Interim guidance for the polio surveillance network in the context of Coronavirus (COVID-19)

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The COVID-19 pandemic is an unprecedented global event that has thus far resulted in explosive person-to-person transmission, overwhelmed health care facilities, disrupted transportation, and in some areas, full lockdowns of communities. This document aims to provide global guidance on polio surveillance in the context of the COVID-19 pandemic. It comes as a technical complement to the Polio eradication programme continuity planning¹ and the COVID-19 and immunization: Frequently Asked Questions (draft, developed on 24 March 2020), and aligns with the full support that the GPEI has announced to the COVID-19 pandemic². Further adaptation of the guidance, or specificity for regional or country context, may be needed.

The specific objectives of this guidance document are as follows:

1. Describe and document the possible contribution of the polio surveillance network to the management of the COVID-19 pandemic.
2. Provide a framework to guide the level of activities that the polio surveillance network should maintain.
3. Highlight the mitigation measures to put in place to ensure a minimum level of surveillance to detect polioviruses.

The planning principles and timeline remain the same as in the program continuity plan: the level of support and implementation will vary depending on the epidemiological situation of both polio and COVID-19, as well as the size of the existing polio surveillance network, in any given country. Furthermore, the plan assumes a minimal level of polio surveillance can be maintained either as it currently functions or in conjunction with COVID-19-response efforts; many polio surveillance activities will need to be adjusted in this current context and feasibility may vary at national and sub-national levels. It is also important to note that polio surveillance supports other VPD surveillance activities (including measles and neonatal tetanus) and that that support should continue as much as possible during the pandemic. The program should be prepared to adjust rapidly in this dynamic situation, and be pragmatic in terms of achievable goals.

How can the polio surveillance network support the COVID-19 response?

It will be important to understand the current COVID-19 response needs, as well as available guidance and materials, to determine how the polio surveillance structure and resources can best support the

response effort, while maintaining core functionality. In general, in countries where polio surveillance personnel and assets have a significant footprint, the following support to COVID-19 should be explored.

1. Training and Guidance
   a. **Contribute to the development or expansion of country specific COVID-19 surveillance guidance:** Country specific guidance can be adapted from global guidance and must clearly describe the overall surveillance structure and polio surveillance officer footprints from the lowest possible administration level(s) to the national level, as well as the specific laboratories and/or sample testing process within the country. In addition, clear case definitions, instructions on sample collection, storage, packaging and shipment, processing, as well as clear instructions on data collection, flow, storage and dissemination process must be included.
   b. **Train field public health officers:** Using the AFP surveillance training modalities (e.g., cascade training) and resources, all field surveillance officers and other public health workers can be oriented on surveillance for COVID-19 including surveillance strategies, case management and the use of personal protection equipment.
   c. **Sensitize health workers:** Using the existing surveillance network and the model for AFP surveillance sensitization, at central, provincial and district level, all health care workers in all surveillance facilities included in the surveillance network (i.e., public and private/NGO and informal sectors) can be fully sensitized on COVID-19. Each region may decide to extend beyond the active surveillance facilities as desired.
   d. **Support the development of communication material:** Communication tools for polio vary from inexpensive, local approaches to mass media activities reaching millions of people. Combined communication materials on both AFP and COVID-19 could be developed and distributed widely.
   e. **Support training of new COVID-19 laboratories:** GPLN staff who are proficient on molecular and serological methods could provide training e.g., to newly established COVID-19 laboratories in countries that have opted to decentralize testing at some point of time.

2. Surveillance network
   a. **Active surveillance visits - Case notification and reporting:** Using the wide network of active surveillance sites, the polio network can be utilized to report influenza-like illness (ILI), severe acute respiratory illness (SARI), COVID-19 (confirmed, probable, suspect) cases, outbreaks and deaths. Surveillance officers conducting these activities must adhere to basic personal protective precautions (e.g., handwashing).
   b. **Case investigation, sampling collection and contact tracing of suspected COVID-19 cases:** This must be done by experienced surveillance officers (such as polio surveillance officers) with readily available personal protective equipment (PPE), and after receiving specific training. All surveillance officers tasked with this activity must be part of the core rapid response teams designated by the responsible health authorities. Considering the differing local context, approval from senior management at national and/or provincial level must be obtained.
   c. **Potential use of community-based surveillance and community volunteers:** Where community wide transmission is not yet established, trained community volunteers who are
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engaged to report suspected AFP cases could be used to sensitize the community on control
and prevention measures. Where there are movement restrictions or other outbreak related
restrictions, these community volunteers can be used as points of first contact: they can
support the tracking of illnesses occurring outside the formal health sector, facilitate patient
referral to health facilities, and gather data (including mortality data) through verbal autopsy.
All activities should be coordinated with their designated focal point. If conducting these
activities, the community member must be adequately trained and provided appropriate
personal protective equipment (PPE).

