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Report of the 27th Meeting of the European Regional Certification Commission for Poliomyelitis Eradication

**Copenhagen, Denmark
30–31 May, 2013**

ABSTRACT

The 27th Meeting of the European Regional Certification Commission for Poliomyelitis Eradication (RCC) reviewed annual updates submitted by the Member States of the Region to determine whether the Region had maintained its polio-free status during 2012. The RCC also identified issues that threatened the future polio-free status of the Region and proposed action to be taken by Member States and the Regional Office for reducing the risk of polioviruses circulating in the Region. Based on the evidence provided by the national certification committees, the RCC is convinced that wild or vaccine-derived polioviruses did not circulate in the Region in 2012. The RCC concurs with the World Health Assembly declaration that polio eradication is a public health emergency and all Member States should maintain high immunization coverage and effective surveillance until global eradication is achieved.

Keywords

POLIOMYELITIS – prevention and control
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Abbreviations

AFP	acute flaccid paralysis
cVDPV	circulating vaccine-derived poliovirus
CDC	United States Centers for Disease Control and Prevention
ETAGE	European Technical Advisory Group of Experts on Immunization
GAVI	Global Alliance for Vaccines and Immunization
IPV	inactivated polio vaccine
JRF	WHO/UNICEF Joint Reporting Form
MECACAR	Mediterranean, Caucasus and central Asian republics
NCC	National Certification Committee
NPEV	non-polio enteroviruses
OPV	oral poliovirus vaccine
POSE	Polio Outbreak Simulation Exercise
RCC	European Regional Certification Commission for Poliomyelitis Eradication
RRL	Regional Reference Laboratory for polio
SIA	supplementary immunization activities
UNICEF	United Nations Children's Fund
VDPV	vaccine-derived poliovirus
WHO	World Health Organization
WPV	wild-type poliovirus

Introduction

The 27th Meeting of the European Regional Certification Commission (RCC) for Poliomyelitis Eradication was held from 30 to 31 May 2013 in Copenhagen, Denmark. Dr Dina Pfeifer, Programme Manager, Division of Communicable Diseases, welcomed participants on behalf of the World Health Organization (WHO) Regional Director for Europe. She briefly described the benefits of recently relocating the WHO Regional Office for Europe to within the new United Nations City complex.

The meeting was opened by RCC Chairman, Dr David Salisbury, who began by requesting a minute's contemplative silence in memory of our friend and guide in polio eradication, Dr Ali Jaffer Mohamed, who passed away unexpectedly on 14 May 2013.

Dr Salisbury noted the shorter, more focused format of this meeting. The agreed format, without participation of country representatives, has been adopted in an attempt to allow greater concentration by the RCC on the highest priority issues. This format should more effectively result in an updated risk analysis for the European Region, generating information that can be forwarded to the Regional Director for Europe to target resources on the highest priority risks.

Rapporteur for the meeting was Dr Ray Sanders. The meeting programme is provided as Annex 2 and the list of participants as 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 2012;
- to review the current status of sustaining polio-free status in selected Member States, which are defined to be in the high-risk groups and discuss actions required to mitigate the risks and to assure sustainability of polio-free status within countries of the Region;
- to review performance of the European Polio Laboratory Network and the current status of regional laboratory containment in 2012;
- to recommend the European Regional Office strategies and/or actions to sustain polio-free status of the European Region focusing on high-risk countries; and
- to review working procedures of the RCC and to discuss a plan of activities for 2013–2014.

The Global Polio Eradication Initiative's 2013–2018 Strategic Plan: progress and challenges

In 2012, the world saw the fewest polio cases in the fewest countries ever. India, long regarded as the most difficult place to end polio, has not recorded a case in more than two years. Outbreaks in re-infected countries have been stopped in three of the four countries involved, with Angola and the Democratic Republic of the Congo regaining polio-free status in the last year. The remaining endemic countries, Afghanistan, Pakistan and Nigeria, launched Emergency Action Plans in 2012 to boost polio vaccination coverage to levels necessary to stop transmission.

It is against this backdrop that the Global Polio Eradication Initiative's 2013–2018 Strategic Plan has been developed. Major elements that distinguish this plan from previous strategic plans include:

- strategic approaches to end all polio disease (wild and vaccine-related);
- an urgent emphasis on improving immunization systems in key geographies;
- the introduction of new, affordable inactivated polio vaccine (IPV) options for managing long-term poliovirus risks and potentially accelerating wild poliovirus eradication;
- risk mitigation strategies to address new threats, particularly insecurity in some endemic areas, and contingency plans should there be a delay in interrupting transmission in such reservoirs;
- a concrete timeline to complete the programme; and
- a legacy planning process to harness the Global Polio Eradication Initiative lessons and infrastructure to deliver other critical health and development resources and, ultimately, complete the Global Polio Eradication Initiative programme.

The four main objectives of the new plan are:

1. poliovirus detection and interruption (by 2014);
2. immunization systems strengthening and oral poliovirus vaccine (OPV) withdrawal (by 2016);
3. containment and certification (by 2018); and
4. legacy planning.

The withdrawal of OPV will have cost implications for some countries. Within the European Region there are currently 19 Member States using OPV, either alone or sequentially with IPV. Of these it is expected that at least 6 will require extensive financial support to switch from OPV to IPV use. The European Regional Office is advising Member States on the planned introduction of IPV as soon as is practicably possible in order to minimize disruption of vaccine schedules. This will require the development of new vaccine supply mechanisms and funding streams. Withdrawal of OPV will also require finalization of plans, and establishment of vaccine stockpiles, for potential polio outbreak responses using appropriate vaccines.

Laboratory containment and certification issues lie within the area of interest of the RCC and will come under increased international attention once poliovirus transmission has been interrupted. The third and final Global Action Plan on Laboratory Containment (GAP III) will require alignment with the 2013–2018 Strategic Plan, a process to be overseen by the ad hoc Committee on Biosafety.

Discussion

Concerns were raised over the apparent programmatic failure to deal successfully with recent security challenges faced primarily in Pakistan and Nigeria, where polio vaccinators have faced physical violence, and in extreme cases death, in the past year. These incidents emphasize the difficulties in achieving the end-game scenario for polio and underscore the importance of establishing access to polio-susceptible populations.

Update from the WHO Eastern Mediterranean Regional Office

While great progress has been made in the past year, interrupting wild-type poliovirus (WPV) transmission in Pakistan and Afghanistan, and circulating vaccine-derived poliovirus (cVDPV) transmission in Somalia remain the highest priorities in the Eastern Mediterranean Region. Security threats to polio vaccinators and recent political instability, particularly in the Syrian Arab Republic, present major challenges to achieving the goal of polio eradication. As in other regions where the majority of countries have been polio-free for several years, maintaining high vaccine coverage and good-quality surveillance at subnational levels is problematic. Persuading these countries to remain on high-level alert for importation of WPV and outbreaks of cVDPV is also becoming difficult.

Pakistan has seen a significant decrease in cases compared with the year-to-date 2012, and WPV type 3 has not been isolated since April 2012. From a widespread distribution of cases in 2010 the endemic focus has been reduced to the north-western border area with Afghanistan with only sporadic cases occurring elsewhere. Acute flaccid paralysis (AFP) surveillance in Pakistan is now supported by environmental surveillance in key locations. Of greatest concern in recent months has been a series of security threats and incidents targeting polio vaccinators. These threats threaten to slow or prevent access to polio-susceptible populations and hinder eradication efforts. In Afghanistan the focus of transmission in the south of the country, detected in 2010 and 2011 appears to have been removed, and the only WPV detected so far in 2013 are from the north eastern border area with Pakistan.

In the Horn of Africa, Somalia¹ has been free of WPV transmission since 2007, but cVDPV-associated cases have been detected since 2008 highlighting the lack of accessibility to susceptible populations and resulting low-population immunity in some areas. Supplementary immunization activities have been conducted, together with targeted outbreak response activities in recently accessible areas. An external AFP surveillance review conducted in March found worrying evidence for filtering and exclusion of AFP cases by some surveillance staff, suggesting the infection rates may be higher than current data predicts. Neighbouring Yemen has also detected cVDPV in AFP cases and contacts in security compromised areas, demonstrating the large population immunity gaps resulting from chronically low routine

¹ Reinfection with imported wPV1 reported on 9 May 2013.

immunization coverage and lack of high-quality supplementary immunization activities (SIA). Outbreak response activities together with national immunization day and greater scrutiny of the surveillance system have been initiated.

Discussion

Members of the RCC accepted the report from the Regional Office for the Eastern Mediterranean with great interest. The Regional Office for the Eastern Mediterranean has made impressive progress and should be congratulated, but a momentous task remains ahead. It is clear that the Mediterranean, Caucasus and central Asian republics (MECACAR) areas of the Eastern Mediterranean Region are now low-risk areas for polio, and as such may present a lower risk as sources of importation into Europe. It must be noted, however, that bordering countries are not the only source of imported virus, and that viruses can enter the Eastern Mediterranean Region very rapidly and effectively from any transmission focus, regardless of geographic location.

