WHO-EM/POL/413/E

Report on the

Review meeting for Phase II and planning for Phase III of the Middle East polio outbreak response

Beirut, Lebanon
26–27 January 2015

World Health Organization
Regional Office for the Eastern Mediterranean

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EXECUTIVE SUMMARY

Since reporting of the wild poliovirus type-1 (WPV1) outbreak in Syria in October 2013, which spread to Iraq in 2014 causing two polio cases, a multi-country outbreak response has been implemented in two phases. A meeting was convened on 26–27 January 2015 in Beirut to review Phase II and plan for Phase III. The review meeting was preceded by multi-country desk reviews and field assessments of the polio eradication response by the WHO Regional Office for the Eastern Mediterranean and UNICEF Regional Office for the Middle East and North Africa supported by the Polio Eradication Country Support Group, Geneva.

WHO and UNICEF conducted a mid-term review of Phase II of the outbreak response on 6–7 September 2014 in Beirut. A separate report is available for the mid-term review. The goal of Phase II was interruption of wild poliovirus type 1 (WPV1) transmission by August 2014. There were three specific objectives: 1) enhanced AFP surveillance activities; 2) implementation of large-scale and repeated supplementary immunization activities; and 3) improved routine immunization.

Participants in the Phase II review meeting included representatives from the ministries of health of eight countries (Egypt, Islamic Republic of Iran, Iraq, Jordan, Lebanon, Palestine, Syrian Arab Republic and Turkey), WHO and UNICEF staff from country, regional and headquarters levels, and representatives from the Bill & Melinda Gates Foundation, Rotary International and Lebanese Paediatric Association.

The meeting was chaired by Mr Chris Maher, Manager Polio Eradication and Emergency Support, WHO Regional Office for the Eastern Mediterranean. The inaugural session included welcome messages from the WHO Representative and National EPI Manager Jordan and statements of representatives from headquarters of UNICEF and WHO and Regional Office of UNICEF, as well. The meeting was divided into technical sessions, country presentations, discussions and group work. The agenda and list of participants are attached in Annexes 1 and 2.

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 a few best practices shared by country teams: a) mapping high-risk populations and evidence of reaching them; b) subnational 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.

Based on data presented during the meeting, there is evidence of improved polio immunization status and surveillance quality and consistency in Syria and Iraq. The meeting

concluded that a major outbreak of polio cases has been prevented. It also found no evidence of continuing transmission of polio in the Middle East. The last polio cases in 2014 had onset in January (Syria) and April (Iraq). The last wild poliovirus type 1 (WPV1) detected through environmental surveillance was found in Palestine in March 2014.

However, major risks exist due to possibility of undetected transmission since a few critical areas have subnational gaps in surveillance and routine and supplementary immunization, especially in high-risk populations (displaced populations, those in inaccessible areas and slums). More importantly, there is continued intense transmission in the primary source of the outbreak, Pakistan.

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

- There should be no complacency given the significant risks mentioned above.
- Geographical priorities should be categorized as follows: a) highest risk zone, comprising Iraq and Syria due to the last polio cases and the current complex security situation; b) high risk zone, which includes vulnerable populations in Lebanon, Jordan and Turkey; and c) risk reduction zone, with Egypt, Islamic Republic of Iran and Palestine and general populations of Lebanon, Jordan and Turkey. Due to the history of multiple importations, Egypt will be treated a little differently.
- Programmatic priorities were suggested to be as follows.
  - Short-term for the next six months were: a) large-scale supplementary immunization activities in the next six months in Egypt, Iraq and Syria; 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 I and II responses.
  - Long-term for the next 12 months were: a) development of concrete plans 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; b) continued tailoring of communication strategies to create or sustain demand for vaccination; c) AFP surveillance plans aimed at achieving certification standard quality for at least three years; d) monitoring and synergizing polio and EPI activities.
  - General guidance was: a) the information system should be adjusted to demonstrate evidence of reaching vulnerable populations in surveillance, routine and supplementary immunization and communication activities with adjustment in vaccination rates where there is an issue of inaccessibility; b) cross-border coordination should 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, internally displaced and refugee populations, slum residents) and minorities (ethnic, sectarian).