3. Data management at provincial and national level: Support the development and/or expansion of
ILI, SARI and COVID-19 surveillance data management system. Current poliovirus data reporting
occurs on a weekly basis; based on the data reporting needs for the COVID-19 response, reporting
could shift to daily tallies and be distributed to decision-makers on a timely basis. Respiratory-
associated morbidity and mortality data can be collected from healthcare facilities or from the
community.

4. Coordination and management: at provincial/regional and national level, individuals responsible for
the management of the polio surveillance network can provide support to the COVID-19 response.
Promote IM structure if it does not exist

Decision making framework to guide the level of polio surveillance activities at
country level
Depending on the COVID-19 situation, the scale of the polio surveillance activities may vary. During the
active phase of the COVID-19 outbreak, where all resources are needed to support response efforts, the
polio programme should prioritize support for COVID-19 over other non-essential activities. However, the
programme should endeavour to maintain a minimum level of polio surveillance so that at no point is the
programme completely blind on the polio situation and epidemiology in a country. If support to the
COVID-19 response is provided by polio personnel, a back-up should be assigned to critical roles (e.g.,
surveillance focal persons) to maintain continuity of polio surveillance functions wherever possible.
Furthermore, the programme must not compromise the safety and security of healthcare workers and
should adhere to the principles of ‘do no harm’ and ‘duty of care’ by ensuring that all healthcare workers
are fully trained and have appropriate personal protective equipment\(^3\).

Protecting polio surveillance personnel

At minimum, polio surveillance personnel conducting field polio surveillance activities should be provided
with provision of hand sanitizers or handwashing supplies if access to clean water is available. In situations
where programme personnel are at increased risk of contracting COVID-19 (e.g., specimen collection and

handling, in-person case investigations, and active surveillance visits), provision of face mask and gloves should be ensured. Furthermore, limiting direct contact with patients/individuals is encouraged. If polio activities are conducted in the community, as much as possible polio surveillance officers should try to conduct activities (i.e., interview, visual assessment) in a ventilated space, outdoors and/or by maintaining recommended physical distancing (i.e., 1-2 meters away, two arm-lengths). All personnel should practice good hand hygiene before and after each direct person encounter.

Per the table below, the following are minimum recommendations for hand hygiene and personal protective equipment (PPE) use based on the WHO recommended categories⁴ to describe COVID-19 transmission patterns at national and sub-national levels:

- **Polio surveillance in the context of**
  - Sporadic or cluster of COVID-19 cases: hand sanitizers or handwashing supplies (if access to clean water is available); training on COVID-19
  - Community transmission of COVID-19: above, plus face mask and gloves; training on COVID-19 and proper use of personal protective equipment (PPE)

- **Polio and COVID-19 surveillance combined**: above, plus any additional COVID-19-specific recommendations; training on COVID-19 and proper use of PPE

<table>
<thead>
<tr>
<th>COVID-19 EPI situation</th>
<th>Sporadic / cluster of COVID-19 cases</th>
<th>Community transmission of COVID-19</th>
<th>Polio and COVID-19 surveillance combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aim for the polio surveillance network</td>
<td>Limit outreach of polio surveillance; encourage facility-based</td>
<td>Minimum level of polio surveillance; facility-based only</td>
<td>Maintain polio surveillance; support COVID-19 surveillance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Surveillance strategies</th>
<th>Active AFP surveillance</th>
<th>Community surveillance of COVID-19</th>
<th>Polio and COVID-19 surveillance combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active AFP surveillance</td>
<td>If possible, maintain active surveillance visits in all priority reporting sites</td>
<td>If possible, maintain active surveillance visits in priority one sites (high, highest priority)-only or in main hospitals As much as possible conduct active surveillance visits in person; if unable to do in person, consider utilizing communication technologies where available</td>
<td>Active surveillance in all active surveillance sites for both COVID-19 &amp; POLIO</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental surveillance (ES)</th>
<th>Maintain ES, monthly specimen collection frequency ONLY. Implement adhoc ES site if feasible</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Community based surveillance (CBS)</td>
<td>Implement</td>
<td>No in-person, or group sensitization by CBS; however, if informants hear of suspicious case, report and advise to go to health facility</td>
<td>CBS for COVID-19 and Polio in specific locked down COVID-19 areas or for community sensitization</td>
</tr>
</tbody>
</table>

