaccination and EPI activities in Somalia. Data are collected for settlements, and other point of interest (e.g. water points, markets, schools, health facilities). District-level operational boundaries will be identified. The maps created will be integrated into the micro planning process for polio, EPI and any other activity requiring the use of maps.

Remote and Nomadic Communities: Remote and nomadic communities in Somalia (designated as hard to reach communities [HtR]) pose a risk to the programme. These communities lack basic social, education or health care services and are un/under immunized. All zones have revised their micro plan to include strategies targeting this population. In 2014-2015, four rounds of HtR SIAs were implemented in all zones except Puntland and Somaliland. As a result, 153,315 children less than 5 years were reached (52,200 of these were zero-dose). Additionally, targeted communication and improved micro-planning were carried out.

Communication for Development (C4D): The programme is using a mix of C4D approaches including high level advocacy with stakeholders and ministries and social mobilization through religious leaders, radio, schools, and social mobilisers who conduct house-to-house visits and megaphone announcements. 3,616 social mobilisers were trained to increase the knowledge of routine immunization and skills in interpersonal communication. They were also provided with pictorial flipcharts for counselling caregivers and families. Over 1 million households were reached by social mobilisers. Banners, posters, leaflets, aprons and tarpaulins for nomads were developed and sent to all Zones. To increase coverage of missed children, the programme oriented and engaged 1,060

nomadic elders who helped track 1,944 nomadic groups. Orientation and engagement of 884 elders in SCZ is planned.

Accessibility: Accessibility challenges continue particularly in the South and Central zones. As of February 2016, 18 districts were inaccessible and 22 partially accessible. An estimated 400,000 - 430,000 children aged under 5 years remain inaccessible for vaccination in Somalia, of whom 230,000 have never been accessed since 2013. SIADs have been carried out in 5 previously inaccessible districts of SCZ (Jalalaqsi, Brava, Bardera, Mahas and Dinsor). In order to ensure that SIADs are being carried out without any delays, the programme will develop preparedness micro-plan for all inaccessible districts.

Transit-Point and Permanent Vaccination Posts (TPVP): The number of TPVP has increased from 300 in 2013 to 373 in 2015. Rationalization was done in the 4 zones. Transit point vaccination teams have vaccinated a total of 2,56 million children aged less than 10 years with bOPV.

Routine Immunization: Routine immunization (RI) is low in Somalia. Efforts to strengthen routine EPI in all zones of the country were discussed and outlined in the 6-month and annual work plans. The nationwide measles catch-up campaign was implemented in November 2015. RI will be one of the major focus of the team in 2016.

Cold Chain Capacity: There are more than 500 ILPs and 250 Deep Freezers in Somalia. A total 224 SDDs were procured to replace the kerosene and obsolete equipment as well as establishment of new health facilities. Among the health facilities equipped, were the newly accessible districts in South Central regions of Tieglow, Elberde, Wajid and Buloburto. Three cold rooms (WICRs) in Mogadishu, Baidoa and Dusamareb are under construction and 25 generator sets have been ordered to support the zonal and regional vaccine stores. The comprehensive cold chain equipment inventory was done and will guide the replacement and expansion plan development

Preparedness for Outbreak Response: The final document was circulated to partners through the HOA coordination office in September 2015

Remaining Challenges and Way Forward:

- Large number of unreached children, Sub optimal quality of SIAs in some areas (Somaliland), inadequate supervision of active surveillance sites, low routine Immunization and key HR positions vacant. In the 2016 annual work plan most programmatic challenges are addressed and the regional office is committed to address the HR related issues.

Ethiopia

Epidemiology: Ethiopia reported its last case of indigenous wild poliovirus in 2001 but has had numerous importations of WPV1 since 2004. Most recently, in 2013, an importation from Somalia affected three districts in Doolo zone, Somalia region. A total of 10 WPV1 were confirmed. With concerted efforts WPV transmission was interrupted (last date onset, January 5th 2014).

Two cases of VDPV-2 were reported from Somali region during 2015. After extensive investigation by multi-disciplinary teams, no unreported AFP cases were identified and all stool specimens

collected from household and community contacts were negative. Both cases are classified as ambiguous VDPV.

AFP Surveillance: During 2015, 1179 AFP cases were reported in Ethiopia with a national NPAFP rate of 3.2/100,000; 101 AFP cases were reported in Somali Region with a NPAFP rate of 4.3/100,000. Stool adequacy rate at national level is 92%. Certification level surveillance indicators have been achieved in most regions (Tigray has a stool adequacy at 87%). Community-based surveillance has been initiated in all zones of the Somali Region and in areas of the country where there are hard to reach population.

SIAs and IM: Between July 2013 and December 2015, 18 polio SIAs have been conducted, focusing largely on high risk areas. An estimated 95 million doses of OPV have been administered to children under 15 years of age during these campaigns. During 2015, one NID (Feb 2015) and 5 SIAs (April, June, July, Oct and December) took place. IM has been conducted during all rounds to assess quality of the campaign. During these campaigns between 69-90% of all woredas had campaign performance of 90% or greater. In addition, in Somali region, LQAS has been conducted in multiple zones during 2015 with noted improvements in recent campaign performance.

