

World Health Organization

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

13th Meeting Report

18 to 20 August 2015
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
cVDPV	Circulating vaccine-derived poliovirus
CDC	Centre for disease control and prevention
EMRO	Eastern Mediterranean Regional Office (WHO)
EPI	Expanded Programme on Immunization
HOA	Horn of Africa
LQAS	Lot quality assurance sampling
NID	National immunization day
NPEV	Non polio enterovirus
OPV	Oral polio vaccine
RI	Routine immunization
SIADs	Short interval additional dose strategy
SIA	Supplementary immunization activity
TAG	Technical Advisory Group
tOPV	Trivalent oral polio vaccine
UNICEF	United Nations Children Fund
USAID	United States Agency for International Development
VDPV	Vaccine derived polio virus
WHO	World Health Organization
WPV	Wild poliovirus

Executive Summary

The 13th Meeting of the Horn of Africa Technical Advisory Group (HOA TAG) was held from 18 to 20 August 2015 in Nairobi, Kenya under the chairmanship of Dr. Jean-Marc Olivé. In the context of the Horn of Africa (HOA) wild poliovirus (WPV) and circulating vaccine-derived poliovirus (cVDPV) outbreak, the 13th HOA TAG meeting was called with following objectives:

1. To review the situation and progress and plan for closing the WPV and cVDPV outbreak in HOA and provide recommendations.
2. To review the sensitivity of surveillance in HOA countries and provide recommendations to strengthen ability to detect transmission.
3. To review the risks of outbreak following importation/ cVDPV emergence, outbreak response preparedness and risk mitigation strategies and provide recommendations.
4. To review and recommend on plan for strengthening of routine Immunization (RI) in high risk areas, with use of polio resources for the purpose.
5. To review and recommend on the communication strategies focusing on addressing the remaining challenges in HOA and activities in post outbreak phase.
6. Review progress made in RI strengthening using polio assets in 3 selected countries: Ethiopia, South Sudan, and Somalia.

The TAG expresses deep regrets regarding the tragedy in Garowe, northern Somalia where two UNICEF polio staff lost their lives in a horrific attack as they travelled to work.

The TAG commends the participation of HOA countries and partners. However, it regrets the absence of Ministry of Health, World Health Organization (WHO), and United Nations Children's Fund (UNICEF) representatives from Eritrea.

The TAG notes that one year has passed since the last WPV case in Africa in August 2014. However, one year of good quality surveillance is needed before celebrating. HOA countries must ensure high quality surveillance in all subnational areas, particularly in high risk areas. The TAG appreciates the HOA outbreak response assessment conducted in June 2015 and endorses its conclusions that Kenya and Ethiopia have stopped WPV transmission while continued low level transmission in Somalia cannot be ruled out.

The TAG acknowledges the extremely challenging situation in Somalia, South Sudan, and Yemen and appreciates the hard work done by all involved in the program. The TAG notes that Somalia, South Sudan and Yemen have a substantial number of unreached children due to ongoing conflict. In addition, the TAG is concerned about the persistence of inaccessible children in Sudan in some of areas of South and West Kordofan and Blue Nile. South Sudan has now more inaccessible children than Somalia and will pose an extreme challenge if WPV importation takes place there. **The estimated number of inaccessible children less than 5 years in the Horn of Africa now amounts to more than one million.**

The TAG expresses concern regarding the continued cVDPV transmission in South Sudan, as well as the continued inability to access children and the low surveillance sensitivity in the 3 conflict-affected states there. The TAG is also concerned that in Yemen's active conflict areas, RI has declined, the supplementary immunization activity (SIA) was not conducted, and surveillance indicators have declined.

The TAG appreciates country achievements on the 12th TAG's recommendations. However, the TAG is concerned that some recommendations have not been fully implemented. The TAG also appreciates the efforts towards the documentation of impact of community-based surveillance and communication but notes that this impact documentation needs to be strengthened further in both areas.

The TAG also notes that IPV introduction has been postponed in some HOA countries, including in tier 1 countries. In all HOA countries, RI programme must be intensified.

The TAG appreciates that Somalia and Uganda have updated their country plans as per the recently WHO-endorsed outbreak response SOPs, and commends Uganda and the HOA team for conducting an outbreak simulation exercise.

The TAG made several cross-cutting recommendations, among which were:

- For un-reached children areas in South Sudan, Sudan and Yemen, lessons learned from other countries with similar conflict situations like Nigeria, Pakistan and Somalia should be used, including:
 - Rapidly scaling up permanent vaccination points around inaccessible areas.
 - Maintaining a state of preparedness to enable SIAD implementation as soon as an area becomes accessible.
- Earlier TAG recommendations should be fully implemented; the HOA office should guide countries on the quantification and standardization of the implementation status of recommendations.
- Further documentation should be provided on the impact of community-based surveillance and communication, and best practices from the HOA outbreak.
- All countries should update their outbreak response plans according to the new global SOPs before the end of 2015, and outbreak simulation exercises should be conducted in Djibouti, Eritrea, Sudan and Tanzania before the next TAG.
- Outbreak response assessments should be conducted for Somalia and South Sudan before the end of October 2015.
- All countries should take specific steps to improve surveillance in areas with identified gaps; regional offices should monitor surveillance quality on monthly basis.
- Investigations should be conducted on all '0' dose cases to identify reasons for non-vaccination and to take corrective actions, and all countries should report OPV (oral polio vaccine) utilization during SIAs.
- Communication outbreak preparedness planning should be conducted; countries should sustain their social mobilization and communication networks, and address C4D (Communication for Development) capacity gaps.
- Cross border coordination meetings should be continued and documented.
- All HOA countries should prepare for the tOPV (trivalent OPV) - bOPV (bivalent OPV) switch and share their preparedness status at the next TAG.
- All HOA countries should accelerate their efforts to complete phase 1 containment activities by the end of 2015 in keeping with the GAP III Polio Endgame Strategic Plan.

In addition to the above cross-cutting recommendations, the TAG made several country specific recommendations for each of the HoA countries. They can be referenced below, along with the country reports to the TAG which are contained in Annex II.

Finally, the TAG plans a teleconference on 5 November to keep itself updated on the progress in the HoA countries and next TAG meeting in the week of 15th Feb 2016.

I. Preamble

The 13th Meeting of the Horn of Africa Technical Advisory Group (HOA TAG) was held from 18 to 20 August 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, Ethiopia, Kenya, Sudan, South Sudan, Somalia, Uganda, Yemen and Tanzania. The meeting also had participation from representatives of CDC, USAID, Red Cross, Core Group, and the Bill & Melinda Gates Foundation.

The last HOA TAG meeting was held in February 2015 in Nairobi, Kenya, followed by a teleconference in May 2015 to discuss the progress in implementation of the 12th TAG recommendations.

Globally, the overall number of wild poliovirus cases decreased from 138 in 2014 to 36 in 2015 in same period. The last case of wild polio in WHO's AFR Region was from Nigeria and had an onset of paralysis on 24 July 2014; the last case of wild polio on the African continent was from Somalia with an onset of paralysis on 11 August 2014. There has been significant reduction in number of cases in Pakistan with 29 cases in 2015 as compared with 108 in same period in 2014.

Assessment of the HOA outbreak response was conducted in June 2015. It concluded that Kenya and Ethiopia have stopped wild poliovirus transmission while continued low level transmission in Somalia cannot be ruled out, though no wild poliovirus case has been detected there since August 2014.

In the context of the HOA WPV and cVDPV outbreak, the 13th HOA TAG meeting was called with following objectives:

1. To review the situation and progress and plan for closing the WPV and cVDPV outbreak in HOA and provide recommendations
2. To review the sensitivity of surveillance in HOA countries and provide recommendations to strengthen ability to detect transmission.
3. To review the risks of outbreak following importation/ cVDPV emergence, outbreak response preparedness and risk mitigation strategies and provide recommendations.
4. To review and recommend on plan for strengthening of Routine Immunization in high risk areas, with use of polio resources for the purpose.
5. To review and recommend on the communication strategies focusing on addressing the remaining challenges in HOA and activities in post outbreak phase.
6. Review progress made in Routine Immunization strengthening using polio assets in 3 selected countries: Ethiopia, South Sudan, and Somalia.

II. Conclusions and Recommendations

1. General Conclusions

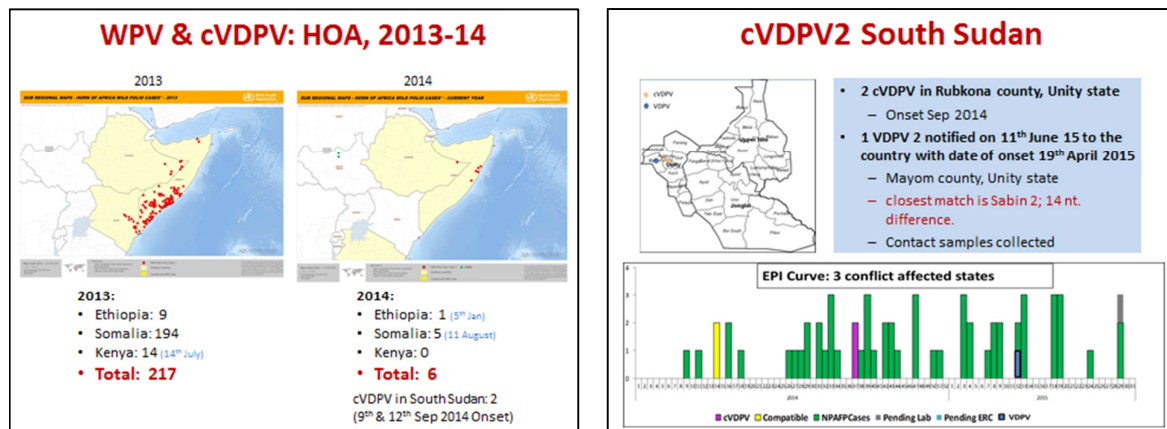
The TAG expresses deep regrets regarding the tragedy in Garowe, northern Somalia where two UNICEF polio staff lost their lives in a horrific attack as they travelled to work.

The TAG acknowledges the extremely challenging situation in Somalia, South Sudan, and Yemen and appreciates the hard work done by all involved in the program.

The TAG commends the participation of Djibouti and other HOA countries and partners. However, it deeply regrets the absence of Ministry of Health, WHO, and UNICEF representatives from Eritrea.

The TAG notes that one year has passed since the last wild poliovirus case in Africa with onset in August 2014 (notified on 17th August 2014). However, one year of surveillance (12 months since notification of last case + period required for lab processing of all AFP case with notification up to 17th August 2015) is needed before celebrating. HOA countries must ensure high quality surveillance in all subnational areas, particularly in high risk areas.

The TAG expresses concern regarding the continued transmission of cVDPV2 in South Sudan, as well as the continued inability to access children and the low surveillance sensitivity in the 3 conflict-affected states there.



The TAG appreciates the HOA outbreak response assessment conducted and endorses its findings.

The TAG recognizes country preparations for the TAG teleconference and TAG meeting, as well as the ongoing efforts of the HOA Coordination Office in ensuring coordinated outbreak response activities.

The TAG recognizes the exceptional support provided by the polio laboratories despite an increased workload. The TAG also acknowledges the support provided by partners like BMGF, USAID, CDC, Rotary, and CORE Group in making HOA polio- free.