Polio programme annual update from the Regional Office for Europe

In addition to clinical diagnostic services there are three forms of polio surveillance in operation in the European Region: surveillance for AFP (41 countries), enterovirus surveillance (41 countries) and environmental surveillance (21 countries). There is considerable variation, however, in the quality of these surveillance systems.

While AFP national surveillance remains generally strong in the central-eastern and MECACAR subregional blocks there are many areas at the subnational level with either very-low or no AFP cases reported. Of particular concern is Turkey, where the quality of national AFP surveillance appears to be in decline and subnational reporting is extremely varied. Non-polio AFP rates in countries affected by the 2010 polio outbreak remain at high levels, although there are indications of possible over-reporting in several geographical areas.

Twelve Member States continue to use OPV alone while seven have moved to mixed OPV/IPV schedules. The remainder (34) use IPV only. Kazakhstan is currently in transition from OPV to IPV, and the Republic of Moldova looks into a possibility to introduce IPV by 2016.

Twelve Member States (Albania, Austria, Belgium, Finland, France, Israel, Italy, Monaco, Poland, Slovenia, the former Yugoslav Republic of Macedonia and Turkey) did not report vaccine coverage data (through the WHO/ United Nations Children's Fund (UNICEF) Joint Reporting Form (JRF)) and ten did not report subnational level coverage (Andorra, Cyprus, Denmark, Greece, Iceland, Latvia, Luxembourg, Malta, San Marino and Switzerland) for the year 2012. Reasons given for non-reporting of coverage data include reluctance of European Union Member States to double-report information (to the European Centre for Disease Prevention and Control and WHO); the deadline for JRF submission is not compatible with national data collection schedules or length of time taken to obtain official approval for submission, and; lack of capacity in some countries to collect reliable coverage data. For those countries that do report vaccine coverage data there is considerable variation in both the denominator population reported on and the source of immunization information used to

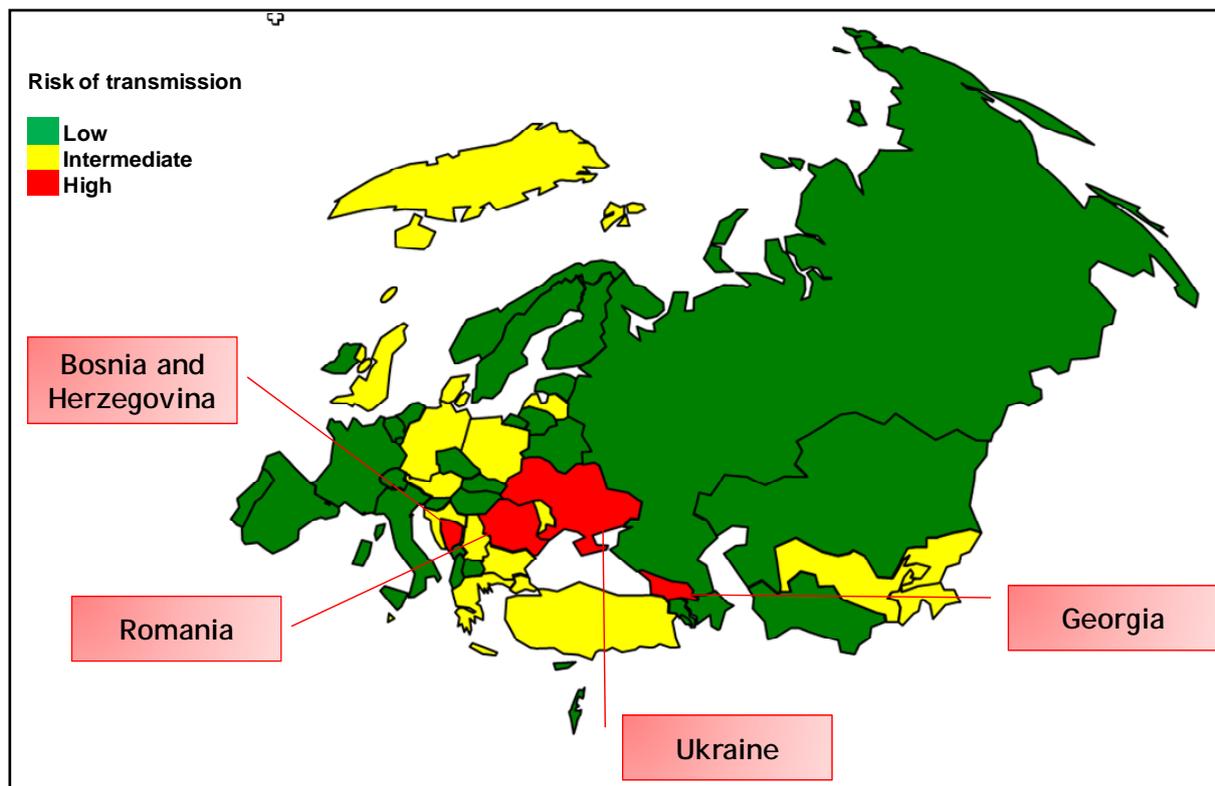
calculate coverage. Because of this variation it is very difficult in some cases to understand what ‘coverage’ means and how this information relates to risk for polio transmission.

Within the European Region, actions taken in 2011–2012 to mitigate high risk of wild poliovirus transmission in the event of importation include: subnational supplementary immunization activities in six countries (Azerbaijan, Georgia, Kyrgyzstan, Russian Federation, Tajikistan and Uzbekistan); field or desk reviews of surveillance systems conducted in seven countries (Azerbaijan, Georgia, Greece, Kyrgyzstan, Romania, Ukraine and Uzbekistan); planned assessments in three (Bosnia and Herzegovina, Russian Federation and Tajikistan); and capacity building exercises in five countries (Azerbaijan, Bosnia and Herzegovina, Russian Federation, Tajikistan and Uzbekistan). Preparedness for importation has also been assessed through the use of the newly-developed Polio Outbreak Simulation Exercise (POSE) in four countries (Armenia, Azerbaijan, Georgia and Ukraine).

As of May 2013 forty-four Member States have formal national preparedness action plans. Of these only 28 have clearly defined their target group for vaccination, 42 have defined their vaccine use policy and only 16 have secured vaccine stocks or secured sources of supply for outbreak response. The large number of countries without secured vaccines for outbreak response remains of concern, as does the number of Member States without formal national preparedness plans.

In 2012 six Member States (Bosnia and Herzegovina, Georgia, Greece, Romania, Ukraine and Uzbekistan) and two subnational regions (North Caucasus of the Russian Federation and south-east Turkey) were considered to be at high risk of poliovirus transmission following importation. Risk assessment conducted in 2013 resulted in four countries in the Region (Bosnia and Herzegovina, Georgia, Romania and Ukraine) to be at high risk for substantial wild polio virus transmission, 19 countries have been considered to be at intermediate risk, and 30 countries have been assessed at low risk.

Fig.1 Risk of transmission following importations of wild poliovirus, European Region, 2013



Discussion

It is essential for the Secretariat and the RCC to understand what the reported 'coverage' data means and how it can be related to risk for transmission following importation. Countries use a variety of methods to calculate vaccination coverage, for example, the denominator can range from all newborns (by 12 months of age) to children aged 5 to 6 years. In addition, different sources of information are used to compile immunization coverage data: health reports, coverage surveys, school reports and electronic registries. The Secretariat and the RCC need to be more specific and direct in asking questions about reported coverage, denominators and sources of immunization information used.

With regard to country plans for response to importation of WPV or detection of cVDPV there is a need for explicit information on which vaccines will be used, where the vaccine supplies will come from, and how they will be funded. While advice on appropriate vaccines for use in outbreak response should come from the European Technical Advisory Group of Experts on Immunization (ETAGE), the RCC should be scrutinising national plans to ensure they include sufficient detail on proposed vaccine use, supply and funding.

Special attention was given to the risk assessment outcomes which resulted in reduction of the number of countries at high risk from four in 2013 compared to six countries and two subnational regions in 2012.

Review of national updated documents for 2012 by epidemiological zones

Introduction to subregional overview and regional risk assessment

As of 28 May 2013 forty-nine Member States had submitted annual progress reports to WHO. Of these, 46 included statements from the NCC and 37 included updates to the national plan of action. Six Member States either failed to submit a report or the report submitted was not in line with requirements. Of countries that submitted a report six failed to provide or provided only incomplete coverage data; three failed to report or only reported incomplete surveillance data; and nine submitted their report more than one month after the official deadline (1 April 2013).

In line with recommendations made at the 26th RCC meeting (June 2012) the risk assessment has been modified in an attempt to simplify and make the process more consistent and transparent. The three indicator groups (surveillance, population immunity and other risk factors) have been retained but a new approach has been introduced to categorise composite risk (low, intermediate, high). Information sources for the assessment include the World Bank data, National Certification Committee (NCC) annual reports, JRF, weekly AFP surveillance reporting, Expanded Programme for Immunization reports and outbreak investigation and response reports. According to the new analysis approach, the increased risk associated with insufficient or low population immunity “overrides” risks associated with surveillance (see Fig. 2 Matrix A). Furthermore, any additional risk factor (i.e. major interruption of public health services and/or immunization programme, or a failure to adequately respond to past vaccine preventable disease outbreaks) increases the composite risk in countries with average or low population immunity and suboptimal surveillance (see Fig. 2 Matrix B).

