WORLD HEALTH ORGANIZATION

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

8th Meeting Report

6 to 7 September 2012

Executive Summary

The 8th meeting of the Technical Advisory Group on Polio Eradication for the Horn of Africa (HoA TAG) was held from 6–7 September 2012 in Nairobi, Kenya. The objectives of this meeting were to review the status of polio eradication in the countries of the Horn of Africa (Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan, Tanzania, Uganda and Yemen), identify and address areas or issues of concern, and make technical recommendations on appropriate strategies to sustain certification level surveillance and the interruption of transmission of wild poliovirus and circulating vaccine derived polioviruses (cVDPVs). This meeting took place in the context of evidence of undetected circulation of cVDPVs, with the most recent cases being detected in June and July 2012. These cVDPVs isolations are not unexpected as large pools of susceptible children have accumulated in insecure, inaccessible areas like Southern-Central Somalia, where delivery of routine EPI and supplementary immunization activities have been prevented for the past three years.

The TAG noted the achievements of the countries and specifically recognized the improvement in surveillance, quality of supplementary immunization activities conducted in 2012, risk assessments, communications and social mobilization since the last meeting in February 2012. The TAG was concerned that some countries were not able to implement SIAs as recommended in 2012 due to either lack of funds or unavailability of vaccine. For all vaccination rounds of 2012, this translated in the missed opportunity of administering 52.8 million doses of OPV from the 146.7 million initially planned (table 1). The TAG also noted that despite the WHA resolution on declaring the completion of poliovirus eradication as a programmatic emergency for global public health, there was limited evidence that national governments are mobilizing or allocating adequate resources. Political commitment remains weak and advocacy must be improved, especially for routine immunization.

Although no wild polio viruses have been detected in the Horn of Africa countries since July 2011, the TAG was alarmed at the recent isolation of cVDPVs in July 2012 in North East Kenya and Kisimayo Somalia. Genetic sequencing of the isolates indicates undetected transmission for over two years. cVDPVs are continuously being reported from the South and Central Somalia part which have not been reached during supplementary immunization activities since early 2010 due to compromised security and consequent inaccessibility of children.

The TAG was pleased to note that common tools for conducting risk assessments to identify high risk areas at subnational level were being used, and that there was improved coordination and documentation of cross-border activities.

International surveillance reviews that were done on the recommendation of the TAG identified gaps and constraints to maintain certification level surveillance quality. In particular, Uganda, Somalia, Kenya, and the Somali region of Ethiopia have surveillance gaps at the sub-national level. In the absence of active surveillance for AFP, the programme will not be able to detect poliovirus transmission in a timely manner.

The TAG made the following key recommendations:

a. GPEI partner Heads at the global level should be approached to assist in engaging and advocating for the programme and routine immunization at the highest political level. Wherever possible, political leaders should be made aware of key programme performance indicators and risk assessment results.
b. All countries should collaborate and engage all partners and agencies that work in humanitarian emergencies, conflict areas, refugee camps and with migrant populations to ensure vaccination of all children in these high risk groups.
c. In view of the current cVDPV outbreak in the sub-region, tOPV should be used as the vaccine of choice for all SIAs. In instances of vaccine shortage, the available tOPV should be used strategically.

d. All countries in the sub-region affected by conflict or with limited access because of insecurity should continue to seek opportunities for days or periods of tranquility to enable vaccination activities to take place.
e. For the next TAG meeting, all countries in the sub-region should document the impact of communication and social mobilization efforts on reaching children during SIAs, routine EPI and surveillance and report on cross-border activities including the number of children vaccinated, partners involved, and the range of health services delivered. In addition, all countries should document activities for strengthening surveillance, such experience/impact of National/International STOP Teams, and initiatives to set-up community based surveillance.
f. All immunization initiatives and funding sources (e.g. GPEI, measles, MenAfrivac, new vaccine introduction) should contribute to strengthening routine immunization programs and inputs be documented.

The next meeting of the TAG is proposed for 6-7 February 2013 in Nairobi, Kenya.

I. Preamble

The 8th meeting of the Technical Advisory Group on Polio Eradication for the Horn of Africa (HoA TAG) was held from 6–7 September 2012 in Nairobi, Kenya under the chairmanship of Dr. Jean-Marc Olivé.

Since the last meeting, there have been key achievements in the Global Polio Eradication Initiative. On 25th February 2012 India was removed from the list of polio-endemic countries having gone over twelve months without detection of wild poliovirus. In 2012 only 4 countries have confirmed wild poliovirus cases - Afghanistan, Chad, Nigeria and Pakistan.

The objectives of this meeting were to review the status of polio eradication in the countries of the Horn of Africa (Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan, Tanzania, Uganda and Yemen), identify and address areas or issues of concern, and make technical recommendations on appropriate strategies to sustain certification level surveillance and the interruption of wild poliovirus and circulating vaccine derived polioviruses (cVDPVs).

The last wild poliovirus (WPV) case detected in the HOA sub-region was on the 30th July 2011 in Rongo district, Nyanza Province, Kenya. This case was genetically linked to the 2010 WPV outbreak in Uganda and the 2008–2009 outbreaks in Sudan and Kenya. In addition Somalia, Yemen and Ethiopia experienced outbreaks of cVDPVs between 2008 and 2011. However, Kenya and Somalia recently detected a case of cVDPV2 in a refugee camp in Dadaab, Garissa district, Northern Eastern Province, Kenya and in Kisimayo, Somalia. These cVDPVs are genetically linked to the cVDPV2 outbreak cases in Somalia which began in 2008, indicating undetected transmission for over two years. During 2012, single cases of AFP caused by ambiguous vaccine derived poliovirus type 2 (aVDPV2) were detected in Ethiopia, South Sudan and Sudan.

