Final National Documentation for Certification of Poliomyelitis Eradication

Name of Country: _____

Year: _____

Submitted to WHO/EMRO on: _____

- *This documentation should be submitted by endemic countries after being polio free for ONE year*
- *This document should be submitted by re-infected/outbreak countries ONE year after being polio free and endorsed by OBRA team*

Eastern Mediterranean Region
World Health Organization
Cairo, Egypt

General instructions

Please complete the report in line with specific questions/instructions!

Double click check box ☒ if appropriate
Do not leave any cells blank
Please indicate "NA" if not applicable
Provide any supplementary documents/information in separate files
Add additional rows in tables, if necessary, but no change(s) in format and/or text, please.

Electronic copy of the annual progress report (including additional documents, if relevant) accompanied by the printed or scanned copy of signed **Executive Summary** and the **cover letter** to be submitted to the WHO Regional Office by **7th March 2021** to:

EMR Polio Secretariat

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TABLE OF SECTIONS

Abbreviations and Acronyms

AFP	Acute Flaccid Paralysis
CCS	GAPIII Containment Certification Scheme
CP	Certificate of Participation
GAPIII	Global Action Plan III for Poliovirus Containment
GCC	Global Commission for the Certification of the Eradication of Poliomyelitis
HC	Healthy Children
IM	Infectious material
ITD	Intratypic differentiation
MoH	Ministry of Health
NAC	National Authority for Containment
NAP	National Action Plan
NCC	National Certification Committee for Poliomyelitis Eradication
NEG	National Expert Group
NEV	Non-Enterovirus
NPAFP	Non-polio Acute flaccid paralysis rate
NPCC	National Poliovirus Containment Coordinator
NPEV	Non-Polio Enterovirus
NTFC	National Task Force for Containment
OBRA	Polio Outbreak Response Assessment
OPV	Oral Polio Vaccine
bOPV	Bivalent OPV (contain attenuated Sabin poliovirus type 1 and type 3)
mOPV	Monovalent OPV (containing one type of attenuated Sabin poliovirus)
mOPV1	Monovalent oral polio vaccine type 1
mOPV2	Monovalent oral polio vaccine type 2
mOPV3	Monovalent oral polio vaccine type 3
nOPV	Novel Oral Polio Vaccine
tOPV	Trivalent OPV (contain attenuated Sabin poliovirus type 1, 2 and 3)
PEF	Poliovirus-Essential Facility
PID	Primary Immunodeficiency
PIM	Potentially Infectious Material
PV	Poliovirus
PV1	Poliovirus type 1
PV2	Poliovirus type 2
PV3	Poliovirus type 3
RA	Risk Assessment
SIA	Supplementary Immunization Activities
SL	Sabin like poliovirus
SL1	Sabin like poliovirus type 1
SL2	Sabin like poliovirus type 2

SL3	Sabin like poliovirus type 3
UNICEF	United Nations Children's Fund
VAPP	Vaccine-associated paralytic polio
VDPV	Vaccine-derived poliovirus
VDPV1	Vaccine-derived poliovirus type 1
VDPV2	Vaccine-derived poliovirus type 2
VDPV3	Vaccine-derived poliovirus type 3
aVDPV	Ambiguous Vaccine Derived Poliovirus
cVDPV	Circulating Vaccine Derived Poliovirus
iVDPV	Immune-deficiency associated VDPV
WHO	World Health Organization
WPV	Wild poliovirus
WPV1	Wild poliovirus type 1
WPV2	Wild poliovirus type 2
WPV3	Wild Poliovirus type 3

Introduction

In 1988, the World Health Assembly adopted the goal of poliomyelitis eradication by the year 2000. The maximum benefits of this global disease eradication initiative will only be realized when immunization against polioviruses has stopped sometime after the last wild poliovirus has been detected in the world.

Prior to stopping polio immunization it will be necessary to certify the absence of wild poliovirus circulation from every country of the world. For this reason, the World Health Organization (WHO) established a Global Commission for the Certification of the Eradication of Poliomyelitis which subsequently developed the principles and guidelines for the certification process. As part of the certification process, Regional Certification Commissions have been established in each of the six WHO Regions.

The Regional Certification Commission for the EMR will review reports submitted by the National Certification Committee (NCC) of each country that has been free of indigenous wild poliovirus for a period of at least ONE year. Review of documentation from every country of the Region will enable the Regional Commission to verify whether all member countries, and the Region as a whole, are truly polio-free. Following National/Regional certification, it may be necessary to request updated documentation from countries prior to global certification.

In the light of the recommendation of EM Regional Commission for Certification of Poliomyelitis Eradication (RCC) in its 33rd meeting that took place in April 2019 the National Documentation for Certification of Poliomyelitis eradication has been revised and named as "Final National Documentation for Certification of Poliomyelitis Eradication". This document is intended to be submitted by:

- endemic countries after being polio free for ONE year
- re-infected/outbreak countries ONE year after being polio free and endorsed by OBRA team

The Final National Documentation for Certification of Poliomyelitis Eradication should be completed by the National Certification Committees (NCCs). Any information submitted in previous documents submitted by the country should be referenced to the relevant tables, maps and charts included in the previous submitted documents.

Each NCC must provide sufficient documentation to demonstrate that the country is polio-free and that indigenous circulation of imported wild polioviruses would be readily detected and effective control measures taken.

Although providing documentation for certification to the Regional Commission is expected from the National Certification Committee, it is the responsibility of the national program to provide the needed information in the required format to the National Certification Committee and serve as the secretariat for the Committee activities.

The country documentation is expected to be further used by the Global Commission as the basis for endorsing the decision of the Regional Commission.

The National Documentation for Certification of Poliomyelitis Eradication will consist of three components.

- ***STANDARD DOCUMENTATION FOR CERTIFICATION OF POLIOMYELITIS ERADICATION:***
  - The purpose of the standard documentation is to provide the Regional Commission with a set of internationally consistent data upon which to base its decision whether or not to certify the country as polio-free.
  - The principal component of the National Documentation will be a set of standard forms which provide information on 17 sections. The information required under each of these sections are available in this document and are summarized in the standard set of forms attached.
  - The required standard information from each of the Member States of the WHO Eastern Mediterranean Region (EMR) is outlined in details in this document.
  - Since the information from each country will undergo close scrutiny by the Regional Commission, it will be important to prepare the most complete information possible to avoid potential follow-up requests for additional information.
  - It is important that each and every item is answered thoroughly. An explanation should be provided for any information that is missing.
  - The original text of the items should not be modified under any circumstances and the answers to questions should be given in a different font or highlighted so that they are clearly distinguishable from the original text of the document.

- ***SUPPORTING DOCUMENTATION:***
  - These documents are needed to clarify or expand upon particular aspects of the Standard Documentation.
  - They are described within the document and is required in the various sections of the standard documentation. They may include guidelines, graph, maps, reports which are necessary for completion of the standard documentation.
  - Additional supporting documentation may be submitted at the discretion of the National Certification Committee.

- ***SPECIAL STUDIES AND ADDITIONAL ACTIVITIES:***
  - The details of all special studies or additional activities, which may have been conducted to demonstrate the absence of indigenous wild poliovirus circulation from the country or a specific area should be provided as attachments to the report.

Preface to the Final National Documentation for Certification of Poliomyelitis Eradication

The RCC requests NCC to declare whether the NCC members are firmly convinced that the country was polio-free during the reporting period: January-December 2020.

The NCC should provide supporting evidence by reviewing and assessing data presented by the National Health Authorities. The NCC can request any additional information, if required. The statement should be based on an evaluation and assessment of the following information:

1. The national surveillance for "paralytic poliomyelitis" including surveillance for Acute Flaccid Paralysis (AFP), enterovirus and environmental surveillance.
2. Population immunity against poliovirus including routine immunization coverage at the national and sub-national levels, coverage among known high risk sub-populations (if no high risk groups in country, indicate this in a statement); results of polio supplementary immunization activities (SIAs) targeting high-risk territories or high-risk sub-populations, when appropriate.
3. Performance of polio laboratory and containment activities.
4. Results of National/Sub-national risk assessment.
5. Acknowledging a response to recommendations made by EM RCC, if applicable.

Section 1: EXECUTIVE SUMMARY

The executive summary should comprehensively describe overall program performance related to certification and containment, functions of the NCC and most importantly basis of its conviction to endorse or reject risk assessment results and risk mitigation measures and plans presented to the NCC.

How the NCC has implemented its terms of reference, in particular, its interaction with the polio eradication programme and the National Expert Group (NEG); indicating any constraints it might had encountered in its work and if and how such constraints were overcome (Concerns should include gaps in all kinds of support (human, financial, administrative, managerial, and operational including access issues due to security/accessibility/conflict/law and order situation); and make appropriate recommendations for the country as to the future activities of the polio eradication initiative.

The NCC should take into account all the background information related to:

1. Surveillance for detection of polioviruses
   a. The national acute flaccid paralysis (AFP) surveillance: Surveillance sensitive enough to rapidly and reliably detect imported wild poliovirus and Vaccine Derived Polio Virus (VDPV) should it emerge.
   b. Supplementary surveillance: environmental surveillance (where established): its appropriateness and monitoring to ensure proper sampling and transportation.
2. Polio immunization coverage and population immunity at the national and sub-national levels, including coverage among known high-risk populations;
   a. High enough to prevent imported wild poliovirus to circulate and emergence of VDPV.
   b. Response to detection of any WPV/VDPV in polio free country or area.
3. Polioviruses (PV) and potentially infectious materials containment activities in accordance with GAPIII with particular focus on national inventory, destruction/transfer of PV material, and national Polio Essential Facility (PEF) certification.
4. The national plan of action (NAP) for outbreak preparedness and response and quality of simulation exercise within the past three years;
5. **Important: The most critical component of the Executive Summary:** Results of risk assessment to certification at the national and sub- national levels should be thoroughly reviewed at the granular level after deep dive into data for each of the four components: surveillance, population immunity, containment of polioviruses and outbreak preparedness and response. Conclusive remarks of the NCC are needed over quality, thoroughness and relevance of both risk assessment as well as risk mitigation measures/plans for four aforesaid components. The NCC is encouraged to look for independent results and surveys and if appropriate mention these in support of the NCC final opinion.
6. Concerns about the gaps in all kinds of support (human, financial, administrative, managerial, and operational including access issues due to security/accessibility/conflict/law and order situation);
7. Additional relevant information that could have an impact on sustaining the polio free status and/or the process of poliomyelitis eradication;
   - Special vaccination plans: refugees, IDPs, migrant population, in emergency and conflict situation
8. Acknowledging the response to recommendations made by the EM RCC.

1.1 The executive summary

Type here

The Executive Summary should be essentially signed by the NCC members or at least by the chairperson

1.2 Risk assessment (RA)

Please provide your opinion on the risk of poliovirus importation or emergence of VDPV based on risk assessment four components (surveillance, population immunity, containment of polioviruses and outbreak preparedness and response) carried out in your country.
Please tick in the appropriate cell for each category.

Risk Category	Surveillance	Population immunity	Containment of PV	Outbreak preparedness and response	Overall Risk
High					
Medium					
Low					

Brief description of levels and scores given for risk assessment can be found under item 15.1.1.2

1.2.1 Please add notes to support the above opinion

Please make notes with special reference to all the above components at the lowest admin. level available.

Type here

1.3 NCC findings / outcomes

The NCC members are firmly convinced that the country was polio-free during the reporting period

Yes ☐ **No** ☐

1.4 Conclusions and recommendations

Type here

NCC position	Signature
Chairman	
Member	
Member	

* Electronic signature is also acceptable

Date of submission of Annual Report (dd/mm/yyyy): _____

Section 2: NCC ACTIVITIES AND RESPONSE TO COMMENTS OF THE RCC ON THE PREVIOUS REPORT

2.1 Activities conducted by the NCC

Please provide general information about NCC activities in 2020, including key issues addressed at the meetings and list any concerns that have arisen, including concerns from the NCC about the national programme, challenges in organizing and/or holding regular NCC meetings

NCC Meeting Date	Key issues discussed	Main concerns/challenges	Actions proposed	Status (e.g. implemented/in progress/not implemented)

2.1.1 Please attach minutes of the National Certification Committee (NCC) meetings.

2.2 Please attach a copy of the comments of the Regional Certification Commission on the previously submitted report and the response of the national EPI/Polio Eradication programme and NCC.

2.3 Please present your response to this item in the form of an annotated table, given below:

Item number	RCC Comments	Response of the National Programme specific & brief	Problems or challenges encountered in responding to these recommendations

Section 3: POLIO ERADICATION POLICIES, STRUCTURE, AND RESPOSIBILITIES

Purpose:

This part of the documentation outlines the structure of personnel responsible for poliomyelitis immunization, AFP surveillance, and if applicable, the enterovirus (poliovirus) laboratory. This section should explain the relationship between these units or departments and outline their interaction. It is particularly important to:

- demonstrate how AFP/poliomyelitis notifications are transmitted to those responsible for undertaking the case investigation, stool sample collection and implementation of appropriate control measures, particularly in the event of an imported poliomyelitis case or wild poliovirus detection.
- demonstrate how both positive and negative laboratory results are transmitted to those responsible for initiating a response, whether it be supplementary immunization activities or adjusting of routine immunization strategies.

3.1 National Certification Committee:

3.1.1 Establishment

3.1.1.1 When was the National Certification Committee (NCC) established? _____Year

3.1.2 Membership

The RCC emphasizes the importance that all Member States follow the guidelines provided on the composition and membership of national certification committees (NCCs) and avoid potential conflict of interest caused by employees of the national immunization programme, ministries of health or public health institutes serving as members of the NCC

	Name	NCC Status	Period served in years	Position	Area of Expertise	Organization	E-mail address	Telephone Number (Please include country and area code)
1		*Chairperson*						
2		*Member*						
3		*Member*						
4		*Member*						
5		*Member*						
6		*Member*						
7		*Member*						

3.1.2.1 Please provide current terms of reference (ToR) of the NCC in an attachment

3.1.2.2 Have there been any changes in the composition of the National Certification Committee?

Yes ☐ No ☐

3.1.2.2.1 If Yes, please provide name, title or position and area of expertise of each new member as well as each outgoing member during the reporting period:

	Name	NCC Status	New member	Outgoing member
1		*Chairperson*	☐	☐
2		*Member*	☐	☐
3		*Member*	☐	☐
4		*Member*	☐	☐

3.1.3 National staff involved in polio programme

List the names of the persons and their designations who were responsible for the national polio immunization policies and activities as well as polio surveillance activities **since the time polio eradication activities were started in the country**

S	Name	Status/Position	Period served (From – To)	Responsible Organization / Ministry	E-mail address	Telephone Number (Please include country and area code)
1		*National Programme Coordinator*				
2		*EPI/Immunization Coordinator*				
3		*Surveillance Coordinator*				
4		*National Polio Lab**				
5		*National Polio Containment Coordinator*				
6		*Chairperson National Expert Review Group/Committee*				
7		*Head of the National Emergency Operations Center or Outbreak/Rapid Response Unit*				
8		*Other*				

* **If there is no national poliovirus laboratory please specify where diagnostic specimens are sent for diagnosis.**

3.1.3.1 Please specify the responsibilities of the Polio Eradication coordinator

Type here

3.1.3.2 Please attach ToRs of the Polio Eradication coordinator

3.2 Describe briefly the organization of the health system, including the immunization services, and indicate what role the private sector plays in the polio eradication activities, including routine immunization, in the country.

