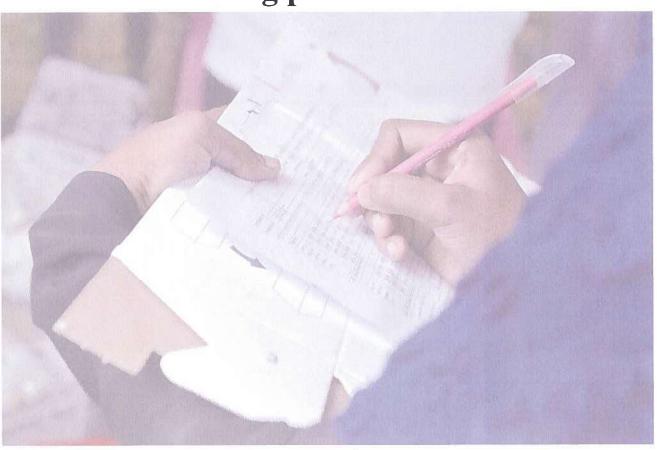
National Certification Committee for Polio Eradication (NCCPE)

Maintaining polio-free status



Name of Country: Nepal

Date of submission: 02 September 2022

Signature NCCPE chairperson:

Section 1: Country background

Table 1: Administrative divisions

Total number of administrative territories 1st sub-national level (Provinces)	7
Total number of administrative territories 2nd sub-national level (Districts)	77

Table 2: Population data

Year: 2021	Total Population	Population aged less than 15 years	Population aged less than 5 years	Population aged less than 1 year	Population living in Hard to reach areas
Number of persons	29,266,430	7,855,178	2,621,896	520,005	
Percentage of total population	100%	27%	9%	2%	

Source of data: iHIMS-Government of Nepal.

Source: Migration in Nepal: A COUNTRY PROFILE 2019

Population movement (internal and international) relevant to polio:

It is generally accepted that there are frequent movements of people of Nepal and India across the long and porous border of Nepal- India. There are long-term, short-term, seasonal, and even more frequent movements with some workers living near the border crossing for work on a daily or weekly basis. As per Census-2001, around 596,696 Nepali live in India. However, this figure is far below actual number of emigrations from Nepal to India. Internal movement, particularly in big cities are also very big, as a result it is often very difficult to estimate the population in a precise way. Highest thrust of such movements is in the Kathmandu valley.

Table 3: Last wild poliovirus (WPV) and vaccine derived poliovirus (VDPV) detected

	WPV 1	WPV 2	WPV 3	VDPV 1	VDPV 2	VDPV 3
AFP case*	Year 1999 (indigenous) Year 2010 (imported)#	-	Year 2000 (indigenous) Year 2007 (imported)# Year 2008 (imported)#	-	-	1
Other sources**	-	-	-	-	-	-
ES***	-	-	-	-	-	-

^{*} Acute Flaccid Paralysis; ** healthy contacts or targeted stool surveys; *** environmental surveillance

Source of data: SEARO AFP Database

Progress of polio eradication in Nepal October, 2015

Section 2: National Certification Committee for Polio Poliomyelitis Eradication (NCCPE)

Table 4: Composition of NCCPE

Name	Status	Organization	Area of Expertise
Dr Badri Raj Pande	Chairperson	Former WHO staff	Paediatrician/Health Policy Planning
Dr Rameshwar Man Shrestha	Member	Former Director Kanti Children Hospital	Paediatrician
Dr Hukma Deo Shah	Member	Former Director, Child Health Division	Paediatrician
Dr Vraj Kishor Thakur	Member	Former District Health Officer, Rautahat	District Health System
Mr Arjun Bahadur Singh	Member	Former Director, National Health Training Center	Human Resource Development

Source of data: SEARO IVD NCCPE database; extracted from previous NCCPE reports

Table 5: NCCPE meetings in reporting period (Please attach minutes/report)

Year	Date(s) of meeting(s)*							
	Quarter 1	Quarter 2	Quarter 3	Quarter 4				
2021	Meeting not held**	Meeting not held**	23 Sep 2021 [¥]	11 Oct 2021 [¥]				
2022	22 March 2022 [¥]	21 June 2022 [¥]						

^{**} NCCPE could not conduct meeting; however, NCCPE members monitored immunization activities in high-risk districts based on polio risk assessment findings of 2021.

Any other relevant activities of the NCCPE during the report period (case classification, field visits, advocacy meetings etc.)

Field visit:

- In Dec 2021, NCCPE members conducted supervision field visit of 9 polio-risk districts based on poliorisk assessment findings. The district monitored were: Rautahat, Bara, Siraha, Saptari, Makwanpur, Chitwan, Kavre, Sindhuli and Ramechhap.
- From April to June 2022, NCCPE members conducted supervision field visit of 6 priority districts based on polio-risk assessment findings. The district monitored were: Sindhuli, Ramechhap, Dadeldhura, Bajhang, Dolakha and Kavrepalanchok.
- NCCPE member monitored polio surveillance activities during Typhoid vaccination campaign in Ramechhap and Sindhuli districts with international observer in April 2022

^{*12}th meeting Regional Certification Commission for Poliomyelitis Eradication (RCCPE) - had recommended quarterly meetings. *Annex

Section 3: Immunization policy and performance

Table 6: Polio immunization schedule 2021

Vaccine	Birth Dose	Dose1	Dose 2	Dose 3	Dose 4
OPV*		W6	W10	W14	
fIPV**		W6	W14		

^{*}Oral polio vaccine **fractional dose of intradermal IPV

Delayed vaccination schedule table

Table 7: Immunization coverage 2019-2021

National coverage %*	2019	2020	2021	Regional Vaccine Action Plan target
OPV3	92	84	91	≥90%
fIPV 2	80	73	86	≥90%