Communication for Development: The programme uses a mix of C4D strategies to increase access to information and coverage of unimmunized children. This includes social mapping with clan leaders and elders, collaboration with Islamic Affairs Supreme Council (IASC), engaging livestock markets for dissemination of information, and revitalizing social mobilization committees. Through engagement of clan leaders and elders the programme keeps tracking of nomadic settlements in Dollo zone to increase coverage of unimmunized children. Through collaboration with IASC, 1,200 Sheikhs received training and are engaged in disseminating integrated messages on maternal and child health including polio and routine immunization. As a result, 2.5 million people have been reached out over the past two years. Public awareness about polio campaigns is high (81%). However, it sharply decreased in the last round from 89% to 76% according to the independent monitoring data. The proportion of missed children due to refusals remains less than 1%. Regional and Zonal Communicator Coordinators continue to revitalize kebele-level social mobilization committees – from rounds 6-8 to round 16-18 shows a 42% increase in the functionality of these committees, with 95% of those monitored, 95% functional¹. 632 social mobilization committees have been revitalized so far. Polio assets have supported Somali Mobile health and nutrition teams in pastoralist regions, from May – October 2015, with 1,949 health education sessions conducted, reaching over 146,000 beneficiaries, of which 61% were female². Communication network has contributed to routine immunization; SIAs (Measles, MNTE); Nutrition, WASH; the emergency/drought response, contributing to the early polio legacy in action. Partnerships and networks will continue to focus on sustaining and building on gains for “polio legacy” implementation.

Routine Immunization: FMOH has developed and is implementing a nationwide Routine Immunization Improvement Plan (RIIP). Micro planning to map hard to reach areas during SIAs has been used for RI outreach planning and when feasible, RI activities have been included in polio campaigns. RI technical assistants have been deployed to 51 high priority zones to work on implementation of the RIIP. Preliminary national 2015 coverage estimates have increased compared

¹ Somali Zonal Communication Coordinators monthly and SIA reports, 2016.

² Monthly Mobile Health and Nutrition Data, 2016.

to 2014 and are 91% for Penta-3 and 86% for MCV-1. All regions send their quarterly vaccine consumption request to FMOH using VRF (Vaccine Requisition Form). Polio activities integrate routine immunization in various ways including: 1) on-the job training and supportive supervision, 2) capacity building (budget and technical), 3) reviewing and monitoring of performance; 4) supporting micro planning, and 5) cold chain system strengthening.

Cold chain capacity: Ethiopia continues to improve its cold chain capacity in all areas of the country. 88% of the 1,000 SDD refrigerators (Temperate) have been installed. An additional 1000 SDD for hot zone are in country and installation should be completed by June 2016. 8000 additional SDD refrigerators are in the process of being procured. 22 refrigerator trucks are giving service in the country, 17 additional cold rooms have been added to regional hubs to facilitate vaccine storage and distribution.

Preparedness for Outbreak Response: The Polio Outbreak Response Plan was updated in June 2015 but will be updated with the template currently distributed by WHO AFRO.

Remaining Challenges and Way Forward: The following challenges exist in the Somali region context: Sub optimal coverage in nomadic/pastoralist communities including Doolo zone; Communication, security challenges in high-risk zones; Funds disbursement: Delays at all levels still need to be addressed to further improve quality of SIAs; Measuring impact of communication channels in pastoralist communities; Campaign fatigue; sustaining emergency mode at all levels; Staff capacity & retention.

- Continue to implement the Routine Immunization Improvement Plan, implementation of the 2016 SIA schedule (including updating micro plans, focus on strategies to reach nomadic and mobile populations, engaging selected clan leaders to sensitize the nomadic population; and cross border collaboration)
- Closely monitor community surveillance roll out in Somali Region
- Continue roll-out of IPV, tOPV to bOPV switch and polio containment activities
- Conduct Polio legacy planning and align implementation with Health Sector Transformation Plan.

South Sudan

Background: Security situation in South Sudan remains volatile with more than 1.6 million IDPs and 63,3822 refugees. Relief and rehabilitation efforts in the 3 conflict affected states are limited due to persistent inaccessibility, travel restrictions, destruction of Commercial Banks and broken communication network. In addition, one more State (Western Equatoria) is becoming instable; Peace agreement is not yet implemented. The oil crisis due to ongoing conflict and global meltdown in price has restricted the government capacity to deal with the current humanitarian crisis

Epidemiology: an outbreak of 2 cases of cVDPV2 occurred in Rubkona County (Unity State); the last case with onset on September 12th of 2014. An aVDPV2 case not related to the ones from Rubkona was reported in April 2015 from Mayom County (Unity State); the closest match is Sabin 2 with 14 nucleotides difference and no virus were isolated from 14 Contact samples collected.

AFP surveillance: at national level, AFP surveillance indicators are above the globally recommended targets with a NP AFP rate of 3.9/100.000 and Stool adequacy of 95%; however, in the conflict affected states the NPAFP rate increased from 1.2 to 1.8 and the number of silent counties decreased from 16 to 11 from 2014 to 2015 as a result of training NGO clinical officers, and recruiting additional Field Supervisors (14) and Field Assistants (78).