Fig. 2. Evaluation of composite risk Matrix A: Risk of wild poliovirus transmission in case of importation or establishing of VDPV circulation in the absence of any “other” risk factor

		Level of population immunity		
		High	Average	Low
Surveillance quality	Good	Low risk	Intermediate risk	Intermediate risk
	Average	Low risk	Intermediate risk	High risk
	Low	Intermediate risk	High risk	High risk

Fig.2 Matrix B: Risk of wild poliovirus transmission in case of importation or establishing of VDPV circulation in the presence of any “other” risk factor

		Level of population immunity		
		High	Average	Low
Surveillance quality	Good	Low risk	Intermediate risk	High risk
	Average	Low risk	High risk	High risk
	Low	Intermediate risk	High risk	High risk

Discussion

Given that all WHO regions are now developing and using risk assessments, it is essential that methods used across the regions are compatible and that the assessments produced are of a comparable nature. The United States Centers for Disease Control and Prevention (CDC) has demonstrated that although the assessments used in different regions are not strictly identical, there is a broad overlap of indicators used and approach taken. While compatibility is important it is also important to meet specific Regional requirements, and for that reason assessments are tailored to suit the conditions and needs of each Region. The assessments used by the European and Western Pacific regions are similar, while those used by the Pan American Health Organization are uniquely their own. The South East Asian, Eastern Mediterranean and African regions have not yet been certified polio-free and assessment methods reflect their level of achievement at stopping virus transmission and obtaining Regional certification.

The purpose of this exercise is to identify high-risk countries and take appropriate actions to help them reduce the risk. As the tool is being developed further, there needs to be temporal consistency in the results of the risk assessment, so that countries are not changing status simply because the assessment criteria changes. There also needs to be a rational approach, with countries that intuitively face different levels of risk being placed within the same risk group. A major challenge to achieving this objective is the poor quality of data provided by many countries. Another is that fewer countries in the Region are using standard AFP surveillance as their primary method of polio surveillance.

The most important indicator in the assessment is vaccine coverage as this is a direct indicator of risk. As such it is essential that coverage data from all countries is complete and accurate.

Nordic/Baltic zone

All eight countries were considered to be at low or very low risk of transmission in 2012. However, for the second successive year Iceland failed to submit a report. For countries that did provide data, reported national vaccine coverage in 2012 was above 91%, but Latvia, Lithuania and Norway all reported one subnational administrative unit with coverage below 90%. In the four countries which conduct AFP surveillance, completeness of reporting appears good in Latvia and Lithuania but suboptimal in Estonia and Norway. Timeliness of reporting appears to be a particular problem in Norway. Norway and Lithuania also appear to have underreporting at the subnational level with a significant number of administrative units reporting fewer non-polio AFP cases than expected. 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.

Using the current assessment criteria, the Secretariat has concluded that the probability is very high that WPV had not been circulating in the epidemiological zone in 2012 and that WPV importation, if any, would have been detected in a timely manner by the national health and/or surveillance systems. The risk of transmission following importation of WPV in Estonia, Finland, Lithuania, Norway and Sweden is low, while the risk in Denmark, Iceland and Latvia is intermediate. The main issues of concern are suboptimal immunization coverage in Denmark and Latvia and the failure to report data from Iceland.

A summary of risk assessments by countries is provided in Annex 1.

Discussion

The different immunization schedules used in these countries raises the question of how to compare risks in countries that use a routine schedule with three doses of vaccine with those that use five doses. This has an impact on the rate of accumulation of susceptibles and might affect the risk assessment. It is also important to know if the country plans to use OPV or IPV in its response to any importation. The RCC should have information on which vaccines a country plans to use, whether the vaccine is nationally licensed for use or if the country has a procedure for rapid licensing of vaccines.

Iceland's failure to provide a report raises the issue of credibility of how the RCC assesses risk in the absence of data. Therefore, the RCC downgraded Iceland to an 'intermediate' risk category on the basis of two years' lack of data.

Country-specific feedback from the RCC

On the basis of data submitted the RCC accepted the reports provided and expressed its gratitude to the NCCs.

- Denmark – the risk of substantial transmission following importation of wild poliovirus in Denmark is intermediate due to suboptimal reported routine immunization coverage. The RCC urges that vaccine coverage be improved to reduce risk of poliovirus transmission.

- Estonia – is considered to be at low risk of substantial transmission following importation of wild poliovirus, but more effort is required to improve the quality of AFP surveillance.
- Finland – has been given a low-risk assessment of substantial transmission following importation of wild poliovirus; no problems have been recognized.
- Iceland – the RCC is disappointed that for the last two years Iceland has failed to provide an annual report. The country has been given an intermediate-risk allocation of substantial transmission following importation of wild poliovirus, based on assumptions made of current vaccine coverage and surveillance performance. The RCC emphasized the importance for Iceland to submit outstanding NCC reports to document absence of wild poliovirus circulation.
- Latvia – has been given an intermediate-risk allocation of substantial transmission following importation of wild poliovirus due to suboptimal population immunity. Vaccine coverage at subnational level needs to be improved for the country assessment to revert to low level risk.
- Norway – has been given a low-risk allocation of substantial transmission following importation of wild poliovirus, but subnational vaccine coverage could be improved.
- Sweden – has been given a low-risk allocation of substantial transmission following importation of wild poliovirus; no problems have been recognized.

Western zone

Luxembourg and Monaco failed to submit a formal report but Monaco submitted a statement from the NCC reporting high national vaccine coverage and Germany failed to submit coverage data for 2012. National vaccine coverage throughout the zone appears to be high. Only Austria, Belgium and Switzerland conduct AFP surveillance, although Belgium was originally certified as polio-free country in 2002 without AFP surveillance. Timeliness of reporting is poor for all three countries and surveillance at subnational level appears suboptimal with fewer than expected non-polio AFP cases being reported. Both Germany and Ireland have ceased AFP surveillance. Eight of the countries conduct enterovirus surveillance, and two also conduct environmental surveillance in support of polio surveillance. However the supplementary surveillance data provided is difficult to interpret as few details have been provided of activities carried out or of the results obtained.

No outbreak response national action plan has been received from France, Luxembourg, Monaco or Switzerland. Of the plans received all describe their vaccine policy but only Austria, Ireland and the Netherlands clearly define the target cohort and only Ireland has detailed the secured funding for supply of vaccines.

Based on available information the Secretariat has concluded that the probability is high that WPV had not been circulating in this epidemiological zone in 2012 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 greatest concern is Austria, which appears to have suboptimal surveillance and immunization coverage data that needs to be validated.

A summary result of risk assessments by countries is provided in Annex 1.

Discussion

Concerns were raised over the continuing low level of performance of AFP surveillance in those countries that continue to attempt it. Poorly performed AFP surveillance does not provide proof that WPV is not circulating. If it is not possible to conduct AFP surveillance of sufficient quality then countries should supplement it with alternative systems, such as enterovirus or environmental surveillance. However, the lack of detailed information provided on supplementary surveillance and results currently used as an alternative to AFP surveillance in several countries also fails to provide reassurance that WPV is not in circulation. A more standardized, comparable approach is required for supplementary surveillance to be valid. Fortunately, new guidelines for enterovirus surveillance have been produced by WHO and CDC Atlanta, and will be available for distribution by end 2013. Advice on appropriate criteria and characteristics for acceptable supplementary surveillance activities and results should come from ETAGE.

Country-specific feedback from the RCC

On the basis of data submitted, the RCC accepted the reports provided and expressed its gratitude to the NCCs.

- Austria – is considered to be at intermediate risk of substantial transmission following importation of wild poliovirus due to the very poor performance of AFP surveillance and uncertain coverage data. 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 substantial transmission following importation of wild poliovirus based on 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 substantial transmission following importation of wild poliovirus based on information available but the RCC is concerned, however, at the lack of a national plan for outbreak response.
- Germany – is considered to be at intermediate risk of substantial transmission following importation of wild poliovirus based on population immunity data reported through channels other than the NCC. However, Germany should be credited on the positive steps taken to minimize polio risk among travellers.
- Ireland – is considered to be at low risk of substantial transmission following importation of wild poliovirus based on information available and should be commended on the move away from poorly-performing AFP surveillance towards supplementary surveillance.
- Luxembourg – is disappointed that Luxembourg has failed to provide an annual report. In the absence of a report it is impossible for the RCC to assess the risk of transmission following importation of wild poliovirus. Data from alternative sources suggest the risk is low, but this must be confirmed by the NCC.
- Monaco – the RCC is disappointed that Monaco has failed to provide an annual report. In the absence of a report it is impossible for the RCC to assess the risk of transmission following importation of wild poliovirus. Data from alternative sources suggest the risk is low, but this must be confirmed by the NCC.