Source of data: WHO UNICEF estimates of national immunization coverage, July 2022 revision

Table 8: Estimated number of missed children by antigen 2019-2021

Estimated number of children missed	2019	2020	2021
OPV3	49 725	99 318	55 823
fIPV2	124 313	167 600	86 836

Source of data: WHO UNICEF estimates of national immunization coverage, July 2022 revision

Estimated number of children missed in hard-to-reach areas (2021):

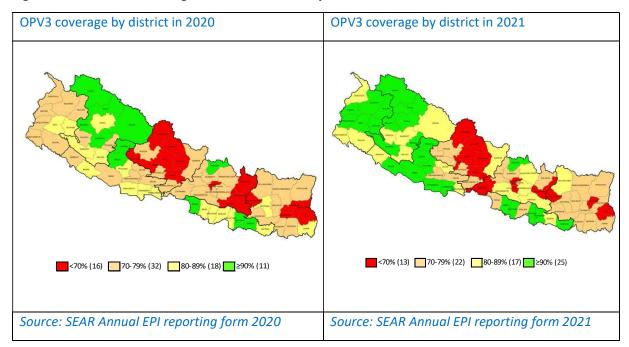
Table 9: Estimated number of zero-dose children (children who have not received any vaccine dose)

20	019	20	20	2021		
number	%	number %		number	%	
24 863	4%	68 281	11%	49 621	8%	

Source of data: WHO UNICEF estimates of national immunization coverage, July 2022 revision

Source of data: Government of Nepal, National Immunization program (NIP).

Figure 1: Subnational coverage of OPV3 and fIPV2 by district 2020 and 2021*



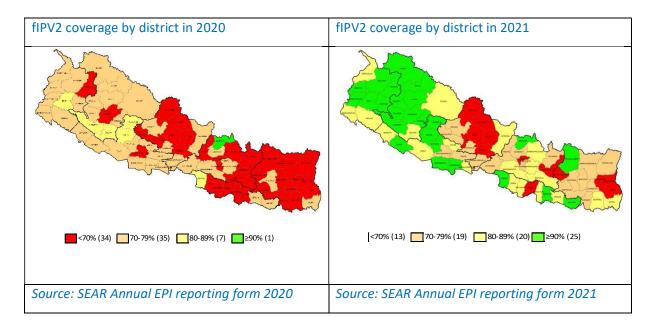


Table 10: Districts below RVAP target (Number of districts with <80% coverage or equivalent with OPV3, 2021): (attach list along with number of missed children with OPV3)

SN	Province Name	District Name	Under 1 population	OPV 3 coverage less than < 80%	Missed children	SN	Province Name	District Name	Under 1 populati on	OPV 3 coverage less than < 80%	Missed children
1	Province 1	TAPLEJUNG	2745	73	741	18	Bagmati Province	KATHMANDU	43066	58	18088
2	Province 1	SANKHUWASABI	3260	77	750	19	Bagmati Province	BHAKTAPUR	7190	79	1510
3	Province 1	OKHALDHUNGA	3248	67	1,072	20	Bagmati Province	LALITPUR	11175	68	3576
4	Province 1	KHOTANG	3627	76	870	21	Bagmati Province	RAMECHHAP	4480	64	1613
5	Province 1	BHOJPUR	3201	72	896	22	Bagmati Province	CHITAWAN	14633	69	4536
6	Province 1	DHANKUTA	3696	73	998	23	Gandaki Province	MANANG	99	33	66
7	Province 1	TERHATHUM	2175	62	826	24	Gandaki Province	MUSTANG	216	69	67
8	Province 1	PANCHTHAR	4206	75	1,051	25	Gandaki Province	MYAGDI	2402	75	600
9	Province 1	ILAM	6441	62	2,448	26	Gandaki Province	KASKI	12184	67	4021
10	Province 1	JHAPA	19884	77	4,573	27	Gandaki Province	LAMJUNG	3775	69	1170
11	Province 1	MORANG	22823	76	5,478	28	Gandaki Province	TANAHU	7815	63	2892
12	Province 1	SUNSARI	19024	76	4,566	29	Gandaki Province	NAWALPARASI EA	7900	79	1659
13	Province 1	UDAYAPUR	7768	76	1,864	30	Gandaki Province	SYANGJA	5615	73	1516
14	Madesh Province	SARLAHI	17628	76	4231	31	Gandaki Province	PARBAT	3290	67	1086
15	Madesh Province	PARSA	13509	72	3783	32	Gandaki Province	BAGLUNG	6417	73	1733
16	Bagmati Province	DOLAKHA	4041	71	1172	33	Province 5	ARGHAKHANCHI	4647	75	1162
17	Bagmati Province	DHADING	7583	76	1820	34	Province 5	PALPA	5555	73	1500

Table 11: Immunization status of non-polio AFP cases by sex 2021

	Fem	nale (n= 8	1)	Male (n= 180)		
	<12 months	1-5 years	5-15 years	<12 months	1-5 years	5-15 years
0		1		1	1	
1			1		1	3
2				1	1	
3	2	26	15	7	61	36
>3		15	19	3	24	39
Unknown			2		1	1

Actions taken to improve vaccination coverage (2021-2022):

