Report of the 28th Meeting of the European Regional Certification Commission for Poliomyelitis Eradication

Copenhagen, Denmark

3–5 June 2014
ABSTRACT
The 28th Meeting of the European Regional Certification Commission for Poliomyelitis Eradication (RCC) reviewed annual updates submitted by the Member States of the Region on the status of the national polio eradication programme. The RCC concluded that with the exception of Israel, there was no WPV or VDPV transmission in the WHO European Region in 2013, but the risk of importation and subsequent transmission remains high in some countries. Evidence from Israel for a full 6-month absence of WPV transmission in the presence of enhanced surveillance is required before the RCC can make a final decision on the polio-free status of the Region. The RCC also identified issues that threatened the future polio-free status of the Region and proposed actions to be taken by Member States and the Regional Office for reducing the risk of polioviruses circulating in the Region.

Keywords
POLIOMYELITIS – prevention and control
IMMUNIZATION PROGRAMS
EPIDEMIOLOGIC SURVEILLANCE – standards
CONTAINMENT OF BIOHAZARDS – standards
LABORATORY INFECTION – prevention and control
STRATEGIC PLANNING
Contents

Abbreviations .................................................................................................................. 5
Introduction ....................................................................................................................... 6
Scope and purpose of the Meeting .................................................................................... 6
Update on global polio eradication and sustaining polio-free Europe................................. 6
   Polio programme annual update from the WHO Regional Office for Europe .................. 6
   Performance of the European Polio Laboratory Network in 2013-14; containment activities .... 7
Review of national updated documents for 2013 by epidemiological zones ......................... 8
   Introduction to subregional overview and regional risk assessment .................................. 8
   Nordic/Baltic zone ........................................................................................................... 10
   Western zone .................................................................................................................. 11
   Southern zone .................................................................................................................. 12
   Central-eastern zone ....................................................................................................... 13
   Central zone .................................................................................................................... 14
   MECACAR zone .............................................................................................................. 15
Regional outbreak response and risk mitigation activities .................................................... 16
   Turkey ............................................................................................................................. 16
   Israel ............................................................................................................................... 16
Review of polio status in high risk countries from 2013 RCC and risk mitigation activities ....... 17
   Bosnia and Herzegovina ............................................................................................... 17
   Georgia .......................................................................................................................... 17
   Romania ......................................................................................................................... 17
   Ukraine ......................................................................................................................... 18
Regional outbreak response and risk mitigation activities .................................................... 18
Introduction of IPV and switch to bOPV by 2016 ................................................................. 19
Conclusions of the RCC and recommendations to Member States and WHO ....................... 19
   Conclusions .................................................................................................................... 19
   Recommendations ....................................................................................................... 20
      NCCs and their reports ............................................................................................... 20
      National outbreak preparedness planning .................................................................. 21
      Risk assessment ........................................................................................................ 21
      Immunization .......................................................................................................... 22
      Vaccines ................................................................................................................... 22
Surveillance ............................................................................................................. 22
Laboratories .......................................................................................................... 22
Annex 1. Risk of wild poliovirus transmission, WHO European Region, 2014 ............. 23
Annex 2. Programme .............................................................................................. 25
Annex 3. List of Participants .................................................................................. 28
### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFP</td>
<td>acute flaccid paralysis</td>
</tr>
<tr>
<td>bOPV</td>
<td>bivalent OPV</td>
</tr>
<tr>
<td>CSF</td>
<td>cerebrospinal fluid</td>
</tr>
<tr>
<td>EMRO</td>
<td>WHO Eastern Mediterranean Regional Office</td>
</tr>
<tr>
<td>IMB</td>
<td>Independent Monitoring Board of the Global Polio Eradication Initiative</td>
</tr>
<tr>
<td>IPV</td>
<td>inactivated polio vaccine</td>
</tr>
<tr>
<td>ITD</td>
<td>intratypic differentiation (of poliovirus isolates)</td>
</tr>
<tr>
<td>JRF</td>
<td>WHO/UNICEF Joint Reporting Form</td>
</tr>
<tr>
<td>LDMS</td>
<td>Laboratory Data Management System</td>
</tr>
<tr>
<td>mOPV</td>
<td>monovalent OPV</td>
</tr>
<tr>
<td>MECACAR</td>
<td>Mediterranean, Caucasus and central Asian republics</td>
</tr>
<tr>
<td>NCC</td>
<td>National Certification Committee</td>
</tr>
<tr>
<td>NPEV</td>
<td>non-polio enteroviruses</td>
</tr>
<tr>
<td>OPV</td>
<td>oral poliovirus vaccine</td>
</tr>
<tr>
<td>POSE</td>
<td>Polio Outbreak Simulation Exercise</td>
</tr>
<tr>
<td>RCC</td>
<td>European Regional Certification Commission for Poliomyelitis Eradication</td>
</tr>
<tr>
<td>SIA</td>
<td>supplementary immunization activities</td>
</tr>
<tr>
<td>SEARO</td>
<td>WHO South-east Asia Regional Office</td>
</tr>
<tr>
<td>tOPV</td>
<td>trivalent OPV</td>
</tr>
<tr>
<td>SOAS</td>
<td>South Asian lineage of WPV1</td>
</tr>
<tr>
<td>VDPV</td>
<td>vaccine-derived poliovirus</td>
</tr>
<tr>
<td>WPV</td>
<td>wild-type poliovirus</td>
</tr>
<tr>
<td>WPV1</td>
<td>wild-type poliovirus serotype 1</td>
</tr>
</tbody>
</table>
**Introduction**

The 28th Meeting of the European Regional Certification Commission (RCC) for Poliomyelitis Eradication was held from 3 to 5 June 2014 in Copenhagen, Denmark. Dr Dina Pfeifer, Programme Manager, Division of Communicable Diseases, welcomed participants on behalf of the Regional Director.

The meeting was opened by RCC Chairman, Professor David Salisbury, who began by requesting a minute contemplative silence in memory of our friend, mentor and inspirational leader in polio eradication Dr Ciro de Quadros, who died in Washington on 28 May.

Rapporteur for the meeting was Dr Ray Sanders. The meeting programme is provided at Annex 2 and the list of participants at Annex 3.

**Scope and purpose of the Meeting**

The scope and purpose of the Meeting were:

- To brief the RCC on the current global and regional status of polio eradication;
- To review annual updated certification documentation on poliomyelitis in all Member States of the WHO European Region for 2013;
- To review response and risk mitigation activities in Israel, Turkey and Member States, which are defined to be in the high risk group, and discuss further actions required to assure sustainability of polio-free status within countries and of the Region;
- To review the current status of regional laboratory containment of polioviruses in view of importation of wild poliovirus type 1 in specific countries during 2013 and the planned switch to bOPV globally;
- To brief the RCC on introduction of IPV and switch to bOPV by 2016;
- To recommend the Regional Office strategies and/or actions to sustain the polio-free status of the Region focusing on high-risk countries;
- To review working procedures of the RCC and to discuss activities for 2014-15.

