World Health Organization

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

12th Meeting Report

10 to 12 February 2015
Nairobi, Kenya

Contents

List of acronyms

AFP	Acute flaccid paralysis
aVDPV	Ambiguous vaccine derived polio virus
bOPV	Bivalent oral polio vaccine
C4D	Communication for development
cVDPV	Circulating vaccine derived poliovirus
DFA	District field assistant
EMRO	Eastern Mediterranean Regional Office (WHO)
EPI	Expanded program on Immunization
ESARO	East and Southern Africa regional office (UNICEF)
FAO	Food and Agriculture organization
GPEI	Global Polio Eradication Initiative
HOA	Horn of Africa
HTR	Hard to Reach
IATA	International air transport association
IDP	Internally displaced population
IM	Independent monitoring
LQAS	Lot quality assurance sampling
NGOs	Non-governmental organizations
NID	National immunization day
NPAFP	Non polio acute flaccid paralysis
NPEV	Non polio enterovirus
N-STOPers	National 'Stop transmission of polio' members
OPV	Oral polio vaccine
PCE	Post campaign evaluation
RI	Routine immunization
SIADs	Short interval additional dose strategy
SIAs	Supplementary immunization activity

SNID	Sub national immunization day
SOS	Sustained outreach strategy
TAG	Technical Advisory Group
TC	Teleconference
tOPV	Trivalent Oral polio vaccine
UNICEF	United Nations Children Fund
VDPV	Vaccine derived polio virus
WHO	World Health Organization
WPV	Wild polio virus

Executive Summary

The 12th meeting of the HOA TAG was held from 10 to 12 February 2015 in Nairobi, Kenya under the chairmanship of Dr. Jean-Marc Olivé. In the context of the HOA outbreak and the target of a 'Polio Free Africa 2015', the 12th HOA TAG meeting was called with following specific objectives:

1. To review the situation and progress in closing the outbreak in HOA with specific focus on Somalia and Ethiopia, and provide recommendations.
2. To review the plan, progress and remaining risks in closing the cVDPV outbreak in South Sudan and provide recommendations.
3. To review the risks of WPV importation / cVDPV emergence, outbreak response preparedness and risk mitigation strategies and provide recommendations.
4. To review the sensitivity of surveillance in HOA countries and provide recommendations to strengthen the ability to detect transmission.
5. To review progress in addressing Communication Challenges in reaching the pastoral and other hard to reach communities.

The TAG appreciates country achievements and implementation status reports on the 11th TAG's recommendations. However, the TAG is concerned that some recommendations (e.g., 'improving fund flow mechanism', 'standardization of reporting at different levels', 'outbreak preparedness and response plan and simulation') were not fully implemented.

The TAG regrets the absence of Ethiopia Ministry of Health representatives due to an ongoing SIA in the country.

The TAG notes the significant progress made in Ethiopia and Somalia with no wild poliovirus (WPV) reported since 5 January (Ethiopia) and 11 August (Somalia) 2014. However, low level undetected WPV circulation in Somalia cannot be ruled out.

The TAG appreciates the significant efforts made in vaccinating children in the three conflict-affected states in South Sudan in response to the circulating vaccine-derived poliovirus (cVDPV) outbreak. However, it notes the significant risk of continued cVDPV transmission and spread.

The TAG notes that outbreak preparedness and response plans have been prepared by most countries and these need to be updated for 2015 as the TAG remains concerned about the risk of WPV transmission following importation and possible cVDPV re-emergence.

The TAG notes overall sensitive surveillance in the HOA and significant improvement in adequate stool collection and testing in high risk areas in Ethiopia and Somalia. However, undetected WPV and cVDPV circulation cannot be ruled out.

The TAG notes significant progress made in reaching pastoral and other hard to reach groups. Joint microplanning and integrated implementation by social mobilizers and district field assistants (DFAs) is occurring at the lowest level. More communication and social data are available and being used for planning, although problems remain with data availability and interpretation at the sub-national level.

The TAG reviewed the HOA Plan to Close the Outbreak and Strategies for Risk Mitigation and concludes that of the three objectives, one was achieved (i.e., interrupt transmission in Somalia and Ethiopia) and two were partially achieved. (i.e., strengthen surveillance sensitivity, and mitigate risk).

All the above significant improvements in program performance across the HOA have resulted in dramatic reduction in number of cases from 2013 to 2014. However, there is significant risk of low level of transmission due to large numbers of unreached children and weak routine immunization. This is a particular problem in Somalia, South Sudan, Sudan, Kenya, Ethiopia and Yemen.

The TAG made the following key recommendations:

1. All HOA countries should update their 'outbreak preparedness and response plan' for 2015. All such plans should include communication elements for both preparedness and response to mitigate the risk of WPV and VDPV outbreaks.
2. Detailed investigation should be conducted for all zero dose NPAFP cases, as per the WHO global guidelines.
3. Countries should closely monitor NPAFP cases with unknown vaccination status and validate 20% of all NPAFP cases.
4. For every failed lot in LQAS monitoring, remedial action should be taken and must be documented.
5. Data from permanent vaccination points should be analysed for zero doses and categorised by the type of vaccination point.
6. All HOA countries should monitor vaccine utilisation in polio SIAs and report, after each polio round, data on vaccine utilisation and stock balances.
7. Existing efforts towards achieving social mobilization excellence should be sustained at least through the end of 2015.
8. Steps should be taken to improve routine immunisation particularly in high risk areas of HOA countries. All available resources for strengthening RI, including transitioning of the polio infrastructure, should be used and documented.
9. Promotion of routine immunisation through polio communication assets should be urgently intensified.
10. The HOA plan for 2015 should be fully implemented and monitored on a monthly basis by the HOA Coordination Office and the WHO and UNICEF Regional Offices.

I. Preamble

The 12th meeting of the Horn of Africa Technical Advisory Group (HOA TAG) was held from 10 to 12 February 2015 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 the WHO Representative Kenya, and attended by representatives from Djibouti, Eritrea, Kenya, Sudan, South Sudan, Somalia, Uganda, Yemen and Tanzania. Ethiopia was not represented. It is worth noting that in addition to the traditional partners – CDC, USAID, Red Cross, Core Group, Bill & Melinda Gate Foundation - a representative of IOM participated in the meeting.

The last meeting was held in August 2014 in Amman, Jordan, followed by a teleconference on 10 November 2014 to discuss the progress in implementation of the 11th TAG recommendations.

Globally, the overall number of wild poliovirus cases decreased from 416 in 2013 to 359 in 2014. The most significant reduction among the endemic countries was in Nigeria with 5 cases confirmed in 2014 down from 53 in 2013. However, in Pakistan a threefold increase in wild poliovirus cases from 93 in 2013 to 306 in 2014 was reported.

The global polio priorities for 2015 as decided by Global Polio Eradication Initiative (GPEI) are as below:

1. Focus on surveillance (AFP and environmental)
2. Keeping Africa and the Middle East polio free
3. Preventing outbreaks and preparing for outbreak response
4. Getting Pakistan and Afghanistan back on track
5. Stopping all cVDPV2
6. Prioritizing meeting pre-requisites of OPV2 withdrawal & Routine Immunization (RI) strengthening

Of the three outbreak countries in HOA, Kenya and Ethiopia have not registered any new wild poliovirus case for over 18 and 12 months, respectively. Somalia has now gone six months without reporting a new wild poliovirus case, the last case occurring in August 2014.

In October 2014, two circulating vaccine-derived polioviruses (cVDPVs), with onset of 10th and 12th of September 2014, were reported in South Sudan's Unity State, one of the three security compromised States. The cases were in the protected camps located in Bantue town, Rubkona County but were from two different Payams (Districts). Ambiguous vaccine-derived polioviruses (aVDPVs) were reported in Uganda with dates of onset 13th July and 13th August 2014 from two distant districts of Kwen and Kamuli, respectively. Similarly, in January 2015, Ethiopia reported one aVDPV with onset of paralysis 10th of November 2014 in Nogob Zone, Somali Region.

All the outbreak countries, as well as the high risk countries, have continued to implement SIAs in response to the wild poliovirus outbreak. Somalia has implemented 16 SIAs in 2014 with six of these conducted after the last wild poliovirus on the 11th of August 2014. Ethiopia conducted seven SIAs in 2014 and six were conducted after the last wild poliovirus in January 2014. All other HOA countries except Tanzania implemented between two and four SIAs in 2014.

The HOA countries have continued to implement proven interventions including the updating of microplans with a focus on nomadic and other mobile populations, using permanent and transit vaccination points, conducting SIADs whenever indicated, and targeting expanded age groups.

In further efforts to validate the SIAs over and above the established independent monitoring (IM) process, LQAS has been introduced in Ethiopia, Kenya, Uganda and South Sudan, and the use of hand-held devices to support the LQAS process was piloted in two districts of Somalia.