SIA: In the 7 non conflict-affected states, 4 NIDs rounds were implemented; In Nov and Dec NIDs due to conflicts in Western Equatoria, 3 counties were not covered in November and 4 counties not covered in December SIAs;

In the 3 conflict-affected states, 3 SIADs were implemented from January to August 2015 and reached respectively 30, 26 and 19 counties out of 32 counties. In addition, SNIDs were implemented in October and December in those 3 states and 2 neighbouring 'at-risk' states in 39/47 counties (SNID1) and 36/47 counties (SNID2). 26 permanent vaccination posts including 9 international border crossing points reached 104,610 children (0 to 15 years) with t-OPV from June to Dec. 2015

Communication for Development: In the conflict-affected states, a 3-layered approach was introduced to operationalize social mobilization and communication activities - a) direct implementation; b) partnerships with NGO; c) Direct Cash Transfers to SMoH. This allowed to reach 32 Counties out of which 24 carried out social mobilization and community mobilization activities. In 7 stable states, planning of communication activities in November and December was based on missed children analysis from February and March 2015 PCE. As such the distribution of 1,064 social mobilizers was mapped based on major locations of missed children for not being at home to address issues related to awareness, low sensitization in play grounds, cattle camps schools and markets. The campaign awareness in seven stable states of South Sudan remains high – over 90% according to IM data. The most popular sources of information in the stable states of the country are religious and community leaders (over 70%), followed by radio and health workers/vaccinators. The proportion of missed children due to refusals is low (3% in the last round).

Routine Immunization: National Routine Immunization coverages in the last 2 years are declining (64% in 2015); In conflict affected states penta3 coverage is only 12% in 2015, but 7 non conflict affected states improved to over 90% in overall as result of contribution from Funds managers and WHO funded defaulter retrieval sessions.

Remaining Challenges and Way Forward:

- Sustain Sensitive AFP surveillance in compliance with certification requirements, implement planned SIAs (including Meningitis campaign), Capacity building of C4D and partners, develop state specific strategies partnership with Department of Religious Affairs, Communication diseases (Elimination and Control):
- Carry out the Switch (28 April) and an EPI Field Review (plan to be determined)

Yemen

Background: Airstrikes started on 26 March 2015 in Yemen. The humanitarian situation is "catastrophic" and deteriorating day after day. Even in capital Sanaa, there is power breakdown and scarcity of drinking water. In addition, most of the infrastructure is completely/partially destroyed in

country. The governmental operational cost cut by more than 75%. Intensity of civil conflict and war increased. According to the assessments estimated population in need of humanitarian help are > 23 million people which is 80% of the total population of Yemen, including the 12.2 million citizens directly affected by the conflict and more than 2.3 million people internally displaced. So far, the war left more than 6,500 dead and 35,000 wounded including children and women.

The fuel and electricity crisis threatened the cold chain maintenance at all levels especially at the district and health facility levels. By end October, national and governorates cold rooms were all fully functional including the Al Dhale and Taiz Governorate cold rooms which were rendered non-functional and inaccessible for several weeks in May/June and August/September, respectively. However, of the 333 district cold rooms, 246 (74%) remained functional.

Based on field reports, approximately 900 (25%) of the 3652 health facilities with fixed EPI sites were no longer conducting daily vaccination at end October; mainly due to war-related destruction, population displacement from catchments areas and human and other resource gaps.

Consequently, vaccination through fixed site and outreach sessions reduced significantly with Penta 3 and Measles 1 coverage in May/June 2015 being 15 to 25% below the coverage at the same time in 2014.

Epidemiology: Yemen has been polio-free since the WPV1 outbreak of 2005-2006, which resulted in 480 cases. The country also has suffered from three VDPVs outbreaks since April 2011 and last case was on 12 July 2013, as a response to that, Yemen has implemented quality SIAs and has made substantial progress in strengthen of AFP surveillance.

AFP surveillance: The AFP surveillance performance indicators for 2013, 2014 and 2015 remain above certification level at both the national and sub-national levels. In 2015, non-polio AFP rate is 4 /100,000 and stool adequacy is 91%. All governorates have non-polio detection rates above 2/100,000 and 19 governorates out of 22 governorate have adequacy stool sample rate above 80% rates. To enhance AFP surveillance sensitivity, the programme has continued to collect samples from three contacts for all AFP case since May 2013.

SIAs AND IM: In 2015, two rounds of NIDs were conducted in August (with bOPV) and November (with tOPV). In addition, bOPV was administered during the MR national campaign conducted in August. All campaigns reported over 90% administrative coverage. MR campaign was conducted in 64 districts and overall coverage was 83%. In August round the IMs implemented by WHO showed coverage of 93% and 92% via recall and Finger marking respectively. Adventist Development and Relief Agency (ADRA) in collaboration with MoH and WHO covered the entire districts of Al Jwaf with coverage of 92%. In Jan 2016 NID was conducted (with tOPV) with a reported administrative coverage of 90%. MR campaign was also conducted along with NID in Jan in 62 districts and overall coverage was 90%.

