World Health Organization
REGIONAL OFFICE FOR Europe

33RD MEETING OF THE EUROPEAN REGIONAL COMMISSION FOR CERTIFICATION OF POLIOMYELITIS ERADICATION (RCC)

28-29 May 2019
Copenhagen, Denmark

ABSTRACT

The 33rd meeting of the European Regional Commission for Certification of Poliomyelitis Eradication (RCC), held on 28-29 May 2019, reviewed annual updates submitted by the Member States of the WHO European Region on the status of the national polio eradication programme in 2018. The RCC concluded, based on available evidence, that there was no wild poliovirus (WPV) or circulating vaccine-derived poliovirus (cVDPV) transmission in the WHO European Region in 2018. The RCC also concluded that Bosnia and Herzegovina, Romania and Ukraine remain at high risk of a sustained polio outbreak in the event of importation of WPV or emergence of cVDPV due to suboptimal programme performance, particularly low population immunity.

Keywords

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

Address requests about publications of the WHO Regional Office for Europe to:

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

Alternatively, complete an online request form for documentation, health information, or for permission to quote or translate, on the Regional Office website (http://www.euro.who.int/pubrequest).

Contents

Abbreviations

AFP	acute flaccid paralysis
APR	annual progress report
CP	certificate of participation in the containment certification scheme
cVDPV	circulating vaccine-derived poliovirus
cVDPV1	circulating vaccine-derived poliovirus type 1
cVDPV2	circulating vaccine-derived poliovirus type 2
cVDPV3	circulating vaccine-derived poliovirus type 3
e-APR	electronic annual progress report
ETAGE	European Technical Advisory Group on immunization
GCC	Global Certification Commission
GPEI	Global Polio Eradication Initiative
IPV	inactivated polio vaccine
ITD	intratypic differentiation of polioviruses
LDMS	Laboratory Data Management System
MECACAR	Mediterranean, Caucasus and Central Asian republics subregion
mOPV2	monovalent OPV type 2
NAC	National Authority for Containment
NCC	National Certification Committee
NITAG	National Immunization Technical Advisory Group
NPCC	National Poliovirus Containment Coordinator
OPV	oral polio vaccine
PCR	polymerase chain reaction
POSE	polio outbreak simulation exercise
PEF	poliovirus essential facility
PIM	poliovirus potentially infectious materials
PV2	poliovirus type 2
RCC	European Regional Commission for Certification of Poliomyelitis Eradication
VDPV	vaccine-derived poliovirus
VPI	Vaccine-preventable Diseases and Immunization Programme of the WHO Regional Office for Europe
WPV	wild poliovirus
WPV1	wild poliovirus type 1
WPV2	wild poliovirus type 2
WPV3	wild poliovirus type 3

Introduction

The 33rd meeting of the European Regional Commission for Certification Poliomyelitis Eradication (RCC) was held on 28-29 May 2019 in Copenhagen, Denmark. The meeting was opened by RCC Chair, Professor David Salisbury, who welcomed the Commission members and meeting participants. Rapporteur for the meeting was Dr Ray Sanders. The list of participants is provided as **Annex 1**.

Scope and purpose of the meeting

The scope and purpose of the meeting were:

- to brief the RCC on the status of global poliomyelitis (polio) eradication and on efforts to sustain polio-free status in the European Region;
- to review annual updated certification documentation on polio in all Member States of the WHO European Region for 2018;
- to provide feedback on electronic submission and processing of reports;
- to review response and risk mitigation activities in the Member States;
- to review the current status of regional poliovirus containment;
- to brief the RCC on proposed certification of wild poliovirus type 3 eradication and actions required from the RCC prior to the global certification;
- to recommend strategies and/or actions to strengthen efforts to sustain polio-free status of the Region focusing on high-risk countries;
- to review working procedures of the RCC and to discuss a plan of activities for 2019-2020.

Plenary session 1: Update on global polio eradication and efforts to sustain polio-free status in the European Region

Update from WHO headquarters /Global Polio Eradication Initiative (GPEI)

Circulation of wild poliovirus (WPV) has not been detected in Nigeria, the last remaining poliovirus endemic country in the WHO African Region, since September 2016. WPV type 3 (WPV3) circulation has not been detected anywhere in the world since 2012, and conditions are now set for the global certification of WPV3. WPV type 1 (WPV1)-associated cases continue to be detected through acute flaccid paralysis (AFP) surveillance in Afghanistan and Pakistan, and the virus continues to be isolated from environmental surveillance samples. Continued circulation of WPV1 in Afghanistan and Pakistan has led to a further delay in the expected timeline for global polio eradication, with interruption of transmission now estimated in 2020, global certification of eradication by the end of 2023, and global cessation of oral polio vaccine (OPV) use by the end of 2024.

Combined surveillance data suggest the existence of three active corridors of WPV1 transmission that cross the Afghanistan-Pakistan border, together with continued transmission in the area around Karachi in Pakistan. There have been 19 WPV-associated cases and more than 120 positive environmental samples detected in Pakistan in 2019 to date; 7 cases and 23 positive environmental samples from Afghanistan have been detected over the same time period. In Afghanistan a ban on house-to-house vaccination campaigns since May 2018, together with insecurity and ongoing conflict in some areas has resulted in approximately 1 million children being missed by immunizations services. Some key areas of virus transmission are not under government control and maintaining staff motivation to complete the eradication effort is becoming a challenge. In Pakistan large numbers of children are being missed by immunization services in the core virus reservoirs due to community fatigue, loss of confidence in vaccination and inability to maintain programme effectiveness in the face of extensive anti-vaccination campaigns on social media.