The 8th HOA TAG meeting is taking place in the context of:

- Evidence of undetected circulation cVDPVs indicating surveillance gaps.
- Large pools of susceptible children in accessible areas with sub-optimal routine immunization coverage.
- Inaccessible areas due to insecurity in particular in Southern-Central Somalia which prevent implementation of routine EPI, AFP surveillance, and supplementary immunization activities.

II. AFRO Country Updates:

1. Kenya

The 7th HOA TAG made nine recommendations specific to Kenya, of which five were fully implemented and two were partially implemented – resources were only mobilized for SNIDs and not all activities were implemented in high risk areas and in mobile, migrant, and underserved populations. Two were not implemented - a high level advocacy visit to engage government, partners and donors was not conducted, and synchronization of SIAs with neighboring countries did not take place

The last wild polio virus had onset of paralysis on 30 July 2011 but recently one AFP case caused by cVDPV2 was detected, in a refugee camp, with onset of paralysis on 25 June 2012. This case had been living in the camp for over a year and had only received one dose of bOPV during the last SIA. This cVDPV2 is related to the 2008 - 2011 Somalia cases indicating that transmission has been missed for over 2 years. A second AFP case with zero-dose, with negative stools but positive contact, was also identified in the same camp. Detailed investigation including testing of contact stool specimens is ongoing.

At the end of July, national OPV3 coverage is 86% with 6 out of 8 provinces achieving more than 80% administrative coverage. The national AFP detection rate is 4.3/100,000 and stool adequacy is 91%. However, surveillance gaps still remain at sub-national levels. Between April and June 2012, funds were made available for training and active surveillance activities to the districts.

The second quarter risk assessment indicated major gaps in population immunity.

Two rounds of SNIDs with bOPV were conducted in July and August in 85 districts in the North Eastern, Western, Nyanza, and Rift Valley provinces targeting 2.6 million children under five. Post campaign independent monitoring indicated that coverage was 92% in July and 96% in August, and for each round, 80% (July) and 86% (August) of districts achieved coverage of more than 90%.

Planned activities for the next 6 months include: enhancing community surveillance in high risk and hard to reach areas; finalizing the feasibility assessment on environmental sampling; concluding social mapping of high risk and mobile populations; conducting cross-border meetings with South Sudan and Ethiopia; integrating immunization activities into other child health activities; and conducting a synchronized response with Somalia to the confirmed cVDPV2 outbreak in early October, November (OPV to be added to measles campaign) and December.

2. Uganda

During the 7th HOA TAG meeting, seven specific recommendations to Uganda were made. Of these four were fully implemented, two were partially implemented and one was not implemented. The high level advocacy visit did not take place. Two rounds of NIDs and one round of SNIDs were not conducted due to lack of resources resulting in the missed opportunity of administering 16.6 million doses of OPV (table 1).

A comprehensive two year EPI revitalization plan has been developed to guide implementation of EPI and will be used as a resource mobilization and advocacy tool. The Health Policy Advisory Committee (HPAC) support for EPI has been strengthened by including, for each quarterly meeting, an agenda item on EPI progress to fast track the programme and address identified bottlenecks.

OPV was added to the nationwide measles campaign in May 2012 covering 6,920,837 children less than five years of age. Independent monitoring indicated 94% coverage. One round of SNIDs utilizing bOPV in 37 high risk districts targeting 2.6 million children is scheduled for 20-

27 October 2012. A cost effectiveness analysis of outbreak preventive activities in 2009 to 2012 was initiated in March 2012.

An external surveillance review was conducted 10 – 24 August 2012. This review concluded that because no active surveillance was implemented in priority sites, the surveillance system is not sensitive enough to detect WPV or cVDPV. An emergency surveillance plan was finalized to address the recommendations of the review. In 2013, Uganda plans to conduct two rounds of SNIDs in high risk districts.

The national AFP detection rate as of week 32 is 2.4/100,000 and stool adequacy is 87%. Significant surveillance gaps still remain at the sub-national level. Only 37 (33%) of 112 districts achieved a non-polio AFP detection rate of at least 2.0/100,000, and only 65 (58%) districts had 80% or more stool adequacy in 2012.

Key challenges include competing public health interventions leading to delayed implementation of planned activities (most recently the Ebola outbreak resulting in postponement of planned SNIDs), limited funding for EPI activities, inadequate human resources and transportation especially in the newly established districts. Prioritization of the national immunization programme by government seems to be a challenge.

3. Ethiopia

The 7th HOA TAG had five specific recommendations for Ethiopia. Four recommendations were fully implemented and only one was partially implemented. Because of shortage of funds, the target population for the SNIDs in the high risk districts to be implemented in October and November 2012 had to be reduced by 35%. This will result in the miss opportunity to deliver around 2.7 million doses of OPV (table 1).

Inadequate population immunity in high risk areas (e.g. border areas) due to limited access, insecurity, and poor infrastructure continues to pose risk of outbreaks. A national EPI coverage survey was conducted in July 2012 to better assess population coverage. Data analysis is ongoing. A national community behavioral survey to assess the determinants of immunization services uptake was finalized and the draft report is under review. Findings from this survey will be used to guide the finalization of the draft National Communication Strategy. Technical assistance has been deployed by UNICEF to support EPI communication.