- Netherlands – is assessed as low risk of substantial transmission following importation of wild poliovirus based on information available, but there are known to be pockets of polio-susceptible communities that are not reflected in the national data. The Netherlands has suffered 2 outbreaks among these communities in the past 35 years but on each occasion has demonstrated its capacity to respond appropriately. For this reason the assessment of risk continues to be low.
- Switzerland – has been assessed as low risk of substantial transmission following importation of wild poliovirus. Surveillance quality in Switzerland, however, is poor despite recent improvements in AFP surveillance. From information provided, enterovirus surveillance activities also appear to be inadequate. It may be advantageous for Switzerland to concentrate resources on improving enterovirus surveillance performance.
- United Kingdom – has been assessed as intermediate risk of substantial transmission following importation of wild poliovirus on the basis of vaccine coverage and population immunity estimates. The RCC strongly urges the NCC to complete the standard reporting form so that a comparable assessment can be made. It is also of concern that the NCC reported two additional laboratories holding wild poliovirus-infectious materials in 2012. Details on how these new laboratories came to the attention of the NCC would be appreciated.

Southern zone

Italy has yet to establish a formal NCC, so no annual report has been received. Croatia and San Marino failed to submit an annual report before the meeting, although a partial report was received from Croatia after closure of the meeting. Official vaccine coverage estimates in all countries are high, but data for Greece was collected through a survey of very limited size and may not be representative of the whole country. Cyprus also collects immunization data through survey, but the population is much smaller than that of Greece. Provisional coverage data only for Italy was assessed, and data for San Marino was obtained from the JRF.

With the exception of Cyprus, and more recently Greece, AFP surveillance quality is not high. Reporting timeliness is generally poor, and there is evidence for many ‘missed’ non-polio AFP cases at subnational level in Croatia, Italy, Portugal and Spain. Countries in this zone are increasingly moving away from AFP surveillance towards supplementary surveillance, but progress appears to be slow. The quality of enterovirus and environmental surveillance systems being introduced appears to be very variable.

Andorra and San Marino have no national plan of action for response to WPV importation, and plans for Greece, Israel, Italy and Portugal have elapsed. Only Greece and Spain have identified secured funding for procurement of vaccines for outbreak response.

Based on the information available the Secretariat has concluded that surveillance for WPV is suboptimal in this epidemiological zone and must be improved to assure timely detection of imported WPV. However, it is highly likely that WPV was not circulating in this zone in 2012 due to the high population immunity. Croatia is of concern because of the apparent decrease in the quality of surveillance, and the late and incomplete submission of the annual report. Greece is of concern because of doubts over the quality and accuracy of immunization coverage data.

A summary result of risk assessments by country is provided in Annex 1.

Discussion

The question was raised once more of how the RCC can be expected to assess risk in the absence of annual reports from the NCCs. The lack of an NCC in Italy was also of concern. The role and activities of the NCC needs to be given greater prominence and the requirement for timely and complete annual reports from each NCC needs to be given greater emphasis.

The effect of small population size on subnational AFP rates was discussed and it was recognized that for some administrative units a single case of non-polio AFP may be expected only every two to three years. For future reports it may be advantageous to request countries to report absolute numbers of non-polio AFP cases for subnational administrative units rather than rates.

The quality of surveillance in Spain was queried by the RCC. Surveillance is predominantly through enterovirus surveillance as AFP surveillance quality has been poor for several years.

The issue of added risk to Israel² from neighbouring countries was raised. Israel has for some time been targeting known risk populations with immunization services and has demonstrated the capacity for rapid and effective response when problems have arisen. Since they appear to have the situation well in hand it was felt there was no requirement to consider “other” risk factors.

Country-specific feedback from the RCC

On the basis of data submitted the RCC accepted the reports provided and expressed its gratitude to the NCCs.

- Andorra – has been given a low risk allocation of substantial transmission following importation of wild poliovirus; no problems have been recognized.
- Croatia – the RCC is disappointed at the very late submission of an incomplete annual report and is concerned at the apparent poor quality of surveillance. An intermediate risk of substantial transmission following importation of wild poliovirus has been given on the basis of poor surveillance quality.
- Cyprus – has been given a low risk allocation of substantial transmission following importation of wild poliovirus; no problems have been recognized.
- Greece – see the section, Updated information on actions and plans for 2013–2014 from selected countries.
- Israel – has been given a low risk allocation of substantial transmission following importation of wild poliovirus; no problems have been recognized.
- Italy – is considered at low risk of substantial transmission following importation of wild poliovirus. The RCC, however, is warning that there is an urgent need to formally establish an NCC and for the NCC to meet to develop a plan and timetable for annual reporting.

² The Ministry of Health of Israel reported isolation of wPV1 on 28 May 2013 from environmental samples in the Southern District.

- Malta – has been assessed at intermediate risk of substantial transmission following importation of wild poliovirus on the basis of suboptimal surveillance and vaccine coverage.
- Portugal – has been assessed as low risk of substantial transmission following importation of wild poliovirus but the quality of surveillance needs to improve.
- San Marino –has failed to provide an annual report. San Marino has been assessed at intermediate risk largely on the basis of lack of information. It is not possible to accurately assess risk in the absence of a complete report from the NCC.
- Spain – has been assessed as low risk of substantial transmission following importation of wild poliovirus but needs to improve the quality of surveillance.

Central-eastern zone

There were three countries in this zone considered to be at high risk for poliovirus transmission in 2012: Bosnia and Herzegovina, Romania and Ukraine. Bosnia and Herzegovina failed to submit an annual report. The NCC of Ukraine submitted an annual report but failed to comment on the continued very low routine immunization coverage. Coverage data for several of the countries in this zone have been taken from the 2012 JRF. Ukraine continues to present a major challenge with low national vaccine coverage for the past three years and less than optimal coverage in most of the subnational administrative units. Also of concern is the suboptimal coverage in Bosnia and Herzegovina, Montenegro, Republic of Moldova, Romania and Serbia.

While AFP surveillance quality in Bosnia and Herzegovina has improved, surveillance quality in Romania has remained suboptimal. All countries appear to be struggling to meet minimum criteria for completeness and timeliness of reporting. Underreporting of AFP cases at subnational level is of particular concern in Bosnia and Herzegovina, Romania and Serbia. Albania, Republic of Moldova, Romania, Serbia and Ukraine have moved towards supplementary surveillance, particularly enterovirus surveillance. With the exception of Ukraine, where high quality enterovirus surveillance has been established, the criteria used for selecting and testing samples are at best questionable and systems need to be standardized.

All countries have a plan of action for response to importation, but that of Albania needs to be updated, and the plan for Bosnia and Herzegovina is in draft format only. With the exception of Albania no country has identified secured funding support for outbreak response vaccines.

Based on available evidence the Secretariat concludes that the probability is high that WPV has not been circulating in this epidemiological zone during 2012 as WPV importation would have been detected by existing surveillance systems. However, 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 apparent continued lack of political urgency in resolving problems in procurement of vaccines and delivery of immunization services.

A summary result of risk assessments by countries is provided in Annex 1.

Discussion

Concerns were raised over the apparent lack of coherence between vaccine coverage estimates reported through different channels. Discrepancies in data sets are a cause for confusion and a challenge to assessing the risk for polio transmission.

Country-specific feedback from the RCC

On the basis of data submitted the RCC accepted the reports provided and expressed its gratitude to the NCCs.

- Albania – has been given a low-risk allocation of substantial transmission following importation of wild poliovirus; no problems have been recognized.
- Bosnia and Herzegovina – see the section, Updated information on actions and plans for 2013–2014 from selected countries.
- Montenegro – has been given a low-risk allocation of substantial transmission following importation of wild poliovirus; no problems have been recognized.
- Republic of Moldova – has been given an intermediate-risk allocation of substantial transmission following importation of wild poliovirus. Surveillance quality in the country is acceptable but improvements in population immunity are required. Of particular concern is reported low-vaccine coverage areas caused by unavailability of vaccine.
- Romania – see the section, Updated information on actions and plans for 2013–2014 from selected countries.
- Serbia – has been given an intermediate-risk allocation of substantial transmission following importation of wild poliovirus. The RCC urges reinstatement of the NCC in Serbia and more effort expended on improving vaccine coverage in all subnational administrative units.
- The former Yugoslav Republic of Macedonia – has been given a low-risk allocation of substantial transmission following importation of wild poliovirus; no problems have been recognized.
- Ukraine – see the section, Updated information on actions and plans for 2013–2014 from selected countries.

Central zone

Very few changes have been noted over the past year for this epidemiological zone. Hungary still has no formal NCC but a technical report for the RCC has been received. Vaccine coverage data for the Czech Republic and Slovenia has not been made available. A slight improvement in vaccine coverage in Bulgaria has been noted. Only 32% of non-polio AFP cases in Poland have received three doses of polio vaccine, but this is because the third dose is not given until the second year of life and the majority of reported cases are too young to receive the third dose.

With the exception of Belarus AFP surveillance quality is not high in this zone. The non-polio AFP rate and completeness and timeliness of reporting are suboptimal. Underreporting from subnational administrative units is a general feature. All countries have introduced

supplementary surveillance but the quality appears generally to be low and virus isolation/identification rates appear questionable.