In the context of the HOA outbreak and target of 'Polio Free Africa 2015', the 12th HOA TAG meeting was called with following specific objectives:

1. To review the situation and progress in closing the outbreak in HOA with specific focus on Somalia and Ethiopia, and provide recommendations
2. To review the plan, progress and remaining risks in closing the cVDPV outbreak in South Sudan and provide recommendations
3. To review the risks of WPV importation / cVDPV emergence, outbreak response preparedness and risk mitigation strategies and provide recommendations.
4. To review the sensitivity of surveillance in HOA countries and provide recommendations to strengthen the ability to detect transmission.
5. To review progress in addressing Communication Challenges in reaching the pastoral and other hard to reach communities.

II. Conclusions and Recommendations

1. General Conclusions

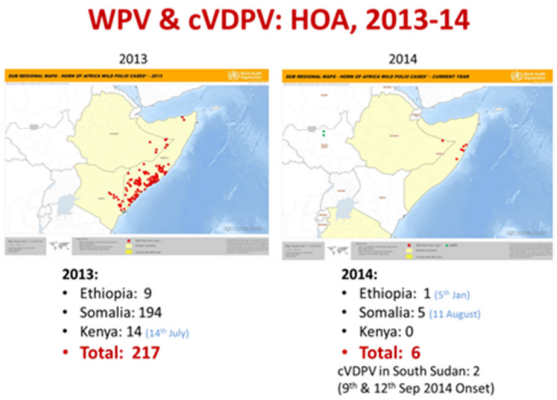
The TAG appreciates country achievements and implementation status reports on the 11th TAG's recommendations. However, the TAG is concerned that some recommendations (e.g., 'improving fund flow mechanism', 'standardization of reporting at different levels', 'outbreak preparedness and response plan and simulation') were not fully implemented.

The TAG appreciates country preparation for the TAG teleconference between the 11th and 12th TAG meetings, as well as the ongoing effort of the HOA Coordination Office. The TAG also recognizes the exceptional support provided by the polio laboratories despite an increased workload, and acknowledges the support provided by the CORE Group in facilitating cross-border activities and meetings.

The TAG deeply regrets the absence of Ethiopia Ministry of Health representatives due to an ongoing SIA in the country.

Conclusion 1:

The TAG notes the significant progress made in Ethiopia and Somalia with no wild poliovirus (WPV) reported since 5 January (Ethiopia) and 11 August (Somalia) 2014 and ~200,000 newly accessed children in Somalia (~40% reduction). However, the TAG notes that low level undetected WPV circulation in Somalia cannot be ruled out.

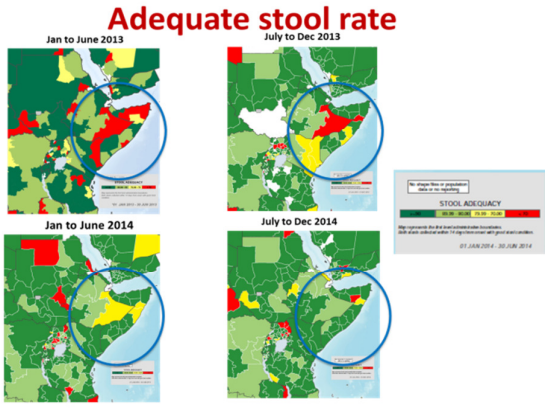


Conclusion 2:

The TAG appreciates the significant efforts made in vaccinating children in the three conflict-affected states in South Sudan in response to the circulating vaccine-derived poliovirus (cVDPV) outbreak. However, it notes the significant risk of continued cVDPV transmission and spread due to the large number of unreached children that remain despite these efforts.

Conclusion 3:

The TAG notes that outbreak preparedness and response plans have been prepared by most countries. These plans need to be updated for 2015 as the TAG remains concerned about the risk of WPV transmission following importation and possible cVDPV re-emergence in countries with a large number of unreached children (i.e., Somalia, South Sudan, Yemen and Ethiopia) and low routine immunization (RI) coverage in many high risk areas.



Conclusion 4:

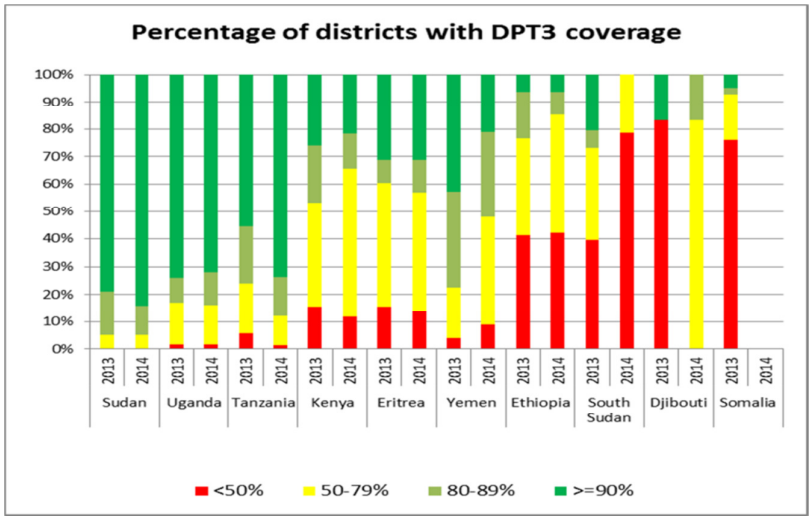
The TAG notes overall sensitive surveillance

in the HOA and significant improvement in stool collection and testing in high risk areas in Ethiopia and Somalia. However, undetected WPV and cVDPV circulation cannot be ruled out, particularly in the three conflict-affected states of South Sudan, Djibouti, high risk pastoral communities in Somali region (Ethiopia), and Puntland (Somalia).

Conclusion 5:

The TAG notes significant progress made in reaching pastoral and other hard to reach groups. Better understanding of mobile population groups, clan denominations, and the pastoralist lifestyle now informs tailored communication approaches used by a trained and supervised social mobilization workforce. Joint microplanning and integrated implementation by social mobilizers and district field assistance (DFAs) is occurring at the lowest level. More communication and social data are available and being used for planning, although problems remain with data availability, and interpretation at the sub-national level. The TAG compliments Kenya for engaging primary school children in community awareness and in tracking missed children during polio campaigns.

Other conclusions:



- The TAG endorses the *HOA Plan for Feb – Sep 2015* ***(Annex II)***.
- In the view of Objective 2 of the *Polio Eradication and Endgame Strategy 2013-2018*[1], the TAG notes that all countries plan to introduce IPV in 2015 (***Annex III***) and are working to improve RI. However, many countries still have significantly low RI coverage with sub-national variation.
- The TAG endorses the proposed SIA calendar but notes that implementation must be done in the context of available global financial and vaccine resources.
- The TAG notes that vaccine utilization is not well documented except in Kenya, Sudan and Yemen.
- The TAG reviewed the *HOA Plan to Close the Outbreak and Strategies for Risk Mitigation* and concludes that of the three objectives, one was achieved (i.e., interrupt transmission in Somalia and Ethiopia) and two were partially achieved. (i.e., strengthen surveillance sensitivity, and mitigate risk).

[1] Objective 2: Strengthen immunization services in focal countries, introduce IPV, and withdraw OPV2 globally.

Progress in *HOA Plan to Close the Outbreak and Strategies for Risk Mitigation*

Objective	Achievement
Strengthen sensitivity of surveillance to detect lowest level of transmission	**Partially achieved.** There has been significant improvement in sensitivity of surveillance in Ethiopia and Somalia particularly in adequacy of stool. Strategy of contact sampling from AFP cases and healthy children sampling in Somalia further increases sensitivity. However there are still gaps at subnational level
Urgently close the outbreak by interrupting transmission in Somalia and Ethiopia with no further cases.	**Achieved.** No WPV transmission detected after 11th August 2014
Mitigate risks	**Partially achieved.** Countries have done preventive campaigns however there are still gaps in population immunity and routine immunization

In summary the TAG identified following key risks:

- Surveillance sensitivity
- Somalia and Ethiopia:
    - Up to 0.36 million children in non-SIA areas of South Central Somalia
    - Hard to reach/ pastoral communities of Somalia
    - Gap in population immunity in Somali region of Ethiopia
- Complex humanitarian emergency situation in South Sudan and Yemen
- Re-importation
- Emergence of cVDPVs

All the above significant improvements in program performance across the HOA have resulted in dramatic reduction in number of cases from 2013 to 2014. However, there is significant risk of low level of transmission due to large numbers of unreached children and weak routine immunization. This is a particular problem in Somalia, South Sudan, Sudan, Kenya, Ethiopia and Yemen.