The Democratic Republic of the Congo has not reported a case of wild poliovirus since 2011, but the country has been affected by four separate circulating vaccine-derived poliovirus type 2 (cVDPV2) outbreaks, with cases continuing to be reported from two of these outbreaks into 2019. Outbreaks associated with cVDPV2 and cVDPV type 3 (cVDPV3) have been detected in the Horn of Africa, with an epicentre of transmission for both in Somalia. Mozambique is currently experiencing a cVDPV2 outbreak. The last WPV1 case detected in Nigeria in the Lake Chad area was in 2016, but the quality of surveillance and population immunity in neighbouring Lake Chad basin countries remain suboptimal. Nigeria has recently experienced two outbreaks associated with cVDPV2 strains, with evidence for spread to neighbouring Niger and Cameroon. In response to the ongoing outbreaks poliovirus surveillance has been strengthened throughout West Africa, including introduction of additional environmental surveillance.

Papua New Guinea has been experiencing a large outbreak of cVDPV1 and a case has been detected in neighbouring Indonesia.

No WPV3-associated cases or positive environmental surveillance samples have been detected globally since November 2012, and consideration is now being given to the global certification of WPV3 eradication. In February 2019, the Global Certification Commission (GCC) recommended a

process for certification of WPV3 eradication that would require the RCCs of the American, European, Western Pacific and South-East Asian Regions of WHO to affirm that WPV3 remains eliminated in their Regions, and for the RCCs of the African and Eastern Mediterranean Regions to confirm than no WPV3 had been detected in their regions since 2012. There are no current plans to link WPV3 certification with the withdrawal of type-3 containing oral polio vaccines.

The Polio Endgame Strategy 2019-2023[1] focuses on stopping poliovirus transmission, certifying eradication, containing all WPVs and developing integrated services to provide long-term protection to populations. Challenges to achieving these goals are now well recognized and the strategy proposes a number of solutions to be implemented at all levels.

Discussion

The RCC is greatly concerned over the increasing emergence and ongoing spread of cVDPV, particularly cVDPV2, and regards this as a global threat to achieving global eradication of polio. There is an urgent need to develop and implement global strategies:

- to accelerate production of monovalent OPV type 2 (mOPV2) to ensure availability of sufficient mOPV2 to respond to current outbreaks and
- to limit unnecessary mOPV2 use.

The outbreak of cVDPV1 in Papua New Guinea is an indication of broader problems in the global eradication efforts. There are several other countries around the world with risk factors for establishing VDPV transmission similar to those identified in Papua New Guinea, and a more urgent approach is needed to systematically identify these countries and address the risks before more outbreaks occur. Expanding the use of environmental surveillance, although challenging in many parts of the world, particularly in more rural settings, has resulted in the detection of cVDPVs in the absence of clinical cases.

The RCC expressed concerns that the quality of poliovirus surveillance in some countries in the African and Eastern Mediterranean Regions has not been maintained at a high enough level for the three years required for certification of eradication. Concerns were also expressed over the added complexities of attempting to certify WPV3 eradication in the face of ongoing cVDPV2 transmission.

While the Polio Endgame Strategy 2019-2023 proposes solutions to ongoing challenges, it remains unclear how the strategy will be implemented within the proposed timeframe. The RCC is concerned that greater focus is required on delivering the proposed solutions, including provision of operational guidelines, clearly achievable targets, progress and outcome monitors.

Polio programme update from the Regional Office

While 35, predominantly western European, countries now use inactivated polio vaccine (IPV) exclusively in their immunization schedules, 18 Member States in the European Region maintain at least one dose of OPV in their vaccination schedules. Introduction of IPV in 5 Member States was delayed due to global supply constraints, but vaccine availability appears to be improving and it is now appropriate to consider gradual discontinuation of the use of OPV in the Region as a whole.

[1] The Polio Endgame Strategy 2019-2023: Eradication, Integration, Containment and Certification. Available at: http://polioeradication.org/who-we-are/polio-endgame-strategy-2019-2023/

Options for the potential withdrawal of OPV, and the mechanisms required, are now being explored for discussions with the European Technical Advisory Group of Experts on Immunization (ETAGE) and the national immunization technical advisory groups (NITAGs).

Polio Outbreak Simulation Exercise (POSE) materials have now been made available to cover:

- national, standalone exercises;
- regional and inter-regional multi-country scenario exercises through workshops;
- POSE-plus multi-country workshops to develop and update national action plans;
- POSE-containment workshops for countries and vaccine manufacturers retaining poliovirus essential facilities (PEFs).

It is unfortunate that a planned POSE workshop intended to include Albania, Greece, North Macedonia, Serbia and Turkey was recently cancelled due to the lack of adequate financial resources.

Discussion

Consideration of the complete withdrawal of OPV in the European Region will focus on two key factors: the risk of emergence or importation and spread of VDPVs; and population immunity based on realistic vaccination coverage data. The RCC encourages the Secretariat to continue the process of discussing this with the ETAGE and NITAGs and to include discussions on broader issues like population immunity and coverage monitoring.

The RCC urges that more POSE workshops be conducted as soon as possible. It is essential for every country to not only have a current national preparedness plan, but also to test their plan using the POSE process.

WHO European Polio Laboratory Network update

The diversity of political and economic contexts in the Region has resulted in a wide range of national investments into the health sector, including in the area of laboratory-based disease surveillance. Despite the diversity, the 47 polio laboratories in the WHO European Polio Laboratory Network are currently largely sustainable through their respective national budgets. Typically, laboratories within the Network are not polio-centric, but support a wide range of surveillance activities, including measles/rubella, influenza, enteric and blood-borne pathogens and outbreak investigations. As such, the laboratories' priorities often vary with national disease surveillance priorities.

