Aide Mémoire

Version 4 - April 2022

Poliovirus Outbreak Response Assessment (OBRA)

The scope and timing have been revised in version 4 to reflect changes in the program and after feedback from GPEI agencies – ORPG, WHO AND UNICEF regional and country teams. This Aid memoire will be updated further as the epidemiologic situation continue to evolve.

Purpose: To assess whether vaccination and surveillance response is robust enough to detect and stop poliovirus transmission, and what is needed to address gaps. Polio OBRAs are to be timely, effective, practical and independent

Objectives:

1. **Assess and strengthen efforts to increase immunization coverage and population immunity**
   - ✓ This is priority when transmission is ongoing
   - ✓ Assess vaccine management for each round

2. **Assess and strengthen surveillance sensitivity**
   - ✓ Assess efforts to enhance surveillance sensitivity to levels needed to detect virus transmission, and interruption
   - ✓ Assess sustainability of surveillance system

3. **Assess early progress towards interrupting poliovirus transmission**
   - ✓ Root cause(s) of outbreak understood
   - ✓ Outbreak SOPs being implemented in a timely and effective manner

Focus, scope and emphasis of assessment will evolve with each OBRA for any event or outbreak, given the time since the last poliovirus isolate, and local circumstances, as reflected in specific terms of reference for each assessment.

Overview of assessment:

Planning

- OBRA planning begins at outbreak confirmation
- GPEI Outbreak Response Preparedness Group (ORPG), including WHO and UNICEF Regional Offices, leads global level coordination for OBRA support
- Multiple OBRAs may be planned over the course of an outbreak (quarterly). External desk review (EDR) to review all relevant data and organized by the ORPG and Regional Offices (RO) will replace subsequent OBRAs
- Partners identify independent OBRA team leader early
- Team expertise includes immunization, surveillance, Social and Behaviour Change (SBC), vaccine management, external relations, political advocacy and others as needed
- Conduct teleconference between OBRA team and the country 15 days before the OBRA to discuss situation analysis (e.g., previous reviews) and preparations
- Team numbers and composition to be adjusted for country and outbreak context.
- Standardized OBRA tools to be shared and utilized by OBRA teams

Scope and Timing

- **First OBRA:** c**onducted within 3 to 4 months after OB confirmation** *(usually after the 2 initial rounds).*
- **Follow up quarterly assessments and desk reviews during the course of the outbreak.** GPEI / ORPG will try to deploy quarterly missions of joint & individual agencies (as needed/if feasible) to support the country program ***to assess* progress *of the OB response towards interrupting transmission.***
- **Final assessment after at least 6 months without poliovirus detection – to consider closure of the outbreak**
- Extended outbreaks may warrant intermediate OBRAs or e***xternal*** desk reviews, as appropriate.

- The planned OBRAs depending on circumstances can be implemented following two methodologies:

a) OBRA field mission in country – deployment of OBRA team (5-8 external evaluators for 5 to 7 days).

b) OBRA desk review at regional level - in order to adapt to the Global COVID-19 Pandemic, virtual OBRAs or e*xternal* desk reviews are encouraged *(AFRO region – high number of outbreaks)*.

Report and debrief

- Team presents findings and recommendations to authorities before leaving the country, or at the end of virtual external desk review and reports on:
  - Implementation of previous recommendations
  - Additional assessments undertaken (e.g. routine immunization, cold chain, communications and social mobilization microplans, surveillance, etc.)
  - Whether available evidence supports that poliovirus transmission was interrupted and if follow-up OBRAs are necessary.
  - Where type 2 containing oral polio vaccine (nOPV2/ mOPV2/ tOPV) was used, complete inventory, and recommended safe storage or destruction of any remaining stock.

End of the Outbreak

- If the 'end of outbreak' criteria (page 3) are not met in a country or zone, the ORPG and RO will recommend next steps:
  - Subsequent OBRAs - may be carried out 6-9 months post confirmation of the outbreak, to assess if the outbreak has been stopped
  - At 6 months without virus detected: strengthen internal / external support for response; continue EDRs
  - At 9 months without virus detected: put in place a 3- month emergency plan for a) surveillance (e.g. comprehensive active case searches in health facilities and communities in outbreak area); b) immunization, e.g. proven or innovative strategies for SIAs and routine immunization (***Reach Every District*** approach); repeat EDR after 3 months, or as appropriate.
- When 'end of outbreak' criteria are met and/or the EDR finds that outbreak response has been sufficient, the WHO regional office considers evidence, shares the EDR report with the national and regional certification commissions and may confirm the outbreak is over and can be 'closed'.

