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Report of the 26th Meeting of the European Regional Certification Commission for Poliomyelitis Eradication

Copenhagen, Denmark
18–20 June, 2012

ABSTRACT

The 26th Meeting of the European Regional Certification Commission for Poliomyelitis Eradication (RCC) reviewed annual updates submitted by the Member States of the Region on their status as polio-free. The RCC reviewed this evidence to determine whether the Region had maintained its polio-free status during 2011. 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 information provided by the national certification committees, the RCC is confident that wild poliovirus did not circulate in the Region in 2011. The RCC reminded all Member States that polio eradication has been declared a public health emergency by the World Health Assembly and they should maintain high immunization coverage and effective surveillance until global eradication is achieved.

Keywords

POLIOMYELITIS – prevention and control
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EPIDEMIOLOGIC SURVEILLANCE – standards
CONTAINMENT OF BIOHAZARDS – standards
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Abbreviations

AFP	acute flaccid paralysis
IPV	inactivated polio vaccine
MECACAR	Mediterranean, Caucasus and central Asian republics
NCC	national certification commission
NID	national immunization day
NPEV	non-polio enteroviruses
OPV	oral poliovirus vaccine
PCR	polymerase chain reaction
RCC	European Regional Certification Commission for Poliomyelitis Eradication
SNID	subnational immunization days

Introduction

The 26th Meeting of the European Regional Certification Commission (RCC) for Poliomyelitis Eradication was held from 18 to 20 June 2012 in Copenhagen, Denmark. The Meeting was opened by Dr Guénaél Rodier, Director of Communicable Diseases, on behalf of the Regional Director. He congratulated the RCC on the tenth anniversary of the Region being declared free of polio and highlighted the recent World Health Assembly Resolution, which declared that achieving eradication was a public health emergency (Annex 1). The Chairperson of the RCC, Dr David Salisbury, summarized the latest global achievement: that India has been free of polio for nearly one and a half years, and the problem that wild poliovirus still persists in three endemic countries. He emphasized the need to continue work to keep the Region free of polio. Dr Harry Hull served as reporter. The programme is in Annex 2 and the list of participants in Annex 4.

The primary objective of the Meeting was to review the annual updates from all Member States with a particular focus on the epidemiological situation in high-risk countries. The RCC reviewed this evidence to determine whether the Region had maintained its polio-free status during 2011. 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.

Scope and purpose of the Meeting

The scope and purpose of the Meeting were to:

- to brief the RCC on the current global and regional status of polio eradication;
- to review lessons learned from 10 years' experience of the sustainable "polio-free" status in the WHO European Region;
- to review annual updated certification documentation on polio in all European Member States for 2011;
- to review the current situation with regard to sustaining the polio-free status of selected Member States, which are defined to be in the high-risk groups, and discuss action required to mitigate the risks and assure the sustainability of polio-free status of the countries of the Region;
- to review the current status of regional laboratory containment in view of the importation of wild poliovirus type 1 in selected countries during 2010;
- to recommend to the Regional Office strategies and/or action to strengthen efforts to sustain the polio-free status of the Region, with a focus on high-risk countries;
- to review working procedures of the RCC and to discuss a plan of activities for 2011–2012.

The Global Polio Eradication Initiative's 2010–2012 strategic plan: progress and challenges

The Global Polio Eradication Initiative has made significant progress in the past year but important challenges remain. The most important development is that it has been more than 17 months since the last case of polio caused by wild virus was reported from India, the last

endemic country in the South-East Asia Region of WHO. Only three countries, Afghanistan, Nigeria and Pakistan, where the transmission of wild poliovirus has never been interrupted, remain endemic for polio. Cases of paralytic poliomyelitis due to wild poliovirus declined by 52% in 2011 compared with 2010 (649 cases compared with 1352 cases). The number of cases due to serotype 1 wild poliovirus declined by 54% (582 cases compared with 1265 cases) and the number due to serotype 3 wild poliovirus declined by 23% (67 cases compared with 87 cases).

The current situation is that there have been sharp and significant declines in the numbers of cases in countries with re-established transmission, and the 2011 polio importation into the People's Republic of China from Pakistan has been controlled. Among the three endemic countries, the number of cases in Nigeria and Pakistan declined in the first half of 2012 compared with the first half of 2011. There has, however, been a sharp increase in the number of cases in northern Nigeria. Nigeria and Pakistan are now the only countries in the world with circulating serotype 3 wild poliovirus. A serotype 2 circulating vaccine-derived poliovirus has been re-established in Nigeria. The emerging risks for the Global Initiative are the potential for international spread from Nigeria to Mali and Chad (countries with weak surveillance), deteriorating access in southern Afghanistan as a result of conflict, political change in Pakistan and impending supply shortages of oral poliovirus vaccine (OPV).

The Strategic Plan for 2010–2012 aimed to stop polio transmission globally by the end of 2012. Four intermediate milestones were established. Only one of those – the cessation of all polio outbreaks with onset in 2009 – was met. Another milestone – the cessation of all wild poliovirus transmission by the end of 2012 – remains elusive, and two – the cessation of all re-established poliovirus transmission by the end of 2010 and cessation of all polio transmission in at least two of the four endemic countries by the end of 2011 – have missed their deadlines. The 65th World Health Assembly, meeting in May 2012, declared polio a programmatic emergency for global public health to increase the urgency of achieving eradication. The emergency goals are: (i) to help Afghanistan, Nigeria and Pakistan reach the necessary coverage levels by the end of 2012; (ii) sustain momentum in Angola, Chad and the Democratic Republic of the Congo and stop transmission by the end of 2012; and (iii) to heighten accountability of and coordination with partners, closing the large funding gap which currently stands at US\$ 945 million. The Independent Monitoring Board at its meeting in May 2012 noted that 2.7 million children remained unimmunized in the six currently infected countries and stressed the importance of vaccinating these children both through routine immunization and supplementary immunization activities. The Board noted that not all areas of these countries are infected, but that sanctuaries (localities with large numbers of unvaccinated children) allow polioviruses to persist, multiply and then be exported to vulnerable children elsewhere. Vaccinating children in these sanctuaries is where the battle against polio will be won or lost. There have been only 53 cases of polio in 4 countries to date in 2012. The task of eradicating polio becomes more difficult the closer the target of zero cases is to being met. With full financial support and programmatic innovation to reach key populations of unvaccinated children, the goal can be met, hopefully in the next year.

Polio Programme annual update from the Regional Office

In 2010, the European Region faced the greatest threat to its polio-free status since the last indigenous case was reported by Turkey in 1998. An outbreak of wild type 1 poliovirus, originating in India, affected four countries in the Region: Kazakhstan, the Russian Federation, Tajikistan and Turkmenistan. Poliovirus transmission was stopped within eight months, so the Region was able to maintain its polio-free status.

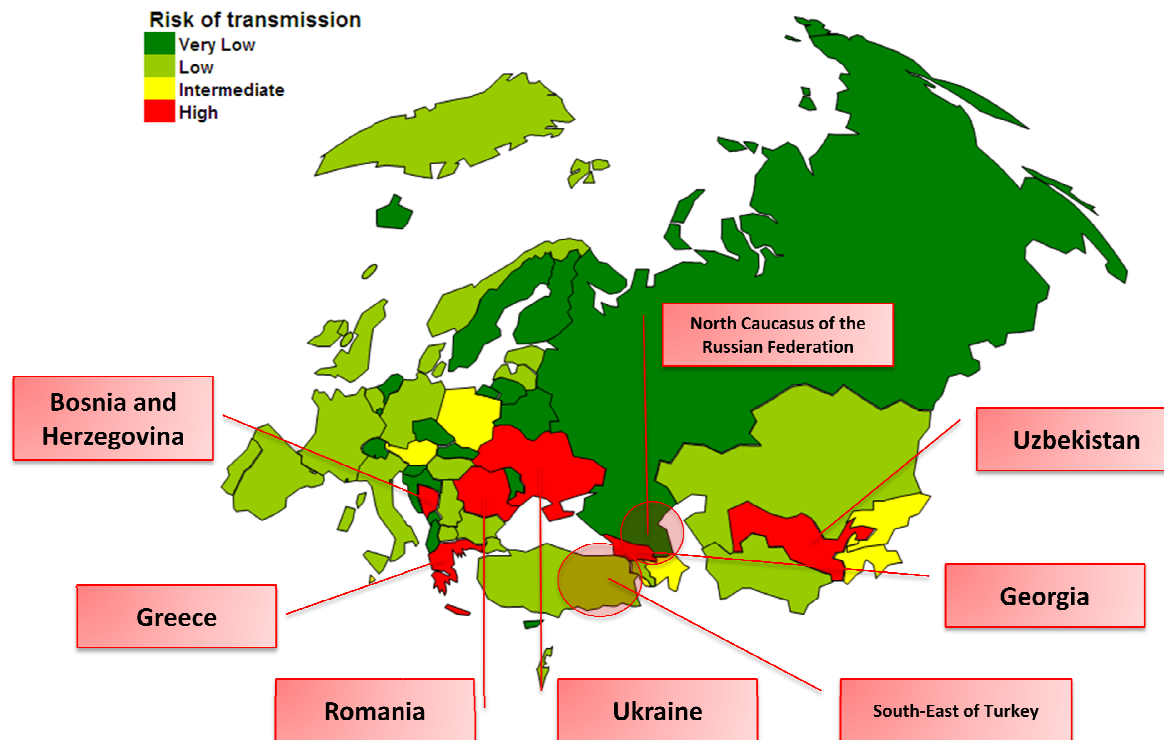
National health systems are strong in most countries of the Region, so that any case of paralytic polio will be detected clinically and subjected to a prompt laboratory investigation. Immunization services are well established, with high and stable coverage with three doses of polio vaccine in the vast majority of Member States. Countries are conducting outreach programmes for groups at high risk (socially isolated, internally displaced and refugee populations), particularly in association with the European Immunization Week. Overall, surveillance for polioviruses remains strong in the Region with 42 countries employing acute flaccid paralysis (AFP) surveillance, 41 using enterovirus surveillance and 21 conducting environmental surveillance. AFP surveillance indicators overall remain high at national level. On the other hand, downward trends are visible in the timeliness and completeness of reporting. The AFP surveillance index remains high in most of the countries that formerly comprised the USSR plus Bulgaria and Turkey. AFP surveillance performance is generally not good in the countries of western, central and southern Europe that employ AFP surveillance. Even in the high-performing countries there are provinces where performance is inadequate. Countries affected by the 2010 polio outbreak in central Asia have largely been able to meet the new annual AFP surveillance target of 2 cases per 100 000 population aged under 15 years. An increasing number of countries have introduced inactivated polio vaccine (IPV), with 33 countries using an IPV only schedule, 10 using a mixed IPV/OPV schedule and only 10 countries using OPV alone. Immunization coverage at the national level remains above 95% in most countries. A major concern is Ukraine, where coverage has fallen to unacceptably low levels (<80%) in the last few years. Coverage is low at the national level in Bosnia and Herzegovina and in Romania (where it was 89%) in 2011. There are low-performing provinces still in high-performing countries and certain high-risk populations have low coverage.

