Report on
Review of Phase II and Planning Phase III Middle East Polio Outbreak Response Meeting

Beirut, Lebanon
26 & 27 January 2015

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Acronyms

AFP	Acute Flaccid Paralysis
BCG	Bacillus Calmetter-Guérin
bOPV	Bivalent Oral Polio Vaccine
C4D	Communication for Development
EMRO	WHO Regional Office for the Eastern Mediterranean
EPI	Expanded Programme of Immunization
HRA	High Risk Area
IDP	Internally Displaced Person
IOM	International Organization for Migration
KAP	Knowledge, Attitude and Practice Survey
ME	Middle East
MENARO	Middle East and North Africa Regional Office (UNICEF)
MoH	Ministry of Health
NIDs	National Immunization Days
OPV	Oral Polio Vaccine
PCM	Post-campaign Monitoring
POL	Polio
RI	Routine Immunization
SIA	Supplementary Immunization Activity
SIAD	Short Internal Additional Dose
SMS	Short Message Service
sNIDs	Sub-national Immunization Days
tOPV	trivalent Oral Polio Vaccine
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
WCO	WHO Country Office
WHO	World Health Organization
NGO	Non-governmental Organization
WHA	World Health Assembly
WPV	Wild Poliovirus

EXECUTIVE SUMMARY

A multi-country outbreak response was implemented in two phases, since reporting of wild poliovirus type-1 (WPV1) outbreak from Syria in October 2013. The outbreak paralyzed 36 children in Syrian Arab Republic (Syria) and two children in Iraq. A review meeting was convened on 26th and 27th January 2015 in Beirut for review of Phase II and planning for Phase III. It is important to mention that the review meeting was preceded by a multi-country desk reviews and field assessment of polio eradication activities by WHO and UNICEF Regional offices, and supported by WHO Headquarters Polio Eradication Country Support Group, Geneva.

WHO/UNICEF conducted a mid phase review of Phase II of ME outbreak response. A separate report is available for mid term review. Mid term Review was convened on 6th and 7th September 2014 in Beirut. Goal of Phase II was interruption of WPV1 by August 2014. There were three objectives: a) enhanced AFP surveillance activities; b) large scale and repeated SIAs; and c) improve routine immunization. The review meeting concluded that the goal is within reach because there is no evidence that currently ther is no evidence of continuing transmission of polio in the ME. Last polio cases in 2014 were having onset in January 2014 in Syria and April of the same year in Iraq. Last WPV1 in environmental surveillance was detected in Palestine in March 2014. The three objectives have been achieved by most of the countries.

Participants of the Phase II Review Meeting on 26 and 27th January 2015 included delegates from eight countries comprising National leaders and representatives or staffs of partners, B&MGF, Rotary International, Lebanese Pediatric Association, UNICEF and WHO from field, regional offices and headquarters. Eight countries include Turkey (Euro Region), and seven EMR countries: Syria, Iraq, Jordon, Lebanon, Egypt, Palestine and Iran. Agenda and list of participants are attached, Annex 1 and 2.

Regional Director in his message thanked Government of Lebanon for hosting the meeting and extending all necessary support. While acknowledging continued commitment and efforts of national officers, he highlighted that Regional Committee, in its 61st meeting, took note of the progress in implementation of Resolution EMR/RC60/R.3. He, however, cautioned against complacency due to significant risks including ongoing risks of importation, inaccessibility in few areas and deteriorated immunization service delivery and sub-national gaps in surveillance system in some areas. RD hoped that plans would be developed through joint efforts of government staff and experts. On behalf of UNICEF MENARO, Regional Health and CSD Advisor welcomed participants and highlighted team work resulting in significant accomplishments and put forth challenge of sustaining achievements. WR Lebanon welcomed all participants and acknowledged achievement reflected by the fact that there was no polio case since April 2014. National Program Manager EPI Lebanon welcomed participants on behalf of the Minister and Director General. She highlighted great team spirit between partners through which significant achievements have been made especially coverage of tented refugee populations and engagement of the private/NGO sectors. The RD message is attached as Annex 3.

Key lessons learned were: a) strong national leadership and commitments has been a key to implement rapid response; b) implementation of rapid, repeated and targeted vaccination campaigns helped building immunity levels high enough to halt the outbreak; and c) strong community demand and participation has been instrumental in continued EPI services despite difficult situations, particularly in Palestine, Syria and Iraq.

The Review of Phase II recognized few **best practices shared by country teams**: a) mapping high risk populations and evidence of reaching them; b) sub-national analysis of missed children to guide interventions; c) engagement of private sector physicians through different means including social media; and d) mobilizing community influencer's support for tailored activities suiting local context.

Key conclusions of meeting based on data presented in the meeting were following:

1. There was an evidence of improved polio immunization status and surveillance quality and consistency in Syria and Iraq
2. Consequently:
    a. A major outbreak of polio cases has been prevented
    b. There is currently no evidence of continuing transmission of polio in the ME. Last polio cases in 2014 were having onset in January 2014 in Syria and April of the same year in Iraq. Last WPV1 in environmental surveillance was detected in Palestine in March 2014.

However, major risks exist due to possibility of un-detected transmission since few critical areas have sub-national gaps in surveillance, RI and SIAs especially in high risk populations (inaccessible areas, displaced populations and slums); and more importantly continued intense transmission in primary source of the outbreak, that is, Pakistan.

The Phase II Review recommended the following principles for Phase III plans for next six months in particular and 2015 in general.