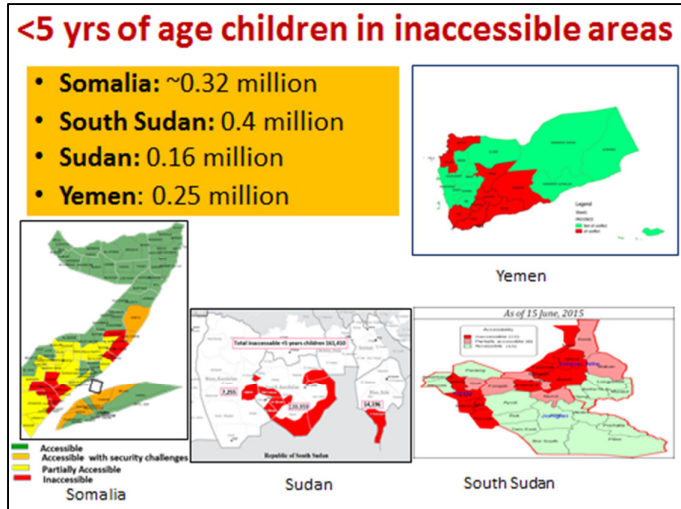
The TAG appreciates country achievements and implementation status reports on the 12th TAG's recommendations. However, the TAG is concerned that some specific recommendations, particularly 'improving fund flow mechanism', 'update outbreak response plan', 'issue of unknown doses' and 'action on LQAS results', have not been fully implemented.

The TAG appreciates the efforts towards the documentation of impact of community-based surveillance and communication but notes that this impact documentation need to be strengthened further in both areas.

The TAG notes that the new outbreak response SOPs endorsed by WHA are available, and appreciates that Somalia and Uganda have updated their country plans as per these new SOPs. The TAG compliments Uganda and the HOA team for conducting an outbreak simulation exercise.

The TAG notes that Somalia, South Sudan, Sudan and Yemen have a substantial number of unreached children due to ongoing conflict. South Sudan has more inaccessible children than Somalia and will pose an extreme challenge if WPV importation takes place there.

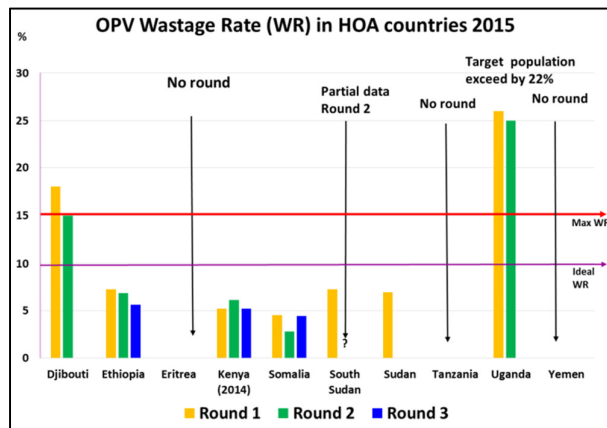
The TAG notes that although Somalia is getting back on track, the deteriorating humanitarian crisis in South Sudan is posing a major threat to their polio programme. In addition, the TAG is concerned about the persistence of inaccessible children in Sudan in some of areas of South and West Kordofan and Blue Nile.



The TAG appreciates the work being done under extremely challenging circumstances in Yemen and is pleased to note that despite these challenges, the country was able to conduct an SIA in August, maintain surveillance, and continue routine immunization activities. However the TAG notes that in active conflict areas, routine immunization has declined, the SIA was not conducted, and surveillance indicators have declined.

The TAG appreciates efforts being made by HOA countries on OPV utilization/wastage since the last TAG. It notes that in some countries there are improving trends on OPV utilization/wastage, but in others, OPV utilization data are incomplete or not credible.

The TAG notes that IPV introduction has been postponed in some HOA countries, including those in tier 1.



Conclusions specific to the meeting objectives

The TAG endorses the *HOA Plan* presented, including the proposed SIA calendar.

Revised SIA calendar (Aug 15-Mar 16)

Transmission zone / Country	2015					2016		
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Horn of Africa								
SOMALIA	65	HTR25%	100%	HTR25%	100%		100%	100%
Ethiopia		33%		15%	20%		33%	100%
KENYA	70%	22%		100%			20%	100%
SOUTH SUDAN		33%	33%	100%	100%		33%	100%
SUDAN			65%					50%
UGANDA		15%			50%		50%	100%
Djibouti		100%						
Eritrea		100%						
Tanzania								
YEMEN	100%	100%	100%		100%		100%	100%

HTR 25%- All the HTR populations which is 25% of population

tOPV
bOPV

Objective 1:

To review the situation and progress and plan for closing the WPV and cVDPV outbreak in HOA and provide recommendations.

The TAG concludes that there is significant progress in closing the HOA WPV outbreak, with the last WPV case in Somalia having onset on 11th August 2014. The TAG endorses the conclusions of the HOA outbreak response assessment conducted in June 2015 that 'transmission in Kenya and Ethiopia has stopped and it is highly likely that transmission in Somalia has also stopped but low level undetected transmission cannot be ruled out'.

In view of suboptimal surveillance and very low population immunity in conflict-affected states in South Sudan, the TAG concludes that risk of continuing cVDPV transmission and new cVPDP emergence is very high there.

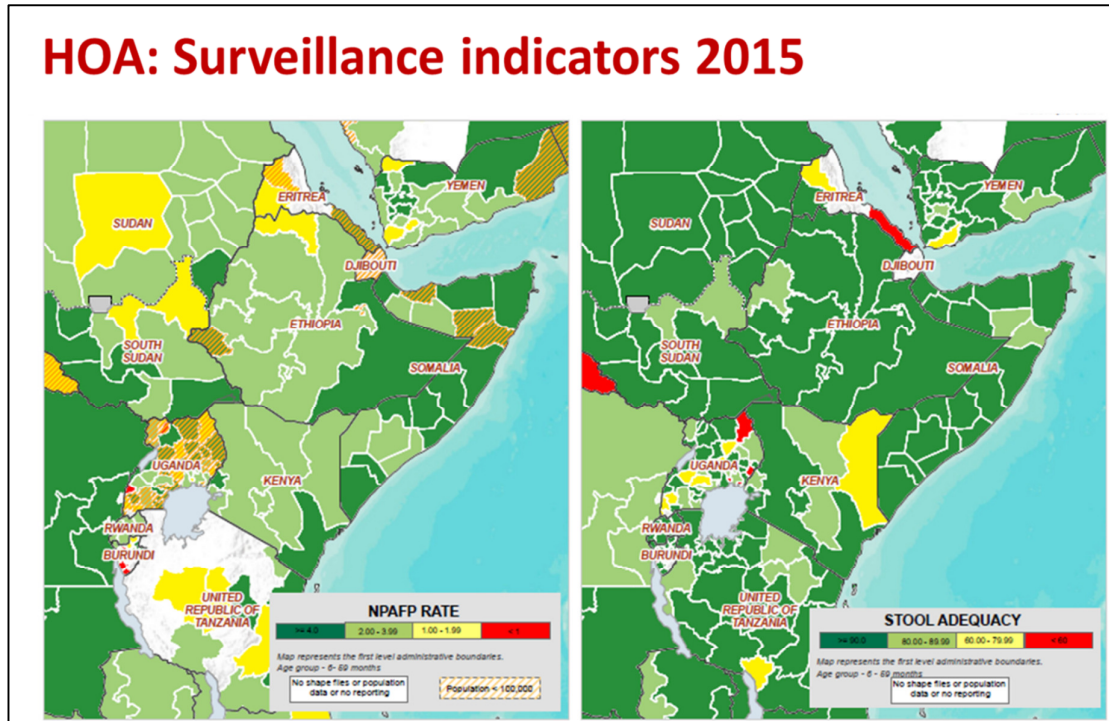
Objective 2:

To review the sensitivity of surveillance in HOA countries and provide recommendations to strengthen ability to detect transmission.

The TAG is concerned about suboptimal surveillance sensitivity at the sub-national level in Eritrea, Ethiopia, Kenya, South Sudan, and Uganda, and stool sample shipment delays from Yemen to the lab. Also concerning is decreasing sub-national NPENT rates in most HOA countries.

Countries should take specific steps to improve surveillance in areas with identified gaps; regional offices should monitor surveillance quality on monthly basis.

Problems with delayed stool shipments in Yemen should be immediately resolved and the TAG should be reported on the status during next TC.



Objective 3:

To review the risks of outbreak following importation/ cVDPV emergence, outbreak response preparedness and risk mitigation strategies and provide recommendations.

Risks of outbreaks following wild poliovirus importations, and risks of cVDPV emergences remain high in Ethiopia, Kenya, Somalia, South Sudan, Sudan, and Yemen. Countries should strengthen efforts to reach missed children during SIAs (as identified through IM), conduct '0' dose investigations, and implement strategies to reach children in inaccessible areas.

Uganda appears better prepared for responding to an outbreak as it has updated its outbreak response plan and conducted an outbreak simulation.

All countries should update and operationalize their outbreak response plans as per the new SOPs before the end of 2015, and all the stakeholders should be briefed on these new plans.

Outbreak simulation exercises should be conducted in Djibouti, Eritrea, Sudan, and Tanzania before the next HOA TAG meeting as these countries have not had polio outbreaks in the recent past.

Objective 4:

To review and recommend on plan for strengthening of Routine Immunization in high risk areas, with use of polio resources for the purpose.

Polio programme resources and efforts should be sustained to ensure a polio-free HOA, and used to strengthen routine immunization and measles elimination activities. The TAG is concerned with the

sharp decline in routine immunization coverage in South Sudan, and with the stagnation of coverage in Djibouti and Eritrea, and Kenya. The TAG notes that the conflict in Yemen has also started to negatively impact routine immunization coverage.

The TAG applauds the routine immunization strengthening activities in Ethiopia, Somalia, and South Sudan (Polio Endgame Strategy Objective 2). Despite having fewer polio resources, the remaining HOA countries should use their polio skills (e.g., microplanning, surveillance and programme monitoring, supervision, social mobilization, political will generation, and vaccine demand) to strengthen their routine immunization programmes.

Objective 5:

To review and recommend on the communication strategies focusing on addressing the remaining challenges in HOA and activities in post outbreak phase.

The TAG acknowledges the communication and social mobilization efforts in sustaining public momentum and creating an enabling environment in the HOA for continued polio campaigns in 2015. The TAG also appreciates the early efforts in defining opportunities for transitioning polio communication assets, especially in Somalia and Ethiopia, into routine immunization and other public health programming.

Communication and social mobilization continue to yield positive outcomes. Communication content and products are increasingly integrating and promoting routine immunization and other health services and behaviors. Communication preparedness and response capacity has been tested in Uganda during a recent outbreak simulation exercise that revealed gaps in crisis-communication media management.

Overall awareness of polio campaign rates is high. However, this progress is neither universal nor uniform; and awareness gaps exist – particularly at sub-national level across the region. As recent anti-vaccination sentiment in Kenya has shown, new communication challenges are likely to arise even in the absence of outbreaks. The planning of communication and social mobilization activities has become more consistently integrated into operational plans, yet this needs to continue as gaps remain.

Furthermore, communication becomes increasingly challenging because of: a) lower risk perception in the context of no wild poliovirus, b) continued conflict, and c) an emerging cVDPV outbreak in South Sudan. The TAG also notes the need for stable and predictable funding to sustain communication and social mobilization activities beyond campaigns and outbreaks – particularly in Somalia, South Sudan and Yemen where conflicts persist.

Objective 6:

Review progress made in Routine Immunization strengthening using polio assets in 3 selected countries: Ethiopia, South Sudan, and Somalia.

All three countries in the HOA identified in the Polio Endgame Strategy as priority countries for RI strengthening (Ethiopia, South Sudan and Somalia) have made progress in using polio assets to improve routine immunization. However key problems and constraints persist, especially in South Sudan and Somalia.