One round of polio SIAs conducted in Somali Region in February 2012 reached 881,000 children with bOPV (this was the delayed 2nd round of the 2011 SIA for the region); coverage was 94%. Two additional SNIDs, using bOPV and covering 22 high risk zones targeting 2.4 million children under five, will be conducted in October and November 2012.

Ethiopia has maintained wild poliovirus-free status since 2008 and has experienced three separate outbreaks cVDPV 2 and 3 between 2008 and 2010. Recently an AFP case with aVDPV was confirmed in Silte Zone in SSNR region.

The national AFP detection rate as of week 32 is 2.9/100,000 and stool adequacy is 90%. The non-polio enterovirus rate has remained low over the past 3 years (7 to 9%). Sub-national surveillance gaps exist in three regions (Benshangul Gumuz, Gambella, Somali). All regions now meet the minimum AFP detection rate of 2/100,000 and there has been marked improvement in surveillance performance in the first half of 2012 in Somali Region.

An external in-depth surveillance review was conducted in August 2012 and concluded that there is an overall functional and sensitive surveillance system in place to detect poliovirus transmission in a timely manner. However, surveillance challenges exist in some insecure and border areas, especially Somali region.

To strengthen surveillance, routine EPI, and coordination of activities in high risk areas along the borders, four cross-border meetings with neighboring countries (Sudan, South Sudan, Somalia, Puntland, Djibouti and Kenya) were conducted in Ethiopia in August 2012, with support from Rotary, CORE GROUP, UNICEF and WHO.

Key planned activities through January 2013, include: providing additional surveillance support and sustaining communication activities in high risk areas (Somali, Gambella, Benshangul-Gumuz); enhancing activities to reduce the number of unimmunized children in zones with poor coverage through RED training and micro planning; ensuring implementation of recommendations from the surveillance review and cross-border meetings, including further analysis of issues related to the low non-polio enterovirus rate, and regular cross-border exchange of information and synchronization of activities.

4. Eritrea

The 7th HoA TAG provided five specific recommendations and all were fully implemented. The mission to support the country to assess the EPI, surveillance and communication status was conducted from 18 to 28 April 2012, and recommendations were received by the Minister of Health. The existing 6-month plan was updated and is being implemented.

To improve routine immunization coverage, one round of Sustainable Outreach Services (SOS) was conducted in 16 hard-to-reach and low-performing districts. In addition, during the Child Health Days (CHD) and nutrition week, defaulters tracing and immunization were conducted. Two ICC meetings were conducted in the last six months and polio eradication was a key area discussed. Locally mobilized resources were used to strengthen routine immunization and to implement two rounds of SIAs in the seven high risk districts.

An EPI/PEI national communication strategy has been developed taking into account recommendations of the 2011 EPI program Review. This strategy will be used to develop national and sub-national communication plans.

The national AFP detection rate as of week 32 is 3.9/100,000 and stool adequacy is 100%. Only two out of six Zobas (Regions) have non-polio AFP detection rates below 2/100,000. Since August 2011, there have been no problems with stool transportation from Eritrea to the KEMRI laboratory in Nairobi, Kenya.

Major challenges include unreliable population data for planning, high turnover of trained EPI staff, population movements across borders with neighboring countries, high transport costs, and inadequate transportation means.

Planned activities include conducting two rounds of Sustainable Outreach Services (SOS) in hard-to-reach and low-performing districts in October and November 2012, implementing EPI/IDSR integrated supportive supervision, and conducting cross-border activities with Sudan and Ethiopia.

5. Tanzania

The 7th HOA TAG made four specific recommendations for Tanzania. Two recommendations were fully implemented, one was partially implemented, and one was not implemented. The recommended two rounds of SNIDs were not conducted because of lack of resources resulting in the missed opportunity to administer 7 million doses of OPV (table 1). The recommended in-depth external surveillance review will be conducted from 10 to 20 September, 2012.

Strengthening of routine immunization focuses on increasing coverage in high risk districts with large numbers of unvaccinated children. The African Immunization week (23 to 27 April, 2012) was used as an opportunity to boost the population immunity. OPV was added to CHDs that were conducted in 58 districts in June and July 2012 covering 3.5 million children under five.

The national AFP detection rate as of week 32 is 3.0/100,000 and stool adequacy is 95%. Only four (15%) out of 26 regions have not achieved the recommended non-polio AFP detection rate of 2/100,000. Special sensitization activities have been planned to target the poor performing regions. International STOP team members have been deployed since February 2012 and six national STOP team members are under recruitment.

The main challenges include shortage of skilled health workers, and inadequate transport for distribution of vaccines and immunization supplies as well as for supportive supervision. Planned activities include completion of the communication strategy, intensification of AFP surveillance and NUVI introduction trainings.

III. EMRO Country Updates:

1. Somalia

The 7th HoA TAG made nine specific country recommendations; only two were implemented. The program was unable to identify and deploy credible independent monitors for NIDs because of access and security issues. No routine immunization and SIAs could be implemented in the South Central zone which has remained inaccessible since 2010. CHD and SIAs remain the main mechanisms for boosting immunity to polio and other EPI target diseases.