All laboratories in the Network are currently fully accredited in accordance with the WHO criteria, although each year a small number of laboratories fail the first round of external quality assessment; and regional troubleshooting and coordination remain essential to maintain full accreditation. The high workload experienced by the Ankara, Turkey, polio laboratory in 2018, due to the processing of specimens from Northern Syria, was a major contributor to the laboratory failing the first round of proficiency testing. Plans have been drafted to share specimens from Northern Syria among other laboratories globally to decrease the load on the laboratory in Ankara.

The regional online Laboratory Data Management System (LDMS) is fully functional and used to report laboratory results from AFP, enterovirus and environmental surveillance systems. The only

large country that does not yet report laboratory results through the LDMS is France, where problems aligning software packages have so far prevented inclusion. Efforts are currently underway to include the data from France in the LDMS.

A regional intra-typic differentiation (ITD) expansion strategy, through the use of polymerase chain reaction (PCR) technology, is being implemented. Thirty-six of the 47 laboratories in the Network have now received PCR platform and language-specific training, and 16 laboratories are already fully accredited for ITD. Faster implementation of the strategy is challenged by the diversity of the PCR platforms being used by different laboratories in the Region, but a system for validation of ITD conducted on multiple-instrument platforms has been developed and is in use. ITD expansion in the Network is strategically important to ensure continuity of operations in future.

Overall, the Network continues to function well, but decreasing global funding for the polio programme threatens its continuity. Laboratory-based poliovirus surveillance will continue to be required for the foreseeable future, and funding support for the coordination and oversight activities will remain necessary. Potential cuts to laboratory budgets threaten the sustainability of the Network itself and of the advances in disease surveillance made over the past two decades.

Current status of poliovirus containment globally and in the European Region

In preparation for global certification of polio eradication, Member States were requested in 2015 to accelerate containment activities by updating their national WPV inventories and establishing an inventory of Sabin virus materials. All countries have also been requested to locate and destroy all poliovirus type 2 materials not intended to be stored in polio-essential facilities (PEFs) and to consider requirements for the containment of potentially infectious materials (PIMs).

Countries planning to establish PEFs were also requested to consider the potential risks and requirements for PEFs and nominate national authorities for containment (NACs). In 2018 the process for certification of PEFs was initiated. To date, 42 of the 53 Member States in the Region have stated that they do not intend to establish PEFs and will destroy all poliovirus infectious materials. Eleven Member States have indicated their intention to establish a total of 37 PEFs.

The containment section in the Annual Progress Report (APR) template for 2018 was adapted to include the current containment requirements established by the GPEI. It includes six categories for reporting, but further work will be needed to identify additional risk factors in non-PEF countries, and to persuade countries planning PEFs to carefully identify and assess all risks associated with maintaining a PEF.

Preliminary results of a global NAC survey conducted in early 2019 suggest that most NACs feel they have sufficient national political and technical support to continue poliovirus containment activities in their respective countries, however, more studies are needed to establish what determines a successful PEF certification process. Most NACs consider that the risk of a containment breach of type 2 wild or vaccine-derived poliovirus in their respective facilities is currently low. There have been, however, four documented accidental spills or releases of infectious poliovirus materials from vaccine production facilities in the Region in the past five years.

Challenges to containment at country level in PEF and non-PEF countries include the need to establish and expand the PIM surveys, document the survey approach and address any gaps

identified. There is an additional need to advocate for further reduction of the number of PEFs planned, while encouraging those countries with confirmed PEFs to begin the PEF certification process as soon as possible.

Discussion

The RCC greatly appreciates the quality and extent of work being carried out by the Network and is greatly concerned that potential funding reductions threaten the sustainability of effective poliovirus surveillance.

Many laboratories in the Region that are outside of the Network are now using molecular techniques for the detection of non-polio enteroviruses. Most of these laboratories participate in external quality control programmes and their results are documented. The Regional Office is now requesting Member States with these laboratories to provide information on enterovirus detection results to supplement information provided from the Network laboratories.

For countries that are establishing PEFs, it is essential that poliovirus containment is included in their national action plan and that these plans be tested through an outbreak simulation exercise such as POSE. The RCC strongly recommends that countries begin the PEF certification process as soon as possible, starting with application for the Certificate of Participation (CP).

Some of the countries planning to establish PEFs are former vaccine-producing countries that ceased production some time ago. Further work is needed to inform these countries of the international requirements for establishing and the considerable long-term costs for maintaining a PEF.

Plenary session 2: Sustainability of polio-free status in the Region: review of national updated documents and risk assessment for 2018 by epidemiological zones

The results of the risk factor analysis for all countries of the Region are shown in Annex 1.

Nordic-Baltic zone

Based on the information available, the RCC concluded that the probability is high that WPV or VDPV had not been circulating in the zone in 2018 and that WPV importation or circulation of VDPV, if any, would have been detected promptly by existing health/surveillance systems. The risk of transmission following importation of WPV or circulation of VDPV in countries of this zone ranges from low to intermediate. It is of concern that Finland and Iceland have failed to adequately demonstrate sufficiently high vaccination coverage despite the presence of recognized vulnerable populations. It also remains of concern that Denmark and Latvia still have no plans of action for outbreak response despite requests from the RCC that plans be provided. The RCC noted the suboptimal poliovirus surveillance in Lithuania and Norway. NCC members in Lithuania continue to present a potential conflict of interest that needs to be addressed.