- National Immunization Advisory Committee (NIAC) endorsed NCCPE recommendation made earlier on need to catch cohort of IPV missed children.
- National Immunization program regularly review case investigation form (CIF) of all reported AFP cases. WHO supported SMO network and independent monitors conduct immunization monitoring of communities. Any zero dose or unknown vaccination status children is immediately notified to local health facility and health coordinators for follow-up vaccination in next routine session.
- Government lifted policy barrier for routine childhood immunization ceiling from two years to five years of age and ensured provision of immunization services to all eligible children through immunization act-
- Program monthly review routine immunization reporting status, HMIS data of immunization and VPD surveillance and provide technical assistance to municipality on verification of vaccination coverage, dropout and missed reporting.
- Quarterly feedback to provinces on polio risk assessment findings.
- Tracking of zero and partially vaccinated children during measles rubella campaign 2020 and Typhoid conjugate vaccine (TCV) campaign 2022 and accordingly corrective action initiated.
- Feedback to all districts and provinces on IPV and OPV coverages.
- Independent coverage evaluation/survey done in 19 high priority districts using WHO new survey methodology 2015 showed 87% bOPV coverages.
- Triangulation of AFP surveillance and immunization data plus other high-risk factors to conduct polio risk assessment and initiate appropriate action.
- Provincial VPD Surveillance review workshops with focus on sustaining polio-free status was conducted in all province training total 504 participants (summary report attached in Annex).
- Conducted 28 district level VPD workshops and 203 subdistrict level VPD workshops in 53 districts and trained more than 5000 health staffs from both public and private institution.

Planned action for vaccination coverage 2022-23:

- National Immunization Program (NIP) plan to conduct IPV campaign in Q3/Q4 of 2023 to catch missed cohort of children from 2016-2018.
- 2. Information dissemination on new vaccine policy for vaccinating until age of five years to health workers (private/public) medical professionals and the parents/mothers on delayed vaccination schedule for missed vaccine opportunity to children under five years of age- will be accelerated in the days ahead.
- 3. Continue real time routine immunization monitoring at priority communities and review AFP cases to identify zero dose or under vaccinated children- ongoing.
- 4. NIP plan to conduct quarterly review of routine immunization HMIS data to catch missed out and left out children, Q3, 2022.
- Continue review of HMIS data (immunization, surveillance) and provide immediate feedback to palikas.
- 6. Conduct provincial level workshops on data review and use of data for action, Q1,2023 and Q4, 2023
- 7. Conduct Data quality self-assessment (DQSA) in selected low performing districts (5-10 districts)- Q4, 2022.
- 8. Develop National guidelines on VPD data quality review and data use-Q1, 2023.
- 9. Assess routine immunization coverage of under five children during Typhoid vaccination post campaign coverage survey- Q4, 2022
- 10. Advocacy to municipalities on importance of sustaining polio-free status.

Conclusions 1: In 2021, was polio immunization coverage high enough to prevent imported wild poliovirus to circulate and emergence of vaccine derived poliovirus (VDPV)?

Fully satisfactory \square Satisfactory (needs minor actions) \boxtimes Needs major improvement \square Please support your conclusion with key points

- 1. The national OPV 3 coverage and fIPV2 coverage in fiscal year 2021 was 91 % and 86% (WUENIC) respectively.
- 2. In 2021, 34% of districts did not achieve ≥80% OPV3 coverage (table 10).
- 3. Estimated one-third (204,866) of birth cohort missed OPV3 dose and more than fifty percent (378,749) of birth cohort missed fIPV2 doses in three consecutive years (2019-2021).

Section 4: Surveillance performance

Table 12: AFP surveillance performance 2021-2022

Indicator	2020	2021	2022	Expected
Completeness of reporting to national level (%)	90	88	88	≥ 90%
Timeliness of reporting to national level (%)	99	99	97	≥ 80%
AFP cases reported within 7 days of onset (%)	92	94	93	≥ 80%
AFP rate (per 100,000 under 15 population)	2.66	3.02	2.07	
Non-polio AFP rate (per 100,000 under 15 population) *	2.66	3.00	1.06	≥ 2
Districts with >100,000 under 15 population achieving a non-polio AFP rate of \geq 2 (%)	67 (52/77)	74 (57/77)	31 (24/77)	
% of AFP cases with 2 stool specimens collected at last 24 hours apart and within 2 weeks of onset	98	99	98	≥ 80%
% of total AFP cases with adequate stool specimens	98	99	98	≥ 80%
Case investigation within 48 hours after notification	97	98	99	≥ 80%
Average shipment time from collection to receipt in lab**	95.16	69.88	45.45	72 hours
AFP cases with final lab results <=35 days of onset (%)	28	0	3	≥ 80%
AFP cases by sex with final lab results <=35 days of onset (Female) %	10	0	1	≥80% (F)
AFP cases by sex with final lab results <=35 days of onset (Male) %	18	0	2	≥80% (M)
Number of cases pending classification	0	0	54	0
% cases pending classification ≥ 90 days	0	0	0	
Number of polio compatible cases	0	0	0	

^{*}Non-polio AFP rate = number of cases discarded as non-polio AFP in children < 15years/ number of children aged < 15 years) x 100,000 per year ** Add time taken for each specimen and divide by number of specimens

Source of data: SEARO AFP database as of 22 Aug 2022

Figure 2: AFP surveillance key performance indicators subnational (district) level 2021 and 2022