The high-risk areas/groups (including mainly the refugees, migrants, IDPs, Bedwins and marginalized people etc.) have been identified and mapped in August, November rounds in 2015 and Jan 2016 and the micro-plans updated accordingly. The surveillance and immunization indicators for the high risk areas are closely monitored in these areas. Cluster of IDPs are identified and OPV and MR vaccination done through outreach and mobile team up to the age of 15 yrs. For reaching high risk groups, the programme tries to use the pause period and/or days of tranquility. Before each SIAs,

discussions take place with influential community leader to ensure security for the teams. In certain areas NGOs and INGOs are involved to support campaigns. In conflict areas the strategy of integrated health interventions is implemented.

Routine Immunization: Yemen attained coverage of 88% in 2014 and 84% in 2015. 61 % of the districts have a coverage above 80% coverage for Penta 3/OPV3 in 2015 as compare to 77% in 2014. 5 Integrated outreach rounds (IOR) were conducted in all Governorates of Yemen (vaccination, IMCI, Nutrition, deworming, Antenatal and family planning services). IORs have been used as a strategy to vaccinate children in hard to reach and security compromised areas. More than 90 mobile teams deployed in various districts for provision of integrated health & nutrition services including vaccination. Yemen introduced IPV in November 2015. National Switch Plan developed and approved by HSSOC and EPI task force. Communication plan for switch in place and IEC material developed.

Communication for Development: C4D uses a combination of approaches including advocacy in high risk areas, social mobilization of local and international NGOs, religious leaders, dissemination of messages through television, radio and SMS as well as community-based activities including house-to-house visits by Community Health Volunteers (CHVs). According to a recently conducted KAP study, 87 percent of caregivers have positive attitudes toward immunization with 90% women and 97% men who strongly agree to allow vaccinators to conduct vaccination at home. In the last round (Nov 2015), 8% of the children were missed with almost half of them (47%) being absent during the campaign and another 17% being missed because of refusals. Campaign awareness remained above 80%. While TV has been the most cited source of information in the previous campaign (36%), its leading role as a source of information has dropped in the last round (15%) according to PCE data. In contrast, awareness through radio has increased from 16% to 20%. A total 9 million SMS messages on polio have been sent.

Vaccine & Cold Chain: Government has no funds to pay for the procurement of traditional vaccine and for procurement of vaccine under co-financing, letter sent to GAVI for exemption from payment under co-financing, reply from GAVI awaited. Vaccine procurement and transportation through support of UNICEF is in progress in order to ensure the availability of vaccines in health facilities. Currently all vaccines are available for Routine & Supplementary Immunization activities. UNICEF provided 216,900 liters of fuel (188,800 diesel and 28,100 petrol) to cold rooms and district vaccine stores. WHO provided 1.00 Million litres of diesel provided to health facilities to make them operational. 34 SPRUs have been installed and there is plan to install additional 117 SPRUs. Due to conflict Djibouti has been used as transit point for vaccine storage and then vaccine transported through UNHAS from Djibouti to Yemen, there are challenges regarding maintaining the cold chain during transportation especially during the transit in Djibouti. Generators provided to run the main cold rooms at all levels.

Preparedness for Outbreak Response: Preparedness and response plan is available. Plan has been revised and updated accordingly in line with ongoing challenges and in light of regional recommendations. The SOPs regarding outbreak response will be incorporated.

Remaining Challenges and Way Forward: Challenges include volatile security situation, lack of electricity and fuel for running health facilities and cold rooms and transportation of vaccines, lack of government funds to pay for the procurement of traditional vaccine and their share under co-financing, low demand for vaccination, shortage of fund for the training and operation cost for the community based surveillance.

Yemen has a plan to conduct at least 2NIDs and 2SNID, 2 MR and 2 TT rounds in 2016. Implementation of AFP emergency plan (mainly AFP samples could chain and transportation to the reference laboratory). There will be focus on vaccinating the IDPs with polio and MR in addition to the other antigens

- Continue to support the operational cost of the EPI/AFP at all levels including the district level. Installation of SPRUs on need basis, to include supporting the use of the solar system for the central and governorate level.
- Strengthen the monitoring & supervision of routine, supplementary activities, AFP surveillance and train CHVs to engage them in AFP surveillance. Mobilization of funds for expansion and operation of NV-stop programme. Integrated outreach activities and vaccination through mobile teams will continue.

Communication activities will be strengthened at field level with focus on high risk areas. There are plans to conduct the cold chain assessment. There is also need to strengthen cross border coordination regarding vaccination with Ethiopia, Djibouti and Somalia.

Kenya

Epidemiology: Kenya experienced a WPV1 outbreak in May 2013 with a total of 14 confirmed cases detected in Dadaab Refugee camps and surrounding host communities in Garissa County, North Eastern Kenya. The government of Kenya in collaboration with partners responded with the implementation of an emergency outbreak response plan to deal with the outbreak. The last case of WPV has date of onset of paralysis of 14th July 2013. An outbreak response assessment conducted in June 2015 concluded that WPV transmission in Kenya has been interrupted.

