



Interim guidance for the poliomyelitis (polio) surveillance network in the context of coronavirus disease (COVID-19)

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Acronyms and abbreviations

AFP	Acute flaccid paralysis
AVADAR	Auto-visual acute flaccid paralysis detection and reporting
bOPV	Bivalent oral poliovirus vaccine
CBS	Community-based surveillance
cVDPV	Circulating vaccine-derived poliovirus
cVDPV2	Circulating vaccine-derived poliovirus type 2
cVDPV3	Circulating vaccine-derived poliovirus type 3
EPI	Expanded Programme on Immunization
ES	Environmental surveillance
GPEI	Global Polio Eradication Initiative
GPLN	Global Polio Laboratory Network
GPSAP	Global Polio Surveillance Action Plan
IDP	Internally displaced population
IPV	Inactivated polio vaccine
ITD	Intratypic differentiation
OPV	Oral polio vaccine
PCR	Polymerase chain reaction
PPE	Personal protective equipment
PV	Poliovirus
SARI	Severe acute respiratory illness
SL	Sabin-like virus
SMS	Short message service
STT	Surveillance Task Team
WPV	Wild Poliovirus

Introduction

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, very restrictive movement restrictions and use of public health and social measures of communities. This document aims to provide global guidance on poliomyelitis (polio) surveillance in the context of the COVID-19 pandemic. It comes as a technical complement to *Polio eradication programme continuity (1)* and *Immunization in the context of COVID-19 pandemic frequently asked questions (2)*, and is aligned with the Global Polio Eradication Initiative (GPEI) commitment to support the COVID-19 pandemic response (3). Further adaptation of the guidance or specific modification for regional or country context may be needed.

The specific objectives of this guidance document are as follows:

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

The planning principles and timeline remain the same as in the programme continuity plan: the level of support and implementation will vary depending on the epidemiological situation of both polio and COVID-19, and the size of the existing polio surveillance network, in any given country. Furthermore, the plan assumes that 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 activities for the surveillance of vaccine-preventable diseases (including measles and neonatal tetanus) and that such support should continue as far as possible during the pandemic. Plans should be in place to ensure that the programme can be adjusted 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 current COVID-19 response needs, as well as available COVID-19 guidance and materials, to determine how the polio surveillance structure and resources can best support the COVID-19 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.

Training and guidance

- **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, shipment and processing, and clear instructions on data collection, flow, storage and dissemination must be included.
- **Train field public health officers.** Using the acute flaccid paralysis (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 (PPE).
- **Sensitize health workers.** Using the existing surveillance network and the model for AFP surveillance sensitization at central, provincial and district levels, all health care workers in all surveillance facilities included in the surveillance network (i.e. public and private/nongovernmental and informal sectors) can be fully sensitized to COVID-19. Each region may decide to extend beyond the active surveillance facilities as desired.
- **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.
- **Support training for new COVID-19 laboratories:** Global Polio Laboratory Network (GPLN) staff who are proficient in molecular and serological methods could provide training in newly established COVID-19 laboratories in countries that have opted to decentralize testing.

Surveillance network

- **Active surveillance visits – case notification and reporting.** Using the wide network of active surveillance sites, the polio surveillance 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).
- **Case investigation, sampling collection and contact tracing of suspected COVID-19 cases.** These must be conducted by experienced surveillance officers (such as polio surveillance officers) with readily available PPE, and after receiving specific training. All surveillance officers tasked with these activities must be part of the core COVID-19 rapid response teams designated by the responsible health authorities. Considering differences in local context, approval from senior management at national and/or provincial level must be obtained.
- **Potential use of community-based surveillance and community volunteers.** Where community-wide transmission is not yet established, trained community volunteers who are engaged to report suspected AFP cases could be used to sensitize the community to 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 care facilities and gather data (including mortality data) through verbal autopsy. All activities should be coordinated with their designated focal point. If conducting these activities, community volunteers must be adequately trained and provided with appropriate PPE.

- **Data management at provincial and national level.** Support the development and/or expansion of ILI, SARI and COVID-19 surveillance data management systems. Current poliovirus data reporting occurs on a weekly basis; depending 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 health care facilities or from the community.
- **Coordination and management.** At provincial/regional and national levels, individuals responsible for the management of the polio surveillance network can provide support to the COVID-19 response. Promote an integrated management structure if it does not already 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 that can be conducted 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 to 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 health care workers and should adhere to the principles of “do no harm” and “duty of care” by limiting direct contact with patients/individuals, maintaining appropriate physical distancing and ensuring that all health care workers are fully trained and have appropriate PPE (4, 5).

The following table outlines polio surveillance strategies that may be implemented, modified or stopped, depending on COVID-19 disease transmission patterns (6) at national and sub-national levels.

Polio surveillance activities	Polio surveillance with sporadic/cluster(s) of COVID-19 cases	Polio surveillance with community transmission of COVID-19	Polio and COVID-19 surveillance combined
Objective	Limit outreach of polio surveillance; encourage facility-based activities	Conduct minimum level of polio surveillance; facility-based only	Maintain polio surveillance; support COVID-19 surveillance

Active acute flaccid paralysis (AFP) surveillance (see Annex 1)	If possible, maintain active surveillance visits in all priority reporting sites	If possible, maintain active surveillance visits in priority one sites (high, highest priority) only or in main hospitals As far as possible conduct active surveillance visits in person; if unable to do so, consider using communication technologies where available	Active surveillance in all active surveillance sites for both COVID-19 and polio
Environmental surveillance (ES) (see Annex 2)	Maintain ES, monthly sample collection frequency only	Maintain ES, monthly sample collection frequency only	Maintain ES, monthly sample collection frequency only
	Implement ad hoc ES site if feasible	Establish ad hoc ES site if feasible	Establish ad hoc ES site if feasible
Community-based surveillance (CBS) (see Annex 3)	Implement	No in-person or group sensitization through CBS; if informants hear of a suspicious polio-related case, report and advise individual to go to a health care facility	CBS for COVID-19 and polio in specific areas where stay at home orders or other movement restrictions are in place or for community sensitization
Case investigation			
AFP case investigation (see Annex 4)	Implement	Implement only in health care facilities (no case investigations to be conducted at the home)	AFP and COVID-19 case investigation, contact tracing, specimen collection
Stool sampling from AFP Cases	Collect stool specimens as per GPEI guidance (7)	Collect stool specimens as per GPEI guidance (7), at health care facilities	Collect stool specimens as per GPEI guidance (7), at health care facilities
Detailed case investigation (confirmed polio case) (see Annex 5)	Implement	Implement for selected cases in new geographical areas	Implement for selected cases in new geographical areas
60-day follow-up	Implement except in geographical areas affected by clusters of COVID-19 cases	No 60-day follow-up	No 60-day follow-up
AFP contact sampling	Implement contact sampling, except in geographical areas affected by clusters of COVID-19 cases	No AFP contact sampling	No AFP contact sampling
Healthy children stool sampling (i.e.,	No healthy children stool sampling	No healthy children stool sampling	No healthy children stool sampling

