World Health Organization
REGIONAL OFFICE FOR Europe

Health Protection Agency

EXERCISE POSE
(Polio outbreak simulation exercise)

FINAL REPORT

14 & 15 December 2011

TABLE OF CONTENTS

Report author: Vanessa Middlemiss
Exercise Manager (Emergency Preparedness)
Emergency Response Department
Porton Down, UK
Email: Vanessa.middlemiss@hpa.org.uk

EXECUTIVE SUMMARY

Introduction

Exercise POSE was commissioned by the World Health Organization (WHO) Regional Office for Europe and conducted by the UK's Health Protection Agency (HPA) as a table top exercise over a two-day period on 14 and 15 December 2011. The exercise was prompted by the report of the 22nd meeting (2009) of the European Regional Certification Commission for Poliomyelitis Eradication (RCC).

The main purpose of Exercise POSE was to enable participants to be stimulated to critically review and update their national plans on responding to the detection of wild polioviruses (WPV) and vaccine-derived polioviruses (VDPV). The exercise addressed communication, coordination and collaboration at an international and national level.

Participants

Representatives from Bosnia and Herzegovina, Serbia and Montenegro participated in the exercise. There were subject matter experts from the European polio reference laboratories, WHO and UNICEF Regional Offices. Observers came from the European Regional Certification Commission for Poliomyelitis Eradication (RCC), WHO Headquarters, Geneva and the EU funded Public Health Reform Project II, Bosnia and Herzegovina.

Positive issues

There were many positives identified during the exercise; all the participants were motivated and open and honest about their actual current polio preparedness and response arrangements. Each country critically reviewed their national action plan to take forward issues highlighted by the exercise.

Main issues

The main issues identified during Exercise POSE were for each participant country:

- To review their national polio plan and apply the learning from the exercise and implement the actions identified in their respective country action plans.
- To develop strategies for increasing immunization coverage of migrant and lower uptake populations.
- To identify routes of polio response support and finalize arrangements prior to an outbreak, this covers technical advice, international assistance partners and funding streams.
- To recognise the importance of an effective communication strategy (both internal and external) in an effective polio response and to develop a robust process.

PART 1 – INTRODUCTION

A. BACKGROUND

In 1988, the World Health Organization, along with UNICEF and the Rotary Foundation, launched the Global Polio Eradication Initiative with the aim to eradicate polio by the end of 2000. To date, polio remains endemic in four countries – Afghanistan, India[1], Nigeria and Pakistan – with a further four countries (Angola, Chad, Sudan and Democratic Republic of the Congo) known to have, or suspected of having, re-established transmission of polio virus. Appendix B shows the risk of transmission following importation of wild poliovirus in countries in the WHO European Region in 2011.

In 2010, the WHO European Region experienced the first outbreak following importation of wild poliovirus into the region since it was certified as polio-free in 2002. The outbreak began in Tajikistan and spread to neighbouring countries, with the Russian Federation, Turkmenistan and Kazakhstan reporting cases. 475 cases were reported across the region.

In the report[2] of the 22nd meeting (2009) of the RCC, it stated that '*the risk of importation of wild poliovirus into the Region remains very high due to its continuing transmission in the four remaining endemic countries and countries where transmission of imported viruses has been re-established. Frequent travel between these countries and Europe increases the risk of importation. While immunization coverage is sufficiently high to prevent poliovirus transmission in most areas of the Region, an imported wild poliovirus or vaccine-derived poliovirus could spread in geographical areas and/or subpopulations with low immunization coverage*'.

A conclusion of the report stated that '*National plans of action for responding to an imported or circulating poliovirus are missing or incomplete for many countries'*. The report also recommended that *'WHO should consider conducting a formal test of the national preparedness plan in one or more appropriate Member States'*. Exercise POSE was devised to support the conclusions of the report and was designed to explore the national planning and coordination in response to the detection of wild polioviruses (WPV) and vaccine-derived polioviruses (VDPV).

The main steps for the preparation of national plans are provided in the WHO document 'Guidelines on responding to a detection of wild poliovirus in the WHO European Region' (2007)[3]. There is extensive referral to this seminal document.

As part of the global polio eradication program of poliomyelitis, WHO Europe Region's aim is to maintain the European polio free status attained in 2002. Exercise POSE is part of the larger ongoing effort to achieve global eradication of polio.