The Regional Office is supporting many activities at country level to mitigate the risk of wild poliovirus transmission in case of importation. These include: national and subnational immunization activities in seven high-risk countries in 2011 and 2012, surveillance reviews in eight countries, training in six countries and risk assessments for all Member States. While 44 countries currently have national preparedness plans, only 32 have defined a target group, 42 have a defined vaccine policy and only 14 have secured vaccine supplies.

Because of the shortage of resources, risk assessment becomes an economically viable and important strategy to increase the efficiency of work in the Region. The risk of transmission remains low for the Region overall. Six countries (Bosnia and Herzegovina, Georgia, Greece, Romania, Ukraine and Uzbekistan) and two subnational regions (north Caucasus of the Russian Federation and south-east Turkey) are, however, assessed to be at high risk of transmission following an importation. An additional five countries are considered at medium risk of transmission (Austria, Azerbaijan, Kyrgyzstan, Poland and Tajikistan) (Fig. 1).

High levels of immunization coverage and high-quality surveillance must be maintained until global eradication is certified. While most of the resources to conduct these activities come from national budgets, additional support from the international community is needed to fund specific country-level activities and the functions of the Regional Office. Because these resources are limited, risk assessment plays an important role in targeting resources to areas where the need is greatest and the impact will be high.

Fig.1. Risk of transmission following importations of wild poliovirus, WHO European Region, 2012



Introduction to regional risk assessment

Because of the continuing risk of importation, all of the Region's Member States must maintain high immunization coverage to prevent transmission and high-quality surveillance to detect any wild polioviruses or vaccine-derived polioviruses that do circulate. National resources are not always sufficient and the Regional Office's capacity to provide technical support and funding are limited. The Regional Office uses a continuing process of risk assessment to target resources to countries and geographic areas at the highest risk for transmission of an imported wild poliovirus.

The risk assessment process has two principal components: weekly reporting of AFP surveillance data and a formal risk assessment conducted annually before the meeting of the Regional Certification Commission. The formal risk assessment may be subject to modifications due to newly recognized changes in the Region and the need to be consistent with global requirements and guidelines. The risk assessment is based on five surveillance indicators, four population immunity indicators and two additional indicators. A final composite risk assessment index is calculated so that countries can be categorized into high, intermediate, low and very low risk. Priority for action is based on the assessment index and the population of the country.

Surveillance indicators are used to determine whether a national health system is capable of detecting a case of polio promptly. These are: the health services criterion (purchasing power parity proportion of expenditure for health services of the gross domestic product); the AFP

index (≥ 0.8) including sustainability of AFP surveillance; timeliness of weekly AFP reporting and availability of laboratory results from AFP cases; and the use of supplemental surveillance systems (environmental and/or enterovirus surveillance).

Population immunity indicators are used to determine whether it is unlikely that poliovirus transmission would be established because of vaccine-induced immunity. These indicators are: routine immunization coverage with three doses of polio-containing vaccine over the previous five years, areas with low immunization coverage ($< 90\%$), sizeable susceptible populations and action taken to improve population immunity.

The other factors considered in the formal risk assessment are used to assess whether the health system of the Member State is committed to the task of eradication and capable of sustaining the polio-free status of the country. These factors are: (i) the existence of a national preparedness plan for responding to a polio importation and whether it is operational, comprehensive and updated; and (ii) any interruptions in public health services and/or the immunization programme. An epidemiological correction factor is applied, based on relevant information on surveillance immunization collected by the Vaccine-preventable Diseases and Immunization team during missions to countries, from communication with national technical counterparts and from the team's institutional memory and lessons learned. The epidemiological correction factor is based on the types of information available to the team, including: data quality and validity, availability of subnational data, the epidemiology of other vaccine-preventable diseases, and transparency, organizational and operational issues recognized in the national systems.

A final risk assessment index value (composite score) is calculated using all the information above and a weighted factor based on the predetermined proportion for each component: surveillance (30%), immunity (60%) and other factors (10%). The index is then used to stratify countries into four levels. The results of the risk assessment by components are presented to the RCC on a subregional basis (see Annex 3).

Nordic/Baltic zone

All countries in the subregion except Iceland submitted an update for 2011. Denmark did not hold any national certification commission (NCC) meetings in the period 2004–2011. The current status of Iceland is unknown. All countries in this zone use IPV, and immunization coverage has been universally high ($> 90\%$) at the national level. Four countries (Estonia, Latvia, Lithuania and Norway) employ AFP surveillance but, of these, only Lithuania and Norway achieved a high AFP surveillance index in 2011. The AFP rate fell sharply in Latvia in 2011. The timeliness of AFP reporting is very low in Norway. Seven countries conduct enterovirus surveillance while four conduct environmental surveillance. Most countries test a good number of specimens and have satisfactory rates of non-polio enterovirus (NPEV) isolation. Estonia, Finland, Latvia, Lithuania and Sweden have plans for sustaining their polio-free status. All countries except Iceland have submitted a plan of action for responding to a wild poliovirus importation to the RCC. All are current with target cohort and vaccine policy defined, but only Denmark and Lithuania have allocated funds for vaccine purchase. A final risk assessment revealed that surveillance quality is very good in five of the eight countries, with one good and two averages. Population immunity is very high in five countries and high in three countries.

Conclusion

The Secretariat concluded that the probability is very high that wild poliovirus did not circulate in the subregion in 2011 and that any wild poliovirus importation would have been detected promptly by existing surveillance systems. The risk of transmission following importation of a wild poliovirus into countries in this zone is low to very low. There are no countries of concern.

Western zone

All countries in the subregion except Monaco submitted an update for 2011. There were no meetings of the NCCs in the Netherlands and Switzerland in 2011. It is unclear if the United Kingdom's NCC met in 2011. All countries are using IPV exclusively. Coverage is universally high, although coverage was not reported by Austria and Monaco for 2011. High-risk populations exist in many countries. Of particular concern is the concentrated population of people who refuse immunization on religious grounds in the Netherlands. Frequent travel between western zone countries and countries with endemic transmission poses a high risk for the importation of viruses. Four countries conduct AFP surveillance but the quality of AFP is low. The timeliness is very low. Germany discontinued its AFP surveillance programme in 2011 and Ireland will also do so shortly. All countries with the exception of Belgium, Luxembourg and Monaco have enterovirus surveillance. Except for Switzerland, the number of tested specimens is high and the NPEV isolation rate is good. The Netherlands conducts environmental surveillance. Austria, Belgium, Germany, Ireland, the Netherlands and the United Kingdom have finalized plans for sustaining their polio-free status. While all specify vaccine policy, Belgium and Germany have not defined their target cohort. Only Ireland has secured funds for vaccine purchase. The results of risk assessment show that the quality of surveillance is average (in five countries) to good (in one country) and very good (four countries) in the subregion, and population immunity is high (in six countries) to very high (in four countries).

Conclusion

Based on their analysis of the available data, the Secretariat concluded that the probability is high that wild poliovirus did not circulate in the subregion in 2011 and that any wild poliovirus importation would have been detected by existing surveillance systems. The risk of transmission following an importation of a wild poliovirus in the countries of this zone is very low to intermediate. Countries of concern are Austria and Belgium, because of their suboptimal surveillance, and Germany, the Netherlands and the United Kingdom due to the presence of known high-risk population groups.