Feedback to the countries

- Denmark – is considered to be at low risk. The RCC noted, however, that despite previous requests from the RCC, Denmark has not submitted a national plan of action for outbreak response. In addition, Denmark has indicated the intention to establish a PEF; and therefore an appropriate preparedness plan for controlling a potential breach is needed. The RCC expects Denmark to submit a national plan of action for outbreak response as a matter of urgency and expects that this plan will include a laboratory containment component.
- Estonia – is considered to be at low risk. The RCC noted that the outbreak preparedness plan is due to be revised and looks forward to receiving a copy of the revised plan.
- Finland – is considered to be at intermediate risk due to suboptimal reported population immunity and a significant vulnerable population. The RCC was also concerned over indications of a declining vaccination coverage rate.
- Iceland – is considered to be at intermediate risk due to suboptimal polio vaccination coverage and lack of a national plan of action for outbreak response. The RCC noted the discrepancy between coverage data reported in the WHO/UNICWF Joint Reporting Form (JRF) and in the APR. The RCC would greatly appreciate a clarification on the discrepancy so corrections can be made to the incorrect data set.
- Latvia – is considered to be at low risk. The RCC noted the lack of a polio-specific national plan of action for outbreak response and expects to receive a copy of the updated plan with a polio focus.
- Lithuania – is considered to be at low risk. The RCC again noted that the quality of poliovirus surveillance should be improved.
- Norway – is considered to be at low risk. The RCC noted, however, that the quality of AFP surveillance remains suboptimal.
- Sweden – is considered to be at low risk.

Western zone

Based on the information available, the RCC concluded that the probability is high that WPV or VDPV had not been circulating in the zone in 2018 and that WPV importation or circulation of VDPV, if any, would have been detected promptly by existing health systems. The risk of transmission following importation of WPV or circulation of VDPV in countries of this zone ranges from low to intermediate. AFP surveillance has largely been substituted more or less effectively by supplementary poliovirus surveillance in all countries except Belgium and Switzerland. Polio vaccination coverage is generally high but there are concerns over suboptimal coverage by 12 months of age in Ireland and the continued low population immunity estimates for Austria. It remains of concern that France and Monaco still lack an appropriate plan of action for outbreak response. Belgium, France, Netherlands and the United Kingdom all propose to establish and maintain PEFs. The rate of progress in implementing poliovirus containment requirements in France is of concern. Potential conflicts of interest exist in the composition of the NCCs in Belgium, Ireland, Luxembourg, Monaco and Switzerland, although for several of these countries decentralization of services results in members from one region or authority effectively providing scrutiny over the other regions or authorities.

Feedback to the countries

- Austria – is considered to be at intermediate risk due to continued suboptimal polio vaccination coverage and concerns over resultant low population immunity. No coverage data for 2018 was provided.
- Belgium – is considered to be at intermediate risk due primarily to the apparent lack of adequate surveillance, either for AFP or for enteroviruses. Many of the samples tested for enterovirus are not stool or faecal samples and should not be considered as supplementary surveillance for polioviruses. The RCC recognizes that due to the high quality of clinical detection services provided in the country, any polio cases would probably be detected and investigated, but as Belgium is proposing to establish a number of PEFs, it is essential that high-quality poliovirus surveillance be established and maintained.
- France – is considered to be at low risk but the RCC is concerned over the failure to provide vaccination coverage data for 2018 and the apparent inability to respond effectively to a large measles outbreak. The RCC is also concerned that an adequate national plan of action for outbreak response has not been developed. France is proposing to establish a number of PEFs, therefore high-quality poliovirus surveillance and an appropriate preparedness plan for controlling potential outbreaks are needed. The RCC expects to see an appropriate plan of action submitted to the Secretariat for consideration by the RCC.
- Germany - is considered to be at low risk. The RCC is concerned, however, that approximately 13% of the population lives in districts with less than 90% coverage with a third dose of polio vaccine. The RCC commends Germany for the supplementary immunization activities conducted among migrant populations.
- Ireland – is considered to be at low risk. The RCC noted that vaccination coverage figures are low for children under 12 months of age (89%) but the situation improves greatly in children under 24 months of age.
- Luxembourg – is considered to be at low risk.
- Monaco – is considered to be at intermediate risk due to the apparent absence of effective surveillance for poliovirus and lack of a national plan of action for polio outbreak response. The country is again urged to develop an appropriate plan in line with the GPEI Standard Operating Procedures as soon as possible.
- Netherlands – is considered to be at intermediate risk due to suboptimal vaccination coverage, recognized vulnerable populations and a significant population living in districts with coverage with the third dose of polio vaccine <90%. Netherlands has decided to establish a number of PEFs, hence increasing the necessity to maintain high population immunity.
- Switzerland – is considered to be at intermediate risk due to the suboptimal quality of poliovirus surveillance. The RCC recognizes that due to the high quality of clinical detection services provided in the country, any polio cases would probably be detected and investigated, but no aspect of their poliovirus surveillance currently meets WHO requirements.
- United Kingdom – is considered to be at low risk. The United Kingdom is, however, proposing to establish a number of PEFs, increasing the necessity for high-quality poliovirus surveillance and maintenance of high population immunity.

Central zone

Based on the information available, the RCC concluded that the probability is high that WPV or VDPV had not been circulating in the zone in 2018 and that WPV importation or circulation of VDPV, if any, would have been detected promptly by existing health/surveillance systems. The risk of transmission following importation of WPV or circulation of VDPV in countries of this zone ranges from low to intermediate. Evidence for suboptimal immunization coverage at subnational level in the Czech Republic and Slovenia is of concern, as is the apparent decreasing immunization coverage in Poland. It remains of concern that Hungary and Poland[2] still lack an appropriate plan of action for outbreak response. It remains of concern that the Czech Republic continues to consider the conversion of a vaccine production facility to a PEF, despite a lack of experience in polio facility containment.

