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Statement on the 9th IHR Emergency Committee meeting regarding the international spread of poliovirus

WHO statement 20 May 2016

The 9th meeting of the Emergency Committee under the International Health Regulations (2005) (IHR) regarding the international spread of poliovirus was convened via teleconference by the DirectorGeneral on 12th May 2016. As with the seventh and eighth meetings, the Emergency Committee reviewed the data on wild poliovirus as well as circulating vaccinederived polioviruses (cVDPV). The latter is important as cVDPVs reflect serious gaps in immunity to poliovirus due to weaknesses in routine immunization coverage in otherwise poliofree countries. In addition, any further spread of type 2 cVDPVs is a public health emergency following the globally synchronized withdrawal of type 2 OPV completed 1st May 2016.

The following IHR States Parties submitted an update on the implementation of the Temporary Recommendations since the Committee last met on 12th February 2016: Afghanistan, Guinea, Lao People's Democratic Republic, Nigeria and Pakistan.

Wild polio

The Committee noted that since the declaration that the international spread of polio constituted a Public Health Emergency of International Concern (PHEIC) in May 2014, strong progress has been made by countries toward interruption of wild poliovirus transmission and implementation of Temporary Recommendations issued by the Director-General. There has been a decline in the occurrence of international spread of wild poliovirus, with no international spread in 2015 or thus far in 2016 except between Afghanistan and Pakistan.

The Committee was encouraged by the intensified efforts and progress toward interruption of poliovirus transmission in Pakistan and Afghanistan despite challenging circumstances, and the renewed emphasis on cooperation along the long international border between the two countries. The committee particularly applauded the strong progress being made in Pakistan, with consistent evidence of reduced transmission in 2016, and welcomed Pakistan's determination to complete eradication this year. The Committee noted however that the international spread of wild poliovirus has continued, with two new reports of exportations from Pakistan into Afghanistan, one of which had occurred in October 2015 but only recognized recently following a new analysis of genetic data, and the second more recently in February 2016. These cases occurred in Nangarhar and Kunar Provinces, in the eastern region, adjoining the Pakistan border. While there has been no new exportation from Afghanistan to Pakistan, ongoing transmission particularly in inaccessible parts of the Eastern Region of Afghanistan close to the international border presents an ongoing risk. The new virus in Kunar was closely related to Pakistan viruses circulating at least since June 2014 in the Khyber-Peshawar block. The new Afghan virus in Nangarhar was closely related to Pakistan viruses also circulating during 2015 in the Khyber-Peshawar block.

The committee expressed its appreciation of the ongoing scientific cooperation between the Polio Regional Reference Laboratory in Islamabad and the Global Polio Specialized Laboratory in Atlanta to monitor the genetic characteristics and poliovirus sub-types in Pakistan and Afghanistan, and noted that the powerful tools employed to do this would be of great benefit in the polio endgame. This closer tracking of WPV1 means that chains of transmission across the border are more likely to be detected than in the past.

The committee reaffirmed that under the IHR, spread of poliovirus between two Member States constitutes international spread. The Committee acknowledged that cross border collaboration efforts have continued to be strengthened. Whilst border vaccination between these two countries is limited to children under ten years of age, efforts are being made to vaccinate departing travellers of all age groups from airports when leaving this epidemiological block formed by the 2 countries. The committee noted that all countries, and particularly those with embassies in Afghanistan and Pakistan, should facilitate implementation of Temporary Recommendations through adopting procedures that include proof of polio vaccination as part of visa application processes for travellers departing from Afghanistan or Pakistan, and urged the WHO secretariat to further assist in developing this process.

The committee was particularly concerned by the deteriorating security in parts of Afghanistan leading to more children becoming inaccessible, heightening anxiety about completion of eradication in 2016, thereby delaying the global polio endgame. The committee also noted that globally there are still significant vulnerable areas and populations that are inadequately immunized due to conflict, insecurity and poor coverage associated with weak immunization programmes. Such vulnerable areas include countries in the Middle East, the Horn of Africa, central Africa and parts of Europe.

The hard earned gains of the GPEI can be quickly lost if there is re-

introduction of poliovirus in settings of disrupted health systems and complex humanitarian emergencies. The large population movements across the Middle East and from Afghanistan and Pakistan create a heightened risk of international spread of polio. There is a risk of missing polio vaccination among refugee and mobile populations, adding to missed and under vaccinated populations in Europe, the Middle East and Africa. An estimated 3 to 4 million people have been displaced to Jordan, Lebanon, and Turkey and are at the centre of a mass migration across Europe.