Southern zone

All countries in the subregion submitted an update for 2011 (although the update from San Marino was submitted to the Secretariat after the RCC meeting). Italy has no NCC. No NCC meetings were held in Andorra, Croatia and Malta. Reported immunization coverage is above 90%, with the exception of San Marino at 86%. Greece's immunization coverage of 91% in 2006 is only an estimate. All countries are using IPV. AFP surveillance is conducted in 9 of the 10 southern zone countries, with San Marino the only exception. AFP surveillance is suboptimal in the zone, with only Cyprus, Greece and Portugal achieving an AFP index of 0.9 or above. The timeliness of AFP reporting is low in most countries. Seven countries now conduct enterovirus surveillance and four use environmental surveillance. The number of

specimens collected for environmental and enterovirus surveillance is generally high, with satisfactory rates of NPEV isolation. All countries except Andorra and San Marino have a plan for responding to a wild poliovirus importation. Plans in Greece, Israel and Italy have, however, expired and need to be renewed. All plans have specified vaccine policy, but Greece did not specify a target population. Only Greece reports that funds for vaccine purchase are secured. Based on the results of risk assessments, the quality of surveillance is low in 6 of the 10 countries in this zone and good in only one country. Population immunity is considered high to very high in all countries.

Conclusion

Based on the information available, the Secretariat concluded that surveillance for wild poliovirus is suboptimal in this subregion and will have to be improved to assure timely detection of an imported wild poliovirus. It is, however, highly likely that wild poliovirus did not circulate in the subregion in 2011 due to high population immunity. The risk of transmission following importation of a wild poliovirus in countries in this zone varies from low and very low in eight countries to intermediate (Malta) and high (Greece). Greece is a country of concern because of low quality surveillance, no immunization update and the presence of high-risk populations.

Central-eastern zone

All countries in the subregion submitted an update for 2011. Montenegro has not been able to establish an NCC. NCCs were very active in the remaining countries. Routine immunization coverage is above 90% in all countries, with the exception of Ukraine, where reported coverage is now estimated to be 54–71%. Several countries have significant subpopulations with low coverage. All countries conduct AFP surveillance, which was of certification quality only in Montenegro, the Republic of Moldova and Ukraine. The timeliness of reporting is generally good. Five countries conduct enterovirus surveillance and two conduct environmental surveillance. While NPEV are isolated through enterovirus and environmental surveillance, the rate at which they are isolated is below average in Ukraine. All countries except Bosnia and Herzegovina have finalized plans of action for sustaining their polio-free status. Bosnia and Herzegovina has a draft plan. Albania's plan has expired. All countries have a specified vaccine policy, but the Republic of Moldova does not define a target cohort. Albania, Bosnia and Herzegovina, Montenegro and the Republic of Moldova have secured funds for vaccine. Surveillance quality is considered average in four of the eight countries in the zone. Discrepancies are noted in the data from the former Yugoslav Republic of Macedonia. Three countries have very good surveillance and one good. Population immunity is very high in two countries, high in three countries and low in three countries.

Conclusion

Based on this information, the Secretariat concluded that the probability is high that wild poliovirus did not circulate in this subregion during 2011 as any wild poliovirus importation would have been detected by existing surveillance systems. The risk of spread following an importation of a wild poliovirus is high in Bosnia and Herzegovina, Romania and Ukraine due to poor immunization services. Ukraine remains of particular concern due to continuing political negligence problems.

Central zone

All countries in the subregion submitted an update for 2011. There are no NCCs in Bulgaria or Hungary. NCCs in the other five countries of the zone held meetings in 2011. Polio vaccination coverage is very high, with very few areas where coverage is low. Formally, all countries conduct AFP surveillance, although Slovenia has reported 0 AFP cases since at least 2007. The AFP surveillance index is satisfactory only in Belarus and Bulgaria. The timeliness is low in all countries. All countries conduct enterovirus surveillance and four countries conduct environmental surveillance. While the number of specimens tested is generally high, the number of Sabin viruses and NPEV isolated is below expected levels in Belarus. Hungary and Poland have no plan of action for responding to a wild poliovirus importation. Plans from Bulgaria and Slovenia have expired. Only the Czech Republic has defined a target cohort. Bulgaria, the Czech Republic and Slovenia have defined vaccine policies. Bulgaria and Slovenia have secured funds for purchases of vaccine. Based on the results of risk assessments, surveillance quality is low in Hungary and Poland, satisfactory in the Czech Republic and Slovakia, good in Slovenia and very good in Belarus and Bulgaria. Immunization coverage is high or very high in all seven countries.

Conclusion

Based on the available information, the Secretariat concluded that the probability is high that wild poliovirus did not circulate in this subregion during 2011 as immunization coverage was good and wild poliovirus would have been detected by existing surveillance systems in most countries. The overall risk of spread following importation of wild poliovirus is low or very low in most countries due to good immunization services and supplementary surveillance. Countries of concern are Bulgaria due to the presence of high-risk populations groups, and Hungary and Poland due to a suboptimal and decreasing quality of surveillance.

MECACAR zone

All countries in the subregion submitted an update for 2011. NCCs were active in all MECACAR countries in 2011, but Turkmenistan did not report the number of meetings. All countries submitted statements. All countries continue to use OPV, although the Russian Federation and Turkey use mixed IPV/OPV schedules. Reported immunization coverage has traditionally been high in MECACAR countries and remains so with the exception of Georgia, where there are significant numbers of areas with low coverage. All countries conducted national and subnational immunization days (NIDs and SNIDs) in 2010 and 2011. Uzbekistan conducted two NIDs in 2012. Azerbaijan and the Russian Federation conducted two SNIDs in 2012. Kyrgyzstan and Tajikistan plan to conduct supplementary immunization in 2012. Georgia may conduct supplementary immunization activities in 2012. AFP surveillance is conducted in all countries and was generally of good to high quality with the exception of Georgia. The timeliness of reporting is an issue in most countries. A significant number of areas reported 0 AFP cases in 2011, particularly in the Caucasus and Turkey. Surveillance data are not reported from some territories in conflict zones. Four countries conduct enterovirus surveillance and six conduct environmental surveillance. The number of specimens is generally satisfactory. Many isolates of Sabin-like poliovirus were reported, consistent with the widespread use of OPV in the zone. NPEV are isolated at expected rates. All countries have finalized plans for sustaining their polio-free status. Azerbaijan, Kazakhstan and the Russian Federation have not specified target populations for immunization response in cases of wild poliovirus importation. All countries have defined vaccine policies, but only Armenia, the Russian Federation, Turkey and

Turkmenistan have secured funds for the purchase of vaccine. Based on the results of risk assessments, surveillance is considered very good in Kazakhstan and the Russian Federation; good in Armenia, Azerbaijan, Georgia, Turkey and Turkmenistan; and satisfactory in Kyrgyzstan, Tajikistan and Uzbekistan. Laboratory specimens from Uzbekistan are not tested in a WHO-accredited laboratory. Population immunity is very high in Armenia, Azerbaijan and Uzbekistan, but low in Georgia and average in Tajikistan.

Conclusion

Based on the available information, the Secretariat concluded that countries in the subregion implemented effective measures to raise the immunity of their populations and the quality of AFP surveillance to sustain polio-free status in response to the 2010 outbreak. The risk of spread following importation of wild poliovirus remains intermediate or high in five countries in this subregion, mainly due to gaps in immunization coverage and the timeliness of AFP surveillance. Countries of particular concern are Georgia (because of suboptimal routine immunization coverage); the Russian Federation (northern Caucasus), Tajikistan and Turkey (the south-east) due to suboptimal surveillance and routine coverage; and Uzbekistan due to suboptimal surveillance.

Review of national updates for 2011 and presentations by selected countries

The following sections summarize the presentations of the NCCs on the status of polio eradication in their countries and the feedback provided by the RCC to each NCC on its report.

Armenia

AFP surveillance deteriorated in Armenia in 2010. The AFP index declined from 0.89 in 2009 to 0.62 in 2010. Only 62% of AFP cases had an adequate specimen in 2010 and 85% of cases were investigated within 48 hours of notification. As a result of regular monitoring of surveillance indicators, weekly reporting and feedback, plus quarterly supportive supervision, the AFP index rose to 0.90 in 2011 with 91% of AFP cases with adequate specimens and 95% investigated within 48 hours of notification. As of week 22 in 2012, 100% of AFP cases had adequate specimens and prompt investigation. Some areas of the country were silent. One hot case imported from Georgia was investigated. Immunization coverage was maintained at a high level with OPV3 coverage at 94.0% in 2009, 95.0% in 2010 and 96.4% in 2011. There were two rounds of supplementary immunization activities in 2008 targeting all children aged <5 years, achieving 98% coverage. No supplementary immunization activities were conducted in 2009–2011. The NCC concluded that Armenia maintained its polio-free status and that an imported virus would be identified promptly and its spread prevented.

Country-specific feedback from the RCC

The NCC report was accepted. The RCC was pleased with the completeness of the report and statement as to why the country is free of polio.