Type here

3.3 Please provide any additional comments on policies, structure and responsibilities

Type here

Section 4: BACKGROUND INFORMATION AND HISTORY OF POLIOMYELITIS

Purpose:
To rapidly familiarize regional and Global Commission members with the:

- basic demographics and geography of the country that are relevant to poliomyelitis eradication and its certification;
- organization of the poliomyelitis eradication initiative in the country (immunization, surveillance and laboratory).
- the decline and eradication of poliomyelitis and absence of wild poliovirus circulation in the country.

Data Required:

This section should include information on the population of the country, relevant vital statistics and major population centers. Minority populations should be identified along with other groups who may not fully utilize health services or who are known to have low immunization coverage. Geographically remote areas, areas with difficult access, and areas which border recently polio endemic countries should also be specified. A national map should be included which indicates the major population centers, bordering countries/oceans and, if possible, population density.

The national epidemiology of poliomyelitis should be summarized in this section, including all relevant information on virologically confirmed poliomyelitis cases and the circulation of wild polioviruses.

This section also provides the standard criteria or definitions used by the national program for classifying a case of poliomyelitis as indigenous, imported or vaccine-associated paralytic polio (VAPP).

The history of wild poliovirus circulation in the country from cases or contacts or other sources (e.g. Healthy children, PID, ES, etc) should be provided, particularly for the previous 3-year period. A detailed summary should be provided for each of the last 10 wild polioviruses that were isolated in the country (or all cases if less than 10 viruses were detected in the 3-year period). Data on each virus should include the source of the specimen from which the virus was isolated, the geographic location of the source of specimen, the probable origin of the wild poliovirus and the subsequent investigations to demonstrate the elimination of the virus. (for the purpose of this information, data on an outbreak caused by a single strain of wild virus will be considered as data on a single virus, regardless of the number of isolates in the outbreak).

4.1 Please list below the principal administrative units of country:

List all the Names of 1st level administrative units (governorate, states, provinces, etc)	***Number of 2nd level administrative units (districts, municipalities, etc.) in each of the listed 1st administrative units***

Add rows as deemed necessary

4.1.1 Please attach a map of the country showing second administrative level with population density and geographically remote and relatively inaccessible areas

4.2 Name and population of capital and major cities:

Name of city (Please include Capital and mark it)	Approximate Population

4.2.1 Please attach a map(s) of the country indicating the major population centers, principal geographic features, bordering countries, and, if possible, population density and other relevant features

4.3 Population data

4.3.1 Please indicate the most recent estimate of population living in the country (nationals and expatriates) in numbers including hard-to-reach populations of the year under review

Year: _____

Population Categories	Urban/Peri-urban		Rural		Total	
	No.	%	No.	%	No.	%
Children < 1 year of age						
Children < 5 years of age						
Children < 15 years of age						
Total population						

4.3.1.1 Source of information: _____

4.3.2 High risk areas, special populations

Type of high risk area or population*	Major Location(s)	Estimated population			Total Population
		<1 Year	<5 Years	<15 Years	
Total					

NB: please add additional rows, if needed.

***High risk population may include: Minorities (religious or ethnic); Refugees / internally displaced; Migrants; Low Population Immunity; Low Surveillance Indicators; Difficult to access; Others (please specify)**

4.4 Give an account of the socio-economic and health indicators for the country.

Type here

4.5 History of Poliomyelitis in the country

4.5.1 Definitions: Please provide the definitions that the national program has used for each of the following:

4.5.1.1 Indigenous case of poliomyelitis:

Type here

4.5.1.2 Imported case of poliomyelitis:

Type here

4.5.1.3 Vaccine-associated paralytic poliomyelitis (VAPP):

Type here

4.5.1.4 Polio Compatible:

Type here

4.5.1.5 WPV confirmed outbreak due to ES isolation:

Type here

4.5.1.6 VDPV/SL2 confirmed outbreak due to ES isolation:

Type here

4.5.2 Describe briefly poliomyelitis as a public health problem in the country over the years

Type here

4.5.3 Poliovirus history

4.5.3.1 Please indicate the dates of last detection of polioviruses (date of onset or detection) by type of poliovirus surveillance. For wild poliovirus please provide information on both indigenous and imported cases

Poliovirus	AFP surveillance or notification of suspected poliomyelitis		Contacts of an AFP case		Environmental surveillance		Other sources (healthy children, PID)	
	Indigenous	Imported	Indigenous	Imported	Indigenous	Imported	Indigenous	Imported
Wild poliovirus type 1								
Wild poliovirus type 2								
Wild poliovirus type 3								
VDPV1*								
VDPV2 *								
VDPV3*								
Sabin poliovirus type 1								
Sabin poliovirus type 2								
Sabin poliovirus type 3								

*** Please indicate a type of the last VDPV: (a) – ambiguous, (i) – immunodeficiency-related or (c) – circulating.**

4.5.3.1.1 Spot map(s) of location of all Wild Isolates from AFP cases and their contacts for the last 3 years

4.5.3.1.2 Spot map(s) of location of all Wild Isolates from Other Sources (ES, Healthy children, PID) for the last 3 years.

4.5.3.2 Summary of Confirmed Polio Cases for the last 3 years (do not include vaccine-associated cases (VAPP)):

Year	Total Confirmed Polio Cases*	Number indigenous	Number imported	Number of 'unknown' origin

*** All confirmed polio cases are confirmed virologically**

4.5.3.2.1 Provide a Bar Chart showing the polio cases by type in the country for as many years back as possible, (at least 10 years)

4.5.3.3 Summary of Circulating vaccine-derived poliovirus (cVDPVs) for the last 3 years:

4.5.3.3.1 If yes, please give a summary of VDPV(s) isolated in the last 3 years

Year	Type	No. of Isolates/Case			Source						Date of last isolate**
		P1	P2	P3	AFP	Contact	Healthy Child	PID	Sewage	Other	
	cVDPV*										
	iVDPV*										
	aVDPV*										
	cVDPV*										
	iVDPV*										
	aVDPV*										
	cVDPV*										
	iVDPV*										
	aVDPV*										

*** For definition, please see Glossary;**
**** By date of specimen collection for Healthy Child, Sewage and Other.**

4.5.3.3.2 Bar chart of circulating vaccine-derived poliovirus (cVDPV) Cases (AFP or contacts) in the last 10 years

4.5.3.3.3 Bar chart of circulating vaccine-derived poliovirus (cVDPV) from any other sources (ES, Healthy Children, and PID) in the last 10 years

4.5.3.4 Give the details of the last confirmed case of wild poliovirus in the country

Item	Last case due to WPV*		Last case due to circulating **vaccine-derived poliovirus** (cVDPV)	
	Indigenous	Imported	Indigenous	Imported
Virologic finding (Serotype 1,2,3)				
Date of onset (day / month / year):				
Geographic location:				
Age in months				
Number of routine OPV doses:				
Number of routine IPV doses:				
Number of OPV doses received during SIA:				
Number of IPV doses received during SIA (if applicable):				
Number of OPV doses received from any other sources:				
Number of valid doses**:				
Travel history:				
Probable origin of virus:				
Additional investigations to rule out ongoing indigenous transmission (attach sheet if necessary):				
Immunization response activities***				

*if the last polio case is imported, please describe the last indigenous polio case in addition to the imported case):
** Doses spaced ≥ 4 weeks apart, including both Routine and Supplemental
*** Activities done after the last case

4.5.3.5 Details of Last 10 Confirmed Poliomyelitis Cases (or All cases if fewer than 10 cases occurred during the last three years). For outbreaks please report the index case in the table

Please do not include VAPP cases, also refer to completion of section 13 (WPV Importation)

Date of onset of paralysis	Index case (Yes/No)	Age of case (Months)	Indigenous /Imported	Virologic relationship		Active search (Yes/No)	Response (Please attach details (4.5.3.5.1)
				Cluster	Country of origin		

4.5.3.5.1 Please attach full epidemiological, response report, and OBRA report if applicable.

4.5.3.7 Summary of 'Other Cases' for the last 3 years

Year	Vaccine-Associated polio cases (VAPP)		Polio-compatible cases	
	Number	Geographic location	Number	Geographic location

Section 5: PERFORMANCE OF AFP SURVEILLANCE AND ANALYSIS

For the purpose of polio eradication, the WHO recommends the reporting and investigation of all cases of Acute Flaccid Paralysis (AFP) among children aged less than 15 years and all cases of suspected poliomyelitis in individuals of any age (AFP includes illnesses such as Guillain-Barré Syndrome and transverse myelitis).

The Global Certification Commission has stated that high quality AFP surveillance should be the basis for demonstrating the absence of wild poliovirus in a country. All AFP cases should have a full clinical, epidemiological and virological investigation, including the collection and analysis of 2 adequate stool specimens and a clinical follow-up examination at 60 days after the onset of paralysis. Please refer to final classification scheme in the glossary.

Purpose:

To demonstrate to the Regional Commission that disease surveillance is of a sufficient standard to detect cases of paralysis due to indigenous wild polioviruses. This section should also show that the re-establishment of wild poliovirus circulation due to importations would be rapidly detected.

Data required

This section contains information about:

- National Surveillance policies and systems related to polio eradication, case and virus reporting
- The types of surveillance of poliovirus performed in the country
- Outline the completeness of routine and active surveillance systems for Acute Flaccid Paralysis (AFP) or poliomyelitis. This section should include data on the number of routine reporting sites in the country, the geographical representativeness of the reporting sites and completeness of routine reporting as well as active surveillance systems.
- Performance of the national AFP surveillance system and case investigation. The quality of surveillance and case investigation should be demonstrated with data on standard surveillance performance indicators. Particular attention should be given to demonstrating that the non-polio AFP rates and stool specimen collection rates have reached the standards set by the Global Commission (i.e. at least 2 cases of non-polio AFP per 100,000 population aged less than 15 years and 2 ‘adequate’ stool samples in 80% of cases). The quality of AFP surveillance at the sub-national level (i.e. province or state level) should be thoroughly investigated. This section also deals with actions taken to improve performance in areas with low AFP and specimen collection rates.
- Summarize the performance and results of supplementary surveillance activities, which have been conducted to demonstrate both the absence of wild poliovirus and the sensitivity of existing surveillance systems to detect both paralytic poliomyelitis cases and wild poliovirus.

5.1 National Surveillance policies and systems related to polio eradication, case and virus reporting

5.1.1 Are there regular meetings between immunization, surveillance and laboratory personnel to discuss polio eradication activities?
Yes ☐ No ☐

5.1.1.1 If yes, how often are meetings held:
Weekly ☐ *Monthly* ☐ *Quarterly* ☐ *Others* ☐ *(Specify):* _____

5.1.2 Who has overall responsibility in the country for coordinating the investigation of an AFP case or a suspected or confirmed case of polio

Type here *5.1.2.1 Name:* _____ *5.1.2.2 Position:* _____

5.1.3 What is the national case definition or reportable condition for AFP (your case definition)

Type here

5.1.4 Case Reporting Policy:
5.1.4.1 Is there a policy of routine reporting of all AFP cases?
Yes ☐ No ☐

5.1.4.1.1 If yes, specify the year it began: _____Year

5.1.4.1.2 If yes, please attach policy document/memo on AFP case reporting

5.1.5 Is there a national 'zero' reporting policy? (i.e. all reporting sites must file a regular report stating '0' cases of AFP or polio when no such cases are detected)
Yes ☐ No ☐

5.1.6 Who is required to immediately report AFP (acute flaccid paralysis) or polio cases? Select all what apply

	Yes	No
Health care worker who first sees the case:	☐	☐
Doctor or physician who makes the diagnosis:	☐	☐
Others (please specify)	☐	☐

5.1.7 To whom should an AFP or polio case be reported immediately?

Type here

5.1.8 Please add any relevant comments on case reporting policy (if applicable)

Type here

5.1.9 Virus Reporting Policy within the country

5.1.9.1 Please circle the appropriate response for each of the following:

	Mandatory immediate notification	Mandatory routine reporting at regular time intervals
Acute flaccid paralysis (AFP) cases	☐	☐
Virologically confirmed polio cases (WPV)	☐	☐
Vaccine Derived poliovirus (VDPV)	☐	☐
Sabin like type 2 (SL2)	☐	☐

5.1.10 AFP or Polio Case Investigation and sample collection:

5.1.10.1 Is there a standard case investigation form & protocol for AFP or polio cases?

Yes ☐ No ☐

5.1.10.1.1 If yes, please mention below the protocol used for AFP or polio cases

Type here

5.1.10.1.2 If yes, please attach copy of the standard case investigation form and protocol for AFP or polio cases

5.1.10.2 Does the investigation include collection of stool specimens?

Yes ☐ No ☐

5.1.10.2.1 If yes, please specify the number of specimens which should be collected for each case: _____

5.1.10.2.2 When and how should the specimens be collected

Type here

5.1.11 Contact Sampling for AFP cases and stool sample collection:

3.1.11.1 Is there a standard protocol for collection of stool samples from contacts of AFP cases?

Yes ☐ No ☐

5.1.11.1.1 If yes, please mention the AFP case eligibility criteria for collection of stool samples from contacts

Type here

5.1.11.1.2 If yes, please specify the number of specimens which should be collected from each contact: _____

5.1.11.1.3 When and how should the specimens be collected

Type here

5.1.11.1.4 If yes, please attach a copy of the protocol for contact sampling

5.1.11.1.5 If no, please mention why in details

Type here

5.1.12 How would immunization and surveillance personnel be informed of a laboratory isolation of a wild poliovirus?

Type here

5.1.13 Who has responsibility for co-ordinating the response to a suspected or confirmed case of poliomyelitis?

Type here

5.2 Type of surveillance for polioviruses

Check the appropriate box for each type of surveillance

Type of surveillance	YES	If YES, Please mention the year introduced	NO
AFP surveillance	☐		☐

Environmental surveillance	☐		☐
Healthy children surveillance	☐		☐
PV Surveillance among Primary immunodeficiency Children (PID)	☐		☐
Other, please specify	☐		☐

5.2.1 Please provide comments/discussion points/additional information, if any

Type here

5.2.2 Please attach a copy of the latest national surveillance guidelines

5.2.3 How were the staff of the AFP surveillance activities selected and trained?

Type here

5.3 Routine reporting of AFP cases from health facilities during the year under review

YEAR _____

Reporting Frequency	Number of Reporting sites	Completeness of Routine Reporting		
		Number reports expected *	Number reports received	% reports received
Weekly				
Biweekly				
Monthly				
Other				
Total				

* Number of routine reporting sites x reporting frequency during the year
(i.e. if monthly reporting, frequency = 12; if weekly reporting, frequency = 52)

5.3.1 Comments and explanations concerning change(s) in the frequency of reporting and number of reporting sites in particular for poor performing areas (below 80% completeness) if any.

