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Report on the

Ninth meeting of the Regional Technical Advisory Group on Poliomyelitis Eradication

Sharm El Sheikh, Egypt
22–23 June 2011

Regional Office for the Eastern Mediterranean

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1. INTRODUCTION

The Regional Technical Advisory Group (RTAG) on Poliomyelitis Eradication held its ninth meeting in Sharm El Sheikh, Egypt on 22–23 June 2011. The meeting was attended by members of the RTAG, national polio officers from Afghanistan, Pakistan, Sudan (northern and southern), representatives of polio partners (UNICEF, Centers for Disease Control and Prevention (CDC Atlanta), Rotary International, Bill and Melinda Gates Foundation and United States Agency for International Development) and WHO staff from headquarters and the Regional Office for the Eastern Mediterranean. Country office staff of WHO and UNICEF Afghanistan, Pakistan, Somalia and Sudan also attended. The programme of the meeting and list of participants are attached as Annexes 1 and 2, respectively.

The meeting was chaired by Dr Nick Ward, who welcomed the participants and acknowledged all the efforts being made by national authorities and polio partners in their efforts towards poliomyelitis eradication.

Dr Hussein A. Gezairy, WHO Regional Director for the Eastern Mediterranean, thanked the RTAG members for their continued guidance to the regional polio eradication programme. He also thanked representatives of the polio partner agencies for their continued support and commitment. Dr Gezairy praised the regular monitoring of the implementation of the Global Strategic Plan 2010–2012 carried out regularly by CDC Atlanta and the valuable advice extended by the Independent Monitoring Board to endemic and re-infected countries. He noted that the Region continued to shoulder a burden of problems which had serious implications, particularly the security situation in Pakistan and Afghanistan, almost one million children under 5 years of age inaccessible for vaccination in Somalia, political unrest in some countries of the Region and its possible impact on the regularity of routine immunization and polio eradication. Expressing serious concern about Pakistan, where there was an uncontrolled epidemic, Dr Gezairy acknowledged the various initiatives including the national emergency action plan but noted that inadequate commitment at the health delivery level was impeding the success of these initiatives. He concluded by noting that 18 countries had remained polio-free for many years by maintaining protective levels of immunity and maintaining certification standard surveillance and asking the RTAG to give its advice on the appropriateness of ongoing strategies and on any additional strategies or approaches to achieve the target.

2. PROGRESS TOWARDS POLIO ERADICATION

2.1 Overview of polio eradication in the Region

Dr Tahir Mir, WHO EMRO

Countries of the Region are classified into three groups with regard to polio: endemic (Pakistan and Afghanistan), re-infected during the past five years (Somalia, Sudan) and 18 countries with no polio cases reported for more than five years. Pakistan has reported more cases in 2011 compared to 2010 and is moving into the high transmission season. In addition to isolation of wild poliovirus from cases of acute flaccid paralysis (AFP), poliovirus is continuously isolated from sewage samples. The Government of Pakistan has launched the

national emergency action plan to interrupt poliovirus circulation by the end of 2011. However, the pace of implementation of the plan is slow and limited progress has been made in addressing the quality of subdistrict-level supplementary immunization activities in Pakistan. The key risks to interrupting poliovirus circulation in Pakistan are security challenges in Federally Administered Tribal Areas (FATA), inconsistent government ownership, oversight and performance-based accountability, weak management resulting in lack of uniform coverage at Union Council level and the absence of widespread micro-communication planning. Progress towards achieving the milestones set in the global strategic plan 2011–2012 is assessed to be at risk. Full implementation of the national emergency action plan in letter and spirit is the key to success.

Afghanistan is making steady and persistent progress. Poliovirus circulation remained localized in the southern part of the country and the programme is continuously introducing initiatives to improve the safe access to the children in security compromised areas of the southern region. The polio eradication programme in Afghanistan is assessed to be progressing towards achieving the milestones set in the global action plan but with issues of concern in the south. Surveillance in both the countries is on track.

In Somalia, inaccessibility of one million children for nearly two years is creating a considerable immunity gap with potentially serious consequences. As well, vaccine-derived polioviruses (VDPVs) are circulating. Significant efforts are being made to reach children with vaccination, including efforts with the political leadership in the central and southern regions to allow access and vaccination of internally displaced persons (IDPs) and those crossing borders.

In Sudan, several positive developments happened since the last epidemic including repeated supplementary immunization activities and improvement in surveillance and routine immunization. The isolation of a wild poliovirus (WPV) from a December 2010 sewage sample in Aswan, Egypt, linked genetically with a 2009 WPV type 1 from Khartoum and 2008 type 1 from southern Sudan indicated that WPVs are circulating undetected in Sudan. In response, Egypt conducted subnational immunization days (SNID) in Aswan governorate, and bordering states of Sudan are satisfactory. It is planned to strengthen surveillance activities, including cross-border planning and implementation, and conduct additional rounds of both NIDs and SNIDs in Sudan, particularly in consideration of the deteriorating polio situation in Chad and Democratic Republic of Congo. VDPVs are circulating since 2008. Contingency measures have been introduced, including vaccination of IDPs, transit points vaccination and strengthening immunity around the susceptible populations.

The remaining polio-free countries maintained their polio-free status through continued efforts to maintain high levels of routine immunization, additional supplementary immunization activities for high risk populations and maintaining a very sensitive surveillance system. The political turmoil in Libyan Arab Jamahiriya, Syrian Arab Republic and Yemen, resulting in the disruption of routine immunization, is of concern. In Yemen, there is immediate need to conduct a vaccination round at least in the high risk areas.

Reviews of AFP surveillance were conducted in Afghanistan, Djibouti, Egypt, Lebanon, Morocco, Somalia, southern Sudan and Tunisia in 2010. Other risk mitigation measures included provision of technical support to Djibouti, Somalia and Yemen in the preparation of the importation plan and subnational risk analysis. The Regional Office is conducting risk assessment of WPV outbreak following importation using national and subnational data on AFP surveillance, population immunity and additional factors (e.g. health services).

The laboratory network continued its excellent performance and all its laboratories are accredited. Containment and certification processes are ongoing in a satisfactory manner. Coordination between neighbouring countries in other WHO regions is a continuous process, with regular exchange of information, synchronized campaigns and technical support. There is lot of exchange of information on the lessons learned and good practices among countries of the African, Eastern Mediterranean and South-East Asia regions.

2.2 Global overview

Dr Bruce Aylward, WHO/HQ

Global polio eradication efforts in 2010 led to significant progress in several areas. Compared to 2009, reported cases decreased by 95% in Nigeria, and by 94% in India; the number of type 3 wild poliovirus cases reported globally declined by 92%, and all outbreaks in 2009 and 2010 following wild poliovirus importation into previously polio-free countries were interrupted. Taken together, these results suggest that full application of the tools and tactics in the global strategic plan 2010–2012 can lead to global interruption of wild poliovirus transmission.

Progress in 2010 in India and Nigeria followed renewed strengthening of political commitment at all levels of government, with mobilization of traditional and religious leaders to oversee and support activities. The low levels of poliovirus transmission in these countries, and of WPV3 globally also illustrate the impact of widespread use of bivalent oral poliovaccine and of new approaches in vaccine delivery and supplementary immunization best practices, such as the use of short-interval additional dose campaigns, special strategies for mobile populations and standardized independent supplementary immunization activities monitoring.

The decline of polio in India and Nigeria has potentially far-reaching implications for global polio eradication since most wild poliovirus importations into polio-free areas in recent years have been related to viruses of Nigerian or Indian origin. However, substantial risks remain in both countries. In India, wild poliovirus was last detected in early 2011 in West Bengal state; the country remains in an emergency mop-up mode, requiring highly sensitive surveillance, and immediate large-scale response immunization should wild poliovirus be detected again. The situation in Nigeria is more worrying, with foci of wild poliovirus transmission continuing in the first half of 2011 in the northwest (types 1 and 3) and northeast (type 1), and with evidence of gaps in AFP surveillance quality in parts of northern Nigeria.