2. Recommendations

Cross Cutting Recommendations

1. The TAG re-iterates its earlier recommendation that, utilising WHO global guidelines, all HOA countries should update their 'outbreak preparedness and response plan' for 2015. All such plans should include communication elements for both preparedness and response to mitigate the risk of WPV and VDPV outbreaks.
2. Data analysis now being done by the HOA Coordination Office on reverse cold chain quality, reasons for inadequate stool collection, and compatible cases should be included in the HOA monthly bulletin.
3. Detailed investigation should be conducted for all zero dose NPAFP cases, as per the WHO global guidelines.
4. NPAFP cases with reported "unknown vaccination status" are prima facie evidence of poor case investigation and documentation. Countries should closely monitor NPAFP cases with unknown vaccination status and validate 20% of all NPAFP cases.
5. The TAG recommends that for every failed lot in LQAS monitoring, remedial action be taken and must be documented.
6. The effective collaboration with FAO for vaccination of pastoral communities should be documented. Similar opportunities for collaboration with other social service programmes (e.g., other services dealing with animal health, food distribution schemes, and WASH programmes) should be further explored in all HOA countries.
7. Data from permanent vaccination points should be analysed for zero doses and categorised by the type of vaccination point. This information should be used for rationalising and strengthening the transit point strategy, particularly regarding the number and location of transit points.
8. For 'hard to reach' areas / populations, vaccinators should be recruited from the host community.
9. Countries already doing 'community based surveillance' should document the impact of this type of surveillance and present their findings at the next TAG meeting.
10. The TAG notes issues of account reconciliation in Somalia and Uganda (for WHO and UNICEF, respectively). Reconciliation of accounts is the responsibility of country offices. In any country where non-closure of financial accounts is a problem, with resulting delays of fund flows, it should be corrected to ensure that no planned campaign is delayed or cancelled. Mechanisms should be set up to identify such issues in advance and take corrective actions.
11. The TAG appreciates that some countries presented data on vaccine wastage during the polio SIAs and a few also presented information on stock balance positions. The TAG recommends that all HOA countries monitor vaccine utilisation in polio SIAs and report, after each polio round, data on vaccine utilisation and stock balances. UNICEF ESARO is tasked to monitor vaccine utilisation, through collection and analysis of such information and present a summary analysis at the next TAG meeting.

12. Existing efforts towards achieving social mobilization excellence should be sustained at least through the end of 2015. Training of social mobilizers, integration of social mobilization as part of the microplans, management of interventions using social data and tailored health education tools should be completed and reported upon.
13. In view of objective 2 of the *Polio Eradication and Endgame Strategy 2013-2018* (i.e., "strengthen immunisation services in focal countries, introduce IPV and withdraw OPV2 globally"), the TAG recommends that steps should be taken to improve routine immunisation (RI) particularly in high risk areas of HOA countries. The TAG also suggests that all available resources for strengthening of RI, including transitioning of the polio infrastructure, should be used, documented, and presented at the next TAG meeting.
14. Promotion of routine immunisation through polio communication assets should be urgently intensified. Countries should develop and implement clear plans that specify how routine immunisation is promoted and integrated with the polio communication programme by social mobilizers.
15. The HOA Coordination Office and countries should conduct regular desk reviews of surveillance, lab, SIA, and transit data, including triangulation of data and analysis of trends to identify issues and initiate corrective actions.
16. The *HOA plan for 2015* should be fully implemented and monitored on a monthly basis by the HOA Coordination Office and the WHO and UNICEF Regional Offices.

TAG endorses the SIA calendar proposed for Feb to August 2015

Country	2015							
	Feb	Mar	April	May	June	July	August	Other activities
Somalia	NID-b, HTR-SIA	NID-b, HTR- SIA	NID-t	SNID-t	SNID-b HTR-SIA		SNID-b HTR-SIA	4 SIADs in new accessible areas
Ethiopia	NID-t	SNID-b	SNID-t	SNID-b				
Kenya			SNID-t	SNID-b				
South Sudan	NID-t	NID-b						4 SIADs in new accessible areas
Yemen		NID-b	NID-t					
Uganda	SNID-t	SNID-t*						
Sudan		SNID-t						
Djibouti		NID-t						
Eritrea								
Tanzania								

Country Specific Recommendations

Somalia:

1. TAG noted that vacancies in Somalia still exist. The country and EMRO should take urgent action to fill these vacancies.
2. The Somalia Emergency Action Plan has not been fully implemented. It should be fully implemented on a priority basis, and extended up to the next outbreak response assessment.
3. In view of low RI coverage and risk of cVDPV, the country should use tOPV in two of the SIAs in the first half of 2015.
4. The TAG noted that the strategy of Hard to Reach (HTR) SIADs and collaborative vaccination with FAO is reaching a high proportion of unreached children (27% 0 doses during HTR SIADs and 31% during joint vaccination with FAO). These strategies should be continued taking into account available resources. Other similar opportunities for joint interventions like animal husbandry, food distribution, WASH, nutrition etc. should be explored, used and documented.
5. Given recent experience of trials of different methods of PCE (post campaign evaluation), the TAG recommends that LQAS using handheld devices should be explored in areas where such an approach is feasible.
6. TAG is pleased to note that the number of inaccessible children has been reduced from approximately 0.6 million to 0.35 million and recommends that the strategies for inaccessible areas including 'SIADs in newly accessible areas', permanent vaccination points and low profile vaccination should be continued.
7. The TAG compliments improved quality and intensity of social mobilization activities throughout Somalia and recommends using programme access analysis, to develop and implement specific communication plans for districts of the South Zone that currently have limited social mobilization presence.
8. The TAG recommends expediting the development of pastoralist-specific communication products informed by research on pastoralist lifestyle.

South Sudan:

1. The TAG expressed serious concern on the situation in South Sudan and recommends that all opportunities of vaccination should be explored in the three northern conflict affected states, particularly engaging all involved parties to secure access for health, humanitarian and immunization services.
2. The TAG appreciates the initiative of permanent vaccination at crossing points and in IDP camps and recommends that this strategy should be expanded and documented. Vaccination points should be established at all crossing points coming out from conflict affected areas.
3. TAG expressed particular concern on low surveillance sensitivity in conflict affected states with 15 counties where no AFP cases were reported in 2014. The TAG recommends that the country should explore engaging NGOs and communities in surveillance. The TAG also recommends expanding the ground staff (Field Assistants) presence in these areas to at least 1 per Payam.
4. The Polio Control Room should be sustained, even after the outbreak is stopped.
5. The outbreak preparedness and response plan needs to be revised in the context of conflict affected areas.

6. Concerning staffing, the TAG recommends expediting recruitment and placement of N-STOPers, and also urgently filling the existing vacancies in WHO and UNICEF.
7. The TAG notes a lack of progress in using polio resources for strengthening of RI in high risk areas and recommends a renewed effort toward this. A monitoring framework should be developed to monitor progress on this, with results to be reported to TAG during the next TC.
8. The management of the C4D network should be rapidly improved to strengthen training and technical oversight of communication planning, use of PCE data, and advocacy at state level. Specific communication approaches for continued outbreak response in the three conflict affected states must be developed.

Ethiopia:

1. The TAG noted that many challenges remain in surveillance: i.e., low stool adequacy, very high proportion of 'unknown OPV doses' and zero dose in AFP cases, and a low NPEV rate. In view of these observed gaps in surveillance, TAG recommends that a surveillance review should be conducted in Ethiopia as early as possible.
2. There has been some improvement in population immunity in the second half of 2014, presumably due to seven rounds of SIA in the Somali region. However, 56% of NPAFP case have zero or 'unknown' dose in Somali region in 2014. All such zero and 'unknown' dose of AFP cases should be investigated in detail as per the standard protocol.
3. Because of high staff turnover at the federal level, the Ministry of Health should act to ensure the continuity of the core EPI management team.
4. The programme should continue to implement communication activities with pastoralist population in the Somali region; and where feasible, use animal health / veterinary services to strengthen the commitment and the engagement of pastoralist clans in child health services.

Kenya:

1. The TAG appreciates progress in strengthening RI and recommends that this effort continue.
2. The TAG recommends that nomadic population research informs the development of a focused communication plan with tailored approaches and products to engage with the pastoralist population.
3. The TAG acknowledges the better use of IM data for social mobilization planning and recommends that the outcomes of communication interventions be systematically documented based on evidence and other sound monitoring methodology.

Yemen:

1. All necessary actions should be taken to ensure high quality AFP surveillance and RI activities including fixed site vaccination and community outreach.
2. The TAG concurs with the country plan presented and recommends conducting two NID as quickly as possible.
3. The TAG recommends that no opportunity to vaccinate should missed. Vaccines and funds for operations and communication activities should be prepositioned.
4. The TAG appreciates progress in bringing vaccine refusals to under 1% and recommends to further review available social data to identify gaps and drive actions to address clustered refusals in the geographic areas of concern.