In South Sudan, large populations are inaccessible to routine immunization services leaving these children susceptible. This is exacerbated by the fact that even four years after independence, the EPI

program is still entirely a donor driven program. The humanitarian crisis that began in December 2013 has shifted focus to emergency, with huge burden on polio teams on the ground (more than 1.5 Million IDPs). National human resources for health have very limited capacity and scarcity of skilled personnel at all levels in the MoH and partners impedes rapid progress. Due to auditing issues, GAVI funds to support activities such as outreach and the roll-out communication activities are limited. In the three conflict states the cold chain infrastructure has been destroyed, and it has become extremely difficult to move funds and distribute vaccine (only by flight).

In Somalia, the worsening security situation in entire country has considerably slowed the implementation of Annual EPI Plan. Further, only approximately 30% of the annual EPI plan is funded. Weak government health infrastructure, very high operational programme cost, the lack of staff in health facilities and limited outreach services functionality worsen the ability to make progress. For polio funded staff, the priorities are monthly NIDs, measles SIA, IPV introduction, tOPV-bOPV switch planning, cMYP development and GAVI/HSS development.

TAG concluded that in these three countries further infrastructure and health systems building was paramount to establishing sustainable routine immunization services. In Somalia and South Sudan the conflicts and humanitarian emergency was a key barrier to enabling this necessary step.

In summary the TAG identifies following key risks:

- Over 1 million unreached under 5 year old children in inaccessible areas of South Sudan (400,000), Somalia (320,000), Yemen (250,000), and Sudan (160,000)
- Continued transmission/spread of cVDPV and new cVDPV emergences in South Sudan
- Risk of WPV importation/continued undetected low level transmission in Somalia
- Persistent gaps in population immunity due to suboptimal SIA quality and weak routine immunization
- Suboptimal surveillance sensitivity in some of high risk areas in Eritrea, Ethiopia, Kenya, and South Sudan

The TAG concludes:

- ***There is significant progress in stopping the WPV outbreak in HOA.***
- ***There is insufficient progress in stopping the cVDPV outbreak in South Sudan with more than 50% (17/32) silent counties in conflict-affected states.***
- ***There is significant risk of emergence of VDPVs as well as outbreaks following WPV importation due to large number of inaccessible children in Somalia, South Sudan, Sudan, and Yemen.***
- ***As WPV seems to have disappeared from HOA, polio vigilance and renewed momentum toward routine immunization achieved during the outbreak must be sustained.***
- ***Using the capacity build-up through Polio Eradication, efforts to strengthen routine immunization programmes must be intensified.***

2. Recommendations

Cross cutting recommendations

- For un-reached children areas in South Sudan, Sudan and Yemen, lessons learned from other countries with similar conflict situations like Nigeria, Pakistan and Somalia should be used, including:
 - Rapidly scaling up permanent vaccination points around inaccessible areas.
 - Maintaining a state of preparedness to enable SIAD implementation as soon as an area becomes accessible.
- The TAG recommends that earlier TAG recommendations, particularly ‘improving fund flow mechanism’, ‘update outbreak response plan’, ‘issue of unknown doses in AFP’ and ‘action on LQAS results’ be fully implemented and reported on at the next TAG. The TAG also asks HOA office to guide countries on quantification and standardization of the implementation status of recommendations.
- The TAG requests further documentation on the impact of community-based surveillance and communication.
- The TAG recommends that all countries update their outbreak response plans according to the new global SOPs before the end of 2015.
- The TAG recommends that outbreak simulation exercises be conducted in Djibouti, Eritrea, Sudan, and Tanzania before next TAG meeting.
- Cross border coordination meetings should be continued and documented.
- The HOA Coordination Office should document best practices from the HOA outbreak; the TAG will be happy to provide input on the documentation.
- The TAG recommends that investigations be conducted on all ‘0’ dose AFP cases to identify reasons for non-vaccination and to take corrective actions.
- The TAG recommends that Somalia and South Sudan outbreak response assessments be conducted before the end of October 2015.
- All HOA countries should accelerate their efforts to complete phase 1 containment activities, including the destruction of nonessential poliovirus type 2 materials, by the end of 2015 in keeping with the GAP III Polio Endgame Strategic Plan.
- The TAG recommends that all HOA countries report OPV utilization during SIAs at the district level with aggregated figures at the national level using the wastage formula: $\text{vaccine wastage (\%)} = (\text{doses used} - \text{children immunized}) / \text{doses used}$.
- Building on the rich body of communication and social mobilization activities and innovations implemented by countries in the context of the HoA outbreak, the TAG recommends that the impact evidence on what has and hasn’t worked be synthesized and shared widely.
- The TAG calls on all HOA countries to conduct detailed communication outbreak preparedness planning that includes an assessment of communication gaps to be addressed.
- The TAG commends the efforts to build social mobilization and communication networks, and encourages countries to sustain these capacities, as well as address C4D capacity gaps at national and sub-national levels in the context of post-outbreak transition.
- The TAG recommends that all HOA countries ensure their preparedness for the tOPV-bOPV switch and share their preparedness status at the next TAG.

- Countries should take specific steps to improve surveillance in areas with identified gaps; regional offices should monitor surveillance quality on monthly basis.

Country specific recommendations

Somalia

- Coordination issues between UNICEF and WHO should be addressed by establishing a 'Polio Coordination Room' which has daily participation from all key stakeholders.
- The fund flow issue should be resolved as quickly as possible.
- Human resource vacancies should be filled by the end of September 2015.
- '0' dose investigations should be conducted to identify reasons for missed children and to take corrective actions.
- AFP validation should be fully implemented, as previously recommended.
- Delays in implementing SIADs in newly accessible areas must be avoided; vaccines and funds must be prepositioned to help ensure that the first round of SIAD is implemented within 14 days of an area becoming accessible.
- LQAS should be expanded, remedial actions taken, and results report on.
- The 6 month action plan should be fully implemented with progress reported on during the November 2015 HOA TAG conference call.
- The commendable communication and social mobilization gains must sustained and the requisite capacities consolidated.

Ethiopia

- Reasons for the decreasing NPEV rate should be identified and corrective actions taken.
- The issue of delayed disbursement of funds should be solved.
- The quality of AFP case investigations should be improved; reasons for all '0' dose/unknown doses in AFP cases should be identified and course corrections taken.
- The reasons for 'cases pending for classification' should be identified and course corrections taken and reported on.
- The longstanding issue of imported biomedical products needed for polio lab should be solved to ensure that lab testing of stool samples does not suffer.
- The team should provide information on how their commendable, extensive social mobilization network can be integrated into or support other programming sectors.

Kenya

- The country must regain the momentum it had during the outbreak to sustain the quality of surveillance, routine immunization, and polio activities.
- Lessons learned from the handling of the SIA controversy should be documented and shared; the development of a Risk Communication Plan to mitigate future incidents should be accelerated.
- Constraints to surveillance due to fund-related issues should be addressed urgently.
- Permanent vaccination points should be established at the important international borders, as previously recommended.

- The team should continue to invest in communication and social mobilization to prevent possible importation and future outbreaks (particularly in cross-border regions) and intensify support to promote routine immunization.

South Sudan

- Lessons learned from other countries with similar conflict situations like Nigeria, Pakistan and Somalia should be used, including:
 - Rapidly scaling up permanent vaccination points around inaccessible areas.
 - Maintaining a state of preparedness to enable SIAD implementation as soon as an area becomes accessible.
- Ensure high quality SIAs in accessible areas to rapidly boost the population immunity.
- Rapidly build HR capacity, including by taking field assistants on board and fast tracking nSTOP recruitment.
- Implement strategies to improve surveillance in the 3 conflict affected states by fully engaging NGOs present on the ground, sampling healthy children from silent counties, and continuing contact sampling from all AFP cases.
- The outcome of EPI review should be shared with the TAG members; priority, short term recommendations should be implemented and presented in the next TAG meeting.
- Strengthen C4D capacity and intensify social mobilization activities tailored to the specific challenges faced in the three conflict-affected states down to county and payam level.
- Build on the existing momentum in the seven non-conflict states for ongoing social mobilization and community engagement efforts.

Djibouti

- Update the outbreak response plan and conduct an outbreak simulation before next TAG meeting.
- Improve the organization and quality of programme data; regularly share data with the regional office.

Yemen

- Issues of stool shipment delays should be resolved and appropriate containers should be prepositioned to avoid future problems with specimen testing.
- Plans should be made to vaccinate children living in the conflict areas who were not accessible in the August SIA.
- Continue exploring the opportunities of a ceasefire/truce period to enable delivery of vaccine to inaccessible children.
- Deploy permanent vaccination posts in accessible zones nearest to inaccessible areas.
- Implement governorate-specific communication plans informed by robust data and with a particular emphasis on conflict hot-spots.
- In anticipation of truce/ceasefire period, develop contingency communication plans that include prepositioning of communication assets.
- Mobilize more funds for surveillance and social mobilization activities.

Sudan

- All avenues of low profile vaccination in inaccessible areas should be explored; permanent vaccination posts around inaccessible areas should be established.

- Low NPENT rate should be investigated and corrective actions should be taken. Results from the Logtag reverse cold chain assessment should be shared with the HOA Office.
- Intensify efforts to deepen engagement with communities in conflict areas, as well as with IDPs from South Sudan, with a view of developing more effective communication and social mobilization strategies targeting these hard-to-reach groups.

Uganda

- Share the report of the outbreak simulation with the HOA office and TAG members.
- Report on the commendable efforts to improve data quality at the next TAG.
- Urgently resolve the funds accountability issue that has resulted in fund flow delays for social mobilization activities.
- Include tOPV in the upcoming measles campaign in districts bordering South Sudan and districts with <80% coverage in last NID.

Tanzania

- Update the outbreak response plan and conduct an outbreak simulation before the next TAG.
- Report on the implementation status of recommendations from the July 2015 comprehensive EPI & surveillance review at the next TAG meeting.

Eritrea

- A combined WHO and UNICEF visit should be conducted before the end of 2015 to discuss in detail the status of polio eradication and routine immunization.
- A detailed surveillance review should be conducted before the next TAG to address serious concerns regarding the quality of AFP surveillance.
- As soon as possible, confirm when the scheduled NID round will be held and initiate preparations to conduct this round.
- Collect better social data to inform the development of communication and social mobilization plans and interventions.

Laboratory

- AFRO and EMRO laboratories serving the HOA countries should be regular participants of TAG meetings to share information and experiences.
- To improve sensitivity and timeliness of lab results, the Ethiopia national authorities should consider granting a waiver to allow importation of low passage polio virus growing cells and basic lab supplies.

Next meeting of the TAG

The next meeting of the HOA TAG is proposed to take place during the week of 15 February 2016 in Nairobi, Kenya.

The TAG will also meet via teleconference on 5 November 2015 to follow up on progress in meeting the 13th TAG's recommendations.