Despite the prevailing insecurity, the number of cases in Afghanistan decreased by 34% in 2010 compared to 2009, and transmission, up to mid-2011 (only type 1) is still limited to the known endemic areas of south-western Afghanistan. Of the four remaining endemic countries, Pakistan is the only country where the polio situation worsened from 2009 to 2010, and the number of cases in the first half of 2011 more than doubled compared to the same period in 2010. While re-established poliovirus transmission has probably stopped in Sudan, re-established wild poliovirus in Angola, Chad and Democratic Republic of the Congo continued throughout 2010 and into 2011.

At its March 2011 meeting, the Independent Monitoring Board (IMB) noted that Pakistan represented the greatest overall risk for the global polio eradication initiative. The IMB also concluded that continuing re-established WPV transmission in Chad, compounded by a new outbreak, was an international public health emergency, and that the existing corrective action plan for Chad was inadequate. The IMB also expressed concern over the serious polio eradication funding gap.

Although progress toward polio eradication was substantial during 2010, the IMB judged the milestone of halting all wild poliovirus transmission globally by the end of 2012 to be “at risk” based on current trends. Keeping global polio eradication efforts on track in stopping WPV transmission by the end of 2012 will require governments to react promptly with increased resources and political commitment.

3. SITUATION IN POLIO ENDEMIC COUNTRIES, CHALLENGES AND FUTURE PLANS

3.1 Briefing on Pakistan/Afghanistan TAG Meeting

Dr M.H. Wahdan, Acting Chariman of Pakistan/Afghanistan TAG

The Technical Advisory Group on Poliomyelitis Eradication for Afghanistan and Pakistan held its meeting in Islamabad on 24–25 March 2011. The TAG was alarmed over the intense transmission of WPVs in Pakistan which has been going on for nearly a year at a level not seen for 10 years. At the same time, the situation in Afghanistan showed noted evidence of progress over the same period, although the main reason behind continued viral circulation, namely problems with accessibility in security-compromised areas, has not been controlled. The TAG made a number of recommendations, some general and others for specific provinces.

Pakistan

- The TAG endorsed the planned 3 NIDs and 3 SNIDs and the vaccine to be used from May to the end of 2011, and for 2012 it endorsed 4 NIDs and 4 SNIDs.
- It emphasized the need to implement the national emergency action plan for polio eradication and called for monitoring its implementation.
- It called for improving the quality of work in the high risk districts and populations as appropriate and ensuring the best leadership in these districts.

For FATA and the Frontier Region, which have the majority of cases, the TAG recommended utmost flexibility in reaching children, including use of short-interval additional doses (SIAD), establishing immunization sites at transit points to and from inaccessible areas and reaching IDPs whenever and wherever they are settled.

For Khyber Pakhtunkhwa (KP), the TAG recommended reviewing district specific plans before each round, coordinating with FATA to ensure vaccination of any population moving in and out of FATA, giving areas adjacent to FATA special attention in supplementary immunization activities and adopting flexible immunization strategies such as these of FATA.

For Sindh, the TAG recommendations were to review and revise district-specific plans for all high risk districts and give close attention to high risk towns in Karachi, particularly those with population links to FATA, KP and Baluchistan.

The main recommendations for Baluchistan were to obtain commitment and engagement of paramedics and to review plans for the 5 high risk districts, especially Killa Abdullah, Pishin and Quetta.

For Punjab, the TAG recommended specific plans to identify and address migrant and mobile populations and ensure their inclusion in supplementary immunization activities.

Other recommendations included:

- Focused engagement with media to communicate to the public the objectives of the national emergency action plan and promote ownership of provincial leaders and improve data collection and analysis, particularly in the case investigation forms to assess reasons of missed children.
- Accessing migrant, mobile and minority underserved population,
- Improve quality of supplementary immunization activities monitoring data
- Ensuring the highest quality of surveillance and achieving high routine immunization levels.

Afghanistan

The TAG emphasized the critical need to build on the progress achieved and to address ongoing transmission in the 13 high risk districts. It also emphasized the need to continue efforts to ensure access populations in security-compromised areas through continued engagement of ICRC and all forces involved in the conflict. It also stressed the need to seek local solutions to achieve access for immunization and surveillance, together with maintaining flexibility in supplementary immunization activities in the south.

Other recommendations included identification and mapping of migrant, mobile and minority populations and including them in the microplans, strengthening routine immunization, subnational surveillance assessment in areas of potential concern and developing specific communication strategies to support SIADs and mop-ups.

3.2 Pakistan

3.2.1 Epidemiological situation
Dr Elias Durry, WHO/EMRO

The poliovirus circulation remains intense in the known transmission zones; namely FATA and associated areas of KP, northwestern Balochistan, (Quetta, Pishin and Killa Abdullah) and Karachi. So far in 2011, Pakistan reported more than double the number of polio cases reported during the same period last year (51 and 24 respectively). The country is entering the high transmission season with the highest number of polio cases reported in the low transmission season during the past decade. However, there is no type-3 poliovirus isolate in AFP cases or environmental samples since November 2010. Moreover, the biodiversity of the type-1 poliovirus has decreased; only two genetic clusters are circulating in the country compared to 7 in 2010.

The majority of the polio cases in 2011 are among the identified high risk groups; 84% of cases are below 2 years of age and 74% are from the underserved Pashtu-speaking population. In fact all the cases from Karachi in 2011 are among this population group. It is important to note that the majority of the cases (66%) from FATA are from areas which have been inaccessible to vaccination teams due to insecurity for a significant time. 24% of the cases belong to the families who refused polio vaccination, mostly from Balochistan and FATA.

The three persistent transmission zones have their own peculiar challenges.

- In Karachi: There is strong evidence of continued suboptimal performance during the supplementary immunization activities in several towns which can be attributed to weak micro-planning, misuse of resources and inappropriate vaccination teams.
- In Balochistan, continued suboptimal quality of the supplementary immunization activities can be attributed to lack of cooperation from paramedics, lack of district oversight for the union council level implementation and poor preparation, including micro-planning.
- In FATA, the key challenge is inaccessibility due to insecurity: every fourth child in FATA is inaccessible. Khyber Agency is particularly significant in this regard, where around 50% of the target population has been inaccessible for nearly 2 years. As well, in the accessible areas of FATA, polio immunization campaigns are not of optimal quality, partly attributed to the underperformance and partly to a continued climate of fear. It is important to mention that despite several contacts, coordination with the military to improve access in FATA has yet to bear fruit.

There is an urgent need to address the issues in the three transmission zones in line with the national emergency action plan to stop wild poliovirus circulation before the end of 2011. Partner organizations are restructuring their staff set-up to have one polio eradication officer for each high risk district/town/tribal agency (WHO) and union council level operations and communications staff (WHO and UNICEF) to address the local issues. In FATA, efforts are

being made to ensure that campaigns are of the highest quality in the accessible areas and to respond to any window of opportunity in the inaccessible areas with successive vaccination campaigns as per the short interval additional dose (SIAD) strategy. It has been proven in Swat (KP) in 2009 that the immunity can be rapidly built with high quality successive vaccination rounds once the access is gained into an inaccessible area. In Balochistan, efforts are being made to improve engagement of the provincial administrative and health leadership to enhance the accountability from district down to Union Council level and to improve the preparations for campaigns and monitoring of the implementation phase. In Karachi, it is planned to refine the union council level micro-planning and incorporate in it more refined strategies for high risk population groups.

The quality of campaigns also needs to be ensured in the repeatedly infected transmission zone that is central Pakistan (including southern Punjab, northern Sindh and the adjacent districts of Balochistan) and areas with current isolated outbreaks including central/southern Sindh, Noshki and Khuzdar in Balochistan. In order to strengthen all the components of campaigns, there is also need to strengthen routine EPI and lay special focus on high risk migrant populations during the campaigns.