Uganda:

1. The TAG recommends that steps be taken to improve surveillance in areas with low stool collection adequacy.
2. The TAG noted that Uganda did not conduct a simulation exercise as recommended by the TAG during the November 14 teleconference. The TAG recommends that this exercise be completed before next TAG meeting with support from HOA office.
3. The TAG supports the country plan to add OPV to the planned measles campaign, but recommends that this integrated campaign not be conducted house-to-house.
4. The outcomes of social mobilization interventions implemented at various levels should be evaluated using sound methodology and be well documented.

Sudan:

1. The TAG appreciates efforts to access areas of South Kordofan / Blue Nile where vaccination has not been conducted for the last 3 years. These areas are estimated to contain well over 100,000 unimmunised children. The TAG recommends that SIAS be conducted as soon as possible in those areas.
2. Given the population movement and high risk of importation of cVDPV in Sudan, the TAG recommends a SNID using tOPV now and a NID using tOPV before end of year.

Djibouti:

1. The TAG reiterates its previous recommendation to take immediate action to increase the political commitment for polio eradication.
2. All recommendations from the 10th and 11th TAG meetings should be implemented.
3. The TAG notes the decline in the number of AFP cases detected from 2013 to 2014 and recommends urgent action taken to strengthen surveillance.
4. To decrease the risk of an outbreak following importation, urgent steps should be taken to strengthen routine immunization and update the outbreak response preparedness plan.

Tanzania:

1. The TAG recommends that the WHO Country Office sort out delays in stool shipments.

Eritrea:

2. The TAG recommends that efforts continue to strengthen the SOS approach.
3. Actions should be taken to reverse the recent decline in stool collection adequacy.

Polio laboratory support:

General:

1. The TAG recommends that the labs should provide feedback to countries on incorrect data entered on case investigation forms and that the HOA Coordination Office follow up on corrective actions.
2. The TAG recommends that expansion of stool sampling of AFP contacts and healthy children be planned in consultation with the lab to avoid lab overloads and backlogs.
3. Well targeted environmental surveillance expansion should ensure adequate pre-existing resources to support field and lab activities.

Ethiopia:

1. To avoid delays in referring discordant or non-Sabin like isolates (or stools) from the National Polio Lab to the Regional Reference Lab for sequencing:
   a. In case of isolates, the Ethiopia lab should routinely deposit isolates on FTA and ship them as products to the sequencing laboratory by DHL.
   b. WHO should ensure that the highest possible level of DHL address the need to accept shipments subject to IATA guidelines.
2. When stock outs of reagents or lab materials occur, stool samples or isolates should be referred to another accredited polio laboratory within 3 days of the stock out.
3. The Government should:
   a. Recruit a backup lab manager at a level of a medical officer / scientist or virologist to strengthen onsite follow up of technical and managerial issues.
   b. Grant a waiver for importation of emergency stocks (reagents, cell culture, or supplies) from WHO or its collaborating labs to replenish supplies when needed.
   c. Directly procure lab supplies using WHO funds to expedite receipt of supplies.

Next meeting of the TAG

The next meeting of the HOA TAG is proposed to take place during the week of 17th August in Nairobi, Kenya.

The TAG will also meet via teleconference on 12th May 2015 to follow up on progress in meeting the 12th TAG's recommendations.

Annex I: Country Updates

Somalia

Background: Somalia made remarkable progress in controlling the 2013/14 outbreaks and is moving towards a polio free Somalia despite huge challenges of limited access in some parts of the country. It is now six months since the last case was reported in Mudug region in August, 2014.

Epidemiology: The total wild polio virus (WPV) case count since the beginning of the outbreak is now 199. The number of cases dropped from 194 in 47 districts in 2013 to 5 cases in 2 districts (Jariban and Hobyo district) in 2014. Four of the five (80%) cases came from nomadic communities. The last WPV case is an 18-month old nomadic child with onset on 11th August, 2014, and who had received one dose of OPV. Genetic sequencing of the latest WPV showed it is closely linked to the cases in Jariban. The detection of the 2014 cases in Mudug revealed gaps in the program especially in reaching nomadic, pastoral and mobile communities.

SIAs and IM: In 2014 a total of 8 SIAs using bOPV (5 NIDs, 3 SNIDs) and 6 outbreak response SIADs were conducted (Bari, Jariban and Hobyo). Two NIDs earmarked for November and December 2014 were postponed to early 2015 (except for December NIDs in Puntland). There was good overall coverage at national and regional levels as indicated by the administrative coverage of 90% to 98% for all rounds. Independent monitoring (IM) has also steadily improved but is mainly limited to urban settings. Plans to introduce LQAs to improve the post-campaign assessments are underway. A pilot LQAs study just completed in Jariiban and Gaalkacyo shows promising results.

Remote and nomadic communities: Remote and nomadic communities (also designated as hard to reach communities [HtR]) in Somalia continue to pose a challenge to the program and are at high risk of WPV infection. In 2014 several strategies were used to reach these communities including targeted SIAs, targeted communication, and improved micro-planning. As a result 147,000 children less than 5 years were reached in 2014 (27% of these were zero-dose). Additionally, approximately 26,400 children were vaccinated through the FAO joint cattle/ human SIA (31% of these are zero-dose).

Accessibility: As of early February 2015, of the 115 districts in Somalia 16 were completely inaccessible, 23 were partially accessible, 8 were accessible but with security challenges and 68 were fully accessible. Since August 2014, 1 district (El Dhere) became inaccessible preventing access to 13,000 children less than 5 years of age and 9 districts became fully or partially accessible, giving access to 151,000 children less than 5 years of age. Coverage of SIADs in newly accessible areas was high, as was the percentage of zero- dose children reached during the first round. Accessibility has improved significantly in the South Central zone compared to 6 months ago. However, approximately 357,000 children under 5 years of age remain inaccessible (20% of total target population). Cold chain and vaccine delivery

challenges and delays in releasing operational funds in November 2014 were some of the issues that limited full implementation of SIADs in all 12 newly accessible districts in 2014.

Transit-point vaccination (TPV) and permanent vaccination posts (PVP): Somalia has established 346 TPV. Of these approximately 170 (>50%) are located at key passage points between accessible and inaccessible areas and international boundaries. More than 3 million children aged less than 10 years were vaccinated at TPV in 2014, 77% (2.3 million) of whom came from the South Central zone and 75000 (2.5%) were zero-doses. In addition, PVP in 36 IDP camps and 10 hospitals in Banadir (Central zone) have been established; 476,000 and 93,500 children aged less than 10 years were vaccinated in IDP camps and in hospitals in Banadir respectively.

Community surveillance: A network of 353 trained village polio volunteers (VPVs) has been established in October 2013 in all regions with three quarters of them deployed in the South and Central regions. VPVs are involved in active case search of AFP cases, SIA planning and community mapping. The number of AFP cases reported by VPVs doubled in 2014 compared to 2013 (26% versus 12%).

AFP surveillance: The overall national and zonal AFP surveillance indicators in Somalia are above the recommended international standards. A total of 420 AFP cases reported in 2014 and 13 as of February 2nd, 2015. The Annualized non-polio AFP rate for 2014 was 7.3/100,000 and the stool adequacy was 96.7%. Of the 117 districts in Somalia 113 (97%) reached a NPAFP rate ≥2. The surveillance system has been strengthened through innovative strategies including sampling of healthy children in districts that are silent for more than 8 weeks, expansion of reporting network with VPV. However, these national indicators are likely to conceal existing gaps especially among nomadic and hard to reach communities. The lack of documentation on validation of AFP cases, limitations in the VPV data reporting format and delays in the classification of five cases by ERC 2014 may also compromise the surveillance system in Somalia.

Routine immunization: Routine immunization (RI) is low in Somalia. Of the 280 AFP reporting sites in 2014 only 44% had routine immunization services. Approximately 48% and 40% of children less than 12 months old received Penta 1 and Penta 3 respectively through RI. Efforts to strengthen routine EPI in all zones of the country are ongoing.

C4D: The Somalia program is using a combination of communication strategies including, high level advocacy (political leaders), religious leaders (mosque announcements), schools, SMS messaging, radio and community mobilizers. In line with the Somalia outbreak response assessment recommendations RSMC and DSMC were recruited, trained and deployed. Communication activities were also integrated into microplan.

Cold chain capacity: There are more than 500 ILRs and 250 Deep Freezers in good working condition in Somalia. In 2014, 19 new solar fridges and 42 ILR and Freezers were installed in

4 newly accessible districts of Tieglow, Elberdee, Wajid and Bulo burto. To improve quality cold chain inventory was updated regularly in all zones and 35 regional cold chain staff trained.

Key activities for 2015: In the course of the year efforts will be made to conduct 6 NIDS (4 with bOPV and 2 with tOPV) and 3 HtR rounds, roll out LQAs, continue on-job training of R&DSMCs, expand VPV network, conduct refresher training and sensitization sessions, strengthen RI and recruit polio staff (including, national SIAs & operation coordinators, national and international AFP surveillance coordinators).