The committee acknowledged receipt of final reports as requested from Israel, South Sudan and Iraq, and agreed that these three countries are no longer subject to the Temporary Recommendations. However, noting some gaps in surveillance in South Sudan and Iraq, the committee urged the GPEI and partner organizations to continue to provide support to these countries, in addition to Ethiopia and Syria which sent their final reports in February.

Vaccine derived poliovirus

The current circulating vaccinederived poliovirus (cVDPV) outbreaks across four WHO regions illustrate serious gaps in routine immunization programs, leading to significant pockets of vulnerability to polio outbreaks. In 2015, six outbreaks of circulating vaccine derived poliovirus occurred – three cVDPV type 1 outbreaks (Lao People's Democratic Republic, Madagascar and Ukraine) and three cVDPV type 2 outbreaks (Guinea, Myanmar and Nigeria). In 2016, transmission is continuing in Lao People's Democratic Republic, Nigeria and possibly Guinea.

In Guinea, the outbreak appears to be confined to one region, Kankan, but there appears to be a medium to high risk of continuation beyond OPV2 withdrawal. The possibility of missing transmission cannot be ruled out due to gaps in surveillance that were identified during the outbreak response assessment. Furthermore, surveillance indicators in neighbouring Liberia and Sierra Leone are below required standards and urgent efforts are needed to enhance surveillance in these countries.

The committee noted that in Lao People's Democratic Republic there was ongoing circulation of vaccine derived polioviruses, particularly in hard to reach populations, underlining the importance of communication to counteract vaccine hesitancy. The lessons learnt from the ongoing efforts in the cVDPV outbreak should be used to revise the existing communication and social mobilization plan for routine immunization so as to address the vaccine hesitancy in these communities, including the use of local vernacular mobilization materials, intensified routine immunization campaigns in all identified high-risk and hard-to-reach areas to improve the vaccination coverage, revision of microplanning for routine vaccination to identify the high risk communities in every catchment area, and assessing the vaccination coverage in these communities during periodic coverage surveys.

The committee was very concerned that in Nigeria, a circulating vaccine-derived poliovirus type 2 (cVDPV2) has been detected in an environmental sample in March 2016 in Maiduguri, Borno State, northeast Nigeria. Genetic sequencing of the isolated strain indicates it is most closely linked genetically to a cVDPV2 strain from Borno in November 2013 and last detected in May 2014, indicating the strain has been circulating without detection for almost two years, but different to the strain identified in 2015 in the Federal Capital Territory and Kaduna. The committee noted that a very robust outbreak response is under way by the Government of Nigeria, but was concerned that the risk of international spread of this strain of cVDPV2 from Nigeria was high. Surveillance and immunization activities need to be strengthened in neighbouring countries in the Lake Chad region.

Conclusion

The Committee unanimously agreed that the international spread of poliovirus remains a Public Health Emergency of International Concern (PHEIC), and recommended the extension of the Temporary Recommendations for a further three months. The Committee considered the following factors in reaching this conclusion:

- The continued international spread of wild poliovirus during 2015 and 2016 involving Pakistan and Afghanistan.
- The current special and extraordinary context of being closer to polio eradication than ever before in history.
- The risk and consequent costs of failure to eradicate globally one of the world's most serious vaccine preventable diseases. Even though globally transmission has fallen and therefore the likelihood of international spread has also fallen, the consequences and impact of international spread should it occur become more serious, and this possibility is greater if global complacency sets in.
- The continued necessity of a coordinated international response to improve immunization and surveillance for wild poliovirus, stop its international spread and reduce the risk of new spread.
- The serious consequences of further international spread for the increasing number of countries in which immunization systems have been weakened or disrupted by conflict and complex emergencies. Populations in these fragile states are vulnerable to outbreaks of polio. Outbreaks in fragile states are exceedingly difficult to control and threaten the completion of global polio eradication during its end stage.
- The importance of a regional approach and strong crossborder cooperation, as much international spread of polio occurs over land borders, while recognizing that the risk of distant international spread remains from zones with active poliovirus transmission.
- Additionally with respect to cVDPV:
 - cVDPVs also pose a risk for international spread, and if there is no urgent response with appropriate measures, particularly threaten vulnerable populations as noted above;
 - the emergence and circulation of VDPVs in four WHO regions demonstrates significant gaps in population immunity at a critical time in the polio endgame;
 - there is a particular urgency of preventing type 2 cVDPVs following the globally synchronized withdrawal of type 2

component of the oral poliovirus vaccine in April 2016;

- the ongoing challenges of improving routine immunization in areas affected by insecurity and other emergencies, including Ebola; and
- the global shortage of IPV poses fresh challenges.