SAs & Independent Monitoring: Between 2013 and 2015, 17 rounds of Polio SAs were conducted in the immediate outbreak zone, high risk zones and nationwide targeting various age groups between 0- 15years and including adults. Injectable polio vaccine, IPV was successfully administered in December 2013 to children in Dadaab refugee camps and host communities as a strategy to control the outbreak. Polio SAs scheduled for the first half of 2015 were postponed to August and September 2015 due to controversial allegations on the safety of the OPV by the Catholic Church in Kenya. In 2015, two rounds of SNIDs, one in 32 counties and another in 11 counties were conducted on 1-5 August and 29-August to 2 September respectively. Also, a nationwide NID was conducted on December 5th – 9th, 2015. Independent monitoring assessment of all the 2015 rounds showed that a national coverage of 91-95% was achieved. Cross border collaboration has continued to take place since the outbreak between Kenya and its neighbors Ethiopia, Somalia, Uganda and South Sudan supported by partner organizations. Cross border Health Committees have been formed in sub counties sharing borders with these countries. The country will conduct SA in 2016 on 5-9 March and NID April 9-13, 2016.

AFP Surveillance (including Environmental Surveillance): Despite a decrease in AFP case notification between 2014 and 2015, a total of 625 AFP cases were detected in 2015 achieving standard non polio AFP rate of 3.6 and stool adequacy of 85%. However subnational gaps exist with 16% silent sub counties, 89% sub counties achieving non polio AFP rate of $\geq 2/100000$ and 68% achieving a stool adequacy of $\geq 80\%$. Factors responsible for the decline include, high turnover of surveillance personnel, inadequate logistic support for active case search, inadequate support supervision and competing priorities like cholera outbreak. This is being addressed through a surveillance improvement plan implementation. So far 173 new sub county diseases surveillance coordinators have been trained. With funding support from WHO, more will be trained in March 2016. Increased support supervision is being provided by MOH National and partners (WHO Surveillance Officers, STOP Team, Core Group). Surveillance review meetings have been scheduled with the first conducted in January 2016.

Nine sites are currently in operation for environmental surveillance sample collection in 4 counties (Nairobi, Kisumu, Garissa, and Mombasa). A total of 144 samples were collected in 2015: 110 have results, 44 pending. None was positive for WPV. A total of 20 samples have so far been collected in 2016 with pending results.

Communication for Development: Communication and social mobilization activities, including innovative initiatives such as school and nomadic strategies in high risk counties, continue to focus on increasing awareness of campaigns and have been refined to contribute to strengthening of routine immunization and to immediately responding to any community concern on safety of vaccines and other misconceptions. Since the 2014 Catholic Church call for boycott of vaccines, first Tetanus Toxoid and then OPV, communication and social mobilization activities focused on addressing community concerns and maintaining confidence in vaccination activities. One national ambassador and 13 county immunization champions, from poor performing and border counties were deployed to provide outreach to vaccine resistant groups reaching 35,807 households and 34 religious sect congregations during December 2015 NID. As a result of the aggressive advocacy, communication and social mobilization activities, 91 - 95% of children were reached during 2015 rounds. UNICEF contracted Ipsos Synovate Kenya to conduct an evaluation of the reach and impact of the December 2015 NID using both qualitative and quantitative research methodology. Key highlights include: 67% of the 96% who were vaccinated attributed acceptance to communication strategies deployed; there is a high awareness of polio virus and association with paralysis (86%); high awareness of what vaccination is (83%); high perception of risk (81%). Radio had the most reach and recall and investment in this medium should be maintained if not increased. Lessons learned that will inform programme improvement: In urban and amongst knowledgeable population like Nairobi, high awareness is not the likely influencer for seeking vaccination. Although awareness of the campaign was high (83%), recall of the communication was not very strong which may be due to lack of emotional engagement through the communication strategies used. Some of the key concerns that arose from this campaign among caregivers were: an increased frequency in which the vaccine is being given to children, quality of the polio vaccine and the administrators. There is need to expand people's knowledge on the disease so as to ensure maximum message retention of any communication. Addressing these gaps will help improve coverage.

Routine Immunization: Kenya conducted a Demographic Health Survey in 2014 and the results indicated an OPV3 performance of 81% same as that recorded by the 2014 administrative data. The

country plans to implement tOPV to bOPV switch on 18th April 2016 and conduct Measles Rubella campaign in May 2016. There are also plans to support Counties with high numbers of unimmunized/under immunized children to strengthen Routine Immunization services.

Cold Chain Capacity: Kenya has contracted and outsourced delivery and distribution of vaccines with refrigerated trucks to ensure quality is maintained. Shipment of vaccines in the country has reduced from four to three times per year due to accurate forecasting and quantities ordered. In 2015, an additional 400 EPI fridges were procured, including 30 solar fridges, and distributed to new health facilities and those in high risk areas. In addition, the country is mobilizing additional funds from GAVI to ensure all health facilities have functional cold chain. 16 counties with high inequity have been prioritized for support to reduce numbers of under vaccinated children.