- There should be no complacency in the next six months given the significant risks, mentioned above.
- Proposed geographical priorities were categorized into: a) highest risk zone comprising Syria and Iraq due to last polio cases and current complex security situation; b) high risk zone including vulnerable populations in Lebanon, Jordan and Turkey; and c) risk reduction zone having Egypt, Iran and Palestine and general populations of Lebanon, Jordan and Turkey. Due to history of multiple importations, Egypt shall be treated a little differently.
- Programmatic priorities were suggested to be following:
    a. Short Term for the next six months were: i) Large scale SIAs in the next six months shall be conducted in Syria, Iraq and Egypt; b) special activities for special populations/refuges in Jordan, Lebanon and Turkey; c) enhancing surveillance activities especially in high risk populations; d) licensing of bOPV in countries where it is not yet done; and e) documentation of Phase 1 and phase 2 responses.
    b. Long Term for the next 12 months were: i) concrete plans should be developed for strengthening routine immunization services with special focus on vulnerable populations through monitoring and evaluation of impact on service delivery and incorporating lessons learned from polio outbreak response; ii) continued tailoring of communications strategies to create or sustain demand for vaccination; iii) AFP surveillance plans aims at achieving Certification standard quality for at least three years; iv) monitoring synergizing PEI and EPI activities.
    c. General guidance were: a) information system should be adjusted to demonstrate evidence of reaching vulnerable populations in surveillance, RI, SIAs and communication activities with adjustment in vaccination rates where there is an issue of inaccessibility; b) cross border coordination has to be strengthened for AFP reporting and investigation, and vaccination of children on the move; and c) vulnerable populations may include those having barriers to

vaccination (inaccessible, social reasons); people living in marginalized conditions (displaced populations, - IDPs and refugee, slums); and minorities (ethnic, sectarian).

INTRODUCTION:

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Participants of the Phase II Review Meeting included delegates from eight countries comprising WHO, UNICEF and MoH representatives, WHO and UNICEF regional and HQ office staff, Representatives from B&MGF, Rotary International, and Lebanese Pediatric Association. Eight countries include one EUR country (Turkey), and seven EMR countries (Syria, Iraq, Jordan, Lebanon, Egypt, Palestine and Iran). Agenda and list of participants are attached in Annex 1 and 2. Statement of the Regional Director WHO/EMR is attached in Annexure 3.

Meeting to review Phase II and planning for Phase III on 26th and 27th January was chaired by Mr Chris Maher, Manager Polio Eradication and Emergency Support, EMRO. Inaugural session included welcome messages of the WR and National Manager EPI Jordan and statements of representatives from headquarters of UNICEF and WHO and Regional Office of Unicef, as well. Two presentations were made in this session, an overview of situation and objective and method of work in the meeting by WHO and UNICEF regional offices. This was followed by presentations by countries as per template suggested to them describing progress, challenges and future plans. Countries shared their best practices, as well. Following country presentations, members of the recent Review Team shared their key observations. Country's presentations were followed by discussion with special focus on Syria and Iraq given the fact that these reported last polio cases in the region. On day 2, three presentations were made in the beginning. These were on Vaccine and Logistics from UNICEF/Copenhagen, accessibility to hard to reach areas by UNICEF/MENA & Supply Division and Communications and Social Mobilization by UNICEF HQ/MENA. Group Work was later done based on guidance provided in a presentation for formulating key strategic focus in next six months in areas of SIAs, RI, AFP and Communications in form of presentation which was made before concluding session. Manager, EMR presented summary of lessons learned and conclusion in the last session.

SUMMARY OF TEHCNICAL PRESENTATIONS

1.1Outbreak overview and current status of Phase II of polio outbreak response in Middle East

By Dr Salah Haithami, WHO POL/EMR.

Presentation reflected that a total of 29 recommendations pertaining to SIAs, were made in the 2nd Outbreak Review Meeting in September 2014. These pertained to: SIAs; RI; AFP; Communications and social mobilization; vaccines; cold chain and logistics; hard to reach populations and refugees; human resource and finance; and coordination. By and large, all recommendations were reportedly implemented. Of concern, however, is inter-country inconsistency in doing population surveys, post campaign assessment methodologies and bOPV licensing; need for further improvement in all hemispheres of Routine Immunization and evidence based planning for communication an high level advocacy.

The presentation highlighted that more than 142 million doses were used in 56 SIAs conducted through the response to ME Outbreak since November 2013. Comparison of vaccination status of non-polio AFP cases aged 6 to 59 months by quarters since 1st January 2013 demonstrated a progressive improvement in all countries whereas Egypt, Iran and Palestine sustained high level of immunity among children. All countries met the set target for AFP surveillance in their respective regions except Palestine having non polio AFP rate below 2, that is, 1.2 per 100,000 children below 15 years. Lebanon and Turkey achieved AFP cases with adequate specimens, 67% and 77% respectively. Sub-national surveillance gaps in multiple countries were highlighted as area of concern.

Overview was concluded with acknowledgement of everyone's effort to complete Phase II successfully despite serious and continuing conflict. With improvement in immunization status of children and surveillance activities, outbreak looked to be under control. Caution against complacency was emphasized due to major risks: inaccessibility, population movement and sub-national gaps.

1.2. VACCINES & LOGISTICS

By Mr. Andisheh Ghazieh, Contracts Officer, Vaccine Centre, UNICEF.

In the May 2014 IMB report, the achievement of ensuring smooth vaccine supply globally was acknowledged. The report highlighted that there was room for improving in-country vaccine management which they described as "*wasteful, potentially constraining the amount of vaccine that can be deployed elsewhere*" and advocated for tighter inventory control. WHO and UNICEF data systems (e.g. POLIS and SEED) need to capture data on children immunized and vaccine doses used in every SIAs round as part of routine SIAs reporting from all countries. Therefore countries need to provide the balance report will be whenever new vaccine requests are made for supplementary activities. SOPs and a tool for data capture has been designed by Vaccine Supply Task Team (VSTT) and shared with regional offices.

Vaccine delivery time line (minimum 4-5 weeks) up to the port of entry needs to be included in the planning for the campaigns. Potential delivery delays from suppliers could challenge the availability for on-time deliveries for campaigns. Earlier confirmation from programme on the planned campaigns would help to mitigate the risk.