1. INTRODUCTION

Since reporting of the wild poliovirus type-1 (WPV1) outbreak in Syria in October 2013, which spread to Iraq in 2014 causing two polio cases, a multi-country outbreak response has been implemented in two phases. A meeting was convened on 26–27 January 2015 in Beirut to review Phase II and plan for Phase III. The review meeting was preceded by multi-country desk reviews and field assessments of the polio eradication response by the WHO Regional Office for the Eastern Mediterranean and UNICEF Regional Office for the Middle East and North Africa supported by the Polio Eradication Country Support Group, Geneva.

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Participants in the Phase II review meeting included representatives from the ministries of health of eight countries (Egypt, Islamic Republic of Iran, Iraq, Jordan, Lebanon, Palestine, Syrian Arab Republic and Turkey), WHO and UNICEF staff from country, regional and headquarters levels, and representatives from the Bill & Melinda Gates Foundation, Rotary International and Lebanese Paediatric Association. The agenda and list of participants are attached in Annexes 1 and 2.

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2. TECHNICAL PRESENTATIONS

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

Dr Salah Haithami, WHO

A total of 29 recommendations were made in the review meeting in September 2014. These pertained to supplementary and routine immunization, AFP surveillance, communications and social mobilization, vaccines, cold chain and logistics, hard-to-reach populations and refugees, human resources and finance, and coordination. All recommendations were reported to have been implemented. Of concern, however, is lack of consistency between countries in implementation of population surveys, in post-campaign assessment methodologies and in licensing of bivalent oral polio vaccine (bOPV). There is need for further improvement in all aspects of routine immunization and evidence-based planning for communication and high level advocacy.

More than 142 million doses were used in 56 supplementary immunization activities conducted in response to the Middle East outbreak since November 2013. A comparison of the vaccination status of non-polio AFP cases aged 6 to 59 months by quarter since 1 January 2013 showed progressive improvement in all countries, whereas Egypt, Islamic Republic of Iran and Palestine sustained a high level of immunity among children. All countries met the target set for AFP surveillance in their respective regions except Palestine, which had a non-polio AFP rate below the target of 2 cases per 100 000 children under 15 years, (i.e. 1.2 cases per 100 000 children under 15 years). In Lebanon and Turkey AFP cases with adequate specimens were 67% and 77% respectively. Subnational surveillance gaps in multiple countries were highlighted as an area of concern.

Participants acknowledged the efforts of all partners to complete Phase II successfully despite serious and continuing conflict. With improvement in the immunization status of children and in surveillance activities, the outbreak appears to be under control. However, there is needed for caution against complacency due to the major ongoing risks of inaccessibility, population movement and subnational gaps.

2.2 Vaccines and logistics

Mr Andisheh Ghazieh, UNICEF

In the May 2014 report of the International Monitoring Board (IMB), the achievement of ensuring smooth vaccine supply globally was acknowledged. The report noted that there was room for improving in-country vaccine management, which was 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 supplementary immunization round as part of routine reporting of supplementary immunization activities from all countries. Therefore countries need to provide the balance report whenever new vaccine requests are made for supplementary activities. Standard operating procedures and a tool for data capture have been designed by Vaccine Supply Task Team and shared with regional offices.

The vaccine delivery timeline (minimum 4–5 weeks) up to the port of entry needs to be included in campaign planning. Potential delivery delays from suppliers could challenge the availability of vaccines for campaigns. Earlier confirmation from programmes on the planned campaigns would help to mitigate the risk.

The overall supply situation is constrained but sufficient to meet planned activities based on approved supplementary immunization activities for the first half of the year, with the main risks related to licensed products. Countries are encouraged to license more WHO pre-qualified manufacturers in order to overcome the challenge. Supply prior to the withdrawal of trivalent OPV (tOPV) – for pre-switch supplementary immunization activities and routine requirements – needs to be continuously monitored and managed to ensure there is not an oversupply at the time of the switch.