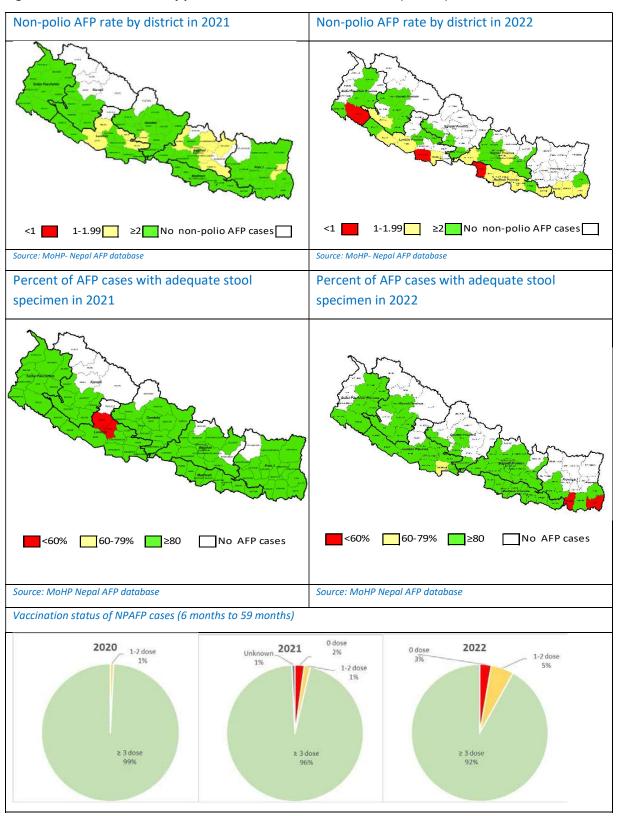


Table 13: Environmental Surveillance (ES)

Does the country have ES for poliovirus? Yes/No

Indicator	2020	2021	2022
Number of ES sites	5	5	5
Number of ES samples expected (based on			
expected frequency of collection from national	130	130	80
ES plans) – biweekly collection per site			
Number of ES samples collected	44	125	74#
% ES samples with EV (expected ≥ 50%)	59% (26/44)	53% (66/125)	44% (28/63)
% ES sites with <30% EV isolation rate	1/5	1/5	0/5

^{*} enterovirus, # - 11 samples pending shipment

Table 14: Polio laboratory performance 2021 and 2022

Does the country have a (or more) national poliovirus laboratory(ies)? No

If the country does not have a poliovirus laboratory, which GPLN* laboratory are samples sent to?

Nepal was sending stool samples from AFP cases and environmental surveillance samples to NIH, Thailand on weekly basis. However, due to COVID-19 pandemic with disruption of international flights, sample were sent to Thailand in batches through private courier. From April 2021, Nepal has started sending samples to NIV, Mumbai with support from SEARO, still in batches.

Indicators	2020	2021	2022
Function within the GPLN (NPL, RRL, GSL)	-	-	-
Accreditation year (most recent)	-	-	-
Score global proficiency test panel for poliovirus isolation	-	-	-
Score global proficiency test panel for ITD testing	-	-	-
Score global proficiency test panel for sequencing	-	-	-
Total number of AFP stool samples processed	-	-	-
Primary isolation within 14 days (expected ≥ 80%)	-	-	-
ITD within 7 days (expected ≥ 80%)**	-	-	-
Stool specimens with final lab results available < 21 days of receipt at WHO accredited lab	-	-	-
Total ES samples processed	-	-	-
ES samples with final lab results available <=32 days of receipt at a WHO-accredited sequencing lab (%)	-	-	-

^{*} GPLN= Global Polio Laboratory Network ** ITD = Intratypic differentiation

Actions taken to strengthen surveillance (2021-2022):

- Preparatory work accomplished for establishment of surveillance sites -in two major cities (Biratnagar, Janakpur) by Dec 2022.
- Update Environmental Surveillance guidelines and Polio Outbreak response plan- Nepal Q3, 2022.
- Plan to conduct two workshops/meetings of National Polio containment task force by Dec 2022.
- National Public Health Laboratory (NPHL) plan to develop National Action plan on poliovirus laboratory containment by Dec 2022.
- New AFP reporting posters and advocacy materials to be disseminated.
- Advocacy meeting through Nepal Pediatric Society of Nepal (NEPAS).
- Expansion of weekly reporting sites to add new private hospitals.
- Training of reporting units and health care workers in all low performing districts.

Planned actions for strengthening surveillance 2022-23:

- 1. Conduct polio outbreak response simulation exercise Q4, 2022.
- 2. Plan to explore additional Environmental surveillance sites in two other cities (Pokhara, Nepalgunj) by O2, 2023.
- 3. Enhance case detection by ensuring all municipalities in Terai and Hills have at least one or more reporting unit incorporating private facilities- Q2, 2023.
- 4. Continue VPD capacity building at subnational level for prompt and adequate case investigation, sample collection and data analysis- continuous activity.
- 5. Update VPD surveillance guidelines in line with global and regional surveillance guidelines Q1, 2023.
- 6. Provincial level advocacy workshop to increase local level ownership, enhance coordination, provision of dedicated human resource for VPD outbreak preparedness and response Q4, 2022 and Q2 2023.
- 7. Conduct provincial level workshops on data review and use of data for action Q1 2023 and Q4 2023.
- 8. Conduct polio risk assessment and disseminate findings to provinces on quarterly basis- continuous activity.
- 9. Cross-border collaboration among provinces nationally and international collaboration.
- 10. Advocacy with newly elected municipality chief on sustaining polio-free status.
- 11. Expansion of environmental surveillance sites in two additional provinces by Dec 2022.