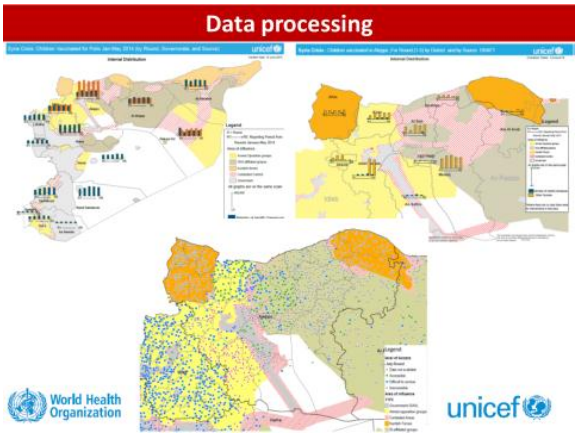
Overall supply situation is constrained but sufficient to meet planned activities based on EMG approved SIAs for the first half of the year, with main risks related to licensed products. Countries are encouraged

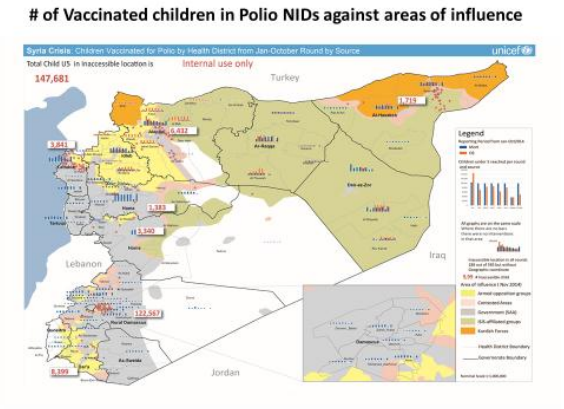
to license more WHO pre-qualified manufacturer in order to overcome the challenge. Supply prior to the tOPV withdrawal – pre-switch SIAs and routine requirements - needs to be continuously monitored and managed to ensure there is not an oversupply at the time of the switch.

1.3. Accessibility in Hard to Reach areas and Strengthening Routine Immunization

By Dr SM Moazzem Hossain, Regional Health & CSD Advisor and Dr Fazal Ather, Regional Coordinator, Polio Eradication, UNICEF/MENARO.

Presentation on accessibility and strengthening routine immunization narrated the access mapping exercise done in Syria to identify unreached children and inaccessible villages. The data collected from two sources and two different categories: 1) National and sub-national immunization day data disaggregated by the number of children vaccinated at the health district level. 2) Post campaign monitoring coverage at health district. The sources were from data from Ministry of Health and Other sources. From MoH the data was disaggregated based on the accessibility for seven campaigns rounds at community level. From Other Sources; the villages which have not been accessed by MoH, were checked with the data from other sources about their accessibility.





The presentation narrated that the key to RI using polio assets is coordination, monitoring, reporting and advocacy. There is a need of evaluation of 2014 annual one EPI plan to learn for 2015 annual plan. Programs need to document GPEI assets used in RI; review ToR, training in RI and Accountability framework. Monitoring Coverage and RED indicators is challenging due to poor quality of Admin data. Special studies are required using GIS for micro-plans and improving data confidence. There is a need for Advocacy for RI with country profiles focusing on HRD. There is a need for further coordination between GPEI and immunization staff at all levels.

The presentation suggested following indicators for Phase III:

1-Polio funded staff indicators

- # and % of polio staff trained in RI
- # and % of polio staff with RI activities in the ToRs and work plan Using accountability framework

2-Coverage indicators

- # and % of children receiving DPT3
- DPT1-DPT3 drop out

3-Data quality indicators

- % districts with negative drop out
- % districts with reported DPT3>100%

4-RED / additional indicators

- % districts that have conducted 80% of the scheduled fixed sessions
- % districts that have conducted 80% of the scheduled outreach sessions
- % districts with updated Immunization microplan

1.4. COMMUNICATION & SOCIAL MOBILIZATION

By Ms. Sahar Hegazi C4D Specialist UNICEF/HQ (Geneva) & Ms Shoubo Jalal C4D Specialist and Ms Marwa Kamel Communication Consultant in UNICEF MENARO,

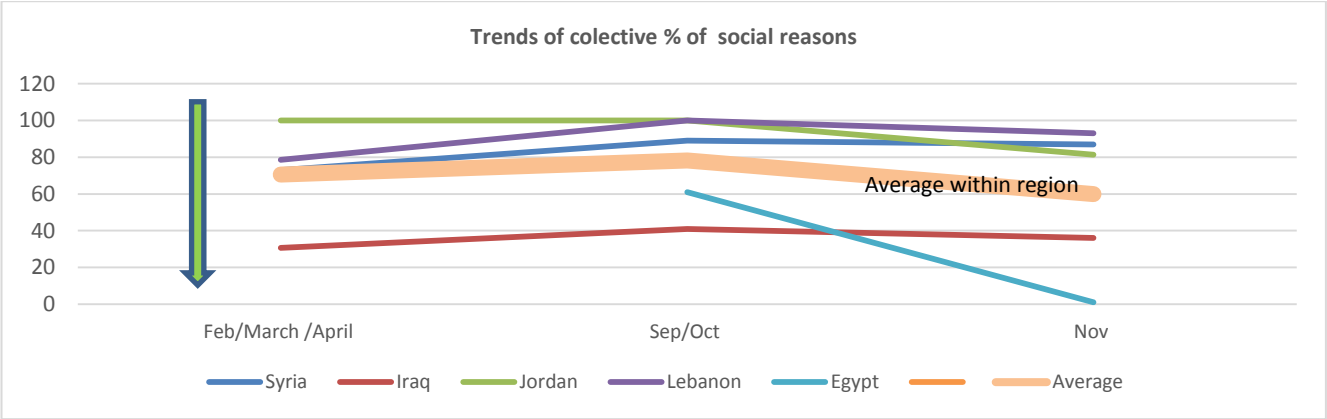
Media environment around polio advocacy in Phase II was significantly challenged with multiple situations most significantly insecurity and mass displacements. Nevertheless advocacy efforts for polio amidst these challenges continued through array of activities including press releases, capitalizing regional and global events including immunization week and the polio day and posting interviews and information on websites.

The region also continued to develop regular Bulletins for donors and other actors to maintain the attention and Trust Building IEC materials were developed to address any public concerns. The regional media engagement plans including the regional event with key media outlets from outbreak response countries, the interviews in pan Arabic media as well as the success story documentation from the field has also contributed to the advocacy efforts during this period.