Preparedness for Outbreak Response: plan developed in 2015. The country is in the process of updating and finalizing the 2016 outbreak response plan using the new WHO template.

Remaining Challenges and/or Way forward: Inadequate funding for Surveillance & Routine Immunization activities by National & County governments and unstable funding for vaccine procurement at national level. Gaps in AFP surveillance due to high staff turnover, inadequate active case search & support supervision, poor funding, competing priorities; Insecurity especially in high risk areas (North Eastern Kenya, Lamu, Marsabit, West Pokot, Turkana, Samburu).

Sudan

Epidemiology: Sudan has been polio-free since 15 March 2009. Although Sudan is polio free, it is considered at high risk of importation. Sudan hosts more than 2.5 million people in the IDPs and refugee camps.

Access and Security Related Issues: For the conflict affected areas in South Kordofan and Blue Nile states, Sudan has established vaccination points around inaccessible areas of SKO, BNI, and WKO states. Stand-by teams are established in the 3 states and take any opportunity to vaccinate these areas. The micro-plan has been updated. Staff are ready once agreement of both the Government of Sudan and the SPLM-N is secured.

Surveillance status: The AFP surveillance performance indicators remained above certification level for the last 5 years. In 2015, the Non polio AFP rate is 2.6 per 100,000 children under 15, the adequate specimens' collection rate is 97% and non-polio enterovirus isolation rate is 10%. In addition to NPEV, Sudan monitors and report Sabin virus isolation in stool. WHO supports assignment of 15 National surveillance officers. A risk assessment was done at state (sub-national) level.

SAs: Two SNIDs were implemented during 2015 with high quality. The reported coverage was above 95% and the independent monitors results was 97-98%. Another SNIDs will conducted in 14-16 March 2016 targeting 4.9 million children <5 years in high risk areas in 18 states. A SNIDs is planned for October 2016. In order to improve the quality of SAs, there was an improvement of microplans at sector level for each locality (district) especially the quality of maps and microplans for special population. The supervision and monitoring used innovative approaches including; the use of cards,

the use of mobile phone, mosque and church prayer. Interview, Siel shay "Tea Maker" Interview, and staff interview. Several types of personnel supervise the SIAs and independent monitors.

Communication for Development: Social mobilization continued during SIAs to increase the awareness of the people. Key officials like Mu'amads, the members of Legislative Council of localities, participated in the opening ceremonies at their administrative levels and advocated for vaccination in areas where teams vaccinated children. To increase community participation in the acceleration of immunization, 295 community leaders were selected from their own tribes in White Nile (SSFCs) including among every nomads group, IDPs in Darfur states. They were trained and involved in planning, implementation and monitoring of communication activities including addressing refusals and dropouts.

Interventions in special population groups: In view of ongoing crisis and dynamic population movements, Sudan targets refugees and IDPs for vaccination and surveillance activities with special microplans, and documents all immunization and surveillance activities conducted among IDPs and vaccination points at cross border points.

Outbreak Response Activities: The National Polio Outbreak Preparedness and Response Plan has been developed for importation of wild poliovirus (WPV) or vaccine derived polio virus (VDPV). Sudan has implemented the Polio Outbreak Simulation Exercise (POSE) during 26-27 January 2016.

Routine Immunization: Sudan has maintained OPV3 coverage above 90 % for the last three years with 93% of districts attaining OPV3 coverage more than 80%. To further improve the coverage Sudan focuses on states of low coverage. FMOH Sudan strengthened supportive supervision, cold chain capacity and functionality and capacity building according to the requirements of introduction of IPV in and switch plan.

Remaining Challenges and/or Way Forward: The challenges include; continued armed conflict in SK and BN and tribal conflict in Darfur states. Change of the path of the nomads. Large numbers of refugees from South Sudan pose a high risk on the programme. Cold chain destruction and strengthening the infrastructures and coordination for immunization services in border areas

Sudan plans to implement two OPV SNIDs in March and October 2016. Sudan's priorities for the next six months are to secure and sustain programme funding (Government of Sudan and donors) and maintain Sudan polio free status and strengthen the links with community through the communication and social mobilization plan based on new communication strategies to address detected gaps.

Tanzania

Outbreak preparedness and response plan Outbreak response plan developed and presented to African Region Certification Committee (ARCC) in November, 2015. The simulation exercise was postponed due to the ongoing cholera outbreaks.

AFP surveillance: Non-Polio AFP case detection rate increased to 3.5 in 2015 from 2.1 in 2001 per 100,000 population of children aged less than 15 years. However, there are 3 regions which have less than 2 in Non-Polio. Special sensitization activities are going on in these regions including clinician

and community leader's sensitization and plan for next batch of National Stop team member's deployment. Furthermore, the stool specimen's adequacy rate stands at 94% national level, with only one region with stool specimen's adequacy rate of 67%. The region is among of priority for special surveillance sensitization. All reported AFP cases are investigated with their immunization status and actions are taken immediately including establishment of fixed posts in geographically hard to reach areas and investigation of additional AFP cases from the reporting communities.