Annexure: 1

List of Participants

Technical Advisory Group Members

1	Jean-Marc Olivé, TAG Chairman
2	Rafah Aziz, TAG Member
3	Robb Linkins, TAG Member
4	Hashim EL Mousaad, TAG Member
5	Yagob AL-Mazrou, TAG Member
6	Carl Tinstman, TAG Member
7	Erma Manoncourt, TAG Member
8	Peter Da Costa, TAG Member

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18	Rustam Haydarov, UNICEF/ESARO
19	Nasir Yusuf, UNICEF/ESARO
20	Anindya Bose, UNICEF/HQ
21	Sahar Hegazi, UNICEF/HQ

National (MoH) Representatives

22	Liya Wondwossen, FMOH/ Ethiopia
23	Ian Njeru, MOH/ Kenya
24	Johnny Musyoka, MOH/Kenya
25	Juliet Muigai, MOH/Kenya
26	Lydia W. Kirika, MOH/Kenya
27	Peter Kamau, MOH/ Kenya
28	Ephantus Maree, MOH /Kenya
29	Naomi Shiyonga, MOH /Kenya
30	Osman Abdi Omar, MOH/Somalia
31	Ahmed Abdi Ismail, MOH/Somalia
32	Ahmed Moallim Hirsi, MOH/Somalia
33	Anthony Laku, MOH/South Sudan
34	Samira Mohamed Osman, MOH/ Sudan
35	Alex Mphuru, MOH/Tanzania
36	Pamela Henrietta Zaninka, MOH/Uganda
37	Ali Bin Brake, MOH/Yemen

Partner Representatives (International/Regional)

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39	Sue Gerber, BMGF/USA
40	Claire Chauvin, BMGF/Somalia
41	Derek Ehrhardt, CDC
42	Stacie Dunkle, CDC
43	Victoria Gammino, CDC
44	Rennatus Mdodo, CDC/Somalia
45	Mercy Lutukai, CORE Group
46	Frank Conlon, CORE Group/USA
47	Filimona Bisrat, CORE Group/Ethiopia
48	Anthony Kisanga, CORE Group/South Sudan

49	Somane Mohamed, CORE Group/Kenya
50	Bal Ram Bhui, CORE Group/Kenya
51	Abraham Guma Masson, CORE Group/South Sudan
52	Lee Losey, CORE Group/USA
53	Robert Davis, Red Cross /Kenya
54	Kaushik Manek, Rotary
55	Sharon Wanyeki, Rotary
56	Abdi Faysal Odowa, Somali Regional Health Bureau/Ethiopia
57	Burton Wagacha, UNHCR/Kenya
58	Subroto Mukherjee, USAID/Kenya
59	Isaac Mugoya, USAID/MCSP Kenya

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60	Kalil Sagno, UNICEF/Djibouti
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63	Shalini Rozario, UNICEF/Ethiopia
64	Bukhari Shikh Aden, UNICEF/Ethiopia
65	Angela Powell, UNICEF/HQ
66	Peter Okoth, UNICEF/Kenya
67	Leila Abrar, UNICEF/Kenya
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70	Julianne Birungi, UNICEF/Somalia
71	Saumya Anand, UNICEF/Somalia
72	Chawdhary Parvez Alam, UNICEF/Somalia
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74	Anu Puri, UNICEF/South Sudan
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76	Khattab Mustafa Obaid, UNICEF/Sudan
77	Fikiri Mazige, UNICEF/Tanzania
78	Miriam Lwanga, UNICEF/Uganda
79	Eva Kabwongera, UNICEF/Uganda
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81	Severin von Xylander, WHO/Djibouti
82	Mohamed Aden Mohamed, WHO/Djibouti
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86	Iheoma Onuekwusi, WHO/Kenya
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89	Asalif Demissie, WHO/Somalia
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93	Ghulam Rabani Popal, WHO/Somalia
94	Yahiea Mostapha, WHO/South Sudan
95	Ahmed Hardan, WHO/Sudan
96	Boniphace Makelemo, WHO/Tanzania
97	Annet Kisakye, WHO/Uganda
98	Moses Twinomujuni, WHO/Uganda
99	Chidiadi Joseph Nwogu, WHO/AFRO
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Annexure II

Country summary as presented to the TAG – *No report from Eritrea as no Representative were present*

Somalia

Background - Somalia has passed one year since the last case of polio was reported in Mudug region in August, 2014. The fourth outbreak assessment mission was held in Nairobi, Kenya on 8-17 June, and the 6-months planning meeting for the 2nd half of 2015 occurred during 26-30 July, 2015 in Nairobi.

Epidemiology - There are no new WPV or VDPV cases reported in Somalia during 2015. The last WPV1 case was from Hobyo District of Mudug region, with date of onset on 11th August 2014.

AFP surveillance - The overall national and zonal AFP surveillance indicators in Somalia are above the recommended international standards. A total of 190 AFP cases were reported in 2015 as of August 17, 2015. The Annualized non-polio AFP rate for 2015 is 5.2/100,000 and the stool adequacy 98%. 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 VPVs and active reporting sites, and validation of AFP cases. The lack of standardized data collection tools across all zones, slow start in validation of AFP cases, delay in zero-dose investigation, poor documentation of program activities, and delays in collecting specimen from healthy children in silent areas may also compromise the surveillance system in Somalia.

Community based surveillance - Village Polio Volunteers (VPVs) are involved in the detection and reporting of AFP cases and planning of SIAs. The number of AFP cases reported by VPVs increased in 2015 compared to 2014 (36% versus 26%). There are currently 447 VPVs countrywide, 21% additional VPV in 2015 compared to 2014. Of these 95/447 (21%) are deployed in inaccessible districts. The program is currently reviewing the ToRs for VPVs to increase VPV footprint and role in inaccessible areas.

SIAs and IM - Jan-June 2015: Of the 7 SIAs planned between January and June, 4 were fully implemented; i.e. three NIDs (2 with bOPV, 1 with tOPV, and one SNIDs with bOPV) were conducted in each zone. The third nationwide polio vaccination campaign for 2015 targeted children under 5 year with tOPV and children 12-59 months with Albendazole. Approximately 2.32 million children under 5 years were targeted throughout Somalia; 2.26 million children were vaccinated with tOPV (97% coverage). The 1st SNIDs with tOPV was conducted in August 2015 in all accessible areas of South and Central zones (except Benadir region where campaign was postponed due to delayed vaccine supply) and all districts of Puntland. Efforts will be made to conduct 2 NIDs and 2 HtR (Hard to Reach communities) in the second part of 2015. Independent monitoring (IM) is mainly limited to urban settings. Currently the program is rolling out LQAs in Puntland and Somaliland and IPV introduction is planned for October 2015.

Remote and nomadic communities - Remote and nomadic communities (also designated HtR) in Somalia continue to pose a challenge to the program. In 2015, two rounds of HtR SIAs were implemented in all zones except Puntland (postponed). As a result 153,315 children less than 5 years were reached (approximately 5% of these were zero-dose). Additionally, targeted communication and improved micro-planning were carried out.

Accessibility - As of August 2015, of the 115 districts in Somalia 15 were completely inaccessible, 21 were partially accessible, 8 were accessible but with security challenges and 71 were fully accessible.

Since January 2015, 4 districts became newly accessible with potential access to approximately 47,000-59,000 children under 5 years. There was a decreased accessibility in 1 district (Awdeeghle) preventing access to 18,000 children. **An estimated 320,000 children under 5 (U5) remain inaccessible** for vaccination in Somalia. Delays in releasing operational funds in November 2014 were some of the issues that limited full implementation of SIADs in 2 of the 2014 newly accessible districts. SIADs is now being planned for the 4 districts that opened up in July 2015.

Transit-point and permanent vaccination posts (TPVP) - The number of TPVP has increased from 300 in 2013 to 353 in 2015. Rationalization is ongoing in Puntland, Somaliland and Central zones. Transit point vaccination teams have vaccinated a total of 1.2 million children aged less than 10 years during 2014 and 1.3 million during 2015 as of 31st July.

Communication for Development (C4D) - The Somalia program is using a combination of C4D strategies including, high level advocacy (political leaders), religious leaders (mosque announcements), schools, SMS messaging, radio and community mobilizers. The program has trained and equipped regional and district level coordinators, and social mobilizers in Northeast and Northwest zones in line with the Somalia outbreak response assessment recommendations. Approximately 97% of RSMC and DSMC (District Social Mobilization Coordinator) have been trained and deployed. RSMCs and DSMCs for lower Juba were recruited and their orientation is being planned. Approximately 63% of community mobilizers have been trained on IPC and use of Flip Chart. Microplan validation workshop was conducted in March 28-29, 2015 in Puntland and resulted in the identification of 203 new nomadic settlements.

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 work plan. The program committed to support the following activities; update the polio staff TOR to include RI, develop RI micro-plans for the 37 focus districts, roll out MLM training at the district level, provide technical support to update/develop zonal cMYP 2016 – 2020, provide technical support for smooth introduction of IPV and for tOPV–bOPV switch plan, plan and implement nationwide measles catch up campaign, and strengthen polio partner coordination for RI.

Cold chain capacity -There are more than 500 ILRs and 250 Deep Freezers in good working condition in Somalia. In 2015, 23 solar fridges, 6 kerosene, 11 ILR and 12 freezers were installed to the newly accessible districts in South Central regions of Tieglow, Elberde, Wajid and Buloburto. New cold rooms (WIC/WIF) are under construction in South Central zone (in Mogadishu a cold room is in final stages of construction, in Baidoa hub the selection of a contractor is in progress, and in Dusamareb site assessment in planning).

Preparedness for outbreak response - A draft of the outbreak preparedness and response plan has been developed based on the new GPEI guidelines and circulated to partners for review. The final draft will be available for use by end of August 2015. The proposed activities outlined in the 6-month plan are aligned to the program's preparedness for outbreak response.

Remaining challenges and way forward- Insecurity, timely availability of funds to implement program activities, difficulties in communication and coordination, and incomplete implementation of surge remain as major challenges. The program has committed in the 6-month plan to improve management and coordination, and complete polio staff recruitment. Additionally, the program is working to strengthen AFP surveillance (zero-dose investigations, AFP case validation, VPV reporting network expansion, documentation), and improve population immunity (high quality SIAs, LQAs roll out in Puntland and Somaliland, RI support, pilot Satellite Imagery/mapping in Burtinle and Dangoroyo).

Ethiopia

Epidemiology - Although, Ethiopia reported its last case of indigenous wild poliovirus in 2001 there have been numerous importations of WPV1 since 2004. An importation in 2004 was genetically linked with virus that originated from Nigeria through Chad and Sudan, affected the Northern part of the country. In 2005, Ethiopia had another importation that was genetically linked with virus circulating in Sudan. The WPV1 reported in 2006 in the Southern part of Ethiopia was genetically linked with virus circulating in Somalia. After the WPV confirmed in 2006, Ethiopia had a 17 months period when no WPV was detected. In 2008, Ethiopia reported 2 WPV1 in Gambella region genetically linked with the virus circulating in South Sudan. Most recently, during 2013 Ethiopia has another importation from Somalia which affected the Somali region of Ethiopia, and affected three districts in Dollo zone. A total of 10 WPV1 were confirmed in one zone in Somali region. With concerted efforts WPV transmission has been interrupted (last date onset, January 5th 2014).