**Update on global polio eradication and sustaining polio-free Europe**

**Polio programme annual update from the WHO Regional Office for Europe**

The polio-free status of the WHO European Region was threatened in 2013 by detection of wild poliovirus type 1 (WPV1) in environmental samples from multiple sites in Israel. At the end of May 2013, the Israel National Polio Laboratory confirmed that WPV1 had been detected in two sewage samples taken in Rahat and Beer Sheva between 7 and 13 April. Further analysis of environmental samples from early 2013 indicated WPV1 introduction into Beer Sheva in February 2013 and into Rahat in March 2013. The isolates were identified as non-Sabin poliovirus type 1 belonging to the SOAS (South Asia) lineage of WPV1, which has been circulating in Pakistan in recent years, and isolated from sewage samples in the Cairo region, Egypt, in December 2012. Additional WPV1-positive environmental samples were detected throughout Southern and Central Israel as environmental surveillance was expanded and enhanced. A series of national polio control activities appear to have halted the outbreak in this highly immunized population; the last reported positive
environmental surveillance sample was collected in March 2014. No cases of paralytic poliomyelitis were reported in conjunction with the outbreak.

At the end of April 2014 the International Health Regulations Emergency Committee was convened by the WHO Director-General to review recent progress in stopping endemic and imported polioviruses and the international spread of wild polioviruses. The Committee advised that the international spread of polio in 2014 constitutes an ‘extraordinary event’ and posed public health risks to other States. This stands in stark contrast to the near-cessation of international spread of wild poliovirus from January 2012 through the 2013 low transmission season. If unchecked, this situation could result in failure of the global polio eradication initiative. It was the unanimous view of the Committee that the conditions for a Public Health Emergency of International Concern (PHEIC) had been met (http://www.who.int/mediacentre/news/statements/2014/polio-20140505/en/).

At the end of 2013, 60% of polio cases were the result of international spread of wild poliovirus, and there was increasing evidence that adult travellers contributed to this spread. During the 2014 low transmission season there has already been international spread of wild poliovirus from 3 of the 10 States that are currently infected: in central Asia (from Pakistan to Afghanistan), in the Middle East (Syrian Arab Republic to Iraq) and in Central Africa (Cameroon to Equatorial Guinea). The consequences of further international spread are particularly acute today given the large number of polio-free but conflict-torn and fragile States which have severely compromised routine immunization services and are at high risk of re-infection. Pakistan, Cameroon, and the Syrian Arab Republic pose the greatest risk of further wild poliovirus exportations in 2014.

In its ninth report (May 2014) the Independent Monitoring Board of the Global Polio Eradication Initiative (IMB) concluded that Nigeria and Pakistan are both at risk of failing to stop transmission in time for the end-2014 goal. Furthermore, there is a significant risk of one or more of the current outbreaks becoming prolonged with a serious risk of failure to anticipate and prevent outbreaks elsewhere. All eyes must be focused on minimising the number of avoidable catastrophes – on ensuring that Nigeria succeeds in 2014; on Pakistan rebuilding a program that can succeed soon after; and on preventing and responding to outbreaks with consistency and vigour. The last of these is of particular concern to the WHO Secretariat and RCC in the WHO European Region.

Performance of the European Polio Laboratory Network in 2013–2014; containment activities

The Regional Polio Laboratory Network continues to support polio eradication activities with more than 8,000 samples processed each year. With the exception of Israel, no WPV have been detected since 2010. Key performance indicators for NPEV isolation rate, reporting of virus isolation within 28 days and reporting of intratypic differentiation (ITD) results within 60 days continue to be met. All laboratories in the Network are fully accredited. Since 2010 laboratories in the Network have been requested to report on a weekly basis through the web-based Laboratory Data Management System (LDMS) and this has been adopted by an increasing number of laboratories. Some laboratories continue to struggle with the concept of ‘zero reporting’ and efforts are underway to encourage them to report fully on a weekly basis. Problems in sample and isolate shipment experience in earlier years have largely been solved or are in the process of being solved.
According to data received by the WHO Regional Office, the total number of samples processed in the Region by all laboratories engaged in surveillance activities remains in excess of 125,000 per year. Reporting of VDPVs improved in 2013, although further improvements in full reporting are needed as it is suspected that identification of VDPVs remains underreported.

Supplementary surveillance, including enterovirus and environmental surveillance for polio is a long-standing feature in many countries in the Region. This surveillance is predominantly conducted by the laboratories outside of the formal WHO laboratory network and only aggregate laboratory data have been available on an annual basis. There is no current estimate of the number of laboratories conducting supplementary surveillance testing in the Region. New WHO Regional guidelines on the use of enterovirus surveillance in support of polio eradication are in the final stages of production and will be published shortly. Global guidelines on the use of environmental surveillance are also being finalized and will be available for distribution later this year.

The laboratory containment process continues, with countries continuing to provide annual updates of their laboratory registries. Unfortunately only 47/53 Member States provided updates for 2013 in time for the Meeting. To increase transparency and efficiency the WHO Secretariat is developing an online database for polio laboratory containment, using the SharePoint platform. This new tool is expected to be completed by the end of 2014. WHO training activities in laboratory Biorisk Management will continue.

**Discussion**

The current global situation with regard to polio is not encouraging. Pakistan has seen an increase in the number of reported cases, and cases associated with imported virus have been detected in Syria and Iraq. Continued population movement into Europe from polio-infected areas means that the risk of introducing WPV into the Region must be considered to be high.

The continued strong performance of the Regional Polio Laboratory Network significantly contributes to the confidence of the RCC that the Region is maintaining its polio-free status. There is concern that total enterovirus isolation rates appear to be lower than expected. Poliovirus isolation rates are declining as more countries switch to IPV use, and an increasing use of PCR is making assessment of performance more complicated. The RCC requested the secretariat to investigate the possibility of ranking laboratories according to virus isolation rate in order to investigate this further.

The RCC agreed that laboratory data generated from routine cerebrospinal fluid (CSF) and throat swab samples are not acceptable as evidence for supplementary surveillance for polioviruses. The NCCs must be made aware that only laboratory data from the testing of stool and sewage samples should be included in annual updates.

**Review of national updated documents for 2013 by epidemiological zones**

**Introduction to subregional overview and regional risk assessment**

As of 3 June 2014, fifty Member States had submitted annual progress reports to WHO. The deadline for submission was 1 April 2014. A common complaint from Member States with a federalized government system has been that they are not able to collect and analyse all national data by the 1 April deadline.
The NCC of Iceland has submitted only one delayed annual report to the RCC since 2007, and has not submitted this year’s report. Denmark has failed to respond to reminders that a report is due, and Luxembourg has also failed to respond on time prior to the start of the Meeting.

An external process review which was carried out on the current European risk assessment methods prior to the RCC, was presented and the findings discussed. The review evaluated the risk assessment method and country classification based on the scoring system and algorithm. The method used in the European Region was felt to be a meaningful process to review critical components of the program and summarize and compare across countries. Surveillance scoring remains challenging due to absence of AFP surveillance in a number of countries in the Region, and lack of criteria related to standardization for supplementary surveillance.

A new pro-forma had been provided for countries to complete their reports in 2013. Most countries have accepted the new format and have responded appropriately, with more reports being received before the start of the meeting than in previous years. The new format has allowed a more systematic analysis of country risk for transmission of imported WPV and cVDPV that includes vaccine coverage, surveillance quality and other factors. Risk factor analysis for countries of the Region is shown in Annex 1.

Discussion

The RCC meetings in the WHO regions of Southeast Asia and the Eastern Mediterranean are held earlier in the year than that of the WHO Regional Office for Europe, and countries in these regions appear to have little difficulty in providing annual update reports. There is no justification for delaying the date of the WHO Regional Office for Europe RCC meeting until later in the year.