[1] India has not had a polio case since 13 January 2011, in West Bengal - http://www.polioeradication.org/Dataandmonitoring/Poliothisweek.aspx
[2] http://www.euro.who.int/__data/assets/pdf_file/0019/92017/E93603.pdf
[3] http://www.euro.who.int/en/what-we-do/health-topics/communicable-diseases/poliomyelitis/publications/pre-2009/guidelines-on-responding-to-the-detection-of-wild-poliovirus-in-the-who-european-region

B. AIM & OBJECTIVES

Aim

Participants will be stimulated to critically review and update their national plans on responding to the detection of wild polioviruses and vaccine-derived polioviruses.

Objectives:

The objectives of the exercise were:

1. Increase level of preparedness to a possible event of importation of wild poliovirus or vaccine-derived polioviruses into a poliomyelitis-free Member State
2. Improve capacity to respond rapidly to the detection of circulating polioviruses
3. Improve country response and use of IHR mechanism in case of detection of wild poliovirus or vaccine-derived polioviruses.

C. SCENARIO DESCRIPTION

The scenario started with a suspect polio case being detected in Bosnia and Herzegovina. It was known that the case was from a Roma travelling family that had visited Bulgaria, Republic of Macedonia, Serbia, Montenegro[4] and Croatia. The scenario built with all the participant countries across the Balkan region receiving reports of acute flaccid paralysis (AFP). The exercise concluded with a post event scenario 25 weeks after the last case was reported.

D. PARTICIPANTS IN THE EXERCISE

There were 37 exercise attendees (including TV crew and exercise support personnel), of which 13 were participants and seven were participant observers. All participants contributed actively in the exercise. Due to circumstances beyond the control of the exercise organisers, Croatia and Macedonia, who had agreed to participate in the exercise, were unable to be represented. This did reduce the anticipated number of participants. The organisation and attending support personnel was based on the original attendance numbers. (See Appendix A for a full list of participants)

The following countries and organisations participated in the exercise:

- Serbia
- Montenegro
- Bosnia and Herzegovina
- WHO Regional Office for Europe
- UNICEF - Regional Office for Central and Eastern Europe/Commonwealth of Independent States
- European polio laboratory network

Observers of the exercise were:

- EU funded Public Health Reform Project II
- World Health Organization, Headquarters
- European Regional Certification Commission (RCC) for Poliomyelitis eradication

[4] Council of Europe - Roma and Travellers, estimate the following maximum and minimum of Roma populations for the three participant countries: Serbia 800,000 to 400,000, Montenegro 15,000 to 25,000, Bosnia and Herzegovina 40,000 to 60,000. http://www.coe.int/t/dg3/romatravellers/default_en.asp

PART 2 – CONDUCT OF THE EXERCISE

A. EXERCISE DESIGNERS & FACILITATORS

The Health Protection Agency (HPA) is a UK public sector body that combines public health and scientific expertise, research, emergency planning and training within one organisation. The exercises team of the agency's Emergency Response Department (ERD) has considerable experience in the design, development and conduct in the UK and Europe of a wide range of exercises designed to test preparedness of the health community, government departments and other supporting partners.

An Exercise Design Team (EDT) consisting of HPA staff from ERD was established to design and conduct the exercise. An Exercise Planning Group (EPG) was formed to provide the EDT with guidance for the planning and approval of the exercise documentation and exercise conduct. The EPG was made up of nominations from WHO and appropriate specialist members and provided valuable guidance and assistance in the development of the exercise.

B. EXERCISE LOCATION

The exercise was held in Sarajevo, Bosnia and Herzegovina. Exercise POSE was controlled centrally from the Exercise Control (EXCON) at the venue. Participants participated from their own syndicate's table. The participants had access to the internet and online resources.

C. EXERCISE DATE AND TIME SCHEDULE

The exercise was conducted over a two-day period; 14 December from 1100 – 1730 to 15 December 2011 from 0830 – 1300.

D. EXERCISE FORMAT

Exercise POSE was a table top exercise. Participants were represented in person and were grouped according to country. The groups reacted directly to the injects and the challenges presented. The exercise had an additional value of allowing direct personal interaction and communications between participants groups.

The scenario was spread over two phases which encompassed scene setting, review of preparedness, response and post event considerations. Day one focused on the outbreak and subsequent management; day two jumped 25 weeks and examined recovery and return to normality.

PART 3 – EVALUATION OF THE EXERCISE

Introduction

The exercise was well received and from feedback, it can be stated that the aim was achieved. The facilitators gave a 100% aim attainment rating. The participants universally agreed that the aim was achieved and that the exercise was worthwhile and addressed the objectives. The participants were given a pre-exercise questionnaire; all the received responses indicated that none had taken part in an exercise like this before.