Since the last case of WPV reported in March 2007, Somalia has remained polio-free. Key AFP surveillance indicators are maintained at certification standards both at national and sub-national levels. The non-polio AFP rate in 2012 is 2.7/100,000 and stool adequacy is 97%. Only five out of 18 regions are below a non-polio AFP detection rate of 2/100,000. The proportion of zero-doses AFP cases continues to increase, from 8% in 2010, to 16% in 2011 and 16% in 2012 (as of August 2012). However, because of a large pool of susceptible children, Somalia has had ongoing cVDPV transmission with 22 cases reported since 2008 - 11 of these were reported in 2011 and one reported in 2012 (with onset in July). The most recent cVDPV case is genetically linked to an earlier outbreak, indicating missed transmission for at least 2 years. This cVDPV outbreak has now spread to North-Eastern Province of Kenya.

Two rounds of NIDs with tOPV were implemented in a phased manner in all accessible districts with support of partners during the 1st half of 2012; the reported coverage was >95%. Somalia continues to update its risk assessments for WPV importation and spread using the Risk Assessment Tool for national and sub-national levels. Corrective actions are taken in the accessible areas. District-level micro-plans are regularly updated, an emergency vaccination response plan is in place, and a rapid intervention could be mounted should access become possible.

The major barriers to an effective PEI program remain persistent insecurity causing large population displacements and limiting access to populations for immunization activities in most parts of South and Central Somalia. With over 800,000 children under 5–years not reached by NIDs or CHDs for the last 3 years, **Somalia hosts one of the largest geographically concentrated reservoirs of unvaccinated children in the world.**

Planned activities include an immediate outbreak response to the cVDPV in South and Central Somalia synchronized with North-Eastern Kenya, implementation of two rounds of SIAs annually and use all opportunities for additional doses of OPV to eligible children during any other child survival activities such as CHDs. Priority will also be given to strengthening AFP surveillance sensitivity in South and Central zones and conducting an external surveillance review.

2. Sudan

The 7th HoA TAG made five country specific recommendations. Four of these recommendations were fully implemented and one was partially implemented. Of the four SIAs proposed for 2012, two NIDs were conducted in March and April covering 6.92 million children. However, the planned November and December SIAs have been reduced in scale due to unavailability of OPV.

OPV3 routine coverage reached 85% in the first 6 months of 2012. Risk analysis was done at national and first administrative levels and focused on surveillance, immunity, and additional factors (e.g. population density, sanitary conditions, environmental situation) to identify gaps leading to increased risks of polio outbreaks in case of importation. Following the analysis, activities were implemented to address the sub-national level gaps.

Sudan has remained polio-free since March 2009. An international AFP review was done in January 2012 and concluded that the AFP surveillance system in Sudan is sensitive enough to detect any wild or VDPV polioviruses. The national non-polio AFP detection rate is 2.6/100,000 and stool adequacy is 96%. The AFP surveillance performance indicators have been maintained at certification-standard level at national and first sub-national levels, except in two states (Southern Darfur, South Kordofan) where the non-polio AFP rate was between 1-1.9. Sudan has reported one AFP case caused by aVDPV2. The case occurred in Khartoum with date of onset of 1 April 2012.

Challenges include escalation of the armed conflict between the government and rebels in South Kordofan and Blue Nile which prevents implementation of activities, shortage of funds to conduct outreach and mobile team vaccination in the first half of the year, and change in the path of the nomads due to armed conflict and insecurity.

Planned activities include conducting two SNIDs in November and December and four NIDs in 2013. The programme will also conduct special immunization activities in war-affected areas utilizing the opportunity of the tripartite (UN/African Union/Arab League) agreement to observe periods of tranquility between the government and rebels.

3. South Sudan

The 7th HOA-TAG made three specific country recommendations and all were implemented. Two rounds of SIAs targeting 3.24 million children in each round were conducted in February and March 2012. The remaining two rounds will be conducted in November and December 2012. Stool specimen collection from AFP case contacts and healthy children from silent counties continues to be done. Additional vaccination activities in insecure areas were also carried out.

A routine vaccination coverage survey was completed, and the results are in the final stages of report writing. Outreach activities and defaulter tracing is ongoing, with intensification of supportive supervision in the states and counties. An application for introduction of pentavalent vaccine was submitted to GAVI on August 31, 2012.

South Sudan has been polio free since June 2009. The national non-polio AFP detection rate is 3.6/100,000 and stool adequacy is 95%. All states have non-polio AFP rate above 2/100,000, but there are sub-national gaps in surveillance in silent, insecure, and the difficult to reach areas in Jonglei and Unity states. Seven cross border meetings to strengthen collaboration with DRC, CAR, Uganda and Ethiopia were conducted between July 2011 and August 2012 in Sakure, Bambuli, Morobo, Aru, Nimule, Kaya and Gambella. These activities were supported by CORE GROUP, UNICEF and WHO.

Planned activities include technical support to high risk areas for surveillance, routine EPI and communication. Enhanced activities to reduce unimmunized children in insecure zones with

poor coverage will also be implemented, and cross-border meetings with regular exchange of information and synchronization of activities among the local staff will remain a priority.

4. Yemen

The 7th HOA-TAG made seven country specific recommendations for Yemen. Six were fully implemented; only one was partially implemented - a national stop team program has been initiated.

Yemen has been polio-free since the WPV1 outbreak of 2005-2006, which resulted in 480 cases. An outbreak of cVDPV2 occurred in 2011 and 2012 with 8 cases of cVDPV2 and 3 cases of aVDPV2. The most recent case had onset on 27 April 2012. In June 2012, an international cVDPV Outbreak Response Assessment was conducted by independent reviewers.