Concerns were raised over the degree of comparability between the risk analyses conducted, and the outputs derived in the European Region and those conducted in other WHO regions. Although different Regions use different systems, that of the European Region relates most closely to those used in the Americas and Western Pacific Regions, i.e. those that have been free of indigenous WPV for more than a decade. Risk analysis systems used in Regions that still have, or have only recently stopped indigenous WPV transmission, are more diverse.

There remain issues over definition and interpretation of the term ‘vulnerable population’ used in the report pro-forma: several countries that have what the RCC identified as vulnerable populations, for example, large refugee populations, fail to report them as such. In addition, clarification is needed regarding how activities taken to address vulnerable populations are to be considered when reporting on these populations. Further guidance to countries is required to aid them in responding appropriately to the annual update report questions.

The RCC is concerned over the number of countries that do not have current national preparedness plans for stopping transmission of imported WPV or VDPV. It is also of concern that many countries with plans rely on the use of IPV for outbreak response activities. Accumulating evidence strongly suggests that use of IPV alone is not sufficient for stopping polio transmission in an outbreak. Many countries have no provision for the use of OPV in the event of an outbreak, have no sources of OPV identified or funds available for purchase, and may not have a national licencing framework in place for the use of OPV if it became necessary. Given the recent experience in Israel it is clear that
countries need to give more attention to national preparedness planning, updating national plans and ensuring that effective outbreak response activities can be launched if required.

**Nordic/Baltic zone**

All 8 countries were considered to be at low or very low risk of transmission in 2013. However, for the third successive year Iceland failed to submit a report on time. All countries in the zone conduct some form of enterovirus or environmental surveillance, or both, in support of polio surveillance. The quality and extent of the systems used, however, appears extremely variable. Virus isolation rates, particularly non-polio enterovirus rates, appear to be lower than expected for some countries. It would be helpful to the RCC if countries provided some demographic data with their summary reports.

Using the current assessment criteria the Secretariat has suggested that the probability is low that WPV had been circulating in the epidemiological zone in 2013 and that WPV importation, if any, would have been detected in a timely manner by the national health and/or surveillance systems. The main issues of concern are suboptimal immunization coverage in Denmark and the failure to report data from both Iceland and Denmark.

All countries except Iceland have reported having a Plan of Action to respond to wild poliovirus importation. It appears that no country is considering the use of OPV to stop transmission of imported WPV and all are relying on use of IPV.

**Discussion**

Feedback to the countries:

- **Denmark** – the risk of wild poliovirus transmission has been assessed as ‘intermediate’ based on suboptimal immunization coverage and the lack of data submitted for 2013. The RCC urges that vaccine coverage be improved to reduce risk of poliovirus transmission in case of importation. Denmark is requested to submit this year NCC report within 3 months to document the absence of wild poliovirus circulation.

- **Estonia** – is considered to be at ‘low risk’ of wild poliovirus transmission, but significantly greater effort is required to improve the quality of AFP surveillance. It is not acceptable for the head of the national immunization programme to be the chairperson of the NCC.

- **Finland** – is considered to be at ‘low risk’ of wild poliovirus transmission; however, there is lack of clear coverage data as a new vaccine register is being introduced. National authorities are urged to implement the new vaccine register as soon as possible.

- **Iceland** – the RCC has great concern that for three years running Iceland has failed to provide an annual report on time. The country has been given an ‘intermediate’ risk allocation, based on assumptions made of current vaccine coverage and surveillance performance. The RCC also notes lack of an outbreak response plan. Iceland is requested to submit this year’s NCC report within 3 months to document the absence of wild poliovirus circulation.

- **Latvia** – the RCC notes with satisfaction the reported increase in vaccine coverage and has applied the risk category appropriately as ‘low risk’. The country is reminded that vaccine coverage in all subnational levels needs to be ≥95%.

- **Lithuania** – is considered to be at ‘low risk’ of wild poliovirus transmission. The RCC notes with satisfaction the reported increase in vaccine coverage.
• Norway – is considered to be at ‘low risk’ of wild poliovirus transmission; no major problems were recognized but poliovirus surveillance needs to be improved.
• Sweden – is considered to be at ‘low risk’ of wild poliovirus transmission; no problems were recognized.

**Western zone**

National vaccine coverage throughout the zone appears to be high, but coverage reporting definitions are not comparable between countries. Coverage data from Austria are not convincing and require further explanation. Only the United Kingdom reports having a vulnerable population, although several countries are known to have sizable refugee and migrant populations. Only Austria, Belgium and Switzerland continue to conduct AFP surveillance, and all are performing at a suboptimal level. The quality of supplementary surveillance data for the zone is difficult to interpret as few details have been provided of activities carried out or of the results obtained.

Based on available information the Secretariat has suggested that the probability is low that WPV had been circulating in this epidemiological zone in 2013 and that suspected cases of poliomyelitis would have been detected by existing health services. AFP surveillance has been practically abandoned in the subregion but does not appear to have been substituted by systematic and effective supplementary surveillance. The risk of transmission following importation of WPV is considered to be low to intermediate. Of concern is Austria, which appears to have both suboptimal surveillance and unconvincing immunization coverage data.

**Discussion**

Feedback to the countries:

• Austria – is considered to be at ‘low risk’ of wild poliovirus transmission but concerns have been raised over the apparent discrepancies in vaccine coverage estimates. The RCC feels that coverage estimates based on vaccine sales are inadequate for the purposes of polio eradication.
• Belgium – is considered to be at ‘low risk’ of wild poliovirus transmission based on the information available, but the RCC is concerned over the apparent lack of adequate surveillance either for AFP or for enteroviruses.
• France – is considered to be at ‘low risk’ of wild poliovirus transmission; supplementary surveillance quality appears to be good and population immunity high. The RCC is concerned, however at the continued lack of a current national plan for outbreak response.
• Germany- is considered to be at ‘intermediate risk’ of wild poliovirus transmission based on population immunity data reported through the NCC as well as WHO/UNICEF joint reporting form and coverage estimates (for 2013). More detailed information is required on vulnerable population groups in the country together with details of activities undertaken to ensure adequate vaccine coverage. More details are required on how the enterovirus surveillance was conducted, laboratory tests used and how poliovirus was excluded from the enterovirus positives.
• Ireland – is considered to be at ‘low risk’ of wild poliovirus transmission; no problems were recognized.
• Luxembourg – in the absence of a report from the NCC it is impossible for the RCC to accurately assess the risk status. Data from WHO/UNICEF coverage estimates suggest the risk is low. The RCC also notes lack of an outbreak response plan. Luxembourg is requested to submit this year’s NCC report within 3 months to document the absence of wild poliovirus circulation.

• Monaco – is considered to be at ‘low risk’ of wild poliovirus transmission; no problems recognized. The RCC, however, notes lack of an outbreak response plan.

• Netherlands – is assessed as ‘low risk’ of wild poliovirus transmission, but there are known to be large pockets of polio susceptible communities that are not reflected in the national data.

• Switzerland – is considered to be at ‘low risk’ of wild poliovirus transmission; surveillance quality, however, continues to be poor and needs to be improved. The RCC notes lack of an outbreak response plan.

• United Kingdom – has been placed in the ‘intermediate risk’ group on the basis of vaccine coverage and population immunity estimates. There were relatively few faecal specimens tested for enteroviruses with the large majority of samples coming from throat swabs or CSF. In the future, these non-faecal specimens will not be acceptable as evidence of absence of polioviruses. The RCC commends the NCC on the quality of report provided for 2013.