A. POSITIVE EXPERIENCES

There were many positives mentioned by participants, observers and facilitators; three significant benefits of the exercise were:

- All the participants were interested and motivated; and were open and honest in their feedback about their actual current polio preparedness and response arrangements.
- The exercise allowed the participants to critically review their existing polio plans to sustain the polio free status and all the participant countries created an action plan to take forward issues highlighted by the exercise.
- It was an opportunity for polio responders to meet and share good practice and allowed awareness raising of the issues faced by participant countries and possible solutions to be suggested.

B. PROBLEMS ENCOUNTERED, LESSONS IDENTIFIED AND RECOMMENDATIONS FOR IMPROVEMENT

The lessons identified from this exercise are based on the analysis of the feedback received from exercise facilitators, subject matter experts, observers and the hot debrief held immediately after the exercise.

One of the challenges for the ongoing polio eradication programme and for the exercise was to address the issue of the 'imperative to plan'. A facilitator noted that '*where the last clinical wild-virus polio case was recorded in 1973, it may be difficult to properly acknowledge the real threat of polio importation and to continuously invest scarce human and material resources in planning and routine maintaining of national preparedness and response capacities'*. This is a vital success criterion in the continuing eradication programme.

B1. Review of current national plans

The aim of the exercise was to facilitate a forum for the participant countries to critically review and (if appropriate) update their national plans on the response and detection of WPV and VDPV. The importance of coordinated national plans was emphasised and it was

stated that '*detection of any wild poliovirus constitutes a public health emergency of international concern in any country of the European Region'*.

All the participant countries used the WHO polio guidelines (reference three) as a basis for their national plans. The participant countries accept and apply the four core strategies to stop transmission of WPV[5]. The guidelines mention national plans and notes that many country plans are too general; this too was observed in the exercise.

The exercise highlighted that all three participant countries had approved (Montenegro and Serbia) or draft (Bosnia and Herzegovina) polio plans to sustain the polio free status. Plans varied in length from 8 – 32 pages and had varying degrees of detail, content, review date and connectivity to other extant polio plans. Facilitators noted that to achieve an effective and coordinated response, it is necessary to ensure that national plans link to local planning and plans; this linkage was not established during the exercise but was accepted as an ideal. Copies of each participant country's polio plan were available for discussion and to share with other participants. It was accepted by the participant countries that there was room for improvement in all plans. Some plans were less comprehensive than other plans and will consequently require more attention.

All participant countries completed an action plan to highlight changes identified by the exercise. It was a key output from the exercise for these actions to be followed up. Significant actions were:

- Serbia to be cognisant of the increased polio risk level to which the country is now exposed (increased from low to intermediate). The 2008 – 2010 plan is now due for review. Serbia also noted that they do not have a national vaccine policy which would be part of the overall national plan protocols for polio response.

- Amalgamation of the separate entity (Federation of Bosnia and Herzegovina, Republika Srpska and Brcko District) plans of Bosnia and Herzegovina polio plans into a single national plan to ensure a coordinated response on a federal level and identification of any additional measures required from being a high risk country (See appendix B).

- Montenegro to consider additional content in the national plan on the specifics of a polio response which should cover enhanced surveillance. It was noted that the 2011 - 2013 plan was '*not specific enough on how the country is going to proceed with organising and managing its response'.*

It was noted by facilitators that the WHO polio guidelines do not address crisis management. The guidelines are the seminal document for development of the national polio plans and there is no direct reference to this element. It was suggested that this topic should be examined to assess the appropriateness of including this aspect within the WHO

[5] The four core strategies are: high infant immunization coverage with four doses of oral poliovirus vaccine (OPV) in the first year of life; supplementary doses of OPV to all children under five years of age during supplementary immunization activity (SIAs); surveillance for wild poliovirus through reporting and laboratory testing of all acute flaccid paralysis (AFP) cases among children under fifteen years of age; and targeted "mop-up" campaigns once wild poliovirus transmission is limited to a specific focal area.

guidance. It may be argued that this content is available in other documentation but the guidelines could be used to signpost appropriate publications.

Recommendation 1
Review and update all the participant countries' national polio response plans and continue to review on a regular basis.

Recommendation 2
Participant countries to implement the actions identified in the national polio action plans.

Recommendation 3
Review the WHO polio guidelines on responding to the detection of polio in the WHO European Region to consider inclusion of crisis management or sign posting appropriate documentation and/or good practice.