Routine immunization coverage for OPV3 was 81% in 2011. Yemen has sub-national immunity gaps, with 7 (34%) of 22 governorates reporting less than 80% OPV3 coverage in 2011. However, the trend in the percentage of zero-dose AFP cases is alarming and demonstrates an increasing pool of susceptible children: 7% in 2008, 11% in 2009, 15% in 2010, 17% in 2011 and 13% in 2012 (to date).

In 2012 two NIDs were conducted with tOPV, one in January and one in June. The NIDs targeted 4.43 million children. In addition, tOPV was added to a measles campaign in April 2012. All campaigns reported over 90% administrative coverage; unfortunately no post campaign independent monitoring was done.

The AFP surveillance performance indicators for 2010, 2011 and 2012 remain above certification level at both the national and sub-national levels. The 2012 annualized non-polio AFP rate is 3.8/100,000 and stool adequacy is 93%. All 22 governorates have non-polio detection rates above 2/100,000.

Yemen remains at high risk for WPV importation and sustained transmission due to civil unrest, large areas of insecurity, population movements into and through Yemen from across West Africa and the Horn of Africa, and low and declining routine immunization coverage.

The program is planning to conduct two rounds of NIDs in November and December 2012 and to organize an external AFP surveillance review as soon as the security situation improves.

5. Djibouti

The 7th HOA TAG made four country specific recommendations. Three were fully implemented and one was not implemented. No progress was noted in urging the government to ensure that polio eradication and immunization are given the highest priority and that resources be devoted to this. In collaboration with CDC, a STOP team member has been continuously supporting the programme since June 2011. Lastly, the transmission of laboratory results from KEMRI laboratory has been streamlined.

The administrative coverage for OPV3 was 89%, 88% and 87% in 2009, 2010, and 2011, respectively. The country experienced considerable delays in implementing planned NIDs due to administrative and planning challenges. A single-round NID targeting 120,000 children was conducted in March 2012 with tOPV coverage of 98%. Independent monitoring was not conducted. Likewise, measurement of the impact of communication activities during SIAs was not accessed.

Djibouti has been polio-free since the last clinical polio case was reported in 1999. In 2012 four AFP cases have been detected giving a national non-polio AFP detection rate of 2.1/100,000 and

a stool adequacy rate of 75%. AFP surveillance in Djibouti remains fragile and still relies heavily on partners for technical and financial support.

Djibouti continues to be at risk for importation and spread due to the following factors: lack of priority for the polio eradication program; frequent cross-border movement with Eritrea, Ethiopia, Somalia, and Yemen; difficult-to-track mobile populations, fragile AFP surveillance; and persistent pockets of low routine immunization coverage in high-risk areas and sub-populations groups.

Planned activities include conducting two rounds of NIDs in October and November, refresher training of health facility staff on AFP surveillance and implementation of recommendations from the cross-border meeting.

III. CONCLUSIONS AND RECOMMENDATIONS

1. General Conclusions

The Technical Advisory Group was pleased to note that all countries in the Horn of Africa were represented and appreciates the continued support and participation of representatives of CDC, Rotary International, Bill and Melinda Gates Foundation, and USAID. However, the TAG noted with regret that there was no participation of UNICEF/HQ. The TAG noted the achievements of the countries and specifically recognized the improvement in surveillance, supplementary immunization activities quality that were conducted, routine immunization, risk assessments, and communications and social mobilization since the last meeting in February 2012.

a) **Advocacy and political commitment:** The TAG noted that despite the WHA resolution declaring the completion of poliovirus eradication as a programmatic emergency, political commitment remained weak and advocacy needs to be improved especially for routine immunization. There was limited evidence that national governments were mobilizing or allocating funds to these activities. Uganda's initiative to gain parliamentarian support for an irreducible budget line for immunization in the national budget is exemplary and should be considered by other countries including Kenya.
b) **Outbreak detection and response**: Although no wild polio viruses have been detected in the Horn of Africa since July 2011, the TAG was alarmed at the recent isolation (in June and July 2012) of type 2 cVDPVs in Dabaab refugee camp in North East Kenya and in Kisimayo Somalia. The TAG was concerned with the findings of the outbreak investigation showing poor vaccine coverage for all EPI antigens in the camp where immunization should be considered a priority intervention. The TAG further noted that in 2012, aVDPVs were detected in Sudan, South Sudan, and Ethiopia, again reflecting low levels of population immunity among children.
c) **Risk assessments:** The TAG commended the participating countries for the collaborative activities in using common tools for conducting risk assessments which identify high risk areas at the sub-national level to guide prioritization of activities.
d) **Cross-Border activities:** The TAG was also impressed at the improvement in coordination of cross-border meetings for planning and implementing routine EPI, AFP surveillance, and supplementary immunization activities.
e) **Addressing surveillance gaps**: The TAG noted that international surveillance reviews were conducted as recommended. These reviews identified gaps and constraints to maintain certification level surveillance and provided specific recommendations to address these gaps. Several countries in the sub-region (particularly Uganda, Somalia, Kenya, Somali region of Ethiopia) have surveillance gaps at the sub-national level. In the absence of active surveillance for AFP, the programmes will not be able to detect poliovirus transmission in a timely manner. The TAG noted that to address the gaps, strategies such as the deployment of international and national STOP Teams, and community level surveillance activities in difficult to access areas in Somalia, Kenya and Uganda are needed.