Conclusion 2: In 2021, was polio surveillance sensitive enough to detect imported wild poliovirus and vaccine derived poliovirus (VDPV) rapidly and reliably should it have emerged?
Fully satisfactory $oximes$ Satisfactory (needs minor actions) $oximes$ Needs major improvement $oximes$ Please support your conclusion with key points
 Cardinal AFP surveillance indicators achieved and maintained above regional and global standard. In 2021, National non-polio AFP rate was 3.0 and stool adequacy rate was 99 and surveillance data showed that 95% of non-polio AFP cases aged 6-59 months children received ≥ doses of bOPV.
2. No VDPV and Sabin like type 2 poliovirus have been isolated either in AFP case or through environmental surveillance system.
3. Functional Environmental surveillance system. All five permanent environmental surveillance sites evaluation showed ≥50% Non-polio enterovirus detection.

- 4. Regular communication from National Immunization program to provinces on polio-risk assessment findings, AFP surveillance gaps, polio immunization coverage and instant communication to health facilities and health section chief of municipalities on zero dose or under vaccinated bOPV/fIVP children identified from AFP case investigation.
- 5. Continued VPD surveillance at district and municipality level through WHO IPD network. In 2021, IPD networks conducted 28 district level VPD workshops and 203 sub-district level VPD workshops in 53 districts and trained more than 5000 health staffs from both public and private institution.

Section 5: Facility containment of polioviruses

Does the country have/plan for designated poliovirus essential facilities (PEF)? Yes $\ \square$ No $\ \boxtimes$

If yes, does the country have a National Containment Authority (NAC)? Yes \quad No \quad \text{

Table 15: Composition of NAC

	Name	Status in NAC	Expertise	Organization
Not a		pplicable		

Table 16: NAC meetings during reporting period

Year	Date(s) of meeting(s)*
2021	
2022	Not applicable

Table 17: List of PEFs and status of containment certification scheme (CCS) implementation

	Current progress with containment certification			
Designated	CP* application	CP application	Application under	CP issued by
PEF	planned for	submitted to NAC	review by GCC**	GCC and
(Name)	(please indicate date)	(please indicate date)	(Y/N)	when
		(Y/N)		(Y/N)
		Not applicable		

Table 18: Composition of NCTF

Name	Status in NAC	Expertise	Organization
Chief Specialist, MoHP	Chairman		Ministry of Health and Population (MoHP)
Director General, MoHP	Vice- Chairman		МоНР
Chief, Quality Control and Monitoring Section MoHP	Member		МоНР
Chief, Coordination Division, MoHP	Member		МоНР
Director Family Welfare Division (FWD)	Member		МоНР
Directors of Provincial Health Directorate,	Member (7)		МоНР
Chair, Nepal Health Research Council	Member		National Health Research Council (NHRC)
Dept Head-Microbiology BPKIHS	Member		BPKIHS-Dharan
Dept Head-Pokhara Regional Hospital	Member		Pokhara Regional Hospital
Dept Head- Microbiology TUTH	Member		Tribhuvan University Teaching Hospital
Dept Head-Central Dept of Biotechnology	Member		Central Department of
or biotecimology			Biotechnology
Chair- Bir Hospital	Member		Bir Hospital- Kathmandu
Dept Head- Polio Surveillance unit NPHL	Member		National Public Health Laboratory (NPHL)
Chair- NCCPE	Member		NCCPE
Director- NPHL	Member Secretary		NPHL

Table 19: NCTF meetings during reporting period

Year	Date(s) of meeting(s)*			
2021				Nov 2021
2022			Sep 2022 (plan)	Nov 2022 (plan)

Number of facilities storing poliovirus potentially infectious materials (PIM)

Enumerate:

Table 20: Inventory of poliovirus materials

Which year was the last national survey conducted; for PV infectious materials - NA PV PIM - 2022

Poliovirus type 2 (WPV, VDPV, Sabin)	YES (date)	NO
Retained PV2 materials identified	Not applicable	
PV2 materials retained in designated PEF	Not applicable	
PV2 materials transferred; if yes please indicate where	Not applicable	
PV2 materials destroyed with official record	Not applicable	

Reference to PIM guidance: https://polioeradication.org/polio-today/preparing-for-a-polio-free-world/containment/containment-resources/

^{*}Detailed inventory to be attached **Summary of records to be attached

Poliovirus type 3 (WPV, VDPV)	YES (date)	NO
Retained PV3 materials identified	Not applicable	
PV3 materials retained in designated PEF	Not applicable	
PV3 materials transferred, if yes please indicate where	Not applicable	
PV3 materials destroyed with official record	Not applicable	

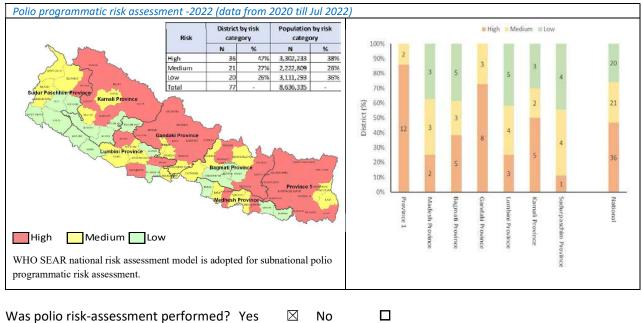
^{*}Detailed inventory to be attached **Summary of records to be attached

Poliovirus type 1 (WPV, VDPV)	YES (date)	NO
Retained PV1 materials identified	Not applicable	
PV1 materials retained in designated PEF	Not applicable	
PV1 materials transferred; if yes please indicate where	Not applicable	
PV1 materials destroyed with official record	Not applicable	

^{*}Detailed inventory to be attached **Summary of records to be attached

Conclusion 3: In 2021, were polioviruses in laboratories adequately handled and contained under GAPIII requirements to prevent reintroduction into population and environment?
Fully satisfactory \boxtimes Satisfactory (needs minor actions) \square Needs major improvement \square Please support your conclusion with key points
1. National Public Health laboratory (NPHL) conducted inspection visit of priority laboratories to update laboratory inventory. Total of seven 12 labs were inventoried in 2021.
2. NPHL is not storing any potential poliovirus samples at NPHL lab.