Hungary and Poland have no action plans for outbreak response, while that of Belarus needs to be updated. Only Slovenia has identified secure funding for vaccine to be used in outbreak response.

Based on information available the Secretariat has concluded that the probability is high that WPV has not been circulating in this epidemiological zone during 2012. 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 the 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 the presence of high-risk population groups. Poland is of concern due to suboptimal AFP surveillance quality and uncertainties over the completeness of coverage.

A summary result of risk assessments by countries is provided in Annex 1.

Discussion

More data is required on how countries are conducting supplementary surveillance, particularly on the geographic spread of the surveillance system, frequency of sampling and the methods used to detect viruses.

Concerns were raised that the supplementary surveillance data from Poland does not represent activities in 2012 but was collected earlier.

Country-specific feedback from the RCC

On the basis of data submitted the RCC accepted the reports provided and expressed its gratitude to the NCCs.

- Belarus – has been given a low-risk allocation of substantial transmission following importation of wild poliovirus; no problems have been recognized.
- Bulgaria – is considered at intermediate risk of substantial transmission following importation of wild poliovirus. However, Bulgaria is recognized as a special case due to its high-risk population groups and is urged to continue efforts to deliver immunization services to these groups.
- Czech Republic – is considered at low risk of substantial transmission following importation of wild poliovirus. However, both AFP surveillance and supplementary surveillance quality appear to be poor and both need to be improved. The low virus isolation/identification rates are of concern.
- Hungary – is considered at low risk of substantial transmission following importation of wild poliovirus. However, the suboptimal AFP surveillance and supplementary surveillance quality are of concern and need to be improved. An outbreak response action plan should be developed.

- Poland – has been assessed as at intermediate risk of substantial transmission following importation of wild poliovirus on the basis of suboptimal AFP surveillance quality and questionable supplementary surveillance. Both needs to be improved and current data should be provided. An outbreak response action plan should be developed.
- Slovakia – has been assessed as low risk of substantial transmission following importation of wild poliovirus but the AFP surveillance quality should be improved. An outbreak response action plan is in need of revision and improvement.
- Slovenia – has been assessed as low risk of substantial transmission following importation of wild poliovirus but needs to improve the quality of surveillance.

MECACAR zone

In terms of population size this is the largest epidemiological zone in the European Region. This zone suffered a polio outbreak in 2010. In 2012 two countries, Georgia and Uzbekistan, were considered to be at high risk for poliovirus transmission. Georgia has had long-standing problems with vaccine coverage, and although still low coverage is improving. Turkey has reasonable national coverage, but subnational coverage in the south-eastern part of the country is acknowledged to be declining. The Russian Federation, Turkey and Uzbekistan conducted SIAs of various scale and mode in 2012, and Kyrgyzstan, Russian Federation and Uzbekistan have conducted SIAs in 2013. SIA in Tajikistan is the subject of vaccine availability.

All countries in the zone conduct AFP surveillance. With the exception of Turkey non-polio AFP rates are high or reasonable, but several countries struggle to meet completeness and timeliness criteria. Previous problems encountered in shipping specimens from Uzbekistan to the reference laboratory in the Russian Federation appear to have been resolved. Overall AFP surveillance quality in Turkey appears to be declining with suspected underreporting in many subnational administrative units.

All countries in this zone have polio outbreak response action plans, except those of Kazakhstan are in need of updating. Although several countries appear to have no secured funds for outbreak response vaccine, many maintain large reserves of trivalent OPV that could be used in the event of an outbreak.

Based on information received the Secretariat has concluded that the countries in this epidemiological zone have implemented effective measures to increase population immunity to sustain polio-free status. The risk of spread following importation of WPV remains high in Georgia due to suboptimal routine coverage and delays in surveillance. Risk is intermediate in four countries of this subregion due to suboptimal surveillance because of delays with sending AFP specimens. Turkey is of concern due to failures of surveillance at the subnational level.

A summary result of risk assessments by countries is provided in Annex 1.

Discussion

Questions were raised over the reliability of administrative coverage data being the foundation of routine coverage estimates for many countries in this subregion. One problem with this type of estimate is its dependence on the official target population denominator,

which tends to change due to some factors and does not always reflect reality. This is a long-standing problem.

Turkey is considered to be at intermediate risk due to low vaccine coverage in the south-eastern provinces and declining quality of surveillance at subnational level. It appears that Turkey is aware of the problems and has always responded positively to past recommendations from the RCC.

Country-specific feedback from the RCC

On the basis of data submitted the RCC accepted the reports provided and expressed its gratitude to the NCCs.

- Armenia – has been given a low-risk allocation of substantial transmission following importation of wild poliovirus; no problems have been recognized.
- Azerbaijan – has been assessed as low risk of substantial transmission following importation of wild poliovirus but needs to improve the quality of surveillance.
- Georgia – see the section, Updated information on actions and plans for 2013–2014 from selected countries.
- Kazakhstan – has been given a low-risk allocation of substantial transmission following importation of wild poliovirus; no problems have been recognized.
- Kyrgyzstan – is considered to be at intermediate risk of substantial transmission following importation of wild poliovirus due to suboptimal surveillance.
- Russian Federation – has been given a low-risk allocation of substantial transmission following importation of wild poliovirus; no problems have been recognized.
- Tajikistan – is considered to be at intermediate risk of substantial transmission following importation of wild poliovirus due to suboptimal surveillance and vaccine coverage. SIA are recommended to close immunity gaps.
- Turkey – see the section, Updated information on actions and plans for 2013–2014 from selected countries.
- Turkmenistan – has been assessed as low risk of substantial transmission following importation of wild poliovirus but needs to improve the timeliness of clinical specimen transportation to the regional reference laboratory.
- Uzbekistan – see the section, Updated information on actions and plans for 2013–2014 from selected countries.

Performance of the European Polio Laboratory Network in 2012–2013

The Regional Polio Laboratory Network continues to support polio eradication activities with 8292 specimens processed in 2011, 8038 in 2012 and 2157 reported in May 2013. No WPV have been detected since 2010, although 37 VDPVs have been reported and the Sabin-like poliovirus isolation rate was approximately 5.5% in 2011 and 2012. Key performance indicators for non-polio enteroviruses (NPEV) isolation rate, reporting of isolation within 28 days and reporting of intratypic differentiation of polioviruses results within 60 days continue

to be met. For 2013, the European Region has improved the timeliness indicator for isolation results from 28 days to 15 days. All laboratories in the network now report data through the web-based WHO Laboratory Data Management System.

Although timeliness of laboratory investigation has been reasonable in most high-risk countries, problems have been experienced in Ukraine with isolates taking a very long time to reach the Regional Reference Laboratory (RRL) in Moscow. Subnational laboratories were attempting to route isolates through the National Laboratory, where they were being batched before forwarding to Moscow. The WHO Secretariat has advised subnational laboratories in Ukraine to send all isolates directly to the RRL for typing. Meanwhile the National Polio Laboratory remains under threat of dissolution and currently has no administrative authority over the subnational laboratories.

Of the almost 7600 samples from AFP cases processed in 2011 and 2012 approximately 2% were positive for poliovirus (Sabin or VDPV). This compares with approximately 5% of reported enterovirus surveillance samples and 21% of reported environmental surveillance samples. According to data received by the Regional Office for Europe the total number of samples processed in the European Region by all laboratories engaged in surveillance activities was 129 142 in 2011 and 128 231 in 2012. Of these approximately 0.9% were positive for Sabin-like viruses and 7% were positive for NPEV. Although identification of VDPVs is being reported, it is suspected that they are underreported.

Environmental surveillance for polio is a long-standing feature of supplementary surveillance in the European Region. This surveillance is predominantly conducted by the laboratories outside of the formal WHO laboratory network and only aggregate laboratory data has been available on an annual basis. This year the WHO Secretariat is requesting countries to provide environmental surveillance data aggregated at second administrative level.

The laboratory containment process continues, with countries continuing to provide annual updates to their laboratory registries. In 2012, 22 Member States retained WPV in a total of 65 laboratories. In total, 293 laboratories in the European Region maintain WPV or potential infectious materials.

Discussion

Concern was expressed over the prospect of VDPV isolates not being reported. The RCC should have details of all VDPVs identified, because of the potential risk for transmission. NCC must be clear on the importance of obtaining accurate information on the nature and history of all VDPVs isolated and this information must be included in the annual reports.

Shipment of isolates to RRL remains a problem. WHO has conducted an International Air Transport Association certified workshop on the safe transport of infectious materials for the newly independent states, but additional innovative solutions are required.

Concern was also expressed over the lack of details included with reports of supplementary surveillance activities, including enterovirus and environmental surveillance. NCCs must obtain details of the methodologies used for sampling and laboratory testing. These details are essential for the RCC to understand the relevance of the data obtained and the level of confidence that can be placed in the conclusions drawn.

