Guidelines for preparedness and response for wild poliovirus importation and format for national plans
Guidelines for preparedness and response for wild poliovirus importation and format for national plans
Contents

1. Introduction: importation of wild poliovirus into polio-free areas .................................................. 1

2. Preparedness to importation ................................. 1-2

3. National Plans for preparedness and response to importation ................................................. 2

4. Monitoring and early detection of importation ........................................................................... 3-5

5. Response to importation ..................................... 5-11

6. Document Cessation of Transmission ............. 11-12

7. Practical steps in developing a national plan .............................................................................. 12 - 15
1. Introduction: importation of wild poliovirus into polio-free areas

Detection of wild poliovirus in a polio-free country is a public health emergency. Countries should be prepared to respond appropriately to contain the situation in order to maintain the polio-free status. Possible situations of poliovirus importation include the following:

1. Imported case of poliomyelitis; when wild poliovirus is isolated from stool specimen from an AFP case with history of recent travel to a polio endemic area.
2. Polio cases associated with imported virus.
3. Wild poliovirus isolated from the stools of an individual with no neurological symptoms or history of recent travel to a polio endemic area.
4. Wild poliovirus isolated from sewage or other environmental samples.

2. Preparedness to importation

Importation of wild poliovirus cannot be prevented until global polio eradication is achieved, but its spread within the country can be controlled.

The two main pillars for preparedness to importation of wild poliovirus and which prevent the spread of the virus include:
• High quality surveillance which is key for early detection of importation. There is absolute necessity of maintaining high quality AFP surveillance at least until global eradication.

• High general population immunity achieved by routine and Supplementary Immunization Activities. Countries should monitor population immunity (e.g. using coverage data or vaccination status of AFP cases) to detect immunity gaps and address them.

Special attention should be given to high risk areas/populations (e.g. border areas, minority groups/IDPs/mobile population/refugees/chronic refusals to immunization)

3. National Plans for preparedness and response to importation

A national plan for responding to poliovirus importation should be prepared and periodically updated by each country. The key elements of the plan should include:

• Monitoring and early detection of importation.
• Response to importation.
  ■ Rapid investigation of importation.
  ■ Enhancing surveillance for AFP and wild poliovirus.
  ■ Conduct of immediate and appropriate immunization response, and Documenting cessation of transmission.
4. Monitoring and early detection of importation

High quality AFP surveillance system forms the basis for monitoring and early detection of importation

- A High Quality AFP Surveillance should satisfy the following criteria
  - Non-polio AFP rate of at least 1/100,000 children under 15 years of age per annum (at least 2/100,000 in endemic, re-infected and priority areas)
  - At least 80% of AFP cases have adequate stool specimens (2 specimens collected within 14 days of paralysis onset, at least 24 hours apart and received in the lab in good condition)
  - Appropriate geographic representation i.e AFP cases with adequate specimens are representative of the population distribution in general

Quality of AFP surveillance should be monitored at the subnational level and should be ensured in border areas and in areas resided by minorities, refugees and high risk populations

- Mobile and minority high-risk populations should be identified in border areas, as well as in other locations, where these groups may reside. Strategies to access these populations through routine and supplementary
immunization activities should be planned. Special suitable surveillance activities should cover such populations in order not to miss any AFP cases.

- Countries should ensure prompt cross-border notification of any cross border AFP case through the most efficient and direct route. Notification could be done through the respective WHO and UNICEF country, as well as Regional offices.

- Surveillance staff in border areas should be well trained on proper epidemiological investigation of AFP cases.

- Complete clinical and epidemiological investigation of all AFP cases should be done and highly suspected cases (hot cases) identified. A case should be considered highly suspected whenever AFP is presented with symptoms typical for poliomyelitis (fever at onset, short progression period, asymmetric paralysis, etc) especially when discovered in any child under five years of age with incomplete immunization status, OR belonging to a high risk group (minority group, displaced or refugee populations, etc.), OR have had contact with persons from polio-endemic countries. When such an AFP case is discovered, two faecal specimens should be taken as soon as possible, arrangements made for the immediate transportation of specimens, and the laboratory alerted to test the specimens as a priority. In addition,
evaluation of immunization coverage in the surrounding area and search for any clustering of cases should be done

- Laboratories should immediately notify the programme when any poliovirus is isolated and refer it immediately for ITD and genomic sequencing.