As a result of these efforts, 42 campaigns were conducted in 2014 representing continuous commitment from all partners (government, partners, Vaccinators, communities). The regional media enjoyment plan managed to reach to around 5 million population across the countries and the Media monitoring reports for the period 4 may – 30 Oct reflected that polio and immunization maintained attention in regional media coming third in order, following issues related to Syrian children & refugee in general. Elements that contributed to success included Joint UNICEF-WHO advocacy at regional level having one strong repetitive voice throughout, maintaining cautious strategy in responding to critics to mitigate reputational and programmatic risk from politicization, utilizing opportunities to highlight progress for polio. A regional TOT workshop for strategic communication plan development was conducted by UNICEF MENARO. 10 government partners from MOH in Lebanon, Jordan, Egypt, Palestine and Iraq participated. The workshop introduced participants to steps for evidence based communication –social mobilization strategies with emphases on community engagement and utilized participatory approaches to deliver the content. The participants applied the theory and steps on three real case studies on Immunization in Syria, Nutrition in Yemen and Hygiene in schools from Palestine.

Several initiatives were conducted at country level to boost communication planning capacity as well as communication IPC skills of frontline workers, In Syria, while communication capacity building trainings continued at lower levels, new partnerships with Youth NGO group have been established and intensified communication efforts were put in place in governorate with increased refusal due to measles incidents, these efforts managed to reduce refusals in those governorates from 38% to 23% between October – November 2014. In Iraq refining communication messages in Baghdad governorate with intensified efforts managed to reduce children not vaccinated due to decision maker availability from 19% to 2 %, In Lebanon, focusing on recreation days in Hard to reach areas and targeting private sector managed to reduce missed children due to doctors' advice from 39% to 2% and an innovative initiative in Jordan to engage 240 community leaders in monitoring pre campaign and intra campaign period in high risk areas has yielded positive results in improving coverage rates, performance of campaign implementation as well as reducing social reasons in areas where the community leaders were functioning.

Generally, Phase II has witnessed reduction in collective social reasons behind missed children from 72% in April to 60% in October 2014.(this include reasons of ; no felt needs, families unaware of campaign, sick child, refusal, and child /Parent not available)



While reasonably good progress has been achieved for communication efforts and results, there are areas that will need to be strengthened for the coming period:

Way forward includes maintaining and strengthening the focus on tailored and community based approaches and investing in most effective communication channels to overcoming barriers to vaccinating remaining children in accessible areas as well as finding ways to reach children in insecure areas. Remaining social reasons will also require good communication skills of all engaged in response. To enhance communications for routine immunization, countries will benefit from capacity building in REC programme for equity results with focus strengthening communication to address the non-utilization of services. For maintaining preparedness, simulation exercises (including communication) shall be conducted every 6 months or as needed. PCM data may be distributed /utilized at local level and effective local measures are put in place for action across the countries. Possibility shall be explored of linking immunization programmes with existing social protection schemes.

COUNTRY REPORTS: PROGRESS, CHALLENGES & PRIORITIES FOR NEXT SIX MONTHS

2.1 SYRIA

Syria implemented the recommendations formulated in the September 2014 review meeting with variable degree of quality. Activities in the Phase II plan were fully implemented. Four NIDs rounds and one SNIDs round were conducted in Phase II (May-December 2014). The number of vaccinated children ranged between 2.7 million and 2.9 million. After each campaign, post-campaign monitoring (PCM) was done using independent monitors. The result of the PCM in phase II is shown in the following table:

Source of information of vaccination	May NIDs	June NIDs	August SNIDs	October NIDs	November NIDs
Coverage of finger marking	81%	79%	86%	82%	85%
Coverage of family recall	10%	10%	6%	7%	6%
Coverage by either finger marking or family recall	91%	89%	93%	89%	91%

The programme phased serious challenges to reach most of children under five during the SIAs. The major ones were insecurity, family fatigue, and negative attitude of some private clinicians against repeated vaccination. On the side of AFP surveillance, the programme could strengthen the surveillance system at national and sub-national level. The non-polio AFP rate increased from 1.7 to 3.6 per 100,000 population under 15 years of age and the adequate specimens' rate increased from 68% to 86%. The other surveillance indicators were also improved. However, there were still sub-national gaps. For example the

non-polio rate has not reached the target in Raqqa and the adequacy rate did not reach 80% in Aleppo, Edleb and Dier Ezzour. The AFP surveillance system picked the last confirmed polio case due to WPV1 in January 2014. Since them there was no new polio case. In addition to the collection of samples from contacts to inadequate AFP cases, the programme decided to collect samples from contact to all AFP cases in order to increase the sensitivity of the system. Before the end of Phase II, an external review team visited Syria and conducted 6 month assessment for the polio outbreak response. The overall conclusions were:

- Frequent OPV campaigns have reached an increasing number of children in Syria. A full year has passed without detecting wild PV
- Strong efforts to reach children everywhere through SIAs and to improve sensitivity of AFP surveillance is recognized
- However, conflict situation still affects polio strategy implementation in large areas
  - possibility of missing same children repeatedly during SIAs
  - possibility of missing AFP cases / virus transmission (integrity of rev. cold chain)
- Risk of renewed virus importation still high
- Programme cannot afford to relax or be complacent - must continue high-quality strategy implementation

Routine immunization remains the weakest ring in the chain of the polio eradication strategies. Due to the conflict, 27% of health center are out of service (400/1900), especially in hot areas. That caused the coverage of all immunizations around the 60%. During the Phase II, the programme revitalized the immunization in many places, especially after additional resources made available from partners. The priority was given to hot areas in high risk governorates. Among the enhanced activities, the programme updated the national guidelines of routine immunization, produced VVM poster and brochure for raising public awareness, conducting a mid-level training and strengthened effective supervision. The estimation of the number of infants, insecurity and funding shortfall were major difficulties against to vaccinate high percentage of children by routine vaccines.

The programme continued the efforts to maintain the level of good coordination among partners. The mechanism of coordination was through the National Coordination Committee. In Phase II, new partners have been invited to be members of the National Coordination Committee.

The national communication strategy is being implemented. Means of media were involved in the information dissemination before and during the campaign. A highly qualified coordinator was assigned for communication on the central level and in most governorates. Use of local media, TV and radio broadcast has been massively increased. Since the start of the polio response Syria received 31.5 million doses of bOPV and 12.5 million tOPV doses. Social mobilization materials like caps, pens, posters and supervisors' booklets were distributed. Expansion of cold chain & storage capacity increased in Phase II of the polio response (317 solar are being distributed now and another 1000 are in the pipeline now). The finger markers have been made available for use in the post-campaign monitoring after each SIAs round. Shipping the OPV vaccine to the country is taking too long because the national airport is not functional for the international flights. So, the vaccine should be shipped to Beirut airport and then it is transported to Damascus by trucks. Another difficulty facing the vaccine delivery is the cross-line transport of vaccine in hot areas due to insecurity. The operational budget made available mainly by WHO and UNICEF.