f) **Supplementary immunization activities:** Ethiopia, Kenya, Tanzania, Uganda and Sudan were not able to implement SIAs as recommended by the 7th HOA TAG in February 2012 due to either lack of funds or unavailability of vaccine. These cancelled SIAs resulted in the missed opportunity to administer 52.8 million doses of OPV representing a 36% decrease from the 147 million initially targeted during the 7th HOA meeting (table 1). The TAG was pleased that Uganda, Somalia, South Sudan, and Yemen provided OPV to children during measles campaigns and Child Health Days. However the TAG was not confident that every opportunity to vaccinate children is being taken by agencies working with refugee and migrant populations. Overall however, the TAG noted that the quality of activities as shown by independent monitoring evaluations has improved. Unfortunately, low routine immunization, inaccessibility and hard-to-reach areas, and cancellations and reductions in the extent of SIAs in 2012 have left a large number of susceptible children in the HOA countries. Furthermore, the TAG notes the continued inability of the programme to access children in Southern-Central Somalia which has resulted in the largest pool of susceptible children in the sub-region.

g) **Social mobilization and communications activities:** The TAG noted that countries had developed social mobilization and communications plans based on previous TAG recommendations. However, there is no documentation of the impact of communication activities on routine immunization, SIAs, and surveillance.

h) **Routine immunization activities**: The TAG recognizes the efforts of the countries on routine immunization activities to maintain or improve population immunity. The TAG is alarmed at countries that have declining or stagnating routine immunization coverage (Djibouti, Sudan, Somalia, and Uganda).

2. Recommendations

Cross-cutting recommendations

a) With two initial unsuccessful attempts to conduct high level advocacy by the TAG in Kenya and Uganda, the TAG recommends that GPEI partners at the global level be approached to assist in engaging and advocating for the program at the highest political level in Djibouti, Kenya, South Sudan and Uganda. All countries should ensure the visibility of the programme at the highest level of government by regularly sharing current programme performance indicators for routine EPI and polio, and areas at high risk of poliovirus transmission as identified through risk assessments.

b) At the next HoA TAG, countries should report on all activities implemented to strengthen routine EPI, including resources made available by the government and local and international partners.

c) The subnational joint Horn of Africa risk assessment should continue to be updated regularly and reports provided at the next TAG on actions taken in high risk areas and their impact. Available data from risk assessments should also be used to prioritize areas for implementation of SIAs.

d) The TAG recommends that all countries should collaborate and engage all partners and agencies that work in humanitarian emergencies, conflict areas, refugee camps and with migrant populations to ensure vaccination of all children in these high risk groups. This concern should be discussed at the country level through existing UN and interagency meetings. Countries should report at the next TAG on efforts made to sensitise agencies and ensure complete vaccination of the populations under their responsibilities.

e) The TAG endorses the plans for SIAs prepared by the countries and encourages the countries to look for local resources to implement their plans. The type of vaccine to be used should depend on the epidemiology of wild and vaccine-derived polioviruses. Because of the cVDPV emergence and continued circulation in several countries, the TAG recommends that tOPV should preferably be used. In instances of shortages of tOPV, available tOPV should be used strategically during the response with guidance from risk assessment results.

f) The TAG recommends that all countries in the sub-region affected by conflict or with limited access because of insecurity should continue to seek all opportunities for days or periods of tranquillity to enable vaccination activities to take place.
g) The TAG recommends that countries should continue to document the impact of communication and social mobilization activities on reaching children during SIAs, routine EPI, and surveillance. These activities should be reported at the next TAG.
h) The TAG recommends that all cross-border activities in the sub-region be documented. The documentation should include the number of children vaccinated, cross-border surveillance activities, synchronization of local vaccination campaigns, and joint partners collaboration.
i) The TAG recommends that the weekly country EPI and polio summaries include a line listing of all compatible AFP cases indicating the reasons for compatibility and stool specimen results from contact cases.
j) The TAG requests all countries in the sub-region to document all activities for strengthening surveillance, such as national and international STOP teams and community based surveillance, and the impact of these activities. This should be reported at the next TAG meeting.

Country specific Recommendations

African Region

The TAG urges the full implementation of the following recommendations.

1. Uganda

a) Provide funding and resources needed to implement all recommendations of the recently completed external surveillance review.
b) Roll-out the communication plan from the national to the lower levels.
c) Support the improvement of routine EPI activities in the 35 hard-to-reach districts with the available resources from GAVI.
d) Conduct two rounds of SIAs in the high risk districts in 2013 and use all other opportunities to vaccinate children such as Child Health Days or Measles Plus campaigns.

2. Kenya

a) Conduct SIAs in the North Eastern Province synchronized with Somalia in response to the confirmed cVDPV outbreak in Dabaab Refugee Camp in Garissa district in September and October 2012.
b) Provide an update on the implementation of the gap analysis conducted in August 2012. In addition, give priority for improving active surveillance to areas that are security compromised and difficult to access.
c) Conduct sub-NIDs in high-risk districts in 2013. Coordinate and synchronize SIAs with neighbouring countries to the greatest extent possible. In addition, add OPV to other opportunities to vaccinate children such as Child Health Days or measles campaigns.

3. Ethiopia

a) Implement the recommendations of the external surveillance review and provide an update to the next TAG meeting.
b) Conduct at least two sub-NIDs in high-risk zones in 2012 and 2013. Coordinate and synchronize these activities with neighbouring countries.
c) Strengthening routine EPI in areas with large populations of unimmunized children as proposed. Document and report these activities at the next TAG.