2.3 Accessibility in hard-to-reach areas and strengthening routine immunization

Dr SM Moazzem Hossain and Dr Fazal Ather, UNICEF/MENARO

An access mapping exercise was implemented in Syria to identify unreached children and inaccessible villages. Data were collected from two sources and two different categories: national and subnational immunization day data disaggregated by the number of children vaccinated at the health district level; and post-campaign monitoring coverage at health district level. Data came from the Ministry of Health and other sources. Ministry of Health data were disaggregated based on accessibility for seven campaigns rounds at community level. Other sources were used for accessibility data on the villages which have not been accessed by the Ministry of Health.

The key to routine immunization using polio assets is coordination, monitoring, reporting and advocacy. There is a need for evaluation of the 2014 One EPI plan to learn for the 2015 annual plan. Programmes need to document polio eradication initiative assets used in routine immunization, review terms of reference, and conduct training in routine immunization and the accountability framework. Monitoring indicators for coverage and RED (reaching every district) is challenging due to poor quality of administrative data. Special studies are required using geographic information systems technology for microplans and improving data confidence. There is a need for advocacy for routine immunization with country profiles focusing on human resources development. There is a need for further coordination between polio and immunization staff at all levels. The presentation suggested following indicators for Phase III.

Polio-funded staff indicators

- # and % of polio staff trained in routine immunization
- # and % of polio staff with routine immunization activities in the terms of reference and workplan using accountability framework

Coverage indicators

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

Data quality indicators

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

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

2.4 Communication and social mobilization

Ms Sahar Hegazi, UNICEF/HQ
Dr Shoubo Jalal, and Ms Marwa Kamel, 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 continued amid these challenges through an 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 attention and build trust. Information, education and communication materials were developed to address any public concerns. The regional media engagement plan, including regional events with key media outlets from outbreak response countries, interviews in pan Arabic media as well as success story documentation from the field also contributed to 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 engagement plan managed to reach to around 5 million population across the countries and the media monitoring reports for the period 4 May – 30 October reflected that polio and immunization maintained attention in regional media, ranking third after issues related to Syrian children and refugees in general. Elements that contributed to success included joint UNICEF–WHO advocacy at regional level having one strong repetitive voice throughout, maintaining a strategy of caution in responding to critics to mitigate reputational and programmatic risks from politicization, and utilizing opportunities to highlight progress for polio. A regional training of trainers workshop for strategic communication plan development was conducted by UNICEF. Ten government partners from ministries of health in Egypt, Iraq, Jordan, Lebanon and Palestine participated. The workshop introduced participants to steps for evidence-based communication and social mobilization strategies with emphasis 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 skills of frontline workers, In Syria, while communication capacity-building training continued at lower levels, new partnerships with youth nongovernmental organizations have been established and intensified communication efforts were put in place in governorates with increased refusals due to measles incidents. These efforts successfully reduced refusals in those governorates from 38% to 23% between October and November 2014. In Iraq, refining communication messages in Baghdad governorate with intensified efforts managed to reduce children not vaccinated due to decision-maker unavailability from 19% to 2%, In Lebanon, focusing on recreation days in hard-to-reach areas and targeting the 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 periods in high-risk areas 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 witnessed a reduction in collective social reasons behind missed children from 72% in April to 60% in October 2014 (including reasons of no felt need, families unaware of campaign, sick child, refusal, and child/parent unavailability).

While good progress has been achieved in communication results, there are areas that will need to be strengthened for the coming period. The 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 with a focus on strengthening communication to address the non-utilization of services. For maintaining preparedness, simulation exercises (including communication) will be conducted every 6 months or as needed. Post-campaign monitoring data may be distributed and utilized at local level and effective local measures put in place for action across countries. Possibilities will be explored for linking immunization programmes with existing social protection schemes.