Azerbaijan

Azerbaijan conducted regional training courses in 2011 and 2012 to train 280 health workers in AFP surveillance. Surveillance was monitored closely in seven of the eight districts that had never reported an AFP case since AFP surveillance was initiated in 1997. The number of these

silent districts declined from eight to four in 2012. A final clinical classification was assigned to all 2010 and 2011 AFP cases. An independent assessment of AFP surveillance quality was conducted in May 2012 and concluded that the system was functioning well. The AFP surveillance index has been high continuously, 0.98 in 2009, 1.00 in 2010 and 1.00 in 2011. Immunization coverage is high, with OPV3 coverage reported at 95.7% in 2009, 97.1% in 2010 and 97.8% in 2011. Coverage estimates from UNICEF and WHO are, however, below the rates reported by the country. It was noted that all AFP cases since 2007 have had three or more doses of OPV. During European Immunization Weeks in 2011 and 2012, 5481 and 4673 children respectively, with missed OPV doses were immunized. An immunization data quality assessment is planned for July 2012. Two rounds of SNIDs were conducted in 2011 in areas bordering Dagestan in the Russian Federation. This activity targeted children aged under 5 years and was synchronized with SNIDs in the Russian Federation. Independent monitoring measured coverage for the SNIDs at 97.3% and 98.3%. Two rounds of SNIDs were conducted in districts with low coverage in 2012 targeting children aged 0–4 years: 99.1% coverage was achieved in the first round. Environmental surveillance is conducted in 10 territories in border areas and population centres. In 2011, 140 samples were tested with NPEV isolated in 12 (8.5%) of them. An electronic medical records system is being introduced that will be used to monitor immunization coverage.

Country-specific feedback from the RCC

The NCC report was accepted. The RCC was pleased with the completeness of the report and statement as to why the country is free of polio.

The RCC noted the country's efforts to implement an electronic medical records system to provide a more reliable determination of population and immunization coverage to address concerns about unregistered and unimmunized children.

Bosnia and Herzegovina

Steps have been taken in Bosnia and Herzegovina to strengthen AFP surveillance by improving communication between health workers and the public health authorities. Common strategies have been defined between the Federation of Bosnia and Herzegovina and Republika Srpska for the immunization of the Roma population. Expert meetings have been held between paediatricians and epidemiologists. A polio outbreak simulation exercise was conducted together with health workers from Montenegro and Serbia. The AFP surveillance index is high, reported as 1 in 2009, 1.12 in 2010 and 1.21 in 2011. Immunization coverage was 90% in 2009, 91% in 2010 and 91% in 2011. Activities undertaken in 2011 to improve immunization coverage include legislation recommending that a child's immunization history be reviewed at each health visit, activities to mark European Immunization Week in 2011, training of mediators in the Roma population, mapping of Roma settlements, development of promotional materials in the Romani and local languages, identification of the cohort of Roma children for immunization and continuing education for health professionals. No supplementary immunization activities were conducted in the period 2009–2011. An action plan to sustain the country's polio-free status is being considered by the Council of Ministers. The NCC is firmly convinced that the country was free of polio in 2011 because: the immunization programme is in accordance with WHO guidelines; there is a long tradition of conducting immunization programmes; immunization of children is free and available; continued training of personnel is carried out in order to improve AFP surveillance; routine immunization coverage indicates that the number of cantons/regions with low coverage is decreasing; immunization coverage has increased since 2008, when it was

83% due to shortages of vaccine; stool sample collection is adequate and prompt, with submission to the laboratory in Rome; and health care reform has not adversely affected the provision of health services.

Country-specific feedback from the RCC

The RCC was pleased with the progress made to address previously identified issues with immunization coverage and the AFP surveillance system, and noted the efforts made to secure a reliable supply of vaccines.

The RCC remained concerned about the accumulation of susceptible children in the country over many years. A nationwide serological survey may be useful in defining gaps in immunity better. The country should consider supplementary immunization campaigns to address any such gaps.

The NCC needed to provide information on how immunization coverage was determined.

Georgia

AFP surveillance, both routine and active, is effective at district and regional levels. Active surveillance is carried out regularly in target institutions by epidemiologists at the district level and was adequate in 2011. The AFP surveillance index is high, 1.0 in 2009, 0.98 in 2010 and 1.0 in 2011. AFP cases are reported from Abkhazia but not North Ossetia. It is believed that AFP cases from Ossetia would seek medical care in Georgia and be reported from there. Overall immunization coverage was high at 93.4% in 2009, 88.4% in 2010 and 90.5% in 2011. Vaccine stockouts occurred in the past due to problems with the procurement system, but vaccines are now procured through UNICEF and the supply is continuous. European Immunization Week was used to increase awareness about immunization among the population. Electronic medical records are being implemented and will be used to improve monitoring of immunization coverage. Supportive supervision was provided in 100 primary health care units in 30 districts to increase immunization coverage and the knowledge and skills of health workers. Mop-up activities were carried out in both 2010 and 2011 in districts with less than 90% routine coverage, targeting children aged 0–14 years. Two rounds of SNIDs were conducted in Abkhazia in 2010 with coverage of 98.2% and 98.3%. One SNID round was conducted in Marneuli district with 99.7% coverage. A mopping-up campaign in the entire country with one round achieved 52.7% coverage in 2010. In 2011, two rounds of mopping-up were conducted in 26 districts, achieving 87.5% and 77.6% coverage. The national polio laboratory has performed environmental surveillance since 2000. Sampling is from border areas, areas with low coverage, areas with low hygienic conditions and resort areas. No wild polio virus was found from 265 samples in 2009–2011. The NCC states that Georgia remained free of endemic and imported wild poliovirus and maintained its polio-free status because all necessary and relevant activities have been carried out.

Country-specific feedback from the RCC

The RCC was pleased with the country's efforts to supply vaccines and obtain AFP surveillance data from Abkhazia. The RCC noted that immunization coverage has been extremely variable in the past due to supply problems, but was pleased with changes in the procurement system to ensure a reliable supply of vaccine.

The country should assess which age groups and geographical areas pose potential gaps in immunity and should consider conducting immunization campaigns to address these gaps.

The quality of poliovirus surveillance is good.

The RCC appreciated the willingness of the NCC to be frank in discussion of the weaknesses of their immunization programme and surveillance system.

Greece

Greece maintains active AFP surveillance on a weekly basis at 25 hospitals with 52 neurologists, paediatricians and intensive care doctors. New clinicians have recently been added with an emphasis on silent territories at the subnational level. A supplementary study was conducted in high-risk populations with low coverage (Roma and immigrants). No wild polioviruses were isolated from 158 samples. The AFP surveillance index improved in 2011, rising from 0.69 in 2009 and 0.60 in 2010 to 0.92 in 2011. AFP surveillance indicators show that 100% of AFP cases have follow-up at 60–90 days, 79% have two stool samples within 14 days of the onset of paralysis, and 87.5% are investigated within 7 days of notification. The routine immunization system provides doses of IPV at 2 and 4 months with additional doses of IPV at 12–18 months and 4–6 years. During the last national immunization study in 2006, coverage at 12 months for two doses was 99.1%, and for the 12–18 month dose it was 98.1%. A new national immunization survey is being conducted at the present time. The European Immunization Week was taken as an opportunity to improve parental attitudes towards immunization. A supplementary immunization programme was conducted, using a mobile van to provide 919 doses of IPV to Roma and immigrant children. Vaccine supplies are adequate. A new national certification committee has been established by the Ministry of Health. The National Preparedness Plan is in the final stages of being prepared.

Country-specific feedback from the RCC

The RCC was pleased with the efforts of the country to improve AFP surveillance in recent years and was confident that wild polioviruses are not circulating in the country. The RCC also noted the efforts made to provide improved immunization services to Roma and refugees.

The use of a 2006 coverage survey to represent current immunization coverage is not acceptable. While a national immunization survey is currently under way, the RCC urged the national immunization programme to develop and implement a method for reliably and rapidly determining immunization coverage at one year of age on an ongoing basis.

The RCC requested that the NCC resubmit its report in three months' time so as to account for current immunization coverage.

Kyrgyzstan

The quality of AFP surveillance rose in 2011. In accordance with the interim requirements that two cases of AFP should be detected annually per 100 000 population aged under 15 years, the AFP rate rose from 1.33 in 2009 to 3.58 in 2010 and 3.9 in 2011. In 2011, 100% of AFP cases had two adequate stool samples, up from 95.5% in 2009 and 96.7% in 2010. Consequently, the AFP index was 0.95 in 2009, 0.97 in 2010 and 1.00 in 2011. Problems with transporting specimens to the regional reference laboratory in Moscow have been solved. Plastic containers have been purchased for collection and transport of stool specimens to address problems with leakage and breakage. Increased funding for purchase of vaccines has been made by the government, so that 97% of vaccine was purchased by the government in 2011. OPV3 coverage

was 95.7% in 2009, 92.4% in 2010 and 93.0% in 2011. Two rounds of NIDs were conducted in 2010 in response to the polio outbreak in Tajikistan, immunizing children 0–4 years. Coverage was 95.2% and 96.5%. Two rounds of NIDs were conducted in 2011 for children aged 0–14 years, with coverage of 95.0% and 95.9%. Children aged under 15 years were immunized because they would have not been immunized during Operation MECACAR, which ended in 1997. Outreach vaccination was also conducted in 2011 using mobile teams in hard to reach rural areas and migrant settlements around Bishkek. The NCC believes that circulating wild poliovirus is absent from Kyrgyzstan because there have been no wild poliovirus cases for 19 years, a high immunization coverage (>90%) has been achieved since 2000, 4 supplementary immunization rounds were conducted in 2010 and 2011 with greater than 95% coverage, and an effective AFP surveillance system is in place.