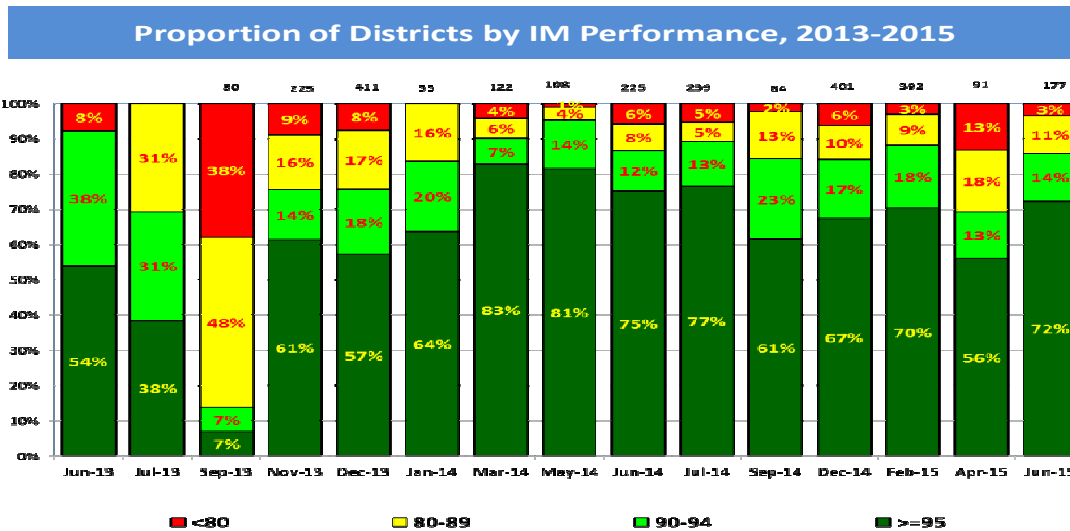
Two cases of VDPV-2 have been reported from Somali region during 2015. The first was in a 4 year old male from Nogob Zone (Fik woreda) with date of onset of November 10, 2014. The second case was a 3 year old boy from Dollo Zone (Danot woreda) with onset on March 4, 2015. Multidisciplinary teams from the FMoH, WHO, UNICEF and RHB conducted field investigations for both cases. 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 – As of 14 August 2015, 754 AFP cases have been reported for 2015 resulting in a NPAFP rate of 3.2/100,000; 68 cases have been reported in Somali Region with a NPAFP rate of 4.7/100,000. Stool adequacy rate at national level is 93%. Certification level surveillance indicators have been achieved in most regions (see the table below). 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.

Summary of AFP Surveillance indicators by Region , Ethiopia Jan 01 – Aug 14, 2015

Region	Expected Cases (2015)	Reported (this period 2015)	Reported (same period 2014)	Reported this Week	NP-AFP Rate (annualized)	Stool Adequacy (%)	Stool Cond. (%)	NPENT (%)	Compatibles	VDPV Cases	WPV Cases
A ABABA	14	11	14	0	2.6	82	100	0.0	0	0	0
AFAR	12	17	15	0	4.6	100	83	5.9	0	0	0
AMHARA	170	188	119	4	3.7	93	78	3.9	0	0	0
B/GUMUZ	9	8	13	0	2.9	88	75	0.0	0	0	0
D/DAWA	2	1	2	0	1.6	100	100	0.0	0	0	0
GAMBELLA	3	7	8	0	2.0	100	43	0.0	0	0	0
HARERI	2	2	3	0	3.2	100	100	0.0	0	0	0
OROMIA	315	288	261	11	3.0	92	80	2.0	0	0	0
SNNPR	165	144	148	5	2.8	97	87	6.5	0	0	0
SOMALI	46	68	84	0	4.7	94	86	3.8	0	1	0
TIGRAY	39	20	27	0	1.7	85	89	0.0	0	0	0
NATIONAL	777	754	694	20	3.2	93	82	3.4	0	1	0

SIAs and IM - Between July 2013 and July 2015, 15 polio SIAs have been conducted, focusing largely on high risk areas. An estimated 80 million doses of OPV have been administered to children under 15 years of age during these campaigns. During 2015, one NID (Feb 2015) and 2 SIAs (April and June) took place. Another SIA is being completed now. Three additional SIAs are planned for the remainder of 2015. IM has been conducted during all rounds to assess quality of the campaign (see the following graph). In addition, in Somali region, LQAS has been conducted in multiple zones during 2015 with noted improvements in recent campaigns.



Communication - Polio Outbreak National Communication Strategic Plans have been updated, at National, Regional and zonal level for EPI/polio priority areas incorporating strategies for reaching unreached, nomadic and pastoralist communities as well as applying the polio legacy to support routine immunization and child and family health. The communication network has been maintained, supporting on planning, capacity building, advocacy, social mobilization and M&E. Emphasis on collection and use of social data for optimal communication results continues to be a programme priority. For example, the network has helped to revitalize/re-establish 83% of all social mobilization committees in the Somali Region (ZCC monthly reports, August 2015). Data (IMD) shows positive trends in increased “awareness” of polio campaign, particularly in outbreak zone of Dollo in Somali Region – the most recent round 15 reflecting 88% awareness rates. Partnerships and networks will continue to focus on sustaining and building on gains for “polio legacy” implementation; continuing to use advocacy for increased engagement; IEC materials for improved capacity; local structure and influential engagement of improved social mapping and micro planning

Routine Immunization - FMOH has developed and is in the process of implementing a nationwide Routine Immunization Improvement Plan (RIIP). As a result, numerous activities have been undertaken to improve routine immunization throughout the country. Microplanning to map hard to reach areas during SIAs have 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. The country procured 1000 SDD refrigerators and has been provided to remote facilities. All regions send their quarterly consumption request to FMOH using VRF (Vaccine Requisition Form). Vaccination at transit points has been established. 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

Current Cold Store	Number of Wereda	Number of Live Births	Number of Surviving Infants	Average Distance km (Current)	Max of Distance km (Current)	Current net capacity in M3	Required space/quarter for RI	Gaps (Yes/No)	Remarks (reflects required spaces for woredas assigned for distribution)
Addis Ababa	111	409,969	375,540	132	280	347	14.11	No	
Assosa	13	16,553	15,211	146	320	10	0.57	No	
Bahir Dar	94	444,813	397,033	221	450	20	14.92	No	Addl cold store in Gondar required due to distance
Bonga	28	76,334	68,508	226	590	10	2.57	No	
Chiro	39	199,173	184,730	135	343	10	6.94	No	
Dessie	55	208,200	185,913	165	465	10	6.99	No	
Dire Dawa	22	32,373	30,367	48	175	10	1.14	No	
Dukem	84	335,309	314,494	217	685	10	11.82	Yes	Additional cold store at Bale
Gode	18	48,893	46,017	254	490	10	1.73	No	
Hawassa	139	626,932	566,780	241	835	20	21.30	Yes	Additional cold store at Negele and A/Minch
Jijiga	24	80,852	76,096	271	680	10	2.86	No	
Jimma	56	180,887	167,145	243	631	10	6.28	No	Additional cold store at Gambella
Mekele	52	192,750	175,298	210	830	10	6.59	No	Additional cold store at Shire
Nekemte	60	170,529	159,274	168	417	10	5.99	No	
Semera	19	33,623	31,454	170	320	10	1.18	No	
Total	814	3,057,191	2,793,860	197	835	507	105.01	No	
N.B.	0.00012027 Cubic meter is taken as net storage volume per fully vaccinated children ; This estimates does not consider SIAs vaccines								

Preparedness for outbreak response - The Polio Outbreak Response Plan has been updated in June 2015 and will be finalized before mid-October 2015.

Remaining challenges and way forward – The following challenges exist in the Somali region context: Sub optimal coverage in nomadic/pastoralist communities including Dollo 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, especially in Somali region.

The way forward include:

- Implement and monitor Routine Immunization Strengthening Plan: Define and implement a special strategy for pastoralist communities; cMYP 2016- 2020; New vaccine Introductions (IPV, HPV); Measles SIA; tOPV to bOPV switch ; Strengthening Cold Chain Management.
- Continue to improve quality of Polio SIAs, by reviewing and updating microplan between rounds, using implementing partners for funds disbursement, increasing focus on strategies to reach nomadic and mobile populations, intensively engaging selected clan leaders to sensitize the nomadic population; identifying mechanisms to measure impact, strengthening monitoring of SIAs (rolling out LQAS), Implementing SIAs maximizing on synchronization and cross border collaboration.
- Closely monitor community surveillance roll out in Somali Region and maximize all opportunities to sensitize communities on AFP detection.
- Maintain emergency mode and vigilance at all levels in view of continued WPV circulation in the HoA.

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 ages of the cases ranged from 4 months to 22 years. Fifty percent of the cases had never received OPV. The government of Kenya in collaboration with partners responded with the implementation of an emergency outbreak response plan that used Polio SIAs strategies, Strengthening AFP surveillance, Routine Immunization, Communication and mobilizing resources to deal with the outbreak. Investigation was prompt and response within 2 weeks of outbreak notification. Partner support in addition to funding included recruitment and deployment of human resources to strengthen the response in areas of programme management and coordination, surveillance, cold chain and logistics, data management, communication and routine immunization. The last case of WPV has date of onset of paralysis of 14th July 2013.

AFP Surveillance (including Community and Environmental Surveillance) - AFP surveillance was strengthened during the outbreak through recruitment and capacity building of surveillance personnel, supportive supervision, increased active case search. AFP surveillance indicators improved markedly in 2014 compared to 2013. A total of 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 stool adequacy rate of >80% compared to 32 (68%) in 2013. However the country experienced a decline in the first half of 2015 due to multiple factors including inadequate funding, high turnover of surveillance personnel and competing priorities like cholera outbreak. This is being addressed through a surveillance improvement plan implementation. The plan includes providing funding support to subnational level for supervision and active case search, increased support supervision by MOH National and partners (WHO Surveillance Officers, STOP Team, Core Group). Surveillance review meetings have been scheduled with the first taking place in May 2015. A training plan has been developed for new and untrained surveillance personnel at county and sub county levels. Tools for monitoring active case search has been developed and AFP performance updates are shared with all stakeholders weekly and monthly. Currently the National non-polio AFP rate which was below 3/100000 rose to 3.3/100000 by Week 32 with a stool adequacy of 86%. Community surveillance was instituted in 3 counties (Nairobi, Garissa, Wajir) in 2014 and community volunteers conduct surveillance for all IDSR priority diseases within designated villages and report weekly. CDC has been requested to have one FELTP (Field Epidemiology Laboratory Training programme) student conduct a study to establish the impact. A protocol has already been developed and approved, data collection will soon commence.

Environmental Surveillance was established in Nairobi in October 2013 to complement the AFP surveillance system in existence and has since been expanded from 4 sample collection sites to 6. So far about 117 samples have been collected and only the very first sample in October 2013 was positive for WPV1.

SIAs & Independent Monitoring - In 2013, one round of NID and 5 rounds of sNIDs were conducted in the outbreak zone of Dadaab refugee camps, host and surrounding districts, and the high risk counties and districts of North eastern, Eastern, Coast and Nairobi provinces. Injectable polio vaccine (IPV) was successfully administered in December 2013 to children in Dadaab refugee camps and host communities. In 2014, three rounds of NIDs and 4 rounds of sub NIDs were conducted

nationwide and in high risk counties respectively. Polio SIAs scheduled for the first half of 2015 were postponed to August and September 2015 due to controversial allegations levelled by the Catholic Church in Kenya against the polio vaccine which originally targeted the use of Tetanus Toxoid vaccine in immunization campaigns.

So far in 2015, one round of sNIDs in 32 counties has been conducted with a 2nd round in 11 counties scheduled for end of August 2015. Independent monitoring assessment of all the rounds since 2013 showed that a national coverage of 92-95% was achieved during each round. LQAs survey technique as a complimentary method of assessing performance was piloted in November 2014 and introduced in high risk counties for the December 2014 SIA. Cross border collaboration has continued to take place since the outbreak between Kenya and its neighbours 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.