Special circumstances:

Endemic countries: OBRAs follow same principles, country EOC to be involved in planning

Multi-country outbreak zone: countries without cases but with vaccination response. Focus on:

- Response quality / population immunity
- Enhanced AFP and environmental surveillance
- Enhanced case / isolate detection
- Engagement of government across all levels
- Engagement of communities
- Engagement of broader stakeholders (incl donors at country level and media)
- Analysis of chronically missed communities/children and implement activities to address this gap

Multi-country outbreak zone: countries without cases and no vaccination response conducted or planned. Focus on:

- Enhanced AFP and environmental surveillance especially along bordering areas
- Analysis of population movement especially areas bordering outbreak country, mobile populations
- Cross border collaboration and coordination especially for SIAs.

Assessment of programme areas (technical worksheets and data collection tools available separately)

Focus primarily on high risk areas and populations:

- History of infection or higher likelihood of missed transmission, areas of poor surveillance or immunity
- Special populations, such as conflict affected or displaced, border areas, mobile populations including migrants and nomads, minorities or underserved

A. Coordination & quality of outbreak response activities

Planning and coordination

- Declaration of public health emergency; cross border notification and collaboration when applicable
- Technical committees formed and active
- Presence of comprehensive response plans, with budget, to reach every child with vaccination and to strengthen surveillance
- Timely request, receipt, and disbursement of funds

SIA quality and monitoring

- Preparedness timeline, micro planning, training,
- Strategies in place for special / mobile populations
- Vaccines, supplies and funding (adequacy, timeliness, vaccine management knowledge and skills)
- Documentation quality (tally sheets, vaccine management tools, survey materials)
- Detailed plans for and availability of supervisors
- Reporting (timeliness, completeness), review meetings, and feedback (to levels above and below)
- Independent monitoring before, during and after campaigns with feedback / Coverage monitoring /LQAS

Advocacy, communication and SBC

- Assessment of overall communication strategy for the response which includes components as (External communications, misinformation management, Social Mobilization and community engagement and advocacy)
- Assessment of communication plans specific for SIAs and RI, including integration with micro plans
- Use lessons learned and prior experience; strategies to reach missed children; community engagement ; programme and political advocacy , communication training for community health workers (e.g. on RI and SIA)

B. Population immunity & routine immunization (RI)

- OPV and IPV coverage (OPV3 in last 3 years and available surveys/studies) in general and special populations; trend analysis, sustainability of immunization coverage
- Vaccine supply chain, evidence of stockouts / shortages
- Identify populations with limited access, refugees, etc; Describe refusals and health-seeking behaviours.
- Implement mobile teams and targeted strategies

C. Surveillance, data quality & laboratory

- NPAFP rate and stool adequacy indicators at lowest administrative level possible (at least 100,000 children <15 years); proportion of stool samples collected within 14 days of paralysis onset, 60-day follow-up for cases with inadequate samples
- Active surveillance sites: facility selection criteria, system, frequency, and priority setting, mix of public, private, large and smaller facilities
- AFP contact sampling protocols and practices
- Records of supervisory visits and reports, training and reporting, commitment, knowledge at all levels visited
- Sabin-like virus in stools or in the environment and /or VDPV emergence after campaigns
- Laboratory achievements and challenges
- Assessment of existing or new environmental surveillance sites, where appropriate
- Data assessed for consistency, anomalies, regular analysis and used for action
- Final classification; availability of results at all levels; presence of compatible cases and their investigation
- Surveillance trainings/re-freshers for public health staff particularly surveillance officers
- Polio and AFP surveillance sensitization among healthcare workers, community informants and leaders
- Communications/social investigation is a part of case investigation

D. Vaccine management (mandatory when any OPV2 containing vaccine has been used)

- Detailed vaccine utilisation report available
- Use of management tools; knowledge of process
- Tallying, reporting and storage of stocks at all levels
- Visual inspection of OPV2 stocks
- Documentation of robust search for OPV2
- Recommend safe storage or disposal of OPV2
- Signoff by national or independent authority