The recommendations made by the RTAG in its eighth meeting have been addressed. WHO has recruited 13 new Area coordinators and 30 new polio eradication officers and there is plan to recruit about 200 union council level staff for the high risk union councils. UNICEF will recruit 100 more district level and 400 union council level staffs for addressing the communication issues. It is important to mention that the key surveillance indicators remain above the international standards at the national and provincial level and in the majority of districts. Special steps for improving communications include development of a strategy for the underserved; focusing on the pockets of refusals; ramping up mass media campaign and enhancing advocacy with political and influential figures. The tools and methodology for independent monitoring have been revised lately. Moreover, independent monitoring data are being regularly validated by WHO staff. Lot quality assurance sampling (LQAS) has been initiated in the high risk districts to complement the independent monitoring.

3.2.2 National emergency action plan
Dr Altaf Bosan, Ministry of Health Pakistan

Since the initiation of the polio eradication programme in 1994, Pakistan made tremendous progress in bringing down the number of polio cases from an annual estimated number of over 20 000 to only 28 in 2005. Since then, the progress of the programme has halted; in fact the number of cases has been increasing since then. Reaching 144 cases in 2010, this situation has become an emergency, especially in light of the recent progress made by the other endemic countries. Hence, the Government of Pakistan launched a national emergency action plan for polio eradication in January 2011 in consultation with the provincial governments and the partner organizations.

The national emergency action plan aimed to control the ongoing outbreaks by the mid 2010 and stop poliovirus transmission by the end of 2011. The key strategies mentioned in

the plan include: a) achieving 95% or more coverage in supplementary immunization activities in all the high risk areas; b) special focus on the migratory populations; c) ensuring consistent access to children in security-compromised FATA; and d) achieving and sustaining government oversight, ownership and accountability at all levels.

Since the launch of the national emergency action plan, the top level political and administrative leadership has shown immense commitment at the national and provincial levels. A national task force has been formed under the chairmanship of the Prime Minister and provincial task forces were established in all provinces, headed by the Chief Ministers. A polio monitoring and coordination cell has been established in the Prime Minister Secretariat to monitor the overall situation, and such cells have also been formed in the respective Chief Ministers' secretariats in each province. A pprovincial steering committee or task force was established by the Chief Secretary. So far, three provincial steering committee meetings were held in the province chaired by the Chief Secretary. At the subprovincial level, oversight and accountability has improved by the district coordination officers. Moreover, Civil Military Coordination Committees have been formed in all the tribal agencies of FATA to jointly address specific issues in each tribal agency. Ms Aseefa Bhutto Zardari, the daughter of the president and the former Prime Minister, has been named as Polio Ambassador.

Recently, the national task force in its first meeting critically reviewed the progress on the national emergency action plan and made critical decisions to enhance the oversight and accountability and expedite process towards the goal. Indicators to monitor the implementation of the National Emergency Action Plan show that there is improvement in the preparatory phase in Punjab and Khyber Pakhtunkhwa province while there is wide room for improvement in FATA, Sindh and Balochistan. Outcome indicators point out that there are gaps at the subdistrict and union council level in key areas, allowing wild poliovirus circulation to continue. A recent polio case from Gilgit Baltistan after almost 12 years reinforces the fact that no area in the country is risk-free until the disease is eradicated from the country.

The remaining challenges are at union council level. They include improper selection of teams with respect to inclusion of females, in proper identification of teams and incomplete involvement of Lady Health Workers/Lady Health Supervisors in supplementary immunization activities.

The focus for the coming months will be to translate the top level commitment into action at the districts and particularly the union council level. There is urgent need to gain access in the inaccessible areas of FATA and improve performance in the accessible parts.

3.2.3 Implementation of provincial emergency action plans

Punjab
Mr M. J. Khan, Pakistan

The Punjab provincial emergency action plan for polio eradication is built on a framework based on financial commitment for vaccine and cold chain funding and sustained oversight and accountability.

This is being ensured through monthly meetings with Executive District Officers (H) and DO(H) chaired by Secretary Health, regular Provincial Steering Committee meetings, and close oversight from the DCO. In addition there is a Provincial Polio Monitoring Cell established in the office of CM and reporting directly to CM and a Provincial Polio Control Room established in the EPI cell.

Data quality is ensured through polio control rooms established in every district which collect and forward campaign reports to Provincial level. WHO/UNICEF staff verify independent monitoring data in the field, and data are also validated by District Health Medical Team and by the provincial office. To counter check the post campaign evaluation, LQAS evaluation is carried out in selected districts. Regular periodic training for District Surveillance Coordinators is conducted to improve data quality. Internally focused field surveillance reviews are conducted periodically and provincial managers conduct regular desk review of surveillance and campaign data.

Strong emphasis is placed on improving the status of the 5 high risk districts of Punjab. A district specific plan was formulated for these 5 districts. There is monthly in-district review of district support persons with district health management team. The 5 high risk districts are included in all NIDs and SNIDs, and a union council polio eradication committee meeting conducted before all campaigns. Overall, there is more intense monitoring for supplementary immunization activities and routine EPI in the 5 high risk districts.

Nomadic mobile populations are given priority for improved supplementary immunization activities and routine EPI coverage. All nomad settlements are documented in micro plans/master tour plans. There are standing guidelines to have twice daily visits to nomad settlements during the supplementary immunization activities. Post campaign evaluation of the coverage of Nomadic settlements is carried for all the supplementary immunization activities. Special orientation of health care providers in nomadic populations is being conducted to ensure they report AFP cases. In addition, all districts vaccinated children under 5 years residing in nomadic/mobile settlements during 13–15 June in a special immunization activity conducted throughout Punjab.

Remaining challenges include intermittent isolation of wild poliovirus from environmental samples collected from urban centres of Punjab, uneven quality of routine EPI coverage in some districts, extensive population movement across the country and the increased risk of virus transmission in the forthcoming monsoon season.

Currently Punjab is on track: no polio case has been detected in 2011 to date and only 7 polio cases were detected in 2010. This represents a decrease from 17 cases in 2009 and 31 cases in 2008. Punjab aims to continue to strive forward on the path to polio eradication by continuing the strong involvement of DCO in all aspects of NID implementation and by ensuring strict adherence to timeline of activities in preparation for NIDs, comprehensive involvement of government servants as vaccination team members and accountability at all levels. The long-term goals of the Punjab government are to maintain high quality/coverage immunization campaigns, sustain the sensitivity of the surveillance system to detect any low intensity WPV circulation, further improve routine immunization coverage and promptly address any constraint that may face the programme.

Sindh

Dr Altaf Bosan, Ministry of Health Pakistan

Sindh province has reported 12 confirmed polio cases WPV1 in 9 districts/towns as of 18/06/2011 – including 4 cases in Karachi – compared to only one case WPV3 in the same period of 2010. All cases except one are from outside persistent transmission districts/towns. All 4 cases of Karachi are from a high risk community (Pashtu). Moreover, WPV1 has been frequently isolated from the sewage samples of Gadap, Baldia and Gulshan-e-Iqbal towns of Karachi.

The goal of the Sindh provincial emergency action plan (PEAP) 2011 is stopping the polio outbreak by mid-2011 and polio transmission by the end of 2011. Strategic components of the PEAP are oversight, ownership and accountability; involvement of provincial and district/town/union council level, ensuring accessibility; high quality supplementary immunization activities especially in high risk districts and populations; specific district/town/high risk union councils plans; community participation; and improvement of AFP surveillance and routine immunization.

Monitoring of the PEAP indicators April–June 2011 in 12 high risk districts/towns shows significant improvement in union councils with assigned focal person from district coordination officer (DCO)/town municipal officer (100%) and % of union councils with medical officer (MO) nominated (97%). 75% of union councils convened a polio eradication committee meeting compared to 19% in the April round.

Among outcome indicators of supplementary immunization activities in Sindh, namely overall provincial coverage verified by finger marking improved to reach 96% but in Karachi it is still 93%. Sweeping of all union councils with initial post campaign monitoring coverage verified by finger marking less than 90% in April and less than 95% in May has led to a reduction in the proportion of union councils with less than 95% coverage from 35% in April to only 5% in May rounds.