Communication for Development- Communication and social mobilization activities, including innovative initiatives such as school and nomadic strategies in high risk counties, increased awareness of campaigns by reaching up to 94% 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. Since September 2014, a group of Catholic Church representatives has been using both mass media and social media to accuse first the Ministry of Health (MoH) and then WHO and UNICEF for supplying unsafe vaccines. As a result, 2015 April and May SIAs were postponed and rescheduled for August and September. A crisis communication plan was developed and activated when the church again called for a boycott of the August 1-5, 2015 campaign. As a result of the aggressive advocacy, communication and social mobilization activities, 93% of children were reached. One polio ambassador and 15 identified polio champions, from poor performing counties, provide outreach to vaccine resistant groups and advocate for support of EPI promotion activities.

Mapping of nomadic and pastoralist communities and outreach to and communization through community elders/leaders and government officials resulted in increased number of children in temporary settlements being vaccinated in August 2015. Staff from 67 Health facilities in Turkana, Marsabit, Wajir, Garissa, Mandera and Nairobi trained and developed micro plans to improve SIA and RI services to hard to reach/border and high risk population.

Routine Immunization- Kenya is committed to eradicate polio through improved immunization services of all children under one year, through provision of adequate and quality vaccines. Kenya conducted a Demographic Health Survey in 2013 and 2014 and the results indicated an OPV3 performance of 81%, same as administrative coverage of 81%. OPV3 performance during the first half of 2014 and 2015 was 80% and 72% respectively. The drop in coverage was due to vaccine stock-out during the beginning of last year. The stock-out was necessitated by delay in funding. Kenya is in the process of introducing IPV in the RI schedule which is slated in October 2015. The switchover from tOPV to bOPV is planned in the beginning of 2016. 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, and provision of outreach services and recruitment of additional health workers.

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. Kenya has recently expanded its cold chain capacity at national and regional depots. A state of the art central vaccine store with eight walk-in cold rooms and two freezer rooms was installed through JICA. Kenya has eight regional depots. Over 870 refrigerators including 300 DD solar fridges (53 litres CC capacity each), have been installed in different parts of the country. This capacity is adequate to serve us up to 2021. Procurement of cold chain equipment and spares shall be localized to counties and Central level to provide technical support.

Preparedness for Outbreak Response- Kenya has developed an outbreak preparedness and response plan early in 2015. However with the new polio outbreak response SOPs, the country is in the process of updating the plan to finalize by end of October 2015. Planning for the simulation exercise will commence in September after the second round of Polio SIA.

Remaining Challenges and way forward –

Challenge	Way forward
Polio vaccine controversy	Continuous engagement with all stakeholders including the Catholic Church – ACSM (Advocacy Communication and Social Mobilization) activities ongoing between rounds and beyond. Stakeholder meeting including church and media scheduled for August 25 th , release of round 1 coverage; orientation of 15 immunization champions and editors-in-chief forum planned
Security issues especially in high risk areas	Inclusion of Security member in the Cross border health committee ‘Peace caravan’ by Parliamentary Security committee and Local leaders Involvement of national cohesion and integration Commission Outreach services to displaced populations Vigorous engagement of Community units and use of community volunteers and indigenous staff
Inadequate funding for Immunization & Surveillance	Engagement of National & County governments to provide more funding support
High staff shortage and turnover	Recruitment of additional staff: Training of new staff; Use of community volunteers and local indigenous staff in security compromised areas

South Sudan

Background- Security situation in South Sudan remains very tense and led to more than 1.52 million IDPs and 546,220 refugees to neighbouring countries, increased inaccessibility (**400,000 US children inaccessible**) in most of the counties of the 3 affected states, destruction of health facilities including cold chain, travel restrictions, destruction of Commercial Bank. In addition, the current security situation complicate greatly any logistics and there is an inadequate number of staff to address the evolving needs of the states.

Epidemiology - A cVDPV type2 outbreak is declared in Rubkona county, Unity state with two cases with onset in Sep 2014. One VDPV 2 case was notified on 11 June 2015 (onset on 19 April 2015) in Mayom county, Unity state. Contact samples were collected. This area has not been vaccinated since the start of the conflict in 2013 due to the deteriorating security situation.

AFP surveillance - Several activities were carried out to improve AFP surveillance in three states, including the training of 27 NGOs field officers operating in the conflict affected states and the use of the Health cluster forums to strengthen partners' involvement in AFP surveillance. As evidence from the source of reporting of AFP cases, about 66% of AFP cases are reported from HF of which over 80% are run by NGOs especially in the conflict affected states. For 2015 up to week 31, in the 3 affected states, 17/32 counties have remained silent.

SIAs and IM - As a response to the outbreak, an SIA (tOPV) targeting a total of 32 counties and 2.6 million <15ys children was implemented in a staggered manner. SIADs is being conducted in the counties and against the target, under round 1; 1,303,878 children were reached in 29 counties, under round 2; 893,293 in 23 counties and round 3, 560,110 children were reached in 15 counties. As of July 2015, an estimated 120,000 children under 5yrs have not been reached with OPV, and an additional 300,000 children under 5 yrs are under-immunized. 29 special vaccination sites were identified and set up around 3 conflict affected & 4 bordering states; reporting started from 13 of those 29 vaccination sites (sites located in 5 states of CES, EES, Warrap, Lakes & Unity) including 2 entry points in Bentiu POC. In Unity state, a total 10,605 children under 15 yrs received OPV with 10.8% zero dose as of July 2015.

Communication: The program is using 2 clear and distinct strategies to deal with three conflict affected states and seven stable states.

Conflict affected states: In response to the cVDPV outbreak in Unity State in 2014, one round of SIADs was launched in the 32 counties (3 conflict affected states) in December 2014. A comprehensive SIAD response social mobilisation and communication plan was shared with C4D officers, funding agencies and NGO partners along with the Polio Social Mobilization Kit comprising of training package with key messages, IEC and visibility materials for the age group of 0-15 years. Under SIAD, three rounds of polio vaccinations are being conducted at the interval of two weeks each. To date, of the 27 counties conducting the first round, only 24 counties carried out social mobilization and community mobilization activities. A multiple-mechanism strategy was used to operationalize social mobilization and communication activities -a) direct implementation through community volunteers' network in Bentiu, formalized; b) partnerships through funding agencies and NGO (IMA and Care) and; c) Direct Cash Transfers through government health institutions such as Bor County Health Department (CHD). The SIAD included training of the social mobilizers, radio campaign in Jonglei state, drama performances in Unity state, orientation of religious and community leaders, church and mosque announcements and door to door visits in POCs/IDP camps and house to house mobilization in the host communities. To date, 33 SIAD training session were conducted in 24 counties to strengthen the capacities of 1159 social mobilizers and as a result of which 248,181 families were reached with critical messages on polio outbreak. 158 stakeholders meetings were conducted to orient 751 religious and community leaders which resulted in **386**

churches & mosques announcements in 24 counties. Over 108 spots were broadcasted and reached 179,000 population with information on the importance of the campaign.

Significant progress has been made to collect IM/Post Campaign Evaluation (PCE) data in Jonglei indicating awareness of the caregivers of the campaign prior to vaccinators' visit was 80%. Discussions are underway with WHO to upscale IM data collection to other conflict affected, accessible counties. Other challenges such as capacity of the partners in implementing social mobilization, timely availability of the reports and M&E indicators will be addressed through a capacity building session which is planned by UNICEF for IMA and Care partners. This meeting will also serve as a consensus building platform for M&E indicators and reporting timeframe.

Seven stable states: Close to 1,200 social mobilizers have contributed to South Sudan reaching and maintaining high coverage in the polio NIDs. In February and March 2015, the polio NIDs were conducted in the seven stable states and awareness of the caregivers of the campaign prior to vaccinators' visit was 92% with negligible refusals (0.1%). The percentage of missed children reduced from 12% in December, 2014 to 6.3% in March 2015. The percentage of "child not at home" decreased from 25% in December 2014 to 15% in March 2015 especially due to rigorous social mobilization activities conducted at the schools and playground. The children were missed largely due to operational issues such as teams not reaching). All states implemented communication and social mobilization comprehensively including political advocacy through launch of the campaigns at sub-national level, orientation of the religious and community leaders, meetings in schools and playground, church and mosque announcements, IEC materials and house to house mobilization.

Routine Immunization: Routine Immunization coverage is still low. In non-conflicted affected states, DTP3 coverage is 83% versus 11% in conflict affected states in 2014. The annualized coverage for 2015 is 61%. The planned outreach and mobile sessions are not fully implemented, and plans are in place to conduct defaulters tracing, with support from WHO. 10 routine vaccination posts were set up in PoCs (Protection of Civilian) in the displaced camps, refugees and cross border sites and an additional 9 RI vaccination points are planned for interstate/cross border areas. The main challenges are access due to insecurity and lack of funds for outreach services.

Cold chain capacity: No vaccine stock-out in the country. However, Health facilities and cold chain equipment were destroyed in the three conflict affected states and cold chain facilities are being re-established where partners are present. In areas where re-establishment of cold chain is not possible, fast cold chain using cold boxes is being used.

Logistic for vaccine supply and cold chain is extremely difficult and costly in the 3 conflict affected states as distribution is done by air, and sometimes all the way down to the lowest implementation level (payam). Between November 2014 and January 2015, the cost of distribution to these sites was \$160,000. Cold chain equipment such as cold boxes and vaccine carriers are not always backhauled from the field in the three states with armed conflict due to lack of coordination between the officers in the field, creating a shortage for future campaigns. This is exacerbated by the long period of rainy season that affects South Sudan every year making air transportation more challenging and thus increasing the risk of missing out on immunization services. Re-establishment of cold chain with a vaccine refrigerator of a suitable energy source is required to ensure sustainable services

Preparedness for outbreak response: Country proposed to conduct a meeting with the partners to update the plan and conduct simulation in October, 2015.

Remaining challenges and way forward:

For the 3 conflict affected states, a Phase II Response plan was proposed.

- Under Surveillance, NGOs in 3 conflict affected states will be fully engaged. Recruitment of temporary staff by WHO is approved including 17 Field Supervisors for the counties and 78 Field Assistant for the Payams. Appointment of field staff (1 per Payam) will be completed and sampling of healthy children sampling in all silent counties will be implemented.
- For Vaccination Response, immunity of the population in accessible areas will be built rapidly, 3 SIAs with tOPV will be conducted and for inaccessible areas, state of preparedness to conduct 4 SIAs will be maintained and permanent vaccination points strategy will be improved.
- For communication: 1) Strengthen payam level planning with NGO partners: Partnership between WHO, UNICEF and Core group will be intensified to strengthen community based surveillance initiative and social mobilization activities in Jonglei and Upper Nile. 2) Quality Data for informed decision making: a) A bridged versions of county social maps will be developed to map information at payam level to strengthen planning at last administrative level in an effort to reach large cohorts of unimmunized children. b) Discussions are underway with WHO to upscale IM data collection to other conflict affected, accessible counties exploring use of Jonglei Model/Mobile Technology/Research Agency. C) Roll-out mobile migration research and strategy. 3) Capacity building of the partners at county level.

For the 7 other states:

- For SIAs, the focus will be on improving and increasing the monitoring and supportive supervision. The second priority will be to update the micro-plans at facility/Village level. Quality of IM data will be improved and mobile technology will be used for LQAs. In Communication, the use of IM data is being intensified by finalizing social maps for 10 states, developing NID-PCE performance tracker to assess impact of integrated interventions for missed children analysis and capacity building of 60 C4D and partners & develop state specific strategies in October.
- For Routine Immunization, all REC activities after the release of GAVI funds including updating the micro-plans will be implemented. Improve and increase the monitoring and supportive supervision. Tailored specific flexible plans especially in conflict, high risk and hard to reach areas and populations will be developed. Support will be provided to MoH in recruitment of National staff to support Surveillance through direct recruitment and establishing the N-stoppers. Introduction of new vaccines (IPV, Men A) support the improvements plans. Communication activities remains a challenge on Routine Immunization. Limited funding hampered outreach activities and roll-out of activities. However, given the funding constraints and overall low immunization rates in the country, all opportunities such as IPV Introduction, guidelines for leveraging funds from funding agencies for outreach and communication activities and development of 'Accountability framework' with Bureau of Religious Bureau are used to accelerate RI in the country. KAP and EPI C4D strategy is planned Q4.