3. COUNTRY REPORTS: PROGRESS, CHALLENGES AND PRIORITIES FOR THE NEXT SIX MONTHS

3.1 Syrian Arab Republic

Dr Ahmad Al-Abboud, Ministry of Health

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 rounds of national immunization days (NIDs) and one subnational 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 was done using independent monitors. The results of the monitoring in Phase II are shown in the following table:

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

The programme faced serious challenges to reach most of children under five during the supplementary immunization activities. 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 subnational 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 subnational 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 Deir Ezzour. The AFP surveillance system picked the last confirmed polio case due to WPV1 in January 2014. Since then there were no new polio cases. In addition to the collection of samples from contacts to inadequate AFP cases, the programme decided to collect samples from contacts of 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 as follows.

- Frequent OPV campaigns have reached an increasing number of children in Syria
- A full year has passed without detecting wild poliovirus
- Strong efforts to reach children everywhere through supplementary immunization activities 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 supplementary immunization activities
- Possibility of missing AFP cases/virus transmission (integrity of reverse cold chain)
- Risk of renewed virus importation still high
- Programme cannot afford to relax or be complacent and 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 centres are out of service (400/1900), especially in hot areas. That caused the coverage of all immunizations around the 60%. During Phase II, the programme revitalized the immunization in many places, especially after additional resources made available from partners. Priority was given to hot areas in high risk governorates. Among the enhanced activities, the programme updated the national guidelines for routine immunization, produced a poster and brochure of vaccine vial monitors for raising public awareness, conducted mid-level training and strengthened effective supervision. The estimation of the number of infants, insecurity and funding shortfall were major difficulties challenges for vaccinating a high percentage of children with 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 were invited to be members of the Committee.

The national communication strategy is being implemented. The media were involved in information dissemination before and during the campaign. A highly qualified coordinator was assigned for communication at the central level and in most governorates. Use of local

media, television and radio broadcast has been increased enormously. Since the start of the polio response Syria received 31.5 million doses of bOPV and 12.5 million tOPV doses. Social mobilization materials such as caps, pens, posters and supervisors' booklets were distributed. Expansion of cold chain and storage capacity increased in Phase II of the polio response. The finger markers have been made available for use in post-campaign monitoring after each supplementary immunization round. Shipping OPV to the country is taking too long because the national airport is not functional for international flights. Instead the vaccine is shipped to Beirut airport and then transported to Damascus by truck. Another difficulty facing vaccine delivery is the transport of vaccine in hot areas due to insecurity. The operational budget is made available mainly by WHO and UNICEF.

3.2 Iraq

Dr Nabil Ibrahim Abbass, Ministry of Health

The programme 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 fewer than 4 doses of OPV, reflecting subnational immunity gaps. The Government of Iraq provided more than US$ 8 million for supplementary immunization activities, reflecting its commitment to polio eradication.

Surveillance was enhanced through regular feedback to departments of health and advocacy meetings/training in September and October. Key surveillance indicators are meeting the international standard at national levels. Three governorates missed the target for non-polio AFP rate and one of them, Anbar, also missed the target for percentage of AFP cases with adequate specimen.

Routine immunization data show that OPV3 rates remained below 80%: 77% in 2014 compared with 79% in each of the two preceding years. This was largely due to emphasis on reporting accurate data in 2014, vaccine stock-outs and security setbacks in five departments of health. The programme shared strategic and operational priorities for the next six months keeping in view global context and recommendations of the 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, the focus will be on ensuring vaccine management, capacity-building of vaccinators and supervisors, use of the RED approach, enhanced supervision using technology such as geo-tracking of vaccinators and data quality assessment and using polio assets to improve routine immunization coverage. For further improving AFP surveillance, training of AFP focal points and seminars for physicians would be convened in addition to financial support to active surveillance and adjusting the database to collect information about high-risk populations. Communications and social mobilization plans would be developed for each phase of supplementary immunization activities with diversification of media channels, including social media. Bi-monthly meetings of the National Steering Committee will be convened to ensure coordination and follow-up of plans.