Innovative interventions included sweeping of all union councils with coverage rates under 95% instead of 90%, involving schools, scouts and community leaders for confirmation of teams visits, involving union councils secretaries and Medical Officers for refusals, with

holding second 50% payment of re-assessed union councils under 90% and deduction of non-utilized funds.

Interventions for high risk populations (Pashtu) including identification and mapping of UCs with a high concentration of Pashtu community, involvement of local leaders in union council polio eradication committee, more Pashtu female teams, recruitment of WHO/UNICEF Pashtu speaking staff, roaming teams in busy streets, and focusing on supervision by UN staff.

The remaining challenges in Sindh include strengthening accountability at union council level, sustaining current oversight, vaccination in interior Sindh, increasing support from line departments, recruitment of adequate local adult Pashtu female teams, monitoring the quality of training and supervision, and addressing the extensive mobility of high risk populations between districts and provinces.

Federally Administered Tribal Areas (FATA)
Mr A. Majeed, Pakistan

FATA continues to report polio cases, with a significant increase in 2010 (63 cases). So far in 2011, 18 cases were reported. It is important to mention that 72% (13) of polio cases in FATA reported in 2011 are from the areas inaccessible to vaccination teams for a significant period. Khyber agency has been reporting the highest number of cases by any district/tribal agency. It reported 33 cases in 2010 and 8 so far in 2011.

Inaccessibility remains the key challenge in FATA; currently every fourth child in FATA is inaccessible for vaccination. It is of concern that the inaccessibility due to insecurity has remained almost the same over the past year; that is upwards of 200 000 children during every campaign. There is only 3% improvement in accessibility since the launch of the national emergency action plan. Moreover, there is suboptimal performance in the accessible areas at the agency and sub-agency level which can be attributed to an environment of fear, lack of accountability and managerial issues. The accessible areas have contributed 5 polio cases (28%) this year.

With respect to the national emergency action plan, the Area/union council polio eradication committees have not yet been formed except in accessible areas of Khyber agency and Bajour agency; however, the microplans have been developed in all the accessible areas. The civil military coordination committees meetings are being regularly held in all agencies. The polio eradication task force had 3 meetings since its formation to assess the situation and devise strategies accordingly. The programme is following the strategy of making efforts to improve vaccination activities in the accessible areas and avail any opportunity in the inaccessible areas by conducting successive vaccination campaigns as per the short interval additional dose (SIAD) strategy.

A strict accountability mechanism has been put in place for sub-optimal performers in the accessible areas. Special transit teams have been put in place for extended periods for

covering the population moving to and from the inaccessible areas. These teams vaccinated about 0.1 million crossing children. Risk categorization has been performed for FATA and special focus is placed on the highest risk areas in the accessible parts during the campaigns. All stakeholders are taken onboard, including the local organizations, local political and administrative influencers and the tribal leaders to improve the quality of vaccination campaigns in the accessible areas. Local programme staff are trying to develop good rapport with the anti-government elements as well where possible, to attain their cooperation for improving the campaign quality.

SIAD activities were conducted in parts of Bajour and Mohmand agencies and FR Kohat as soon as access was gained; covering about 0.2 million children. Moreover, several meetings were held with the military leadership at different levels with variable results.

Agency health communication support officers (AHCSOs) and social mobilizers have been deployed to develop locally appropriate communication strategies for achieving good vaccination rates during the vaccination campaigns. Local organizations (like the National Research Development Foundation) and religious leaders who enjoy good rapport with the local community are taken onboard. Local FM channels have also been used successfully.

There is an urgent need to improve access to the children in FATA to achieve the polio eradication goal. The role of the military and the CMCC is important in this regard. It is important to achieve highest possible vaccination coverage in accessible areas and make sue of any window of opportunity until access in gained in all areas.

Khyber Pakhtunkhwa
Mr M. Azam, Pakistan

The Governor, Chief Minister and Health Minister have personally spearheaded the provincial drive to eradicate polio. This is reflected by the fact that they appeared in public launching the supplementary immunization activities, convening meetings of task force (2) and five meetings to review performance in supplementary immunization activities. There has been progressive increase in engagement of district level leadership as percent of districts having District Polio Eradication Committee at least 15 days before the campaign start has increased from 0% in January to 4% in March, 8% in April, 44% in May and 60% in June. In the same period, there has been decline in the percentage of union councils with finger-marking coverage below 95% (41%, 55%, 39% 29% respectively). Seven polio cases have been reported in 2011 so far compared with six cases reported in the same period in 2010. Major actions to overcome issues included issuance of directive from the Chief Secretary to improve the reporting mechanism, increasing the proportion of vaccination teams with government accountable workers, conducting disciplinary proceedings against persistent under-performers (9 Executive District Officers Health and 57 other support staff), delaying campaigns if indicators reflect inadequate preparations (June – 7 districts) and using the SIAD strategy in high risk areas and as part of rapid case response. Major strategic focus in the coming months will be on union councils with priority to effective functioning of union councils. Their first tasks will be comprehensive review of micro-plans, addressing refusals

and working with partners to enhancing per diem of teams. The meeting was assured of the provincial government's commitment to eradicate polio in collaboration with partners.

Baluchistan
Ms S. Magsi, Pakistan

Balochistan has reported 14 polio cases so far in 2011, which is double the number reported during the same period in 2010. Like in the past 5 years, the majority of cases (71%; 10 out of 14) are reported from the three districts in north-western Balochistan, namely Killa Abdullah, Pishin and Quetta (the Quetta block). Moreover, there has been persistent isolation of wild poliovirus (WPV) type-1 in the environmental samples collected from Quetta while WPV-1 was isolated from a healthy nomadic child in Nasirabad district. It is important to mention that Noshki district has reported 3 polio cases this year which indicates significant immunity gap. In the past Balochistan has demonstrated the ability to interrupt poliovirus circulation when the province remained without polio cases for 14 consecutive months (November 2003–December 2004).

The high risk areas and populations are well identified in Balochistan and the circulation by and large remains restricted to these areas and populations. The campaign monitoring data indicate that the performance in the Quetta block (Killa Abdullah, Pishin, Quetta) remains sub-optimal at the district and sub-district level. The other 2 high risk districts, Jaffarabad and Nasirabad, did show some improvement. In-depth analysis of the sub-districts level data highlights that the polio cases are persistently being reported over the years from certain union councils within the 5 high risk districts with persistent low coverage during the campaigns.

After the launch of the national emergency action plan, there is notable improvement in the oversight by the provincial and district level leadership. The province prepared a provincial emergency action plan in line with the national plan. Enhanced commitment is evidenced by the revival of the provincial steering committee headed by the chief secretary and formation of the provincial polio monitoring cell under the supervision of the Chief Minister. The provincial steering committee is meeting regularly (3 meetings this year so far) to review the performance during the campaigns and planning for the upcoming campaigns. In addition, the Chief Secretary conducted special meetings with the Deputy Commissioners of the high risk districts for laying special focus over the areas with most persistent WPV circulation. The Deputy Commissioners are regularly participating in the pre-campaign planning meetings and inaugurations at the district level.

Despite the high level of commitment exhibited at the provincial and district level, a difference is yet to be made at the union council level. Paramedical staff in the Quetta Block, particularly Killa Abdullah and Pishin are still not supporting the campaign properly; resulting in the persistence of inappropriate vaccination teams (male teams and child teams) and improper utilization of resources including the human resources (Lady Health Workers). These challenges have to be addressed to achieve high vaccination coverage at the union council level which can make a real difference.