B2. Technical advice and support

The requirement to gain and convey technical expertise and advice cannot be underestimated in the response to a polio outbreak. The link between technical experts, in particular WHO and UNICEF, and responders and decision makers is crucial to ensure clarity and consistency of information. The exercise demonstrated this fundamental element in developing the public health messaging. One of the difficulties is the compartmentalised nature of participant countries' health systems. One facilitator noted that 'silo thinking/working' was an issue, as different areas were responsible for separate parts of the response and planning. For example: it was noted in Montenegro that one participant was responsible for acute flaccid paralysis surveillance only and that there was no direct contact with policy and decision makers. However, when staff and resource are scarce this may occur, but the link is essential in supporting a coordinated and resourced response.

Polio response planning should also identify the experts with whom countries should be contacting and consulting. Support from international organisations and partners, for example WHO, Centers for Disease Control and Prevention (CDC), UNICEF and consultants will also be required (see B4). These organisations will need to provide pragmatic guidance in the field to help with supplemental immunization activities, social mobilization and crisis communication. Exercises such as POSE will enable responders to consider and develop sources of specialist knowledge and support.

Recommendation 4
Identify trusted sources of specialist advice, support and the trigger points at which technical expertise will be required.

Recommendation 5
Develop closer links between technical advice sources and ensure sources link to decision makers.

B3. Immunization and vaccine supply

The WHO polio guidelines stipulate 95% immunization coverage as an optimal level. The three participant countries declared the following coverage in their annual polio report for 2010; Serbia = 97.1%, Montenegro = 93.1% and Bosnia and Herzegovina = 90.7%. It was noted by the Bosnia and Herzegovina delegation, that this level may be lower in some areas, with reports of 83% immunization coverage. More significantly, this rate could be even lower in migrant and Roma populations. Montenegro also reported that '*the lowest immunization rate recorded in Montenegro comes from a collective accommodation of indigenous Montenegrin Roma population'*. Serbia also accepted that there were municipalities with lower coverage. Two of the three participant countries reported lower than optimum immunization levels and delegates queried in the feedback reports as to 'what level of vaccine coverage was acceptable'. Sub optimal coverage is obviously a risk to a country and the participant countries identified various strategies to overcome the weaknesses this lack of coverage caused. These included supplementary immunization activities and surveillance networks with focal points at hospitals.

Vaccine availability and procurement are central elements of a successful polio response plan and the exercise prompted discussion on this topic. All three participating countries use oral poliovirus vaccine (OPV) in their routine immunization programme. A real challenge is access to the most appropriate vaccine for the type of virus causing polio during an outbreak.

There was a presumption by exercise participants that sufficient vaccine will be available quickly, which may not be the case in reality. The Bosnia and Herzegovina delegation commented that one of their challenges was the procurement of an appropriate vaccine type, in sufficient quantities. This issue links to who pays for the vaccine and where vaccines will be purchased, if the affected country does not have enough. It was noted that this is likely to be the case. Participant countries will need to identify funding for vaccine procurement within national budgets and consider international assistance as appropriate.

Recommendation 6
Consider strategies to overcome immunization coverage deficiencies within migrant populations.

Recommendation 7
Continue to work on vaccine strategies with respect to various scenarios to ensure the most appropriate vaccine is procured and administered.

B4. Economic considerations – funding and international assistance

Any exercise has limitations in the extent of realism that can be simulated. One area that was limited was the economic impact of a polio outbreak. No specific budget was imposed on participants but there was an expectation that the response would be conducted within normal budget constraints of the participant countries. However, participants conducted the exercise response with no real consideration of the limit on the funding that would

actually be imposed. It was observed that '*they* (the participants) *played the simulation as if resources available to them (both human and financial) were unlimited'*. There are budgetary constraints and responding countries will need to identify funding in national budgets to resource an effective response to a polio outbreak and financial support for procurement of vaccines (see B3) and to support an immunization programme.

There was also an assumption that international assistance would be instantly available, again without consideration of the costs involved. Montenegro commented on the economic consequence of international support such as from WHO and UNICEF in outbreak investigation and response. UNICEF noted that fundraising was not covered in discussions but *'takes considerable staff time in a real outbreak response. This includes mobilizing emergency funding from government resources and UN mechanisms (CERF[6], EPF[7]), developing proposals, and approaching possible donors after the emergency phase for the replenishment of loans'*. An important outcome of the exercise was the recognition that a country will not be left unaided in their attempts to bring the crisis under control. The routes for applying for additional support from key international partners, such as WHO and UNICEF, should be explored and agreed before and not during a crisis.

Recommendation 8
Develop a realistic budget required to fund a polio outbreak response and consider inclusion within plans.