Feedback to the countries

- Belarus – is considered to be at low risk.
- Bulgaria – is considered to be at intermediate risk due to suboptimal population immunity, particularly among subnational population groups. The RCC is concerned that Bulgaria has accumulated a sizable susceptible population over a number of years and activities are required to protect this population against polio.
- Czech Republic – is considered to be at intermediate risk due to suboptimal population immunity, particularly at subnational level. The RCC is also concerned that the quality of poliovirus surveillance is in decline and needs to be improved. Details of a proposal to convert an IPV production facility into a PEF have not been provided and the current status of this proposal is unclear. The RCC looks forward to receiving additional information so that an assessment can be made of the risks posed.
- Hungary – is considered to be at intermediate risk due to suboptimal poliovirus surveillance and the absence of a national plan of action for outbreak response. It is of concern that the quality of poliovirus surveillance appears to be in further decline. The RCC noted the intention to establish a PEF and again highlights the requirement to maintain both high population immunity and high-quality poliovirus surveillance. The RCC requests Hungary to submit a national plan of action for outbreak response as a matter of urgency.
- Poland – was provisionally considered to be at high risk due to low population immunity, suboptimal AFP surveillance and absence of a national plan of action for outbreak response. The RCC urged Poland to improve the quality of poliovirus surveillance and to submit a national plan of action for outbreak response as a matter of urgency. Following the RCC meeting, the response plan was developed and submitted by the set deadline, and the RCC downgraded the risk in Poland to intermediate.
- Slovakia – is considered to be at low risk. However, the RCC is concerned that the quality of poliovirus surveillance appears to be in decline.
- Slovenia – is considered to be at intermediate risk due to suboptimal population immunity, particularly at subnational levels, and evidence that the quality of poliovirus surveillance is in decline.

[2] Poland developed and submitted its national plan of action for outbreak response following the RCC meeting

Southern zone

Based on the information available, the RCC concluded that the probability is high that WPV or VDPV had not been circulating in the zone in 2018 and that WPV importation or circulation of VDPV would have been detected promptly by existing health/surveillance systems. The risk of transmission following importation of WPV or circulation of VDPV in countries of this subregion ranges from low to intermediate. Of concern is the suboptimal quality of AFP surveillance in Croatia and in countries with small population sizes (Andorra, Malta and San Marino). The RCC acknowledges that the criteria used to assess AFP surveillance quality may not be appropriate for countries with small populations. It is also of concern that vaccination coverage rates are uncertain in Cyprus, Greece and at sub-national level in Spain. Two countries (Israel and Malta) still have no formal plan of action to respond to WPV/cVDPV detection. Despite a previous recommendation from the RCC, Greece has not nominated a National Poliovirus Containment Coordinator (NPCC) to ensure proper communication on poliovirus containment activities and updates in the country.

Feedback to the countries

- Andorra – is considered to be at low risk, but the RCC remains concerned that the quality of AFP surveillance is suboptimal.
- Croatia – is considered to be at low risk, but the RCC is concerned over the large vulnerable population that requires additional immunization activities. The quality of AFP surveillance is suboptimal, but the extensive enterovirus surveillance, and newly established environmental surveillance, should allow detection of any circulating polioviruses.
- Cyprus – is considered to be at intermediate risk due to the lack of adequate immunization coverage data. To assess vaccination coverage the country is using a three-yearly survey conducted on a subsection of the total population.
- Greece – is considered to be at intermediate risk due to the lack of adequate immunization coverage data. To assess vaccination coverage the country is using a five-yearly survey conducted on a subsection of the total population. The RCC again strongly recommends that Greece nominate a National Poliovirus Containment Coordinator (NPCC) to ensure proper communication on poliovirus containment activities and updates in the country.
- Israel – is considered to be at low risk but the RCC remains concerned over the lack of a formal plan of action to respond to WPV/cVDPV detection. The RCC believes that Israel has the capacity to respond effectively to WPV/cVDPV detection but expects the national authorities in Israel to develop an appropriate plan of action and forward this to the Secretariat for consideration by the RCC. There appears to be discrepancy in the number of vaccine doses received by AFP cases reported through the monthly reporting system and the data provided in the NCC report. The RCC requests clarification on the polio vaccine status of AFP cases.
- Italy – is considered to be at low risk.
- Malta – is considered to be at intermediate risk due to suboptimal poliovirus surveillance and the absence of a formal plan of action to respond to WPV/cVDPV detection.
- Portugal – is considered to be at low risk.

- San Marino – is considered to be at intermediate risk due to suboptimal vaccination coverage and the absence of poliovirus surveillance.
- Spain – is considered to be at low risk.

Central-eastern zone

Based on the information available, the RCC concluded that the probability is high that WPV or VDPV had not been circulating in the zone in 2018. Despite suboptimal poliovirus surveillance, importation of WPV or circulation of VDPV would have been detected by existing health/surveillance systems. The risk of transmission following importation of WPV or circulation of VDPV in countries of this zone ranges from low to high. Due to suboptimal immunization services the risk of spread following importation of WPV or cVDPV remains high in Bosnia and Herzegovina, Romania and Ukraine. Suboptimal and declining immunization coverage in several of the countries in this zone remains to be of major concern. The RCC is also concerned that Romania is considering establishment of a PEF in the absence of adequate population immunity and Serbia is considering establishment of a PEF in the absence of high-quality poliovirus surveillance. Albania has also failed to submit a national plan of action for outbreak response in line with the GPEI Standard Operating Procedures. Update of the action plan from Bosnia and Herzegovina has been delayed due to legislative constraints in the governing entities and lack of consensus among entities. In addition, several countries in this zone have recently experienced, or continue to experience, large measles outbreaks, indicating a lack of adequate outbreak response capacity