3.3 Jordan

Dr Mohammad Ratib Sorour, Ministry of Health

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, a human resources surge included three surveillance officers, one senior surveillance officer, 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 nongovernmental organizations offering health services to Syrian refugees. As a result the non-polio AFP rate exceeded 2 per 100 000 children under 15 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 programme managed to maintain more than 90% coverage for different routine immunization antigens among native population. Additional seven fixed EPI teams were added (total 10 teams) for refugees in camps resulting in reaching 90% routine immunization vaccination rates among them. Equipment provided for this purpose included one cold room and ten solar refrigerators. A plan to reach every community has been drafted utilizing the high-risk areas mapped during subnational immunization day campaigns and through involvement of community and religious leaders using the outreach – mobile teams. Tablets will be used for real-time reporting.

The programme maintained a high level of coordination among all partners through the regular weekly meetings of the polio control room committee involving the Ministry of Health, WHO, UNHCR, UNICEF, IOM, UNRWA, Royal Medical Services and other partner agencies. Status of response activities was reviewed in these meetings for future planning and taking necessary action when needed. Advocacy meetings with heads of health directorates, nongovernmental organizations and community-based organizations were held. A variety of social mobilization activities included community and religious leaders and health workers embarking on sensitization in suburban/rural areas; radio and television advertisements during NIDs; SMS messaging targeting Syrian refugees and provision of required communication materials, e.g. flyers, banners stickers. As a result more children were vaccinated than before, and number of missed children was reduced significantly.

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 high-risk area community leaders in the preparation and implementation of the polio campaign, to ensure every child is vaccinated. Community leaders 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 be replicated in the subsequent rounds.

3.4 Lebanon

Dr Randa Hadadeh, Ministry of Public Health

Lebanon team reported that 70% of the recommendations of Phase II were implemented, with implementation of the remaining recommendations ongoing. The presentation highlighted tremendous progress in the engagement of private sector. This resulted in a jump from 2% of children getting vaccine by the private sector in the April supplementary immunization rounds to 24% in October. As well, in April 2014 39% of children were missed due to physician's advice not to get OPV, and 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, this proportion 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 centres for displaced Syrians.

Surveillance activities were enhanced and intensified through the human resources 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). The proportion of adequate specimens was 77% in 2014. It is important to highlight that the proportion of Syrian AFP cases reported gradually increased from 21% in 2013 to 28% in 2014 and the non-polio AFP rate for Syrian refugees was 2.5. This demonstrated inclusion of this high-risk population in the surveillance network. Also, a community-based surveillance system was initiated by the surveillance unit and it detected two cases.

Looking forward, Lebanon will implement two additional mop-up campaigns in the first half of 2015, continue strengthening EPI in the informal settlements, and continue its efforts with the private sector for vaccinating all children and reporting of all AFP cases.

3.5 Egypt

Dr Mounir Abdullah Mohamed, Ministry of Health and Population

Recommendations of phase II mid-term review were mostly implemented except registration of bOPV and IPV vaccines and infrequency of ICC meetings. The October supplementary immunization activities 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 the target of 95% coverage and one district had a vaccination rate below 90%. The non-polio AFP rate per 100 000 children under 15 years was 2.9 and the proportion of AFP cases with adequate specimens was 93%, demonstrating that key surveillance indicators are meeting international standards at national level. North Sinai and Matrouh governorates did not reach the target non-polio AFP rate of 2; Fayoum governorate had adequate specimens for only 76% of AFP cases and there were five districts nationwide with a population under 15 of more than 50 000 that did not report AFP cases.

Reported routine immunization 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 revitalizing the role of community influencers. Communication support from UNICEF for the national plan was endorsed by the Ministry of Health and Population, and updated with each supplementary immunization activity in coordination with other UN agencies. However there was weak engagement of community influencers in some districts and weak innovation in communication skills.