Southern zone
Official vaccine coverage estimates in all countries are high, but data for Croatia were collected through the WHO/UNICEF Joint Reporting Form (JRF). Spain reported less than adequate coverage in Catalonia, a region of approximately 7.5 million persons (16% of the total population of Spain).

With the exception of Cyprus and Greece, AFP surveillance quality is not high. Countries are increasingly moving away from AFP surveillance towards supplementary surveillance, but the quality of enterovirus and environmental surveillance systems appears to be very variable.

Based on the information available the Secretariat has suggested that, with the exception of Israel, it is unlikely that WPV was circulating in this zone in 2013. Risk of spread following importation of WPV is estimated to be low to intermediate due to generally good immunization systems including high-risk groups in the presence of average to good surveillance quality.

Discussion

Feedback to the countries:

• Andorra – is considered to be at ‘low risk’ of wild poliovirus transmission; the RCC, however, notes lack of an outbreak response plan.

• Croatia – is considered to be at ‘low risk’ of wild poliovirus transmission; no major problems were recognized.

• Cyprus – is considered to be at ‘low risk’ of wild poliovirus transmission; no problems were recognized.

• Greece – considered being at ‘intermediate risk’ of wild poliovirus transmission due to less than adequate vaccine coverage.
• Israel – cannot be assessed until at least 6 months have elapsed since the last isolation of WPV1 in the presence of enhanced environmental surveillance.
• Italy – is considered to be ‘low risk’ of wild poliovirus transmission; there is an urgent need to formally establish an NCC and for the NCC to meet to develop a national preparedness plan and initiate preparatory activities for responding to importation of WPV.
• Malta – has been assessed as ‘intermediate risk’ of wild poliovirus transmission on the basis of suboptimal surveillance and vaccine coverage.
• Portugal – has been assessed as ‘low risk’ of wild poliovirus transmission but needs to improve the quality of surveillance.
• San Marino – has been assessed as ‘intermediate risk’ of wild poliovirus transmission on the basis of suboptimal surveillance and vaccine coverage. The RCC also notes lack of an outbreak response plan.
• Spain – has been assessed as ‘intermediate risk’ of wild poliovirus transmission and needs to improve the quality of surveillance and vaccine coverage in the Region of Catalonia.

Central-eastern zone
There were 3 countries in this zone considered to be at high risk for poliovirus transmission in 2013: Bosnia and Herzegovina, Romania and Ukraine. Ukraine continues to present a major challenge with low vaccine coverage for the past 5 years and less than optimal coverage in most of the subnational administrative units. Also of concern is the suboptimal coverage in Bosnia and Herzegovina, Republic of Moldova, Montenegro, and Romania.

All countries appear to be struggling to meet minimum criteria for completeness and timeliness of AFP reporting. In addition, supplementary surveillance is weak and criteria used for selecting and testing supplementary surveillance samples are at best questionable. Polio surveillance systems need to be standardised.

Based on available evidence the Secretariat has suggested that the probability is low that WPV has been circulating in this epidemiological zone during 2013 as WPV importation would have been detected by existing surveillance systems. As in previous years, the risk of transmission following importation of WPV is high in Bosnia and Herzegovina, Romania and Ukraine due to poor immunization services. Ukraine remains of particular concern due to the overall deterioration of the situation in the country.

Discussion
Feedback to the countries:

• Albania – is considered to be at ‘low risk’ of wild poliovirus transmission; need to update their national preparedness plan of action.
• Bosnia and Herzegovina – considered being at ‘high risk’ of wild poliovirus transmission due to suboptimal vaccine coverage, largely due to the complex administrative structure and circumstances beyond the immediate control of national authorities.
- Republic of Moldova – considered being at ‘intermediate risk’ of wild poliovirus transmission and improvements in population immunity are recommended.
- Montenegro – is considered to be at ‘low risk’ of wild poliovirus transmission; surveillance quality needs to be improved.
- Romania – considered to be at ‘high risk’ of wild poliovirus transmission, and has shown little or no improvement since last year.
- Serbia – considered being at ‘intermediate risk’ of wild poliovirus transmission due to less than adequate vaccine coverage.
- The former Yugoslav Republic of Macedonia – is considered to be at ‘low risk’ of wild poliovirus transmission; no problems were recognized.
- Ukraine – considered being at ‘high risk’ of wild poliovirus transmission due to low vaccine coverage and circumstances beyond the immediate control of national authorities.

Central zone
With the exception of Bulgaria, vaccine coverage in this zone is generally high. All countries conduct AFP surveillance, but the quality is generally not high. The non-polio AFP rate and completeness and timeliness of reporting are suboptimal for most countries. All countries have introduced supplementary surveillance but, with the exception of Belarus, the quality appears to be low and virus isolation/identification rates appear questionable.

Hungary still has no action plan for outbreak response, while Poland is in the process of preparing a plan. Slovakia and Slovenia plan to use IPV in response to an outbreak.

Based on information available, the Secretariat has suggested that the probability is high that WPV has not been circulating in this epidemiological zone during 2013 as immunization coverage appears to be good and WPV importation would have been detected by existing surveillance systems in most of the countries. The overall risk of spread following importation of WPV is mostly low or intermediate in these countries due to generally good immunization services. Overall surveillance quality is not good, however, and needs to be improved. Bulgaria is of concern due to suboptimal surveillance and population immunity, and the presence of high risk population groups. Poland is of concern due to suboptimal AFP surveillance quality and uncertainties over the completeness of coverage.

Discussion
Feedback to the countries:
- Belarus – is considered to be at ‘low risk’ of wild poliovirus transmission; no problems were recognized.
- Bulgaria – is regarded being at ‘intermediate risk’ of wild poliovirus transmission due to lack of actions to improve immunity among existing vulnerable population groups.
- Czech Republic – both AFP and supplementary surveillance quality appear to be of low quality and both need to be improved. The low virus isolation/identification rates are of concern.
• Hungary – is considered to be at ‘low risk’ of wild poliovirus transmission; however, the continued lack of an outbreak response action plan is of great concern. This must be remedied as a matter of urgency.
• Poland – is considered an ‘intermediate risk’ of wild poliovirus transmission due to the low AFP surveillance quality, questionable supplementary surveillance data, and the present national inability to contain a large and ongoing outbreak of another vaccine-preventable disease (rubella). The polio outbreak response action plan should be completed as soon as possible.
• Slovakia – is considered to be at ‘low risk’ of wild poliovirus transmission; AFP surveillance quality needs to be improved.
• Slovenia – is considered to be at ‘low risk’ of wild poliovirus transmission; AFP and supplementary surveillance quality should be improved.

MECACAR zone
All countries have reasonably high vaccine coverage with the exception of Georgia, which has had long-standing problems with vaccine coverage but is now improving. Fourteen of 48 subnational districts in Georgia report <90% vaccine coverage. In response to concerns expressed by the RCC, seven of the countries conducted SIAs in 2013 or early 2014, including Georgia and Turkey. Turkey is now hosting and caring for a large number of refugees from Syria, which suffered an outbreak of polio in late 2013.

All countries conduct AFP surveillance and the general standard is acceptable. With the exception of Turkey, non-polio AFP rates are high or reasonable, but several countries continue to struggle to meet completeness and timeliness criteria. Several countries have established supplementary surveillance.

All countries in this zone have polio outbreak response action plans; all except those of Kazakhstan need updating. Although several countries appear not to have secured funds for outbreak response vaccine, many maintain large reserves of tOPV that could be used in the event of an outbreak.