Type here

5.3.2 Which facilities are required to send routine* reports of AFP or polio?

Type here

5.3.3 Is there at least 1 designated routine reporting site, such as a health clinic, in every 2nd administrative unit (i.e. district, municipality, etc.):

Yes ☐ No ☐

5.3.3.1 If no, what areas of the country are without any routine reporting system?

Name of the area without routine reporting system	Population under 15 years	Total population

5.4 Active surveillance (Regular visits to health care facilities and sentinel sites to search for AFP cases) during the year under review_____

YEAR _____

Reporting Frequency	Number of Active Surveillance Sites	Completeness of Active Surveillance Visits		
		Number of visits expected *	Number of visits conducted	% of visits conducted
Daily				
Weekly				
Bimonthly				
Monthly				
Total				

* Number of active surveillance sites x number of visits in 1 year (i.e. if weekly, periods =52)

5.4.1 Comments and explanations concerning changes in the frequency of active surveillance visits and number of active surveillance sites in particular for poor active surveillance areas (below 80% completeness), if any.

Type here

5.4.2 Active Surveillance Policy

5.4.2.1 What were the criteria used for selecting the sites for active surveillance?

Type here

5.4.2.2 Specify the types of facilities that are targeted for active surveillance:

Type here

5.4.2.3 Are all pediatric/neurological hospitals included in active surveillance?

Yes ☐ No ☐

5.4.2.4 Is there an active surveillance site in at least every 2nd administrative unit (i.e. district, municipality)?

Yes ☐ No ☐

5.4.2.5 Who conducts the active surveillance visits?

Type here

5.4.2.6 Is the completeness of active surveillance visits monitored?

Yes ☐ No ☐

5.4.2.7 What were the problems involved in establishing active surveillance and how were they resolved?

Type here

5.5 Performance of AFP Surveillance, by first administrative level for the

YEAR _____

1st Administrative Level (State, Province, or Governorate)	Population aged <15 years	Total 'non-polio' AFP cases reported <15 years	Non-polio AFP rate[a]	Total AFP cases with 2 adequate stool samples[b]	%AFP cases with adequate stool samples	%AFP cases with ONE (1) stool specimen
Total						

a. per 100,000 population aged less than 15 years
b. Two faecal specimen collected within 14 days of AFP onset at least 1 day apart

5.5.1 Please comment on:

5.5.1.1 Areas with low non-polio AFP rate like silent areas and with insecurity

Type here

5.5.1.2 Areas with exceptionally high non-polio AFP rate

Type here

5.5.1.3 Please attach the following:

5.5.1.3.1 A map showing the non-polio AFP rate for the year under review at the 2nd administrative level.

5.5.1.3.2 A spot map showing the distribution of AFP cases with adequate stool specimens for the year under review at the second administrative level.

5.5.1.3.3 A map showing different level/categorization of access to districts for surveillance activities – fully accessible, partially accessible or inaccessible.

5.5.1.3.4 Summarize the reasons for each 'blind area' on the AFP specimen maps

Type here

5.5.2 Quality of AFP or poliomyelitis case investigation:

5.5.2.1 Is there a line list summarizing AFP case investigation for the last 3 years?

Yes ☐ No ☐

5.5.2.2 Are all AFP/polio investigation forms for the last 3 years available?

Yes ☐ No ☐

5.5.2.2.1 if no, approximately what percentage of forms are missing and why:

Type here

5.5.2.3 Are all investigation forms completed? (i.e. no missing information):

Yes ☐ No ☐

5.5.2.3.1 If no, please identify information routinely missing from the investigation forms?

Type here

5.5.4 Summarize the special surveillance activities that have been conducted in areas with low AFP or stool specimen collection rates or areas considered 'high risk' for undetected virus transmission in relation to active Surveillance, stool specimen collection from Contacts, supplementary stool Surveys, and other related surveillance activities in order to ensure certification quality

Type here

5.5.5 Stool Specimen Shipment

1st Administrative Level (State, Province, or Governorate)	Number of Samples	Number of samples sent to the lab	Number of samples received in the lab within 3 days of sending	Percentage samples received in the lab within 3 days of sending
Total				

5.5.5.1 Please provide additional information on stool/ES Shipment rates by administrative level and timeliness of specimen shipment to the laboratory.

Type here

5.6 Independent review / assessment of AFP surveillance

5.6.1 Did an independent review / assessment of the national AFP surveillance system take place during the last 2 years?

Yes ☐ No ☐

5.6.1.1 If yes kindly attach the Executive Summary of the review reflecting:

5.6.1.2 When did the last surveillance review take place?

Date: _____

5.6.2 If yes; Does the report show convincing evidence of no poliovirus transmission in the country?

Yes ☐ No ☐

5.6.3 If yes; Does the report show that the surveillance system is sensitive enough and the quality is sufficiently high to detect poliovirus transmission at sub-national levels?

Yes ☐ No ☐

5.6.4 If yes; Was there an assessment of the recommendations with an account of specific steps being or already undertaken in response to the recommendations?

Yes ☐ No ☐

5.6.5 If yes; Summary of actions taken in response to recommendations

Type here

Section 6: CLASSIFICATION / FINAL DIAGNOSIS OF AFP CASES

This section contains information about the details of cases reviewed by Expert Committee. Spot maps will be required for all polio-compatible cases. It will be particularly important to document the supplementary investigations that were conducted to demonstrate that compatible cases or clusters of polio compatible cases were not due to wild polioviruses. The reasons for classification of AFP cases as polio-compatible must be explained.

6.1 National Expert Group (NEG)

6.1.1 Does functional National Expert group (NEG) exist in country?

Yes ☐ **No** ☐

6.1.1.1 If yes; When was the National Expert Group (NEG) formed? **_____Year**

6.1.1.1 If No; Please provide the reason for not having NEG and more information on who is responsible for classification of the AFP cases

Type here

6.1.1.2 How often does the Committee meet?

Monthly ☐ **Quarterly** ☐ **Others** ☐ **Specify: _____**

6.1.1.3 What were the criteria used for referring AFP cases to the NEG?

Type here

6.1.2 Membership of NEG

The RCC emphasizes the importance of the composition and membership of NEG and avoid potential conflict of interest caused by employees of the national immunization programme, ministries of health or public health institutes serving as members of the NEG

	Name	NEG Status	Position	Organization	E-mail address	Telephone Number (Please include country and area code)
1		*Chairperson*				
2		*Member*				
3		*Member*				
4		*Member*				
5		*Member*				
6		*Member*				
7		*Member*				

6.1.3 Please provide the current terms of reference (ToR) of the NEG

Type here

6.1.4 Please provide the current protocol in use for presentation of cases to the NEG

Type here

6.1.5 Have there been any changes in the composition of the NEG?

Yes ☐ No ☐

6.1.6 If Yes, please provide name, title or position and area of expertise of each new member as well as each outgoing member during the reporting period in item 6.1.2:

	Name	NEG Status	New member	Outgoing member
1		*Chairperson*	☐	☐
2		*Member*	☐	☐
3		*Member*	☐	☐
4		*Member*	☐	☐

6.1.7 Describe any support the polio eradication programme extends to both the NCC and the NEG

Type here

6.2 Final classification of AFP case

Please provide results of final classification of all reported AFP cases by the National Expert Committee (or equivalent)

No. of AFP cases		Final classification
2019	2020	
		Confirmed (wild) poliomyelitis
		Polio compatible
		VAPP
		VDPV
		Discarded as non-polio AFP
		Not an AFP
		Pending
		Other (please specify clinical diagnosis of these cases in 6.3.2)

6.2.1 Is the final classification of AFP cases based on the WHO-recommended classification scheme?

Yes ☐ No ☐

6.2.1.1 If yes, what year was the WHO-virologic classification scheme introduced?

_____ ***Year***

6.3 Summary of the final diagnosis of AFP cases discarded as non-polio

Data by	GBS	Transverse Myelitis	Traumatic neuritis	VAPP	Other diagnoses (please specify and attach list in 6.3.2)	Unknown	Total AFP Cases discarded (non-polio)
Number							
Percentage							

6.3.1 GBS rate per 100,000 populations aged less than 15 years = _____

6.3.2. Final diagnosis of those classified as "Others". Please add additional rows, if needed:

Diagnosis	Number of cases
Total	

6.4 Summary of AFP Case Classification by the National Expert Group

Reason of presenting to NEG	Total cases eligible for review by NEG (reason specific)	AFP cases reviewed by the National Expert Group				**Number** of AFP cases with inadequate specimens **NOT** reviewed by the Expert Group*
		Total	Polio Compatible	VAPP	Discarded	

6.4.1 *Please provide more details and comments if any AFP case with inadequate specimens was not reviewed by the Expert Group

Type here

6.4.2 Polio compatible cases

6.4.2.1 Is a file maintained in the country with the details of all polio-compatible cases and their investigations?

Yes ☐ No ☐

6.4.2.2 Was there any AFP case(s) classified as Polio compatible during the year under review?

Yes ☐ No ☐

6.4.2.2.1 If yes, please give the following details:

EPID Code	Summary of actions taken in response to Polio compatible case/s (Field investigations, immunization activities and Conclusion) (please attach additional details, if needed)

6.4.2.2.2 Please provide comments/discussion points/additional information, if any

Type here

6.4.2.2.3 Spot map of compatible cases

Please attach a spot map showing the geographical location of Polio compatible cases, if any, for the year under review

6.4.3 Vaccine-associated paralytic polio (VAPP)

6.4.3.1 Was there any AFP case(s) classified as VAPP during the year under review?

Yes ☐ No ☐

6.4.3.2 Please present a line list and brief histories of all cases of vaccine associated paralytic polio (VAPP); make a separate attachment, if needed

Case EPID No.	Summary of investigation report (please provide full report in an attachment)

6.4.3.3 Please provide comments/discussion points/additional information, if any

Type here

6.4.4 Vaccine-derived poliovirus (VDPV)

***6.4.4.1 Was any vaccine-derived poliovirus (VDPV) detected in* the year under review?**

Yes ☐ No ☐

6.4.4.1.1 If yes, please give a summary of VDPV(s) isolated in the year under review

Type	No. of Isolates/Case			Source						Date of last isolate**	Comments
	P1	P2	P3	AFP	Contact	Healthy Child	PID	Sewage	Other		
cVDPV*											
iVDPV*											
aVDPV*											

* For definition, please see Glossary pages (61-62);

** By date of specimen collection for Healthy Child, Sewage and Other.

6.4.4.1.2 Spot map of Polio VDPVs Cases

Please attach a spot map showing the geographical location of all VDPVs cases at the first administrative level, if any, for the year under review

6.4.5 Sabin Like type 2 (SL2)

6.4.5.1 Was any Sabin-Like type 2 (SL2) isolated from AFP case(s), contact, healthy child (HC), Primary Immunodeficiency (PID) or through environmental surveillance (ES) during the year under review?

Yes ☐ No ☐

6.4.5.1.1 Please present a line list and brief histories of all cases - make a separate attachment, if needed

Source (AFP/Contact /HC/PID/ES)	EPID No. or ID Code)	Summary of investigation report and response (please provide full report in an attachment)

6.4.5.1.2 Please provide comments/discussion points/additional information, if any

Type here

Table 6.5 Line list of AFP cases reviewed and classified by the National Expert Group / Committee YEAR_____

The National programme should at minimum refer to the NEG all cases with inadequate stools and residual paralysis, lost for follow-up or died. It is also recommended to refer all cases of inadequate stools and 5-10% of AFP cases discarded by the programme. If the total number of AFP cases is small (less than 20) they should **ALL** be referred to the NEG

Please add below the AFP cases reviewed and classified by the NEG

AFP Case Findings											No. Stool Specimens			Probable Clinical Diagnosis	Contact sampling of inadequate AFP cases		NEG Decision		Diagnosis of the Case if NEG Discarded the Case	Cluster of compatibles		
Sr. No.	EPID No.	Age in month	Onset Date*	OPV Doses	Reason(s) Reviewed**	Fever at Onset (Yes/No)	Asymmetric Paralysis (Yes/No)	Rapid Progression of Paralysis <4 days (Yes/No)	Other Investig	Residual Paralysis (60 days Follow-up) Yes/No	Total	Adequate	NPEV (Y/N)		Y/N	If (Y) then No. with results	Compatible	Discarded		Yes/No	Onset and location	Results of investigation
1																						
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

***dd/mm/yyyy**

****** Reasons reviewed may include: inadequate AFP cases, AFP cases with residual paralysis, 5-10% discarded cases, Program interest, and any other reasons as per country guidelines.***

6.5.1 Please attach minutes of the NEG meetings conducted during the year under review

6.6 Actions to improve AFP surveillance

Please provide updates on any special actions taken to enhance AFP surveillance, with particular emphasize on high risk subpopulations and/or territories: please include any integrated surveillance or community outreach activities, as well as special supervisory activities such as mobile teams

Type here

Section 7: SUPPLEMENTARY SURVEILLANCE ACTIVITIES

The Global Certification Commission has recognized that additional surveillance activities will be required in countries with sparse populations which have been polio-free for many years and where the number of expected reported AFP cases would be low despite active surveillance.

Purpose:

To demonstrate to the Regional Commission that additional needed supplementary surveillance activities are implemented and of a sufficient standard to augment polio virus detection.