2.2 IRAQ

By Dr Nabil Ibrahim Abbass, National Manager EPI, Ministry of Health, Baghdad.

The Program reported implementation of all recommendations, but most of these were partially except better training of teams in high risk areas of Baghdad. Two NIDs were conducted in September and October. About 25% of populations live in areas having conflict of varying nature. Analysis of non-polio AFP cases aged 6 to 59 months showed improvement in 2014 compared with 2013 but upwards of 10% of such children had below 4 doses of OPV reflecting sub-national immunity gaps. Government of Iraq provided more than 8 Million US$ for SIAs reinforcing its commitment to polio eradication.

Surveillance was enhanced through regular feedback to DoHs and advocacy meetings&/training in September and October. Key surveillance indicators are meeting the international standards at national levels. Three governorates were missing target of non-polio AFP rate and one of them, Anbar, missing target of percent AFP cases with adequate specimen, as well.

Routine immunization data showed that OPV3 rates remained below 80%, actually 77% in 2014 compared with 79% in each of the two preceding years. This has been largely due to emphasis on reporting accurate data in 2014, vaccine stock outs and security setbacks in five DoHs. The Program shared strategic and operational priorities for next six months keeping in view global context and recommendations of recent assessment. Two NIDs and one SNID were proposed with immediate focus on training on micro-planning/mapping in high risk governorates; modifying tools / forms for follow up of missed children; intensifying supervision/ monitoring and reviewing independent monitoring methodology. For routine immunization, focus would be ensuring vaccine management; capacity building of vaccinators and supervisors, and RED approach; enhanced supervision using technology like Android Apps for geo-tracking of vaccinators; DQS and using polio assets to improve RI coverage. For further improving AFP surveillance, training of AFP Focal Points and seminars for physicians would be convened besides financial support to active surveillance and adjusting database to collect information about high risk populations. Communications and social mobilization plans would be developed for each phase of SIA with diversification of medium channels, including social media. A bi-monthly meeting of National Steering Committee would be convened to ensure coordination and follow up of plans.

2.3 JORDAN

By Dr Mohammad Ratib Sorour, Director of National Vaccination Program, Ministry of Health, Amman.

Jordan fully implemented phase II recommendations. Two NIDs were synchronized with other countries in the region in October and November 2014. Both achieved more than 90% vaccination rates according to post campaign assessment. To improve AFP surveillance quality, HR surge included three Surveillance Officers, one Senior Surveillance Officer (SSO), one Laboratory Technician and one Senior Coordinator (to coordinate with military health facilities). Also, training workshops were conducted for clinicians, staff nurses, Infection Control Officers, sanitarians, EPI Managers and health staff of NGOs offering health services to Syrian refugees. As a result NPAFP rate exceeded 2/100000 children below15 years and all other surveillance indicators met the global standards. However, three low population density governorates did not report any AFP cases during 2014.

The Program managed to maintain more than 90% coverage for different RI antigens among native population. Additional seven fixed EPI teams were added (total 10 teams) were raised for refugees to have 90% RI vaccination rates among them. Equipment provided for this purpose included one cold room and ten solar fridges. Reach every community (REC) plan has been drafted utilizing the mapped

high risk areas during SNIDs and through involvement community and religious leaders using the outreach – mobile teams. Tablets will be used for real time reporting.

The program maintained high level of coordination among all partners through the regular weekly polio control room committee (PCRC) involving MOH, WHO,UNHCR, UNICEF, IOM, UNRWA, Royal Medical Services and other partner agencies. Status of response activities was reviewed in these meeting for future planning and taking necessary action when needed. Community mobilization: Advocacy meetings with heads of health directorates, NGOs and CBOs were held. Variety of social mobilization activities included community and religious leaders and health workers embarking on sensitization in suburban/rural areas; Radio and TV ads during NIDs; SMS messaging targeting Syrian refugees and provision of required IEC materials, e.g., flyers, banners stickers. As a result more children were vaccinated than before, and number of missed children was significantly reduced.

To build community ownership (especially in high risk areas), a new innovative approach of involving community leaders in pre and intra-campaign monitoring was adopted. The approach included engaging of 240 HRAs community leaders (CLs) in the preparation and implementation of the polio campaign, to ensure every child is vaccinated. CLs were contacted regularly by special polio control room officers and actions were taken immediately to address any encountered problem. This approach proved to be very effective and could well be replicated in the subsequent rounds.

2.4 LEBANON

By Dr Randa Hadadeh, Head, PHC Department, Immunization & Essential Drugs Programme Manager, Ministry of Public Health, Lebanon.

Lebanon team reported the implementation of 70% of recommendations of Phase II were completed; whereas, remaining recommendations were on-going. Presentation highlighted tremendous progress in the engagement of private sector. This resulted in a jump from 2% children getting vaccine in April SIA to 24% in October; and compared with 39% of missed children due to advice of physician for not getting OPV in April 2014, only 2% gave this reason in October. Also, In April it was reported that 2% heard about the campaign from their Private Physician. In October, that increased to 11%.

Lebanon strengthened vaccination at permanent vaccination posts through vaccinating all persons regardless of age at four border points with Syria and passengers arriving from outbreak countries at the airport; besides vaccinating children below 5 years at four UNHCR Registration Centers for displaced Syrians.

Surveillance activities were enhanced and intensified through HR surge with eight new Surveillance Officers and increasing number of active surveillance sites from 52 to 90. Consequently, all governorates reached non-AFP rate of 2 or more except Beirut (1.9). Proportion of adequate specimen was 77% in 2014. It is important to highlight that proportion of Syrian AFP cases reported gradually increased from 21% in 2013 to 28% in 2014 and non-Polio AFP rate for Syrian refugees was 2.5. This demonstrated inclusion of this high risk population in surveillance network. Also, community base surveillance system was initiated by the surveillance unit in Lebanon and it picked up two cases.