Key recommendations included securing vaccine, operational cost for supplementary immunization activities and preparing special plans for high-risk areas and groups; maintaining high quality AFP indicators at all administrative levels especially for high-risk areas and groups; sustaining high coverage of routine immunization nationwide especially for high-risk areas and groups; and further strengthening information, education and communication capabilities through media and community health care workers especially in high-risk areas and among high-risk groups.

3.6 Palestine

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

Palestine implemented the recommendations developed in September 2014 review meeting except the recommendation related to supplementary immunization activities. The country conducted two subnational rounds immediately after the confirmation of the polio outbreak in the neighbouring Syria, but it did not conduct supplementary immunization activities in the second half of 2014. The decision not to conduct the recommended activities 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 2013, while the adequacy rate was 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 have been administered routinely to children under 5 years. The OPV3 immunization coverage rate is consistently more than 98%, except in 2014 when the coverage decreased to 86% due to the security situation and restricted movements of medical staff and people to access 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 to the Middle East polio outbreak, the country strengthened the coordination between West Bank and Gaza at high level despite the political division. Good coordination was also observed among health care providers, the Ministry of Health, UNRWA and the private sector.

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

3.7 Turkey

Dr Osman Topaç, Ministry of Health

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 the third dose of polio vaccine has been sustained at more than 90% since 2005. The routine immunization schedule contains 3 IPV doses. The first case of poliomyelitis in Syria was confirmed in the Turkey poliovirus laboratory on 17 October 2013. In response to that outbreak, Turkey completed a risk assessment and conducted 5 rounds of supplementary immunization activities in 17 districts bordering Syria. All rounds achieved more than 90% coverage rate. Additional mop-up rounds were conducted in Istanbul in June and November 2014 targeting both nationals and foreigners, mainly Syrian.

The AFP surveillance performance is satisfactory in Turkey. As per the European surveillance standards, the target AFP rate is 1 per 100 000 and adequacy rate is 80%. Turkey has achieved the standard level of both indicators during 2013 and 2014 nationally, however there are subnational gaps. During the period 1–6 December a rapid AFP surveillance assessment in Turkey was done by WHO 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 AFP surveillance.

All planned social mobilization activities in support of house-to-house supplementary immunization activities were implemented by the targeted provinces. Family physicians and other health personnel took part in these activities. The communications and official papers were organized by the Public Health Institution. 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 that there was no need to conduct supplementary immunization activities in the near future.

3.8 Islamic Republic of Iran

Dr Syed Mohsen Zahraei, Ministry of Health and Medical Education

Upon the notification of the outbreak in Iraq in late March 2014, the Ministry of Health and Medical Education immediately established a rapid response system comprising an enhanced AFP surveillance system for rapid detection of any importation and vaccinating all children aged below 15 years at Iranian–Iraqi borders with bOPV. Two rounds of door-to-door subnational immunization campaigns were conducted in 37 districts in 5 provinces adjacent to Iraq and in all high-risk areas. bOPV was used. The first round was done on 24–26 May 2014 and 248 271 children under 5 years were vaccinated. This was followed by a second round on 23–25 June in which 253 054 children under five were vaccinated. Coverage in both rounds was more than 99%. This was achieved through an extensive social mobilization strategy using a community network, despite unfamiliarity with house-to-house campaigns among workers as well as community.

The Ministry of Health and Medical Education coordinated closely with the 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 the Ministry of Health and Medical Education.

OPV3 coverage is more than 95% in all districts. The non-polio AFP rate was 4.2 per 100 000 children under 15 years of age and the proportion of AFP cases with adequate specimens was 96% in 2014. Both indicators met the international standards. IPV has not yet been introduced in the national schedule. The 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, the support of UNICEF and WHO was requested in areas of cross-border coordination between countries.