Data required

This section contains suggested activities which include:

a) Stool surveys: these are healthy children surveys done in areas where there may be doubts on the AFP surveillance system and/or are silent for longer than expected.
b) Environmental Surveillance: provide detailed information about ES sites and detection of virus through ES sampling.
c) Extending the Target Age Group for Routine AFP Surveillance: extending the target age group for AFP surveillance from all individuals aged less than 15 years to an older age group (i.e. aged less than 30 or 45 years of age) will provide further information that wild poliovirus is not endemic in countries with total populations of less than 1-2 million people. Such a strategy may also be epidemiologically appropriate if the country has been polio-free for more than 10 or 15 years.
d) Zero reporting: all countries should be able to demonstrate that reporting units are reporting weekly, even when no AFP cases have been identified, "zero" reporting. Data should be included which quantifies the completeness and timeliness of weekly zero reporting.
e) Retrospective Record Review: in countries which rely on reporting of suspected poliomyelitis cases, a retrospective record review can be conducted as a method of verifying the sensitivity of the polio reporting system. Such a search should use ICD codes to search for poliomyelitis cases or VAPP, ideally through a national hospital discharge database system. If such a system is not available, a targeted search could be conducted through the principal sites that would be expected to see poliomyelitis cases such as major pediatric hospitals, neurology wards and/or rehabilitation centers.
f) Incentives – All countries should consider the introduction of incentive programs whenever appropriate, particularly as polio-zero approaches. Especially, in sparsely populated countries this may be another factor, which could contribute to maintaining the accuracy of zero reporting.
g) Rumor registry: in all countries which are close to polio zero, but particularly in sparsely populated or long-established polio-free countries, a rumor registry will help prevent health authorities from "dropping their guard".

7.1 Has there been any supplemental surveillance activities during the year under review?

Yes ☐ No ☐

7.1.1 If yes, please give the following details:

7.1.2 Was a stool survey conducted? Yes ☐ No ☐

7.1.2.1 If yes, please provide details on methodology and results:

Type here

7.1.3 Was environmental surveillance conducted? Yes ☐ No ☐

7.1.3.1 If yes, please provide details as follows:

Province / District / Region	Number of sampling collection sites	Date started	Total population within catchment area	Frequency of sampling[1]	Total number of samples collected in 2019	Total number of samples collected in 2020	Total Number positive for any virus*	Total Number negative for any virus

*WPV, VDPV, SL or NPEV

Please provide more information in tables 8.3

7.1.3.2 Please provide information about virus isolation.

Province / District / Region	Names of sample collection sites	No. Positive for WPV		No. Positive for VDPV Total Number positive for any virus			No. Positive for SL2	No. negative poliovirus but positive for NPEV or NEV		No. negative for any virus
		Type1	Type3	Type1	Type2	Type3		NPEV	NEV	

GPEI Guidelines for Environmental Surveillance of Poliovirus circulation http://polioeradication.org/wp-content/uploads/2016/07/WHO_V-B_03.03_eng.pdf

7.1.3.3 Spot map of WPV, VDPV, SL2 from ES sites

Please attach a spot map showing the geographical location with differentiation between serotypes detected

7.1.3.4 Please provide comments/discussion points/additional information, if any

Type here

[1] Weekly (W), Biweekly (BW), Monthly (M), Bimonthly (BM), Other (please specify)

7.1.4 Is Primary Immunodeficiency (PID) surveillance established?

Yes ☐ No ☐

7.1.4.1 Is PID surveillance integrated into AFP surveillance? Yes ☐ No ☐

7.1.4.1.1 If Yes, No. AFP cases having iVDPVs - _____

7.1.4.2 If yes, please provide information in below table

No. of Patients enrolled	No. of patients positive for iVDPV	No. iVDPV1	No. iVDPV2	No. iVDPV3	No. of patients alive (Chronic Excertors)	No. of patients died

7.1.4.3 Is there any PID excreting VDPV/SL2? Yes ☐ No ☐

7.1.4.3.1 If Yes, please provide data:

Year	Name of chronic excretor	& EPID No. / ID Coder	Number of samples positive for VDPV types			SL2 excretion	Chronic Excretor (Yes/No)	Patient Alive (Yes/No)	Date of first sample positive	Date of last sample positive
			iVDPV1	iVDPV2	iVDPV3					

7.1.4.4 Did any PID Patient stop excreting poliovirus? Yes ☐ No ☐

7.1.4.4.1 If Yes, please provide data:

Year	Name of chronic excretor	& EPID No. / ID Coder	Number of samples positive for VDPV types			SL2 excretion	Was the patient a chronic Excretor (Yes/No)	Patient Alive (Yes/No)	Date of first sample positive	Date of last sample positive
			iVDPV1	iVDPV2	iVDPV3					

7.2 Other Supplementary Surveillance Activities for Certification of Poliomyelitis Eradication

7.2.1 Was there any <u>extension of Target Age Group for AFP Surveillance</u>:

Yes ☐ No ☐

7.2.1.1 If yes; Specify to which age group: _____ in years

7.2.2 Retrospective Record Review:

7.2.2.1 Was a retrospective record review conducted?

Yes ☐ No ☐

7.2.2.1.1 If yes; Please provide the dates for the period covered by the review?

from _____ to _____

7.2.2.1.2 If yes; Was this a Facility based Review? Yes ☐ No ☐

7.2.2.1.2.1 if yes, please tick on the types of facilities and their number which were included in the facility based retrospective review? (Select all what applies)

Type of facility	Yes	No	If Yes, please mention the number of sites
Neurology wards	☐	☐	
Pediatric hospitals	☐	☐	
Rehabilitation centers	☐	☐	
Others (please specify site type and number)	☐	☐	
Others (please specify site type and number)	☐	☐	

7.2.2.1.3 If yes; How was the review conducted?

Type here

7.2.2.1.4 What diagnoses were searched during the review? (please specify diagnosis & ICD-code):

Type here

7.2.2.1.5 Summary of results of retrospective review (e.g. comparison of reported vs. detected cases, etc.

Type here

7.2.3 Was the Incentive system introduced

Yes ☐ No ☐

7.2.3.1 If yes, please clarify to whom the incentive was given and how was the system managed.

Type here

7.2.4 Was the Rumor Registry established?

Yes ☐ No ☐

7.2.4.1 If yes, please mention how many rumors investigated last year: _____

Section 8: LABORATORY ACTIVITIES FOR POLIO ERADICATION

Purpose: to demonstrate to the Regional Commission that laboratory facilities could isolate and identify wild poliovirus.

Data required: only results from laboratories which are accredited members of the Global Polio Laboratory Network, or results which have been confirmed by an accredited network laboratory, can be considered in the certification process. The data include:

1- Laboratory accreditation: The national laboratory responsible for polio eradication is identified and its accreditation in the Global Polio Laboratory Network (including proficiency test results, enterovirus isolation rates, etc.) is documented. The reference laboratory that is used for intratypic differentiation of polioviruses should also be identified.

2- Laboratory process: The sources of stool or other specimens which have been submitted for poliovirus studies should be clearly stated (i.e. AFP cases, contacts of AFP cases, suspected polio cases only, environmental samples, etc.), this include:
   a) total number of stool specimens received, from AFP cases, from contacts with AFP cases and from other sources, and the total number of clinical specimens and environmental specimens that were submitted for poliomyelitis virus studies.
   b) the reasons for each failure to process a specimen which was received in the laboratory,
   c) the total number of polioviruses that were isolated and the total number of isolates that were sent for intratypic differentiation (i.e. determination of wild vs. vaccine virus), particularly among isolates from AFP cases,
   d) the reasons for each failure to send a poliovirus isolate for intratypic differentiation,
   e) the reasons for each missing intratypic differentiation result.

3- Coordination Between Surveillance and Laboratory Activities: NCC should provide details on how the surveillance and laboratory activities are coordinated in the country. Particular attention should be given to determining whether there are regular (i.e. at least monthly) meetings or communications between national surveillance and laboratory personnel to ensure that the line listings of both the surveillance unit and laboratory are complete and up-to-date.

8.1 Which Poliovirus laboratory tests stool/ES samples for your country (primary poliovirus isolation, intratypic differentiation (ITD), nucleotide sequencing, serology)?

type here

8.1.1 Poliovirus laboratory functions (please mention the name of the laboratory performing different tests below for your country in the below matrix)

Laboratories carrying out diagnostic analysis	National Poliovirus Laboratory	Polio Regional Reference Laboratory	Global Specialized Laboratory
Virus Isolation			
ITD - RT-PCR			
Nucleotide Sequencing			
Environmental Sewage Water Testing			
Primary Immunodeficiency Surveillance			
Serology			
Other (please specify)			

8.1.2 If, however, the specimens were being processed in a specialized polio laboratory within the country that is part of the regional polio laboratories network, please give:

8.1.2.1 Name of Director: _____

8.1.2.2 Full address of laboratory: _____

8.1.2.3 Name of past Directors: _____

8.1.2.4 Type of laboratory used (National or Regional Reference Laboratory or Global Specialized): _____

8.1.3 Please provide any comments/discussion points/additional information, if any

type here

8.2 Were all polio isolates, regardless of source[2], sent to a WHO accredited laboratory for intratypic differentiation (ITD)?

☐ Yes ☐ No

8.2.1 If No, please explain which isolates were not sent and why:

type here

8.3 Laboratory Coordination with Surveillance

8.3.1 Are poliovirus isolates immediately reported to immunization/surveillance staff?:

Yes ☐ No ☐

8.3.1.1 If yes; please:

8.3.1.1.1 Specify person/position notified:

Name: _____

Position: _____

8.3.1.1.2 Are isolates reported only after intratypic differentiation? Yes ☐ No ☐

[2] Polio isolates from non-AFP sources (e.g. contact stools, environmental samples, etc) must also be submitted for intra-typic differentiation.

8.3.1.1.3 Are all wild poliovirus isolates reported within 24 hours? Yes ☐ No ☐

8.3.1.1.3.1 If No, please specify the reporting time: _____days

8.3.1.1.4 What are the reasons for delays in reporting isolates?

type here

8.4 Summarize the genomic sequencing data, if available, on the most recent wild polioviruses in the country:

type here

8.5 Describe how the coordination activities was made into effect between the poliovirus laboratory and the national program, with particular attention to communications between national surveillance and laboratory personnel to ensure that the line listings of both the surveillance unit and laboratory are complete, up-to-date and without discrepancies. This also must include regular communication of results

type here

8.6 Summary of laboratory investigations for poliovirus 2020

Please fill in the table below and do not leave any blank cells.

Type of surveillance and source of specimens	Total number (For ES mention number of sites)	*Specimen Based Analysis*														
		Total samples	Samples positive for wild type PV			Samples positive for Sabin PV			Samples positive for VDPV			NPEV typed Samples	Non-type able / NEV Samples	Negative	Completeness of stool/ES samples analysis	
			Type 1	Type 2	Type 3	Type 1	Type 2	Type 3	Type 1	Type 2	Type 3				Number Processed	Percentage Processed
AFP cases																
Contacts of AFP cases																
Environmental Surveillance																
Primary Immunodeficiency Patients (PID)																
Other (specify here)																

- PV – poliovirus; NPEV – non-polio enterovirus; NEV – non-enterovirus; VDPV – vaccine-derived poliovirus; AFP – acute flaccid paralysis;
- actual numbers from 0 to infinity
- NA – data not available
- ND – not done

Poliovirus must be excluded from a possible mixture

8.7 Summary of polioviruses samples processed for ITD (Please include data for the country under review only)

Please fill in the table below and do not leave any blank cells.
Please provide isolate based analysis
Please consider counting any PV mixtures under their specific types

Total polioviruses isolated	Source of Poliovirus isolates No.	Number of PV isolates	Number of isolates sent for ITD	Intratypic differentiation (ITD) results								
				Sabin like			Wild			VDPV		
				Type 1	Type 2	Type 3	Type 1	Type 2	Type 3	Type 1	Type 2	Type 3
	AFP cases											
	Contacts											
	ES											
	PID											
	Other (specify here)											

8.7.1 Please mention the number of PV mixtures with details (if any identified from table 8.7)

type here

8.7.2 If any specimens are missing results of intratypic differentiation, please mention the reason:

type here

8.7.3 Additional actions taken to assess probability of the isolates to be wild poliovirus (if applicable)

type here

8.8 For countries with a national polio laboratory, please enter data of last WHO Accreditation review

Type of Lab	Date last WHO Accreditation	Annual **number** of specimens processed	Results reported on time (%)*	NPEV isolation rate (%)	Correct polio typing result (%)	Proficiency test panel score (%)	Score of onsite review	Fully accredited (yes / no)
Virus Isolation								
ITD								
Nucleotide Sequencing								
Env. Surveillance								

For countries with no WHO accredited laboratory, please enter the information if available, otherwise indicate NA)
**Percent specimen having primary culture results reported within 14 days of receipt in the laboratory*

Section 9: ROUTINE POLIO IMMUNIZATION COVERAGE

Purpose: to demonstrate to the Regional Commission that high routine polio immunization coverage has been achieved and maintained.

Data Required: this section should contain full information on the routine polio immunization activities that have been conducted in the country. This include:

1- History of polio immunization, the current routine immunization schedule and the polio vaccines that have been and are being used.
2- Routine polio immunization coverage and methods of its estimation. National poliomyelitis vaccine immunization figures should be provided for the year under review and should be compared with as many years as possible prior to the year under review. Routine immunization coverage should be provided by first and second administrative level (i.e. highest sub-national level of governments: e.g. state, province or region and second level such as district or part of district etc.). This should be compared for the previous three-year period to demonstrate homogeneously high coverage.