Based on information available the Secretariat has suggested that the probability is low that WPV has been circulating in this epidemiological zone during 2013 as WPV importation would have been detected by existing surveillance systems in most of the countries. The countries in this zone have significantly improved performance through implementation of risk mitigation activities and strengthening polio surveillance. Georgia remains of concern because of the suboptimal routine vaccine coverage in a large number of subnational districts.

Discussion
Feedback to the countries:
• Armenia – is considered to be at ‘low risk’ of wild poliovirus transmission; no problems were recognized.
• Azerbaijan – is considered to be at ‘low risk’ of wild poliovirus transmission; no problems were recognized.
• Georgia – is considered to be at ‘intermediate risk’ of wild poliovirus transmission due to suboptimal routine vaccine coverage.
• Kazakhstan – is considered to be at ‘low risk’ of wild poliovirus transmission; no major problems were recognized. The RCC noted that the polio outbreak response plan has expired.
• Kyrgyzstan – is considered to be at ‘low risk’ of wild poliovirus transmission but surveillance quality needs to be improved.
• Russian Federation – is considered to be at ‘low risk’ of wild poliovirus transmission; no problems were recognized.
• Tajikistan – is considered to be at ‘intermediate risk’ of wild poliovirus transmission due to suboptimal surveillance and vaccine coverage.
• Turkey – has improved surveillance quality and increased population immunity in the past year and is now considered to be at ‘low risk’ of wild poliovirus transmission.
• Turkmenistan – is considered to be at ‘low risk’ of wild poliovirus transmission; surveillance quality needs to be improved.
• Uzbekistan – has taken steps to improve surveillance quality and is now considered to be at ‘low risk’ of wild poliovirus transmission.

Regional outbreak response and risk mitigation activities

Turkey
The past year has seen extensive efforts to improve surveillance in all subnational districts and to increase national vaccine coverage, including among refugee populations. In total, more than 1.1 million doses of tOPV have been given throughout 70 provinces. This number does not include the SIA being conducted in Istanbul during June this year.

The RCC thanks representatives from Turkey for their comprehensive presentation and commends the actions undertaken by the National Programme in Turkey under very demanding circumstances.

Israel
The initial response to the discovery of WPV in sewage samples in May 2013 was to intensify surveillance, followed by an IPV catch-up campaign for children having had fewer than 3 doses, along with a single recommended dose of IPV for all adults. A stool survey conducted in the south of the country revealed a 6% carriage rate for WPV in some groups of children. A second-phase response was started in August 2013 with two doses of bOPV offered to all children. Vaccine uptake for bOPV was not high, with approximately 76% uptake in the first round and 50% in the second round. Environmental surveillance was increased from 10 to 86 collection sites, covering approximately 60-80% of the total population.

A second stool survey was conducted towards the end of 2013 with no clearly WPV-positive stools detected. The last WPV-positive environmental surveillance sample was collected from a single site in March 2014.

The RCC thanks representatives from Israel for their detailed and very helpful presentation and commends the work done to try to end the outbreak.
Review of polio status in high risk countries from 2013 RCC and risk mitigation activities

Bosnia and Herzegovina
The administrative structures in Bosnia and Herzegovina are extremely complex and continue to impede progress in improving polio surveillance and increasing population immunity. Collection of data is difficult and there is evidence of considerable data management problems. Several years of less than adequate vaccine coverage have left a sizable accumulation of vulnerable children that are not being adequately addressed. There is a need for an SIA covering children <10 years of age.

Polio surveillance appears to be adequate, but the capacity to respond to an outbreak may be constrained by the complex administrative and decision-making structure.

Georgia
Despite improvements in routine vaccine coverage since 2012, there remain large immunization gaps that require attention. Several districts, particularly in the Central and Black Sea areas, have low coverage indicating clusters of susceptible individuals. Plans have been developed for an SIA for 2014 to provide a catch-up dose of tOPV to all children <15 years of age.

AFP surveillance quality is generally adequate and environmental surveillance has been established in 7 regions. The environmental surveillance is, however, not considered to be adequately sensitive to detect WPV importations with any confidence. A rapid assessment of the AFP system was conducted in early 2014 and the report will be available.

The National preparedness plan is now very detailed, but questions remain over the ability to effectively implement planned actions.

The RCC recognizes the improvements that have been made, and commends the activities planned for this year. The risk of polio transmission remains, however, due to low population immunity. Routine vaccine coverage should reach >95% before the country considers switching from OPV to IPV.

Romania
IPV was introduced in 2009 with coverage reported as 93% with 3 doses by 18 months of age. Reported coverage has declined since 2011 as reporting structures have changed. In 2013, 8 of 43 districts reported <90% coverage. Several years of low coverage have resulted in the accumulation of a large number of susceptible.

AFP surveillance quality is low and virus isolation rates are very low. Environmental surveillance has been initiated, but the quality and extent is considered inadequate. The National preparedness plan has been updated, but questions remain over the capacity to implement planned actions.

The RCC concludes there is little evidence of progress, but acknowledges that the role of public health services during the health transition period is currently in decline. Romania remains at high risk for transmission of imported WPV.
Ukraine
Over the past 5 years a sizable population that is susceptible for polio has been accumulating through undervaccination. It is estimated there are between 1.5 and 1.8 million susceptible children. Nineteen of 27 districts have reported coverage <90%. To date in 2014 no vaccine for routine immunization services has been purchased by national procurement authorities; should orders be placed immediately, the delivery would be expected between October and December.

Surveillance indicators meet the requirements and it is likely that any importation of WPV would be detected. A review of the AFP surveillance system concluded that the system is functional and sensitive. There are, however, concerns over the sensitivity of the environmental surveillance system. Serological surveys have been conducted but are of questionable value.

Routine immunization services appear to be dysfunctional and there is little confidence that outbreak response activities could be implemented effectively. The situation has been worsened this year by the ongoing political changes and social disruption. The risk of transmission of imported WPV remains high.

Regional outbreak response and risk mitigation activities
New Regional outbreak response guidelines are being developed to bring recommendations and the timeline for activities into line with the Global guidelines. The vaccine of choice for outbreak response in now considered to be mOPV. The second choice is bOPV, followed by tOPV; IPV is not recommended for outbreak response vaccination to interrupt wild poliovirus transmission.

Following the RCC recommendation made in 2013, and considering Tajikistan’s proximity to Afghanistan, two rounds of SIA were conducted in Gorno Badakshan Autonomous Oblast in February and early April 2014, with reported coverage of 94.6% and 98.9% respectively. The first of 2 rounds in the remaining 4 oblasts (Dushanbe, RRP, Khatlon and Sugdh) for a target group of 1.1 million children was successfully implemented on 14–18 April 2014, with a second round conducted in May 2014, again with high reported coverage.

The polio outbreak simulation exercise (POSE) is a one or two-day table-top exercise designed to help Member States critically review and update their national plans for responding to the detection of imported WPV and VDPV, including use of the International Health Regulations mechanism. Since 2010, two regional and one national exercise have been conducted. The first regional exercise took place in Bosnia and Herzegovina in 2011 and was attended by representatives of Bosnia and Herzegovina, Serbia and Montenegro. A national exercise was conducted in the United Kingdom in February 2013. The second regional POSE took place in Kiev, Ukraine, on 15–16 May 2013. Participants included representatives from Armenia, Azerbaijan, Georgia and Ukraine, and an observer from the Russian Federation. The utility and advantages of conducting POSE has now been demonstrated and further exercises with partners in various Member States of the European Region have been proposed or planned.