Country-specific feedback from the RCC

The RCC was confident that surveillance was working effectively and there was no wild poliovirus circulating in Kyrgyzstan.

The RCC was appreciative that the immunization programme will be fully funded for the next five years.

The RCC noted that the problems with transportation of specimens to the regional reference laboratory have been resolved.

The RCC noted that problems with specimen quality have been present and requested that the laboratory network coordinator work with the national surveillance system to ensure that the underlying problems are addressed.

Poland

The AFP surveillance index was been low at 0.68 in 2009, 0.64 in 2010 and 0.5 in 2011. Additional surveillance is provided by screening the adverse events following immunization registry for vaccine-associated paralytic poliomyelitis cases that may have been missed by AFP surveillance. Routine immunization coverage is very high in Poland, with IPV3 coverage reported at 99% in 2009 and 2010 and 98.3% in 2011. The routine vaccination schedule includes three doses of IPV for children aged under two years and a supplementary OPV dose at six years. Vaccination is mandatory and free of charge. There are small numbers of high-risk Roma and refugees. No supplementary immunization activities were conducted in the period 2009–2011. Consideration is being given as to how to strengthen epidemiological surveillance for AFP, including additional forms of surveillance. Funding for the national poliovirus laboratory is inadequate. The Polish NCC is firmly convinced that Poland remains polio-free.

Country-specific feedback from the RCC

The RCC could not accept the NCC's report because the quality of the data is poor. It requested that the NCC revise its report and resubmit it in three months' time.

There was a lack of clarity regarding the calculations on immunization coverage in the report. It appeared that 2008 births may have been used as the denominator for calculating coverage rather than current year births.

The surveillance indicators did not give sufficient confidence that any circulating poliovirus would be detected. It appeared that no-one was taking responsibility for immunization of the Roma and other high-risk populations.

The RCC was concerned about the poor quality of AFP surveillance with low AFP rates and low levels of the timeliness of reporting.

The responsibilities for managing the AFP surveillance system needed to be clarified so as to improve the quality of surveillance.

There was an accumulation of susceptible children. The country should clarify how these immunity gaps will be defined and what steps will be taken to address these gaps.

Romania

The quality of AFP surveillance in Romania has been low but is improving. The AFP surveillance index was 0.37 in 2009, 0.5 in 2010 and 0.6 in 2011. Surveillance units were updated on AFP surveillance in 2012. There is better cross-notification of AFP cases notified from districts other than where the patients reside. Additional training is being conducted for epidemiologists and family doctors. Facial paralysis has been excluded from the list of AFP diagnoses. A very high percentage of the remaining cases are Guillain-Barré syndrome. Routine immunization coverage has been high, reported at 93.6% in 2009, 89.2% in 2010 and 92.1% in 2011. The decline in 2010 was related to changes in the procurement system and budgeting issues. No catch-up immunization has been conducted. There has been outreach to the Roma population. No supplementary immunization activities were conducted in the period 2009–2011. Romania plans to switch to environmental surveillance when routine immunization coverage reaches 95% and will abandon AFP surveillance. The NCC met in April 2012 to review the data. No polio cases, no vaccine-associated paralytic poliomyelitis and no hot cases were reported in 2011. AFP surveillance is improving, providing strong evidence of the absence of wild poliovirus in Romania in 2011. Because of vaccination coverage and surveillance, the NCC is convinced that the country remains polio-free.

Country-specific feedback from the RCC

The RCC was pleased with steps taken to immunize the Roma population.

The RCC noted that there have been shortages of vaccines in recent years due to changes in the procurement system and shortages of funds.

Romania should develop plans to ensure that any gaps in population immunity are clearly defined and steps taken to close the gaps.

While the RCC was concerned that the quality of AFP surveillance has declined recently, it was also clear that the data are not presented in the most effective way to document the quality of surveillance (the vaccination status of AFP cases).

The quality of laboratory-based surveillance should be demonstrated to be high before the country expands its reliance on enterovirus and/or environmental surveillance to document the absence of circulating poliovirus.

Russian Federation

AFP surveillance is well-established and effective. The AFP rate was 1.7 in 2009, 1.9 in 2010 and 1.9 in 2011. Adequate stool samples were collected from 94% of cases in 2009, 94.7% of cases in 2010 and 93.9% of cases in 2011. Consequently, the AFP surveillance index was 0.96 in 2009, 0.95 in 2010 and 0.95 in 2011. Routine immunization coverage is high – 98.0% in 2009, 97.9% in 2010, and 97.5% in 2011. OPV is currently used for the third dose as a temporary measure. Serological monitoring of the population showed that only 0.4% of 27 000 subjects were negative for all three serotypes of poliovirus. However, only 78% of the subjects were children. Extensive supplementary immunization activities were conducted during the period 2009–2012. A single round of SNIDs was conducted in 2009 with 97.7% coverage. In 2010, two rounds of SNIDs were conducted in 42 territories with 98.0% coverage, plus an additional two rounds of SNIDs in the North Caucasus Federal District which achieved 99.5% coverage. In 2011, two rounds of SNIDs were conducted in 47 territories, achieving 97.8% coverage, plus two additional rounds in the North Caucasus Federal District which achieved 99.7% coverage. In 2012, SNIDs were conducted in 62 territories, achieving 97% coverage plus an additional two rounds of SNIDs in the North Caucasus Federal District, achieving 99.6% coverage. Extensive environmental and enterovirus surveillance is conducted with high rates of sampling and satisfactory rates of recovery of Sabin polioviruses and NPEV. Serological studies of young children in the Republic of Dagestan and the Chechen Republic demonstrate very high immunity to types 1 and 2 polio virus and about 80+% immunity to type 3 poliovirus. The NCC concluded that high coverage was achieved and maintained in the Russian Federation, effective and sensitive polio and AFP surveillance is in place, and no polio-suspected cases caused by wild polioviruses or wild polioviruses were reported in 2011.

Country-specific feedback from the RCC

The RCC commends the Russian Federation on its thorough and accurate report and is confident that there are no circulating polioviruses in the country.

Serbia

The AFP surveillance system in Serbia covers all children aged under 15 years. Supervisory visits have been organized, especially in the silent zones, to demonstrate the importance of surveillance and to enhance AFP surveillance. The AFP surveillance index was high in 2009 and 2010 at 0.94 and 0.90, respectively. It declined sharply to 0.50 in 2011. The routine immunization system is stable with high coverage, despite the presence of high-risk groups. Coverage was reported to be 97.4% in 2009, 97.1% in 2010 and 97.6% in 2011. During European Immunization Weeks in 2009, 2010 and 2011, supplementary immunization was conducted in all municipalities where coverage was below 95%. As a result of outreach to Roma populations, 41 550 Roma children aged 0–15 years were immunized in 2009–2011; 24 871 (59.8%) were fully immunized. No additional supplementary immunization activities were conducted during the period 2009–2011. The NCC report was based on high immunization coverage with OPV nationwide plus quality AFP surveillance. The risk of transmission remains low, but the risk of importation remains high and Serbia is surrounded by countries where the risk of transmission is also high. The main threat to maintaining the country polio-free is low coverage in high-risk populations.

Country-specific feedback from the RCC

The RCC was concerned about the accuracy of denominator data used to calculate immunization coverage in Serbia.

The RCC was concerned about the decline in AFP surveillance seen in 2011 and urged the country to take steps to ensure that high-quality surveillance was maintained until global polio eradication is certified.

Additional outreach to the Roma population may be needed.

Tajikistan

Improving AFP surveillance in the entire country was a priority in 2011. Special attention was paid to silent areas and border zones. Steps have been taken to ensure prompt delivery of samples to the regional reference laboratory in Moscow. An AFP surveillance review was conducted in June 2011. As a result, the AFP surveillance index rose from 0.85 in 2009 and 0.83 in 2010 to 0.96 in 2011. Routine immunization coverage is high and improving, rising from 93% in 2009 to 95% in 2010 and 97.2% in 2011. Efforts have been made to increase coverage in remote and hard-to-reach regions. Additional cold chain equipment has been provided to health facilities. As a result of the outbreak in 2010, there have been extensive supplementary immunization activities with seven NID rounds and one SNID conducted in 2010, achieving coverage of 98.8% to 99.6%. Two NID rounds were conducted in 2011, vaccinating 99.3–99.6% of targeted children. A NID and SNID were planned for the autumn of 2012. An independent assessment of surveillance quality was also planned for the third quarter of 2012. The NCC concluded that Tajikistan remained free of polio because of the presence of high-quality and effective AFP surveillance, high OPV3 coverage, implementation of quality NIDs in 2010 and 2011 and high immunization coverage indicators in high-risk populations (Roma).

Country-specific feedback from the RCC

The RCC thanked the NCC for a complete report, and noted that significant improvements had been made to immunization coverage and AFP surveillance in response to the 2010 wild poliovirus outbreak.

The RCC urged the government to maintain high immunization coverage and high-quality AFP surveillance until global eradication is certified.