Looking forward, Lebanon will implement 2 additional mop-up campaigns in the first half of 2015, continue strengthening EPI in the Informal Settlements, as well as continue its efforts with the Private Sector for vaccinating all children and reporting of all AFP cases.

2.5 EGYPT

By Dr Mounir Abdullah Mohamed, National EPI Manager, Ministry of Health & Population, Egypt.

Recommendations of phase II last meeting were mostly implemented except registration of bOPV and IPV vaccines and infrequency of ICC meetings. The October 14 SIAs had more than 98% vaccination rates based on recall and 87% based on finger-marking. However, Alexandria governorate had 94.5%. A total of eight districts did not reach target of 95% coverage and one district had below 90% vaccination rate. Non-polio AFP rate per 100,000 children below 15 years was 2.9 and proportion of AFP cases with adequate specimen 93% demonstrating that key surveillance are meeting international standards at national level. North Sinai and Matrouh governorates did not reach target of NPAFPR of 2; Fayoum governorate had 76% AFP cases with adequate specimen and here were five districts nationwide with population under 15 more than 50,000 did not report AFP cases.

Reported RI coverage was more than 95% at national level. There were some pockets of low coverage in slum areas and areas far from health units need more efforts in vitalizing the role of community influencers. Communication support from UNICEF to national plan was endorsed by MoHP, updated with each SIAs in coordination with other UN agencies. However there were weak engagement of community influencers in some districts and weak innovation in communication skills.

Key Recommendations included securing vaccine, operational cost for SIAS and prepare special plans for high risk areas and groups; maintaining high quality AFP indicators at all administrative levels specially for high risk areas and groups; sustaining high coverage of routine immunization nationwide specially for high risk areas and groups; and further strengthening IEC capabilities through media and community health care workers specially in high risk area and high risk groups.

2.6 PALESTINE

Ms Heyam Al-Sa'edi, Preventive Medicine Department, Ministry of Health, West Bank

Palestine implemented the recommendations developed in September 2014 review meeting except the recommendation related to the SIAs. The country conducted two SNIDs rounds immediately the confirmation of the polio outbreak in the neighboring Syria, but it did not conduct SIAs in the second half of 2014. The decision not to conduct the recommended SIAs was taken on the basis of the epidemiological data available in the country and the region. Since 2010, the non-polio AFP rate has not reached 2 per 100,000 except in the year 2013 while the adequacy rate maintained above 90%. The expected number of the AFP cases is 34 cases per year. All AFP cases reported in 2014 had more than 4 OPV doses and 2 IPV doses. For more than two decades, OPV and IPV are administered routinely to children under 5 years. The OPV3 immunization coverage rate is consistently more than 98% OPV3, except the year 2014 when the coverage decreased to 86% due to the continuous firing, restricted movements of medical staff and people to aces essential services.

Other serious challenges were the availability of the regular vaccines supply, operational funds and the damage of health facilities due to the attack against Gaza. In response the ME polio outbreak, the country strengthened the coordination between WB and Gaza at high level despite the political division. Good coordination was also observed among health care providers; MOH, UNRWA and private sectors.

Based on the 2014 experience, the programme is looking forward to improving the AFP surveillance indicators, maintaining the routine immunization above the 90%, proactive involvement of local communities in organizing social mobilization activities and maintaining/enhancing the environmental surveillance by collecting environmental samples regularly and continuously from 17 districts.

2.7 TURKEY

By Dr Osman Topaç, Head of Vaccine Preventable Diseases in the PHIT, Ministry of Health, Turkey.

Turkey remained polio free since 1998. This achievement was the result of high routine immunization coverage and continuous supplementary immunization for more than a decade. The coverage rate of polio vaccine third dose has been sustained more than 90% since 2005. The Turkey routine immunization schedule contains 3 IPV doses. The first case of Syria poliomyelitis has been confirmed in Turkey poliovirus laboratory in October 17th, 2013. In response to that outbreak, Turkey completed a risk assessment and conducted 5 SIAs rounds in 17 districts bordering Syria. All rounds achieved more than 90% coverage rate. One additional two Mopping Up rounds have been conducted in Istanbul in June and November 2014 targeting both nationals and foreigners, mainly Syria.

The AFP surveillance performance is satisfactory in Turkey. As per the European surveillance standards, the AFP rate is 1 per 100,000 and 80% adequacy rate. Turkey has achieved the standard level of both indicators during 2013 and 2014 nationally, however there are sub-national gaps. During the period 1-6 December a rapid AFP surveillance assessment in Turkey was done by the WHO-EURO mission. The WHO European regional meeting assessed Turkey as a low risk country for wild polio transmission. However, the mission recommended Turkey to further strengthen the AFP surveillance.

All the planned social mobilization activities in support to the house to house SIAs were implemented by the targeted provinces. The family physicians and other health personnel took part in these activities. The communications and official papers were organized by the Public Health Institution Vaccine Preventable Diseases Department. In January 2015, the National Certification Committee reviewed the annual update of Turkey polio eradication activities and advised the programme to continue conducting risk assessment and there is no need to conduct SIAs in near future.

2.8 IRAN

By Dr Syed Mohsen Zahraei, National EPI Manager, Ministry of Health & Medical Education, Tehran.

Upon the receipt of the notification on the outbreak in Iraq by late March 2014, immediately the MOHME Iran has established a rapid response system comprising enhanced AFP surveillance system for rapid detection of any importation and vaccinating all children aged below 15 years at Iranian- Iraqi borders bOPV. Two rounds of door to door SNIDs were conducted in 37 districts in 5 provinces adjacent to Iraq in all or just high risk areas. bOPV was used. First round was done from 24-26 May 2014 and 248, 271 below 5 years children were vaccinated. This was followed by second round from 23-25 June in which 253,054 U5 children get vaccinated. Coverage in both rounds was more than 99%. This was achieved through extensive social mobilization strategy using community network despite unfamiliarity with house to house campaign for workers as well as community.

Coordination with Ministry of Foreign Affairs, Military and Governorates to ensure vaccination of children coming from infected countries and other response activities. All logistics and cold chain equipment were provided and all financial resources needed for the activities were financed by MOH.