5. Response to importation

a. Rapid Investigation of importation

Isolation of any wild poliovirus should lead to an immediate investigation. An initial investigation and international expert risk assessment should be completed with WHO support within 72 hours of confirmation of the index case to establish an emergency plan of action based on case characteristics, known area of transmission, major transit routes, surveillance quality, routine vaccination coverage, international borders and the type and origin of the virus.

Case investigation should include the collection of all relevant travel and contact/exposure history and other relevant information and epidemiological data needed to establish whether the individual came in contact with the virus from a polio-endemic country. Specimens should also be collected from contacts and all wild
polioviruses should be submitted to a WHO accredited specialized laboratory to assist with the determination of the geographic origin of the virus through genetic sequencing. Surveillance quality and vaccination coverage in the area should be assessed.

After thorough investigation cases must be classified as imported or indigenous. If the genomic sequence data shows that the virus is closely related to another country and this finding was consistent with epidemiologic data, the virus can be considered an importation. If sequence data shows that the virus is related to viruses circulating before in the country or could not be related to viruses isolated before from other countries, the virus should be considered indigenous unless there is convincing epidemiologic evidence to the contrary and good surveillance in local area.

b. Enhanced surveillance

Detection of a confirmed polio case in a polio free country should be followed immediately by enhanced surveillance for AFP and polioviruses in order to:

- Ensure that it is not a reflection of missed ongoing indigenous transmission through checking the quality of surveillance including active retrospective search for cases and re-testing of specimens.
- Exclude re-establishment of virus circulation due to importation through active search for cases and widening surveillance activities to include contacts.
- Determine the extent of virus circulation and the impact of control measures.

The following actions should be conducted:

- Immediate notification of WHO, other international partners and neighbouring countries.
- Immediate call on the group of experts established for preparedness and response to importation to advise and coordinate activities nation-wide.
- Immediate notification by telephone, to all provincial surveillance units and major hospitals nationally to inform staff that an imported wild poliovirus has been detected, and to alert staff of the possibility of further cases. Provinces must remind all districts/second administrative unit that 100% timely and complete active surveillance reports, including zero reports, are required from every district without exception. Full information should be provided on names, addresses, telephone, fax and e-mail numbers of the responsible persons in the Ministry of Health. The details of proper case investigation and stool collection should be emphasized.
- Provincial and national staff should begin immediate enhanced active surveillance in all districts surrounding the case and the AFP sites within that province to conduct
active searches for unreported AFP cases.
- Collect stool specimens from contacts of the case.
- Monitoring of reports at national/provincial level;
- Daily reports to provinces from districts surrounding case
- Weekly reports from all provinces by telephone – province reports must include all districts.
- Weekly review of situation by experts using mapping and other means of documenting the functioning of surveillance.

c. Conduct of immediate and appropriate Immunization Response

Any importation of wild poliovirus should be followed by an immediate large scale supplementary immunization response. This would require availability of stockpile of OPV vaccine.

<table>
<thead>
<tr>
<th>International Standards for response to wild virus isolation in polio/free areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Very Rapid: plan within 72 hrs 1st campaign within 4 wks</td>
</tr>
<tr>
<td>- Large: 2-5 million children</td>
</tr>
<tr>
<td>- High Quality: house-to-house</td>
</tr>
<tr>
<td>- Duration: at least 3 rounds</td>
</tr>
<tr>
<td>- Vaccine: monovalent OPV</td>
</tr>
</tbody>
</table>
The target population and magnitude of immunization response should be determined by:
- Evidence of ongoing transmission.
- Extent of circulation,
- Population immunity profile.
- Potential for widespread transmission: such as for example areas with poor sanitation, urban overcrowding and areas with low immunization coverage. Immunization activities need to be widespread in order to stop transmission.

In general the following steps will be required:

- Emergency meeting of national and international experts should be convened to decide on the response according to the local situation.
- The vaccination response should consist of at least 3 large scale, house to house rounds of immunization with a type specific monovalent oral polio vaccine i.e. mOPV1 or mOPV3.
- The first campaign should be implemented within 4 weeks of confirmation.
- Countries should plan to continue large scale mOPV until at least 2 full rounds have been conducted after the last virus is detected. The need for further activities will depend on the epidemiology of the outbreak and risk of further spread.
- The potential target for the response should be the
entire cohort of children aged less than 5 years of age in the affected and adjacent geographical areas reaching a minimum of 2 to 5 million children (in small population nations the entire country and bordering areas should be targeted).