Criteria to determine if an outbreak is over

1. **No poliovirus of the outbreak serotype detected from any source (AFP, AFP contact, healthy child, environmental) for at least 6 months since virus last detected**

AND

2. **Surveillance criteria over previous 12 months met in infected/high risk areas (outbreak zone), and other areas at risk, including cross-border outbreaks**[1]
   - i) NPAFP ⩾3 per 100,000 population <15 years of age (or national objective, whichever is higher)
   - ii) ⩾80% stool adequacy among all AFP cases

AND

3. **Convincing evidence that areas of high risk or with conflict, displacement, hard to reach areas and populations have been identified and planned for, and that adapted strategies**[2] **have been successfully implemented to:**
   - i) detect any ongoing poliovirus transmission
   - ii) interrupt transmission of poliovirus

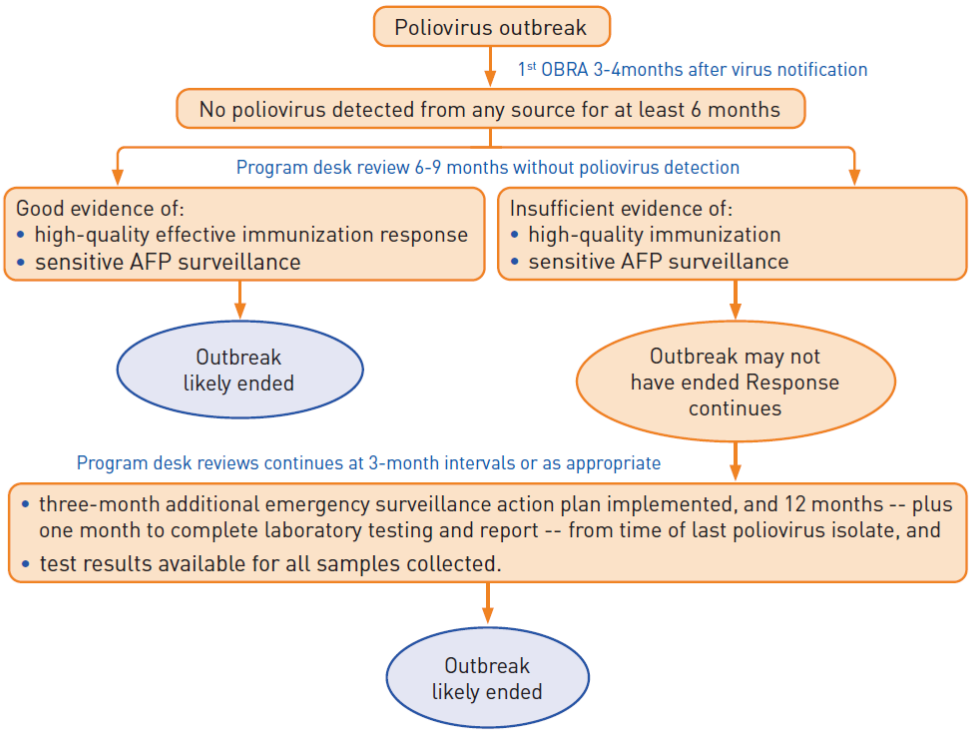
After comprehensive review of indicators, data quality, and qualitative information of the local context, the OBRA team has the responsibility to give the best possible opinion as to whether:

- i) an outbreak appears to be over, even if not all criteria are strictly met, or
- ii) an outbreak cannot be considered over, even in the absence of detectable virus isolation.

[1] Criteria to be met at 1st admin level, or 2nd admin level for populous countries (e.g. India, Pakistan, Nigeria), and other high-risk areas as determined by the OBRA team

[2] Strategies include: innovative vaccination outreach activities; active case searches, community-based surveillance; estimate of population as yet unreached by vaccination and surveillance

Outbreak response assessment decision tree



- After the OBRA has recommended to declare the outbreak closed, the ORPG will liaise with STT (and EPI teams) for a systematic transition / handover.

OBRA deliverables

1. OBRA planned and implemented

2. OBRA team provides actionable recommendations for next phase

3. National authorities briefed before departure

4. OBRA lead provides final report

- Debriefing presentation
- Executive summary (2 pages) to national authorities and GPEI partners

5. WHO regional office to review and advise if outbreak ongoing or over

6. Country provides **post-OBRA action plan** within one month

OBRA toolkit

The available generic tools for OBRA will be optimized for each assessment (led by the OBRA team lead) as per the specific context.