POSE feedback from the United Kingdom and Ukraine and future plans

The first trial of this exercise (POSE I) was conducted in Bosnia and Herzegovina in 2011. Trials were also conducted in the United Kingdom in January 2013 (POSE United Kingdom) and in Kiev, Ukraine (POSE II) on 15–16 May 2013. The overall purpose of the latter was to stimulate participants to critically review and update their national plans on responding to the detection of WPV and cVDPV. The exercise addressed communication, coordination and collaboration at an international and national level. The exercise examines responses to a scenario set by the evaluating team. The scenario is made as realistic as possible based on the experience of the Secretariat and facilitators. A series of disease control and management challenges, including media relations and budget constraints, are presented and responses are evaluated. A communications workshop was included as an adjunct to the exercise, and in future exercises this could be included as an integral part of the activity.

Discussion

Concerns were expressed following experience of the exercise conducted in the United Kingdom that the scenario set was not technically realistic, and that to be effective the scenario must be an accurate reflection of polio epidemiology. On the other hand, the United Kingdom exercise made use of a British Broadcasting Corporation health correspondent to provide insight into the media requirements for reporting a disease outbreak and the necessary control measures. This was a very useful experience for the participants as it presented a very different perspective on the nature and level of information required to satisfy the media and inform the public.

Questions were raised over the expertise of participants taking part in these exercises. There should be a balance between technical staff and decision-makers. In the United Kingdom, the exercise brought in local-level decision-makers reflecting their roles as first responders. It may be possible to conduct this type of activity at subnational level or within hard-to-reach communities. It is essential to tailor scenarios to the country situations, as countries have different levels of vaccine coverage and surveillance quality. Different situations will require different scenarios, which will generate different responses.

There is also a case for revision and testing of the WHO Regional response guidelines.

Updated information on actions and plans for 2013–2014 from selected countries

RCC members presented results of peer review of annual reports submitted from selected countries considered or having subnational territories at high risk of wild poliovirus transmission in 2012.

Bosnia and Herzegovina

No report was received from the NCC so it is impossible for the RCC to provide a comment. Informal evidence on actions and plans exists, but not in a formal report. Routine reporting

suggests that vaccine coverage fluctuates, that surveillance exists and that no WPV have been identified.

Conclusions

- While there is no evidence to suggest that WPV circulated in 2012 in Bosnia and Herzegovina the country remains at high risk for transmission of wild poliovirus following importation.
- Letters to the health ministers of the separate entities should be sent proposing they seek external collaboration in establishing an NCC that can provide the required information.

Georgia

While there has been a slight improvement in national vaccine coverage 15 subnational territories have shown a decline in coverage, some to as low as 65%. There continue to be large immunity gaps, with an estimated 25 000 susceptibles in 2012. Underlying reasons for the low coverage are not immediately obvious but may include vaccine refusal and lack of effective communications on the benefits of vaccination. The country is not planning SIAs. The private sector is responsible for immunization services and there is little evidence for national planning and decision-making in immunization.

Conclusions

- On the basis of information provided by the NCC it is unlikely that wild or vaccine derived polioviruses circulated in 2012 in Georgia but the country remains at high risk of substantial transmission following importation of wild poliovirus due to low vaccine coverage.
- The immunity gap is serious and will only get worse unless action is taken. Feedback should be sent to the NCC and the Ministry of Health encouraging them to:
 - improve routine immunization performance for new cohorts
 - conduct catch-up campaigns for older cohorts.
- The outbreak response plan is very superficial and needs to be revised to more accurately reflect perceptions of risk due to the immunity gap accumulated over the past 10 years.
- Although surveillance quality appears to be reasonable improvements can clearly be made.

Greece

High coverage of polio vaccine by six years of age is reported, but there are questions over the reliability of the data. There are discrepancies between information in the NCC report and information sent through standard reporting channels. Although the country has a large mobile subpopulation the estimated size of the population is not given and national responses to these communities are not clear. Vaccine coverage studies are underway but these are inadequate and appear not to provide additional useful information. SIAs have been conducted among the mobile populations but no details have been provided. It is of concern

that the data provided on the quality and reliability of immunization services is not compatible with information received from other countries.

AFP surveillance quality appears to be reasonable, with resolution of past problems with delayed investigation and notification but continued problems with timeliness and completeness of stool collection and delivery to the laboratory. AFP surveillance is supported by supplementary surveillance, both enterovirus and environmental surveillance, but these are of very limited extent and questionable value. Laboratory performance appears to be acceptable.

Conclusions

- The RCC acknowledges the efforts that have been made and concludes it is unlikely that WPV or VDPV circulated in Greece in 2012. The country is considered to be at intermediate risk of transmission following importation of wild poliovirus, however, due to low vaccine coverage in mobile populations.
- Improvements in the assessment of vaccine coverage in younger cohorts are required, either through annual survey or ongoing assessment.
- Supplementary surveillance activities appear too limited to be meaningful and the supplementary surveillance strategy needs to be rationalized.
- Considerable improvements in performance will be required before Greece can be considered as low risk for polio importation and transmission.

Romania

There has been an improvement in national immunization coverage since 2011 but approximately 20% of subnational districts report less than 90% coverage. There appear to be some methodological issues over data generation and coverage among Roma children. There appears to be no data on coverage among the Roma and other risk groups. AFP surveillance quality remains poor, with a low detection rate and 11 subnational districts remaining silent for the past 6 years. Notified cases appear to be investigated well, but no polioviruses or NPEV have been isolated from AFP cases or contacts. There is no systematic enterovirus or environmental surveillance. The country claims to have responded to RCC recommendations made in 2012 by conducting surveillance evaluations in three districts and assessing immunizations in all districts, but few details have been provided in the NCC report.

Conclusions

- On the basis of information provided it is unlikely that WPV or VDPV circulated in 2012 in Romania but the country remains at high risk of transmission of wild poliovirus following importation due to low vaccine coverage and poor surveillance.
- The RCC acknowledges that national vaccine coverage has improved over last year, but that coverage remains inadequate, particularly in some districts and high-risk populations. To reduce the level of population susceptibility catch-up vaccination campaigns are required, particularly for the Roma population.
- The quality of AFP surveillance is unacceptable and additional activities are required to improve the poor performance, particularly the failure to isolate viruses from collected

specimens. In the absence of effective supplementary surveillance additional activities are required, such as retrospective review of hospital records in non-reporting districts.

Russian Federation

The NCC has provided excellent data documenting high vaccine coverage. High risk groups have been identified and targeted with SIAs. Regular serosurveys, although using convenience samples, provide considerable support to the vaccine coverage figures. From available data it appears that the susceptible population in the Russian Federation is very small.

AFP surveillance quality appears to be good, and is supported by high-volume enterovirus and environmental surveillance. The report provides a high level of detail on AFP cases, including all results and final case classification. The administrative structure for laboratory containment of poliovirus materials is now in place and 84 laboratories are listed as holding potential infectious materials.

Conclusions

- On the basis of the information provided it is unlikely that WPV or VDPV circulated in 2012 in the Russian Federation and the country is at low risk of transmission of wild poliovirus following importation.
- The RCC acknowledges the high quality of the report provided by the NCC.

Turkey

The report provided is very brief, and very similar to that submitted for 2011. National coverage is high but is below 90% in three critical provinces in the south east. SIAs have been conducted among refugees from the Syrian Arab Republic, but no details have been provided.

There has been a decline in the non-polio AFP rates since 2011. No final classification data has been provided for AFP cases investigated in 2012. Surveillance appears to be low in some critical areas including Istanbul and some Mediterranean provinces, and South-Eastern and Eastern Anatolia. Very limited enterovirus surveillance exists but few samples are tested and the contribution to surveillance information is minimal. It appears that two VDPV isolates have been recorded but information is limited and the origins are not clear.

Conclusions

- On the basis of the information available it is unlikely that WPV or VDPV circulated in 2012 in Turkey but due to suboptimal vaccine coverage in critical provinces and declining AFP surveillance the country is considered to be at intermediate risk for of transmission of wild poliovirus following importation.
- The RCC is concerned over the apparent superficial nature of the submitted report and requests the NCC to provide a more substantial and detailed report in the future.
- The RCC would like to see evidence for a plan of action to improve immunization and surveillance performance in critical provinces.

- There are inconsistencies between data in the NCC report and routine reporting data submitted to the European Regional Office that need to be explained and resolved.

Ukraine

AFP surveillance and laboratory support appear to be of high quality, and enterovirus surveillance activities are relevant and appropriate. There are, however, serious problems with vaccine coverage. There has been dramatic coverage decline over the past five years and less than optimal coverage in most of the subnational administrative units. The NCC has failed to comment on the continued very low routine immunization coverage. There appears to be no political will to resolve the problems identified with delivery of immunization services.

An Action Plan has been developed to restore the immunization system but there is little evidence of working groups in action. The plan is to develop long-term structural reform in immunization but this will not provide the rapid response required to address urgent problems in polio eradication.

Conclusions

- On the basis of the information available it is unlikely that WPV or VDPV circulated in 2012 in Ukraine but due to low vaccine coverage the country is considered to be at high risk of transmission of wild poliovirus following importation.
- The RCC consider Ukraine to present the highest risk in the European Region to maintaining polio-free status. As a matter of urgency Ukraine needs to raise the level of political commitment to and engagement with the polio eradication initiative, revise the approach to vaccine procurement, revise the vaccine delivery system and improve training for vaccinators.
- The high level of concern over Ukraine has prompted the RCC to consider raising the issue with the WHO Regional Director for Europe, the WHO Director-General and the international partner and donor community.