Ukraine

AFP surveillance in Ukraine was of high quality with an AFP index of 1.0 for 2009, 2010 and 2011. In 2011, 127 AFP cases were reported for an AFP rate of 1.96. An AFP rate greater than 2 was reported for 11 of 27 administrative territories. The AFP index was above 1 in an additional 25 territories. Only one territory was silent. Routine immunization coverage has declined sharply in recent years, falling from 92.5% in 2009 to 79.0% in 2010 and 71.0% in 2011. This decline has been due to funding issues, so that the supply of vaccine is inadequate. Additional funding is expected. No supplementary immunization activities were conducted during the period 2009–2011 and none were planned. Extensive environmental and enterovirus surveillance is conducted, but rates of NPEV and Sabin poliovirus isolation are below the expected rates. Serological studies have been conducted that show high levels of immunity to all three polioviruses, but the ages of the subjects were not specified. Based on a sensitive AFP

surveillance system plus supplementary enterovirus surveillance data, the NCC believed that Ukraine remained free of wild poliovirus circulation in 2011.

Country-specific feedback from the RCC

Routine immunization coverage in Ukraine has been low for the past several years and is currently at an unacceptably low level.

The number of unimmunized children is now approaching a full birth cohort and is large enough to permit an imported wild poliovirus to circulate freely and/or a circulating vaccine-derived poliovirus to emerge, posing a threat to both the Region and the Global Eradication Initiatives.

The RCC urged the country to secure sufficient vaccine immediately so that it can rapidly raise routine coverage to the high levels formerly achieved and to conduct the supplementary immunization campaigns needed to vaccinate children who have missed their routine doses.

There is a need to re-establish public and professional confidence in vaccines.

Uzbekistan

At the beginning of January 2011, Uzbekistan adopted the revised surveillance indicator of 2 AFP cases per 100 000 population aged under 15 years. Active surveillance was strengthened with weekly visits by epidemiologists to target health facilities. Supervisory visits were increased. The AFP rate was 1.22 in 2009, 1.49 in 2010 and 2.18 in 2011. The AFP index was 0.98 in 2009, 0.97 in 2010 and 0.96 in 2011. Routine immunization coverage has been, and remains, high at 98.4% in 2009, 98.3% in 2010 and 99.7% in 2011. In response to the 2010 polio outbreak, four NID rounds and one SNID round were conducted in 2010, achieving coverage of 92.9% to 101%. Two NID rounds were conducted in 2011, reaching 100.2% of the target population. The NCC report concluded that no polio cases caused by wild poliovirus strains were reported. Routine immunization coverage has been high (>98%) since 1994. Efforts are continuing to reinstate regular shipments of stool samples to the regional reference laboratory in Moscow. Available virological studies confirm the absence of wild poliovirus in Uzbekistan.

Country-specific feedback from the RCC

The RCC was pleased with Uzbekistan's response to the regional outbreak in 2010.

The RCC was also pleased with steps taken to have samples retested in Moscow in 2011, but noted that specimens have not been sent since June 2011. It is crucial that the national health authorities take steps so that specimens are routinely shared with the regional reference laboratory so that any polioviruses isolated are subject to intratypic differentiation. The RCC was confident that any wild polioviruses circulating would be detected.

The RCC cautioned that continued vigilance was required because of the proximity to two polio-endemic countries.

Performance of the European Polio Laboratory Network in 2011–2012

The European Polio Laboratory Network (LabNet) plays a central role in maintaining the polio-free status of the Region by documenting the absence of wild poliovirus and rapidly detecting any imported poliovirus or circulating vaccine-derived poliovirus. The network continues to maintain extremely high levels of proficiency, with specimens being processed rapidly. In 2011, 3188 specimens were processed from AFP cases, yielding 87 Sabin isolates. Seven percent of specimens contained a non-polio enterovirus. Ninety-six percent of poliovirus isolation results were reported on time and 99% of intratypic differentiation results were reported within 60 days. Member States reported that a total of 129 142 samples were analysed in 2011 compared with 109 144 in 2010. These analyses yielded 0 wild polioviruses, 15 vaccine-derived polioviruses, 1210 Sabin polioviruses and 10 474 NPEV isolates. These data provide a high level of confidence that wild poliovirus is not circulating in the Region.

Real-time polymerase chain reaction (PCR) is increasingly replacing cell culture for detection of poliovirus and enteroviruses in network laboratories as well as clinical and research laboratories. LabNet is developing methods for proficiency testing of PCR within the network. This is complicated by the logistics of distributing proficiency testing panels due to the tightening of biosecurity laws in the Region. Further delays are anticipated due to the need to obtain import permits. A less costly but more sensitive PCR assay has been developed and is being adopted by network laboratories. The network is working to establish intratypic differentiation capacity at the national laboratory in Georgia that will also provide this service for neighbouring countries. Draft enterovirus surveillance guidelines have been developed and will, hopefully, be released later in 2013. A web-based laboratory data management system has been developed and implemented. Despite its efficiency and ease of use, six network laboratories still do not use the data management system. The network continues to support the training of virologists, conduct workshops for biosafety and risk management, develop new methods and provide equipment and supplies for network laboratories. Funding is adequate for the present, but a major grant from the Russian Federation will expire at the end of 2012.

Annual progress report for 2011: poliovirus laboratory containment update

Containment of polioviruses is a necessary step for achieving global eradication. The global strategy for containment consists of risk elimination by destruction of poliovirus materials in all but a few essential facilities and risk management of such facilities by strict adherence to required safeguards. With Phase I of containment completed in the Region, 50 countries provided an update of their status in 2011, only Iceland, Monaco and San Marino have not provided information.

Twenty-two Member States in the European Region now report that 254 laboratories in 277 institutions are storing materials potentially containing wild poliovirus. Of these, 84 report that they are storing wild poliovirus infectious materials, including wild poliovirus stocks. The number of laboratories storing potentially infectious wild poliovirus materials increased significantly because of the 2010 outbreak. The studies involving samples from hospitalized children with gastroenteritis continue to pose a risk since absence of wild poliovirus cannot be guaranteed. The laboratories that handle such samples should be encouraged to follow WHO

recommendations on biosafety for collecting, processing and storing stool specimens that might contain poliovirus. Thirty-one Member States report that they have no laboratories storing wild poliovirus infectious materials.

A low priority has been placed on containment recently because of the pressure to finish eradication globally. There is a need for clear guidance from the Global Programme regarding containment activities in regions where Phase I has been completed. Recent incidents involving contamination of workers from an IPV production plant and the discovery of research materials contaminated with Sabin viruses highlight the importance of containment of polioviruses in the Region.

Laboratory data management system

A web-based laboratory data management system has been developed and is being used for polio in addition to measles and rubella. The system has the advantage of allowing data to be directly entered by laboratories and to be linked dynamically, using epidemiological identification numbers with AFP epidemiological data with linkage increased from 10% to over 90% since the introduction of the system. Data can be entered using online data entry screen as well as be uploaded directly from other computerized databases already in use in laboratories. The system reduces the work of double recording, uploading and transferring data. It also allows laboratory staff and epidemiologists to easily share and track data on AFP cases in real time. The system is being used by 41 of the 49 regional polio laboratories, representing 37 of the 42 countries doing AFP surveillance covering nearly 98% of AFP cases. Efforts are being made to get all the regional polio laboratory network laboratories to use the system.

Polio outbreak simulation exercise: feedback and future plans

On 14 and 15 December 2012, a polio outbreak simulation exercise was conducted in Sarajevo by the United Kingdom Health Protection Authority involving 37 participants from Bosnia and Herzegovina, Montenegro and Serbia. The purpose was to test national preparedness plans. The scenario involved a group of persons with a sick child travelling through the Balkans. Positive outcomes included open and honest discussion with feedback and active participation by all delegates, critical reviews of actual polio plans and opportunities to share good practices and raise awareness of issues faced by the participating countries. The principal needs identified were: to review and update national plans on a regular basis; to identify sources of technical support, establish links and identify triggers; for strategies to overcome inadequate immunization levels in migrant populations; for vaccine procurement strategies; for budgeting and financial assistance for outbreak response; for effective communication with professional partners, the media and the public; for training of senior officials and policy-makers; and for standard sampling protocols to increase the speed of confirmation. A report on the exercise had been prepared and disseminated. A similar exercise was being planned for the Caucasus in late 2012. An exercise is also being developed for the United Kingdom.

Regional plan of action to sustain the polio-free status of the European Region (2012–2013) based on the RCC 2012 recommendations

Unforeseen challenges are emerging for national immunization programmes as countries introduce IPV into their routine immunization schedules either as IPV only schedules or as part of an OPV/IPV schedule. The potential introduction of bivalent or monovalent oral polio vaccine will produce additional challenges. With the various combination products, there are at least ten different IPV-containing vaccines. National immunization programmes have proposed schedules using multiple IPV-containing vaccine products that may produce confusion for medical staff administering vaccines, thereby increasing administration errors and, perhaps, reducing both individual and population immunity against polio. Such complex schedules also increase the difficulty of procuring vaccines and may increase the total costs for vaccine purchase. A shift from trivalent oral polio vaccine to bivalent oral polio vaccine, types 1 and 3, for routine immunization may raise similar issues. ETAGE should consider how WHO can support countries to introduce routine immunization schedules that are both effective and cost-effective and how bivalent oral polio vaccine types 1 and 3 could be introduced into the routine immunization schedule. It may also be necessary to work with the European Medicines Agency to develop a marketing authorization for new poliovirus products. Potential shortages of oral polio vaccines may also be occurring in the near future, which could compromise the ability of Member States to control a polio outbreak.