Feedback to the countries

- Albania – is considered to be at low risk. The RCC is concerned, however, over the continued absence of a national plan of action for outbreak response, particularly since Albania has demonstrated a lack of capacity to deal effectively with a measles outbreak.
- Bosnia and Herzegovina – is considered to be at high risk due to suboptimal vaccination coverage, including among vulnerable groups, low-quality AFP surveillance and failure to mount an adequate response to outbreaks of other vaccine-preventable diseases. There appears to have been an improvement in vaccination coverage since 2017, but the situation is not uniform. It would be helpful to see vaccination coverage data at 24 months of age in order to see that the immunity gap has been closed. The RCC understands that a national plan of action for outbreak response has been developed but that there is a problem in coordinating finalization. The RCC looks forward to receiving a copy of the finalized plan in the near future.
- Republic of North Macedonia – is considered to be at low risk.
- Republic of Moldova – is considered to be at intermediate risk due to suboptimal population immunity with more than 24% of the population living in districts with vaccination coverage with a third dose of polio vaccine <90%. The RCC noted recent improvements in vaccination coverage and urges that further efforts be made to increase coverage.
- Montenegro – is considered to be at intermediate risk due to suboptimal population immunity and evidence for declining vaccination coverage rates. The RCC urges that efforts be made to increase polio vaccination coverage to the levels achieved in past years. It would

be helpful to see vaccination coverage data at 24 months of age in order to see that no immunity gap has been created.

- Romania – is considered to be at high risk due to suboptimal population immunity and the failure to mount an adequate response to outbreaks of other vaccine-preventable diseases in the past years. The RCC noted the evidence for slight improvement in vaccination coverage and requests to see vaccination coverage data at 24 months of age. The RCC remains highly concerned that Romania is considering establishing a PEF and reminds the national authorities that they should consider carefully all of the implications and responsibilities of having a PEF, and the implications for their own security and global security.
- Serbia – is considered to be at intermediate risk due to absence of adequate poliovirus surveillance. The RCC is highly concerned that Serbia is considering establishing a PEF and reminds the national authorities that that they should consider carefully all of the implications and responsibilities of having a PEF, and the implications for their own security and global security.
- Ukraine – is considered to be at high risk due to low vaccination coverage and the failure to mount an adequate response to outbreaks of other vaccine-preventable diseases in recent years. The RCC noted the evidence for slight improvement in vaccination coverage and requests to see vaccination coverage data at 24 months of age.

MECACAR zone[3]

Based on the information available, the RCC concluded that the probability is high that WPV or VDPV had not been circulating in the zone in 2018 and that WPV importation or circulation of VDPV would have been detected promptly by existing health/surveillance systems. The risk of transmission following importation of WPV or circulation of VDPV in countries of this zone ranges from low to intermediate. Of primary concern is the apparent declining vaccination coverage in Kyrgyzstan and the inability to respond effectively to a large measles outbreak in that country. There is concern that due to the global shortage of IPV there has been an accumulation of poliovirus type 2 susceptibles in Kyrgyzstan, Tajikistan and Uzbekistan. The Russian Federation, Turkey and Turkmenistan have still not provided national plans of action for outbreak response.

Feedback to the countries

- Armenia – is considered to be at low risk. The RCC is concerned that the national plan of action for outbreak response is not in line with the GPEI Standard Operating Procedures.
- Azerbaijan – is considered to be at low risk. The RCC noted, however, that there are some regions within Azerbaijan with poor reported vaccination coverage and hope that this does not extend any further as health reforms are implemented.
- Georgia – is considered to be at low risk. The RCC acknowledges the efforts made to improve communications, training and management of routine services in Georgia.
- Kazakhstan – is considered to be at low risk.

[3] Eastern Mediterranean, Caucasus, Central Asian Republics and Russian Federation

- Kyrgyzstan – is considered to be at intermediate risk due to suboptimal polio vaccination coverage and apparent declining capacity of the national programme to address major programmatic challenges.
- Russian Federation – is considered to be at low risk. The RCC again expresses concerns over the proposal to establish at least seven PEFs including both vaccine production facilities and research laboratories. Given the rigorous containment requirements placed on PEFs it may be advantageous to reduce the number of planned facilities. The RCC expects that a national plan of action for polio outbreak response, including a laboratory containment component, will be developed and shared with the RCC Secretariat.
- Tajikistan – is considered to be at intermediate risk. The RCC is concerned, however that due to the global IPV supply constrains there is a two-and-a-half-year gap in type 2 poliovirus population immunity that needs to be addressed.
- Turkey – is considered to be at low risk. The RCC again commends Turkey on the efforts made to provide immunization services to and conduct poliovirus surveillance among the Syrian refugee populations both in Turkey and across the border in Syria. The RCC remains concerned that Turkey has no national plan of action for outbreak response. National authorities and the NCC are urged to provide a national plan of action to the RCC Secretariat as soon as possible for consideration by the RCC.
- Turkmenistan – is considered to be at low risk. The RCC expects to receive a detailed national plan of action for outbreak response in line with the GPEI Standard Operating Procedures.
- Uzbekistan – is considered to be at low risk.