community sampling)			
Laboratory diagnosis¹			
Receipt of samples at laboratory	Receive stool specimens and ES samples as per Global Polio Laboratory Network (GPLN) guidelines (8)	Receive stool specimens and ES samples as per GPLN guidelines (8)	Receive specimens and ES samples as per GPLN guidance regarding biosafety upgrade (4, 8)
Processing	Tier-prioritization to be conducted in collaboration with field surveillance officers	Tier-prioritization to be conducted in collaboration with field surveillance officers	Enhanced biosafety level-2/polio level to be considered for stool suspension preparation (until chloroform treatment) Simplified testing algorithm to be envisioned to save reagents and consumables
Referral	All isolates to be shared using FTA cards as per GPLN guidance (8) and the Laboratory Standard Operating procedures (9)	All isolates to be shared using FTA cards as per GPLN guidance (8) and the Laboratory Standard Operating procedures (9)	All isolates to be shared using FTA cards as per GPLN guidance (8) and the Laboratory Standard Operating procedures (9)
Storage	As per GPLN guidance (8) for tested samples (original stool and derivatives). Ensure storage capacity for untested samples.	As per GPLN guidance (8) for tested samples (original stool and derivatives). Ensure storage capacity for untested samples.	Favour storage of derivatives (after chloroform treatment)
Coordination and management			
Training	Implement except in geographical areas affected by COVID-19	Cancel	Train all public health officers and health care workers on COVID-19
Coordination meetings	Conduct virtual meetings for all high- priority coordination meetings (e.g. national polio expert committee, and polio management meetings) Cancel non-essential meetings (e.g. national certification committee meetings); note that this list is not exhaustive	Conduct virtual meetings for all high- priority coordination meetings (e.g. national polio expert committee, polio management meetings) Cancel non-essential meetings (e.g., national certification committee meetings); note that this list is not exhaustive	Carry out coordination and management meetings respecting physical distancing and personal protection; conduct virtual meetings where possible

¹ Please refer to applicable Global Polio Laboratory Network guideline <http://polioeradication.org/tools-and-library/policy-reports/gpln-publications/>

Protecting polio surveillance personnel

In addition to the modifications to polio surveillance activities outlined in the above table, polio surveillance personnel who conduct field polio surveillance activities should be provided with, as a minimum, 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. during specimen collection and handling, in-person case investigations and active surveillance visits), provision of face masks and gloves should also be ensured. If polio surveillance is conducted in the community, try to conduct activities (i.e. interview, visual assessment) in a well-ventilated space, outdoors and/or by maintaining recommended physical distancing (i.e. of at least 1 metre) as often as possible. All personnel should practise good hand hygiene before and after each direct person encounter.

The following are minimum recommendations for hand hygiene and PPE use based on the WHO recommended categories to describe COVID-19 transmission patterns at national and sub-national levels:

- **Polio surveillance in the context of COVID-19**
 - **Sporadic or cluster(s) of COVID-19 cases.** Supply hand sanitizers or handwashing products (if access to clean water is available); provide training on COVID-19.
 - **Community transmission of COVID-19.** Supply hand sanitizers or handwashing products (if access to clean water is available) plus face masks and gloves; provide training on COVID-19 and proper use of PPE.
- **Polio and COVID-19 surveillance combined.** Supply hand sanitizers or handwashing products (if access to clean water is available), face masks and gloves plus any additional COVID-19 specific recommendations; provide training on COVID-19 and proper use of PPE.

Measures to be put in place to ensure a minimum level of polio surveillance in the field and the laboratory

Measures in the field

- **Limited active surveillance with case investigations, depending on the COVID-19 situation**
 - Limit person-to-person contact.
 - Stop non-essential specimen collections (e.g. AFP contact sampling, healthy children stool sampling) to avoid overwhelming laboratory facilities and minimize exposure of surveillance officers to COVID-19.
 - Not all GPEI surveillance human resources should be engaged full-time on COVID-19 activities.
 - 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 (see Annex 6)**

- Engage governments and other organizations (United Nations Office for the Coordination of Humanitarian Affairs, United Nations Humanitarian Air Service, United Nations Children’s Fund (UNICEF), etc.) as appropriate to ensure that critical supplies and specimens can be transported within countries and into and out of countries.
- Identify and monitor storage capacity for specimens at provincial and central levels (i.e. for those specimens pending shipment to the laboratory 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**
 - Ensure the safety of all polio personnel conducting activities either polio-specific or in conjunction with the COVID-19 response.
 - Provide PPE for any polio personnel conducting field activities as outlined above (e.g. stool collection, in-person case investigation).
 - Stop the field activities of polio personnel who are likely to encounter a high concentration of suspected COVID-19 cases (e.g. hospital visits) 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 to ensure strong internal polio eradication community support and spirit.
- **Activity monitoring and documentation**
 - Continue to analyse surveillance data to monitor performance, including process indicators.
 - Maintain mechanisms to track impacts of the COVID-19 situation on polio surveillance, specimen transport and staffing restrictions (e.g. challenges, COVID-19 response duties).
 - 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 mechanisms of accountability and regular feedback (e.g. telephone tree, electronic tracking).
 - Document polio surveillance network support provided to the COVID-19 response; including assets, human resources and infrastructure.

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.

- Polymerase chain reaction and sequencing machine availability for polio work needs to be monitored on a weekly basis, and any constraints should be shared with WHO.
- **Human resources**
 - Involvement of polio laboratory staff in COVID-19 activities need to be assessed, including for their impact on polio activities. Laboratories should communicate any variation in their testing capacities owing to questions of human resources to the WHO Regional Offices concerned.
- **Supplies and reagents**
 - Monitor the status of stocks of critical reagents on a weekly basis using a GPLN monitoring dashboard. WHO should organize support from the regional and/or global level when a critical level is reached.
- **Procedures**
 - Specific measures (according to the Polio Laboratories Contingency plan) need to be in place and communicated to the WHO Regional Office concerned through the online survey.
- **Logistics/transportation**
 - All couriers present in the country and their operational status need to be identified and their contacts shared with the WHO Regional Office concerned and WHO headquarters.
 - The status of transportation of specimens/isolates within the country and at the international level needs to be monitored and communicated through the GPLN monitoring dashboard.
 - All laboratories are asked to ensure sufficient storage capacity (for a 6-month workload) for original specimens, stool extracts, environmental surveillance concentrates and isolates from both AFP and environmental surveillance.
- **Coordination**
 - A coordination framework between polio laboratories and (1) public health and vaccine preventable disease laboratory networks, and (2) polio field surveillance officers needs to be instituted where it is not in place.

Trigger for return to normal polio surveillance function

WHO headquarters and the WHO Regional Offices will provide further technical guidance on the triggers for a return to normal polio surveillance functions, including a decision-making framework to set priorities for the re-introduction of surveillance activities and for the processing of specimens, depending on COVID-19 epidemiology and joint polio/COVID-19 discussions on integrated medical services.

This guidance document will be reviewed and updated regularly with respect to the priorities of the polio eradication programme and the evolving nature of COVID-19 and polio epidemiology.