4. Eritrea

The TAG endorses the recommendations of the programme assessment conducted in April 2012, specifically:

a) To conduct two rounds of NIDs in 2013.
b) To improve population immunity, organise regular outreach activities in hard to reach and poor performing districts.
c) To organise cross border activities between Eritrea and Kassala State in Sudan.

5. Tanzania

a) Strengthen AFP surveillance activities in the 33 poor performing districts and report on progress of activities at the next TAG meeting.
b) Conduct the proposed external surveillance review in September 2012 and report on implementation of recommendations at the next TAG meeting.

B. Eastern Mediterranean Region

1. Somalia

The TAG notes the continued inability to access children in large areas of central and southern Somalia and the risks this poses to Somalia and the whole sub-region, both because of ongoing cVDPV2 circulation and the risk of explosive outbreaks in the event of WPV importation. The TAG recommends

a) Immediate outbreak response synchronized with North-Eastern Kenya with two SIA rounds covering as wide an area as possible in Central and Southern zone of Somalia.
b) Conduct at least two SIAs annually and use all opportunities for additional OPV doses to eligible children (e.g. CHDs.). For the South and Central zone, additional vaccination rounds should be conducted in newly accessible populations with consideration of expanding the target age groups.
c) Contingency funds and vaccine should be available to implement mass vaccinations where ever there is access.
d) Strengthen the AFP surveillance system sensitivity in the South Central Zones through community based surveillance, active surveillance, and sensitization of health providers
e) Conduct an external AFP surveillance review as soon as possible.

2. Sudan

a) The TAG endorses the country plan for two national rounds in the last quarter of 2012 and four national rounds in 2013.
b) Additional rounds in the Darfur States bordering Chad will be necessary if transmission continues in that country; contingency plans for an additional round should be developed to cover this possibility.
c) All efforts should be made to access and vaccinate the inaccessible target children (around 180,000) in South Kordofan and Blue Nile.
d) Cross-border activities should continue to be implemented.

3. South Sudan

a) The TAG recommends a high level advocacy visit with the government to ensure continued support for polio eradication activities and commitment to support strengthening routine EPI.
b) The TAG endorses the plans for enhanced activities to improve routine EPI coverage in high risk and difficult to access areas.

c) The TAG endorses the country plan for two national rounds in the last quarter of 2012 and four rounds in 2013. Additional vaccination activities and sub-NIDs should be implemented in insecure areas when and if these areas become accessible; contingency plans for rapidly implementing activities should be developed.

4. Yemen

a) The TAG recommends the completion of the national emergency action plan; priority should be given to ensuring the full implementation of activities.
b) Implementation at least two rounds of NIDs during the last quarter of 2012 and two rounds in 2013; roll out the communication plan to address issues related to implementation of quality SIAs.
c) The TAG endorses the recommendations of the assessment conducted in Yemen in June 2012 , specifically:
   - Priority given to address AFP surveillance gaps.
   - Increased focus on strengthening routine EPI through sustained outreach activities.
   - For all SIAs, implement independent monitoring using global guidelines and proven reliable monitors.

5. Djibouti

a) The TAG recommends advocacy by WHO and partners to secure national ownership of the programme and commitment of resources.
b) The TAG recommends that the national immunization programme clarifies the roles and responsibilities of EPI and polio eradication staff in AFP surveillance at all levels and conducting quality SIAs.
c) The TAG recommends maintaining the support from CDC by continued allocation of an international STOP Team member to the country.

III. Next meeting of the TAG

The next meeting of the HOA TAG is proposed to take place from 6 to 7 February 2013 in Nairobi, Kenya.

Table 1. HOA revised polio SIAs January to December 2012

Initial Polio Planning						Revised Polio SIAs					
Country	SIA type	Target OPV doses per round	OPV type	Date		Reasons for revision or cancellation	SIA type	Target pop	OPV type	Dates of activity	Missed opportunity (doses OPV)
Ethiopia	SNIDs	3,802,389	tOPV	Sept		Lack of funds	SNIDs	2,465,463	tOPV	Oct	1,336,926
	SNIDs	3,802,389	bOPV	Oct		Lack of funds	SNIDs)	2,465,463	bOPV	Nov	1,336,926
Kenya	NIDS	8,103,969	bOPV	Jun		Lack of funds					8,103,969
	NIDS	8,103,969	bOPV	Jul		Lack of funds					8,103,969
	SNIDS	5,163,969	bOPV	Apr		Lack of funds	SNID	2,600,000	bOPV	July	2,563,969
	SNIDS	5,163,969	bOPV	May		Lack of funds	SNID	2,600,000	bOPV	Aug	2,563,969
	CHD	2,600,000	tOPV	Nov		Lack of vaccine	Measles	818,000	tOPV	Nov-12	1,782,000
Eritrea	CHD	407000	tOPV	Apr			Measles				0
	SNIDs	47000	tOPV	May							0
	SNIDs	47000	tOPV	Jun							0
Tanzania	SNIDs	3,495,312	bOPV	Jun		Cancelled					3,495,312
Uganda	SNIDs	3,495,312	bOPV	Jun		Cancelled.					3,495,312
	NID	6,996,937	bOPV	Apr		Cancelled	NID	6,996,937			6,996,937
	NID	6,996,937	bOPV	May		Cancelled	NID	6,996,937			6,996,937
	SNID	2,570,139	bOPV	Oct		planned	SNID		bOPV	Oct	0
	SNID	2,570,139	bOPV	Nov		Cancelled	SNID	2,570,139			2,570,139
	CHD	6,996,937	tOPV	May			Measles				0
Djibouti	NIDs	115450	tOPV	Mar							0
	NIDs	115450	tOPV	Nov		planned					0
	NIDs	115450	tOPV	Dec		planned					0
Sudan	NIDs	6900000	tOPV	Mar							0
	NIDs	6900000	bOPV	Apr							0
	NIDs	6900000		Nov							0
	NIDs	6900000		Dec		Lack of vaccine		3450000			3,450,000
South Sudan	NIDs	6900000	tOPV	Mar							0
	NIDs	6900000	bOPV	Apr							0
	NIDs	6900000		Nov							0
	NIDs	6900000		Dec							0
Yemen	NIDs	4300000	tOPV	Jan			measles				0
	CHD	4300000	tOPV	Jan							0
	NIDs	4300000	tOPV	Jun							0
	NIDs	4300000	tOPV	Nov		Planned					0
	NIDs	4300000	tOPV	Dec		Planned					0
TOTAL		**147,409,717**									**52,796,365**