3.2.4 Conclusions and recommendations of the Regional TAG

Conclusions

- Despite evidence of some progress, including the disappearance of wild poliovirus type 3 (WPV3) and the narrowing of WPV1 genetic diversity, the spread of disease in Pakistan clearly indicates that the current level of effort is insufficient to stop all WPV transmission.
- The current outbreak in the low season:
  - will likely expand into a large epidemic in the coming high season
  - poses a major threat of spread to other countries
  - undermines the otherwise good progress achieved by the Global Polio Eradication Initiative (GPEI) over the past year.
- Pakistan has attained high-level commitment and has adopted a national emergency action plan which when fully implemented will stop all poliovirus transmission.
- The TAG notes with concern that the national emergency action plan has not been implemented with sufficient urgency as evidenced by the 4-month delay in the functionalization of union council level structure and in convening the task force.
- Development of plans and recruitment of staff for all high-risk union councils has not been implemented with the necessary urgency.
- The key factors for success will be to ensure quality work at the union council level through:
  - recruitment of appropriate staff
  - training
  - strict supervision and accountability.
- Continuous and increased engagement of senior national and provincial leaders is essential to ensure the success of polio eradication.
- The involvement of senior provincial leadership is necessary to guarantee quality services at the union council level.

Recommendations

The RTAG endorsed the recommendations of the March 2011 Pakistan/Afghanistan TAG and made the following additional recommendations.

- The national emergency action plan is sound and should be fully implemented as a matter of urgency.
- Provincial health departments should ensure that all Executive District Officers posts be filled by well-qualified, dedicated, and motivated staff as early as possible.
- Well-defined activities and responsibilities should be established at the district and union council levels with accountability for performance.
- The policy defined in the national emergency action plan for posting responsible Medical Officers should be fully implemented with highest priority for assignment to the highest-risk union council.

- In view of the emergency polio situation and the need to guarantee quality work at the union council level, provincial and district governments must ensure integration of the People's Program Health Initiative (PPHI), Education, and Revenue Departments.
- Increased efforts for community engagement are needed in all high-risk areas.
- The TAG endorses the strategy of recruiting additional well-qualified WHO and UNICEF staff as early as possible.
- An infrastructure should be developed to guarantee that staff are well-trained, well-supervised, and deployed to the highest-risk areas.
- While the above recommendations are common to all provinces, certain areas have specific challenges to:
  - improve the quality of work among high-risk populations in Karachi
  - increase efforts to reach inaccessible population in FATA
  - resolve the disagreement with paramedics in Balochistan.

3.3 Afghanistan

3.3.1 Epidemiological situation
Dr A. Quddus, WHO Afghanistan

Afghanistan reported 8 confirmed polio cases during 2011 (as on June 22). Three of these cases were reported from Kandahar, 4 were reported from Helmand and one case was from the adjacent Farah province. All cases are of P1 type and no P3 is reported since April 2010. Median age of confirmed cases is 19 months ranging between 12–38 months. None of the confirmed case received any routine OPV dose. Genetic sequencing of cases indicates both indigenous circulation of virus in the southern region of Afghanistan and close match with the circulation across the border in Pakistan. In addition, cVDPV2 was isolated from the specimens of six AFP cases over the period from June 2010 to January 2011. All these cases were reported from the conflict-affected area of Nad Ali district of Helmand province. Six rounds of tOPV were administered in this area since June 2010 and no cVDPV2 was reported since January 2011.

Poliovirus circulation remains localized, largely in the high risk districts of Helmand and Kandahar provinces of the southern region. These districts have persistent evidence of virus transmission, accounting for 80%–90% of polio cases reported since 2008. The national polio eradication programme has been able to prevent the spillover and has maintained 85% of country without evidence to poliovirus circulation.

The programme continued its efforts to reduce the number of inaccessible children and staff safety, particularly in the southern region through close coordination with ICRC, local level negotiations and coordination with security forces. In those conflict areas, where windows of opportunity become available, the programme has introduced SIAD. This strategy was adapted in the province of Zabul where more than 100 000 children were allowed to access after a period of inaccessibility of 4 months. In order to increase the awareness and demand in the high risk districts, the communication network is expanded, with more focus on community level meetings, radio insertion and regular post campaign

communication reviews. Campaign data show an increase in the level of awareness of campaigns in the May round compared to March 2011.

In non transmission areas of the country, efforts are being made to maintain the high campaign quality and strengthen routine EPI, observing child immunization week in districts of low coverage and conducting risk prediction analysis to identify districts that need additional appropriate measures to minimize the risk.

Post campaign assessment data obtained through household survey and screening of eligible children at various public places as well as vaccination status of AFP cases show that the campaign quality is maintained in all the regions of the country except in the southern region, where despite continued efforts the campaign quality remains well below the level required to stop the transmission.

3.3.2 Issues and initiatives in the south
Dr A. Quddus, WHO/Afghanistan

The southern region of Afghanistan has an estimated target population of 1.3 million children below age of 5 years. There are 13 districts in Helmand, Kandahar and Uruzgan provinces labelled as high risk districts as they constitute the area where transmission of poliovirus continues. There are four major challenges in these high risk districts that are directly or indirectly linked with the prevailing security situation: inaccessible children, inadequate campaign quality, population movement and lack of community demand for vaccination.

One of the important challenges in the conflict affected areas is accessing all children to vaccinate them. The programme continued close coordination with ICRC to facilitate increasing the accessibility and introducing service providers who are acceptable to different parties of conflict. At the same time close coordination is maintained with security forces for the safety of vaccinators in the field. Local level discrete negotiations are being carried out through engaging “access negotiators” as the situation varies from district to district. The number of inaccessible children has decreased from over 200 000 children in March, but almost 100 000 children remain still inaccessible. Analysis of inaccessible children by province shows a gradual decline in Helmand province and no inaccessible areas in Zabul, but Kandahar and Uruzgan show an increase in inaccessible children.

Steps taken to improve the campaign quality included regularly updating the district specific plans, introducing high risk cluster approach, regular post campaign communication reviews, adapting alternative mechanism to monitor campaign activities in conflict affected districts, involving veterinary field units and also training supplementary immunization activities staff introduced by anti-government elements (AGE).

Analysis of post campaign assessment data shows that, despite these efforts, most of the districts in these provinces have persistently low campaign quality with coverage below 90% in most of the rounds. Also the presence of “zero dose” AFP cases in these provinces

indicates the presence of pockets of children who are regularly not accessed and consequently did not receive any OPV dose. Also awareness of campaigns among these communities ranges between 45% in Uruzgan and 65% in Helmand.

The programme also established permanent vaccination posts at various entry and exit points of conflict affected districts in Helmand and Kandahar. Usually, the internally displaced population (IDPs) due to conflict move through these vaccination checkpoints. Almost 18 500 children are vaccinated by Helmand and 9000 by Kandahar every month by these vaccination teams.

Maintaining a sensitive AFP surveillance system in these difficult conflict affected districts is another programme challenge. In addition to a community-based network, training of selected community personnel on case reporting, payment of transportation costs to parents to bring the AFP case to nearby health facility and specimen collection from contacts of all AFP cases in Farah province are the important steps taken. Distribution of AFP cases, confirmed cases and analysis of surveillance indicators show that the system is sensitive in most of the districts and is constantly providing evidence of poliovirus circulation in these conflict affected areas.

3.3.3Cross-border coordination between Pakistan and Afghanistan

Dr A. Dost, Afghanistan

Afghanistan and Pakistan are the neighbouring countries which share very long and porous borders with high population movement. In addition, over 3 million Afghan refugees still reside in Pakistan and the process of repatriation is ongoing, leading to returnees from KP and Balochistan province of Pakistan to various parts of Afghanistan. Based on the epidemiological characteristics of confirmed polio cases and genetic analysis of circulating viruses, both countries are considered as one epidemiological block with two common corridors of transmission; one between southern Afghanistan and Balochistan–North Sindh and the second between KP/FATA and the eastern region of Afghanistan.