References

1. Global Polio Eradication Initiative. Polio eradication programme continuity: implementation in the context of the COVID-19 pandemic. Interim guide. Geneva: World Health Organization; 2020 (<http://polioeradication.org/wp-content/uploads/2020/03/COVID-POL-programme-continuity-planning-20200325.pdf>, accessed 28 May 2020).
2. Immunization in the context of COVID-19 pandemic: frequently asked questions (FAQ). Geneva: World Health Organization and United Nations Children's Fund (UNICEF); 2020 (<https://apps.who.int/iris/handle/10665/331818> accessed 28 May 2020).
3. Global Polio Eradication Initiative. Polio eradication in the context of the COVID-19 pandemic. Updated urgent country and regional recommendations. Geneva: World Health Organization; 2020 (<http://polioeradication.org/wp-content/uploads/2020/03/updated-POB-country-and-regional-recommendations-20200526.pdf>, accessed 28 May 2020).
4. Overview of public health and social measures in the context of COVID-19: interim guidance. Geneva: World Health Organization; 2020 (<https://www.who.int/publications-detail/overview-of-public-health-and-social-measures-in-the-context-of-covid-19>, accessed 28 May 2020).
5. Infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected: interim guidance. Geneva: World Health Organization; 2020. ([https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-\(ncov\)-infection-is-suspected-20200125](https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125), accessed 28 May 2020).
6. Global surveillance for COVID-19 caused by human infection with COVID-19 virus: interim guidance. Geneva: World Health Organization; 2020 (<https://www.who.int/publications-detail/global-surveillance-for-covid-19-caused-by-human-infection-with-covid-19-virus-interim-guidance>, accessed 28 May 2020).
7. Global Polio Surveillance Action Plan, 2018-2020. Geneva: World Health Organisation; 2019 (<http://polioeradication.org/wp-content/uploads/2016/07/GPEI-global-polio-surveillance-action-plan-2018-2020-EN-1.pdf>, accessed 29 May 2020).
8. Polio Laboratory Manual. 4th edition, 2004. Geneva: World Health Organization; 2004 (http://polioeradication.org/wp-content/uploads/2017/05/Polio_Lab_Manual04.pdf, accessed 29 May 2020).
9. Sample Amplification for FTA micro cards. U.S. Centers for Disease Control and Prevention. Office of Surveillance, Epidemiology and Laboratory Services. Laboratory Training Branch. (<https://www.youtube.com/watch?v=dYelTap1jsU&feature=youtu.be>, accessed 29 May 2020).

Annex 1. Active acute flaccid paralysis (AFP) surveillance during the COVID-19 pandemic

Definitions	<p>Active surveillance <i>(General description)</i> Public health authorities routinely visit reporting sites (e.g. health facilities) to identify individuals diagnosed with diseases or conditions of interest. <i>It is termed “active” because public health authorities actively identify cases.</i></p> <p><i>(Polio-specific active surveillance)</i> Routine visits by polio surveillance officers to priority reporting sites to identify unreported AFP cases. This activity entails physical review of medical records and registers, and interviews with health care providers to identify suspected AFP cases. The reporting sites targeted for such active surveillance are those that are most likely to treat AFP patients (e.g. major hospitals, large paediatric clinics and physiotherapy centres). Additional characteristics may be considered in the prioritization algorithm, such as proximity to inaccessible areas and a site located within a high-risk population camp.</p>
Risk mitigation measures	<p>To minimize the risk of COVID-19 transmission to all participants in active AFP surveillance activities, the following precautions should be taken.</p> <ul style="list-style-type: none"> • Hand sanitizer or soap and water must be available to surveillance officers who perform in-person active AFP surveillance activities. • Maintain at least one metre of distance from others at all times, including during transport. If closer contact is unavoidable, minimize such contact as much as possible and wash your hands with soap and water or use hand sanitizer afterwards. • If you must enter a health facility, wear a medical mask or a cloth face covering (1). • Surveillance officers should not perform in-person active AFP surveillance activities if feeling ill, including but not limited to symptoms of fever, tiredness, or cough. Surveillance officers should stay at home, avoid contact with others until the symptoms pass, and notify their supervisors to receive further guidance (2). <p>If these conditions cannot be assured, no in-person active AFP surveillance activities should take place. However, active AFP surveillance activities may be conducted by telephone, if possible; further details on performing telephone-based surveillance are given in the procedures for medium- or low-priority reporting sites.</p>
Procedures (steps) during the COVID-19 pandemic	<p>Note: these procedures are guidelines which should be adapted to the unique conditions in each locality.</p> <p><i>High-priority reporting sites</i> Continue to perform active AFP surveillance activities at the usual frequency, taking the following precautions:</p> <ol style="list-style-type: none"> 1. If possible, visit the health facility at a time when patient volumes are reduced. 2. Do not enter the facility. Telephone the health care facility focal point or other members of the facility staff to request that they bring out from the

	<p>facility the registers, AFP case investigation forms and any other materials needed for the active surveillance visit.</p> <ul style="list-style-type: none"> – If the materials cannot be removed, consider asking the health care facility staff to take pictures of them and send these via Whatsapp, SMS, or other mobile telephone applications for the surveillance officer to review remotely. To be mindful of data use, consider reviewing only information that is new since the last active AFP surveillance visit. <ol style="list-style-type: none"> 3. Ask verbally about AFP surveillance supplies and educational materials, and look around for any such resources visible from outside the facility. Do not enter the facility to verify their presence. 4. Review the registers and other materials in an open area away from others, preferably outdoors. Maintain at least one metre of distance from others. <ul style="list-style-type: none"> – Wash your hands with soap and water or use hand sanitizer before and after reviewing the registers or other materials. <ul style="list-style-type: none"> • Meet the health care facility focal point nearby but outside the facility to return the registers and other materials, and to discuss the findings while maintaining at least one metre of distance from your colleague. Consider discussing findings, questions, or concerns by telephone rather than in person. • Interview other health care facility staff as needed, one by one. Perform the interviews outside the health care facility while maintaining at least one metre of distance from each colleague. Consider performing interviews by telephone rather than in person. • Do not perform any group training or sensitization activities during the active surveillance visit. Any training or sensitization should be performed with individual providers, preferably outside the health facility and while maintaining at least one metre of distance from others. Consider discussing findings, questions, or concerns by telephone rather than in person. • For any new AFP cases identified that require investigation, follow the guidelines listed in <i>Acute flaccid paralysis (AFP) case investigation during the COVID-19 pandemic</i> (see Annex 4). • Wash your hands with soap and water or use hand sanitizer as soon as possible after the visit is over. <p><i>Medium- or low-priority reporting sites</i></p> <p>Perform active AFP surveillance activities at the usual frequency, but virtually.</p> <ul style="list-style-type: none"> • Call the health care facility focal point and perform as many active AFP surveillance activities as possible by telephone. • Consider asking the health care facility focal point to take pictures of the register, AFP case investigation forms, or other AFP surveillance materials and send via WhatsApp, SMS, or other mobile telephone applications for the surveillance officer to review remotely. To be mindful of cellular data use, consider reviewing only information that is new since the last active AFP surveillance visit. • Interview other health care facility staff as needed by telephone. • For any issues encountered that require sensitization, either perform the sensitization by telephone or document the need and perform sensitization at a future in-person visit.
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	<ul style="list-style-type: none"> • For any new AFP cases identified that require investigation, follow the guidelines listed in <i>AFP case investigation during the COVID-19 pandemic</i> (see Annex 4). • If there is no cellular network service available in the area of the health care facility, do not perform any active AFP surveillance activities. Notify your supervisor that such activities could not be completed. <p>If visiting an AFP surveillance site of any priority for COVID-19 or other disease surveillance, perform active AFP surveillance activities using the procedures for high-priority reporting sites listed above.</p>
Anticipated challenges	<p>The presence or absence of COVID-19 transmission in an area will not always be clear. It will be important to stay informed about the local situation and to modify active AFP surveillance activities as the COVID-19 situation evolves.</p> <p>Measures, such as restrictions on population movement, to prevent and control the transmission of COVID-19 will be implemented in communities. Those involved in active AFP surveillance are expected to adhere to local policies and rules to prevent transmission, and this should be prioritized over activities for polio.</p> <p>Since the possibility of COVID-19 transmission from asymptomatic persons has been reported, it is important for surveillance officers to adhere strictly to COVID-19 prevention measures when conducting polio surveillance.</p> <p>When performing active AFP surveillance visits, be mindful of the increased workload of health care facility staff due to the COVID-19 pandemic. Try to be respectful of their time while completing surveillance activities.</p>

References

1. Advice on the use of masks in the context of COVID-19: interim guidance. Geneva: World Health Organization; 2020 ([https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-\(2019-ncov\)-outbreak](https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak), accessed 28 May 2020).
2. Risk assessment and management of exposure of health care workers in the context of COVID-19: interim guidance. Geneva: World Health Organisation; 2020 (<https://www.who.int/publications-detail/risk-assessment-and-management-of-exposure-of-health-care-workers-in-the-context-of-covid-19-interim-guidance>, accessed 28 May 2020).