EPI Communication for development staff remains a challenge in the country and significantly impacts coordination of activities at county and payam level especially in three affected states.

Yemen

Background – On 25 March 2015, the civil war began in Yemen. Resulting in a humanitarian crisis with large displacement of population and destruction of infrastructure. As of August 2015, an estimated 21 million people (80% of the total population) are in need of humanitarian assistance and **250,000 US children inaccessible**. In addition, the country is facing an economic crisis and cannot afford to pay government operational costs.

Epidemiology - Yemen has been polio-free since the 2015-2006 WPV1 outbreak, which resulted in 480 cases. From April 2011 to July 2013, Yemen reported several episodes of cVDPV; the last cVDPV case detected was type 3, onset 12 July 2013.

AFP Surveillance - The AFP surveillance performance indicators for 2013, 2014 and 2015 (up to date) remain above certification level at national level. In 2015, non-polio AFP rate is 3.1/100,000 and stool adequacy is 93%. 19 out of 22 governorate have non-polio detection rates above 2/100,000. To enhance AFP surveillance sensitivity, the program continue to implement contact sampling (3 contacts per AFP case).

SIAs & IM – (Hard to reach communities) - In 2014, two rounds of NIDs were conducted in April (tOPV) and August (bOPV). In addition tOPV was administered along with MR national campaign, in November 2014. All campaigns reported over 95% administrative coverage, and 86% IM coverage (Finger marking; 95% recall) for the August round. Yemen has planned to conduct additional 2 NIDs and 1 SNID in last quarter 2015.

The high-risk areas/groups (including refugees, IDPs, Bedouins and marginalized people) have been identified and mapped in August 2015 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 the high risk groups the program tried to use the pause period and arrange days of tranquillity during SIAs. In certain areas NGOs and INGOs are involved to support campaigns. In conflict areas the strategy of integrated health interventions is implemented.

Communication for development (C4D) - An enhanced social mobilization plan is in place for outreach, mobile and SIAs. Campaign inaugurations at central and Governorate level are organized regularly. Mass media and interpersonal communication channels are used regularly to improve awareness of routine EPI and SIAs. Integrated health messages developed and disseminated addressing common health issues i-e Diarrhea, Measles, Dengue, Malnutrition, ARI etc. Messages are disseminated through SMS. (0.9 million beneficiaries received SMS).

Refusals during the SIAs are dealt with on the spot by the local health authorities and community leaders. During the August round, 88% of the refusals have been vaccinated. The ones who were not vaccinated, were listed as 'high risk areas' for follow up and actions enlisted for the next rounds as high risk areas. Refusal decreased from 2.3% in January 2013 round to 0.92% in August 2014 round according to the IMs.

Routine immunization – The routine immunization coverage in Yemen went from 88% in 2014 to only 51% in 2015, as of June 2015. 96% of the districts have less than 80% coverage for OPV3, as of June 2015 (compare to 23% with less than 80% in 2014).

There is a plan to introduce IPV in October 2015. Funds, training plan and training module are available; trainings will be conducted after September NID. Communication plan and material is available.

Vaccine & Cold chain status - Currently all vaccines are available for Routine & SIAs except BCG (Global shortage). Fuel has been provided to central, governorate and district vaccine stores. 34 SPRUs (Solar Powered refrigerating units) have been installed and there is plan to install an additional 117 SPRUs. As there is no direct flight, Djibouti is used as transit point for vaccine storage; Vaccine is then transported through UNHAS. Generators have been provided to run the main cold rooms.

Preparedness for Outbreak response – Outbreak preparedness and response plan is available and has been updated according to ongoing challenges

Remaining challenges and Way forward - Yemen remains at high risk of WPV importation and sustained transmission due to civil war, insecurity, low routine immunization coverage, internally displaced persons and refugees. Power cut and fuel shortage are acute problem. Challenges exist in distribution of vaccines to the lower levels including the health facility level. AFP samples transportation to the reference laboratory remains a major issue.

Yemen has plan to conduct at least 3 NIDs and 1 SNID as recommended in the country plan. Implementation of AFP emergency plan (mainly reverse cold chain for AFP and transportation to the reference laboratory). Plan includes focusing on vaccinating IDPs with polio and MR (in addition to the other antigens), installation of SPRUs on need basis, supporting the use of solar system for central and governorate levels, strengthening monitoring & supervision of routine, supplementary activities, and AFP surveillance, train CHVs to engage them in AFP surveillance, mobilize funds for communication activities for routine EPI and SIAs.

Sudan

Epidemiology - Sudan has interrupted indigenous wild poliovirus transmission since 2001. Since then, the country had to face several wild poliovirus importations from Chad and Ethiopia. The first importation in 2004 caused a large polio epidemic, but was contained successfully in almost one year. The subsequent importations in 2008 and 2009 caused limited outbreaks in North Sudan, but a large epidemic in Southern Sudan. In 2008 North Sudan detected two polio cases due to P3 wild poliovirus imported from Chad while Southern Sudan was hit by P1 wild poliovirus related to Ethiopia old poliovirus. This virus caused 5 polio cases in Northern states. The last polio case in the Sudan was in March 2009. Since then, no polio case was reported in Sudan. RRC certified Sudan as a polio free country in April 2015.

AFP Surveillance - The AFP surveillance performance indicators remained above certification level for the last 5 years. In 2015, the Non Polio AFP rate is 2.5 per 100,000 children under 15, the adequate specimens' collection rate is 98% and non-polio enterovirus isolation (NPEV) rate of 9%. In addition to NPEV, Sudan monitors and report Sabin virus isolation in stool. To maintain the sensitivity of the AFP Surveillance, WHO filled the vacant post in South Kordofan, and established two new posts of WHO Surveillance Officers in West Kordofan and Sennar states. 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.

SIAs & IM - One NIDs and two SNIDs were implemented during 2014 with high quality. The reported coverage was above 95% and the independent monitors results was 97-98%. Another SNIDs was implemented in March 2015 with 100% administrative coverage and 97.8% IM coverage.

Steps taken to improve quality of SIAs - there was an improvement of microplans at sector level for each locality (district) especially improvement in the quality of maps and microplans for the special population like nomads and camps. The supervision and monitoring of the implementation of the SNIDs was good through several types of personnel; locality supervisors, state supervisors, federal supervisors, WHO supervisors and independent monitors. More attention was paid for effective defaulter tracing in all administrative units of the localities.

Interventions in special population groups - In view of ongoing crisis and dynamic population movements, Sudan address refugees and IDPs and tracked them and focused 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.

Communication - Social mobilization continued during SIAs rounds to have the greatest effect. This was achieved by the activities that were done at locality level megaphones were continuously used by a member of the locality education and community, mosques and; publicity by sport and other community figures had a tremendous impact on the awareness of the people. Important officials like Mu'tamad/ the members of Legislative Council of localities were address opening ceremony at their administrative level and encouraged to make appearances at areas where the vaccination teams were working to attract attention and increase coverage. Result shows that in 37 communities low awareness or hidden refusals were reported. To address this problem community dialogue with the communities involving the influential people were carried out to address their concerns and raise their awareness about immunization aspects specifically polio. Refusal task force committee address all the cases and dealt with it. More community engagement activities were carried out through community health promoters, partnership with women union and other CSOs and grand mothers' club. EPI Units in the localities did much efforts to strengthen participation of people in local decision-making, improves OPV coverage in SNIDs. Social Mobilization Activities included; meetings with Mu'tamad and Executive Directors and Council members, Public Meetings, School meetings,

Round Table Discussions and Personal communications in addition to home visits by community mobilizers.

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 improve the coverage further Sudan will focus on states of low coverage (Darfur states, Blue Nile, South Kordofan and Red Sea). FMOH Sudan strengthened supportive supervision, cold chain and capacity building according to the requirements of introduction of IPV in June 2015.

Cold chain capacity- Sudan maintains its cold chain functionality at 81%. In the preparation for IPV introduction, cold chain capacity has been strengthened at state level, cold chain capacity at locality levels increased in 176 localities and only 16 localities are still needs to increase the cold chain capacity. There is a plan to set up an additional 82 fixed immunization centres in difficult-to-reach areas.

Access and Security Related issues – Some conflict affected areas in South Kordofan and Blue Nile states have not been vaccinated since June 2011. **The U5 children in these areas are estimated to be around 180,000.** WHO & UNICEF met with SPLM/N in Addis. A polio immunization plan was agreed upon to vaccinate these children. All preparations were done (supplies, logistics, funds, training) by UN and Government of Sudan. Campaign was cancelled at the last moment due to additional political condition by SPLM/N.

Outbreak Preparedness and response plan - Following the Polio outbreak in the HOA, 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 and an additional. Special microplans for SIAs were made and implemented. Sudan continues collaboration, coordination and information sharing with border countries.

Remaining challenges and way forward - The challenges facing Sudan includes; continued armed conflict between Government and rebels in SK and BN and tribal conflict in Darfur states. Change of the path of the nomads due to emerging insecurity. Large numbers of refugees from the Republic of South Sudan pose a high risk on the program. Cold chain destruction and or looting in conflict areas and strengthening the infrastructures and coordination for immunization services in border areas.

In term of the way forward, Sudan plans to implement one NIDs (November) and one SNIDs (December). Sudan's priorities for the next six months of 2015 are to secure and sustain program funding (Government of Sudan and donors), maintain Sudan polio free status and strengthen the links with community through the communication and social mobilization plan.

Tanzania

Epidemiology - Tanzania has the last case of WPV in July 1996 in the Southern part of the country.

AFP surveillance - The Non Polio AFP rate has been persistent above 2 per 100,000 children below 15 years for the past 3 years with stool adequacy rate being above 80%. Community Based Surveillance is done in Tanzania in those districts with Community Health Workers through Community IMCI. However, no impact assessment has been done so far. In-depth Surveillance review was done in July 2015 which showed significant progress made as far as surveillance is concerned. Major challenges noted include coordination between VPD and IDSR surveillance, data harmonization, inadequate active search and supervision specific for surveillance.

SIA and IM- No SIA with OPV has been conducted in last 3 years in Tanzania.

Communication for development (C4D) - Generally there is good acceptance of vaccinations in Tanzania. Primary Health Care Committees (PHC) at Regional/District/HF levels spearhead community mobilization and community engagement in Routine immunization as well as during campaigns. This has led to high ownership by community.

Various methods and resources used to engage communities –ward and village committees, community & religious leaders, CHW, VDC, local radio, some NGOs. The Health workers provide health education to clients during health services delivery

Majority of facilities make use of village meetings and ward meetings to engage local leaders and/or NGOs in routine immunization; In response to asylum seekers in the western part of the country, communication plan is in place where health information team members are trained and disseminate health information to their fellow asylum seekers; also asylum community leaders are engaged and oversee the performance of health information team members.

Routine Immunization - Routine immunization coverage has been above 90% in the past 3 years with region and district variations. Vaccines are given properly alongside other child survival interventions. Immunization services are given in routine immunizations and hard to reach communities are addressed through facility micro plans through mobile and outreach sessions-using Reach Every Child strategy (REC). More than 50% of outreach session planned are conducted; the major challenges are availability, transport and fund.