Uzbekistan

Uzbekistan has shown a very positive response to addressing previously identified problems. SIAs have been conducted with susceptible populations, laboratory performance has improved and restrictions on shipping specimens and samples to the RRL have been lifted. National vaccine coverage now appears to be good, although there is a need to revise the coverage estimate methodology to remove anomalies. SIAs have effectively reduced the size of the previously susceptible population. AFP surveillance has improved but further improvements, such as timeliness of specimen transport and national laboratory accreditation, are needed.

Conclusions

- The RCC acknowledges the efforts that have been made and concludes it is unlikely that WPV or VDPV circulated in 2012 in Uzbekistan. The country is considered to be at intermediate risk for transmission of poliovirus following importation, however, due to suboptimal AFP surveillance.

Sustaining polio-free status in the European Region in the context of endgame strategic plan 2013–2018

Strengthening immunization services in the European Region remains a high priority for the Regional Office for Europe. Several middle-income countries are experiencing problems in securing affordable and appropriate vaccines, a problem that is expected to increase as Member States switch from OPV to IPV use. For seven countries with sequential OPV/IPV schedules, it should be reasonably easy to increase the IPV component and stop using OPV.

The other seven Member States currently using OPV are Global Alliance for Vaccines and Immunization (GAVI) graduating countries using pentavalent vaccine (diphtheria–tetanus–pertussis with *Haemophilus influenzae* type b and hepatitis B vaccines). To continue using pentavalent vaccine these countries will be required to use a stand-alone IPV vaccine. This increases the complexity of delivery systems and increases the safety concerns. There are currently two global producers of a hexavalent vaccine that includes IPV, but supplies are limited. It is unclear whether countries currently using pentavalent vaccine are considering switching to the use of hexavalent vaccine. Changes to the immunization schedule should be carefully addressed, particularly in view of sole IPV versus IPV/OPV sequential schedules. Any of the GAVI-eligible countries intending to switch vaccines will need to go through a new vaccines funding process and the European Regional Office will assist countries addressing the complexities of a switch, including any vaccine regulatory issues that arise.

The European Regional Office is currently attempting to strengthen links between the ETAGE and the National Immunization Technical Advisory Groups through a programme of activities in capacity development and training, information exchange and experience sharing. Together with ETAGE the Regional Office for Europe will be developing a small number of Regional goals linked to the polio eradication endgame strategy.

Recognizing the value of conducting the POSE in Member States, the Regional Office for Europe is considering conducting its own POSE to test and evaluate existing responses and guidelines and to improve preparedness.

Operation MECACAR was very useful in the time leading up to Regional polio elimination and certification but has now been dormant for some years. The European Regional Office has been reviving aspects of operation MECACAR for use in measles and rubella elimination and would like to extend this renewed collaboration with the WHO Eastern Mediterranean Region to include polio activities.

Discussion

Participants felt that the format of the RCC without representatives from Member States being present was more productive. While this format provides an effective way to hold a critical review of country reports it increases the importance of the reports and makes timeliness of receipt more critical. Member States need to be reminded that the European Regional Office needs to receive reports as soon as possible, well in advance of meeting dates. Although opportunities to interact with representatives from countries, particularly high-risk countries, have been lost, the ability to more openly discuss country performance and issues is an advantage. This format, however, makes it even more important for RCC members to participate in in-country visits and missions whenever possible, and to make the most of

opportunities to meet with national decision-makers. RCC members could also consider the possibility of attending other, more interactive meetings, such as laboratory network meetings.

Countries currently using OPV-only or with a sequential schedule will need a clear and concise explanation as to why they need to switch from OPV to IPV, and be provided with help meeting the challenges they may face on switching.

It is also apparent there is a move away from supplementary immunization activities to a greater dependency on routine immunization services to provide population immunity. While good routine immunization protects the youngest age cohorts it creates immunity gaps in older cohorts. There is a need to recognize that supplementary immunization activities for polio, including 'catch-up' campaigns, still have an important role to play in many countries.

The RCC is supportive of the use of POSE by Member States, and equally supportive of a similar exercise being conducted in the European Regional Office. If such an exercise is planned, the RCC proposes the scenario should be based on an outbreak identified in the Ukraine.

Conclusions of the RCC and recommendations to Member States and WHO

Conclusions

Based on the evidence available, the RCC was convinced that there was no WPV or VDPV transmission in the WHO European Region in 2012. While the general standard of reports received from the NCCs was high, several countries continue to submit inadequate reports, lacking relevant information or detail. Several reports include data that is discrepant with that received by the European Regional Office through routine reporting or through other reports. Member States should ensure that the members of their NCC are provided with accurate information in a timely manner, and NCC members should ensure that their reports are comprehensive and in the format requested by the European Regional Office.

Although indigenous polio was eradicated from the European Region more than a decade ago, remaining in polio-free status will necessitate good quality surveillance and high levels of population immunity. For Member States that have tried and consistently failed to maintain high-quality AFP surveillance it may be time to move on by dropping AFP surveillance in favour of effective supplementary surveillance, such as enterovirus or environmental surveillance. There remains evidence of surveillance gaps in several countries, where no surveillance activity has been reported, sometimes for several successive years.

Although national vaccine coverage is high in most countries in the European Region, many have subnational areas with coverage below optimal levels, and some have age groups that represent immunization gaps caused by changes to immunization policy. All Member States need to ensure that immunization coverage is uniformly high.

Adoption of the Global Polio Eradication Initiative's 2013–2018 Strategic Plan will require countries in the European Region to switch from OPV to IPV use. There are some countries for which this switch will not be a simple process and a series of administrative,

programmatic and financial challenges need to be overcome. Providing advice on responding to these challenges falls under the mandate of ETAGE, but the RCC is concerned that changes to vaccination schedules, supply and funding may cause disruption to vaccine delivery and result in lowered population immunity in some areas.

The countries considered to be at high risk for polio transmission in 2013 includes Bosnia and Herzegovina, Georgia, Romania and Ukraine.

Recommendations

Foremost

The Regional Director and the Chairman of the RCC should send a letter to the Minister of Health of the Ukraine informing him of the grave concern that low population immunity in the Ukraine is placing the polio-free status of the European Region at risk. There is an urgent need to improve vaccine supply and delivery systems to improve routine immunization and to conduct a nation-wide supplementary immunization activity to reduce the number of susceptible individuals missed by routine immunization services.

The Chairman of the RCC should write to the Ministry of Civil Affairs of Bosnia and Herzegovina informing of the concern over lack of submission of a formal national report. The letters should recommend seeking collaboration to enable the NCC that can collaborate with each entity to collect and collate information and provide a report to the RCC.

NCCs and their reports

It is of concern to the RCC that Bosnia and Herzegovina, Hungary, Iceland, Italy, Luxembourg, Monaco and San Marino failed to submit an annual report and that most of these countries have still to establish a formal NCC. All countries must have an NCC and every NCC must submit an annual report in the format provided by the WHO Secretariat.

Reports from several NCCs still do not clearly document the source, populations tested and method of analysis for specimens tested for environmental and enterovirus surveillance.

NCC reports from several countries include immunization coverage and surveillance data that is not in agreement with information received by the Regional Office for Europe through routine and other reporting systems. NCCs must ensure the accuracy and consistency of data contained in their reports.

National preparedness planning

There remain several Member States without a National Preparedness Plan or with a Plan that is not current. All countries must have a current National Preparedness Plan. Few countries have Plans that specify the source of funding for outbreak response vaccine. All Member States should identify a source for vaccines and funds for purchase and update their national preparedness plans accordingly.

Member States should conduct exercises to test their preparedness plans so as to identify gaps and weaknesses and modify their plans to address the issues identified. The Polio Outbreak Simulation Exercise (POSE) appears to be an excellent tool for this purpose and all Member States are urged to test their preparedness plans using a POSE model.

Risk assessment

The methodology used by the WHO Secretariat for risk assessment has been revised on the recommendation of the RCC but still needs further development. The various risk factors and relative weightings used to provide the final assessment should continue to be reviewed and the assessment modified if appropriate, while ensuring temporal consistency and comparability between countries.

Immunization

The RCC noted that the continuity of polio vaccination programmes has been compromised in some countries by procurement problems and issues related to national immunization schedules. This has resulted in some countries in specific age-cohorts or geographical areas being missed by past routine immunization services. These immunization gaps should be closed through the use of targeted supplementary immunization activities.

Vaccines

In several countries the switch from OPV to IPV use will result in changes to vaccination schedules, supply and funding that may cause disruption to vaccine delivery and result in lowered population immunity. The WHO Secretariat should work closely with The European Technical Advisory Group of Experts on Immunization (ETAGE) to develop responses to these challenges and support Member States to switch from OPV to IPV.

Surveillance

Noting that several Member States have been supporting very poorly performing AFP surveillance systems for many years the RCC encourages NCC chairpersons to challenge national surveillance programmes to either increase the effectiveness of AFP surveillance or 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 sampling, testing and confirmation systems are appropriate to support polio surveillance and that the number of specimens collected and analysed are adequate. WHO is developing revised guidelines for enterovirus and environmental surveillance systems and all Member States are urged to follow the recommendations that will be provided in the guidelines.