Ethiopia

Epidemiology: The total wild polio virus (WPV) case count since the beginning of the outbreak is now 10 in Ethiopia. The first case was detected on 10 July 2013, and the most recent case on 5 January 2014, all from Dollo, Somali region.

SIA and IM: In 2014, the country implemented 2 NIDS and 6 SNIDs in high-risk regions with a focus on Somali Region. All used bOPV, except for the December NIDs (tOPV). In an effort to improve the quality of the SIAs, micro plans were reviewed, with a validation process in High risk areas and systematic update between rounds; in addition, clan and religious leaders have been engaged in the micro-planning process, in pastoralist population. Microplanning by settlements was done in Dollo zone (over 1,300 additional settlements were identified). Innovative approaches for reaching special groups and areas were implemented in Somali region (SIADs, mobile teams, engagement of armed forces, intensified cross border vaccination, water point strategy). Strengthening of monitoring and supervision was done through implementation of a monitoring dash board in Somali to determine level of preparedness for SIAs, deployment of more supervisors in hard to reach areas and refining of tools to expand on reasons for absent children.
Independent monitoring data indicates improvement in coverage over the past six months in the outbreak zone, going from 65% IM coverage in May to 95% in the Nov/Dec campaign (94% in all woredas of Dollo zone). These findings were confirmed by LQAS with all 5 woredas “passing” or achieving adequate coverage. However, coverage among pastoralist communities particularly in other zones, remains sub optimal.

Coordination (Outbreak zone of Dollo): WHO and UNICEF staff have an on-going presence in Dollo zone; high level advocacy missions to the outbreak zone occur on a regular basis to provide support and the polio control room is still operational. Efforts were made to address operational funds disbursement delays in the last two rounds including advance funding from WHO and the Government. During the September SIA and subsequent rounds, an implementing partner was used to support operations and payments of vaccination teams in Dollo zone.

Cross border activities: Cross border collaboration has been heightened, particularly with Somalia and Kenya, which resulted in joint planning, launching and implementation of activities in June, July, August and November. Permanent vaccination posts continue to function at transit and cross border points in Somali (44), Gambella (7) and Benshangul Gumz (5) regions providing OPV and other vaccines for refugees, pastoralists and travelers. Particularly in Somali region, maintaining the functionality of all vaccination posts has been challenging.

Communication: Engagement of the social mobilization (SM) network in the Somali Region and other high-risk regions of Gambella and Bgumz with emphasis on systematic collection and use of social data continue. This included use of the revised SIA tools (IM, RCS) alongside communication surveys and studies documenting reasons for missed children; evaluation of the SM network and a rapid assessment of livestock markets and clans for systematic engagement. Collaboration with local networks such as Islamic Affairs Supreme Council partnership and focused support to Kebele SM Networks was strengthened. Data from the June round shows increased involvement of these committees for polio immunization -- 89% of Somali social mobilization committees were active in round 9, which continue on an upward trend.

AFP surveillance: AFP surveillance indicators at national level continue to meet certification standard performance with a non-polio AFP rate of 3.1 and 87% stool adequacy rate. At subnational level, 71% of zones have achieved the two key performance indicators by week 52 in 2014, compared to 52% in 2013. However, stool adequacy rates in Somali (74%), Gambella (69%) and Harar (67%) are below the required standard. Efforts to strengthen surveillance, notably in Somali Region, since the last TAG, included human resources surge for surveillance, roll out of community based surveillance, capacity building, supervision and review meetings at national and regional level.

Routine immunization: 2014 Penta3 administrative coverage is 80% at national level, but remain below 50% in the Somali region. Special effort was made to implement the national routine immunization improvement plan through renewed political leadership and commitment at different levels, deployment of 51 technical assistants to poor performing zones (6 in Somali Region), national micro planning activities, capacity building, cold chain expansion (170 solar refrigerators in remote areas, 650 ice-lined refrigerators and 8,000 vaccine carriers were distributed in 2014) and maintenance (601 refrigerators maintained in 2014), and continued engagement of the polio infrastructure in routine EPI strengthening.

Challenges: Routine EPI coverage remains suboptimal including in the outbreak zone. Though SIA coverage among pastoralist and nomadic populations is progressively improving, some children are still being missed. Funds disbursement delays at the lower level still need to be well addressed. Community awareness about AFP case detection and reporting is

suboptimal, AFP case timely detection is a challenge in some zones of Somali Region. Given the long duration of the outbreak, maintaining emergency mode is emerging as a challenge at all levels.

Key activities for 2015: The country is planning to further improve the quality of SIAs with special focus on nomadic populations in zones other than Dollo, including scale up of innovative communication channels; to monitor the implementation of the routine improvement plan and roll out community surveillance. Three additional SIAs are proposed for the first 6 months of 2015. The country is planning to introduce IPV in October 2015.

Kenya

Epidemiology: a total of 14 WPV cases were confirmed in 2013, from Garissa District. The first case had onset of paralysis on 30 April and the last on 14 July 2013. Seven were from the refugee camps and 7 in the host communities. The ages ranged from 4 months to 22years. 50% of the cases had never received OPV. A WP1 was isolated from environmental sample collected on October 12th 2013 in Nairobi County; sequencing results were received on 14th January 2014: the virus was closely related to Somalia.

SIAs: 2 NIDs and 5 SNIDs were conducted in 2014, with an overall coverage of 92%-95% (as per IM data). Lot Quality Assurance Sampling (LQAs) was successfully piloted in 5 high risk counties in November and December Polio SIAs with relatively good results. The LQAs will provide supplementary information to support efforts to reach children especially in hard to reach populations; IPV was successfully used in Dadaab refugee camps and 5 host divisions as a strategy for controlling the outbreak with vaccination coverage of 96% of the target population.

Communication and social mobilization activities: some new innovations were implemented including innovative initiatives such as school and youth strategies increased awareness of campaigns by reaching up to 92% of caregivers with polio related messages and programs that contributed to 95% of all children in Kenya being vaccinated during polio vaccination campaigns held between May 2013 and December 2014. Minimal resistance was experienced across the country in spite of multiple vaccinations and a polio ambassador was deployed to address concerns among pockets of resistant groups.

Routine immunization: OPV3 administrative coverage showed a significant improvement in 2014 compared to 2013. Thirty-one counties (66%) achieved a coverage of >80% compared to 12 counties (26%) in 2013. Routine Immunization services are gradually being expanded to reach nomadic communities in high risk counties of Turkana, Mandera, Wajir and Garissa with establishment of additional health facilities, nomadic clinics, provision of outreach services and recruitment of additional health workers. The monitoring of vaccine utilization has contributed to maintaining wastage rate of 5% and no stock out reported by vaccination teams.

AFP surveillance: in 2014, the Non polio AFP rate, at national level is 4.06 with 88% stool adequacy; 45 out of 47 counties achieved a non-polio AFP rate of >2/100000 compared to 30 counties (64%) in 2013 while 41 counties (87%) achieved a percentage stool adequacy rate >80% compared to 32(68%) in 2013.

High risk groups: Mapping of nomadic and pastoralist communities was implemented in Garissa and Turkana counties together with Community elders/leaders and government officials using a tracking form. Information collected was used to update Micro plans to reflect the mapped settlements and to inform strategies such as special vaccination teams being assigned in November and December 2014 campaigns to cover these populations. For example, in 2 very low performing sub-counties of Turkana, 72 cross border temporary settlements and 87 internal temporary settlements were identified and covered. There was cross-border collaboration & coordination with Somalia, Ethiopia, Uganda and South Sudan between July 2013 and November 2014.

Challenges: Main challenges remain insecurity along the Kenya-Somalia border and availability of a critical skilled health workforce in the most affected regions; weak cold chain capacity in newly created districts; highly mobile pastoral and nomadic populations; population movements within the Horn of Africa; and limited access to immunization services due to inadequate cold chain facilities especially in newly opened health facilities in regions in the country that have suffered under development in the past.

Key activities for 2015: The country is planning 2 SIAs and IPV introduction (July); to strengthen Routine Immunization services in nomadic, pastoralist, mobile populations and in underperforming counties and sub counties as well as to develop and implement communication and social mobilization approaches specifically for nomadic and pastoralist communities. In addition, to improve AFP surveillance, the program is planning to Use the opportunity of Ebola trainings to train core surveillance personnel and sensitize health workers on AFP surveillance, to integrate surveillance to ongoing activities like 'Beyond Zero' campaign in border counties, to conduct quarterly national review meetings to monitor progress & monthly surveillance review meetings at county levels, to expand community surveillance network to include traditional leaders, healers and local volunteers in Wajir, Garissa and Nairobi, to leverage on Core group support to NGOs to strengthen surveillance in the border counties, to Operationalize environmental surveillance in new sites in Mombasa, Kisumu Counties and to distribute IDSR reporting tools

Sudan

Background: Following the Polio outbreak in the HOA and the appearance of VDPV cases in South Sudan Republic, Sudan updated the national and state preparedness plans for poliovirus importation. Mapping of the high risk population (Southern Sudanese and people

from African countries) living in all of the states of Sudan was done. Special microplans for SIAs were made and implemented. Sudan continues collaboration, coordination and information sharing with border countries.