Risk categories

The Committee provided the DirectorGeneral with the following advice aimed at reducing the risk of international spread of wild poliovirus and cVDPVs, based on the risk stratification as follows:

Wild poliovirus

- States currently exporting wild poliovirus.
- States infected with wild poliovirus but not currently exporting; States no longer infected by wild poliovirus, but which remain vulnerable to international spread.

Circulating vaccine derived poliovirus

- States currently exporting cVDPV.
- States infected with cVDPV but not currently exporting.
- States no longer infected by cVDPV, but which remain vulnerable to the emergence and circulation of VDPV.

The Committee applied the following criteria to assess the period for detection of no new exportations and the period for detection of no new cases or environmental isolates of wild poliovirus or cVDPV:

Criteria to assess States no longer exporting (detection of no new wild poliovirus or cVDPV exportation)

- Poliovirus Case: 12 months after the onset date of the first case caused by the most recent exportation PLUS one month to account for case detection, investigation, laboratory testing and reporting period, OR when all reported AFP cases with onset within 12 months of the first case caused by the most recent importation have been tested for polio and excluded for newly imported WPV1 or cVDPV, and environmental samples collected within 12 months of the first case have also tested negative, whichever is the longer.
- Environmental isolation of exported poliovirus: 12 months after collection of the first positive environmental sample in the country that received the new exportation PLUS one month to account for the laboratory testing and reporting period.

Criteria to assess States no longer infected (detection of no new wild poliovirus or cVDPV)

- Poliovirus Case: 12 months after the onset date of the most recent case PLUS one month to account for case detection, investigation, laboratory testing and reporting period OR when all reported AFP cases with onset within 12 months of last case have been tested for polio and excluded for WPV1 or cVDPV, and environmental samples collected within 12 months of the last case have also tested negative, whichever is the longer.
- Environmental isolation of wild poliovirus or cVDPV (no poliovirus case): 12 months after collection of the most recent positive

environmental sample PLUS one month to account for the laboratory testing and reporting period.

Temporary recommendations

States currently exporting wild poliovirus or cVDPV Currently Pakistan (last wild poliovirus exportation: 1st Feb 2016) and Afghanistan (last wild poliovirus exportation: 6th June 2015).

Exporting countries should:

- Officially declare, if not already done, at the level of head of state or government, that the interruption of poliovirus transmission is a national public health emergency; where such declaration has already been made, this emergency status should be maintained.
- Ensure that all residents and longterm visitors (i.e. > four weeks) of all ages, receive a dose of oral poliovirus vaccine (OPV) or inactivated poliovirus vaccine (IPV) between four weeks and 12 months prior to international travel.
- Ensure that those undertaking urgent travel (i.e. within four weeks), who have not received a dose of OPV or IPV in the previous four weeks to 12 months, receive a dose of polio vaccine at least by the time of departure as this will still provide benefit, particularly for frequent travellers.
- Ensure that such travellers are provided with an International Certificate of Vaccination or Prophylaxis in the form specified in Annex 6 of the IHR to record their polio vaccination and serve as proof of vaccination.
- Restrict at the point of departure the international travel of any resident lacking documentation of appropriate polio vaccination. These recommendations apply to international travellers from all points of departure, irrespective of the means of conveyance (e.g. road, air, sea).
- Recognising that the movement of people across the border between Pakistan and Afghanistan continues to facilitate exportation of wild poliovirus, both countries should further intensify crossborder efforts by significantly improving coordination at the national, regional and local levels to substantially increase vaccination coverage of travellers crossing the border and of high risk crossborder populations. Both countries have maintained permanent vaccination teams at the main border crossings for many years. Improved coordination of crossborder efforts should include closer supervision and monitoring of the quality of vaccination at border transit points, as well as tracking of the proportion of travellers that are identified as unvaccinated after they have crossed the border.
- Maintain these measures until the following criteria have been met: (i) at least six months have passed without new exportations and (ii) there is documentation of full application of high quality eradication activities in all infected and high risk areas; in the absence of such documentation these measures should be maintained until the state meets the above criteria of a 'state no longer exporting'.
- Provide to the DirectorGeneral a monthly report on the implementation of the Temporary Recommendations on international travel, including the number of residents whose travel was restricted and the number of travellers who were vaccinated and provided appropriate documentation at the point of departure.