Both countries maintain close coordination on various components of the polio eradication initiative. Permanent vaccination posts are established at 13 border points to vaccinate every eligible child crossing the border. Almost 1 million children are vaccinated annually on either side of the border by border vaccination teams. Regular cross-border meetings are held at country and provincial level. The last cross-border meeting was held in March 2011 in Islamabad. The bordering provinces exchange a line list of AFP cases on a weekly basis and also follow a mechanism of immediate notification of AFP cases. From January 2010 to the present, a total of 17 Afghan AFP cases were reported by Pakistan while Afghanistan notified 3 Pakistani AFP cases.

The dates of planned supplementary immunization activities are always shared and are synchronized. Pre-campaign meetings at local level are held before each round for joint planning, updating the map to ensure all target population living in the bordering villages are included in the plan.

Both country programmes aim to continue the current level of coordination and regular updating plans and also to develop common communication strategies for bordering districts.

3.3.4Conclusions and recommendations of the RTAG

The Regional TAG having reviewed the situation in Afghanistan concluded that the polio eradication programme has three clear strategic priorities.

1. Raising the quality and completion of immunization performance in the provinces of the southern region among the accessible population. Present indications strongly suggest that a significant percentage of children ling in areas with no security or access problems are still not being reached.
2. Based on previous experience and new initiatives, extending supplementary immunization activities to the populations living in difficult access areas.
3. Ensuring that the quality of immunization and of AFP surveillance in all regions of the country are maintained and guaranteed at a level able to detect any case of AFP likely to be caused by WPV and to prevent its further spread.

It is encouraging that no WPV3 has been detected through AFP surveillance, sustained at least to the same level or better, for over one year. However it is too soon yet to be confident that transmission of this virus has stopped.

Similarly, although the last cVDPV 2 was detected in January 2011, it cannot yet be assumed that transmission has ceased. The development of communication through a range of channels and methodologies represents a significant success, markedly improving public awareness concerning immunization.

Recommendations

The Regional TAG endorses the recommendations of the Afghanistan TAG meeting in March 2011. Specifically, the RTAG urges full implementation of policies aimed at:

- Updating plans targeted at high risk districts
- Provision of campaigns of short-interval doses of vaccine in areas of low coverage and difficult/limited access
- Strengthening district management and accountability
- Maintaining a flexible strategic approach especially in areas of under-performance
- Further intensifying and extending communication activities
- Taking every opportunity to increase immunization coverage in areas of difficult access.

The RTAG also endorsed recent strategic developments as appropriate for the situation in the southern region, specifically:

- Developing guidelines for short-interval additional doses on OPVs
- Greater use of local negotiation and negotiators

- Identification of district-level focal persons
- The high-risk cluster approach
- Identification of activities for routine services in Child Health Weeks
- Use of the system for risk prediction in all regions.
- Review and analysis of the results of all initiatives developed to improve the extent and performance of immunization in areas of difficult/limited access, identifying those strategies that have proved most effective and exploring ways of implementing them more widely.
- Continuing and extending the provision of immunization at border crossings, especially those used by persons/families originating from areas of limited access.

The RTAG re-affirmed the need for a buffer stock of bivalent OPV and advised its use on detection of either type 1 or 3 wild poliovirus.

4. COUNTRY-SPECIFIC OVERVIEWS

4.1 Conclusions and recommendations of Horn of Africa TAG Meeting

Dr J. Olive, Chairman, HOA TAG

The Horn of Africa Technical Advisory Group (HoA TAG) met with the nine countries comprising the sub-region on 4–5 May 2011. The TAG recognized the progress and achievements by the countries in 2010. Several countries, most notably south Sudan, made significant improvement in routine coverage and AFP surveillance during 2010. However, the TAG was alarmed by the wild polioviruses (WPV) detected in Uganda in 2010 and in environmental specimens from Aswan, Egypt in late 2010, which were most closely linked to the 2008–2009 Sudan outbreak. These findings confirm that low-level circulation of WPV continues in the Region. Furthermore, in all countries there are mobile, migrant and underserved subpopulations that form increasingly important pools of unvaccinated or under-vaccinated children; these are the sub-populations where circulation of WPV is likely to remain undetected. The detection of cases caused by vaccine-derived polioviruses in Ethiopia and Somalia in 2010 further emphasized the importance of maintaining high population immunity through supplemental immunization activities, particularly in countries with low routine immunization coverage.

The TAG recommended both country-specific and cross-cutting recommendations. The TAG recommended that an integrated risk analysis for the HoA region be completed and updated every 6 months. This analysis should be used for prioritization of supplementary immunization activities and planning and implementation of surveillance and social mobilization/communication activities. Priority should be given to addressing surveillance gaps, implementing high-quality supplementary immunization activities, using social mobilization and communication information to improve supplementary immunization activities, providing oral polio vaccine to children during all child health activities (e.g. Child Health Days and measles campaigns), supporting cross-border coordination, and planning and implementation of specific activities to address mobile and migrant subpopulations at

high risk for undetected WPV circulation. Countries should share best practices and strategies for identifying, mapping and reaching these high-risk migrant and mobile subpopulations.

In order to improve accountability, the TAG will: track the implementation status of all recommendations, which will be updated and published quarterly in the Horn of Africa Bulletin; hold regular meetings via telephone to discuss the progress of implementation of recommendations; and whenever possible, participate in field activities (e.g. surveillance reviews, rapid assessments and advocacy). Finally, the TAG urged governments, partners and donors to ensure that polio eradication and immunization are given the highest priority and to provide funding and other resources for the full implementation of necessary activities to achieve polio eradication.

4.2 Sudan (northern)

Dr S. Haithami, WHO/Sudan

Since the eighth RTAG meeting in October 2010, northern Sudan implemented all recommendations with satisfactory quality. The programme also has started implementing the recommendations made by the HOA TAG in its sixth meeting in May 2011. Routine coverage of OPV3 among infants has been maintained above 90% since 2008. Darfur states have achieved at least 80% coverage rate as a result of several accelerated routine immunization rounds. 88% of 157 localities (districts) achieved at least 80% coverage of OPV3 while 2% of localities could not achieve 50% coverage rate.

In 2010, the AFP surveillance performance indicators have been maintained at the certification standard level at national and first subnational level. The national non-polio AFP rate was above 2 per 100 000 and adequate specimens collection rate was 97%. All states reported 2 or more non-polio AFP cases per 100 000 children below 15 years of age.

At the beginning of 2011, the programme conducted risk analysis at locality level in each state. The analysis focused on surveillance and immunity gaps that increase the risk of poliovirus spread following importation. The output of the analysis showed a few gaps at the subnational level in some states of Sudan. Therefore, each state undertook focused actions in order to rectify these gaps.

Since mid-March 2009, northern Sudan had no confirmed polio cases. However, in April 2011, the polio programme was notified that a wild P1 poliovirus was detected in Aswan sewage. The environmental sample was taken in December 2010. Genetically, the virus is linked to the 2008–2009 Sudan polio outbreak. In response to that, the following actions were undertaken.

- AFP surveillance review was conducted in 4 high risk states by an international team from WHO and found the surveillance system is sensitive enough to pick up polio cases.
- Retrospective search for missed AFP cases was done and revealed no missing AFP cases during the last year.

- Sensitization sessions were conducted to increase health staff awareness about AFP cases.
- In-depth investigation was undertaken around AFP cases having low OPV doses.
- SNIDs were conducted in 4 high risk states (Khartoum, Northern, River Nile and Red Sea) in June 2011.

It is to be noted that supplementary immunization activities continued in 2010 and 2011 as planned. So far, 5 rounds NIDs and one round SNIDs were conducted. The coverage by finger marking post-campaign monitoring of these campaigns ranged between 95% and 97.7%. As a result of the routine immunization activities and supplementary immunization activities, the immunity profile maintained at high level as indicated by the proportion of children < 60 months who received 7+ doses of OPV.

The 2011 priorities for northern Sudan included the following areas.

- Finalizing the 6-month plan to strengthen the polio eradication activities.
- Closing the immunity gap through defaulter tracing, better mapping and special attention to insecure areas.
- Implementation of two NIDs rounds with high quality in the 4th quarter 2011.
- Conducting SNIDs in three Darfur states in July 2011.
- Ensuring supportive supervision at all levels.
- Increased social mobilization in identified areas of immunity gaps.
- Mobilization of the states for financial contribution and local resource mobilization.