Challenge exists as far as proper implementation of REC strategy, including extension of the capacity for preparation of micro plans to all regions/districts/facilities. Adherence to open Vial policy for multiple doses vials like BCG is also a challenge.

Cold chain capacity - Effective vaccine management (EVMA) conducted in May 2015 reveals adequate and well maintained cold chain infrastructure at all levels including buildings, transport and cold chain equipment. There is Committed and knowledgeable personnel on EPI in these levels with use of new technologies – VVM, Fridge tag, Freeze tag, the MDVP, and remote temperature monitoring. Area of weakness is vaccine arrival –delayed due to inadequate capacity of the Airport staff on effective vaccine management.

Preparedness for outbreak response - Outbreak preparedness plan is available and is updated regularly. For the 2015 WPV outbreak preparedness plan will focus on the influx of asylum seekers in western border of the country as well as AFP cases with Zero doses. The following strategies are included in the plan: carrying out regular risk analysis, review of AFP surveillance data weekly, strengthening acute flaccid paralysis surveillance, supporting low performing districts on RI through REC, advocacy at all levels on risk of importation. The plan is being updated again using the recently introduced Standard Operation Procedures (SOP) for outbreak response.

Remaining challenges and way forward - On-going Influx of asylum seekers from Burundi to western part of Tanzania remain a challenge. Moreover, demanding activities related to Polio End Game in Tanzania in a short period time such as introduction of IPV, switch process of tOPV to bOPV and documentation of Certification also remain challenging. Tanzania will prepare its comprehensive Multi-year plan for period of 2016-2020 that will address comprehensive EPI review that was done and global commitments of vaccine preventable diseases.

Uganda

Epidemiology - Uganda had the last case of aVDPV in November 2014. The country still remains at risk of WPV importation from neighbouring countries within the HoA; the influx of refugees and cross border movement by mainly pastoralist communities also put Uganda at risk.

AFP Surveillance - The performance of AFP surveillance has continued to improve over the last 2 years. The NP-AFP detection rate improved from 3.21 in 2014 to 3.34 as of week 31 2015. Stool adequacy has been maintained over 80%. Key interventions have included training of health workers and regional supervisors in IDSR, intensifying focused surveillance by deployment of both national and international STOPERS and provision of a reimbursement fund for stool sample transportation to the national Laboratory. There have also been tangible efforts to involve the community mobilization structures to enhance community surveillance. A plan is in place to address sustainability issues for these interventions.

SIAs and IM -The recent rounds of SIAs showed great improvement in 2015 by achieving more than 90%. Two rounds were conducted in January 2015 (NID) and in February 2015 (SNID in 41 districts). According to independent monitoring data, 57% and 63% of the districts achieved coverage of more than 95% in round 1 and round 2 respectively.

Communication for Development - During the first half of 2015, 500 senior religious leaders were engaged in a national advocacy meeting with the head of state; about 5000 religious leaders were oriented and engaged in social mobilization for RI and Polio. One hundred (100%) percent of districts have updated their micro plans that include aspects of social mobilization for RI and Polio and 42% of VHTs received orientation and were engaged in Social mobilization for RI and Polio. Rotary international has been engaged to mobilize communities in informal settlement areas in urban districts. Thirty thousand (30,000) school children were oriented on immunization and there has been improved mass media campaigns including production and distribution of IEC materials.

Routine Immunization - For the Jan-June 2015 period, the national performance for OPV3 coverage was 90%, 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). However the country is still faced with the issue of data quality. Plans are under way to conduct a coverage assessment survey; the last one was conducted 10 years ago.

Cold Chain capacity - Uganda has a well-functioning cold chain management system, with technician at all levels down to the health delivery management structure. There are still occasional reports of vaccine stock outs mainly at health facility levels due to gaps in capacity in vaccine stock management. CHAI is supporting piloting training in vaccine stock management in 23 districts, an effort that will be scaled up to the remaining districts. The monthly national level vaccine management meetings are in place. GAVI HSS funds have been used to procure cold chain equipment and will support distribution and installation to improve on the cold chain capacity to accommodate new vaccines.

Preparedness for outbreak response - Polio Outbreak Response Simulation Exercise (PORSE) was conducted in August 2015 in Uganda to test the robustness of 'the Ugandan National polio outbreak response plan' that was developed using the new guidelines. Observations have been used to improve the plan.

Remaining challenges and way forward- The country still has challenges that need to be addressed. A work plan July 2015 – June 2016 has been developed to address the challenges in data management, surveillance, communication and SIAs among others.

Djibouti

Epidemiology - In Djibouti, no WPV or VDPV cases have been detected. Djibouti remains at high risk for importation of poliovirus due to population movements with the neighboring countries of Somalia, Ethiopia, Eritrea and Yemen

AFP surveillance including Community surveillance – In the first half of 2015, 3 AFP cases were notified bringing the Non-polio AFP rate to 2.3 and stool adequacy rate to 67%. To reinforce AFP surveillance, the country is in the process of setting up community-based surveillance. In this regards, a community-based surveillance plan has been developed, key community informants, community health workers and district focal points in all 5 districts and Djibouti city are identified and trained on AFP cases detection and reporting. An effective community-based surveillance will start in September 2015. In refugee camps, UNHCR provides 14 USD for each case of AFP reported.

SIAs and IM (Hard to reach communities) - During the SIA in May 2015, 135.796 under five children were vaccinated with an administrative coverage of over 100% and IM coverage of 96% with disparity between the regions. A particular focus was put on the vaccination of nomadic populations, migrants and cross-border areas. Vaccination posts were installed in Loyada, Guelile, Guestir, and Galafi to vaccinate all children less than five years from Somali and Ethiopia. Based on IM data, the main reason for missed children were “absence of the children”. In the next SIA, more details will be provided on the reason of the absence and correctives actions will be carried out.

During an integrated SIA in May 2015, 98% of under five children in refugee’s camps received OPV. No 0 dose children were reported. Mobile clinics are visiting regularly border crossing points with Somalia (Loyada) and Ethiopia (Guelile and Galafi) and vaccination services are offered to all incoming migrants, refugees and nomads. One NID is plan to be carried out in October 2015.

Djibouti is hosting actually more than 17.000 refugees mainly from Somalia, Ethiopia and Yemen in three refugee’s camps (Ali Addeh, Holl Holl and Markazi). Vaccination services are provided in all refugee camps. Vaccination points are also set in all entry points and under five years children are receiving OPV and other vaccines as per needs. This surveillance mechanism is fully supported by National Refugee Agency (ONARS), IOM, and UNHCR.

Communication for Development (C4D) - The team has been reinforced with a stop team communication consultant. A social mobilization and communication plan for polio (routine and SIAs) was elaborated and implemented during the SIA in May 2015 using mass media (TV, radio), community leaders, female mobilizers, T-shirts, banners and posters. 64 community volunteers, 13 community health workers, 30 religious leaders (Imams), 12 managers of young development centers (CDC) and 10 Medias staffs were trained on EPI social mobilization. During the May SIA, 18.156 persons (6.370 men and 11.786 women) were sensitized on the need for vaccinating children in Djibouti town including Balbala peri-urban area.

Routine Immunization- Routine immunization OPV3 coverage is above 80% in the country since 2011; the national immunization coverage survey done in 2014 showed that the OPV3 coverage was 78%. It appears that there are some disparity between regions. Rural and hard to reach people are most likely to be less vaccinated than urban and accessible communities. Health staff workers capacity is an issue regardless to the EVM. Mobile clinics are often organized to vaccine communities in hard to reach areas, nomadic and specific borders villages. Technical assistance from Partners to the EPI program (surveillance and independent monitoring) has been effectively done. A concrete communication plan to strengthen EPI program regardless to RED approach has been elaborated and validated by ICC. UNICEF and WHO will continue to provide technical support to strengthen routine immunization with specific attention to the borders areas, refugee’s camps and nomadic people.

Cold Chain Capacity - Country has sufficient cold chain capacity at the national, regional and health facilities level. 7 new solar freezers were provided by UNICEF last year to strengthen cold chain availability. An additional 150 vaccine carriers were provided and 600 ice packs in April 2015. The challenge is the management and maintenance of those cold chain materials (lack of maintenance capacity). The country needs technical support to reinforce national capacity on vaccine management. During SIA in May, OPV vaccine wastage was reported as 16%. An effort will be done in the future to reduce significantly this rate.

Preparedness for outbreak response- Outbreak preparedness plan has been elaborated and endorsed by ICC. It needs to be updated according to the new SOPs. The simulation exercise needs to be implemented before end of 2015 (tentative date in November). The country will require technical support from HoA TAG office and core groups to be able to carry out the simulation exercise and update the outbreak preparedness plan according to the new SOPs.

Remaining challenges and way forward: Key challenges include weak human resources capacity on EPI and low level of government commitment. The plan is to reinforce technical capacity through MLM, CCL, EVM and vaccinology training for program managers at the national, regional and health facilities level; Advocacy to strengthen government commitment for EPI program; Implement effective community surveillance mechanism; Ensure an effective and consistent documentation using IM exercise during next NID in October to provide details on the reason for missed children during SIAs.

Annexure III

Review of progress made in RI strengthening using polio assets in 3 selected countries: Ethiopia, South Sudan, and Somalia

As per the objective 6 of HOA TAG meeting, progress made in RI strengthening using polio assets in 3 selected countries Ethiopia, South Sudan, and Somalia was reviewed by the partners and presented to the TAG.

TAG endorsed following outcomes presented:

- Countries should share with TAG the quarterly IMG-RI monitoring dashboard on use of polio assets for RI strengthening
- Countries should report to TAG on RI strengthening activities conducted during polio SIAs
- In the next HoA TAG meeting, countries should report on the three aspects of Objective 2 of the Polio Endgame Strategy by explicitly outlining the progress in respect of:
 - ✓ RI Strengthening
 - ✓ IPV Introduction
 - ✓ tOPV-bOPV switch and OPV type 2 removal
- In coming TAG meetings, appropriate persons from the agency regional offices working on these objective 2 of polio endgame will be invited.

TAG agrees with the following country specific interventions decided by the group.

Ethiopia

- Targeted activities in the Somali region and other woredas that are underperforming should be expanded using the lessons learnt from the existing polio supported activities
- Programme leadership and funding should be increasingly be expanded through resource mobilization for the entire programme, and become less project and disease specific
- To ensure ongoing technical support, WHO is called to rapidly fill the vacancy of EPI team leader

Somalia

- Update polio staff TOR to include RI and monitor time allocated for this task
- Develop RI micro-plans for the 37 focus districts and roll out MLM training to District level
- Provide technical support to update/ develop zonal cMYP 2016 - 2020
- High level advocacy and resource mobilization to sustain the polio HR and provide operational funding for the annual EPI plan which currently cannot be implemented as it is only 30% funded.

South Sudan

- Engage partners (WHO/UNICEF/NGOs) and private sector in supporting the government in terms of recruitment of national focal persons for RI REC planning, cold chain and related supply chain management over the next 3 years working with national and State authorities
- Accelerate implementing the plans for increasing the number of Field assistants one per Payam and increasing Field supervisors to 1 per each county in 3 conflict affected states.
- Expansion in the involvement of Field assistants in the RI system outreach activities
- Accelerate the establishment of national stoppers to support RI

- To enable efficient coordination of activities, high level representatives of the in-country “fund managers” and their parent organizations should come to an agreement how to transparently share information and coordinate supported activities. WHO, as mandated convener on health matters, should take the lead to manage this coordination under the auspices of the national government.