**Case investigation**

<table>
<thead>
<tr>
<th>AFP case investigation</th>
<th>Implement</th>
<th>Implement only in health facilities (no case investigations to be conducted at the home)</th>
<th>AFP and COVID-19 case investigation, contact tracing, specimen collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stool Sampling from AFP Cases</td>
<td>Collect stool specimens per GPEI Guidelines</td>
<td>Collect stool specimens per GPEI Guidelines, at the health facilities</td>
<td>Collect stool specimens per GPEI Guidelines, at the health facilities</td>
</tr>
<tr>
<td>Detailed case investigation (confirmed case)</td>
<td>Implement</td>
<td>Implement for selected cases in new geographies (detailed guidance to follow)</td>
<td>Implement for selected cases in new geographies (detailed guidance to follow)</td>
</tr>
<tr>
<td>60-day follow-up</td>
<td>Implement, except in geographic areas affected by clusters of COVID-19 cases</td>
<td>No 60-day follow-up</td>
<td>No 60-day follow-up</td>
</tr>
<tr>
<td>AFP contact sampling</td>
<td>Implement contact sampling, except in geographic areas affected by clusters of COVID-19 cases</td>
<td>No AFP contact sampling</td>
<td>No AFP contact sampling</td>
</tr>
<tr>
<td>Healthy children stool sampling (i.e., community sampling)</td>
<td>No healthy children stool sampling</td>
<td>No healthy children stool sampling</td>
<td>No healthy children stool sampling</td>
</tr>
</tbody>
</table>

**Laboratory diagnosis**

<p>| Receipt at laboratory | Receive stools and ES specimens as per GPLN guidelines | Receive stools and ES specimens as per GPLN guidelines | Receive stools and ES specimens as per GPLN guidance regarding Biosafety upgrade |</p>
<table>
<thead>
<tr>
<th>Processing</th>
<th>Tier-prioritization to be done in relation with field surveillance officers.</th>
<th>Tier-prioritization to be done in relation with field surveillance officers.</th>
<th>Enhanced BSL-2/Polio level to be considered for stool suspension preparation (until chloroform treatment). Simplified testing algorithm to be envisioned to save reagents and consumables.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referral</td>
<td>All isolates to be shared using FTA cards</td>
<td>All isolates to be shared using FTA cards</td>
<td>All isolates to be shared using FTA cards</td>
</tr>
<tr>
<td>Storage</td>
<td>As per GPLN guidance for tested samples (original stool and derivatives). Ensure storage capacity for untested samples.</td>
<td>As per GPLN guidance for tested samples (original stool and derivatives). Ensure storage capacity for untested samples.</td>
<td>Favor storage of derivatives (post chloroform treatment products)</td>
</tr>
<tr>
<td>Coordination and Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td>Implement, except in the geographic areas affected by COVID-19</td>
<td>Cancel</td>
<td>Train all public health officers and heath care workers on COVID-19</td>
</tr>
<tr>
<td>Coordination meeting</td>
<td>Virtual meetings for all high priority coordination meetings (e.g., National Polio Expert Committee (NPEC)/ Expert Review Committee(ERC)) and Polio management meetings</td>
<td>Virtual meetings for all high priority coordination meetings (e.g., National Polio Expert Committee (NPEC)/ Expert Review Committee(ERC)) and Polio management meetings</td>
<td>Carry out coordination and management meeting respecting physical distancing and personal protection. Utilize virtual meetings where possible.</td>
</tr>
</tbody>
</table>
|            | Cancel non-essential meetings (e.g., National Certification Committee (NCC) meetings) Note: list is not exhaustive | Cancel non-essential meetings (e.g., National Certification Committee (NCC) meetings) Note: list is not exhaustive | |}

Highlight the mitigation measures to put in place to ensure a minimum level of polio surveillance in the field and at the laboratory levels

**Mitigation measures in the field**

- Limited Active surveillance based on COVID-19 situation with case investigations
- Limit person-to-person contact
- Stop non-essential specimen collections (e.g., AFP contact sampling, healthy children stool sampling) to avoid overwhelming the lab and minimize COVID-19 exposure to surveillance officers
- Not all GPEI surveillance HR should be engaged 100% for COVID-19
- If support to the COVID-19 response is provided by polio personnel, a back-up should be assigned to critical roles (e.g., surveillance focal persons) to maintain continuity of polio surveillance functions wherever possible.