Recommendation 9
Consider the routes for applying for assistance from key international partners and ensure the routes are explored and agreed prior to an incident.

B5. Communications and media

Communication will be integral in a polio outbreak and this aspect was addressed in the exercise but was not a specific objective and was covered under preparedness and response arrangements. Communication is mentioned numerous times in the WHO guidelines. There were challenges posed to the participants on internal (health professionals and decision makers) and external (public/media statements and communication strategy development) communication requirements. There was also a 'live' media inject with a simulated press conference that was recorded and played back to the delegates.

One communication challenge that was highlighted in the exercise was the practice prevalent in the Balkans for information to be sourced by the media from clinicians to obtain professional comment on health emergencies. A facilitator noted that in Bosnia and Herzegovina '*traditionally, clinicians in BIH enjoy higher professional status compared to public health professionals*' and as '*Public health professionals are at the bottom of professional ladder – it may be over-optimistic to expect from them to single-handedly influence behaviour and actions*'. This disparity may have implications on professional

[6] The Central Emergency Response Fund is a humanitarian fund established by the United Nations to enable more timely and reliable humanitarian assistance to those affected by natural disasters and armed conflicts.
[7] Emergency Programme Fund - mobilize immediate funding to respond to an emergency including disease outbreaks, until more stable funding sources are secured.

communication and cooperation, where the media use clinicians as a source of information but in fact the public health professionals have the most up to date information on the situation.

There was not sufficient evidence in the participant country polio plans to comment on the existence of an effective communication strategy within each country. However, all the participant countries emphasized in their polio action plans that a communication plan should be produced.

Recommendation 10
Develop strategies to inform clinicians and media contacts of the routes to gain the latest health advice.

Recommendation 11
Participant countries to ensure that an effective communication plan is associated with their national polio plan.

B6. Training requirement

To ensure awareness and preparedness of key personnel such as responding senior officials and decision/policy makers, there will always be a training burden. The necessity of this level of responder having an intimate understanding of emergency response cannot be underestimated. Decision makers in the response need to connect with the responders to ensure the decisions made are coherent and reflect the political landscape. It was suggested that more exercises like POSE be conducted to build upon what was identified and to enable other regions to benefit from the exercise experience.

Recommendation 12
Ensure emergency preparedness and ongoing training for senior officials and policy/decision makers.

Recommendation 13
Consider developing a more geographically extensive exercise programme to share the learning from POSE to other regions of the WHO Europe Office area.

B7. Laboratory sampling

Objective two of the exercise required participants to examine their capacity to respond rapidly to the detection of polioviruses. Integral to this objective was laboratory sampling. There were three representatives from the reference laboratories providing expert advice and guidance. The speed of shipment was identified as an issue; sending suspected poliovirus samples for confirmation from one laboratory to another can be a time consuming process. For example, it was observed that the procedure for shipment of samples from Torlak laboratory, Belgrade to the WHO Polio reference laboratory in Rome requires the Serbian Public Health Institute to issue ‘permission for importation’. The permission takes between 10 days to three months. Where speed of confirmation is important, this timeframe could be considered unacceptable.

A possible solution suggested by the reference laboratory representatives was that during a suspected outbreak situation, sample transit could be increased by sending the first suspected virus isolates on FTA cards[8]. As the sample does not contain infectious material, the usual protocols could be bypassed and the sample could be tested and confirmation achieved much faster. Concurrently, the infected cultures could be sent by the usual slower method. This vital aspect of the transport speed of samples requires more attention and resolution, as immediate characterization of either a WPV or VDPV could delay a vaccination programme.

Recommendation 14
Consider a WHO Europe endorsed standard protocol for initial sampling to increase the speed of confirmation.

B8. IHR reporting

The use of International Health Regulations (IHR) mechanism was the focus of objective three. The 59th World Health Assembly in May 2006 noted that '*most of the new cases in 2005 have come from areas where transmission of indigenous polioviruses had already been stopped*'. The World Health Assembly adopted a resolution stating that poliovirus importation into a poliomyelitis-free area constitutes a potential international health threat and should be reported using IHR mechanism[9]. Participants accepted that the detection of any poliovirus in any country of the European Region constitutes a public health emergency of international concern. This objective was achieved and there are no follow up actions required to reinforce the IHR mechanism as all the participant countries were aware of the importance of the IHR reporting chain.