1. **Checklist of OBRA key documents for review** *(to be shared with the OBRA team 2 weeks before assessment)*
2. **OBR Assessment criteria** *(key indicators) – desk review*
3. ***OBR Assessment – Activities*** *(OBR plan)*
4. **OBR SOP performance tracker** *(key activities – timeliness/ completeness)*
5. **Data collection tools** *(key interviews – field mission)*
6. **Follow up OBRA recommendations**
7. **Final OBRA debriefing template**

Selected key performance indicators for OBRA	
A. Coordination & quality of outbreak response activities	
Planning and coordination	
Outbreak response timeliness	Timelines met, as set out in the Standard Operating Procedures for responding to a poliovirus event or outbreak
Outbreak coordination	Response plan, documentation of implementation, and chronogram and/or preparedness checklist in use
Cross-border coordination, where relevant	Evidence of routine cross border notification for surveillance and coordination of SIAs
Data review and field findings consistent	Qualitative assessment by OBRA team
SIA quality and monitoring	
Independent Monitoring (IM) results for last two SIAs	⩾95% children marked in out-of-house post-campaign IM
LQAS results for last two SIAs	"Pass" threshold is ⩾90%
Confidence in the results of IM and/or LQAS	Qualitative assessment by the OBRA team
Special populations* covered by SIAs	Evidence of accurate micro plans; strategies to reach populations
Response to evaluation outcomes and gaps identified	Evidence of actions taken, their effectiveness and impact
Advocacy, communications and SBC	
Evidence-based communication strategy represented in outbreak response plan and implemented in timely manner	Social / formative research based communication strategy *(advocacy, external communication, community engagement and socmob, misinformation management and IPC)* Evidence of timely implementation with adequate capacity
Reasons for missed children, especially for refusals, are analysed from intra campaign and post campaign data and addressed	Evidence of updated communication strategy to address missed children and refusals
B. Population immunity & routine immunization	
Vaccination status of NPAFP cases, 6-59 months of age in infected and high-risk regions	• 80% NP AFP cases have ⩾3 doses OPV • <5% cases are zero dose
OPV3 & IPV routine vaccination coverage for past three years (or indicate what IPV was introduced)	>90% coverage OPV3 and IPV, comment on target population (denominator), validity
Special populations	Evidence of targeted strategies conducted to provide RI
C. Surveillance, data quality & laboratory	
AFP surveillance	
Weekly surveillance reports received at all levels (e.g. district to state, state to national, national to region)	⩾ 90%
NPAFP rate / children under 15 years of age / year	⩾ 3/100,000 or national objective, if higher (overall outbreak zone) ⩾ 2/100,000 (every first subnational level)
AFP cases investigated <= 48 hours after notification	⩾ 80%
AFP cases with 2 specimens collected 24-48 hours apart and <=14 days from symptom onset	⩾ 80%, also consider assessment of time between symptom onset to notification
NPENT isolation rate in AFP stool samples	⩾ 10% or national objective, whichever is higher
60-day follow up of AFP cases with inadequate stools	Records of completed comprehensive 60-day follow-ups and documented evidence of expert review (ERC)
Functional ERC - evidence of AFP cases classification	Evidence of ERC meetings (monthly minutes)
Case detection in special populations*	Proportion of AFP cases from special populations, of all AFP cases, varies according to setting
Environmental surveillance	
Samples collection schedule, and reporting	Environmental samples collected as per agreed collection site and frequency; results reported
Enterovirus isolation	Proportion samples positive for enterovirus (EV) per site; Sabin-like isolation pattern for 2-3 months post SIA
Laboratory	
Specimens arrive in accredited laboratory	⩾ 80% in good condition ⩾ 80% within ⩽3 days of specimen collection (stool 2/ sewage)
Final laboratory sequencing results available within ⩽28 days of specimen receipt	⩾ 80%

D. Vaccine management (mandatory when OPV2 has been used)	
Vaccine utilization records and validation forms	Submitted ⩽14 days from end of SIA
Vaccine stockouts or shortages	No vaccine stockouts or shortages, adequate cold chain
***Special populations including: refugees, IDP, migrant, nomadic, history of refusals**	