States infected with wild poliovirus or cVDPVs but not currently exporting

(Currently Nigeria, Guinea, Madagascar, Ukraine, Lao People's Democratic Republic and Myanmar)

Country	Virus type	Total # cases / env isolates	Most recent onset / date of collection
Nigeria	cVDPV2*	1 AFP case	16th May 2015
Nigeria	cVDPV2*	1 env isolate	23rd March 2016
Ukraine	cVDPV1	2 AFP cases	7th July 2015
Guinea	cVDPV2	7 AFP cases	14th December 2015
Madagascar	cVDPV1	10 AFP cases	22nd August 2015
Lao People's Democratic Republic	cVDPV1	11 AFP cases	11th January 2016
Myanmar	cVDPV2	2 AFP cases	5th October 2015
*different strains of cVDPV2			

These countries should:

- Officially declare, if not already done, at the level of head of state or government, that the interruption of poliovirus transmission is a national public health emergency; where such declaration has already been made, this emergency status should be maintained.
- Encourage residents and longterm visitors to receive a dose of OPV or IPV four weeks to 12 months prior to international travel; those undertaking urgent travel (i.e. within four weeks) should be encouraged to receive a dose at least by the time of departure.
- Ensure that travellers who receive such vaccination have access to an appropriate document to record their polio vaccination status. Intensify regional cooperation and crossborder coordination to enhance surveillance for prompt detection of poliovirus and substantially increase vaccination coverage among refugees, travellers and crossborder populations.
- Maintain these measures until the following criteria have been met: (i) at least six months have passed without the detection of wild poliovirus transmission or circulation of VDPV in the country from any source, and (ii) there is documentation of full application of high quality eradication activities in all infected and high risk areas; in the absence of such documentation these measures should be maintained until the state meets the criteria of a 'state no longer infected'.
- At the end of 12 months without evidence of transmission, provide a report to the DirectorGeneral on measures taken to implement the Temporary Recommendations.

States no longer infected by wild poliovirus or cVDPV, but which remain vulnerable to international spread, and states that are vulnerable to the emergence and circulation of VDPV

(Currently Somalia, Equatorial Guinea, and Cameroon)

These countries should:

- Urgently strengthen routine immunization to boost population immunity.
- Enhance surveillance quality to reduce the risk of undetected wild poliovirus and cVDPV transmission, particularly among high risk mobile and vulnerable populations.
- Intensify efforts to ensure vaccination of mobile and crossborder populations, Internally Displaced Persons, refugees and other vulnerable groups.
- Enhance regional cooperation and cross border coordination to ensure prompt detection of wild poliovirus and cVDPV, and vaccination of high risk population groups.
- Maintain these measures with documentation of full application of high quality surveillance and vaccination activities.
- At the end of 12 months without evidence of reintroduction of wild poliovirus or new emergence and circulation of cVDPV, provide a report to the Director General on measures taken to implement the Temporary Recommendations.

These countries should provide a final report as per the table below:

Country	Most recent case onset / +ve environmental isolate	Final Report due
Equatorial Guinea	3May14	Jun16
Cameroon	9Jul14	Aug16
Somalia	11Aug14	Sep16

Additional considerations for all infected countries

The Committee strongly urged global partners in polio eradication to provide optimal support to all infected countries at this critical time in the polio eradication program for implementation of the Temporary Recommendations under the IHR. Recognizing that cVDPV illustrates serious gaps in routine immunization programs in otherwise polio free countries, the Committee recommended that the international partners in routine immunization, for example Gavi, should urgently assist affected countries to improve the national immunization program.

The Committee requested the Secretariat to complete the analysis of the public health benefits and costs of implementing the temporary recommendation requiring exporting countries to vaccinate all international travellers before departure.

The Committee recognised that the communication message explaining why a PHEIC is being maintained should be carefully prepared. On the one hand the world is applauding the successful switch from tOPV to bOPV and the reduction of new cases of wild poliovirus, while on the other hand a PHEIC is being maintained to ensure that all possible measures are brought to bear to support these final phases of polio eradication. This apparent paradox needs careful explanation.

Based on the advice concerning wild poliovirus and cVDPV, and the reports made by Afghanistan, Pakistan, Nigeria, Lao People's Democratic Republic and Guinea, the Director General accepted the Committee's assessment and on 20 May 2016 determined that the events relating to poliovirus continue to constitute a PHEIC, with respect to wild poliovirus and cVDPV. The DirectorGeneral endorsed the Committee's recommendations for 'States currently exporting wild poliovirus or cVDPV', for 'States infected with wild poliovirus or cVDPV but not currently exporting' and for 'States no longer infected by wild poliovirus, but which remain vulnerable to international spread, and states that are vulnerable to the emergence and circulation of VDPV' and extended the Temporary Recommendations as revised by the Committee under the IHR to reduce the international spread of poliovirus, effective 20 May 2016.

The DirectorGeneral thanked the Committee Members and Advisors for their advice and requested their reassessment of this situation within the next three months.

Summary table

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