SIA and IM: The country implemented 2 NIDs and 2 SNIDs with reported coverage of above 95% (confirmed by IM results of 97-98%). However, in South Kordofan and Blue Nile states some conflicts affected areas have not been vaccinated since June 2011 (for a target population of 180,000 under 5). WHO, UNICEF and UN Agencies put a plan for vaccination of SPLM/N controlled areas and partners are waiting for a period of tranquillity from both sides to implement the OPV campaign.

AFP surveillance: AFP surveillance indicators remained above certification level for the last 5 years with a Non polio AFP rate of 2.7 in 2014 and 97% adequate stool. The country monitors the Non-polio enterovirus isolation rate (over 10%, in 2014) and Sabin virus isolation in stool. Sudan has 13 WHO state national medical officers; The Central Surveillance Unit trained nomadic focal persons, create new reporting sites along the borders with Chad and Ethiopia and intensify supervision in the high risk districts identified in the Risk Analysis. A risk assessment was done at state (sub-national) level and the results will be used to address surveillance and immunity gaps.

Routine Immunization: Sudan has maintained OPV3 coverage above 90 % for the last three years with 93% of districts attaining OPV3 coverage of more than 80%. To improve the coverage further, Sudan will focus on states of low coverage (Darfur states, Blue Nile, South Kordofan and Red Sea).

High risk population: In view of ongoing crisis and dynamic population movements from South Sudan Republic, refugees and IDPs are tracked and targeted for vaccination and surveillance activities with special microplans. The country documents all immunization and surveillance activities conducted among IDPs and vaccination points at cross border points.

Challenges: challenges include crisis in South Sudan and the influx of huge numbers of refugees to Sudan, escalation of the armed conflict between Government and rebels in South Kordofan and Blue Nile states and tribal conflict in Darfur states. In addition, there is change of routes for the nomads due to emerging insecurity, destruction of cold chain, looting in conflict areas, strengthening infrastructures and coordination for immunization services in border areas.

Key activities for 2015: The country plan to secure and sustain program funding (GoS and donors), develop communication and social mobilization plan based on new communication strategies to address detected gaps. The country is planning 2 NIDs (March and November) and 2 SNIDs (April, and December) in 2015 and introduction of IPV in April 2015.

Yemen

Background: The security situation in Yemen is deteriorating rapidly and remains very fluid. On 21st September, Sana'a was taken over by AL Houthis; it was followed by a signing of the National Partnership Agreement by all political parties. On 22nd January, The president and his government resigned. On 6th Feb, the National conference and the revolutionary committee set up the Presidential and national councils, but this was denied by some of the big political parties. Separatists in the south are more active, the number of attacks (including suicide bombing) is increasing especially in the south eastern parts. In addition, the government is having difficulties paying its own operational costs due to the economic crisis affecting the country. But in spite of these difficulties, the public health workforce remains in operation and ready to move quickly in areas when security is guaranteed.

Epidemiology: The last WPV1 outbreak in Yemen was in 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.

SIA and IM: In 2014, two rounds of NIDs were conducted in April (tOPV) and August (bOPV); In November a measles/OPV campaign was implemented, December NIDs was cancelled due to unavailability of vaccine. All campaigns reported over 95% administrative coverage. This is in line with IM coverage (95% and 86% via recall and Finger marking respectively). Post campaign coverage survey at district level conducted after November campaign showed a coverage of 91%.
An enhanced social mobilization plan utilized both mass media and interpersonal communication channels to improve awareness of the NIDs, including use of local religious and community leaders. These were particularly useful in high risk areas and in addressing refusals e.g 88% of the refusals (August round) have been vaccinated; the unvaccinated refusal, are enlisted for follow up and actions and noted as high risk areas for the next round. Refusal decreased from 2.3% in January 2013 round to 0.92% in August 2014 round according to the IMs.

AFP surveillance: AFP surveillance indicators remain above certification level at national level since 2012. In 2014, non-polio AFP rate is 4.4/100,000 and stool adequacy is 95%. All 22 governorates have non-polio detection rates above 2/100,000. To enhance AFP surveillance sensitivity, the program has continued to collect samples from three contacts for all AFP case since May 2013. (The percentage of AFP cases with 3 samples of contacts 2014 was 96%).

Routine Immunization: Preliminary 2014 OPV3 coverage is 88%. 41% of the districts have less than 80% coverage for OPV3 in 2014 compared to 46% of the districts in 2013 for the period January – November. One risk is the likely stock out of vaccine from Q2, 2015 at the

national level, as the government did not pay for the vaccines, unless partners secure funding.

High risk areas/groups: The high-risk areas/groups (including mainly the refugees, IDPs, Bedwins and marginalized people) have been identified and mapped in August round and updated in November round and the micro-plans updated accordingly. Permanent vaccination posts have been extended since September to 16 VPs. Refugees from all ages inside the camps have been vaccinated in 2014 rounds. Around 77,848 new refugees' arrivals were vaccinated in the 2nd half of 2014. The surveillance and immunization indicators for the high risk areas are closely monitored. Movement of Nomadic population is known to local health staff and reflected in the micro-plans for SIAs and routine; special plans are set for them. They are mostly in Hadramout and Al Mahara.

Challenges: Despite progress, Yemen remains at high risk of outbreak following WPV importation due to civil unrest, areas of insecurity, low routine immunization coverage, internally displaced persons and refugees. In addition, the very low coverage of routine and SIAs in Al Jowf due to the security issue is a great concern.

Key activities in 2015: The country is planning 2 NIDs as soon as possible. Introduction of IPV has been deferred to March/April 2015

Djibouti

Background: The country remains at high risk of polio importation due to population movement with neighboring countries.

SIAs: The country conducted a National Multi Antigen catch up campaign in September 2014 and 1 round of NID in November 2014. Reported coverage was 96%. Focus was given to nomadic populations, migrants and cross-border activities. Vaccination posts were set up in Loyada, Guelile, Guestir and Galafi to vaccinate Under 5 years old children from Somali and Ethiopia. The coverage of this NID is 96% at national level.

AFP surveillance: In 2014, the country reported 3 AFP cases, for a Non polio AFP rate of 1 per 100,000 and 66.7% stool adequacy rate. The main issue is the high turnover of staff carrying out surveillance activities. In refugee camps, UNHCR provides 14 USD for each case of AFP. The implementation of Community-based surveillance plan will start soon including logistics and coordination of surveillance activities.

Routine Immunization: Although the 2014 national administrative OPV3 coverage is 84%, a coverage survey conducted in 2014 estimated the national OPV3 coverage at 78%. WHO, UNICEF, UNCHR continued to provide technical and financial assistance for the strengthening of routine EPI.

Population at risk: In the 2 camps managed by UNHCR, immunization status is being checked and vaccination provided.

Challenges: Challenges include inadequate social mobilization, limited capacity in term of supervision, monitoring, logistic and data management, coordination and monitoring for cross border activities, increasing budget for EPI program and weak AFP surveillance.

Key activities for 2015: The country is planning 2 NIDs in 2015, and to reactivate mobile vaccination activities to reach population in remote areas and migrants. In addition, update the national plan for responding to detection of WPV and VDPVs should be updated and a polio outbreak simulation exercise carried out. The country is also planning to implement community-based surveillance, conduct capacity building training for EPI team, and introduce IPV by October 2015.

Eritrea:

Epidemiology: Eritrea has not reported any WPV case since October 2005. However, the country is at high risk of importation of WPV because of its proximity to Somalia, Ethiopia and Sudan.

SIA and IM: 2 rounds of Polio SNIDs were conducted in March and April, in the 7 high risk districts (bordering Sudan) targeting 69,124 children of < 5 years age, reaching 92% coverage.

AFP Surveillance: 2014 AFP surveillance indicators was at certification standard level at the national level, with a non-polio AFP rate of 3.5% and the stool adequacy at 100%. Training and supportive supervisions have been conducted in all high risk districts. Active AFP surveillance will be strengthened during SIAs, and a training plan has been elaborated to build capacity of new staff. Activities aiming to raise community awareness on AFP cases is being conducted in High risk districts.

Routine Immunization: 2014 OPV 3 administrative coverage remains at the same level at 2013, with 81% coverage. However EPI coverage survey conducted in 2013 found the coverage to be above 95%. Sustainable Outreach Services (SOS) in the 16 hard to reach areas were integrated with the African Vaccination Week in June 2014. About 7,989 children in the under 2 age group were traced as defaulter and vaccinated with the appropriate dose.

Challenges: challenges include Nomadic and cross border movement with Ethiopia, Sudan and Djibouti; lack of sufficient financial, human resource and institution capacity to establish community based surveillance.