B9. Exercise improvements for future WHO polio exercises

i. Extra time for discussion and overall exercise duration

The programme allocated 6½ hours on day one and 4½ hours on day two. However, it was clear that this did not allow sufficient time for participant and plenary discussion; the addition of some supplementary activities (teleconference and press briefing) or give consideration to the time translation takes. These elements all added considerable time to the exercise; as a consequence the exercise overran significantly and some discussion sections were a little rushed. More time should be added to the programme and consideration should be given to increasing the exercise to two full days to allow for more formative discussion to be achieved and shared and to include a simulated press conference and teleconference.

[8] FTA (Fast Technology for Analysis (of nucleic acids)) cards provide a safe, secure and reliable method for the collection, transport, and safe room temperature storage of DNA. The samples contains ribonucleic acid (RNA) but is not considered infectious.
[9] http://whqlibdoc.who.int/publications/2008/9789241580410_eng.pdf

Exercise improvement 1
Increase the exercise timetable to allow for additional elements and sufficient formative discussion to be achieved.

ii. Increase communications element of the exercise

Exercise communications are discussed in B5, but it was observed by one facilitator that '*this was a weak part* (of the exercise) *which needs strengthening*'. One successful element was a supplementary press briefing simulation, which was widely commented upon and provided a valuable contribution to the exercise. The communication participation could be augmented with actual pseudo media participation and inclusion of social media injects. However, this would require participant countries to ensure that they have representative teams with communication representatives.

Exercise improvement 2
Augment the communication aspect of the exercise with pseudo media participation, press briefing and social media considerations.

iii. Representative teams

The exercise could have accommodated up to 30 participants, however due to the non attendance of two participant countries and some of the countries not sending sufficient representation, this number was not achieved. This reduced the number of participants and diminished the value that the exercise could have added to the overall Balkans preparedness and response arrangements. Any future exercise should endeavour to have as a minimum three participants covering responders, communications and technical support and to work with public health professional decision maker level delegates. The inclusion of clinicians could also be considered to aid with the issues outlined in B5.

It was suggested that WHO and UNICEF country offices should be more actively involved in the exercise, as during an outbreak, the affected countries, as well as other countries from the region will be calling the regional offices asking for advice and guidance.

Exercise improvement 3
Attending participant countries to send representative teams to ensure the exercise achieves the anticipated value.

iv Additional elements to add realism and value

The exercise had many successful elements and it was commented that the scenario was very realistic and that having the exercise in a location with participant countries with similar language and health structures aided the exercise. The exercise will be reviewed in light of the learning from the Sarajevo delivery and several elements will be added, these will include:

- Addition of a realistic budget constraint - introducing some limits to resource available may encourage a more cost-conscious delegate and force trade-offs in favour of more cost-effective options
- Inclusion of a simulated (recorded, if appropriate) press conference
- Inclusion of a simulated teleconference
- Addition of more discussion time both group and plenary
- Amalgamation of session two and three – streamline and focus the challenges
- Include a section on risk assessment
- Include a more in-depth communication section

It may be considered that the exercise delivery change from a one-off event to becoming an integral part of the ongoing polio preparedness and response efforts in the European region.

Exercise improvement 4
Add identified elements to the exercise for any future delivery to increase realism and add value.

C. ACKNOWLEDGEMENTS

Many people contributed to the successful planning and delivery of Exercise POSE. The exercise planning group would like to thank them all for their time and efforts, in particular, the WHO country office in Bosnia and Herzegovina who aided significantly to the delivery of the exercise. The exercise facilitators and subject matter experts gave important assistance at the exercise and invaluable detailed written feedback. The exercise planning group are also deserving of praise for their support and enthusiasm throughout the entire planning process.

PART 4 – CONCLUSIONS AND RECOMMENDATIONS

Exercise POSE was successful in allowing participants to critically review their national polio plans; it raised awareness of the issues surrounding a polio response; gave participants a better understanding of the scale and requirement and to share good practice.

The exercise made clear that the 'imperative to plan' is evident and preparedness is essential through regularly reviewed polio plans and appropriate technical advice and vaccine strategies. Further, that fiscal restraint should be applied, even in exercise scenarios and that routes to international assistance partners should be developed. The exercise highlighted the importance of effective communications strategies, training and the value in taking the output from the exercise, which was a national polio action plan and implementing the identified actions.

Collated below are the recommendations that were drawn from the lessons identified in this exercise.