4.3 Southern Sudan

Dr Y. Mostafa, WHO/South Sudan

Southern Sudan has continued to maintain polio-free status for almost 23 months since the last wild poliovirus was reported in June 2009, with indicators of AFP surveillance quality at international certification standard. In 2010, four rounds of polio NIDs were conducted with an average coverage of 90% (by independent monitoring). In 2011, monitoring of the second NIDs showed that in each of the 10 states, less than 10% missed children were noted. The surveillance indicators (as of week 20, 2011) show an annualized non-polio AFP rate of 4.08, stool adequacy of 91% and non-polio enterovirus rate of 14.14%.

However challenges to programme implementation and surveillance still remain due to insecurity, geographic inaccessibility, high logistic/operational costs, inadequate pools of national trained health staff, high illiteracy rates, poor population knowledge and demand for immunization services, and inadequate government funding of EPI services to guarantee long term sustainability.

The situation post referendum has seen a large influx of returnees from northern Sudan looking at independence on 9 July. However, some parts of the south still remain strife affected due to internal reasons, making the conduct of effective campaigns very difficult.

To ensure that all areas are covered by immunization, WHO is collaborating with UNICEF in its efforts for social mapping in all 10 states to identify missed places, especially in the high risk areas. Most of the states have developed their social maps and these are under review to improvise and make action plans to cover the high risk populations.

The communication programme of UNICEF, supporting the government, aims at engaging with political leaders, media and partners to galvanize active commitment, participation, and accountability at one level and on the other level to ensure populations at highest risk for polio are aware of the importance of OPV vaccination and vaccinate their <5 year old children each time it is offered as well as to ensure that parents and influential gate-keepers demand OPV as a key health service for children <5 in their communities.

The Ministry of Health in southern Sudan endorsed a programme communication strategy, supported by UNICEF, outlining clear activities to be undertaken at state levels. Guidelines were circulated to all states. This is now under implementation and the next rounds of supplementary immunization activities in 2011 will be the testing ground for assessing the effectiveness of guidelines.

A KAP study is planned by UNICEF with the Ministry of Health to be undertaken after Independence Day celebrations. The findings of this study will guide programmers in making mid-course corrections. Sometimes, due to work overload, accessing analysed social and communication data impacts planning and deployment of resources equitably.

Though a costed EPI multi-year plan exists (2007–2011), funding for the activities have relied heavily on partners in the UN and international non-governmental organizations community. Government funds have consisted mainly of the GAVI grants for immunization service strengthening and health services strengthening. No separate funds are available with the government for funding NIDs. The government still looks at partners WHO and UNICEF for support and currently the partners are stressing enhancing ownership through advocacy meetings and presenting disaggregated analytical reports on areas needing attention.

4.4 Identification of a wild virus from an environmental sample from Aswan, Egypt
Dr I. Moussa, Egypt

In response to the identification of the wild poliovirus from an environmental sample collected in December 2010 from Aswan, the Ministry of Health and regional office fielded a joint mission to Aswan to rapidly assess the sensitivity of the surveillance system in Aswan to detection of importation.

The review team concluded that the surveillance system is functioning very well and it is unlikely that it would miss AFP cases. The team also found that routine immunization at the province and district level is very high and is reaching near to full coverage.

The review team studied the number of Sudanese who entered Aswan during the period from October 2010 to March 2011 by state of origin and found that they varied

between a minimum of 255 in February 2010 to a maximum of 819 in December 2010. The Sudanese states, from which the largest number of Sudanese are coming included Khartoum (475), Northern (384), River Nile (100) and Red Sea State (31). It is to be noted that all those under 15 years of age who entered through the High Dam port are given a dose of OPV.

The team concluded that the data and observations made indicate that the surveillance system in Aswan is of a very high standard. Also, the immunization coverage assessed by a field survey and from the immunity profile shows a high level of immunization coverage. The team feels that the probability of missing any AFP case is very remote. Since the AFP surveillance system is supplemented by environmental surveillance regularly for many years, if the virus was circulating in Aswan, it would have been detected in any of the previous samples. The team concludes that this was, most probably, a recent importation from Sudan as evidenced by genomic sequencing.

4.5 Somalia

Dr A. Mulugeta, WHO/Somalia

Somalia has maintained its polio free status for over 4 years and all possible efforts are being made for it to remain so. The country has achieved and maintained key AFP surveillance indicators above certification standards and the polio surveillance staff do regular visits of the more than 400 AFP reporting sites on weekly and bi-weekly basis.

Since 2008, cVDPV has been reported in some districts, mainly south and central Somalia. In 2009, seven VDPVs reported in 3 regions; in 2010 two VDPVs reported in 2 regions. Since January 2011, 4 VDPVs have been notified by the laboratory. The occurrence of VDPVs suggests that permissive conditions for VPDV circulation exist and it indicates the susceptibility of the country to WPV re-importation.

Since 2009 up to the present, the authorities in control of most parts of south-central Somlaia refused permission to implement NIDs or child health days. As a result, the number of children under 5 unreached has increased from 250 000 in 2009 to close to one million in 2011, and this is the single major challenge that hinders all efforts to maintain polio-free status and to improve routine EPI coverage. Negotiation for access with the local authorities continues and it is hoped to get permission to conduct mass vaccination activities and improve the under 5 immunity profile.

Due to 20 years civil war there is practically no health care system. Routine EPI is historically very weak with coverage around 30%, and hence immunity of children under 5 can only be achieved through population-based vaccination activities.

The HOA TAG recommended 2 high quality rounds of child health days in 2011 covering all accessible areas and the 2 rounds are scheduled for July and December 2011. In addition, 2 rounds of polio SNIDs are planned for October and November in all accessible areas. All recommendations of HOA TAG are being followed up and implementation initiated including efforts to reach children under 5 from the inaccessible areas.

Subnational risk analysis was conducted for Somalia with the help of the regional office and it showed most regions are at high risk of WPV spread following importation. The Somalia polio team is vigilant to keep the AFP surveillance system sensitive enough for early detection of any WPV circulation.

4.6 Regional TAG conclusions and recommendations concerning countries of the HOA

The regional TAG carefully reviewed the Horn of Africa TAG recommendations and fully endorsed all the recommendations relating to countries in the Eastern Mediterranean Region.

The regional TAG cautioned that the deteriorating polio situation in Chad and the Democratic Republic of the Congo has increased the need and urgency for countries of the Eastern Mediterranean Region to ensure their capacity to deal effectively with importations of wild polioviruses. The regional TAG made the following conclusions and recommendations concerning the three countries of the Region who participated.

Northern Sudan

While the quality of polio eradication is reportedly good throughout Sudan, the deterioration of the polio situation in Chad and the detection of an "orphan" virus in environmental sampling in Aswan raise concern which has intensified since the HOA TAG. While appreciating that reported high immunisation coverage throughout Sudan may mean that importations may not cause extensive spread, it is clearly necessary to

- Review and update the contingency plans for dealing with importations
- Ensure that the national authorities are fully aware of the heightened risk of importations of WPV and possible spread
- Complete an intensive review of AFP surveillance in all areas, both to minimize delays should importations occur and also to identify areas where WPV has been circulating prior to its detection in Aswan
- As an additional tool in supporting confidence that poliovirus transmission has ceased, make preparatory groundwork to implement environmental sampling from sewage in Khartoum and in any other appropriate sites
- Conduct additional SNIDs in the border areas with Chad, guaranteeing specific plans to reach and immunize any travellers or displaced persons coming to and settling in Sudan
- Establish and fully participate in frequent coordination meetings with responsible authorities in Chad and in southern Sudan.