Conclusions and recommendations to Member States and WHO

Conclusions

Based on the evidence provided, RCC concluded there was no WPV or VDPV transmission in the WHO European Region in 2018. As in previous years, Bosnia and Herzegovina, Romania and Ukraine remain at high risk of a polio outbreak following importation of WPV or emergence of circulating VDPV, due primarily to suboptimal population immunity. In addition, Poland was provisionally considered to be at high risk, due to a decline in national immunization coverage, suboptimal poliovirus surveillance and, particularly, failure to provide an adequate national plan of action for polio outbreak response. The Ministry of Health and NCC of Poland were informed of the provisional classification of high-risk status and invited to submit an appropriate document by a set deadline. As the appropriate plan of action was received by the Secretariat and reviewed by the RCC, the overall risk status was downgraded to intermediate. Thus in total, 3 Member States were considered to be at high risk, 21 were considered to be at intermediate risk and 29 were considered to be at low risk.

Successful introduction of the electronic Annual Progress Report (e-APR) represents a significant achievement for the Regional Office, facilitating more effective and efficient collection, assessment and analysis of annual information. RCC urges WHO headquarters to support the dissemination of this system for consideration by other WHO regions. The RCC Chair in his additional capacity as the Chair of the Global Certification Commission urges adaption and adoption of this system by other WHO regions to help them collect the data required from their Member States. To optimize the format, countries (and the RCC) will be invited to provide feedback on the new e-APR.

The RCC is concerned over the increase in detected polio cases globally and the continued isolation of WPV1 from environmental samples collected from many sites in Afghanistan and Pakistan. Continued WPV1 transmission in both countries poses a significant risk of importation to all Member States of the European Region with cultural, social and trade links with Afghanistan and Pakistan. The RCC strongly encourages all Member States to take appropriate actions to protect populations against transmission of any imported viruses. The RCC also encourages the WHO Regional Director to take every opportunity to persuade Member States to maintain high population immunity to protect against re-establishment of poliovirus transmission.

Expansion in the transmission of cVDPVs, such as in Nigeria, the Lake Chad subregion and the Democratic Republic of Congo, is also of great concern and continues to present a global threat that can only be resolved through establishing and maintaining high population immunity. Conditions leading to the circulation of cVDPVs are well known and there are currently several countries in the European Region at risk of VDPV emergence.

On the basis of the evidence provided, with the increased introduction of supplementary surveillance, there are indications that the quality of poliovirus surveillance may have marginally improved in some key areas. Several Member States that have struggled to establish and maintain high-quality AFP surveillance have effectively boosted poliovirus surveillance through introduction of enterovirus and environmental surveillance. The quality of these supplementary surveillance systems is, however, often not easy to determine from the information provided and Member States are urged to provide all relevant information in the format requested by WHO. In some countries the efficiency (i.e. the virus isolation/detection rate) of supplementary surveillance, particularly environmental surveillance, could be enhanced, thus increasing surveillance quality at a potentially low cost.

The RCC appreciates the extensive and impressive work carried out in the Region to maintain and strengthen poliovirus surveillance and make surveillance data available and accessible. The RCC looks forward to rapid resolution of the technical incompatibility problems encountered in France, which will enable French laboratories to report testing results through the regional LDMS, as laboratories in all other Member States do. Laboratory-based poliovirus surveillance remains critically important in the Region and threats to reduce its funding allocation should be strongly countered.

The RCC is concerned that polio vaccination coverage has been in decline in a small number of countries in the Region, and that some Member States have acquired poliovirus type 2 immunity gaps through the temporary delays in the introduction of IPV following cessation of trivalent OPV use. The RCC urges all Member States to target immunization resources on identified vulnerable groups to increase overall population immunity.

The RCC noted that 35 Member States in the Region have been using exclusively IPV, and the rest use IPV doses in conjunction with OPV. The RCC encourages further discussion with regional and national technical advisory bodies on gradual cessation of OPV use in the Region. Discussions should consider strategies to decrease the risk of VDPV emergence, type-specific population immunity and programmatic requirements.

The RCC noted, that some Member States face challenges in providing timely polio vaccination according to national schedules, which affects their risk assessment because of apparently low vaccination coverage of infants at 12 months of age. Many of these countries can, however, provide evidence of high vaccination coverage at 18-24 months of age, and should provide this data to WHO and the RCC for consideration of their risk status.

The RCC noted that while the majority of Member States have established a national plan of action to respond to detection of WPV/cVDPV, several Member States have failed to update existing plans and a small number of Member States have failed to provide evidence that they have a plan. RCC strongly urges all Member States to provide a current plan aligned with the GPEI Standard Operating Procedures for a new polio event or outbreak in a polio-free country[4]. Failure to do so will be considered to represent a major risk and may result in an increased risk status for a Member State.

The RCC remains concerned at the number of Member States in the Region notifying their intentions to establish one or more PEFs and strongly urges all Member States contemplating this to consider whether it is needed, whether they are likely to meet the stringent requirements for certifying a PEF, and whether they are prepared to meet the long-term financial obligations of maintaining a PEF. The RCC urges all Member States establishing PEFs to submit applications for a Certificate of Participation, as an initial step in the certification process, as soon as possible as this would provide them with more time to prepare certification documentation. The RCC reminds Member States that establishment of a PEF is considered to be a risk factor for poliovirus transmission and that all countries hosting a PEF must address poliovirus containment in their national preparedness plans. RCC commended the work conducted by the WHO Regional Office in developing and introducing methods and materials for the testing of national preparedness and response plans through POSE. The RCC reminds all Member States of the requirement to test their national plans of action and urges the WHO Regional Office to resume its planned programme for POSE-related activities as a matter of urgency.