A. RECOMMENDATION TABLE

Recommendation
Recommendation 1 Review and update all the participant countries' national polio response plans and continue to review on a regular basis
Recommendation 2 Participant countries to implement the actions identified in the national polio action plans
Recommendation 3 Review the WHO polio guidelines on responding to the detection of polio in the WHO European Region to consider inclusion of crisis management or sign posting appropriate documentation and/or good practice
Recommendation 4 Identify trusted sources of specialist advice, support and the trigger points at which technical expertise will be required
Recommendation 5 Develop closer links between technical advice sources and ensure sources link to decision makers
Recommendation 6 Consider strategies to overcome immunization coverage deficiencies within migrant populations
Recommendation 7 Continue to work on vaccine strategies with respect to various scenarios, to ensure the most appropriate vaccine is procured and administered

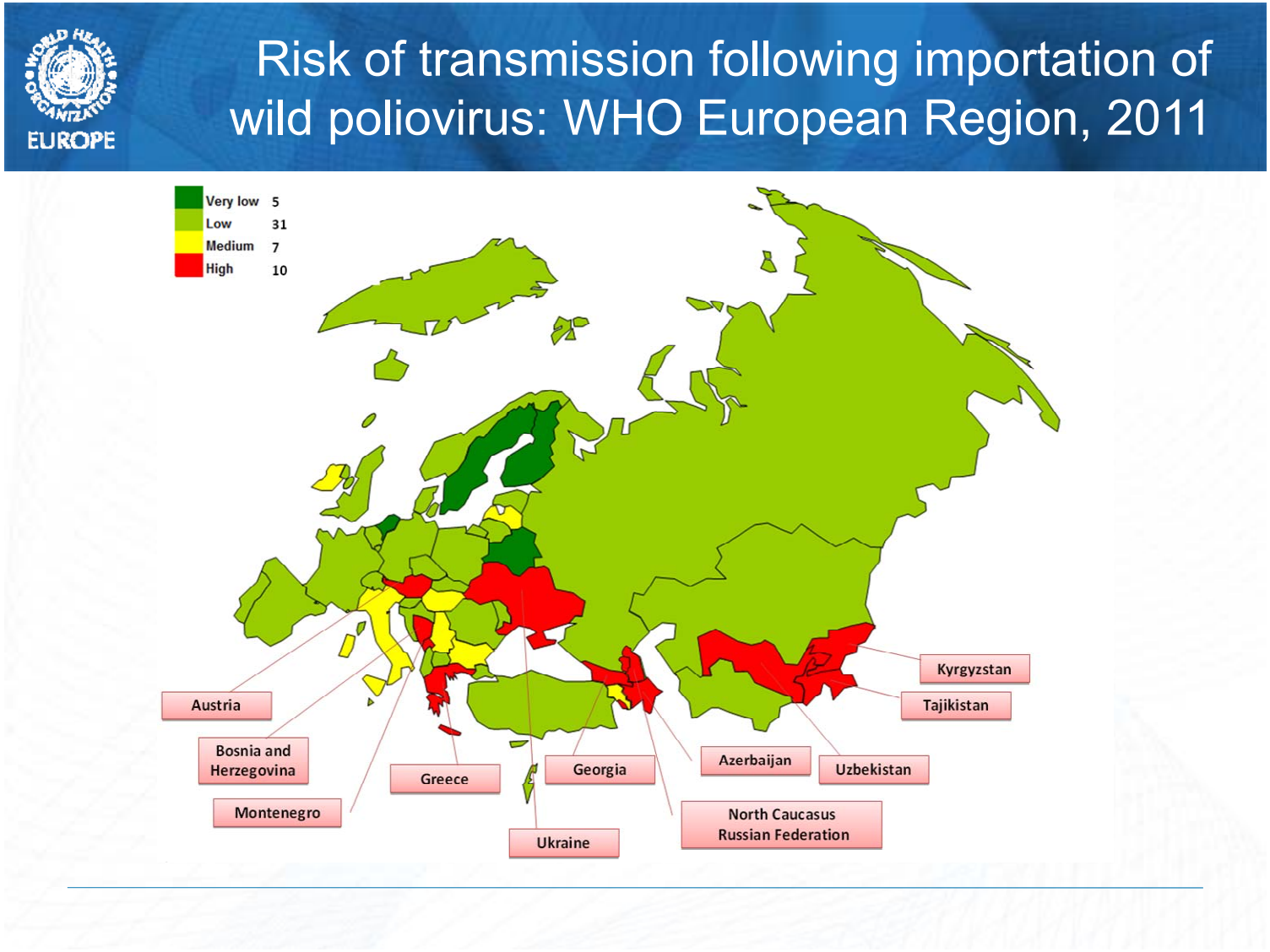
Recommendation 8 Develop a realistic budget required to fund a polio outbreak response and consider inclusion within plans
Recommendation 9 Consider the routes for applying for assistance from key international partners and ensure the routes are explored and agreed prior to an incident
Recommendation 10 Develop strategies to inform clinicians and media contacts of the routes to gain the latest health advice
Recommendation 11 Participant countries to ensure that an effective communication plan is associated with their national polio plan
Recommendation 12 Ensure emergency preparedness and ongoing training for senior officials and policy/decision makers
Recommendation 13 Consider developing a more geographically extensive exercise programme to share the learning from POSE to other regions of the WHO Europe Office area
Recommendation 14 Consider a WHO Europe endorsed standard protocol for initial sampling to increase the speed of confirmation