Section 6: National risk assessment and preparedness for detection of and response to wild poliovirus importation and cVDPV



2021 🛛 2022 Year:

National level 2021 2022

Sub-nation level 2021 2022

If national or sub-national risk assessment was performed in 2020 or 2021, share the methodology and conclusions.

National risk assessment methodology: WHO SEAR national risk assessment model adopted to assess subnational level risk. National risk model was developed as a function of population susceptibility to polio outbreak, ability of surveillance to rapidly detect polio cases and other population specific vulnerabilities. Countries are categorized as high risk, medium risk and low risk based on weighted score obtained in each of the three composite indictors. However, for subnational risk model, all three factors were not applicable. Susceptibility and surveillance indicators, two factors, were used in subnational risk.

2022 subnational polio risk score was derived using data from 2020 till July 2022 for population susceptibility and surveillance taking 60/40 weightage. The risk score was categorized into three categories: high (score with greater than 40), medium (score: score 25 to 39) and Low (score: less than 25). The assessment showed that 38% of total population, 36 (47%) districts are at high risk. Similarly, 26% of the population, 21(27%) districts fall under medium risk category and rest are low risk category.

National Immunization Programme communicated to respective provinces regarding the risk and to act upon to mitigate the risk through strengthening surveillance and immunization activities.

Does the country have a national outbreak preparedness plan? Yes No

Which year was the most recent update of the plan undertaken?

14 | Maintaining polio-free status during COVID-19 pandemic

Year: 2020	\boxtimes	2021		2022	
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Which SOP of the Global Polio Eradication Initiative was used?

National Immunization Program (NIP) drafted National polio outbreak preparedness plan in early 2020; however, due to COVID-19 pandemic NIP could not take it forward. The SOP polio outbreak response version-20190301 was used to draft guidelines. Now, NIP is updating guidelines based on new SOP of March 2022 version.

Conclusion 4: In 2021, were levels of preparedness for timely and reliable detection of and response to poliovirus occurrence adequate and up to date?
Fully satisfactory $oximes$ Satisfactory (needs minor actions) $oximes$ Needs major improvement $oximes$
 Please support your conclusion with key points Both national and subnational AFP surveillance indicators were above recommended targets. No VDPV, Sabin type 2 cases were detected from AFP cases and environmental surveillance samples.
 Periodic routine immunization and surveillance performance indicators were shared with expert committees and stakeholders for review, feedback, and recommendation. Desk and field review of five permanent environmental surveillance sites conducted in Aug 2021. Performance evaluation of sites based on percentage of non-polio enterovirus detection is satisfactory.
Periodic cross-border AFP case notification and coordination of detected and reported case from India.

Section 7: Action taken on recommendations of RCCPE14

RCCPE14 recommendation	Action taken
Strengthening efforts to provide polio vaccine to missed children by engaging local community with effective risk communication	Efforts are underway to engage local community with effective risk communication.
Review of surveillance performance	Quarterly feedback to provinces on polio-risk assessment, surveillance gap on expected AFP case reporting- ongoing. Regular review of polio/VPD surveillance performance conducted through SMO networks during district level and sub-district level VPD surveillance workshops. Ongoing active surveillance visit to all priority reporting units and major hospitals.

Expansion of environmental	National Public Health Laboratory (NPHL) completed exploratory
surveillance	field visit of proposed Env Sur sites and provided training to two
	Provincial Public Health Laboratories (PPHL) on expansion of ES
	sites.
	NPHL has plan to initiate ES sample collection from two provinces
	(Province no1 and Madesh Province) by end of 2022.
	NPHL also has plan to expand ES sites in two other provinces
	(Gandaki Province and Lumbini Province) by Q2, 2023.
Full implementation of GAP III and	Ongoing
visit eligible labs	
Simulation exercise of Polio outbreak	National Immunization Program plan to endorse polio outbreak
preparedness plan by 2022	response plan followed by polio outbreak simulation exercise in
	Q4-2022.
Mooting of National Task Force and	NPHL has plan to conduct two meetings of National Task Force
Meeting of National Task Force and	
update of lab inventory	(Sep and Nov) in 2022. Field visit of eligible labs are ongoing.

Section 8: Key issues and challenges identified by NCCPE

Key issues polio immunization	Recommendations
Low coverage of OPV3 in more than one- third of total districts in 2021 with large	Identify areas with missed children and draw specific strategy to vaccinate missed children.
cohort of missed children with OPV3 and fIPV2	Enhance advocacy meeting with health workers, partners/stakeholders on delayed vaccination schedule particularly in municipality areas.
Missed IPV cohort of children from 2016- 2018	Conduct catch-up IPV vaccination campaign as early as possible.
Regular review of routine immunization coverage	Conduct quarterly RI and VPD data review workshop/meeting with provincial health authorities to provide corrective feedback to subnational level.
Supportive supervision and monitoring of data entry at local level	Conduct quarterly supportive supervision of priority municipality on RI coverage and RI data entry system, challenges, and gap.
Modification of time schedule of fIPV dose as per SAGE guideline.	Suggest fIPV vaccination first dose on 14 th week of age and second dose along with first dose of measles rubella vaccine at 9 months of age. NIAC meeting planned for 5 Sep 2022 to finalize this agenda.