Routine Immunization: Tanzania is planning to continue improving routine immunization through ensuring regular availability of bOPV vaccine to prevent importation /emergency of cVDPV transmission. In order to increase the herd immunity in the districts with low coverage, the country is implementing Reach Every Child (REC) strategy and Periodical Intensification of Routine Immunization (PIRI) more specifically in geographically hard to reach areas and for pastoralist communities. Nevertheless, the country has made a plan and is reach to continue with switch from tOPV to bOPV on 17th April 2016 and will introduce IPV vaccine into routine immunization as soon as the vaccine will be available in the global market. Ensure government ownership of routine immunization including provision of additional financial resources, capacity building and cold chain logistics is among of priority key activity to be implemented in 2016. For regions and councils with sub optimal performances, the country will deploy and post quarterly National STOP team members to intensify vaccines preventable diseases surveillance in line with dissemination of updated SOPs and preparedness plans to all districts.

Remaining Challenges and/or Way Forward: Among the challenges seen so far include, the inadequate funding for surveillance activities such as funds for deployment of NSTOP teams to intensify surveillance performances. The unavailability of IPV to be introduced before Switch is also a challenge especially with the risks associated with the delayed introduction of IPV. Health Workers at health facility level fully engaged more on Cholera outbreak and therefore have limited time for active search and immunization services. Immunization resources people in most Councils and some at Regional levels are engaged in Cholera outbreaks with less time given for supportive supervision is among of the existing challenge in the country.

Djibouti

Background: No cVDPV has been recorded in the last 5 years.

AFP Surveillance: The AFP surveillance remains weak; the two key performance indicators – the NPAFP rate is 1.0 per 100 000 under 15 years and the stool adequacy is 66.7% - which is below international standards

Routine immunization shows that none of the districts have reached the target in relation to OPV 3 coverage (80%), and this is also true for the country as national coverage has been below 90% for the past 5 years (82% OPV3, 2015)

SAs: All districts except Arta, Dikhil and Tadjourah organized polio SAs in 2015 with at least 95% coverage. The coverage at national level was 104% and 103%. Arta and Dikhil have the poorest performance.

Special populations: An estimated 6371 Yemenite are in Djibouti; Activities directed to refugees include checking of immunization status of all children upon arrival, providing cold chain equipment in refugee camps and awareness session on the importance of vaccination; Activities directed to migrants and nomadic populations include medical assistance from IOM & Health facilities and mobile teams. Of note three weeks ago there was an influx of more than 700 individuals from Ethiopia.

Remaining Challenges and/or Way Forward: There is a need to strengthen data management organization and coordination between different Governments institutions.

- Implement the newly developed plan (Recruitment of a national surveillance consultant, carry out refresher training on surveillance,
- Conduct cold chain & logistics inventory,

Tracking of stool sample of AFP cases notified, recruitment of community workers for surveillance at community level, microplans for district & formative supervision 6 districts, monthly analysis of routine data, Data quality self-assessment in 6 districts, independent Monitoring & LQAS).

Eritrea

Epidemiology: Eritrea has been polio-free since 2008. Although Eritrea is polio free, it is considered at high risk of importation in 16 sub-zobas bordering Sudan, Djibouti and Ethiopia.

Outbreak Response Activities: A Preparedness and Response Plan has been developed. A simulation exercise is tentatively scheduled for 29 February to 4 March, 2016.

Access and Security Related Issues: There are few localities (16 sub-zobas) that are hard to reach. The respective Zoba take any opportunity to vaccinate these areas

Surveillance status The NP AFP rate for the country was at 4.4% and the stool adequacy rate was 99% for the year 2015. Community based IDSR guideline has been developed and tested in Northern Red Sea Zone but needs to be expanded nationwide. The national completion rate for the IDSR weekly and monthly reports for the years 2014 and 2015 was 100%. In comparison, the national weekly and monthly of timeliness reports were above 95% for the same period.

SAs: NID was conducted in January 2016 with a coverage of 95% by Independent Monitoring. The reasons for the 5% unvaccinated children were that 45% of them reported the child was already given OPV in routine immunization services within the past 1 month; while 29% were absent for different reasons, however there was no (0%) refusals. Two SNIDS are planned for May and June 2016 targeting 459,000 children under 5 years and children in high risk areas in 8 sub-zobas. Multi-pronged approaches will be used to enhance SNIDS coverage. Involvement of religious leaders has been useful to ensure messages are sent through multi-channels.

Communication for Development: C4D continues to support EPI programme through the development of a national communication strategy and Zoba level communication and social mobilization plan. Training of health promoters, media and social mobiliser is one of the main focus area for C4D in Eritrea. According to IM data for the most recent campaign in Eritrea, campaign awareness is almost universal; only 5% of targeted children were missed; of whom 29% were missed

because 'child was absent.' The most popular sources of information are social mobilisers and/or health volunteers and health worker and/or vaccinators.

Interventions in Special Population Groups: Eritrea continues to provide immunization services to nomads and refugees. As the nomads migrate on seasonal basis, the MOH organizes schedules to provide the relevant vaccines in line to their migration pattern. In Umkulu refugee camp located in the Northern Red Sea region, the camp is regularly monitored for vaccination and other diseases; surveillance needs are integrated into the Zoba level micro-plans.