9.1 Immunization policy

9.1.1 What age group is used for calculating routine immunization coverage? _____months

9.1.2 Has there been any change in the type of vaccine used in SIAs/routine immunization or in the schedule during the year under review?
Yes ☐ No ☐

9.1.2.1 If yes, please specify this any changes (e.g. vaccines, vaccination schedule etc.) in the national immunization policy related to polio vaccination in 2019-2020

Type here

9.1.3 Current polio vaccination schedule (2019-2020)

Please indicate age in days for 0 dose only, weeks, months and years of the correspondent dose (e.g. D-01; W-12; M-03; Y-02)

Vaccine	Dose Zero*	Dose 1	Dose 2	Dose 3	Dose 4	Dose 5	Dose 6	Other doses
Bivalent OPV (bOPV)								
IPV (standalone or any combination**)								
Novel OPV (nOPV)								
If IPV is given as Combo Vaccine, please name other antigen(s)	*Type here*							

* Birth (zero) dose of polio vaccine given within first 24 hours of life or as soon as possible after birth

9.1.4 Please complete following table

Vaccine	Year introduced	Year ceased
tOPV		
bOPV		
IPV (standalone)		
IPV (any combination) Please specify here the type of combination used (Hexa, Penta,….)		
nOPV		
Other (please specify)		

9.2 Routine immunization Coverage of infants with polio vaccine (OPV3 or else) by 1st Administrative Level: i.e. state, province, or governorate, for the year under review

YEAR: _____

Immunization polio vaccine (OPV3 or else) Coverage (%)		
1st Admin. Level	**% Coverage***	**Remarks**
Total		

9.2.1 *Please specify indicate the source of the above coverage (e.g. Administrative, surveys, WHO/UNICEF joint review, … etc): _____

9.2.2 Please comment on areas with low OPV3 coverage (less than 80%) with special reference to any recommendations, plans, actions taken for improvement with timelines coverage during the year under review

Type here

9.2.3 Attach a map showing the districts which had less than 80% routine OPV3 coverage during the year under review

9.3 ***Routine immunization Coverage of infants with inactivated polio vaccine (IPV) by 1st Administrative Level: i.e. state, province, or governorate, for the year under review***

YEAR: _____

Immunization polio vaccine (IPV) Coverage (%)		
1st Admin. Level	**% Coverage***	**Remarks**
Total		

9.3.1 *Please specify indicate the source of the above coverage (e.g. Administrative, surveys, WHO/UNICEF joint review, … etc): _____

9.3.2 Please comment on areas with low IPV coverage (less than 80%) with special reference to any recommendations, plans, actions taken for improvement with timelines coverage during the year under review

Type here

9.3.3 Attach a map showing the districts which had less than 80% IPV coverage during the year under review

9.4 Validation of the coverage data

9.4.1 Has there been any validation done for coverage survey during the year under review?

Yes ☐ No ☐

9.4.2 Was this validation done independent of the EPI program?

Yes ☐ No ☐

9.4.3 Please explain how coverage data were validated (ex. through coverage survey, serosurveys, data quality assessments, special studies) and provide validation method and results in the space below (if applicable)

Type here

Section 10: SUPPLEMENTARY IMMUNIZATION ACTIVITIES FOR POLIO ERADICATION

Purpose: to demonstrate to the Regional Commission, where appropriate, that supplementary immunization activities have been implemented to interrupt wild poliovirus circulation.

Data Required: this section should contain full information on the supplementary polio immunization activities that have been conducted in the country with the type of vaccine antigen used including all National and Sub-National OPV Immunization Days and all 'Mopping-up' activities. The SIA coverage and method of coverage validation should be mentioned.

10.1 Specify any supplementary immunization activities (SIA) conducted for polio eradication during the year under review

Type of SIA	**Number conducted**	**Date(s) conducted**	**Mention the type of antigen used (bOPV, IPV, mOPV (1,2,3), nOPV, …. etc)**	**Comments**
a) National Immunization Days (NIDs)				
b) Sub-national Immunization Days (SNIDs)				
c) 'Mopping-up' activities				
d) Other (specify):				

10.1.1 Please attach SIA plan for the year under review

10.1.2 Summary of ALL National and Sub-national supplementary OPV immunization activities (SIAs such as NIDs, SNIDs, SIADs, Mopping up and Other e.g. response to cVDPV … etc) during the year under review

Type of SIA	Target age group	Number of children targeted	Round number	Date	Vaccine Type*	Coverage by (%)	Vaccination Rates by Finger Marking**	Please mention if SIA is in response to (WPV, cVDPV, SL2)	Comments

Please add rows for different round in the round number in case responses
* Vaccine Type (tOPV / bOPV / mOPV (1,2,3) / IPV / nOPV)
** If applicable

10.1.2.1 SIA Coverage

10.1.2.1.1 Please attach a table with the SIA coverage by 1st administrative level (i.e. province, state, etc.) for each campaign round during the year under review

10.1.2.1.2 Please attach a map showing the districts which had less than 80% coverage during any one of the rounds during the period under review

10.1.3 If 'Mopping up was conducted during the year under review, please state the criteria used for deciding the areas to be included in 'Mopping-up' activities

a) _____
b) _____
c) _____
d) _____

10.1.3.1 Summary of 'Mopping-up' activities during the year under review

Reason for 'Mopping-up'	Geographic Area Included	Round Number (1,2,3…)	Vaccine Type*	Age Group	Target Pop. Size	Number of households visited	Average number of children immunized per household	Date	Number immunized	Coverage by (%)	Vaccination Rates by Finger Marking**

Please add rows for different round in the round number in case responses
* Vaccine Type (tOPV / bOPV / mOPV (1,2,3) / IPV / nOPV)
** If applicable

10.1.3.2 Please provide a map of the areas targeted by 'mopping-up' activities for each round separately

10.1.3.3 If active case search was conducted at the same time, please provide details below.

Type here

10.1.4 Validation of the coverage data

10.1.4.1 Was vaccination coverage data validated for 'mopping-up' activities?
Yes ☐ No ☐

10.1.4.2 If yes; Was this validation done independent of the Polio program?
Yes ☐ No ☐

10.1.4.3 If yes; Please explain how coverage data were validated (ex. Post campaign monitoring, Lot Quality Assurance survey, …..) and provide validation method and results in the space below (if applicable)

Type here

Section 11: IMMUNITY PROFILE

11.1 Polio Vaccination status of AFP cases

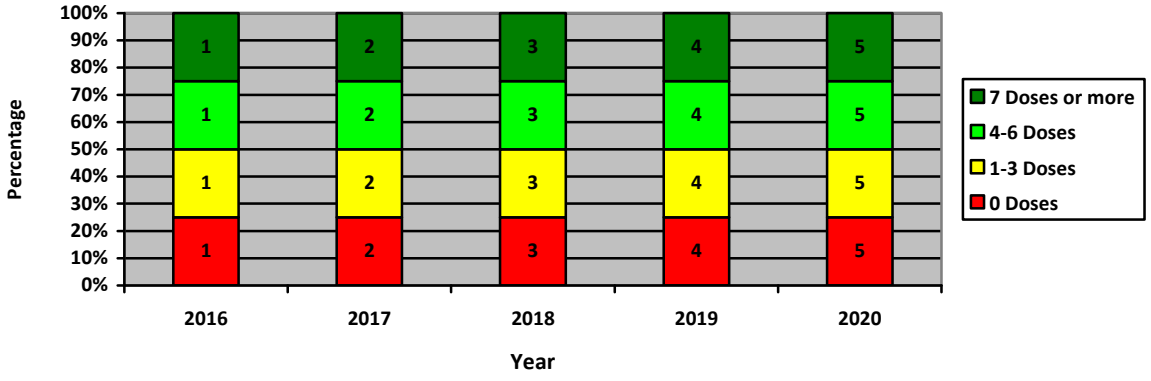
Please present in the table below polio vaccination status of AFP cases detected in 2020

	0 doses	1-3 doses	4-6	7+	Un-known	Total
0 – 5 months						
6 – 59 months						
5 years and older						
Total						

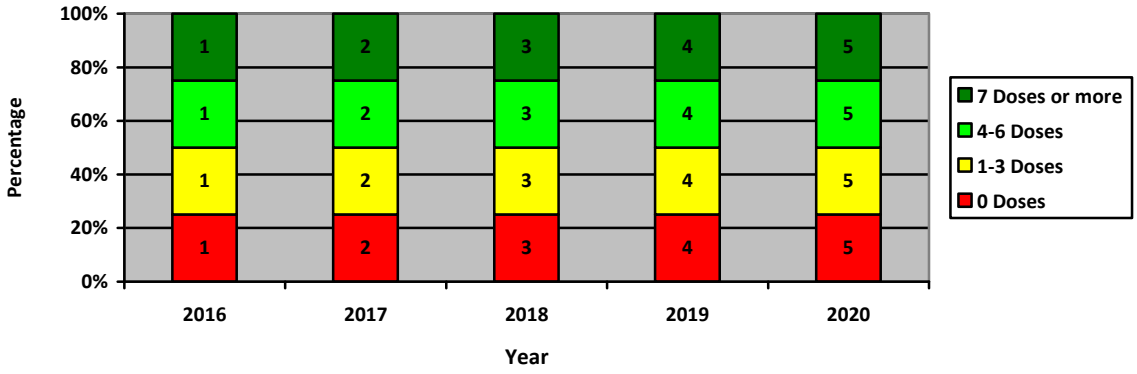
11.2 Please draw the profile for the last 5 years obtained from the number of polio vaccine doses received by the non-polio A FP cases 6-59 months in the form of a bar chart in which the number of doses are categorized to 4 categories: 0 doses, 1-3 doses, 4-6 doses and 7 doses or more.

Should the number of AFP cases 6-59 months be ten or more, please make two profiles one for cases aged 6-23 months and the other for cases aged 6-59 months.
Please use the below template for each

Distribution of Immunity profile for Non-Polio AFP cases aged 6-59 months for the years 2016-2020



Distribution of Immunity profile for Non-Polio AFP cases aged 6-23 months for the years 2016-2020



Section 12: UPDATE ON 'HIGH-RISK' POPULATIONS/AREAS

12.1 List known special population groups or areas at high-risk for Poliovirus introduction or circulation

Name of area	Risk Category	Estimated population	Total Population < 15 years	Quality of AFP Surveillance		Coverage		Comments on quality / any epidemiologic change
				NPAFP rate	Stool adequacy %	Routine	SIA	
	Minorities (religious or ethnic)							
	Refugees / internally displaced (list the districts by name)							
	Migrants (list the districts by name)							
	Low *Population Immunity*							
	Low *Surveillance Indicators*							
	*Difficult to access**							
	Others (please specify here)							

**** Please specify type of access issue(s) and list districts by name.***

12.2 Was any specific / targeted surveys and/or studies regardless of its magnitude done?

Yes ☐ No ☐

12.3 Please provide information on the above targeted activities - and any additional activities - with focus on risk category of population, presence or absence of the program's effective reach in this community for surveillance, routine, and supplementary vaccination activities.

Type here

12.4 Please comment on the population sub-groups at high risk of poliomyelitis due to low immunization coverage (i.e. refusal of immunization services, lack of access to services, migrant or refugee population, etc.) or regular contact with recently endemic countries or populations

Type here

Section 13: WILD POLIOVIRUS IMPORTATION

13.1 Definitions and policies:
13.1.1 Are there special activities to detect importations?
Yes ☐ No ☐

13.1.1.1 if yes, please describe:

Type here

13.1.2 How is a polio outbreak defined in the country?

Type here

13.1.3 Outbreak Response Immunization
13.1.3.1 Is there a national policy for polio outbreak response immunization?
Yes ☐ No ☐

13.1.3.1.1 If yes, please specify:
13.1.3.1.1.1 How many rounds of immunization are conducted per outbreak? _____Rounds

13.1.3.1.1.2 What is the usual age group targeted for outbreak immunization?: ____ months

13.1.3.1.1.3 How is the target age group for outbreak immunization determined:

Type here

13.1.3.1.1.4 Please specify the minimum no. of children to be immunized: _____

13.2 Has there been any importation of wild poliovirus into the country during the period under review?
Yes ☐ No ☐

13.2.1 Please mention type: WPV1 ☐ WPV2 ☐ WPV3 ☐

13.2.2 If yes, for each introduction please provide the following details for the event/outbreak.

Date of identification	Source if importation (if applicable) *	Type of Polio Virus**	Location of outbreak or importation	Geographic area affected	Date of last virus isolation	Number of polio cases related to the importation	Number of virus isolates related to this importation

* Please provide details on the source of importation in table 13.1.2
** WPV1,2,3

13.2.3 If yes, for each introduction please provide details about the source of importation:

Details of the cases identified in the country under review				Details of the source			
ID Code of imported case/ES	Index / Secondary cases	Cluster	Percent Divergence	Country	Source (AFP case / Contact / PID / ENV / Healthy Child (HC), etc)	ID Code	Date of onset for AFP case / Date of sample collection in ES/PID/HC

Please list the index case as well as secondary cases related to the same importation
Please add more tables if more than one importation during the year under review

13.2.4 If yes, for each event/outbreak, please provide the below information about the response:

Outbreak identifier (if multiple)	Geographic Area Included in response	Round Number (1,2,3…)	Vaccine Type*	Age Group	Target Pop. Size	Number of households visited	Average number of children immunized per household	Date	Number immunized	Coverage by (%)	Vaccination Rates by Finger Marking**

Please add rows for different round in the round number in case responses
* Vaccine Type (tOPV / bOPV / mOPV (1,2,3) / IPV / nOPV)
** If applicable

13.2.4.1 Please provide a map of the areas targeted by 'event/outbreak response' activities for each round separately

13.2.4.2 Were any supplementary activities conducted as a response to the virus isolation?

Yes ☐ No ☐

13.2.4.2.1 If yes, please specify below as well as in the relevant sections according to the conducted activity.

Type here

13.2.4.3 Validation of the coverage data

13.2.4.3.1 Was vaccination coverage data validated for 'Event/outbreak response' activities?

Yes ☐ No ☐

13.2.4.3.2 If yes; Was this validation done independent of the Polio program?

Yes ☐ No ☐

13.2.4.3.3 If yes; Please explain how coverage data were validated (ex. Post campaign monitoring, Lot Quality Assurance survey, …..) and provide validation method and results in the space below (if applicable)

Type here

13.3 If yes; Please provide evidence showing that poliovirus circulation has been interrupted. Please attach Outbreak Response Assessment (OBRA) report.