In general, countries in the Region need to update national preparedness plans to improve the quality of planning in light of recent importation events and renewed threats of importation from neighbouring and other Regions. A formal review process should be considered for updated plans, and all plans should be tested using POSE, ideally at a Regional or subregional level. It is essential that countries identify sources of vaccine for outbreak response and the funds with which to pay for
them. Many countries also need to update their polio risk management and polio communications plans.

Discussion

Steps need to be taken to maintain the momentum in countries to conduct POSE. For countries within the EU it may be possible to conduct joint exercises to test preparedness plans. Countries should be aware that in an outbreak situation it may be necessary to extend surveillance sensitivity to include individuals >15 years of age, but this should be carried out only if the laboratory capacity is adequate and additional samples do not disrupt laboratory activities.

Introduction of IPV and switch to bOPV by 2016

A component of the current Polio Eradication and Endgame Strategic Plan 2013–2018 is for all Member States to introduce at least 1 dose of IPV into routine immunization schedules by the end of 2015 and switching OPV use from tOPV to bOPV by mid-2016. Globally 71 countries are already using IPV, 42 of them within the WHO European Region. A further 8 countries in the Region have plans to introduce IPV by the end of 2015, and two have not yet announced their plans. Ten countries are using a sequential OPV/IPV schedule and 33 are using IPV only, usually in a combined vaccine. The WHO secretariat is actively supporting countries in developing plans and implementing IPV introduction and switch to bOPV.

Discussion

One consequence of the introduction of IPV may be that the control of pertussis will become more difficult, as most IPV is provided in acellular pertussis-containing combination vaccines that may have shorter duration of protection. This issue goes beyond the mandate of the Regional technical advisors and needs to be addressed to the global Strategic Advisory Group of Experts on Immunization.

Conclusions of the RCC and recommendations to Member States and WHO

Conclusions

The Regional Certification Commission (RCC) concluded that with the exception of Israel, there was no wild polio virus (WPV) or vaccine derived polio virus (VDPV) transmission in the WHO European Region in 2013, but that the risk of importation and subsequent transmission remains high in some countries. Virus transmission continues in neighbouring countries and in other countries with strong links to the Region. Maintaining both high vaccine coverage and high quality surveillance remains of utmost importance for all Member States.

Evidence provided by Israel supports the contention that transmission of imported WPV has been stopped but a further period of enhanced surveillance is required before a final conclusion can be made. The RCC commends the national authorities in Israel for the impressive efforts in monitoring the outbreak and note the actions taken to stop further transmission of the virus. The RCC notes its appreciation of the openness and candour with which a comprehensive account of the outbreak, and actions taken to control it, have been presented.
The RCC also commends national authorities in Turkey for their efforts to prevent importation and spread of WPV following the outbreak of polio in Syria in the face of an influx of large numbers of Syrian refugees.

While the general standard of reports received from the national certification committees (NCC) has improved, several countries continue to submit inadequate updates, lacking in relevant information or detail. The RCC regrets that three countries failed to submit reports and furthermore, that more than half of the reports were received after the deadline for receipt had expired. The RCC notes with concern that several reports also fail to include details of an adequate and current National Preparedness Plan. Countries failing to include information on their preparedness plans for a potential outbreak of imported wild polio are requested to submit appropriate documentation to WHO within 3 months.

Accumulating evidence suggests that use of inactivated polio vaccine (IPV) alone is insufficient to stop poliovirus transmission. Member States should be aware of this and include the use of an appropriate formulation of oral polio vaccine (OPV) in their outbreak response plans in accordance with WHO recommendations.

Several Member States are using supplementary surveillance in place of, or in conjunction with, acute flaccid paralysis (AFP) surveillance. The quality and appropriateness of this surveillance is questionable in many cases with too few faecal specimens being tested to assure that polioviruses are not circulating. Countries depending on AFP surveillance need to ensure it meets the required indicators. There continues to be evidence of surveillance gaps in a number of at-risk countries, where no surveillance activity has been reported, sometimes for several successive years.

Although reported national vaccine coverage is high in most countries in the Region, many continue to have subnational areas with coverage below optimal levels. Some have significant accumulations of individuals susceptible to polio in age groups that were missed due to disruptions in immunization programmes or changes to immunization policy, or were not reached by immunization services at all. All Member States need to ensure that population immunity is uniformly high through appropriate use of supplementary immunization activities where required.

The countries considered to be at high risk for polio transmission in 2014 are Bosnia and Herzegovina, Romania and Ukraine. The RCC urges these countries to take immediate steps to improve immunization programme performance and quality of polio surveillance.

**Recommendations**

**NCCs and their reports**

- It is of concern to the RCC that three countries failed to submit an annual report and that four countries have still to establish/reappoint a formal NCC. All countries must have a functional NCC and every NCC must submit an annual report in the format provided by the WHO Secretariat.

- Although the standard of reporting has improved, reports from several NCCs still fail to provide the requested information in a clear and unambiguous manner. All NCCs are urged to provide information in the format requested and in direct response to the questions asked on the report pro-forma.
National outbreak preparedness planning

- There remain eight Member States without a national outbreak preparedness plan and nine with a plan that is time-expired. All countries must have a current national preparedness plan.

- Many countries have preparedness plans that fail to specify the type of vaccine to be used and the source of funding for outbreak response vaccine. All Member States should identify the type of vaccine to be used, a source and funds for vaccine purchase, and any potential impediments to the use of particular vaccine formulations for outbreak response. All Member States should review and update their national preparedness plans accordingly.

- Reports from countries that did not include details of their national preparedness plan will need to be revised. Countries will be given 3 months to revise the reports appropriately and re-submit to the RCC. In future, countries that fail to provide details of their national preparedness plans will have their risk assessment amended to higher risk for poliovirus transmission.

- All Member States are encouraged to conduct exercises to test their preparedness plans so as to identify gaps and weaknesses and modify their plans to address the issues identified. Experience suggests the Polio Outbreak Simulation Exercise (POSE) is an excellent tool for this purpose and all Member States are urged to test their preparedness plans using the POSE model.

- Member States should be aware of the accumulating evidence that use of IPV alone is insufficient to stop WPV transmission. Member States are strongly urged to include the use of an appropriate formulation of OPV in their outbreak response plans in accordance with WHO recommendations.

Risk assessment

- Concerns remain that because of the quantitative basis of the risk assessment methodology used by the WHO Secretariat assessments are not always consistent and comparable between countries. The RCC will use its judgement, based on experience and reports from country visits, to interpret the numerical analyses to make a final determination of the countries’ risk status.

- Given the transmission of WPV in 2013, determination of the risk assessment status for Israel is currently inapplicable. Evidence for 6-months absence of WPV transmission will need to be submitted by the national authorities of Israel for evaluation by the RCC and subsequent consideration of the risk status.

- The secretariat is urged to more clearly define ‘vulnerable’ and ‘high risk’ groups’ categories in the report pro-forma to help countries provide details of actions taken to achieve high population immunity.

- The additions or modifications to the reporting tools will be considered and approved by RCC prior to next annual reporting cycle.
Immunization
- The RCC notes with increasing concern that a number of at-risk countries continue to accumulate polio-susceptible populations in specific age-cohorts or geographical areas missed by past immunization services. These immunization gaps should be closed as soon as possible through the use of targeted supplementary immunization activities.