Laboratories

The RCC notes with concern that not all VDPV isolates are reported by countries with formal annual updates. The RCC should have details of all VDPVs identified, because of the potential risk for transmission. NCCs must be clear on the importance of obtaining accurate information on the nature and history of all VDPVs isolated and this information must be included in the annual reports.

Timely shipment of specimens, isolates and proficiency testing materials between countries in the Region remains a problem. The WHO Secretariat has taken steps to successfully resolve this issue in some cases but additional innovative solutions are still required.

*Annex 1. Risk of wild poliovirus transmission,
WHO European Region, 2013*

Country	Surveillance quality	Population immunity	Other factors	Composite risk score
Albania	Good	High	No	Low
Andorra	Average	High	No	Low
Armenia	Good	High	No	Low
Austria	Average	High	Yes	Intermediate
Azerbaijan	Average	High	No	Low
Belarus	Good	High	No	Low
Belgium	Average	High	No	Low
Bosnia and Herzegovina	Good	Low	Yes	High
Bulgaria	Good	Average	No	Intermediate
Croatia	Low	High	Yes	Intermediate
Cyprus	High	High	No	Low
Czech Republic	Average	High	No	Low
Denmark	Good	Average	No	Intermediate
Estonia	Average	High	No	Low
Finland	Good	High	No	Low
France	Good	High	Yes	Low
Georgia	Average	Low	Yes	High
Germany	Good	Average	No	Intermediate
Greece	High	Average	No	Intermediate
Hungary	Average	High	No	Low
Iceland	Average	High	Yes	Intermediate
Ireland	Good	High	No	Low
Israel	Average	High	No	Low
Italy	Average	High	No	Low
Kazakhstan	Good	High	No	Low
Kyrgyzstan	Average	High	No	Intermediate
Latvia	Good	Average	No	Intermediate
Lithuania	Good	High	No	Low
Luxembourg	Average	High	No	Low
Malta	Average	Average	No	Intermediate
Monaco	Average	High	No	Low
Montenegro	Good	High	No	Low
Netherlands	Good	High	No	Low
Norway	Good	High	No	Low
Poland	Average	High	Yes	Intermediate

Country	Surveillance quality	Population immunity	Other factors	Composite risk score
Portugal	Average	High	No	Low
Republic of Moldova	Good	Average	No	Intermediate
Romania	Average	Low	Yes	High
Russian Federation	Good	High	No	Low
San Marino	Average	Average	Yes	Intermediate
Serbia	Good	Average	No	Intermediate
Slovakia	Average	High	No	Low
Slovenia	Average	High	No	Low
Spain	Average	High	No	Low
Sweden	Good	High	No	Low
Switzerland	Average	High	No	Low
Tajikistan	Average	Average	No	Intermediate
The former Yugoslav Republic of Macedonia	Good	High	No	Low
Turkey	Low	High	Yes	Intermediate
Turkmenistan	Average	High	No	Low
Ukraine	Good	Low	Yes	High
United Kingdom	Good	Average	No	Intermediate
Uzbekistan	Average	High	Yes	Intermediate

Annex 2. Programme

Thursday, 30 May 2013

- 12:30–13:00 *Registration*
- 13:00–13:15 *Opening*
WHO Regional Office for Europe, Regional Certification Commission
- Plenary Session 1: Update on global polio eradication and sustaining polio-free Europe
- 13:15–13:45 *The Global Polio Eradication Initiative's 2013–2018 Strategic Plan: Progress and challenges*
Dina Pfeifer, WHO Regional Office for Europe
Update from the WHO Eastern Mediterranean Region
Humayun Asghar, WHO Regional Office for the Eastern Mediterranean
Discussion
- 13:45–14:15 *Polio programme annual update from the WHO Regional Office for Europe*
Sergei Deshevoi, WHO Regional Office for Europe
Discussion
- Plenary Session 2: Sustainability of polio-free Europe: Review of national updated documents for 2012 by epidemiological zones (20 min: presentation and 10 min: discussion)
- 14:15–14:45 *Introduction to subregional overview and regional risk assessment*
Sergei Deshevoi, WHO Regional Office for Europe
- 14:45–15:15 *Coffee break*
- 15:15–15:45 *Subregional overview: Update information for 2012 in the Nordic/Baltic (8 countries) and Western (10 countries) epidemiological zones*
Sergei Deshevoi, WHO Regional Office for Europe
- 15:45–16:15 *Subregional overview: Update information for 2012 in the Southern (10 countries) and Central-eastern (8 countries) epidemiological zones*
Dragan Jankovic, WHO Regional Office for Europe
- 16:15–16:45 *Subregional overview: Update information for 2012 in the Central (7 countries) and MECACAR (10 countries) epidemiological zones*
Shahin Huseynov, WHO Regional Office for Europe
- 16:45–17:15 *Performance of the European Polio Laboratory Network in 2012–2013; containment activities*
Eugene Gavrilin, WHO Regional Office for Europe
Discussion
- 17:15–17:45 *End-of-the-day discussion*
- 18:00–19:30 *Reception on the occasion of the 27th Meeting of the European Regional Certification Commission for Poliomyelitis Eradication*

Friday, 31 May 2013

- 09:00–09:30 Polio outbreak simulation exercise (POSE): feedback from the United Kingdom (January 2013), Ukraine (May 2013) and future plans
Vanessa Middlemiss, Public Health England, United Kingdom
- Plenary Session 3: Updated information on actions and plans for 2013–2014 from selected countries (presentations by RCC members 5 minutes; discussion 15 minutes)
- 09:30–10:30 Bosnia and Herzegovina (*Ellyn Ogden*), Georgia (*Ellyn Ogden*), Greece (*Tapani Hovi*),
- 10:30–11:00 *Coffee break*
- 11:00–12:40 Romania (*Tapani Hovi*), Russian Federation (*Anton van Loon*), Turkey (*Anton van Loon*), Ukraine (*Donato Greco*) and Uzbekistan (*Donato Greco*)
- 12:40–14:00 *Lunch*
- 14:00–14:30 Sustaining polio-free status in the WHO Region of Europe in the context of endgame strategic plan 2013–2018.
Dina Pfeifer, WHO Regional Office for Europe
- 14:30–15:30 Conclusions of the European Regional Verification Commission for Measles and Rubella Elimination and recommendations to Member States and WHO
Review working procedures of the RCC
Closing

Annex 3. List of participants

RCC Members

Professor David M Salisbury (*Chairperson*)
Member of European Regional Certification
Director of Immunization
Department of Health
United Kingdom

Professor Donato Greco
Member of European Regional Certification Commission for Poliomyelitis Eradication
Istituto Superiore di Sanita
Italy

Professor Tapani Hovi
National Institute for Health and Welfare
Finland

Ms Ellyn Ogden
Member of European Regional Certification
United States Agency for International Development Worldwide Polio Eradication
Coordinator
United States of America

Dr Anton van Loon
Head
Department of Virology
University Medical Centre Utrecht
Netherlands

Representatives

Centers for Disease Control and Prevention

Dr Nino Khetsuriani
Team Lead, European Region
Global Immunization Division
United States of America

European Centre for Disease Prevention and Control

Dr Lucia Pastore Celentano
Senior Expert
Vaccine Preventable Diseases
Sweden

Public Health England

Dr John Simpson
Deputy Director
Emergency Response Department
United Kingdom of Great Britain and Northern Ireland

Ms Vanessa Middlemiss
Exercise Manager (Emergency Preparedness)
Emergency Response Department
United Kingdom of Great Britain and Northern Ireland

United Nations Children's Fund

Dr Oya Zeren Afsar
Immunization Specialist
UNICEF Regional Office for Central and Eastern Europe and the Commonwealth of Independent States
Switzerland

Temporary Advisors

The European Regional Verification Commission for Measles and Rubella Elimination
Dr Andrei Lobanov
Switzerland

ETAGE

Professor Christian Perronne
Vice-chair, ETAGE
President, Haut Conseil de la Santé Publique
Hôpital Raymond Poincaré
France

Rapporteur

Dr Raymond Sanders
Scientist
United Kingdom of Great Britain and Northern Ireland

World Health Organization

Regional Office for the Eastern Mediterranean

Dr Humayun Asghar
Scientist
EM/POL Polio Eradication

Regional Office for Europe

Dr Nedret Emiroglu
Deputy Director
Division of Communicable Diseases
Health Security and Environment

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

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

Dr Eugene Gavrilin
Coordinator, EURO Polio Laboratory Network
Vaccine-preventable Diseases and Immunization Programme

Dr Shahin Huseynov
Technical Officer, VPI CARK
Vaccine-preventable Diseases and Immunization Programme
WHO Country Office, Uzbekistan

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

Support staff

Ms Malika Abdusalyamova
Programme Assistant
Vaccine-preventable Diseases and Immunization Programme

Ms Natasha Allen
Secretary
Vaccine-preventable Diseases and Immunization Programme