Type here

Section 14: EMERGENCE OF VDPV

14.1 Has there been any emergence of VDPV in the country during the period under review?

Yes ☐ No ☐

14.1.1 Please mention type: VDPV1 ☐ VDPV2 ☐ VDPV3 ☐

14.1.2 If yes, for each VDPV type please provide the following details:

Date of identification	*Type of VDPV	Location of case / outbreak or importation	Number of VDPV cases	In cases of iVDPV, how many samples are positive	Date of last VDPV isolation	Source (indigenous, importation, immunodeficiency, Env Surv (ES))	Geographic area affected (for cVDPV only)

* cVDPV 1,2,3 / iVDPV 1,2,3/aVDPV 1,2,3

14.1.3 If yes, for each VDPV type please provide details:

Details of the cases identified in the country under review						
Index cVDPV or iVDPV or aVDPV	ID Code	(AFP case / Contact / PID / ENV / Healthy Child (HC), etc	Date of onset for AFP case / Date of sample collection in ES/PID/HC	Linked to another Country (for cVDPV2)	Percent Divergence	Cluster

Please list the index case as well as secondary cases related to the same importation
Please add more tables if more than one importation during the year under review

14.1.4 If yes, for each event/outbreak, please provide the below information about the response:

Outbreak identifier (if multiple)	Geographic Area Included in response	Round Number (1,2,3…)	Vaccine Type*	Age Group	Target Pop. Size	Number of households visited	Average number of children immunized per household	Date	Number immunized	Coverage by (%)	Vaccination Rates by Finger Marking**

Please add rows for different round in the round number in case responses
* Vaccine Type (tOPV / bOPV / mOPV (1,2,3) / IPV / nOPV)
** If applicable

14.1.4.1 Please provide a map of the areas targeted by 'Event/outbreak response' activities for each round separately

14.1.4.2 Were any supplementary activities conducted as a response to the virus isolation?

Yes ☐ No ☐

14.1.4.2.1 If yes, please specify below as well as in the relevant sections according to the conducted activity.

Type here

14.1.4.3 Validation of the coverage data

14.1.4.3.1 Was vaccination coverage data validated for 'Event/outbreak response' activities?

Yes ☐ No ☐

14.1.4.3.2 If yes; Was this validation done independent of the Polio program?

Yes ☐ No ☐

14.1.4.3.3 If yes; Please explain how coverage data were validated (ex. Post campaign monitoring, Lot Quality Assurance survey, …..) and provide validation method and results in the space below (if applicable)

Type here

14.2 Vaccine Management (in case of mOPV2 use)

Please provide details on the mOPV used in the country for any purpose, this section is restricted to mOPV2 use and later will include mOPV3 (in case of switch to mOPV1 at later stages).

14.2.1 Please indicate in the table below all campaign types including NID, sNID, mop-up, case responses, and others which have used any of the stated vaccine types above. Please mention NA in case mOPV2 was not used

Type of SIA	Date of Campaign	Round No.	Target age group	Antigen type (mOPV2, mOPV3)	Number of children targeted	Number of vials received from Global stock	Number of vials distributed to the field	Total vials returned			Total Vials missed		
								Empty	Partial	Full	Empty	Partial	Full

14.2.2 If mOPV2 was used; Please provide details in table below on the vaccine management adopted for mOPV campaigns to ensure that all vials are well managed?

Total number for all campaigns by type of vial	Total number of vials			
	National			Returned to global stock
	Destructed (National/Sub national)	Place of destruction	Kept in national Store	
Empty				
Partial				
Full				

Please add a separate table for each type of vaccine used

14.2.3 If mOPV2 was used; Attach certificate of destruction, return to global stocks

14.2.4 If mOPV2 was used; Please provide comments/discussion points/additional information, on the detailed description of mOPV vaccine management activities including any faced challenges. Please provide the country plans and prospective dates of mOPV destruction in case any balance is remaining within the country

Type here

GPEI Technical Guidance mOPV2 vaccine management, monitoring, removal and validation http://polioeradication.org/wp-content/uploads/2016/11/Technical-guidance-mOPV2-management-monitoring-removal-and-validation_Oct2016_EN.pdf

14.3 If mOPV2 was used; Please provide evidence showing that VDPV circulation has been interrupted. Please attach Outbreak Response Assessment (OBRA) report.

Type here

Section 15: RISK ASSESSMENT (RA) AND OUTBREAK PREPAREDNESS AND RESPONSE

15.1 ***Was a risk assessment made for the year under review?***
Yes ☐ No ☐

15.1.1 *If yes;* ***Was the RA done within by the country through National IFA?***
Yes ☐ No ☐

15.1.1.1 If No, please mention why?

Type here

15.1.1.2 If RA was conducted or communicated: Please mention the scores given for risk assessment by province in the following parameters for the year under review

YEAR	PROVINCE	Susceptibility %	Surveillance %	Additional factors %	Total Weighted Score %
2020	National total				

- Susceptibility (50% of the total score) and include: OPV3 Routine coverage >=90%, 90% Districts with OPV3 coverage>=80%, No emergence of cVDPV during last 3 years, At least one Zero dose NP AFP (aged 6-59 months), and % non-polio AFP cases with >=3 OPV doses (aged 6-59 months).
- Surveillance (30% of the total score) and include: Non-polio AFP Rate, % AFP cases with adequate specimens, 100% districts achieved target of non-Polio AFP Rate (2.0) and Stool adequacy (>=80%), Lab results available within 31 days, availability of environmental surveillance, and % Isolation of non-polio Enterovirus
- Additional factors (20% of the total score) and include: vulnerable/High risk population, Sanitation Disease Outbreaks, Shared borders with WPV/cVDPV during last 3 years, Insecurity Unrest (military or civil), and Geographic accessibility.
- Score are categorized as follow: Low (85% or more), Medium (75%-84%), High (50%-74%), and Very High (< 50%).

15.1.3 Please elaborate methodology used for risk assessment, different criteria/variables and frequency (if different from the above mentioned in 15.4.1.2)

Type here

15.1.4 Please specify identified high-risk districts, provinces or subset of the population (scoring less than 75%) and elaborate why are they categorized as high-risk?

Type here

15.1.5 Please mention overall impression of the NCC on the RA at the national and sub-national levels

- Low ☐
- Medium ☐
- High ☐
- Very High ☐

15.1.5.1 What actions are proposed/implemented for areas categorized as medium, high and very high risk?

Type here

15.1.6 Please elaborate on the risks for un-detected poliovirus transmission, risk of WPV importation or emergence of VDPVs and capacity of the country / program to conduct a rapid response

Type here

15.2 Risk mitigation activities

In the table below, please provide a list of programme–related activities planned to mitigate risk of poliovirus transmission. This may include supplementary immunization activities, surveillance reviews/assessments, coverage or seroprevalence studies, meetings or any other relevant activities you may consider important to downgrade a risk.

Area of work	Responsibility	Tentative time frame (month/year)	Activities	Status of implementation (planned in Italics and implemented in Bold)
Immunization				
Surveillance (including laboratory network)				
Capacity building				
Risk assessment/analysis				
Poliovirus containment				
Outbreak preparedness plan				
Other				

15.3 Has the National Plan of Action for Preparedness for wild poliovirus importation been updated during the year under review?

Yes ☐ No ☐

15.3.1 Please submit your most recent version of the polio outbreak preparedness and response plan along with this report in an attachment

15.3.2 Please indicate below whether below criteria have been considered in your preparedness plan

Criteria	Description	Yes	No
Definitions	Essential terms – such as "wild poliovirus", "circulating vaccine-derived poliovirus", "poliovirus event", "poliovirus outbreak", "acute flaccid paralysis (AFP)", "hot AFP case", etc. - have been considered to ensure a common understanding.	☐	☐
Notification	The national government will notify it to WHO as an Public Health Emergency of International Concern (PHEIC) in accordance with IHR, wherever relevant	☐	☐
Surveillance	Methods and strategies to strengthen the ability to detect wild poliovirus or circulating vaccine-derived poliovirus in a poliovirus event or poliovirus outbreak (e.g. environmental) are presented in the plan.	☐	☐
Immunization response	Upon confirmation of a poliovirus outbreak, a country will plan a coordinated immunization response; first SIA will be launched within 14 days from confirmation of the poliovirus outbreak	☐	☐
Internal communication	Formal, informal, and instrumental communication within the structures of an organisational system is considered to share information and coordinate actions (e.g. advocacy activities, informing UN agencies, meetings with key-stakeholder, social mobilization, etc.)	☐	☐
External communication	Providing the public with information about the ongoing situation and the (expected) outcome of poliovirus event or outbreak (e.g. mass media communication, online communication activities, interpersonal communication, media response plan, media focal person, etc.) is considered	☐	☐
Vaccine regulation	Regulative aspects – such as licensure of vaccines, availability of vaccines, legal framework for importation (particularly for mOPV2), procurement of vaccines – are considered in order to respond to a poliovirus event or outbreak.	☐	☐
Funding	Availability of budget and structures of cash-flow for financing the response to a poliovirus event or outbreak, such as paying for equipment, human resources and other financial expenses are considered.	☐	☐
Management	Process is described in a specific, achievable and time-bond way, with regards to the respective responsibilities of the key stakeholders.	☐	☐

15.4 ***Was the plan tested in a simulation exercise to assess national capabilities to implement the plan?***
Yes ☐ No ☐

15.4.1 If yes, please mention date (dd/mm/yyyy): _____

15.4.2 Please provide summary conclusions and recommendations from testing your plan

Type here

GPEI standard operating procedures (SOPs): responding to a poliovirus event and outbreak:
General SOPs - **http://polioeradication.org/wp-content/uploads/2018/01/pol-sop-responding-polio-event-outbreak-part1-20180117.pdf**

GPEI Guideline for developing a national preparedness plan for a polio outbreak - http://polioeradication.org/wp-content/uploads/2016/09/Guideline-for-developing-a-National-Preparedness-Plan-for-a-Polio-Outbreak_Dec2015_EN.doc

Outbreak Response Plan Template - http://polioeradication.org/wp-content/uploads/2017/01/Outbreak-Response-Plan-Template_20Jan2017_ENG.doc

Section 16: UPDATE ON CONTAINMENT OF POLIOVIRUSES

The Global Commission for the Certification of the Eradication of Poliomyelitis (GCC) made the following recommendations in October 2017
(http://polioeradication.org/wp-content/uploads/2018/03/polio-global-certification-commission-report-2017-10-20180314-en.pdf)

- NCC/RCC reports need to clearly indicate where and when activities in Phase I have been completed, based on a standardized data collection and verification mechanism, so that, on the basis of equivalent data quality between regions, the GCC can declare global completion of Phase I.

- The members of the GCC have concluded on 20th September 2015 that indigenous wild poliovirus type 2 has been eradicated worldwide. In April 2016, switch from tOPV into bOPV thus removing type 2 attenuated virus from the vaccine and necessitated speeding up of the containment activities.

- The members of the GCC in their last meeting conducted in Geneva 17-18 October 2019 have concluded that "With no wild poliovirus type 3 detected anywhere in the world since 2012, the GCC has officially declared this strain as globally eradicated".

- The deadline for completion of Phase I for all PV2 is set at one year after the publication of the WHO *Guidance to Minimize Risk for Facilities Collecting, Handing, Or Storing Materials Potentially Infectious for Polioviruses i.e. end April 2019*.

- GCC requests RCCs to urge countries to complete the identification, destruction, transfer or containment (Phase I) of WPV1 and WPV3 materials by the end of Phase II (before global certification of wild poliovirus eradication).

- GCC urges countries planning to designate facilities for the retention of WPV1 and WPV3 materials to weigh the risks and benefits of having such facilities and the commitments that will be required to comply with the primary (facility), secondary (population immunity) and tertiary (sanitation and hygiene) safeguards.

16.1 Progress in containment

16.1.1 Composition of NTF for containment

	Name	NPCC/NTF Status	Position	Organization	E-mail address	Telephone Number (Please include country and area code)	Comment if not nominated
1		*Chairperson*					
2		*member*					
3		*member*					
4		*member*					
5		*member*					
6		*member*					
7		*member*					

16.1.2 Please provide current terms of reference (ToR) of the NPCC and NTF in an attachment

16.1.3 Have there been any changes in the composition of the NPCC/NTF?

Yes ☐ No ☐

16.1.4 If Yes, please provide name, title or position and area of expertise of each new member as well as each outgoing member during the reporting period:

	Name	NPCC/NTF Status	New member	Outgoing member
1		*Chairperson*	☐	☐
2		*Member*	☐	☐
3		*Member*	☐	☐
4		*Member*	☐	☐

16.1.5 Please attach minutes of the National Task force meetings.

16.2 National Plan of Action (NAP) for containment of polioviruses and potentially infectious material for completion of Phase 1 of the GAPIII:

16.2.1 Has a NAP been developed/revised for the year under review?

☐ Yes ☐ No

16.2.2 If "NO" please explain why?

Type here

16.2.3 If yes: Please indicate the date: _____

16.2.4 If yes: Please attach a copy of the NAP

16.2.5 Has a NAP been implemented for the year under review?

☐ Yes ☐ No

16.2.6 If "NO" please explain why?

Type here

16.3 Identification of facilities

16.3.1 List of all facilities in the country/territory

A current, exhaustive and comprehensive list of **all** facilities in the country/territory is established and available		☐ Yes ☐ No ☐ Other If other, please specify:
If **yes**, how many facilities in total are there in the country/territory?		
If **no**:	By when is the comprehensive list of facilities expected to be completed?	Expected date:
	By whom is the comprehensive list of facilities expected to be completed?	

NOTE 1[3]: GCC set the deadline for completion of Phase I for all PV2 at one year after the publication of the *Guidance to minimize risks for facilities collecting, handling or storing materials potentially infectious for polioviruses* (i.e. by 10 April 2019), and for WPV1 & WPV3 before the global declaration of WPV eradication.

NOTE 2[4]: GCC requested RCCs to urge countries to complete the identification, destruction, transfer or containment (Phase I) of WPV1 and WPV3 materials by the end of Phase II.

NOTE 3[4]: GCC recommended that at the time of WPV eradication, all facilities retaining WPVs should have a certificate of containment (CC), and if not, have a time-limited interim certificate of containment (ICC), with a clear end point for obtaining a CC agreed with the GCC.

NOTE 4[4]: Certification of WPV eradication should only occur when all WPV materials, in facilities designated for retaining them, are safely and securely contained.

[3] Report of the special meeting of the Global Commission for the Certification of the Eradication of Poliomyelitis on poliovirus containment, Geneva, Switzerland, 23-25 October 2017 (http://polioeradication.org/wp-content/uploads/2018/03/polio-global-certification-commission-report-2017-10-20180314-en.pdf)

[4] Report from the Seventeenth Meeting Global Commission for the Certification of the Eradication of Poliomyelitis, Geneva, Switzerland, 26-27 February 2018 (http://polioeradication.org/wp-content/uploads/2018/04/polio-eradication-certification-17th-meeting-global-commission-for-certification-of-poliomyelitis-eradication-20180412.pdf)

16.4 Survey of facilities

16.4.1 Has a national survey of laboratories been completed in order to identify all those laboratories in the country with wild poliovirus type 2 and 3, vaccine derived poliovirus type 2 and/or potential infectious material?