Way Forward: The country is planning 2 rounds of polio SNIDs in High risk districts and 3 rounds of Sustainable Outreach Service (SOS) in less accessible geographical areas and nomadic populations. In addition EPI/IDSR Integrated Supportive Supervision, quarterly polio risk assessment, EPI and IDSR quarterly review meeting, capacity building of health

workers on AFP surveillance and Vaccine defaulters tracing activities using AVW & CHNW opportunities.

South Sudan

Background: The armed conflict in South Sudan continues resulting in 1.9 million displaced population, both internally and externally, with destruction of infrastructure, restriction of mobility and logistic difficulties, especially in the 3 affected states of Jonglei, Upper Nile and Unity.

Epidemiology: 2 cVDPV cases, type 2, with onset respectively on 9 and 12 September 2014, were reported on 31 October from Unity state.

SIA: Four rounds of SIAs (bOPV & tOPV) were conducted in the seven stable states, including one combined OPV/measles round. The reported IM coverage range from 81% (round 1) to 92% (round 2); During the December round, 12% of children were reported missed; the main reason (63%) is that the 'team never came'. In the 3 conflict states, integrated campaigns (measles/OPV) reached more than 300,000 children under 15 years of age (including over 150,000 6months to 5 years of age with Vitamin A). Areas difficult to access were reached through rapid response team strategy.

Outbreak response: 3 SIAs rounds were carried out in 21 of 32 counties, in the 3 conflict affected states, with tOPV reaching more than 600,000 children under 15 years of age. SIAs are ongoing in a staggering manner based on accessibility. In addition Permanent Vaccination Points were established at entry gates of Bentiu PoC to provide polio and measles vaccination. Social mobilisation and Communication was intensified with 125 community volunteers recruited to mobilise 10,000 families in Bentiu. A comprehensive response targeting the three conflict affected states was rolled out: UNICEF initiated partnership with five partners working in the 32 counties, key messages and training module were prepared and a series of activities carried out (launches, advocacy meetings, orientation of religious leaders, church and mosque announcements, radio campaign, and house-to-house mobilization). Challenges include coordination with partners and reporting of results; limited monitoring and supervision of activities due security situation.

AFP Surveillance: In 2014, the Non polio AFP rate is 3.89 and the stool adequacy rate is 92%. The number of silent counties decreased from 26 to 15. However, surveillance is still suboptimal, especially in some part of the 3 conflict affected states of Jonglei, Upper Nile, and Unity.

Routine Immunization: Despite the conflict, and its impact on health infrastructure the reported DTP3 coverage in non-conflict affected state is 83% versus 11% in conflict affected

states. 10 RI vaccination posts were set up in PoCs, refugees and cross border sites and an additional 9 RI vaccination points are planned for interstate/cross border areas.

Challenges: Access and volatile security situation remain a major challenge to the program. An estimated > 150, 000 children are zero dose and > than 400,000 0f children <5y are unprotected against polio.

Key activities for 2015: The program is planning 4 SIAs in 2015; Special focus will go to inaccessible areas where plans need to be flexible. The program will work on improving supportive supervision and IM. Pilot test using mobile technology for vaccine management and LQAs will continue and may be expanded to other areas of the program (e.g. surveillance data collection, and routine immunization). The program is also planning to conduct a KAP study and develop EPI communication strategy.

Uganda

Background: Despite the improved performance in RI, Uganda still remains at risk due to the ongoing outbreaks in and the influx of refugees from the neighbouring countries and has continued to conduct preventive campaigns to boost the population immunity gap. An aVDPV was reported in Uganda in November 2014 and the country responded with a HTH campaign in the 2 districts (Kamuli and Kwen).

SIAs: 2 rounds of SIAs were planned in 2014 but postponed due to administrative challenges. The country conducted a polio NIDs from 17-19 January and achieved 94% (IM data) A 2nd round will take place 21 – 23 February in in 41 border districts.

Communication: Communication efforts were intensified both for awareness raising and system strengthening. 4 consultants were deployed to 33 poorly performing districts, mainly to support health facility levels to develop micro plans including revitalization of Health Unit management committees and ensuring integrating communication in health facility micro plans. The awareness raising component was implemented with a mix of mass media and community engagement through Uganda Junior league. Efforts were made to ensure sustainability by linking activities to district plans. Involvement of in School and out of school children, religious leaders, NGOs and the community through info entertainment and sports activities (community cinema, netball, cycling races etc.) proved successful in mobilizing communities. The use of Child health ambassadors and Immunization elders in hard to reach areas is still being explored. In 2015, focus will be monitoring, documentation and scaling up best practices.

AFP surveillance: The national Non-polio AFP detection rate improved in 2014 to 3.21 (from 2.85 in 2013) with 73% districts achieving a rate of >2/100,000 – an increase from 58% districts in 2013. The stool adequacy rate at the national level remained above 80% with 63%

districts achieving the target. Overall the CDC supported STOP teams – national and international have contributed to the improvement of surveillance indicators during 2014.

Routine Immunization: OPV 3 coverage at national level remains above 90% (HMIS) in 2014 with 84% districts above 79%. The country continued to implement the coverage improvement plan and key interventions included: effective vaccine management with minimal vaccine stock outs at operational level, strengthening RED/REC implementation at health facility level; support supervision and on-job mentoring; improved DHIS2 reporting (HF completeness 96%); and community mobilization. Capacity building on data quality improvement is ongoing and plans are under way to mobilize resources to conduct EPI coverage survey (last done in 2005). Planning has been initiated to reach the pastoral, nomadic and mobile populations in Karamoja region.

Key activities for 2015: The country is planning one SIAs, and a combined measles and polio campaigns in October 2015. Other key activities include: polio outbreak simulation exercise, retraining of health workers of AFP surveillance and a compressive EPI reviews (including surveillance, PCV PIE and financial reviews). IPV will be introduced in July 2015.

Tanzania

SIAs: the country conducted IMRC in October 2014, the campaign was integrated with multiple interventions which included vaccination of children against MR vaccine, supplementation of vitamin A, deworming and mass distribution of NTD drugs. Unfortunately OPV was not readily available to be included in the campaign

Surveillance: In 2014, the Non polio AFP rate is 3.1 and the stool adequacy rate is 88.8%. Non polio enterovirus (NPENT) rate is at 8.8%. Surveillance performances for the last 4 years have been well above certification standards, except for the NPENT rate for which the country is making gradual improvements; the program trained 52 districts IVD surveillance officers from 26 low performing districts, STOP teams were deployed to low performing districts, quarterly high risks review assessment and supportive supervision carried out. The main surveillance gaps are weak surveillance in some districts due to inadequate staffing and/or high staff turnover, delay in stool sample delivery from national level to inter country laboratory by courier.

Routine Immunization: The country has continued to maintain above 90% OPV coverage for the past 4 years, with an annualised OPV3 coverage at 99% by Nov 2014. The number of districts attaining ≥ 90% coverage of OPV3 has increased from 86 in 2011 to 116 in 2014 (26% increase). Vaccination coverage for other antigens is in line with those achieved for OPV including the newly introduced vaccines of PCV and Rota. Due to its high coverage Tanzania is implementing Reach Every Child strategy to minimize the number of unvaccinated in all the districts particularly those with hard to reach areas. The country has

high political will and strong government commitment towards immunization and health services in general.

High risk population and cross border activities: Somali population in the normal communities are enjoying the same health services provided to citizens; there has been no cross borders activities conducted.

Key activities for 2015: The country is planning to introduce IPV in June 2015. In addition, the country will train health workers in surveillance of VPDs, have regular meetings with courier in the country for stool specimen transport, and will expand the reverse cold chain hubs (fridge) for remote rural regions / districts.

Annexure II: HOA Plan for February to September 2015

The program identified three key risks in the HOA:

- Surveillance sensitivity
- Somalia and Ethiopia:
    - Up to 0.36 million children in non-SIA areas of South Central Somalia
    - Hard to reach/ pastoral communities of Somalia
    - Gap in population immunity in Somali region of Ethiopia
- Complex humanitarian emergency situation in South Sudan and Yemen
- Re-importation
- Emergence of cVDPVs

In view of the above, the HOA Coordination office, in coordination with countries, developed a plan for period of February to September 2015. The plan is summarized below.