Southern Sudan

The inauguration of South Sudan as a new independent country focuses attention on a number of factors likely to create difficulties in ensuring universal high levels of competence in polio eradication strategies. In particular, these include the existence of counties with no infrastructure for immunization, resulting in many "silent" areas where the quality of

surveillance cannot be assured, considerable population movement, not yet completely mapped, and significant shortages of personnel, vehicles and a transport network to cover all parts of the country.

In addition to existing difficulties must be added the need to guarantee security in border areas following independence and the currently increased risk of importation from neighbouring countries. The probable persistence of WPV transmission in unidentified areas of Sudan over the past 18 months raises the possibility that this could have been occurring in areas of poor surveillance, including in the south and in border areas.

In addition to the detailed recommendations of the HOA TAG, it is urged that the programme:

- Conduct coordination meetings with neighbouring countries, notably Congo and Sudan before the end of 2011
- Complete mapping of mobile and underserved populations as soon as possible and make full use of the findings to establish and prioritize immunization and surveillance activities
- Urgently negotiate for the continuation of STOP teams and ensure their designation to high priority areas
- Guarantee planning for 4 rounds of NID in 2012 with emphasis on quality and coverage of underserved and “silent” areas.

Somalia

Somalia has two sharply contrasting areas especially affecting the capacity to reach and immunize children but also creating some doubt as to uniformity in the standards being achieved for AFP surveillance. In the north of the country, standards are relatively advanced with good immunization coverage and effective surveillance, while in the central and southern areas, approximately 800 000 children cannot be accessed and immunization through supplementary immunization activities is impossible.

While no WPV has been detected for 4 years, cVDPV.2 has circulated for at least 3 years and continues to do so, especially in and around Mogadishu. The risk of WPV importation is currently higher than for several years and the difficulties of access and conduct of supplementary immunization activities/mopping-up may create a situation where early control of any importation and prevention of subsequent virus spread cannot be guaranteed.

Ideally, the tentative approaches to the political leadership in the central and southern areas preventing access to children will further develop with the hope that both immunization from fixed or outreach centres can be re-established and that the potential for soundly based supplementary immunization activities could be established.

Although AFP surveillance has been sustained to a remarkable and creditable level, it is critical ensure its effectiveness in all areas of the country, with an increased level of awareness of the risk of WPV importation. The persistence of cVDPV.2 is a concern and every effort should be pursued to conduct SNIDs in accessible areas, notably those where campaigns are possible in Mogadishu, with an appropriate vaccine.

Until nationwide accessibility to all children is a realistic possibility, strategies should aim to include:

- Developing a “buffer” zone of immunity in a wide band around inaccessible areas
- Immunizing children among populations travelling from or displaced from inaccessible areas
- Developing a contingency plan to provide the basis for the rapid implementation of appropriate strategies in areas currently with limited access should windows of opportunity occur or barriers against immunization be lifted.

5. RISK ASSESSMENT

Dr A. Buff, WHO/EMRO

Following the successful meeting on best practices of WHO regional risk assessments hosted by CDC on 2–3 June 2011, the Regional Office adapted the global methodology framework for use in the Region. The revised risk assessment tool enables the Region and polio-free countries to reduce and manage the risk of transmission following a wild poliovirus or vaccine-derived poliovirus importation by helping to inform regional-and country-level decision-making processes with respect to prioritizing activities and advocating for resources.

The risk assessment includes three categories of indicators: population susceptibility, AFP surveillance and other factors such as health system strength. The 15 core indicators agreed upon by all the WHO regions were included in the model as were six optional indicators. Both national and sub-national indicators, as measured by the national polio programme (e.g. AFP case rate) or reported to WHO (e.g. percentage of districts with ≥80% coverage for OPV3), were included in the model. Regional risk maps were developed for both the core indicators and all the indicators (core and optional). The results of the risk assessments were not unexpected and differed only slightly from the original regional methodology presented at the eighth meeting of the RTAG, 21–23 October 2010. Countries with the largest population immunity gaps and weakest routine immunization programmes were the countries at highest risk of a poliovirus outbreak in the event of an importation.

In the discussion that followed, the RTAG affirmed the usefulness of the risk assessment approach and looked forward to further refinement of the global model following validation of prediction capability based on historical data. The RTAG also affirmed the importance of strategies and activities to reduce the risk of an outbreak in polio-free countries and noted that prevention was more cost-effective than outbreak response as demonstrated by the wild poliovirus outbreak in Tajikistan and surrounding countries in 2010.

Annex 1

PROGRAMME

Wednesday, 22 June 2011

Time	Session	Speaker
08:00–08:30	Registration	
08:30–09:15	Opening session	
	Opening remarks of the Chairman	Chairman of Regional TAG
	Address by Dr Hussein A. Gezairy, Regional Director, WHO/EMRO	
	Progress towards polio eradication	
09:15–09:35	Regional overview	Dr T. Mir, WHO/EMRO
09:35–09:50	Global overview	Dr B. Aylward, WHO/HQ
09:50–10:20	*Discussion*	
	Situation in polio endemic countries, challenges and future plans	
10:50–11:05	Briefing on Pakistan/Afghanistan TAG Meeting, 24–25 March 2011, Islamabad, Pakistan	Dr M. H. Wahdan, WHO/EMRO & Acting Chairman of TAG
	Pakistan	
11:05–11:30	Epidemiological situation and follow-up on the implementation of the recommendations of the 8th RTAG Meeting	Dr E. Durry, WHO/EMRO
11:30–11:45	*Discussion*	
11:45–12:00	National Emergency Action Plan to interrupt transmission by end of 2011	Dr A. Bosan, MoH Pakistan
13:00–14:40	Implementation of provincial emergency action plans and update on the progress and remaining challenges	
	Punjab	Mr M. J. Khan, Pakistan
	Sindh	Dr A. Bosan, Pakistan
	Khyber Pakhtunkhwa (KP)	Mr M. Azam, Pakistan
	Baluchistan	H.E. Ms S. Magsi, Pakistan
	Federally Administered Tribal Areas (FATA)	Mr A. Majeed, Pakistan
15:00–16:00	*Overall discussion on Pakistan*	
16:00–17:00	Closed meeting of the RTAG	

Thursday, 23 June 2011

	Situation in polio endemic countries, challenges and future plans **Afghanistan**	
08:30–08:55	Epidemiological situation and follow-up on the implementation of the recommendations of the 8th RTAG Meeting	Dr A. Quddus, WHO/Afghanistan
08:55–09:10	Issues and initiatives in the south, measures taken to improve access and immunity profile of the population in the Southern Region	Dr A. Quddus, WHO/Afghanistan
09:10–09:25	Cross border coordination between Pakistan and Afghanistan	Dr A. Dost, MoH, Afghanistan
09:25–09:55	*Overall discussion on Afghanistan*	
	Country specific overviews: northern and southern Sudan and Somalia	
09:55–10:10	Conclusions and recommendations of Horn of Africa TAG Meeting, 3–5 May 2011, Nairobi, Kenya	Dr J. Olive, Chairman HOA TAG
10:10–10:25	Measures taken in response to recent type 1 isolate from the sewage sample from Aswan, Egypt	Dr I. Moussa, MoH, Egypt
10:55–11:45	Epidemiological situation, assessment of AFP surveillance and status of implementation of HOA TAG and 8th RTAG meetings' recommendations for North and South Sudan	Dr S. Haithami, WHO/Sudan Dr Y. Mostafa, WHO/S. Sudan
11:45–12:15	*Overall discussion on northern and southern Sudan*	
12:15–12:40	Epidemiological situation in Somalia, measures taken to improve the immunity profile, particularly in difficult to access population and implementation status of the recommendations of HOA TAG and 8th RTAG	Dr A. Mulugeta, WHO/Somalia
12:40–13:00	Standardization of risk assessment and its use at the sub-national level, especially in the polio free countries of the Region	Dr A. Buff, WHO/EMRO
13:00–13:30	*Discussion*	
14:20–15:20	Closed meeting of the RTAG	
15:20–16:20	Presentation of RTAG recommendations	

Annex 2

LIST OF PARTICIPANTS

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