Vaccines
- The RCC notes the interest of some Member States in introducing IPV-containing combination vaccines that contain acellular pertussis vaccine. The RCC is aware of increasing reports of pertussis outbreaks in countries using acellular pertussis vaccines and will ask Strategic Advisory Group of Experts on Immunization to consider this issue in the context of polio eradication.

Surveillance
- Noting that several Member States have been performing very poor quality AFP surveillance systems for many years, the RCC encourages NCC chairpersons to challenge national surveillance programmes to increase the effectiveness of AFP surveillance and to develop and implement alternative surveillance methods capable of providing convincing evidence that WPV or VDPV are not circulating in the country.

- The RCC encourages national surveillance programmes conducting supplementary surveillance for polio to ensure that the sampling, testing and confirmation systems are appropriate to support polio surveillance and that the number and type of specimens collected and their transport to laboratories and analysed are adequate and that laboratory analyses are of high quality. Revised guidelines for enterovirus and environmental surveillance systems are in the final stages of production and all Member States are urged to follow the recommendations provided in these guidelines.

- The RCC reminds countries that supplementary surveillance evidence based on results of examination of non-stool patient materials such as cerebrospinal fluid (CSF) or throat swab samples are not acceptable as an alternative to results on an adequate number of faecal or (adequate) environmental samples. All Member States are urged to review their procedures for supplying supplementary surveillance results to exclude data originating from testing of CSF and throat swab samples from patients presenting with symptoms inconsistent with poliomyelitis.

Laboratories
- While the overall timeliness and accuracy of laboratory reporting has improved there continue to be delays and omissions in reporting. All laboratories which are members of the WHO Global Polio Laboratory Network (GPLN) in the Member States are urged to use the web-based Regional Laboratory Data Management System (LDMS) for reporting laboratory results and to ensure reports are made within the recommended timeframe, including weekly “zero” reporting. Also, special attention should be paid to ensuring that all relevant information is entered into LDMS before samples and/or isolates are referred to the Regional Reference and Global Specialized Laboratories.
Annex 1. Risk of wild poliovirus transmission, WHO European Region, 2014

<table>
<thead>
<tr>
<th>Country</th>
<th>Surveillance quality</th>
<th>Population immunity</th>
<th>Other factors</th>
<th>Composite risk score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>Good</td>
<td>High</td>
<td>Yes</td>
<td>Low</td>
</tr>
<tr>
<td>Andorra</td>
<td>Average</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Armenia</td>
<td>Good</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Austria</td>
<td>Good</td>
<td>High</td>
<td>Yes</td>
<td>Low</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>Good</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Belarus</td>
<td>Good</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Belgium</td>
<td>Average</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>Average</td>
<td>Low</td>
<td>Yes</td>
<td>High</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>Good</td>
<td>Average</td>
<td>No</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Croatia</td>
<td>Average</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Cyprus</td>
<td>Good</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Average</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Denmark</td>
<td>Good</td>
<td>Average</td>
<td>No</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Estonia</td>
<td>Good</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Finland</td>
<td>Good</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>France</td>
<td>Good</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Georgia</td>
<td>Good</td>
<td>Low</td>
<td>No</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Germany</td>
<td>Good</td>
<td>Average</td>
<td>No</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Greece</td>
<td>Good</td>
<td>Average</td>
<td>No</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Hungary</td>
<td>Good</td>
<td>High</td>
<td>Yes</td>
<td>Low</td>
</tr>
<tr>
<td>Iceland</td>
<td>Average</td>
<td>Average</td>
<td>Yes</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Ireland</td>
<td>Good</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Israel</td>
<td>Good</td>
<td>High</td>
<td>Yes</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Italy</td>
<td>Good</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>Good</td>
<td>High</td>
<td>Yes</td>
<td>Low</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>Average</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Latvia</td>
<td>Good</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Lithuania</td>
<td>Good</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>Average</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Malta</td>
<td>Average</td>
<td>Average</td>
<td>No</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Monaco</td>
<td>Average</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Montenegro</td>
<td>Average</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Good</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Norway</td>
<td>Good</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Poland</td>
<td>Average</td>
<td>High</td>
<td>Yes</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Portugal</td>
<td>Average</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Republic of Moldova</td>
<td>Good</td>
<td>Average</td>
<td>No</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Romania</td>
<td>Average</td>
<td>Low</td>
<td>Yes</td>
<td>High</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>Good</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Country</td>
<td>Status</td>
<td>Quality</td>
<td>VPI</td>
<td>Intermediate</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>-----</td>
<td>--------------</td>
</tr>
<tr>
<td>San Marino</td>
<td>Average</td>
<td>Average</td>
<td>No</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Serbia</td>
<td>Good</td>
<td>Average</td>
<td>No</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Slovakia</td>
<td>Average</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Slovenia</td>
<td>Average</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Spain</td>
<td>Average</td>
<td>High</td>
<td>Yes</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Sweden</td>
<td>Good</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Average</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>Average</td>
<td>Average</td>
<td>No</td>
<td>Intermediate</td>
</tr>
<tr>
<td>The former Yugoslav Republic of Macedonia</td>
<td>Good</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Turkey</td>
<td>Good</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>Average</td>
<td>High</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Ukraine</td>
<td>Good</td>
<td>Low</td>
<td>Yes</td>
<td>High</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Good</td>
<td>Average</td>
<td>No</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>Good</td>
<td>High</td>
<td>Yes</td>
<td>Low</td>
</tr>
</tbody>
</table>
Annex 2

28th Meeting of the European Regional Certification Commission (RCC) for Poliomyelitis Eradication

Copenhagen, Denmark

3–5 June 2014

PROGRAMME

Tuesday, 3 June 2014

13:00 – 13:30  Registration

13:30 – 13:45  Opening

WHO Regional Office for Europe, Regional Certification Commission

Plenary session 1: Update on global polio eradication and sustaining polio free Europe

13:45 – 14:15  Polio programme annual update from the WHO Region Office for Europe

Dina Pfeifer, WHO Regional Office for Europe

14:15 – 14:45  Performance of the European Polio Laboratory Network in 2013-14; containment activities

Eugene Gavrilin, WHO Regional Office for Europe

Discussions

14:45 – 15:15  Coffee break
**Plenary Session 2:** Sustainability of polio-free Europe: Review of national updated documents and risk assessment for 2013 by epidemiological zones

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>15:15 – 15:30</td>
<td>Introduction to Subregional overview and risk assessment</td>
</tr>
<tr>
<td></td>
<td>Sergei Deshevoi, Abigail Shefer, WHO Regional Office for Europe</td>
</tr>
<tr>
<td>15:30 – 17:00</td>
<td>Subregional overview: Update information for 2013 in the Nordic/Baltic (8 countries) and Western (10 countries) epidemiological zones</td>
</tr>
<tr>
<td></td>
<td>Sergei Deshevoi, WHO Regional Office for Europe</td>
</tr>
<tr>
<td></td>
<td>Subregional overview: Update information for 2013 in the Southern (10 countries) epidemiological zone</td>
</tr>
<tr>
<td></td>
<td>Dragan Jankovic, WHO Regional Office for Europe</td>
</tr>
<tr>
<td>17:00 – 19:00</td>
<td>Reception on the occasion of the 28th Meeting of the European Regional Certification Commission for Poliomyelitis Eradication</td>
</tr>
</tbody>
</table>