Annex 2. Investigation of poliovirus type 2 isolation in the environment during the COVID-19 pandemic

Objective	Clarify when a community investigation should be conducted following an isolation of poliovirus type 2 from environmental samples, and specify the modifications needed in the context of the COVID-19 pandemic.
Definitions (1)	<ul style="list-style-type: none"> • COVID-19: official name of the disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) • Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2): official name of the virus responsible for COVID-19
Rationale and indications	<p>The detection of any vaccine-derived poliovirus (VDPV), wild poliovirus (WPV) or Sabin-like virus type 2 in human or non-human sources is notifiable under the 2005 International Health Regulations (2). Local health authorities should initiate an investigation within 24 hours of the poliovirus isolate report (3).</p> <p>Owing to the COVID-19 pandemic, modifications to recommended investigation activities are necessary. If poliovirus is isolated from an area with a recent history of poliovirus circulation (<12 months), certain epidemiological and social investigations will not be necessary. If isolated from a new area, however, a modified investigation should be performed (see the decision tree below).</p> <pre> graph TD Q1[Is it a Sabin-like, poliovirus type 2 (PV2)*, VDPV, cVDPV, or WPV isolate?] --> Sabin[Sabin-like] Q1 --> PV2[PV2*, cVDPV or WPV] Q1 --> VDPV[VDPV (not genetically linked to another VDPV)] Sabin --> NoInv[Do not perform an investigation of the community] PV2 --> Q2[Has the virus been documented in the area within the past 12 months?] Q2 -- Yes --> NoInv Q2 -- No --> Q3[Has mOPV2 been used in the area in the previous 4 months?] Q3 -- Yes --> NoInv Q3 -- No --> LimitedInv[Perform a limited investigation of the community] VDPV --> LimitedInv </pre> <p>*Poliovirus type 2 that is pending sequencing results. This is only recommended in the event that poliovirus sequence are delayed due to COVID-19 pandemic, such as decreased or no international shipment.</p> <p>cVDPV: circulating vaccine-derived poliovirus; mOPV2: monovalent oral polio vaccine 2; VDPV: vaccine-derive poliovirus; WPV: wild poliovirus; PV: poliovirus</p>
Symptomatic surveillance officers	Surveillance officers should not work if feeling unwell, especially if experiencing symptoms of fever, tiredness, or cough. Symptomatic surveillance officers should report their illness to their supervisor and follow WHO and country guidance on when to return to work.
Modifications to the investigation	<ul style="list-style-type: none"> • In-person activities in the community,² including stool sampling from healthy children and routine immunization coverage surveys, should not be conducted

² In this guidance, community refers to the catchment population of the ES site.

<p>of an isolation of poliovirus type 2 in the environment</p>	<p>to minimize the risk of exposure to SARS-CoV-2. In-person activities may be completed once it is determined safe to visit communities.</p> <ul style="list-style-type: none"> • All other activities should be conducted remotely by telephone, SMS or email. Videos and photographs can be used to share information. <ul style="list-style-type: none"> ○ If there is no cellular network coverage in the community, postpone the investigation activities until it is possible to perform in-person activities. • For epidemiological and social profiling of communities, review other available materials (e.g. expanded programme on immunization reports) to obtain a basic description of the communities.
<p>Procedure (steps)</p>	<p><i>Isolation of Sabin-like poliovirus</i> No community investigation or active case search should be performed.</p> <p><i>Recent history of circulating VDPV (cVDPV) or WPV transmission or PV2 (pending sequencing) with known history in an area with monovalent oral poliovirus vaccine (mOPV2) use</i> No community investigation or active case search should be performed.</p> <p><i>VDPV detected, no recent history of cVDPV or WPV transmission or PV2 (pending sequencing) with no known history in an area with mOPV2 use</i></p> <ol style="list-style-type: none"> 1. Search for AFP cases and evidence of poliovirus transmission within the catchment area of the environmental surveillance (ES) site (modified active case search). <ol style="list-style-type: none"> a. Contact the focal points of health care facilities within the catchment area of the ES site by telephone and ask to review the relevant registers together. Registers should be reviewed for the previous six months to identify any unreported AFP cases. <ol style="list-style-type: none"> i. Obtain the names and telephone numbers of any unreported AFP cases. Contact the families to conduct a telephone interview to gather clinical and epidemiological history. Share videos and photographs of critical information. Refer any AFP cases to a health facility for care, as necessary. ii. Sensitize/remind the health care facility focal points about the reporting requirements of AFP including case definition. b. Contact key individuals within the community (e.g. leaders, community informants) of the catchment area of the ES site by telephone to inquire about any AFP cases in the community in the previous six months. <ol style="list-style-type: none"> i. Obtain the names and telephone numbers of any reported current suspected AFP cases. Contact the families to conduct a telephone interview to gather clinical and epidemiological history. Refer any AFP cases to a health facility for care as necessary. ii. Request that any future rumours of suspected AFP cases be reported to the public health system by available telephone or other electronic means (e.g. SMS). 2. Characterize the immunity profile and vaccine acceptance of the community within the catchment area of the ES site. <ol style="list-style-type: none"> a. Review available reports that may also provide information about immunization in the community such as vaccination status of AFP cases,

	<p>routine vaccination and supplemental immunization activity coverage data, and community immunization surveys.</p> <ul style="list-style-type: none"> b. Contact the health facility or health district focal point by telephone to gather available information on population immunity such as bivalent oral poliovirus vaccine (bOPV) and inactivated poliovirus vaccine (IPV) coverage, vaccination status of AFP cases, other routine immunization coverage (e.g. diphtheria-tetanus-pertussis (DTP3), and recent polio vaccination campaigns. Also ask about immunization practices and vaccine acceptance in the community. c. Contact key informal sources (i.e. traditional healers) by telephone to gain an appreciation of immunization practice and vaccine acceptance in the community. Information may be gained from learning about past vaccination campaigns and routine immunization programmes. Information on non-compliance, anti-vaccination sentiment, rumours, etc. should be collected. <p>3. Describe the social profile of the communities within the ES site catchment area.</p> <ul style="list-style-type: none"> a. Review available reports that may provide information about the catchment population of the environmental site, such as ES monitoring reports or external reviews, recent community profiles developed for other vaccine-preventable diseases or other purposes, reports on vaccination or other mass campaigns, and security reports. b. Contact key individuals within the community (e.g. community leaders, local government officials, religious leaders, women’s groups, community informants), as well as surveillance officers at district, regional or national levels and WHO counterparts by telephone to ascertain the community context, specifically population characteristics, movement and migration routes. Obtain a general overview of the ES catchment population including information on population density, social structure and networks, presence of special populations (e.g. minority or non-local residents), population movement, transit points and community awareness of polio and immunization. c. Contact colleagues working on vaccine-preventable and other diseases, and on other health topics (e.g. maternal and child health) by telephone. They may also be able to provide information on the communities and reference materials. <p>4. Conduct community outreach about polio.</p> <ul style="list-style-type: none"> a. Contact by telephone, radio, WhatsApp, or other mobile technology; use the opportunity to engage local leaders and influencers in the community and sensitize them to polio and the importance of early reporting of AFP. b. Identify a community leader or community health care worker who can share information with the community while still practising physical distancing. c. Provide relevant information, handouts and material specific to the country context. <p>5. Document any steps or activities that could not be completed so that they may be followed up at a later date if necessary.</p>
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Local guidance on COVID-19	Measures to prevent and control the COVID-19 transmission will be implemented by local authorities, such as population movement restrictions, avoid use of public transportation, and physical distancing. Surveillance officers are expected to adhere to local policies and rules to prevent COVID-19 transmission and this should be prioritized over polio activities.
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References