Routine Immunization: The country has maintained OPV3 coverage above 90 % for the last three years. To improve the coverage, Eritrea will further enhance its RI by focusing on few subzones with low vaccination coverage. MOH Eritrea strengthened supportive supervision, cold chain capacity and functionality and capacity building according to the requirements of introduction of IPV and the switch plan.

Remaining Challenges and/or Way Forward: The challenges include: reaching hard to reach communities and nomadic lifestyle, mobile population at the border areas; materializing cross-border coordination meetings; enhancing surveillance capacity of health workers and communities; unavailability of resources (technical and financial) The country plans to implement two OPV SNIDs in May and June 2016. Switch is also planned for April 2016.

Eritrea's priorities for the coming year include: Enhancing SOS in hard to reach and nomadic population; Supporting for next National EPI coverage survey; expedite implementation of cross border coordination meetings; Strengthening health facility and community-based surveillance systems; resources mobilization for continued implementation of communication interventions and gathering social data.

Uganda

Epidemiology: The last laboratory confirmed indigenous wild poliovirus case type 1 was reported in October 1996 from Mukono District, Central Region. However, in 2009 and 2010 Uganda experienced importations. As long as WPV is still circulating somewhere in the world, Uganda still remains at risk of WPV importation due to influx of refugees and cross border movements. The suboptimal SIAs coverage missing some children, gaps in routine immunization performance and suboptimal AFP surveillance also put Uganda at risk.

AFP Surveillance: The performance of AFP surveillance has continued to improve over the last 2 years with the NP-AFP above 3 for both years, 3.24 in 2014 and 3.23 in 2015 with no silent district reported in both years. Stool adequacy has been maintained over 80% at national level although with gaps at sub national level. Key interventions implemented during 2015 included intensifying focused active surveillance by deployment of both national and international STOP teams, regional surveillance review meetings, training in IDSR concepts of operational level surveillance focal persons, financial and technical support to EPI/IDSR regional hubs and provision of a reimbursement fund for stool sample transportation to the national Laboratory in real time. Implementation of recommendations made for the surveillance review conducted in 2015 is ongoing; and an annual plan is in place to address sustainability.

SIAs and IM -The 2015 SIAs conducted in January 2015 (NID) and in February 2015 (SNID in 41 districts) showed great improvement achieving more than 90% in both rounds (IM data). According to independent monitoring data, 57% and 63% of the districts achieved coverage of more than 95%

in round 1 and round 2 respectively. The January 2016 round 33% of the districts achieved coverage of 88% by finger marking and 21% registered a coverage of less than 80%.

Communication for Development: C4D continued supporting SIA rounds through integration of communication activities into district plans, production and dissemination of communication materials, radio campaign in 16 languages (3192 spots) and social mobilization of NGO partners (Rotary, Inter Aid, LIONS, MAQS, Red cross, Inter Religious Council, FBOs) through the national social mobilization task force. In 2015, specific focus was made on the engagement of religious leaders in awareness-raising about the importance of routine immunization. This included a high level advocacy with the religious leadership. As a result, over 11,000 religious leaders were engaged during the SIAs. Communication was also integrated in the RED/REC micro plans for 50% (60) districts including mobile populations. Community leaders, teachers and other influencers were engaged in social mapping of hard-to-reach communities. Campaign awareness is over 85 percent with radio (27) and social mobilisers (27%) being the most cited sources of information according to independent monitoring data.

Routine Immunization: For 2015 period, the national performance for OPV3 coverage was over 95%, an improvement when compared with the same period in 2014. There was no district with coverage of less than 50% (compared to 2 districts for same period in 2014). Uganda still has ten districts with coverage between 50-79%. Data quality inadequacies are being addressed by the Data Improvement Teams. Plans and resource mobilization are under way to conduct a coverage assessment survey by the end of 2016; the last one was conducted 10 years ago.

Cold Chain Capacity: Uganda has a well-functioning cold chain system, with technician at district level for repair and maintenance. There are still occasional reports of vaccine stock outs mainly at health facility levels due to gaps in capacity in vaccine stock management and distribution gaps. CHAI is scaling up training in vaccine stock management in all districts. The monthly national level vaccine management meetings are in place. GAVI HSS funds have been used to procure cold chain equipment and all districts have adequate cold chain capacity to accommodate new vaccines.

Preparedness for Outbreak Response: A Polio Outbreak Response Simulation Exercise (PORSE) was conducted in August 2015 to test the robustness of 'the Ugandan National polio outbreak response plan' that was developed using the new guidelines. Observations were used to finalize the plan that was shared with all TAG members. A new plan is under development using the new WHO guidelines. IPV will be introduced on March 21, 2016 and the switch will be April 25, 2016.

Remaining Challenges and/or Way Forward: The country still has challenges in data management, surveillance, communication, NVI and SIAs among others. These have been addressed through key interventions included in the annual work plan. The IPV introduction will be in March and the tOPV –bOPV switch is planned for 25/04/2016.

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