Annex 1

TECHNICAL ADVISORY GROUP ON POLIO ERADICATION IN THE HORN OF AFRICA

8TH MEETING, NAIROBI, KENYA, 6-7 September 2012

Technical Advisory Group members

In attendance

1. **Dr Jean-Marc Olivé,** France (Chairman)
2. **Dr Rafah Aziz**, United Kingdom
3. **Dr H. El Zein Elmousaad,** Maryland, USA
4. **Dr Robert Linkins**, Georgia, USA

Unable to attend (apologies received)

5. **Dr Yagob Yousef Al-Mazrou**, Saudi Arabia
6. **Professor Francis Nkrumah**, Ghana
7. **Professor Redda Teklahaimanot**, Ethiopia
8. **Mr Carl Tinstman**, Colorado, USA

Participants

Horn of Africa Country Representatives

Ministry of Health and Ministry of Public Health and Sanitation, Kenya

1. Dr Abdulrazak Mohamed
2. Dr Ian Njeru
3. Dr Collins Tabu
4. Ms Juliet Muigai
5. Dr Adam Hassan

Ministry of Health, Ethiopia

6. Dr Milliyon Wendabeku

Ministry of Health, Djibouti

7. Mrs Aicha Adbara Ibrahim

Ministry of Health, Somaliland

8. Dr Abib Aden

Ministry of Health, Sudan

9. Dr Samira Osman

Ministry of Health, South Sudan

10. Dr Anthony Laku

Ministry of Health, Yemen

11. Dr Ali Bin Break

Ministry of Health, Uganda

12. Dr Jacinta Sabiiti

Ministry of Health, Tanzania

13. Dr David Manyanga

Partner Agency Representatives

Rotary International

14. Dr Nahu Senaye, PolioPlus, Ethiopia

Bill and Melinda Gates Foundation

15. Mr Tim Petersen, USA
16. Mr Gene L. Bartley, Kenya
17. Dr Abdalla Elkasabany, South Sudan

USAID

18. Ms Ellyn Ogden, USA
19. Dr Filimona Bisrat, CORE Group, Ethiopia
20. Dr Anthony Kisanga, CORE Group, South Sudan
21. Ms Julia Henn, Kenya
22. Dr Subroto Murkherjee, Kenya
23. Dr Isaac Mugoya, Kenya

Centers for Disease Control

24. Dr Katrina Kretsinger, USA
25. Dr Sara Ann Lowther, USA
26. Dr Derek Ehrhardt, USA
27. Dr John Neatherlin, Kenya

Secretariat

UNICEF

28. Dr Haydar Nasser, MENARO
29. Dr Yusuf Nasir, ESARO
30. Dr Elfadil El Tahir, ESARO
31. Ms Leila Abrar, ESARO
32. Dr Sunil Verma, South Sudan
33. Dr Tony Asije, South Sudan
34. Dr Maha Mehanin, Sudan
35. Dr Shalini Rozario, Ethiopia
36. Dr Zighe Icunoamlak, Eritrea
37. Dr Abdinur Hussein Mohamed, Somalia
38. Dr Marie Therese Baranyikwa, Somalia
39. Mr Yasuda Tadashi, Tanzania
40. Dr Eva Kabwongera, Uganda

WHO/Somalia

41. Dr Marthe Everard, WHO Representative
42. Dr Ahmed Soachim Hasan
43. Dr Abraham Mulugeta
44. Dr Raoul Kamadjeu
45. Ms Carolyne Gathenji
46. Mr Ali Abdi Hassan
47. Mr Stephen Bekoja
48. Dr Mohamed Guled Farah

WHO/Sudan

49. Dr Salah Haithami

WHO/South Sudan

50. Dr Abdi Mohamed, WHO Representative
51. Dr Yehia Moustafa

WHO/Kenya

52. Dr Mohamed Duale
53. Dr Kibet Sergon
54. Dr Abdi Hassan
55. Mr Kennedy Chitala
56. Mr Abdul Majid Hassan
57. Dr Peter Borus

WHO/Ethiopia

58. Dr Fiona Braka

WHO/Uganda

59. Dr Annet Kisakye

WHO, Tanzania

60. Dr Antony Kazoka

WHO/AFRO

61. Dr Mbaye Salla, AFRO,.
62. Dr Nestor Shivute, IST
63. Dr Samuel Okiror

WHO/EMRO

64. Dr Tahir Mir
65. Dr Hala Safwat

WHO/HQ

66. Ms Liliane Boualam
67. Dr Benjamin Nkowane