1. Global surveillance for COVID-19 caused by human infection with COVID-19 virus: interim guidance. Geneva: World Health Organization; 2020 (<https://www.who.int/publications-detail/global-surveillance-for-covid-19-caused-by-human-infection-with-covid-19-virus-interim-guidance>, accessed 28 May 2020).
2. WHO Guidance for the use of Annex 2 of the International Health Regulations (2005). Decision instrument for the assessment and notification of events that may constitute a public health emergency of international concern. Geneva: World Health Organization; 2008. https://www.who.int/ihr/revised_annex2_guidance.pdf?ua=1, accessed 29 May 2020).
3. Global Polio Eradication Initiative. Standard operating procedures for responding to a poliovirus event or outbreak: version 3.1. Geneva: World Health Organization; 2020 (<http://polioeradication.org/wp-content/uploads/2020/04/POL-SOP-V3.1-20200424.pdf>, accessed 28 May 2020).

Annex 3. Community-based surveillance for polio during the COVID-19 pandemic

Objective	Continue to conduct community-based surveillance (CBS) to detect and report suspected acute flaccid paralysis (AFP) cases to designated focal points but with modifications owing to the COVID-19 pandemic. Protecting polio staff and community volunteers is paramount and this guidance is intended to provide countries with the flexibility to continue CBS activities in a manner that minimizes their risk of exposure to SARS-CoV-2.
Definitions (1)	<ul style="list-style-type: none"> • COVID-19: official name of the disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). • Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2): official name of the virus responsible for COVID-19.
Rationale and Indications	CBS can increase sensitivity and timeliness of AFP case detection and is recommended on a case-by-case basis where health care facility-based surveillance cannot be performed or is not functioning optimally. Owing to the COVID-19 pandemic, modifications to recommended CBS activities are necessary (2).
Risk mitigation measures	<p>The following risk mitigation measures are recommended to protect polio staff and community volunteers in the event that in-person interaction cannot be avoided during the COVID-19 pandemic:</p> <ul style="list-style-type: none"> • Maintain a distance of at least 1 metre from individuals • Use a cloth mask (3) • Avoid as much as possible touching people, surfaces and objects • After physical contact, wash hands with soap and water or use hand sanitizer.
Procedure (steps) during COVID-19 pandemic	<p><i>Community volunteers</i>³</p> <p>Because in-person activities should not be conducted, other means of communication should be used to conduct activities as much as possible.</p> <ol style="list-style-type: none"> 1. Volunteers may communicate (telephone, SMS) with key individuals (e.g. local leaders, traditional healers) to identify any suspected AFP cases. They should also pay attention to and report rumoured AFP cases. 2. Volunteers should report suspected AFP cases to the designated focal point by telephone. The auto-visual AFP detection and reporting application (AVADAR) and other mobile data collection instruments may also be used to continue reporting. <ol style="list-style-type: none"> a. Volunteers should not conduct AFP case investigations in communities. 3. Sensitization activities should be limited to hanging posters and banners to keep community awareness high for polio. Gatherings of any kind should not be held. <p><i>Surveillance officers</i></p> <p>Surveillance officers should not conduct in-person activities, including visits to communities. Other means of communication should be used to conduct activities.</p>

³ Although this is a polio-specific standard operating procedure, community volunteers already engaged in vaccine-preventable disease surveillance are encouraged to also report suspected vaccine-preventable diseases to their designated focal point for further follow-up.

	<ol style="list-style-type: none"> 1. When a suspected AFP case is reported by a community volunteer, contact the AFP case and family by telephone and refer for care at a health facility, if necessary. Use video and photographs to communicate critical information 2. Contact volunteers by telephone or SMS as needed to conduct remote supervisory checks. 3. Refresher trainings for volunteers may be conducted remotely by virtual meeting, telephone or SMS.
Community informants in informal surveillance structures	Although this standard operating procedure targets formalized CBS, it is recognized that community informants in informal surveillance structures play an important role in AFP case reporting to the public health system. Like community volunteers, community informants should report suspected AFP cases to their designated focal point for further follow-up. They should not conduct any in-person activities.
Local guidance on COVID-19	Measures to prevent and control the transmission of SARS-CoV-2 will be implemented by local authorities, such as population movement restrictions, avoiding use of public transportation and physical distancing. Those involved in CBS are expected to adhere to local policies and measures to prevent SARS-CoV-2 transmission and this should be prioritized over CBS activities for polio.

References

1. Global surveillance for COVID-19 caused by human infection with COVID-19 virus: interim guidance. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/331818>), accessed 28 May 2020).
2. Immunization in the context of COVID-19 pandemic: frequently asked questions (FAQ). Geneva: World Health Organization and United Nations Children's Fund (UNICEF); 2020 (<https://www.unicef.org/bih/en/reports/immunization-context-covid-19-pandemic>, accessed 27 May 2020).
3. Use of cloth face coverings to help slow the spread of COVID-19. Atlanta: Centers for Disease Control and Prevention; 2020 (<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html>), accessed 28 May 2020).

Annex 4. Acute flaccid paralysis (AFP) case investigation during the COVID-19 pandemic

Objective	Continue to perform acute flaccid paralysis (AFP) case investigations but with modifications to activities due to the COVID-19 pandemic. Protecting polio staff is paramount and this guidance is intended to provide countries with the flexibility to continue AFP case investigation activities in a manner that minimizes risk of exposure to SARS-CoV-2.
Definitions (1)	<ul style="list-style-type: none"> • AFP case: a child aged under 15 years of age presenting with recent or sudden onset of floppy paralysis or muscle weakness due to any cause, or any person of any age with paralytic illness if polio is suspected by a clinician. • COVID-19: official name of the disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). • Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2): official name of the virus responsible for COVID-19.
Rationale and indications	Highly sensitive surveillance for AFP, including immediate case investigation and specimen collection for standardized testing, is critical for the detection of poliovirus circulation. Owing to the COVID-19 pandemic, modifications to recommended investigation activities are necessary.
Risk mitigation measures	<p>The following risk mitigation measures are recommended to protect polio staff (and the general public) during the COVID-19 pandemic.</p> <p>To complete an AFP case investigation, the following resources will be needed:</p> <ul style="list-style-type: none"> • Soap and water or hand sanitizer • Gloves (2) for physical examination and stool specimen collection • Medical mask (2), or cloth mask (3) if medical masks cannot be purchased • Gown (2) if entering the room of a COVID-19 patient. <p>At all times, the following measures should be implemented:</p> <ul style="list-style-type: none"> • Maintain a distance of at least 1 metre from individuals • Avoid as much as possible touching people, surfaces and objects. <p>If the risk mitigation measures cannot be followed, surveillance officers should not complete the AFP case investigation in person or undertake specific tasks (e.g. stool specimen collection). This is to minimize the risk of exposure to SARS-CoV-2.</p>
If AFP case or household member is symptomatic for COVID-19	<p>Do not complete the investigation in person: if the individual is either a confirmed or a suspected COVID-19 case (i.e. symptomatic for fever, tiredness or cough); not all the symptoms have resolved; or it is < 14 days since the onset of symptoms (4). The only exception is when the AFP case investigation is being conducted in addition to a COVID-19 investigation. Use either of the approaches listed below if conducting only an AFP investigation:</p> <ul style="list-style-type: none"> • Work with the attending physician or nurse to complete the AFP case investigation including stool specimen collection