OPV3 coverage is more than 95% in all districts. Non polio AFP rate was 4.2/100,000 children below 15 years of age and proportion of AFP cases with adequate specimens was 96% in 2014. Both indicators met the international standards. IPV has not been introduced in the national schedule, yet. Challenge of arranging all resources in case of importation of poliovirus for rapid and effective response was highlighted, especially procurement of vaccine. In this regard, support of UNICEF and WHO was requested besides in area of cross border coordination between countries.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions:

Country presentations, field and desk outbreak assessment and group discussions revealed that the response of Primary Outbreak Intervention Zone and risk Reduction Zone was fast and aggressive. All countries showed an evidence of improved polio immunization status, surveillance quality and consistency. Consequently, a major outbreak of polio cases has been prevented. Not only that, but there is currently no evidence of continuing transmission of polio in the Middle East. The last polio cases in 2014 had onset of paralysis in January 2014 in Syria and April of the same year in Iraq. Additionally, the last WPV1 in environmental surveillance was detected in Palestine in March 2014.

However, major risks exist due to possibility of un-detected transmission since few critical areas have sub-national gaps in surveillance, routine immunization and SIAs especially in high risk populations (inaccessible areas, displaced populations and slums); and more importantly continued intense transmission in primary source of the outbreak, that is, Pakistan.

The Phase II Review recommended the following principles for Phase III plans for next six months in particular and 2015 in general.

- There should be no complacency in the next six months given the significant risks, mentioned above.
- Proposed geographical priorities were categorized into: a) highest risk zone comprising Syria and Iraq due to last polio cases and current complex security situation; b) high risk zone including vulnerable populations in Lebanon, Jordan and Turkey; and c) risk reduction zone having Egypt, Iran and Palestine and general populations of Lebanon, Jordan and Turkey. Due to history of multiple importations, Egypt shall be treated a little differently.
- Programmatic priorities were suggested to be following:
    a. Short Term for the next six months were: i) Large scale SIAs in the next six months shall be conducted in Syria, Iraq and Egypt; b) special activities for special populations/refuges in Jordan, Lebanon and Turkey; c) enhancing surveillance activities especially in high risk populations; d) licensing of bOPV in countries where it is not yet done; and e) documentation of Phase 1 and 2 responses.
    b. Long Term for the next 12 months were: i) concrete plans should be developed for strengthening routine immunization services with special focus on vulnerable populations through monitoring and evaluation of impact on service delivery and incorporating lessons learned from polio outbreak response; ii) continued tailoring of communications strategies to create or sustain demand for vaccination; iii) AFP surveillance plans aims at achieving Certification standard quality for at least three years; iv) monitoring synergizing PEI and EPI activities.
    c. General guidance were: a) information system should be adjusted to demonstrate evidence of reaching vulnerable populations in surveillance, RI, SIAs and communication activities with adjustment in vaccination rates where there is an issue of inaccessibility; b) cross border coordination has to be strengthened for AFP reporting and investigation, and vaccination of children on the move; and c) vulnerable populations may include those having barriers to vaccination (inaccessible, social reasons); people living in marginalized conditions (displaced populations, - IDPs and refugee, slums); and minorities (ethnic, sectarian).

Recommendations:

SIAs

- Upcoming SIAs should give priority focus on reaching children known to be at risk of being missed.
- Existing micro plans and maps should be revised where necessary to reflect the presence of children at risk of being missed, using local knowledge as well as data from independent monitoring about reasons for non-vaccination.
- For countries that used fixed or mobile teams for vaccination, house-to-house vaccination activities should be increased, targeting areas with children at risk of being missed.
- Continued coordination between MoH and local partners to increase coverage of children in areas with difficult or no direct access.
- Accessibility mapping after each SIAs round has to be developed to better understand the trend of accessibility and develop appropriate strategies to increase access to children in hard to reach areas.
- The first half of 2015 SIAs country plan should include at least the following:
    - Three NIDs rounds in Syria
    - Two NIDs and one SNIDs rounds in Iraq
    - Two SNIDs rounds in Egypt
    - Two SNIDs rounds Lebanon
    - Two SNIDs rounds in Turkey
    - One SNIDs round in Jordan

Acute Flaccid Paralysis (AFP) surveillance:

- Countries are encouraged to maintain and further enhance AFP surveillance indicators at certification standards at all levels with extra attention to high risk areas.
- Countries are encouraged to strengthen active surveillance by ensuring the availability of qualified personnel, adequate logistical support and other requirements.
- Countries are encouraged to conduct internal AFP surveillance reviews at least once a year.
- With the support of support of WHO, priority countries assess the feasibility of establishing environmental surveillance for polioviruses.

Routine immunizations:

- Countries to develop a 6-month plan of routine immunization strengthening focusing on:
    - The mapping of the high risk areas with low routine immunization performance and develop special strategies to close the gaps.
    - The training of new vaccinators and refresher courses for the old vaccinators.
    - The outreach activities, especially among nomadic population, IDPs and hard to reach communities.

  - Supervision and monitoring using the appropriate tools.
  - Ensuring the availability of the immunization-related material.
- Countries that have no IPV in their immunization schedule should ensure that at least one IPV dose is introduced before the end of 2015 as per WHO recommendation.
- Countries that host refugees or internally displaced people need to develop special plans to cover the children by all routine immunizations.
- Countries need to expand their monitoring activities including the use of Data Quality Self-assessment.
- Countries that have not licensed the bOPV should accelerate licensing the bOPV.

Communication and Social Mobilization:

- It is critical that sub-national level communication plans are reviewed and implementation is monitored systemically, with particular focus on hard to reach areas.
- Support from additional and new partners should be sought to jointly work on EPI and outbreak response communication and social mobilization issues.
- Supervision of communication activities at all levels should be improved and better documented. Findings from supervisory visits should be used to improve performance, especially in areas where no post-campaign independent monitoring is conducted.

Coordination:

- Countries are encouraged to expand the involvement of community and religious leaders in planning, implementation and monitoring of routine immunization and supplementary immunization activities for enhancing the coverage.
- Countries are encouraged to continue involving the community leaders of high risk areas in pre and intra campaign monitoring to provide additional data to improve the subsequent rounds.
- Countries are encouraged to continue the information sharing process with various partners and neighboring countries in order to timely update all stakeholders.
- Countries are encouraged sustain the regular coordination mechanism that has been established in Phase I and II of the polio outbreak response.