Recommendations to Member States and WHO

Population immunity

- Given the continued transmission of WPV1 in Afghanistan and Pakistan and the continued emergence and spread of cVDPVs, the RCC is concerned about the continuing decline in vaccination coverage in some Member States and the generation of immunity gaps associated with reduced vaccination coverage in the recent past, for example due to the recent temporary unavailability of IPV. All Member States are urged to improve overall population immunity by closing immunity gaps and targeting immunization resources on identified vulnerable groups.

[4] Global Polio Eradication Initiative. Responding to a poliovirus outbreak Standard Operating Procedures for a new polio outbreak in a polio-free country. World Health Organization, 2015. Available online at: http://www.polioeradication.org/Portals/0/Document/Resources/PolioEradicators/1a.PolioOutbreakGuideline20150220.pdf

Surveillance

- Several Member States have boosted poliovirus surveillance through introduction of enterovirus and environmental surveillance, but the quality of these supplementary surveillance systems is not always easy to determine. Member States are urged to provide all relevant information on supplementary surveillance systems and results in the format requested by WHO.

- Laboratory-based poliovirus surveillance remains critically important in the Region at this time and threats to reduce its funding allocation at global and regional levels should be strongly countered. Countries need to work with the Regional Office to develop long-term funding plans to offset the potential loss of GPEI funds.

Containment

- All Member States considering the establishment of PEFs are again urged to become fully aware of the international requirements for certification of PEFs and to carefully consider whether a PEF is needed, whether they are likely to meet the stringent requirements for certifying a PEF, and whether they are prepared to meet the long-term financial obligations of maintaining a PEF.

- Member States intent on establishing PEFs should initiate the PEF certification process by submitting their application for the Certificate of Participation and soon as possible, and in advance of the 31 December 2019 deadline.

Preparedness

- While the majority of Member States have developed a national plan of action to detect and respond to a WPV/VDPV event or outbreak, several have failed to update existing plans and a small number of Member States have failed to provide evidence that they have a plan. All Member States must provide an adequate plan to the RCC Secretariat for consideration by the RCC.

- For Member States considering the establishment of PEFs the national plan of action must include detailed plans on the outbreak control response to a containment breach from a certified facility.

- Member States are again reminded of the recommendation to undertake POSE as a matter of course and to update the exercise frequently. POSE activities should include testing responses to VDPV circulation and, in PEF-hosting countries, responses to a facility containment breach from a PEF.

- Strong consideration should be given by the WHO Regional Office to resume its plan to support POSE in the Region.

Annex 1. RCC conclusions on risk of sustained transmission in the event of WPV importation or emergence of VDPV, per Member State in the WHO European Region, based on available evidence for 2018

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

Russia	Good	High	Yes	Low
San Marino	Average	Average	No	Intermediate
Serbia	Average	High	Yes	Intermediate
Slovakia	Good	High	No	Low
Slovenia	Good	Average	No	Intermediate
Spain	Good	High	No	Low
Sweden	Good	High	Yes	Low
Switzerland	Low	High	No	Intermediate
Tajikistan	Good	Average	No	Intermediate
Turkey	Good	High	Yes	Low
Turkmenistan	Good	High	Yes	Low
Ukraine	Good	Low	Yes	High
United Kingdom	Good	High	Yes	Low
Uzbekistan	Good	High	No	Low

*Poland was provisionally ranked as high risk because of failure to submit a national plan of action for outbreak response. Since the country provided the requested plan in August 2019, the risk ranking was downgraded to intermediate.

Annex 2: List of participants

RCC members

Professor David M. Salisbury
Chair

Prof Donato Greco
Italy

Dr Tapani Hovi,
Finland

Dr Anton van Loon
The Netherlands

Dr Ellyn Ogden
United States of America

Dr Rudi Tangermann
France

ECDC

Dr Sabrina Bacci
Senior expert, Vaccine-preventable Diseases

Dr Benedetto Simone
Expert Outbreak Response

WHO Headquarters

Dr Tallis Graham
Coordinator, DAI/POL

WHO African Region

Dr Koffi Isidore Kouadio
Polio Certification Officer
Polio Eradication Program

WHO Eastern Mediterranean Region

Dr Humayun Asghar
Coordinator, EM/RGO/POL

Dr Ashraf Wahdan
Certification Medical Officer, EM/RGO/POL

WHO European Region

Dr Siddhartha Datta
Programme Manager, Vaccine-preventable Diseases and Immunization programme

Dr Patrick O'Connor
Team Lead, Accelerated Disease Control

Dr Eugene Saxentoff
Coordinator, European Polio Laboratory Network

Dr Shahin Huseynov
Technical Officer

Dr Maria Iakovenko
Technical Officer/Poliovirus Containment

Dr Dragan Jankovic
Technical Officer

Mr Theodoros Kaloumenos
Technical Assistant

Dr Zhanara Bekenova
WHO Consultant

Ms Malika Abdusalyamova
Programme Assistant

Rapporteur

Dr Raymond Sanders
Scientist

The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

Member States

Albania
Andorra
Armenia
Austria
Azerbaijan
Belarus
Belgium
Bosnia and Herzegovina
Bulgaria
Croatia
Cyprus
Czechia
Denmark
Estonia
Finland
France
Georgia
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Luxembourg
Malta
Monaco
Montenegro
Netherlands
Norway
Poland
Portugal
Republic of Moldova
Romania
Russian Federation
San Marino
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Tajikistan
The former Yugoslav Republic of Macedonia
Turkey
Turkmenistan
Ukraine
United Kingdom
Uzbekistan

World Health Organization
Regional Office for Europe

UN City, Marmorvej 51, DK-2100 Copenhagen Ø, Denmark
Tel: +45 45 33 70 00 Fax: +45 45 33 70 01
Email: eurocontact@who.int
Website: www.euro.who.int