	<ul style="list-style-type: none"> • If the attending physician or nurse has limited time, ask him or her to complete the physical examination and stool specimen collection. Obtain the telephone number of the AFP case’s parent or guardian and complete the interview over the telephone.
Symptomatic surveillance officers	<p>Surveillance officers should not work if feeling unwell especially if experiencing symptoms of fever, tiredness or cough. Symptomatic surveillance officers should report their illness to their supervisor and follow WHO and country guidance on when to return to work.</p>
Procedure (steps) during the COVID-19 pandemic	<ol style="list-style-type: none"> 1. Investigate AFP cases in health care facilities only. AFP case investigations should not be conducted at homes or in communities to avoid undue risk of exposure to SARS-CoV-2. 2. Contact the health care facility focal point and meet outside the health care facility to discuss the AFP case. <ol style="list-style-type: none"> a. Be sure to implement risk mitigation measures: <ol style="list-style-type: none"> i. Prior to entering the health facility or grounds, be sure to put on a medical mask if available, a cloth mask at a minimum. ii. Maintain at least 1 metre of distance from the health facility focal point. b. Work with the hospital focal point: <ol style="list-style-type: none"> i. To determine whether the AFP case or any household member was diagnosed or suspected of having COVID-19. If confirmed or suspected, make arrangements to conduct the interview by telephone and request the attending physician/nurse to conduct the physical examination and collect stool specimens. Keep in mind the possibility of using video and photographs when conducting interviews remotely. <ul style="list-style-type: none"> • If you are also planning to conduct a COVID-19 case investigation for the AFP case or family member, an in-person interview may be conducted. A medical mask should be used for the duration of both interviews (i.e. AFP and COVID-19). ii. Determine whether the AFP case and all household members are reportedly otherwise healthy. <ul style="list-style-type: none"> • Assess whether the AFP case and family member could be interviewed outside the health care facility in an open area, with no crowds. • If there is a need to remain indoors, make arrangements for the room to be well-ventilated (i.e. open windows) and kindly ask everyone to step away for the interview except the AFP case and one family member. 3. Before entering the room, wash hands with soap and water or use hand sanitizer. If entering a room to conduct both an AFP case and COVID-19 case investigation, be sure to put on a gown. 4. Conduct the interview maintaining at least 1 metre of distance from the AFP case and family member, if possible. 5. When conducting the physical examination: <ol style="list-style-type: none"> a. If possible, have the family member help perform the neurological examination (e.g. help the child to stand, range the affected extremity, etc.) to avoid physical contact with the AFP case.

	<ul style="list-style-type: none"> b. If you must conduct the physical examination, wear gloves to during the examination. If gloves are unavailable, wash hands with soap and water or use hand sanitizer before and after touching the AFP case. 6. If further information is needed to complete the investigation, obtain telephone numbers for these sources and contact by telephone. Photographs and videos should be considered to provide any further information. 7. Collect stool specimens as per global vaccine preventable diseases standards (5), at the health care facility only, including the use of gloves. <ul style="list-style-type: none"> a. Do not attempt to collect stool specimens from the home or community if only one or no specimens were collected prior to discharge. b. To minimize possible exposure to SARS-CoV-2 for community members, do not request families to bring stool specimens to the health facility. 8. Upon completion of the interview, be sure to discard medical mask, gloves, and gown properly, and wash hands with soap and water or use hand sanitizer. 9. For AFP cases with inadequate collection of stool specimens: <ul style="list-style-type: none"> a. Do not conduct AFP contact sampling because it is recommended that surveillance officers do not visit communities to minimize the risk of exposure to SARS-CoV-2. b. A modified virtual 60-day follow-up investigation may be conducted; in-person 60-day follow-up examinations are not recommended <ul style="list-style-type: none"> i. Conduct a virtual 60-day follow-up examination by contacting the parent or guardian to complete the interview by telephone. <ul style="list-style-type: none"> • If possible, obtain a video of the AFP case to document physical condition. • Obtain the name and contact information for the paediatrician or other health care provider overseeing treatment. ii. Contact the paediatrician or other health care provider to discuss the presence or absence of residual paralysis. Document if unable to speak to the person concerned. iii. Document if the AFP case did not return to health facility or has no plans to visit health facility. iv. If a virtual 60-day follow-up examination (interview with parent or guardian and paediatrician) cannot be successfully completed, document that the case is pending a 60-day follow-up examination. An in-person examination may be conducted at a later time when it is determined safe for surveillance officers to visit communities again.
<p>Data entry and sharing</p>	<p>Owing to COVID-19, delays may occur in activities such as investigation of AFP cases or sending the paper-based AFP case investigation form. Sharing of AFP case information and submission of weekly reports to the next administrative level should be undertaken as soon as possible, even if the AFP case investigation is incomplete or pending. Submission can be made by telephone or other available means (e.g. WhatsApp, fax, etc); photographs of forms may also be shared.</p>
<p>Local guidance on COVID-19</p>	<p>Measures to prevent and control the transmission of SARS-CoV-2 will be implemented by local authorities, such as population movement restrictions, avoidance of public transportation and physical distancing. Surveillance officers are expected to adhere to local policies and rules to prevent SARS-CoV-2 transmission and this should be prioritized over polio activities.</p>

References

1. Global surveillance for COVID-19 caused by human infection with COVID-19 virus: interim guidance. Geneva: World Health Organization; 2020 (<https://www.who.int/publications-detail/global-surveillance-for-covid-19-caused-by-human-infection-with-covid-19-virus-interim-guidance>, accessed 28 May 2020).
2. Rational use of personal protective equipment for coronavirus disease (COVID-19) and considerations during severe shortages; interim guidance. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/331695>, accessed 29 May 2020).
3. Use of cloth face coverings to help slow the spread of COVID-19. Atlanta: Centers for Disease Control and Prevention; 2020 (<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html>, accessed 28 May 2020).
4. Interim operational considerations for public health management of healthcare workers exposed to or with suspected or confirmed COVID-19: non-U.S. Healthcare Settings. Atlanta: Centers for Disease Control and Prevention; 2020 (<https://www.cdc.gov/coronavirus/2019-ncov/hcp/non-us-settings/public-health-management-hcw-exposed.html>, accessed 28 May 2020).
5. Surveillance standards for vaccine-preventable diseases, second edition. Poliomyelitis. Geneva: World Health Organization; 2018.
https://www.who.int/immunization/monitoring_surveillance/burden/vpd/WHO_SurveillanceVaccinePreventable_18_Polio_R2.pdf?ua=1, accessed 29 May 2020