Key issues polio surveillance	Recommendations
Risk of funding gap for WHO supported polio surveillance network after Dec 2022.	Finalize and endorse Polio Transition Plan with predictable and sustained funding to sustain polio achievement and sustain poliofree status of Nepal.
No designated VPD surveillance and Data focal point at subnational level.	Ensure all subnational level have designated VPD/Polio and Data focal person to review VPD cases, review program data and conduct epidemiological analysis of VPD outbreak.
Little involvement of private sectors in VPD/polio surveillance activities	Ensure all municipalities have at least one reporting units incorporating private sectors, informers, and traditional medicine practitioners.
	Expansion of reporting units as per population density, health seeking behaviour and surveillance sensitivity and priority of municipalities.
	Advocate and engage municipality chief/private sectors/medical colleges on polio and priority VPD surveillance activities.
Advocacy with subnational government on sustaining polio surveillance activities.	Conduct advocacy meeting with Municipality Chief on how to own polio surveillance program at local level and maintain polio free-Nepal.

Key issues facility containment of polioviruses	Recommendations
No National Action Plan on poliovirus lab containment	Develop National Action Plan on Poliovirus lab containment in line with global guidance.
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Key issues polio outbreak	Recommendations	
preparedness		
Pending development of polio outbreak preparedness Plan	Finalize and endorse polio outbreak preparedness plan in line with GPEI global guidelines March 2022.	
	Ensure all level of government and stakeholders/partners are well informed and oriented on their role/responsibilities during polio outbreak (event/outbreak) through polio outbreak simulation exercise.	

Any other relevant issues	Recommendations
Limited engagement of professional	Conduct interactive meeting/workshops with professional
organization on strengthening	organizations on sustaining polio-free status and achieving priority
polio/VPD surveillance.	VPD elimination goal of Nepal.

Annex:

NCCPE meeting minutes

Meeting Minute- National Certification Committee for Polio Eradication (NCCPE)

Date and Day: 23 September 2021, Thursday

Time: 11:30 – 1:45 PM

Venue: National Health Training Center, Teku

Meeting Participants:

S.N.	Name	Designation
1	Dr. Badri Raj Pande	Chairperson, NCCPE
2	Dr. Vraj Kishore Thakur	Member, NCCPE
3	Dr. Hukum Deo Sah	Member, NCCPE
4	Dr. Rameshwor Man Shrestha	Member, NCCPE
5	Mr. Arjun Bahadur Singh	Member, NCCPE
6	Dr. Bibek Kumar LaL	Director, FWD
7	Mr. Sagar Dahal	EPI Chief, FWD
8	Ms. LiLee Shrestha	Chief Medical Lab Technologist, NPHL
9	Mr. Bimalesh Kumar Jha	Microbiologist, NPHL
10	Dr. Vinod Bura	Team Lead, WHO IPD
11	Dr. Rahul Pradhan	NPO- WHO IPD
12	Ms. Mona Lacoul	NPO-WHO IPD
13	Mr. Sushil Shakya	Data Assistant
14	Dr. Pasang Rai	VPD Surveillance FP
15	Dr. Dipesh Man Shrestha	Immunization Monitoring FP
16	Dr. Abhiyan Gautam	New Vaccine Officer
17	Ms. Kavita Bhandari	Immunization Assistant
18	Dr. Dipendra Khatiwada	SMO- Link Person

Objectives: The objectives of the NCCPE meeting were to discuss on following agenda:

- Review overall impact of COVID-19 on national polio immunization, surveillance including environmental surveillance
- Update on poliovirus laboratory containment activities
- Polio Transition plan of the government of Nepal
- Way forward and guidance note from NCCPE Chair and members
- Planning for forth coming 14th SEA-RCCPE meeting being held on 20-22 October 2021 (virtual).

Agenda: Annex-1

The meeting started with welcome speech from EPI Chief, Mr. Sagar Dahal. He welcomed all NCCPE members, NPHL staffs and WHO IPD technical staffs.

After introduction of the participants, Dr. Badri Raj Pande, Chairperson NCCPE- Nepal, spoke on the objectives of the NCCPE meeting. At first, he briefly stated on terms of reference of NCCPE committee.



NCCPE is an independent committee to advice Government of Nepal (GoN) on all programmatic issues related to polio eradication. NCCPE meeting was last held in 27 August 2020 for finalization of NCCPE-Nepal report to South East Asia- Regional Certification Committee for Polio Eradication (SEA RCCPE) scheduled on 22-24 September 2020 (virtual). Regular NCCPE meeting can address polio eradication related issues including addressing recommendation made by RCCPE meeting.

Mr. Sagar Dahal, EPI chief of Family Welfare Division (FWD), presented on Polio transition plan of Nepal. He presented on principles of polio transition as per Global Polio Eradication Initiative (GPEI) guidelines. He briefed participants on- why we need to transition polio assets, polio transition activities, road map based on global guidance, National purpose, principles and challenges for polio transition. He also shared national milestone, sub-activity and status. He stated that, at present, FWD has not yet formally endorsed document on National Polio transition plan. FWD would like to review the various polio eradication related activities at different level (field-district-province and federal level), critically analyze polio activities and develop draft Nepal transition plan. FWD will share a new plan to relevant stakeholder/partner for further refinement of National Transition Plan.