Hard to Reach Populations and Refugees:

- Countries are encouraged to keep the focus on HRA based on experience with the targeted approach (mapping, special updated micro-plans, innovative approaches, targeted communication strategy component, segregated reporting, and monitoring).
- Countries are encouraged to continue mapping inaccessible areas and populations following each SIA.
- Countries are encouraged to continue with access analysis and tracking, identification of chronically inaccessible areas for risk mitigation.

- Access mapping in Iraq would be useful similar to the exercise done in Syria for improving access in SIAs and RI.

Annex 1. Agenda

Monday, 26 January 2015

Review Session

08:30 – 09:00	Registration	
09:00 – 09:15	Welcome	Chris Maher/ Moazzem Hossain
09:15 – 09:30	Introduction of participants	All
09:30 – 09:50	Objectives and method of work	Fazal Ather
09:50 – 10:10	Outbreak overview and current status of Phase II of polio outbreak response in Middle East	Salah Haithami
10:10 – 10:30	*Break*	
10:30 – 11:10	**Syria** • Outbreak response • Follow up visit remarks • Discussions	Country team
11:10 – 11:50	**Iraq** • Outbreak response • Result of the external review • Discussions	Country team
11:50 – 12:20	**Jordan** • Outbreak response • Campaign monitoring by community experience • Discussions	Country team
12:20 – 13:20	*Break*	
13:20 – 13:50	**Lebanon** • Outbreak response summary • Experience with private sector • Discussions	Country team

Monday, 26 January 2015 (Cont'd)

13:50 – 14:10	**Egypt** • Outbreak response summary • Discussions	Country team

14:10 – 14:30	**Palestine** • Outbreak response summary • Discussions	Country team
14:30 –14:50	**Turkey** • Outbreak response summary • Discussions	Country team
14:30 –14:50	**Iran** • Outbreak response summary • Discussions	Country team
14:50 – 15:10	*Break*	
15:10 – 15:50	Communication and Social Mobilization Discussions	Sahar/Shoubo/Marwa

<u>Tuesday, 27 January 2015</u>

Planning session

08:30 – 09:00	Vaccine and Logistics	Andisheh/Paul
09:00 – 09:30	Accessibility in Hard to Reach; Using Polio experience to Strengthen Routine Immunization	Moazzem/Fazal
09:30 – 09:45	Introduction to the group of work	Fazal Ather
09:45 – 10:00	*Break*	
10:00 – 12:30	Planning session – Group work	
12:30 – 13:30	*Break*	
13:30 – 15:30	Presentation of country plans	Country teams
15:30	Closing remarks	Chris Maher/ Moazzem Hossain

Annex 2. LIST OF PARTICIPANTS

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Annex 3. Message of the RD to the Middle East Polio Outbreak Response Review Meeting, Beirut, Lebanon, 26–27 January 2015

Your Excellency, Ladies and Gentlemen

It gives me pleasure to welcome you to the Phase II review and Phase III planning of the Middle East polio outbreak response. I wish to express my sincere thanks to the Government of Lebanon for hosting the meeting and extending all the necessary support, and to His Excellency the Minister of Health for honoring us with his presence in this session.

I am very grateful to the national officers responsible for polio eradication for their commitment and continued efforts to achieve the target of polio eradication from the Region.

I wish also to welcome the representatives of the polio eradication partners from Rotary International, the Centers for Disease Control and Prevention and the Bill and Melinda Gates Foundation, as well as UNICEF and WHO staff from the field, regional offices and headquarters.

Dear Colleagues

As you have noted from the agenda of the meeting, you will be reviewing reports from eight countries of two WHO regions – the European and Eastern Mediterranean regions – in order to assess progress made in containing the Middle East polio outbreak since your last meeting. In this regard I sincerely hope that the national officers and their international partners will be able to clearly present and constructively discuss ways and means, not only of maintaining achievements, but also of guarding against potential problems on the final path to containing the outbreak. It is also expected that you will build on Phase II experience to formulate sound plans for Phase III, with the main focus on maintaining a high standard of AFP surveillance and strengthening routine immunization.

During the review meeting in Beirut, Lebanon, in September in 2014, four key recommendations were agreed upon. Those recommendations were to: 1) Continue with the 2 targeted approach to vaccinate children in hard-to-reach areas and among mobile populations; 2) Implement the full spectrum of campaign monitoring (pre, intra and post campaign), with timely analysis and sharing of data, using WHO guidelines; 3) Implement surveillance strengthening plans to improve sensitivity, quality and timeliness; and 4) Strengthen the community engagement component, especially in high-risk areas, based on analysis and unfolding of resistance and barriers and proper audience segmentation. Over the past three months much work has been done by the partnership, led by your ministries and supported by our agencies and partners.

Over the next two days we will hear of the progress made, the challenges experienced, and the strategies going forward. In that context I would like to assure you of the Regional Office's commitment to this goal. During your meeting you will conduct a full review of the outbreak in the Syrian Arab Republic and Iraq, and the efforts being undertaken by national authorities supported by polio partners. You will also hear about progress made in maintaining the status of six countries that have been polio-free for several years, and particularly those categorized as countries at high risk.

The WHO Regional Committee for the Eastern Mediterranean, at its Sixty-first Session, reviewed the progress of polio eradication in the Region. The committee took note of the progress in implementation of

resolution EM/RC60/R.3. These efforts apparently brought the Middle East polio outbreak to an end. It is well noted that the last polio case in the Region was in the Syrian Arab Republic and Iraq in January and April 2014, respectively. In spite of this success, we should not be complacent because the risk of importation remains high until poliovirus circulation is completely interrupted in all countries. This threat is enhanced in the context of inaccessibility and deteriorated routine immunization activities, in addition to the presence of surveillance gaps in our Region. The challenges are great; however, our trust with the collaboration among national ministries and committed partners will give the needed support to overcome these challenges and keep your countries polio-free.

Dear Colleagues

I look forward to receiving the Phase III plans that you will develop as joint efforts of experts and government officials.

It remains for me to wish you a very productive meeting and a pleasant stay in Beirut.