Annex 5. Detailed polio case investigation during the COVID-19 pandemic

Objective	Continue to perform detailed case investigation of confirmed polio cases (epidemiological and social investigations) but with modifications to activities owing to the COVID-19 pandemic.
Definitions (1)	<ul style="list-style-type: none"> • COVID-19: official name of the disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) • Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2): official name of the virus responsible for COVID-19.
Rationale and indications	<p>Countries must investigate any poliovirus isolate notifiable under the International Health Regulations (2005) (IHR), whether the poliovirus isolate is from an AFP case or AFP contacts. Local health authorities should initiate the detailed polio case investigation within 24 hours of the isolate report. The most effective approach is a joint epidemiological and social investigation with support from the national level and the affected community, as well as the gathering of relevant national data.</p> <p>Owing to the COVID-19 pandemic, modifications to recommended investigation activities are necessary. If poliovirus is isolated from an area with a recent history of poliovirus circulation (less than 12 months), certain epidemiological and social investigations will not be necessary. However, in an area of new poliovirus transmission, a modified investigation should be performed (see the decision tree below).</p> <div data-bbox="462 1039 1437 1438" style="text-align: center;"> <pre> graph TD Q1[Is it a Sabin-like, poliovirus type 2 (PV2)*, VDPV, cVDPV, or WPV isolate?] --> Sabin[Sabin-like] Q1 --> cVDPV[cVDPV or WPV] Q1 --> PV2[PV2*] Q1 --> VDPV[VDPV (not genetically linked to another VDPV)] Sabin --> NoInvest[DO NOT perform a detailed polio case investigation] cVDPV --> Q2[Has the virus been documented in the area within the past 12 months?] Q2 -- Yes --> OnlyInvest[Conduct only the detailed polio case investigation interview] Q2 -- No --> Q3[Was the PV2 case in an area with mOPV2 use in the 4 months prior to paralysis onset?] PV2 --> Q3 Q3 -- Yes --> ModInvest[Perform a modified detailed polio case investigation] Q3 -- No --> ModInvest VDPV --> ModInvest </pre> </div> <p>*Poliovirus type 2 that is pending sequencing results. This is only recommended in the event that poliovirus sequence testing and results are delayed due to COVID-19 pandemic, such as decreased or no international shipment.</p> <p>cVDPV: circulating vaccine-derived poliovirus; mOPV2: monovalent oral polio vaccine 2; VDPV: vaccine-derive poliovirus; WPV: wild poliovirus; PV: poliovirus</p>
Risk mitigation measures	<p>The following risk mitigation measures are recommended to protect polio staff during the COVID-19 pandemic.</p> <p>To complete an in-person interview at a health care facility, the following resources will be needed:</p> <ul style="list-style-type: none"> • Soap and water or hand sanitizer • Medical mask (2) or cloth mask (3) if medical masks cannot be purchased • Gown (2) if entering room of a COVID-19 patient.

	<p>At all times, the following measures should be implemented:</p> <ul style="list-style-type: none"> • Maintain a distance of at least 1 metre from individuals • Avoid as much as possible touching people, surfaces, and objects. <p>If the risk mitigation measures cannot be followed, surveillance officers should not complete in-person activities to minimize the risk of exposure to SARS-CoV-2.</p>
Symptomatic surveillance officers	<p>Surveillance officers should not work if feeling unwell especially if experiencing symptoms of fever, tiredness, or cough. Symptomatic surveillance officers should report their illness to their supervisor and follow WHO and country guidance on when to return to work.</p>
Modifications to polio case investigation activities	<ul style="list-style-type: none"> • In-person activities in the community, including healthy children stool sampling and routine immunization coverage surveys, should not be conducted to minimize the risk of exposure to SARS-CoV-2. In-person activities may be completed once it is determined safe to visit communities. • An in-person interview of the confirmed polio case may only be conducted if the person remains admitted in a health care facility that can be easily reached by the surveillance officer. If the person has returned home, contact by telephone to complete the detailed interview with the person and/or family member. Videos and photographs can be used to provide critical information. • All other activities should be conducted remotely by telephone, SMS or email. Videos and photographs can be used to share information. <ul style="list-style-type: none"> ○ If there is no cellular network coverage in the community, postpone the investigation activities until it is possible to perform in-person activities. • For epidemiological and social profiling of communities, review other available materials (e.g. expanded programme on immunization reports) to obtain a basic description about the communities.
Procedure (steps)	<p><i>Sabin-like poliovirus</i></p> <ol style="list-style-type: none"> 1. A detailed case investigation (interview and community investigation) should not be performed, even if the case was detected in an area that has no recent history of monovalent type 2 oral polio vaccine (mOPV2) use. <p><i>Recent history of circulating vaccine-derived poliovirus (cVDPV) or wild poliovirus (WPV) transmission; or poliovirus type 2 (PV2) for which sequencing is pending with known history in an area with mOPV2 use.</i></p> <ol style="list-style-type: none"> 1. Conduct a detailed follow up interview (e.g. collect a detailed history of treatment, injections and vaccination, family history), using country-specific form <ol style="list-style-type: none"> a. If the confirmed polio case is still in the health care facility, an in-person interview may be conducted. See the standard operating procedures for AFP case investigation during the COVID-19 pandemic, Annex 4) for recommendations on conducting interviews at a health care facility, including with those who are suspected or confirmed to have COVID-19. b. If the confirmed polio case has returned home, obtain the telephone number of the parent or guardian and complete the interview by telephone.

	<p>2. No further activities (e.g. epidemiological and social profiling) are recommended.</p> <p><i>Vaccine-derived poliovirus (VDPV) detected; no recent history of cVDPV or WPV transmission; or PV2 for which sequencing is pending with no known history in an area with mOPV2 use</i></p> <ol style="list-style-type: none"> 1. Complete the detailed interview as noted above. 2. Search for additional AFP cases and evidence of poliovirus transmission in the community (modified active case search). <ol style="list-style-type: none"> a. Contact the health care facility focal point by telephone and ask to review the relevant registers together. Registers should be reviewed for the previous six months to identify any unreported AFP cases. <ol style="list-style-type: none"> i. Obtain the names and telephone numbers of any unreported AFP cases. Contact the families to conduct a telephone interview to gather clinical and epidemiological history. Share videos and photographs of critical information. Refer any AFP cases to a health facility for care, as necessary ii. Sensitize/remind the health care facility focal point about the reporting requirements of AFP, including case definition. b. Contact key individuals within the community (e.g. leaders, community informants) by telephone to inquire about any AFP cases in the community in the previous six months. <ol style="list-style-type: none"> i. Obtain the names and telephone numbers of any reported current, suspected AFP cases. Contact the families to conduct a phone interview to gather clinical and epidemiological history. Refer any AFP cases to a health facility for care as necessary ii. Request that any future rumours of suspected AFP cases be reported to the public health system by available telephone or other electronic means (e.g. SMS). 3. Characterize the immunity profile and vaccine acceptance of the community. <ol style="list-style-type: none"> a. Review available reports that may also provide information about immunization in the community, such as the vaccination status of AFP cases, routine vaccination and supplemental immunization activity coverage data, and community immunization surveys. b. Contact the health care facility or health district focal point by telephone to gather available information on population immunity, such as bivalent oral poliovirus vaccine (bOPV) and inactivated polio vaccine (IPV) coverage, vaccination status of AFP cases, other routine immunization coverage (e.g. diphtheria-tetanus-pertussis (DTP3), and recent polio vaccination campaigns. Also ask about immunization practices and vaccine acceptance of the community. c. Contact key informal sources (i.e. traditional healers) by telephone to gain an appreciation of immunization practice and vaccine acceptance in the community. Information may be gained from learning about past vaccination campaigns and routine immunization programs. Information on non-compliance, anti-vaccination sentiment and rumours, etc. should be collected. 4. Describe the community (social profiling).
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	<ul style="list-style-type: none"> a. Contact key individuals within the community (e.g. community leaders, local government officials, religious leaders, women’s groups, community informants) by telephone to ascertain the community context, specifically population characteristics, movement, and migration routes. Obtain a general overview of the affected population including information on population density, social structure and networks, presence of special populations (e.g. minority or non-local residents), population movement, transit points and community awareness of polio and immunization. b. Review available reports that may also provide information about the community such as any recent community profiles developed for other vaccine-preventable diseases or other purposes, reports on recent vaccination or other mass campaigns, and security reports. c. Contact colleagues working on vaccine-preventable and other diseases, and other health topics (e.g. maternal and child health) by telephone. They may be also be able to provide information on the communities and reference materials. <p>5. Community outreach about polio.</p> <ul style="list-style-type: none"> a. By telephone, radio, WhatsApp or other mobile technology. Use the opportunity to engage local leaders and influencers in the community and sensitize them to polio and the importance of early reporting of AFP. b. Identify a community leader or community health care worker who can share information with the community while still practising physical distancing c. Provide relevant information, handouts and material specific to the country context. <p>6. Be sure to document any steps or activities that could not be completed so that they may be followed-up at a later time, if necessary.</p>
Local guidance on COVID-19	<p>Measures to prevent and control the transmission of SARS-CoV-2 will be implemented by local authorities, such as population movement restrictions, avoid use of public transportation, and physical distancing. Surveillance officers are expected to adhere to local policies and rules to prevent SARS-CoV-2 transmission and this should be prioritized over polio activities.</p>