Beyond vaccine schedules and supply, WHO polio activities are focused in five areas: laboratory support; data collection; country-level focus; communication and safety; and the Regional Certification Commission. Laboratory support involves external quality assurance, modification to methodologies, dissemination of oversight, stringent monitoring of timeliness, transport of samples, the laboratory data management system, and guidelines for environmental surveillance. Plans for improving data collection include: shifting the 18 Member States currently submitting AFP data by e-mail to online reporting, establishing an alert system for WHO and participating focal points, and obtaining data from disputed areas and areas under conflict where no health data are reported. Under country focus, the Regional Office will be exploring the feasibility of re-establishing MECACAR to promote cross border immunization campaigns; providing necessary support to Ukraine, Bosnia and Herzegovina, Georgia, Romania, Azerbaijan and Tajikistan; an emphasis on reporting of vaccine-associated paralytic polio cases; and outbreak response preparedness, including POSE, clarifying the available guidelines for national preparedness plans, the timing of outbreak response immunization and how to overcome refusal of mass campaigns or supplementary immunization activities.

Conclusions of the RCC

Based on the evidence presented at the Meeting, the RCC was convinced that there is no wild poliovirus transmission in the WHO European Region. A decade after certification, the Region remains free of polio. The job of eradicating polio in the Region is not over and countries need to at least maintain, if not improve, the services that they provide to prevent poliomyelitis. The risk of polio continues while transmission exists, especially in Afghanistan, Nigeria and Pakistan. No country in the European Region is free of that risk. The risk of polio in the Region also continues because of population immunity gaps in many countries. Member States need to ensure that immunization coverage is uniformly high. Surveillance needs to be improved in some countries, particularly in the west of the Region. There are also geographic areas that remain silent.

Recommendations of the RCC

After reviewing the reports of the NCCs and the presentations by the Regional Office, the RCC made the recommendations set out below.

General

1. The Regional Director and the Chairperson of the RCC should send a letter to all ministers of health reminding them that polio eradication has been declared a public health emergency by the World Health Assembly and challenging them to ensure that their national immunization programmes achieve high immunization coverage, to conduct catch-up immunization programmes for undervaccinated populations and to maintain highly effective poliovirus surveillance until global eradication is achieved.

NCCs and their reports

2. It is of concern to the RCC that there are still some Member States with no functioning NCC. All countries must have an NCC.
3. Despite being asked, many NCCs still do not specify in their reports the methods by which routine immunization coverage is determined, including both numerator and denominator data. NCC reports should clearly indicate how denominators for calculating coverage are determined. Any additional data available for determining immunization coverage (such as the vaccination status of AFP cases) should also be included in the report. The format of the report template should be changed to request these data.
4. NCC reports should clearly document the source, populations tested and method of analysis for specimens tested for environmental and enterovirus surveillance.
5. NCC reports from several countries contained conflicting reports on immunization coverage and surveillance data. NCCs should ensure the accuracy and consistency of data contained in their reports.

National preparedness planning

6. Of the 44 Member States that have a national preparedness plan, only 14 specify the source of and 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.
7. Rapid outbreak response remains vital to the success of controlling any polio importation. All Member States should ensure that their national preparedness plans aim to conduct the first round of outbreak response immunization within two to six weeks of detection of a circulating poliovirus. The earlier a local intervention can be implemented, the better the chance of limiting transmission.
8. A communications plan is an essential component of any outbreak response plan.
9. 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.

Risk assessment

10. The methodology used by the Secretariat for risk assessment should be reviewed to ensure that it is consistent and transparent.

11. Additional criteria are needed for overriding the assessment score (that is, where there are known immunity gaps in an otherwise low-risk country or where insufficient data have been provided).

Immunization

12. The European Regional Office should explore, together with the Eastern Mediterranean Regional Office, whether future supplementary immunization activities can be coordinated along regional boundaries, as was done in Operation MECACAR.
13. The RCC noted that the continuity of polio vaccination programmes may be compromised by procurement problems and issues related to national immunization schedules.
14. National programmes should ensure that they are able to vaccinate migrants and transitory populations, especially from currently endemic countries.
15. National immunization programmes should ensure that people travelling from Europe to endemic countries are protected against polio.

Vaccines

16. Because outbreak response may require the use of trivalent, bivalent or monovalent oral polio vaccines not currently licensed by national authorities, the RCC requested the Regional Office to contact the European Medicines Agency to initiate discussions on how unlicensed vaccines could be made available for emergency use.

Surveillance

17. The RCC noted that AFP rates have been extremely low in a number of Member States for years. It encouraged 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 wild- or vaccine-derived polioviruses are not circulating in the country.
18. Because both environmental and enterovirus surveillance are based on a limited number of specimens in some countries, the RCC encouraged national surveillance programmes to expand the number of specimens collected and analysed.

Laboratories

19. The RCC noted the increasing number of specimens processed by the regional laboratory network and acknowledged the central role of laboratories in documenting the absence of circulating polioviruses in the Region.
20. The RCC was concerned that adequate funding had not been secured for the regional laboratory network beyond the end of 2012, and urged the Regional Office to work with Member States to secure the necessary resources to support both regional and national laboratories until eradication is certified.
21. The RCC noted that lower than expected numbers of both Sabin polioviruses and non-polio enteroviruses are being isolated through AFP surveillance, enterovirus surveillance and environmental surveillance in a number of countries and requested that the regional laboratory network clarify why this is occurring at the next meeting of the RCC.
22. The RCC commended the regional laboratory network on implementing a new laboratory data management system to facilitate the transmission of data between laboratories and

epidemiologists and to reduce the workload required to maintain an accurate and complete database. The RCC supported efforts to get all Member States to use the system.

Containment

23. The RCC noted the importance of poliovirus containment in preventing the re-emergence of polioviruses after eradication and urged the Global Eradication Initiative to provide further guidance now that phase 1 is complete in the Region.
24. The RCC noted that episodes of workers being exposed during IPV production have been officially reported recently. As the major IPV production facilities located in the Region pose a risk, the RCC stresses the need for high-level biosafety to prevent the escape of wild poliovirus from these facilities.
25. The RCC noted that there is a continuing risk of unrecognized contamination of stored laboratory specimens and steps should be taken by all countries to ensure that unnecessary samples are destroyed.

Annex 1

PRESS RELEASE ISSUED BY THE WHO REGIONAL OFFICE FOR EUROPE

European Region marks tenth anniversary of polio-free certification

Press release

Copenhagen, 21 June 2012 – Today, the WHO European Region marks 10 years since it was certified free of poliomyelitis (polio). Stopping transmission of indigenous wild poliovirus in the 53 countries in the Region was a landmark in the effort to eradicate polio globally, and helped accelerate international momentum towards that goal.

Certification followed years of intensive effort by Member States, supported by a public–private coalition of WHO, the United Nations Children’s Fund (UNICEF), Rotary International and the United States Centers for Disease Control and Prevention (CDC). Thus, countries demonstrated the value of large, internationally coordinated vaccination campaigns and of special efforts to reach traditionally underserved groups, such as migrants or nomads.

There was much to celebrate on the day the Region received its polio-free certification, and a decade later there are many reasons to applaud the Region’s continuing efforts to retain it. Nevertheless, the past 10 years have not been without challenges, as surveillance for polio and immunity against it have waned. While poliovirus could travel to the Region easily from infected areas, this had not led to outbreaks before 2010, thanks to quick detection and a well-vaccinated population. By 2010, however, immunity had dropped to the point where an importation of wild poliovirus type 1 led to a large polio outbreak in Tajikistan and three neighbouring countries. This outbreak paralysed 478 people – including many adults – and killed 29. The risk of further deadly outbreaks is rising, underscoring the urgent need to eradicate polio globally.

“We have had many successes in the past 10 years, and we should recognize and applaud them,” said the WHO Regional Director for Europe, Zsuzsanna Jakab. “When we faced challenges, such as the 2010 outbreak, we saw countries and international partners mount a rapid and effective response. While this was a powerful reminder of the success we can achieve when we work together to fight common threats, it is important to emphasize that we cannot afford to become complacent. What we do here in Europe will have a significant impact on both the regional and global fight to eradicate polio.”

Following the 2010 outbreak, the European Regional Commission for the Certification of Poliomyelitis Eradication (RCC) commended the affected countries for responding quickly to stop the spread of disease. In August 2011 it confirmed that the Region would retain its polio-free status. At its twenty-sixth meeting this week in Copenhagen, Denmark, the RCC once again confirmed the Region’s polio-free status.

David Salisbury, Chairperson of the RCC, cautioned, “The threat of polio importation and outbreaks remains very real. The Region must not ease up on either its action or political commitment to preserving its polio-free status. I feel hopeful that, with ongoing commitment from countries and partner organizations, this Commission will have the evidence necessary to

allow us to continue to declare that the European Region is free from polio until the goal of global polio eradication is achieved.”