Objectives

1. Strengthen sensitivity of surveillance to detect lowest level of transmission
2. Keeping HOA polio free:
    a. Close the outbreak in Somalia, Ethiopia and maintain it polio free; final outbreak response assessment of HOA
    b. Close the cVDPV2 outbreak in South Sudan and take steps to boost population immunity in conflict affected areas of Yemen & South Sudan.
    c. Outbreak prevention and preparedness for response
3. IPV introduction and strengthening of RI

Strategies

The plan envisages the following strategies to achieve its objectives:

Objective 1: Strengthen sensitivity of surveillance to detect lowest level of transmission

1.1 Continue strengthening of surveillance in high risk population of Somalia and Ethiopia:

- Strengthen and expand community based surveillance
- Involvement of Clan/ community leaders
- Stool samples from healthy children in high risk areas/ populations
- Continue contact sampling for every AFP case in high risk areas/ populations
- Closely track the surveillance in high risk areas and take corrective actions for gaps

1.2 Specific steps to increase sensitivity in conflict affected areas of South Sudan and Yemen:

- Countries to develop Surveillance Improvement Plan for conflict areas
- Involvement of NGOs in surveillance activities
- Contact sampling of all AFP cases in high risk areas
- Increase number of field staff in conflict areas (South Sudan)
- Involve community leaders

1.3 Monthly analysis of surveillance from various perspectives at HOA level to identify issues and supportive visit to the countries/ areas with suboptimal indicators

1.4 Exploring expansion of environmental sampling

1.5 Strengthening the Laboratory and stool transport to handle extra workload

- Assess for resource need
- Provide HR and logistics support

Objective 2: Keeping the HOA polio free

Objective 2.1: Close the outbreak in Somalia, Ethiopia and maintain it polio free; final outbreak response assessment of HOA

The program categorises both Somalia and Ethiopia in three risk zones and has specific plans for each zone.

Somalia:

Sl. No.	Category	Interventions
1	Hard to reach population	5 SIAs (including NIDs) and 1 passage of 2 SIADs Sustain and strengthen intervention to reach HTR population
2	Inaccessible areas	Preparedness for 4 SIADs (with expanded age group) in newly accessible Continue and rationalize PTVP strategy
3	Rest of Somalia	3 NIDs

Ethiopia:

Sl. No.	Category	Interventions
1	Somali region of Ethiopia	4 SIAs (including NID) Sustain and strengthen intervention to reach HTR population
2	Other high risk areas	3 SIAs (including NID)
3	Rest of Ethiopia	1 NID

Program plans to conduct final outbreak response assessment for WPV HOA outbreak in April 2015. This assessment will be conducted simultaneously in all the three involved countries (Somalia, Ethiopia and Kenya).

Objective 2.2: Close the cVDPV2 outbreak in South Sudan and take steps to boost population immunity in conflict affected areas of Yemen & South Sudan.

Program is concerned about complex humanitarian situation in South Sudan & Yemen and has specific plans to boost population immunity.

South Sudan:

Sl. No.	Category	Interventions
1	Inaccessible areas in three conflict states	all opportunities of vaccination will be explored; engaging all involved parties to secure access for health, humanitarian and immunization services. Preparedness for 4 SIADs (with expanded age group) in newly accessible Permanent vaccination points around conflict affected areas
2	Accessible areas in 3 conflict affected states	Complete 3 SIADs as part of outbreak response Conduct 2 SIAs as part of NIDs
3	Rest of South Sudan	2 NIDs

Yemen:

Sl. No.	Category	Interventions
1	High risk areas	2 NIDs in whole country as soon as possible Additional SNID if opportunity opens up Prepositioning of vaccine and funds
2	Rest of Yemen	2 NIDs in whole country as soon as possible Prepositioning of vaccine and funds

Objective 2.3: Outbreak prevention and preparedness for response.

Strategies to achieve this objective are as below:

- Sustain/ strengthen population immunity through SIAs as per the SIA calendar below.
- Strengthen Routine Immunization in high risk areas on priority basis *(in line with Obj. 2 of Endgame plan)*.
- All countries to develop outbreak prevention and response preparedness plan.
    - Identification of focal person from each agency
    - Simulation exercise in Uganda

Objective 3: IPV introduction and strengthening of RI

- IPV introduction
    - Preparedness of country for IPV introduction will be closely monitored
- Improve RI coverage in high risk areas on priority basis
    - Identification of high priority areas for strengthening of RI
    - Optimising polio resources for strengthening of RI:
        - Countries will develop plan, with specific areas of support and monitoring framework for progress.
        - At least 50% time of Polio staff in RI work, this will be reflected in the workplan

Planned SIA calendar

Country	2015							
	Feb	Mar	April	May	June	July	August	Other activities
Somalia	NID-b, HTR-SIA	NID-b, HTR- SIA	NID-t	SNID-t	SNID-b HTR-SIA		SNID-b HTR-SIA	4 SIADs in new accessible areas
Ethiopia	NID-t	SNID-b	SNID-t	SNID-b				
Kenya			SNID-t	SNID-b				
South Sudan	NID-t	NID-b						4 SIADs in new accessible areas
Yemen		NID-b	NID-t					
Uganda	SNID-t	SNID-t*						
Sudan		SNID-t						
Djibouti		NID-t						
Eritrea								
Tanzania								

*Plan for 2015 tentative at the time of 12th HOA TAG meeting

Annex III: Status of IPV introduction in HOA

Country	Target date	Comments/ Status of preparation
Somalia	October 2015	GAVI approved with comments
Djibouti	October 2015	Proposal submitted
Yemen	Jan 2015	Deferred to March/ April 2015
Sudan	April 2015	Approved
Eritrea	July 2015	Approved
Ethiopia	October 2015	Approved by GAVI
Kenya	July 2015	TWG making progress in prep
South Sudan	August 2015	Approved by GAVI
Uganda	July 2015	Approved by GAVI
Tanzania	June 2015	Grant received from GAVI

Annex IV: List of participants

Technical Advisory Group members

1 Jean-Marc Olivé, Chairman
2 Robb Linkins, TAG Member
3 Rafah Aziz, TAG Member
4 Hashim EL Mousaad, TAG Member
5 Carl Tinstman, TAG Member

Technical Advisors

6 Christopher Maher, WHO/EMRO
7 Magdi Sharaf, WHO/EMRO
8 Sam Okiror, WHO/AFRO
9 Fussum Daniel, WHO/AFRO
10 Messeret Eshetu, WHO/AFRO
11 Charles Byabamazima, WHO/AFRO
12 Sara Lowther, CDC/USA
13 Rustam Haydarov, UNICEF/ESARO
14 Martin Notley, UNICEF/ESARO
15 Brigitte Toure, UNICEF/ESARO
16 Hemant Shukla, WHO/HQ
17 Arshad Quddus, WHO/HQ
18 Karl Spence, UNICEF/ESARO
19 Anindya Bose, UNICEF/HQ
20 Sahar Hegazi, UNICEF/HQ

National (MoH) Representatives and participants

21 Ali Bin Break, MOH/Yemen
22 Samira Mohamed Osman Ibrahim, MOH/Sudan
23 Anthony Laku, MOH/South Sudan
24 Tedros Yihdego, MOH/Eritrea
25 Ephantus Maree, MOH/Kenya
26 Ian Njeru, MOH/Kenya
27 Ahmed Moalim Hirsi, MOH/Somalia
28 Robert Mayanja, MOH/Uganda
29 Acton Mwaikemwa, MOH/Tanzania

Partner Representatives (International/Regional)

30 Tim Peterson, Bill and Melinda Gates Foundation
31 Abdalla Elkasabany, Bill and Melinda Gates Foundation
32 Allen Craig, CDC Atlanta
33 Legesse Bezabih Kidanne, CORE Group
34 Anthony Kisanga, CORE Group Polio Project/South Sudan
35 Mr Frank Conlon, CORE Group Polio Project (CGPP)
36 Mr Lee Losey, CORE Group Polio Project (CGPP)
37 Bal Ram Bhui, CORE Group -HOA
38 Mercy Lutukai, CORE Group -HOA
39 Aleksandar Arniov, IOM
40 Isaac Mugoya, MCSP
41 Robert Davis, Red Cross
42 Kaushik Manek, Rotary
43 Sharon Wanyeki , Rotary
44 Subroto Mukherjee, USAID/Kenya

UNICEF and WHO Secretariat

45 Dhananjoy Gupta, UNICEF/Somalia
46 Julianne Birungi, UNICEF/Somalia
47 Saumya Anand, UNICEF/Somalia
48 Chaudhary Parvez Alam, UNICEF/Somalia
49 Justus Olielo, UNICEF/Yemen
50 Peter Okoth, UNICEF/Kenya
51 Leila Abrar, UNICEF/Kenya
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55 Anu Puri, UNICEF/South Sudan
56 Joanna Nikulin, UNICEF/South Sudan
57 Shaza Ahmed, UNICEF/Sudan
58 Raool Kawadjeu, UNICEF/Kenya
59 Hailu Kenea, UNICEF/Kenya
60 Elwaleed Sidahmed, WHO/Somalia
61 Cyrialis Mutabuzi, WHO/Tanzania
62 Annet Kisakye, WHO/Uganda
63 Yehia Mostapha, WHO/South Sudan

64 Tzeggai Kidanemaryam Tseggai, WHO/Eritrea
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68 Jemima Mwakisha, WHO/Kenya
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