4. CONCLUSIONS

Country presentations, field and desk outbreak response assessment and group discussions showed that the response of primary outbreak intervention zone and risk reduction zone was fast and aggressive. All countries showed evidence of improved polio immunization status, surveillance quality and consistency. Consequently, a major outbreak of polio cases has been prevented. Moreover, 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 the possibility of undetected transmission since a few critical areas have subnational gaps in surveillance and supplementary and routine immunization, especially in high-risk populations (inaccessible areas, displaced populations and slums), and more importantly continued intense transmission in the primary source of the outbreak, Pakistan.

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

- There should be no complacency given the significant risks mentioned above.
- Geographical priorities were proposed as follows: a) highest risk zone, which comprises Iraq and Syria due to the last polio cases and the current complex security situation; b) high risk zone, which includes vulnerable populations in Lebanon, Jordan and Turkey; and c) risk reduction zone, with Egypt, Islamic Republic of Iran and Palestine and general populations of Lebanon, Jordan and Turkey. Due to the history of multiple importations, Egypt will be treated a little differently.
- Programmatic priorities were suggested to be as follows.
  - Short term for the next six months were: a) Large-scale supplementary immunization activities in the next six months will be conducted in Egypt, Iraq and Syria; 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.

- Long-term for the next 12 months were: a) development of concrete plans 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; b) continued tailoring of communication strategies to create or sustain demand for vaccination; c) AFP surveillance plans aimed at achieving certification standard quality for at least three years; d) monitoring synergizing PEI and EPI activities.
- General guidance were: a) the information system should be adjusted to demonstrate evidence of reaching vulnerable populations in surveillance, routine and supplementary immunization 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, internally displaced and refugee populations, slum residents) and minorities (ethnic, sectarian).

5. RECOMMENDATIONS

Supplementary immunization activities

- Upcoming supplementary immunization activities should give priority attention to 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 the Ministry of Health and local partners to increase coverage of children in areas with difficult or no direct access.
- Accessibility mapping should be conducted after each supplementary immunization round to better understand the trend of accessibility and to develop appropriate strategies to increase access to children in hard-to-reach areas.
- The country supplementary immunization plan for the first half of 2015 should include at least the following.
  - Three NIDs rounds in Syria
  - Two NIDs rounds and one subnational round in Iraq
  - Two subnational rounds in Egypt
  - Two subnational rounds Lebanon
  - Two subnational rounds in Turkey
  - One subnational round in Jordan

AFP surveillance

- Countries are encouraged to maintain and further enhance AFP surveillance indicators at certification standard 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 WHO, priority countries assess the feasibility of establishing environmental surveillance for polioviruses.

Routine immunization

- Countries to develop a 6-month plan of routine immunization strengthening focusing on:
  - Mapping of high-risk areas with low routine immunization performance and development of special strategies to close the gaps
  - Training of new vaccinators and refresher courses for the old vaccinators
  - 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 recommendations.
- 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 subnational 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 monitoring before and during campaigns to provide additional data to improve the subsequent rounds.
- Countries are encouraged to continue the information sharing process with various partners and neighbouring countries in order to timely update all stakeholders.
- Countries are encouraged to sustain the regular coordination mechanism that has been established in Phases I and II of the polio outbreak response.

Hard-to-reach populations and refugees

- Countries are encouraged to keep the focus on high-risk areas 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 supplementary immunization activity.
- Countries are encouraged to continue with access analysis and tracking and 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 supplementary and routine immunization.

Annex 1

PROGRAMME

Monday, 26 January 2015

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
10:30 – 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
13:20 – 13:50	Lebanon Outbreak response summary Experience with private sector Discussions	 Country team
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	Islamic Republic of Iran Outbreak response summary Discussions	Country team
15:10 – 15:50	Communication and social mobilization Discussions	Sahar/Shoubo/Marwa

Tuesday, 27 January 2015

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
10:00 – 12:30	Planning session – Group work	
13:30 – 15:30	Presentation of country plans	Country teams
15:30	Closing remarks	Chris Maher/ Moazzem Hossain

Annex 2

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