Polio is at its lowest levels since records began, with fewer cases in fewer districts of fewer countries than at any previous time. Poliovirus remains endemic in parts of only three countries, and earlier this year India celebrated its first year without polio. Until polio is eradicated worldwide, however, all polio-free regions, including the European Region, remain at risk of importation. Mathematical modelling predicts that failure now could result in as many as 200 000 new cases every year, within 10 years, all over the world. Fully managing this risk requires maintaining rapid virus detection and high immunity in European countries, as well as helping the remaining countries where polio is endemic stop transmission. As a mark of how seriously the international community is taking this risk, the World Health Assembly adopted resolution WHA65.5, declaring the completion of polio eradication a “programmatic emergency for global public health” in May.

Filling a dangerous funding gap of US\$ 945 million will be crucial to success. Lack of critical funds has already forced the cancellation or scaling back of immunization activities in 24 high-risk countries this year, leaving children more vulnerable to polio. An independent monitoring body recently singled out the precarious financial situation as the single greatest risk to eradication.

“Less than 24 months ago, the countries of Europe rallied to respond to a terrible outbreak on the Region’s eastern borders,” said Bruce Aylward, WHO Assistant Director-General for Polio, Emergencies and Country Collaboration at WHO headquarters. “Today, there are fewer cases of polio in fewer places of the world than ever before, but Europe faces the spectre of similar outbreaks unless it invests in the emergency plan to eradicate polio in the last reservoirs of the virus. The generosity of the people and governments of Europe will be essential to protecting future generations of children in perpetuity.”

Notes for editors

- The Global Polio Eradication Initiative is spearheaded by national governments, WHO, Rotary International, CDC and UNICEF, and supported by key partners, including the Bill & Melinda Gates Foundation.
- Since the Initiative’s launch in 1988, the incidence of polio has been reduced by more than 99%. In 1988, more than 350 000 children were paralysed each year in more than 125 endemic countries. In 2012, 73 cases had been reported as of 14 June, and polio remained endemic in only 3 countries: Afghanistan, Nigeria and Pakistan.
- At an historic ceremony held in Copenhagen in 2002, the RCC certified that indigenous transmission of wild poliovirus in the European Region had ceased.
- Links to additional information:

[Global Polio Emergency Action Plan 2012–2013, WHO headquarters, 2012](#)
[Every missed child. Report of the Independent Monitoring Board of the Global Polio Eradication Initiative, WHO headquarters, 2012](#)
[Financing: Global Polio Eradication Initiative](#)
[Poliomyelitis, WHO/Europe](#)

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Annex 2

PROGRAMME

Monday, 18 June 2012

Plenary session 1. Progress towards global polio eradication and sustaining polio free Europe

- 13.00 – 13.30 Opening
Dr Guénaél Rodier, WHO Regional Office for Europe
- 13.30 – 14.00 The Global Polio Eradication Initiative's 2010–2012 Strategic Plan: progress
and challenges
Dr Dina Pfeifer, WHO Regional Office for Europe
Discussion
- 14.00 – 14.20 Polio programme annual update from the WHO Regional Office for Europe
Dr Sergei Deshevoi, WHO Regional Office for Europe
Discussion

Plenary Session 2. Sustainability of “polio-free” Europe: review of national updated documents for 2011 by epidemiological zones

- 14.20 – 14.40 Introduction to regional risk assessment
Dr Dragan Jankovic, WHO Regional Office for Europe
- 15.00 – 15.30 Subregional overview: update information for 2011 in the Nordic/Baltic
(8 countries) and western (10 countries) epidemiological zones
Dr Vusala Allahveryieva, WHO Regional Office for Europe
- 15.30 – 16.00 Subregional overview: update information for 2011 in the southern
(10 countries) and central-eastern (8 countries) epidemiological zones
Dr Dragan Jankovic, WHO Regional Office for Europe
- 16.00 – 16.30 Subregional overview: update information for 2011 in the central
(7 countries) and MECACAR (10 countries) epidemiological zones
Dr Shahin Huseynov, WHO Regional Office for Europe

Tuesday, 19 June 2012

Plenary Session 3. Updated information on actions and plans for 2012 from countries (countries with importations in 2010, selected high-risk and neighbouring countries)

- 09.00 – 10.20 Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia
- 10.20 – 11.40 Greece, Kyrgyzstan, Poland, Romania
- 12.00 – 13.00 Russian Federation, Serbia, Tajikistan
- 14.00 – 14.40 Ukraine, Uzbekistan

Plenary Session 4. Conclusion of the RCC and feedback to Member States

- 17.00 – 18.00 Conclusion of the RCC and recommendations to Member States
Professor David Salisbury, RCC Chairperson
General discussion

Plenary Session 5. Review of European Polio Laboratory Network performance in 2011–2012, containment activities in 2011–2012 and the Regional Plan of Action

- 09.00 – 09.20 Performance of the European Polio Laboratory Network in 2011–2012
Dr Eugene Gavrilin, WHO Regional Office for Europe
Annual progress reports of 2011 – poliovirus laboratory containment update
- 09.20 – 09.30 *Dr Galina Lipskaya, Moscow State University*
- 09.30 – 09.50 Laboratory data management system
Mr Ajay Goel, WHO Regional Office for Europe
- 09.50 – 10.10 Polio outbreak simulation exercise: feedback from Sarajevo, Bosnia and Herzegovina, December 2011 and future plans.
Ms Hilary Mouldsdale, Ms Vanessa Middlemiss, Health Protection Agency
- 10.10 – 11.10 Plan of Action to sustain polio-free status (2012–2013) in the WHO European Region based on the RCC 2012 recommendations.
Dr Dina Pfeifer, Dr Sergei Deshevoi, WHO Regional Office for Europe
- 11.10 – 12.30 Review working procedures of the RCC

Annex 3

RESULTS OF THE RISK ASSESSMENT

Country	Surveillance quality	Population immunity	Other risk factors	Risk of transmission following importation
Nordic/Baltic zone				
Denmark	Very good	High	Minimal	Low
Estonia	Average	Very high	Minimal	Low
Finland	Very good	Very high	Minimal	Very low
Iceland	Very good	Very high	Average	Very low
Latvia	Average	High	Minimal	Low
Lithuania	Very good	Very high	Average	Very low
Norway	Good	High	Minimal	Low
Sweden	Very good	Very high	Minimal	Very low
Western zone				
Austria	Average	High	Minimal	Intermediate ^a
Belgium	Average	High	Minimal	Low
France	Very good	High	Average	Low
Germany	Very good	High	Minimal	Low
Ireland	Average	Very high	Minimal	Low
Luxembourg	Good	Very high	Average	Very low
Monaco	Average	Very high	Average	Very low
Netherlands	Very good	High	Minimal	Very low
Switzerland	Average	Very high	Average	Very low
United Kingdom	Very good	High	Minimal	Low
Southern zone				
Andorra	Low	Very high	Average	Low
Croatia	Average	Very high	Minimal	Very low
Cyprus	Average	Very high	Minimal	Very low
Greece	Low	High	Average	High ^e
Israel	Low	Very high	Minimal	Low
Italy	Average	High	Average	Low
Malta	Low	High	Average	Intermediate
Portugal	Low	Very high	Minimal	Low
San Marino	Good	High	Average	Low
Spain	Low	High	Minimal	Low
Central-eastern zone				
Albania	Average	Very high	Minimal	Very low
Bosnia and Herzegovina	Average	Low	Average	High
Montenegro	Very good	Very high	Minimal	Very low
Republic of Moldova ^c	Very good	High	Minimal	Very low
Romania	Average	Low	Minimal	High
Serbia	Good	High	Minimal	Low
The former Yugoslav Republic of Macedonia	Average ^d	High	Minimal	Low
Ukraine	Very good	Low	Substantial	High
Central zone				
Belarus	Very good	Very high	Minimal	Very low
Bulgaria	Very good	High	Average	Low
Czech Republic	Average	Very high	Minimal	Very low
Hungary	Low	Very high	Average	Low
Poland	Low	High	Average	Intermediate
Slovakia	Average	Very high	Minimal	Very low
Slovenia	Good	Very high	Average	Very low

Country	Surveillance quality	Population immunity	Other risk factors	Risk of transmission following importation
MECACAR zone				
Armenia	Good	Very high	Minimal	Low
Azerbaijan	Good	Very high ^e	Minimal	Intermediate
Georgia	Good	Low	Minimal	High
Kazakhstan	Very good	High	Minimal	Low
Kyrgyzstan	Average	High ^f	Substantial	Intermediate
Russian Federation	Very good	High	Minimal	Low ^g
Tajikistan	Average	Average	Minimal	Intermediate
Turkey	Good	High	Minimal	Low ^h
Turkmenistan	Good	High	Minimal	Low
Uzbekistan	Average	Very high	Minimal	High

^a High discrepancies (>20%) of reported immunization coverage with WHO/UNICEF coverage estimate.

^b No immunization update since 2006.

^c Excluding Transdnistria.

^d Discrepancy in data.

^e High discrepancies (>20%) of reported immunization coverage with WHO/UNICEF coverage estimate.

^f Discrepancy between annual progress report and WHO/UNICEF joint reporting form.

^g High in north Caucasus.

^h High in south-east regions.

ⁱ Specimens are not tested in a WHO-accredited laboratory.

Annex 4

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