- **Shipment/storage of specimens**
  - Engage governments and other organizations (OCHA, UNHAS, UNICEF, etc.) as appropriate to ensure that critical supplies and specimens can be transported within countries as well as in/out of countries.
  - Identify and monitor storage capacity for specimens at provincial and central level (i.e., for those specimens pending shipment to the lab for processing).
  - Suspend AFP contact sampling and healthy children stool sampling in all countries facing shipment issues, regardless of the COVID-19 epidemiology

- **Training of polio personnel and PPE use**
  - Need to ensure the safety of all polio personnel conducting activities either polio-specific or in conjunction with COVID-19 response
  - Provision of PPE for any polio personnel conducting field activities as outlined above (e.g., stool collection, in-person case investigation)
  - Polio personnel who are likely to encounter a high concentration of suspected COVID-19 cases (e.g., hospital visit) should stop field activities if appropriate PPE is not available

- **Communication**
  - Maintain regular (e.g., twice weekly) communications between field and laboratory staff to ensure up to date situational awareness (e.g., active surveillance findings, new cases, problems in the field, laboratory constraints)
  - Encourage regular internal WHO staff calls (virtual conference calls) with the polio eradication staff in the field ensuring strong internal polio eradication community support and spirit.

- **Activity monitoring and documentation**
  - Continue to analyse surveillance data to monitor performance including process indicators
  - Maintain tracking mechanism for impacts on polio surveillance, specimen transport, staffing (e.g., challenges, COVID-19 response duties), restrictions
  - If support to the COVID-19 response is provided by polio personnel, a back-up should be assigned to critical roles (e.g., surveillance focal persons) to maintain continuity of polio surveillance functions wherever possible.
  - Maintain mechanism of accountability and regular feedback (e.g., phone tree, electronic tracking)
  - Document polio surveillance network support provided to the COVID-19 response; including assets, human resources, infrastructure
Mitigation measures in the Laboratory

- **Facilities and equipment**
  - Identify disruptions where COVID-19 activities are conducted with Polio laboratory resources; establish a baseline understanding of the nature and extent of difficulties faced by the laboratories via online survey.
  - PCR and sequencing machines availability for Polio work need to be monitored on a weekly basis, and constraints shared with WHO.

- **Human resources**:
  - Involvement of Polio laboratory staff in COVID-19 activities need to be assessed as well as its impacts on polio activities. Laboratories should communicate to ROs any variation in their testing capacities due to HR issue.

- **Supplies and reagents**
  - Status of the stocks of critical reagents to be monitored on a weekly basis via a GPLN monitoring dashboard. WHO to organize support from regional and/or global level when critical level is reached.

- **Procedures**
  - Specific measures (according to Polio Laboratories Contingency plan) need to be in place and communicated to ROs through the online survey.

- **Logistics/Transportation**
  - All couriers present in the country and their operational status need to be identified and contacts shared with the ROs and HQ.
  - Status of transportation of specimens/isolates within the country and at international level need to be monitored and communicated through the GPLN monitoring dashboard.
  - All laboratories are asked to ensure sufficient storage capacity (for 6 months workload) for original specimens, stool extracts, environmental surveillance concentrates and isolates from both AFP and ES.

- **Coordination**
  - A coordination framework between Polio Laboratories and (i) PHL and VPD laboratory networks, and (ii) Polio field surveillance officers need to be instituted where it is not in place.

**Trigger for return to normal polio surveillance function**

WHO/HQ and WHO/RO will provide further technical guidance on the triggers to return to normal polio surveillance functions, including a decision-making framework to prioritize the re-introduction of surveillance activities as well as to prioritize and process specimens, based on COVID-19 epidemiology and joint Polio – COVID-19 IMS discussions.

This guidance document will be reviewed and updated regularly, based on the priorities of the program and the evolving nature of the COVID-19 and polio epidemiology.