References

1. Global surveillance for COVID-19 caused by human infection with COVID-19 virus: interim guidance. Geneva: World Health Organization; 2020 (<https://www.who.int/publications-detail/global-surveillance-for-covid-19-caused-by-human-infection-with-covid-19-virus-interim-guidance>, accessed 28 May 2020).
2. Rational use of personal protective equipment for coronavirus disease (COVID-19) and considerations during severe shortages; interim guidance. Geneva: World health Organization; 2020 (<https://apps.who.int/iris/handle/10665/331695>, accessed 29 May 2020).
3. Use of cloth face coverings to help slow the spread of COVID-19. Atlanta: Centers for Disease Control and Prevention; 2020 (<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html>, accessed 28 May 2020).

Annex 6. Guidance on the prioritization for storage, shipment and testing of polio surveillance samples in the context of the COVID 19 pandemic

Context

The disruption of acute flaccid paralysis (AFP) and environmental surveillance caused by the COVID-19 pandemic is likely to affect the storage, shipment and testing of samples.¹ It is expected that a significant proportion of samples collected will not be shipped and/or tested on time owing to COVID-19 mitigation measures² and the possible impact on some Global Polio Laboratory Network (GPLN) laboratory capacity. Such measures are likely to be lifted at different times within countries, regions and globally.

Objective

The following guidance is intended to help all the stakeholders in the decision-making process for prioritizing polio surveillance samples for storage, shipment and testing. It will contribute to the standardization, prioritization of shipment and testing of backlogged samples.

Key principles

- It is important to keep in mind the following elements: all samples collected should be properly stored (at 4–8 °C for up to 3 days and at -20 °C when storage exceeds 3 days) at all levels to maintain the chance of isolating any virus.
- All samples collected and stored should ultimately be tested when feasible.
- When a referral laboratory is overloaded, other options within the GPLN should be explored for shipment and testing. This should be planned by the country together with the shipping plan.

Classification of samples

Based on the collective knowledge of the current epidemiology of poliovirus, the prioritization set out below is proposed for the period during and after the COVID-19 pandemic until all samples collected in the interim have been tested. The classification considers storage, shipping, and testing in laboratories.

Storage and shipment of samples³

All countries should ensure that all samples collected are properly stored either at the district, provincial or national level, depending on the country context and the existing storage capacity. Temporary storage hubs (ad hoc hubs) can be identified within country for sample storage if needed. The Global Polio Eradication Initiative (GPEI) should support national authorities to increase the storage capacity of AFP

¹ Stool specimens and environmental samples.

² It is recommended that all specimens and samples are shipped whenever there is an opportunity, with an advance notification to the receiving end (region, central level or laboratory).

³ At the central level, shift some samples to storage at -20 °C so that samples from lower levels can still be received. At the district level, if storage capacity is full, consult with the national laboratory on how to proceed with current and future sample collection and storage.

specimens and environmental samples (including cold chain, collaboration with other programmes, etc.) at district, provincial and national levels, depending on local needs.

Shipment of samples from the district to the national level should be undertaken whenever feasible, regardless of whether there is a GPLN laboratory within the country. While shipping specimens and samples internationally, the most recent (specimens and samples collected within the last one or two months) should be considered first, then following the criteria set out in Tables 1 and 2.

Table 1. Prioritization for the storage and shipment of samples

Area	First priority for shipment	Second priority for shipment
Endemic countries	Samples from districts with no WPV1 reported or isolated in the environment in the previous six months	Samples from districts with known/established WPV circulation
Countries experiencing cVDPV outbreaks	All samples from a district with no proven circulation and no use of mOPV2 in the six months since the last collection	All samples from a district with proven circulation of cVDPV and/or use of mOPV2 in the six months since the last collection
High-risk countries ⁴	All AFP specimens (if further prioritization is needed, consider specimens from a district with clustered AFP cases or specimens from a district that did not report an AFP case in the six months since the last collection)	Environmental samples
Other countries	Specimens from AFP cases (if further prioritization is needed, start with specimens deemed important or critical by the local surveillance officer, depending on the epidemiology and or context of the district, region or country)	Environmental samples

AFP: acute flaccid paralysis; cVDPV: circulating vaccine-derived poliovirus; ITD: intratypic differentiation; mOPV2: monovalent oral polio vaccine 2; VDPV: vaccine-derive poliovirus; WPV: wild poliovirus

Table 2. Prioritization for the testing of AFP specimens and environmental samples already in the laboratory

Category of specimen/sample	First priority for testing	Second priority for testing	Third priority for testing
L20B+ isolates due for ITD/sequencing	AFP specimens/ environmental samples from all endemic,	AFP specimens from other countries	Environmental samples from other countries

⁴ GPEI Surveillance Task Team (STT) priority countries.

	outbreak and high-risk countries		
AFP specimens and environmental samples from endemic countries	Specimens/samples from districts with no WPV reported or isolated in the environment in the previous six months	Specimens/samples from districts with known/established WPV circulation	
AFP specimens and environmental samples from cVDPV outbreak countries	All specimens from a district with no proven circulation and no use of mOPV2 in the previous six months	AFP specimens from a district with proven circulation of VDPV and/or use of mOPV2 in the six months since the last collection	Environmental samples from a district with proven circulation of VDPV and/or use of mOPV2 in the six months since the last collection
AFP specimens and environmental samples from high-risk countries	AFP specimens from: <ul style="list-style-type: none"> • a case deemed critical for testing by surveillance officer • from a district with clustered AFP cases • samples from a district that did not report an AFP case in the previous six months 	All other AFP specimens Environmental samples	
Samples from other countries	<ul style="list-style-type: none"> • AFP specimen from a hot case • AFP specimens • environmental samples from neighbouring countries/districts to endemic or cVDPV outbreak countries 	All other AFP specimens	All other environmental samples

AFP: acute flaccid paralysis; cVDPV: circulating vaccine-derived poliovirus; ITD: intratypic differentiation; mOPV2: monovalent oral polio vaccine 2; VDPV: vaccine-derive poliovirus; WPV: wild poliovirus