☐ Yes ☐ No

16.4.1.1 If "NO" please explain why?

Type here

16.4.1.2 If yes, describe details of the survey

Type here

16.4.1.3 If yes, Facilities surveyed during the current reporting period

Reporting period (dd/mm/yyyy – dd/mm/yyyy):	
FORM 1[5] (or an equivalent questionnaire) has been supplied to **all** facilities in the country/territory:	☐ Yes ☐ No ☐ Other If other, please specify:
N° of facilities that received FORM 1 (or an equivalent questionnaire):	
N° of complete responses obtained from these facilities:	
N° of facilities that sent in an incomplete response:	
N° of facilities that did not respond:	
PV types addressed in this reporting period:	☐ PV1 ☐ PV2 ☐ PV3

[5] FORM 1: Facility reporting form and other resources can be found in the resources using the below link (https://polmis.emro.who.int/containment/page/resources

16.5 Facilities that do not retain any PV

A detailed list of facilities that never possessed, destroyed, inactivated or transferred to a PEF their poliovirus infectious or potentially infectious materials (PV IM or PIM) should be maintained as a national inventory and be made available to the RCC upon request.

N° of facilities that never had any PV IM or PIM:	
N° of facilities that have destroyed, inactivated or transferred to a PEF all their PV IM or PIM:	
Total N° of facilities that **do not retain** any PV IM or PIM:	

16.6 **Is NCC involved in the process of implementation of NAP for implementation of Phase 1 of GAPIII?**

☐ Yes ☐ No

16.6.1 If "NO" please explain why?

Type here

16.7 ***Has a national inventory of laboratories holding poliovirus (WPV2, WPV3, VDPV2) and Potentially infectious material been established?***

☐ Yes ☐ No

16.7.1 If "YES" please attach National Inventory of PV material

16.7.2 If "YES" please indicate whether all PV2 materials were properly contained, transferred or destroyed by end of July 2016 as requested[6]?

Poliovirus type 2 (WPV, VDPV, Sabin)	**YES (please mention the date)**	**NO (please explain why?)***
PV2 materials contained and PEF designated		
PV2 materials transferred. If yes please indicate where		
PV2 materials destroyed with official record		

16.8 ***Has the national inventory of laboratories holding poliovirus type 2 material conducted risk assessment during the year under review?***

☐ Yes ☐ No

[6] WHO letter to all Member States on 9 April 2015

16.8.1 If "NO" please mention the last date risk assessment was conducted if applicable?

16.8.2 If "NO" please explain why?

Type here

16.8.3 If "YES" please mention any gaps identified and mitigation measures

Type here

16.9 Polio Essential Facility (PEF)

16.9.1 Is any of the facilities in your country designated as Polio Essential Facility?

☐ Yes ☐ No

16.9.2 Please report the current progress in containment certification for every designated Poliovirus-essential facility (PEF) in the country. If there is no PEF in the country please skip this question:

Designated PEF (Name)	Current progress with containment certification (please indicate dates, even if approximate, for all positive answers)			
	If CP application has not been submitted (please indicate planned date of submission)	Application for a CP has been submitted to (NAC) (Please mention the date)	Application is under review of GCC (Please mention the date of submission to GCC)	CP is issued by GCC (Please mention the date)

*CP – certificate of participation[7] is issued by National Authority for Containment (NAC)

16.9.3 Please provide comments, if any

Type here

[7] A certificate that can only be awarded to facilities in countries that have demonstrated compliance with the required secondary and tertiary safeguards described in GAPIII. A CP indicates that the national authority for containment, in consultation with the GCC, has recognized a facility as a suitable candidate to become a poliovirus-essential facility. A CP formalizes the eligibility of the facility to engage in the GAPIII CCS process and its commitment to achieve an interim certificate of containment/certificate of containment. A GCC-endorsed CP bears the signature of the GCC and a unique certificate of containment number

16.8 Has a National Authority for Containment (NAC) been nominated? (only for countries with PEF).

☐ Yes ☐ No Not Applicable ☐

16.8.1 If "Yes" please provide details of the chairman and members in the table below:

	Name	NAC Status	Position	Organization	E-mail address	Telephone Number (Please include country and area code)	Comment if not nominated
1		*Chairperson*					
2		*Member*					
3		*Member*					
4		*Member*					
5		*Member*					
6		*Member*					
7		*Member*					

16.8.2 Please provide current terms of reference (ToR) of the NAC in an attachment

Section 17: LESSONS LEARNT FROM THE ACTIVITIES RELATED TO THE POLIO ERADICATION INITIATIVE AND ADDITIONAL SUPPORTING DOCUMENTS

17.1 Please describe if and how the national polio eradication initiative contributed to the national health services, in particular in the field of prevention and control of communicable diseases (Vaccine Preventable Disease -VPD)

Type here

17.2 Please indicate if and how the polio eradication initiative contributed to meeting some of the health needs of hitherto underserved communities in the country

Type here

17.3 Future utilization of the infrastructure for polio eradication (Transition planning). Considerable infrastructure has been created for the polio eradication. Once the polio eradication has been achieved and certified, such infrastructure will be available for other uses. Please describe briefly the Government's intention of the future utilization of:

17.3.1 The national personnel trained for the AFP surveillance

Type here

17.3.2 The surveillance system (adapted as appropriate) developed for the AFP surveillance

Type here

17.3.3 The polio laboratory and other resources (where such laboratory exists) and the national personnel trained for the laboratory

Type here

17.4 Feasibility of sustaining the polio-free status

17.4.1 Please comment on the Government's commitment to making available the necessary resources (both human & material) needed to maintain high standard of polio eradication activities, particularly AFP surveillance, until such time that Regional and Global eradication of wild poliovirus has been achieved and certified

Type here

17.4.2 Please describe any major constraints likely to militgate against maintaining the polio-free status in the country and indicate how such constraints might be overcome

Type here

17.5 Please add any extra supporting information/documentation at the discretion of the National Certification Committee. The Regional Certification Commission for EMR may also request other information upon review of the documentation for certification of a country.

Type here

17.6 Please provide any extra details of special activities/additional activities which may have been conducted to demonstrate the absence of indigenous wild poliovirus circulation from the country or a specific area should be provided.

Type here

Glossary:

Active Surveillance: defined as regular visits (i.e. weekly/biweekly/or monthly) to principal / prioritized reporting health care facilities that are most likely to admit or attend acute flaccid paralysis patients. The purpose is to search for and investigate unreported AFP cases. It is carried out through review of admission records, physicians' interviews in pediatric and other wards/departments (like neurological ward; physiotherapy department). It has to be timely, complete and accurate.

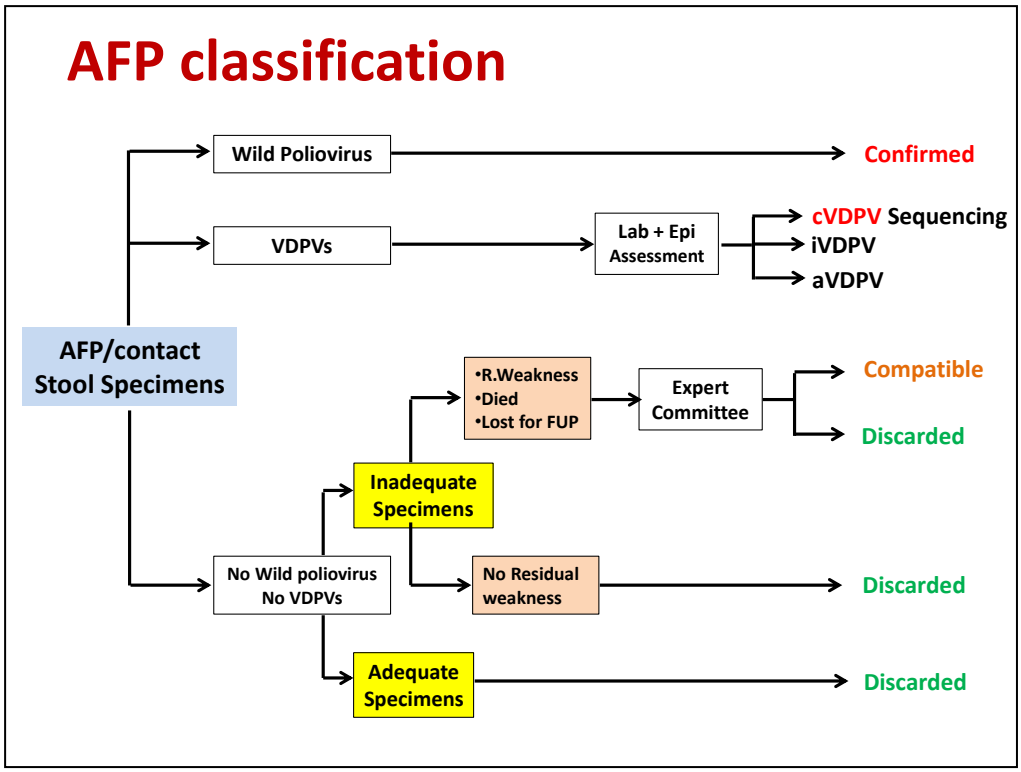
Acute Flaccid Paralysis Case (AFP case): Acute flaccid paralysis is defined as sudden onset of weakness/floppiness in any part of the body in a child <15 years of age or paralysis in a person of any age in whom polio is suspected. AFP is a syndromic notification, as there are many diseases that can cause AFP including Guillain Barre Syndrome, traumatic neuritis, transverse myelitis or any other event or disease presented with sign and symptoms matching AFP case definition should be included, thoroughly investigated irrespective of the cause.

Adequate Stool Specimen: 2 stool specimens collected (not by rectal swab) at least 24 hours apart, and within 14 days of the onset of paralysis; arriving in the laboratory in good condition within 72 hours of collection; with proper documentation; temperature below 8ºC or ice or cold ice packs present; sufficient quantity for laboratory analysis – at least 8 grams; and without drying or leakage.

Blind Area: are geographic areas (usually inaccessible due to conflict and insecurity) with lower than expected or no reporting of AFP cases. These areas prevent or limit the ability of AFP surveillance to be conducted. These blinds spots are a threat to polio eradication efforts as they undermine a precise understanding of ongoing virus transmission and hinder the programme's ability to confidently conclude when virus transmission has ceased.

Clinically Confirmed Poliomyelitis Case: A case that meets the above definition of AFP case clinical classification scheme for AFP cases (see AFP classification figure).

Confirmed Poliomyelitis Case: A case that meets the WHO clinical or virologic classification scheme for AFP cases (see AFP classification figure)



Cluster: The unusual occurrence of diseased individuals compared with expected in given locality in a short period of time. For standardization purposes, Polio Eradication Program considers that a cluster of AFP cases occurs when the number of AFP cases reported in a specific geographic location is more than the expected AFP cases for that month or any point in time.

Compatible Case (Poliomyelitis Compatible Case): A case of AFP that cannot be confirmed with contacts and with no or inadequate specimen and presence of residual weakness on 60-day follow up examination (or died before 60-day follow up examination or lost for follow up), in which diagnosis of poliomyelitis cannot be excluded with confidence based on all available information. Compatible cases represent a surveillance failure and should be scrutinized for clustering in space and time.

Endemic: The constant presence of a disease or infectious agent within a given geographic area or population group.

Environmental Specimens: Samples collected (Not from cases) for virologic analysis; e.g. sewage, soil, dirt, or water samples that might be contaminated with virus.

Facility-based Record Review: Inspection of a health facility such as neurology wards, pediatric hospitals, or rehabilitation centers as part of a retrospective record review for AFP surveillance.

Feedback: The regular process of sending results of data analysis and surveillance reports through all levels of the surveillance system so that all participants can be informed of trends and performance.

Immediately Notifiable Disease: Any disease that is required by law to be reported immediately to government authorities. Usually these are public health emergencies and require immediate action. The collation of information allows the authorities to monitor the disease, and provides early warning of possible outbreaks

Imported Case of Poliomyelitis: Detection of WPV in AFP case/contact genetically related with transmission outside the country of detection. Onset of paralysis may occur outside or inside the country which reports.

Indigenous Case of Poliomyelitis: Detection of WPV in AFP case/contact genetically related with transmission within the country. Exposure and onset of paralysis is within the country, even if virus was recently imported.

Intratypic Differentiation: It is a Laboratory method use to characterize/differentiate Poliovirus strains into wild or vaccine types.

Line Listing: Inventory of cases organized so that each row contains all the appropriate clinical, epidemiological and viral data about one case.

Mopping-up: Refers to very high quality house-to-house immunization usually using oral polio vaccine (OPV), targeting all children in a specified age group in a carefully selected localized area in which the polio virus is where the virus is expected or suspected to still be circulating. These campaigns are carried out in areas where the virus was last recorded and where access to health care services is difficult or in areas which are densely populated with poor sanitation and low routine immunization levels. These campaigns aim to interrupt the last foci of wild poliovirus transmission.

National Discharge Diagnosis: Database of final diagnosis of patients when released from health facilities.

NIDs: National Immunization Days. A Mass Campaign conducted over a short period (days) in which two drops of OPV are administered to all children in the target age group (usually less than 5 years) regardless of previous vaccination history.

Outbreak: Reporting of at least one case of WPV in a polio free given area or among a specific group of people in a particular period of time.

Potentially Infectious Material: all clinical and biological materials collected for any purpose in a time and geographic area where WPV and/or VDPV is circulating. It includes working with WPV viruses for diagnostic and research purposes: clinical materials such as

feces, intestinal contents, central nervous system, and respiratory secretions collected for other purposes, such as clinical trials, epidemiological studies, and diagnoses of other diseases.
Consideration must be given to the country, the year, the last wild indigenous poliovirus isolates in the country, type of specimen (whether feces, respiratory secretions, or cell cultured fluid or animal tissues) and laboratory of origin. Stool samples would likely contain the highest levels of infectious polioviruses.

Potentially infectious experimental animals: any experimental animal infected with a strain containing capsid sequences derived from a wild poliovirus, especially CD 155 transgenic mice infected with wild poliovirus.

Reporting Completeness: is an indicator of surveillance performance and is calculated as a proportion of all expected monthly or weekly reports that were actually received (usually stated as "% completeness for a certain period").

Reporting Timeliness: is an indicator of surveillance performance and is calculated as proportion of all expected reports that were actually received by the specified due date (usually stated as "% timeliness for a certain period").

Routine Disease Surveillance: The ongoing collection of information on health events and usually includes number of health events by district by months. It sometimes also includes health events by age group and/or immunization status.

Rumor Registry: This is a registry (or a log) maintained at different levels (federal/regional/provincial/district) to document rumors suggesting occurrence of polio cases and outcome of investigation(s). This is practiced in areas with long established polio-free period, especially in sparse populated areas or populations.

Sensitivity of Surveillance: The ability of the surveillance system to detect all cases of a disease, an epidemic or other changes in disease.

Sentinel Surveillance: The ongoing collection of information on health events from a limited number of selected reporting sites. Although these data are not representative of the entire country, they indicate trends and facilitate monitoring of severe diseases. More detailed data is often collected from sentinel surveillance sites than is possible form routine surveillance sites.