- Detailed guidelines should be prepared in advance to ensure proper house to house campaign with different components including:
  - Proper mapping for geographical targets
  - Determination of appropriate number of vaccination teams as well as sources of teams
  - Estimation of vaccine needs as well as other logistics including cold chain, sheets
  - Supervisory structure
  - Training modules and plans
  - Transportation plan
  - Plans for high risk areas/populations
  - Social mobilization activities
  - Catch up activities for missed children
  - Independent monitoring
  - Costing of the whole activity
- The plan should immediately be communicated with WHO/UNICEF to ensure gaps are covered and ensure timely availability of vaccine. (expected that order and delivery of vaccine should take place within 5 working days).
- Independent monitoring should determine the level of coverage particularly in hard to reach groups and young children. Missed areas and areas with <90%
coverage should be immediately revaccinated. If a border area is involved, the neighbouring country must be notified immediately, through WHO, to ensure cross-border coordination in supplementary immunization between the countries concerned.

6. Document Cessation of Transmission

An equally important part of the response to imported wild poliovirus is the documentation of the interruption of transmission of wild poliovirus.

Enhanced surveillance must be maintained for a period of at least 12 months after the last wild poliovirus associated case is detected.

Countries must maintain enhanced surveillance through the existing AFP and virological systems. In addition, supplementary surveillance activities such as stool and/or environmental surveys may be needed to confirm cessation of transmission.

As the detection of any wild poliovirus is considered a national emergency, detailed and comprehensive documentation is required to describe the epidemiological background, findings of case investigation and surveys including laboratory results, description of immunization response and results of enhanced surveillance.
The report should be completed in close coordination of all national and international experts involved. These reports should be included in the country documentation expected to be submitted by the National certification committee to the Regional Certification Commission.

Also a national plan indicating preparedness to detect and respond to importation is a prerequisite to be included in the national documentation for certification.

7. Practical steps in developing a national plan

1. Setting objectives:
   - Early detection and
   - Appropriate containment of wild polio virus importation

2. Identification of importation risk:
   Both risks of distant and cross border importation should be quantified

   - Identification of possible sources: by keeping always updated global situation

   - Identification of high-risk areas and populations:
     A list of areas and populations at high risk of importation or its spread should be prepared. The list should include:
- Areas bordering endemic countries
- Areas with low population immunity due to low routine or supplementary immunization coverage or areas with high influx of susceptibles.
- Areas inhabited by people from infected countries (changing)
- Refugee camps / internally displaced population (IDP)

- Surveillance activities and performance in border areas/high risk areas/high risk populations
- Monitoring performance indicators: non-polio AFP rate, percentage of cases with adequate stools, completeness and timeliness of reporting and zero reporting
- Active surveillance should be established in these areas with monitoring of active surveillance visits.
- Organizing training of the local officers responsible for surveillance
- Supervision should be intensified with close monitoring from the central level. The plan and schedule of supervisory visits should be included
- The plan should include the definition used for a hot AFP case and the action taken in response to these cases. (circulars issued to surveillance and laboratory staff should be included).
- Table for routine immunization coverage in these
• Measures taken to ensure high population immunity in border areas/high risk areas/high risk populations areas with ongoing analysis
• Ongoing activities for strengthening routine immunization in these areas (eg social mobilization, outreach and mobile vaccine delivery strategies, acceleration campaigns…etc)
• Plan for supplementary immunization activities
• Coverage data for supplementary immunization activities and analysis

• Nomination of a group of Experts for preparedness for and response to importation

A group of experts and high level officials should be identified in advance. Should any incident of importation occur, this group would meet immediately to decide on the response and coordinate the planned activities.

The list of experts with their titles and contact information should be included in the plan.

The composition of this group of experts is similar to the national expert committee for classification of AFP cases, as it should include:
• Expert epidemiologist
• Virologist, and
• Senior pediatric neurologist
However, it should as well include a communication/social mobilization expert and be headed by a senior Ministry of Health decision maker.

- **Response to wild virus isolation:**

  In line with the guidelines, the plan should include:
  - A protocol for case and area investigation
  - The plan for enhancement of surveillance
  - The scope and intensity of immunization response
  - Identification of sources of funds/vaccine
  - The communication pathways for sharing information within and outside the country.

- **Required documentation:**

  The list of information and documents needed to document the event and to prove containment of wild virus spread should be specified and listed. This should include:
  - Detailed epidemiological, clinical and virological data
  - Data on surveillance analysis and quality
  - Surveillance response
  - Immunization response