APPENDIX A – DELEGATES

	Name	Organisation/ Country	Email
PARTICIPANT COUNTRY DELEGATES			
1.	Drazenka Malicbegovic	Bosnia and Herzegovina	drazenka.malicbegovic@mcp.gov.ba
2.	Zorica Rulj	Bosnia and Herzegovina	zorica.rulj@mcp.gov.ba
3.	Aida Pilav	Bosnia and Herzegovina	aida.pilav@fmoh.gov.ba
4.	Zlatan Persic	Bosnia and Herzegovina	zlatan.persic@fmoh.gov.ba
5.	Mirsada Mulaomerovic	Bosnia and Herzegovina	m.mulaomerovic@zzjzfbih.ba
6.	Nihad Music	Bosnia and Herzegovina	selmana-music@hotmail.com
7.	Alen Seranic	Bosnia and Herzegovina	al.seranic@mzsz.vladars.net
8.	Janja Bojanic	Bosnia and Herzegovina	bojanicb@blic.net
9.	Natasa Aleksic	Bosnia and Herzegovina	n.aleksic@mzsz.vladrs.net
10.	Veselinka Beatovic	Montenegro	beatovic@ijz.mn.yu
11.	Goranka Loncarevic	Serbia	afp@batut.org.rs
12.	Milena Kanazir	Serbia	kanazir_milena@batut.org.rs
13.	Sasa Jankovic	Serbia	sjankovic@torlakinstitut.com
FACILITATORS			
14.	Sergei Deshevoi	WHO Regional Office for Europe	sed@euro.who.int
15.	Haris Hajrulahovic	WHO CO Bosnia and Herzegovina	haj@euro.who.int
16.	Boris Rebac	WHO CO Bosnia and Herzegovina	rebacb@euro.who.int
17.	Ahmed Novo	WHO CO Bosnia and Herzegovina	novoa@euro.who.int
18.	Selena Bajraktarevic	UNICEF Bosnia and Herzegovina	sbajraktarevic@unicef.org

SUBJECT MATTER EXPERTS			
19.	Evgeny Gavrilin	WHO Regional Office for Europe	ega@euro.who.int
20.	Oya Afsar	UNICEF, Regional office for CEEIS	oafsar@unicef.org
21.	Merja Roivainen	WHO polio laboratory network	merja.roivainen@thl.fi
22.	Lucia Fiore	WHO polio laboratory network	lucia.fiore@iss.int
23.	Gabriele Buttinelli	WHO polio laboratory network	gabrielle.buttinelli@iss.int
OBSERVERS			
24.	Donato Grecco	POLIO RCC	greco@iss.it
25.	Amina Obradovic	Public Health Reform Project II	a.obradovic@ceen_consulting.com
26.	Martin Rusnak	Public Health Reform Project II	m.rusnak@ceen_consulting.com
27.	Venanzio Vella	Public Health Reform Project II	v.vella@ceen_consulting.com
28.	Robert Kezaala	WHO Headquarters	kezaalar@who.int
EXERCISE CONTROL			
29.	Hilary Moulsdale	HPA UK	hilary.moulsdale@hpa.org.uk
30.	Vanessa Middlemiss	HPA UK	vanessa.middlemiss@hpa.org.uk
31.	John Simpson	HPA UK	john.simpson@hpa.org.uk
32.	Sanid Vlajcic	WHO CO Bosnia and Herzegovina	svl@who.ba
33.	Damir Lazic	WHO CO Bosnia and Herzegovina	lazicd@euro.who.int
34.	Dijana Jovicic-Hadziahmetovic	Interpreter	bubajh@bih.net.ba
35.	Svjetlana Pavicic	Interpreter	n/a
36.	Hakija Topic	TV crew	n/a
37.	Alema Kazazić	TV crew	alema.kazazic@smart.com

APPENDIX B – RISK OF TRANSMISSION FOLLOWING IMPORTATION OF WILD POLIOVIRUS



World Health Organization
REGIONAL OFFICE FOR Europe

Health Protection Agency

EXERCISE POSE