Spot Map: A map that indicates the location of each case of a disease by showing places that are potentially relevant to the health event being investigated, such as where the case lived, worked, or became ill.

Supplementary Surveillance Activities for Poliomyelitis: Ongoing collection of information (other than from AFP cases) to demonstrate both the absence of wild poliovirus

and the increase the sensitivity of existing surveillance systems to detect both paralytic poliomyelitis cases and wild poliovirus.

Vaccine-associated Paralytic Poliomyelitis: Any case of AFP with onset of paralysis 4-30 days following receipt of OPV and the presence of neurological sequelae compatible with poliomyelitis after 60 days follow up from the onset of paralysis, isolation of vaccine poliovirus (Sabin Like virus) from the adequate stools tested in WHO accredited laboratory (for polioviruses) and negative for wild poliovirus. For criteria and further information **see attached Regional Guidelines on VAPP (page 65).**

Vaccine-derived polioviruses (VDPVs):

- VDPVs are genetic variance of the oral polio vaccine viruses that develops and can cause paralysis indistinguishable from WPV disease in un-immunized or under immunized populations. If the sequence diversity in the VP1 of poliovirus genome is >1% compared with the corresponding parent Sabin strain i.e. more than 10 nucleotide change, classifies the type 1 and type 3 Sabin virus as VDPV of the same serotype. While for type 2 VDPV it is more than 0.6% i.e ≥6 nucleotide change in in VP1 of polio-virus genome.

VDPVs can be classified further based on epidemiological grounds, as:

1. Circulating VDPV (cVDPV): VDPV isolates for which there is evidence of person-to-person transmission in the community.

VDPVs will be called as cVDPVs when there are genetically linked VDPVs: i) from at least two individuals (not necessarily AFP cases), who are not household contacts; or ii) from one individual and one or more environmental surveillance (ES) samples, or iii) from two or more ES samples if they were collected at more than one distinct ES collection site (no overlapping of catchment areas), or iv) from one site if collection was more than two months apart, or v) a single VDPV isolate, with genetic features indicating prolonged circulation (i.e. a number of nucleotide changes suggesting > 1.5 years of independent circulation).

2. Immune-deficiency associated VDPV (iVDPV): VDPVs isolated from persons with primary immune-deficiencies.

3. Ambiguous VDPV (aVDPV): VDPV isolated from individuals with or without AFP and with no known immunodeficiency, or from environmental samples, without evidence for circulation. A VDPV classified as “ambiguous” may need to be reclassified as “c” or “i”, if there is subsequent evidence of circulation or of derivation from an immune-deficient individual.

A VDPV isolate should only be classified as 'ambiguous' if additional investigations have excluded that it is derived from an immunodeficient individual ('iVDPV') or that it is part of an ongoing chain of transmission, i.e. a 'circulating VDPV' ('cVDPV').

Virologically Confirmed Poliomyelitis Case: A case of Poliomyelitis confirmed by isolation of wild poliovirus from stool specimen of an AFP case or from a close contact of an AFP case and tested positive for Wild Poliovirus in WHO accredited laboratory.

Zero Reporting: Designated reporting sites at all levels should report at a specific frequency (usually weekly or monthly) even if there are zero (no) AFP cases; and therefore, often referred to as "zero reporting". A report of zero cases is to be submitted to the surveillance unit . Zero reporting is often required for diseases in the weekly and monthly reporting system.

Polio Event: denotes that here is isolation of either WPV in a single EV sample with no evidence of local transmission or detection of VDPV in an AFP case, EV sample or other sample; *but* with no further detection of a related virus or other evidence suggesting established community – level circulation. See Table 1 below.

TABLE 1: Definitions of poliovirus events and outbreaks

Typology	Definition
Event (as yet, no evidence of transmission)	*Human* Detection of • **VDPV** in: – single AFP case or asymptomatic person (e.g. contact), or – one or more persons,[a] with no evidence of further community-level circulation (**iVDPV** or an **aVDPV** isolates) OR • **Sabin like 2** isolate from individual sample(s) OR • **WPV2** infected individual **with** documented type 2 virus exposure in a laboratory or vaccine production facility *Environmental* Detection of • **WPV** single environmental sample **without** follow-up evidence of virus excretion,[b] OR • **VDPV without** evidence of further transmission, such as – single environmental sample without evidence of prolonged circulation of >1.5 years, or – an aVDPV OR • **Sabin like 2** isolate from environmental sample(s)

Polio Outbreak: is considered: a) if there is a single or multiple case (s) due to WPV or cVDPV, OR b) a positive EV sample for WPV/cVDPV given that i) Two or more separate samples contain WPV/VDPV with genetic sequencing information that indicates sustained local transmission or, ii) a single sample is positive for WPV/cVDPV and follow-up investigation identifies polio compatible cases or WPV/VDPV infected persons. See tables below

Typology	Definition
Outbreak (evidence of transmission)	*Human* Detection of • any **WPV** infected individual(s)[a] (in addition for type 2: "without documented exposure to a type 2 virus in a laboratory or vaccine production facility") OR • any **cVDPV** infected individual(s)[a]
	Environmental Detection of • two or more separate[c] environmental samples positive for **WPV with** genetic sequencing information indicating sustained local transmission OR • a single environmental sample positive for **WPV with** follow-up evidence of virus excretion[b] (in addition for type 2: "no documented exposure in a laboratory or vaccine production facility") OR • any **cVDPV** positive environmental sample(s)

a Infected person can be an AFP case or an asymptomatic/healthy person.

b Evidence of virus excretion is defined by identification during follow-up investigation of WPV or VDPV infected individual(s).

c "separate" means that: samples were collected at more than one distinct environmental surveillance collection site (no overlapping of catchment areas), OR samples were collected from one site, but collection was more than two months apart.

aVDPV: ambiguous vaccine-derived poliovirus; cVDPV: circulating vaccine-derived poliovirus; iVDPV: immunodeficiency-associated vaccine-derived poliovirus.

TABLE 7: Polio outbreak grades and definitions

Grading	Criteria	Definition
Grade 1	Potential for transmission and international spread	Low-to-medium risk of transmission including international spread due to good population immunity and no major vulnerable population cluster
	Strength of country capacity	Strong to moderate country response capacity due to robust health infrastructure and no security threat or access challenges
Grade 2	Potential for transmission and international spread	Low-to-high risk of transmission including international spread
	Strength of country capacity	Strong-to-weak country response capacity
Grade 3	Potential for transmission and international spread	Medium-to-high risk of transmission including international spread due to significant gaps in population immunity, history of multi-country/cross-border propagation and major vulnerable population clusters
	Strength of country capacity	Moderate-to-weak country response capacity due to serious deficiencies in local in-country health infrastructure, high security threats and access challenges, or a complex humanitarian emergency

Regional Guidelines for Diagnosis and Reporting of Vaccine Associated Paralytic Poliomyelitis (VAPP) Cases

Background

Countries in the EMR have relied primarily on OPV for control and eradication of poliomyelitis through routine and supplementary immunization. However, one disadvantage associated with OPV is the rare occurrence of VAPP. The overall risk of VAPP has been estimated at 1 case per 2.5 million doses of OPV distributed in the U.S.A and 1 case per 1.4 million doses administered in England and Wales.

In countries of Central and South America that have conducted mass immunization campaigns with OPV, the estimated overall risk for VAPP was not different from that reported from U.S.A, England, and Wales, and ranged from 1 case per 1.5-2.2 million doses of OPV administered.

The best strategy to prevent VAPP is to eradicate wild poliovirus globally and eventually stop immunization against polio. However, until we reach that goal, cases of VAPP are expected to occur in some countries of the Region. The purpose of this document is to:

- Provide a case definition for VAPP with minimum criteria that must be fulfilled for establishing diagnosis
- Describe issues related to the process of establishing diagnosis and reporting of VAPP cases in EMR.
- Provide background information about VAPP.

Case Definition and Criteria for Diagnosis of VAPP

Recipient VAPP: Any case of AFP with onset of paralysis 4-30 days following receipt of OPV and the presence of neurological sequel compatible with poliomyelitis after 60 days follow up from the date of onset, isolation of vaccine poliovirus (Sabin Like virus) from the stools and negative for wild poliovirus

The following criteria must be fulfilled before a diagnosis of VAPP is established:

1. The paralytic illness should be clinically compatible with poliomyelitis with residual paralysis at 60 days after paralysis onset and there should be no epidemiological links with wild virus confirmed or outbreak associated cases of poliomyelitis.
2. Adequate[12] stool specimens test negative for wild poliovirus in a WHO-accredited laboratory but positive for vaccine-related virus.
3. Other illnesses, which can cause flaccid paralysis, such as Guillain-Barre syndrome (GBS), transverse myelitis, neuritis, tumor, and trauma, have been ruled out.

[12] adequate specimens: 2 stool specimens collected at least 24 hours apart, within 14 days of the onset of paralysis and arriving at the laboratory with adequate volume and in good condition. Good condition = no desiccation, adequate documentation and evidence that the cold chain was maintained.

4. The patient is evaluated by an expert committee, which considers additional information, including exposure history, clinical and virological data, and potential epidemiological links to confirmed poliomyelitis cases. The diagnosis must be established or endorsed by the National Expert Committee for Final Classification of AFP cases.

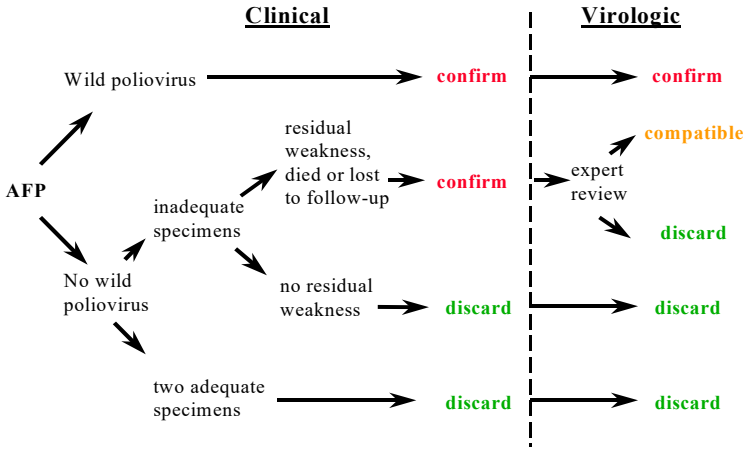
Process of establishing diagnosis of VAPP and reporting cases in EMR

The diagnosis of VAPP must be endorsed by the National Expert Committee for Final Classification of AFP cases. Optimally, the expert committee should include among its members a pediatrician, a neurologist, a virologist, and an epidemiologist or public health professional.

Detailed information related to the case should be made available to the expert committee. This should include an adequate history of exposure to OPV before paralysis onset, clinical findings and course of illness, neurological sequelae, investigations undertaken to rule out other diagnoses, virological findings, and findings of epidemiological investigations.

Reporting a case of VAPP: Since the objective of the polio eradication initiative is to eradicate wild poliovirus, under the WHO AFP Classification System (see Figure), VAPP cases should not be counted as 'confirmed due to wild poliovirus'. For the purpose of standardizing data management and reporting, cases diagnosed as VAPP should be included under the category of 'Discarded Cases'. VAPP should be reported under the final diagnosis of the AFP case.

Classification of AFP Cases



Background information on VAPP

Wild poliovirus and VAPP: Clinically VAPP is indistinguishable from wild virus confirmed poliomyelitis. The priority during evaluation of cases suspected of VAPP is to rule out wild poliovirus as the possible etiologic agent. This is best achieved by testing of adequate stool specimens in WHO accredited laboratories. Moreover, the possibility of an epidemiological link with wild virus confirmed or outbreak-associated cases of polio should be thoroughly investigated.

Incidence of VAPP: A number of studies have described the risk of VAPP in a variety of epidemiological settings. When adjusted for study methodology and system of disease reporting, the estimated risk is remarkably constant in all settings. The table below shows the risk of VAPP reported in various studies in 1: (x) million doses of OPV

Study	1st dose	Recipient	Contact	Overall
Canada	--	1:9.5	1:3.2	--
England	1:0.7	1:2.0	1:4.5	1:1.4
Germany	--	1:4.4	1:15.5	1:3.4
Italy	--	1:8.1	1:4.1	1:2.7
Latin Am	1:1.2	1:3.6	1:5.6	1:2.2
U.S.	1:0.7	1:6.8	1:4.1	1:2.5
WHO		1:5.9	1:6.7	1:3.2

Risk of VAPP by OPV dose number: The risk of VAPP is highest following the first OPV dose and declines sharply with each subsequent dose. The risk following the first dose was estimated at 1 case per 700,000 doses of OPV administered in U.S.A and England and 1 case per 1.2 million doses administered in Central and South America. The risk following subsequent doses declined to 1:6.8 million doses administered in the U.S.A and to 1:3.2 million doses administered in Central and South America.

Contact VAPP and AFP surveillance: Approximately half the cases of VAPP reported from Americas are among contacts of vaccinated children. However, data collected in the AFP surveillance system in the region do not permit an adequate assessment of contact history between a case of AFP and an OPV recipient. Since cases of VAPP among contacts of OPV recipients are likely to be detected as AFP in the surveillance system, the minimum criteria for diagnosis of recipient VAPP also apply to the diagnosis of contact VAPP. However, a case of contact VAPP should have had a known contact with a person that received OPV 7-70 days before onset of paralysis of the patient and the contact between the patient and the vaccinee should have occurred 4-30 days before paralysis onset.

Poliovirus Serotypes and VAPP: Serotype 3 is the most frequently isolated poliovirus from patients with VAPP (60%-90% of cases), whereas serotype 1 poliovirus is rarely isolated from VAPP cases.

Other epidemiological features of VAPP: There are no secondary cases of VAPP and thus there is no clustering of VAPP cases. There is generally no seasonality to the occurrence of cases. The age distribution varies, but recipient VAPP occurs most frequently among infants and young children receiving their first dose of OPV.

VAPP in immuno-deficient persons: The risk of VAPP is greatly increased among persons with conditions associated with immuno-deficiency. However, not all immuno-deficient states appear to be associated with increased risk. For example there is no increased risk among persons with HIV infection whereas the risk appears to be highest in patients with agammaglobulinemia.

Risk of VAPP following NIDs: The risk is mainly determined by the number of children receiving their first OPV dose during the campaign. Since most children have usually already received OPV doses through the routine program and other supplementary mass campaigns, the risk of VAPP from during NIDs is much lower.