**Wednesday, 4 June 2014**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00 – 10:15</td>
<td>Subregional overview: Update information for 2013 in the Central-Eastern (8 countries) epidemiological zones</td>
</tr>
<tr>
<td></td>
<td>Dragan Jankovic, WHO Regional Office for Europe Southern Zone</td>
</tr>
<tr>
<td></td>
<td>Subregional overview: Update information for 2013 in the Central (7 countries) and MECACAR (10 countries) epidemiological zones</td>
</tr>
<tr>
<td></td>
<td>Shahin Huseynov, WHO Regional Office for Europe</td>
</tr>
<tr>
<td>10:15 – 10:45</td>
<td>Coffee break</td>
</tr>
</tbody>
</table>

**Plenary Session 3:** Regional outbreak response and risk mitigation activities

*Closed RCC session*

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:45 – 11:15</td>
<td>Turkey</td>
</tr>
<tr>
<td>11:15 – 12:30</td>
<td>Israel</td>
</tr>
<tr>
<td>12:30 – 13:30</td>
<td>Lunch</td>
</tr>
</tbody>
</table>
Plenary Session 4: Review of polio status in high risk countries and risk mitigation activities
(Closed RCC session)
13:30 – 16:00
Bosnia and Herzegovina (Donato Greco, RCC)
Georgia (Tapani Hovi, RCC)
Romania (Anton van Loon, RCC)
Ukraine (Sergei Deshevoi, WHO Regional Office for Europe)
16:00 – 16:30 Coffee break
16:30 – 17:00 Regional outbreak response and risk mitigation activities
Shahin Huseynov, WHO Regional Office for Europe
17:00 – 17:30 End-of-the-day discussion

Thursday, 5 June 2014
(Closed RCC session)
09:00 – 09:30 Introduction of IPV and switch to bOPV by 2016.
Abigail Shefer, WHO Regional Office for Europe
09:30 – 09:45 Update from GCC meeting (Kathmandu, 28 November, 2013)
David Salisbury, RCC
09:45 – 10:30 Conclusions of the RCC and recommendations to Member States and WHO
10:30 – 11:00 Coffee break
11:00 – 11:30 Review working procedures of the RCC
11:30 – 12:00 Closing
Annex 3

LIST OF PARTICIPANTS

European Regional Certification Commission (RCC) Members

Professor David M. Salisbury
Chairperson of the European Regional Certification Commission (RCC) for Poliomyelitis Eradication
Dobsons
Sotwell Street
Brightwell-cum-Sotwell
Wallingford, OX10 0RH
United Kingdom of Great Britain and Northern Ireland

Professor Donato Greco
Member of European Regional Certification Commission for Poliomyelitis Eradication
National Centre for Epidemiology, Surveillance and Health Promotion
Isituto Superiore di Sanita
Via Giano della Bella 34
00161 Rome
Italy

Professor Tapani Hovi
Member of European Regional Certification Commission for Poliomyelitis Eradication
Project Leader
National Institute for Health and Welfare
POB 30
FIN 00271 Helsinki
Finland

Dr Anton van Loon
Member of European Regional Certification
Commission for Poliomyelitis Eradication
Head
Department of Virology G04.614
University Medical Centre Utrecht
Heidelberglaan 100
NL-3584 CX Utrecht
Netherlands

Ms Ellyn Ogden (by telephone)
Member of European Regional Certification
Commission for Poliomyelitis Eradication
USAID Worldwide Polio Erad. Coordinator
Office of Health and Nutrition
Ronald Reagan Building, Cube 5.07-052
United States Agency for International Development
1300 Pennsylvania Avenue, NW
Washington, DC 20523-3700
United States of America

Representatives

Centers for Disease Control and Prevention (CDC)

Dr Laura Zimmerman
Acting Team Lead, European Region
Global Immunization Division
Centers for Disease Control and Prevention
1600 Clifton Road NE
30333 Atlanta
United States of America

European Centre for Disease Prevention and Control (ECDC)

Dr Paloma Carrillo Santisteve
Expert
Vaccine Preventable Diseases
European Centre for Disease Prevention and Control
Tomtebodavägen 11 A,
SE-171 83 Stockholm
Sweden
European Union, DG SANCO

Dr Charles Price
Policy Officer
European Commission Directorate General for Health and Consumer Protection
Unit C3 Health Threats
HTC Building, Office 2/065
Batiment JMO
Rue Alcide de Gasperi
L-2920 Luxembourg
Luxembourg

United Nations Children’s Fund (UNICEF)

Dr Oya Zeren Afsar
Immunization Specialist
UNICEF Regional Office for CEE/CIS
United Nations Children’s Fund
5-7 Avenue de la Paix
1211 Geneva
Switzerland

Germany

Dr Konrad Beyrer
Chairman of the German NCC
Governmental Institute of Public Health of Lower Saxony
Roesebeckstr. 4-6
30449 Hannover
Germany

Israel

Dr Eran Kopel
Public Health Services
Ministry of Health
Jerusalem
Israel

Dr Lester Shulman
Head
Laboratory of Environmental Virology
Chaim Sheba Medical Centre
52621, Tel-Hashomer
Israel
Professor Eli Somekh
NCC Chairperson
Head
Division of Pediatrics
Wolfson Medical Center
Holon
Israel

Turkey

Professor Levent Akin
Hacettepe University Public Health Dpt.
06100 Sihhiye
Sihhiye Ankara
Turkey

Dr Umit Ozdemirer
Primary Health Care General Directorate
Ministry of Health
Mithatpasa Cad. No:3
B Blok Flat 4 Room No:20, Sihhiye 06030
06434 Sihhiye-Ankara
Turkey

Temporary Advisors

The European Regional Verification Commission for Measles and Rubella Elimination (RVC)

Professor Mira Kojouharova
Deputy Director
National Center for Infectious and Parasitic Diseases, Ministry of Health
26 Yanko Sakazov Blvd.
1504 Sofia
Bulgaria

Rapporteur

Dr Raymond Sanders
Scientist
72 Henwick Road, St John’s
Worcester
WR2 5NT
United Kingdom of Great Britain and Northern Ireland
World Health Organization

WHO headquarters

20, Avenue Appia, CH-1211 Geneva 27, Switzerland

Dr Nicoletta Previsani
Technical Officer Containment Surveillance, Monitoring & Information Polio Operations & Research

Dr Graham Tallis
Coordinator, Polio Surveillance, Monitoring and Information

Regional Office for Europe
UN City, Marmorvej 51, DK-2100 Copenhagen Ø, Denmark

Dr Dina Pfeifer
Programme Manager Vaccine-preventable Diseases and Immunization Programme

Dr Abigail Shefer
Medical Officer Vaccine-preventable Diseases and Immunization Programme

Dr Sergei Deshevoi
Medical Officer Vaccine-preventable Diseases and Immunization Programme

Dr Eugene Gavrilin
Coordinator, WHO Regional Office for Europe Polio Laboratory Network Vaccine-preventable Diseases and Immunization Programme

Dr Shahin Huseynov
Technical Officer, VPI CARK WHO Country Office, Tashkent, Uzbekistan

Dr Dragan Jankovic
Technical Officer Vaccine-preventable Diseases and Immunization Programme
Support staff

Ms Malika Abdusalyamova
Administrative assistant
Vaccine-preventable Diseases and Immunization Programme

Ms Natasha Allen Grue
Secretary
Vaccine-preventable Diseases and Immunization Programme