Mr. Bimalesh Kumar Jha, microbiologist from National Public Health Laboratory (NPHL), presented on National Polio Laboratory containment activities and poliovirus environmental surveillance. He briefed on National Task Force activities on containment of polio virus program. He discussed in detail the annual activities of National Task force. He also briefed the NCCPE and FWD on challenges faced and support needed including awareness about containment activities, training/capacity building in handling infectious materials and continuation of updating laboratory inventories throughout all provinces of Nepal.

NPHL, in coordination with WHO, has been conducting environmental surveillance of poliovirus from five different sites of Kathmandu Valley from Nov 2017. Because of COVID-19 pandemic and government imposed restricted movement with shortage of few essential reagents, NPHL was unable to conduct sewage sample collection from 14 to 46 week in 2020. However, after resumption of person movement and supply of reagent, NPHL has been regularly collecting and processing environmental sewage samples. Mr. Bimalesh Kumar Jha concluded presentation with way forward highlighting capacity building of NPHL on poliovirus, establishment of poliovirus molecular facility, accreditation process, strengthening laboratory capacity of newly established provincial public health laboratory (PPHL). There was discussion on expansion of environmental surveillance sites in other parts of country in line with global guidance. Looking at the current sewage system in country, NCCPE members and FWD also discussed on finding country specific modality on identification of appropriate environmental surveillance sites in other provinces.

Dr. Pasang Rai, on behalf of Dr. Vinod Bura Team Lead WHO IPD, presented on impact of COVID-19 on National Polio surveillance- Nepal. The presentation was made on global polio status, national polio surveillance status, impact of covid-19 on routine immunization (RI), surveillance and environmental surveillance. Dr. Rai also presented on supplementary immunization activities (SIA) conducted in 2020. Later, he presented on activities conducted to improve RI and strengthen surveillance activities. Pasang Rai also discussed on priorities on polio eradication.

During a discussion, NCCPE Chair recapitulated on measures to sustain polio free status in Nepal. He highlighted the importance of regular NCCPE meeting to update on the implementation status of the recommendation made by RCCPE meeting. NCCPE chair stressed the need to vaccinate missed cohort of



Meeting Minute- National Certification Committee for Polio Eradication (NCCPE)

Date and Day: 11 October 2021, Monday

Time: 11:30 - 12:30 PM

Venue: WHO IPD meeting hall, Teku

Meeting Participants:

S.N.	Name	Designation	
1	Dr. Badri Raj Pande	Chairperson, NCCPE	
2	Dr. Vraj Kishore Thakur	Member, NCCPE	
3	Dr. Rameshwor Man Shrestha	Member, NCCPE	
4	Mr. Sagar Dahal	EPI Chief, FWD	
5	Dr. Vinod Bura	Team Lead, WHO IPD	
6	Dr. Rahul Pradhan	NPO- WHO IPD	
7	Ms. Mona Lacoul	NPO-WHO IPD	
8	Mr. Sushil Shakya	Data Assistant	
9	Dr. Pasang Rai	VPD Surveillance FP	
10	Dr. Abhiyan Gautam	van Gautam New Vaccine Officer	
11	Dr. Dipendra Khatiwada	SMO- Link Person	

Objectives: To finalize NCCPE report to 14th SEA RCCPE scheduled on 20-22 October 2021.

Agenda: Annex-1

The meeting started with welcome speech by Dr. Badri Raj Pande, Chairperson NCCPE- Nepal. He welcomed all participants and explained objectives of in-person NCCPE meeting to identify incomplete data and information, critically review surveillance and immunization performance and incorporate feedback and recommendation in the report. EPI Chief delivered brief opening remarks, highlighted purpose of meeting and requested all participants for inputs, comments and recommendations on draft NCCPE report.

The joint discussions were done in the following points:

- 1. During 2018-2020, the estimated total number of children missed by OPV3 and IPV/fIPV was 205,149 and 915,307 respectively. The large number of missed children with IPV/fIPV is due to global shortage of IPV vaccine in 2018 and effect of COVID-19 pandemic in 2020 when coverage of IPV/fIPV decreased to 73%.
- 2. Participants felt need of incorporating sub-national risk assessment for 2021. The data generated from SEARO Polio risk assessment tool showed that the high, medium and low risk districts were 57%, 14% and 6% respectively.
- 3. NCCPE members recommended identifying areas with missed children and draw strategy to vaccinate them. NCCPE members recommended GPEI and WHO to identify and deliver IPV supplies to Nepal in order to mitigate the risk.

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- 4. For reduced surveillance reporting of AFP cases in 2020, NCCPE members recommended to increase surveillance trainings of priority districts incorporating new reporting units and private sectors.
- 5. Environmental surveillance (ES) is essential part of polio surveillance activities. So, participants suggested to ensure continuation of environmental sampling with periodic review of collection time. In addition, NCCPE members advised National Immunization program (NIP) to conduct feasibility study of ES in major cities of other provinces as per new GPEI guidance.
- 6. Participants discussed briefly on key issues of COVID-19 pandemic impact on critical polio functions including surveillance, immunization, sample transportation. Due to COVID-19 lockdown and restricted movement, NCCPE members could not conduct surveillance visit to subnational level. NCCPE members felt necessity of monitoring visit to provide corrective feedback based on surveillance and immunization gap.
- 7. NCCPE members and participants discussed recommendations of 13 SEA-RCCPE and reviewed action taken for each recommendation.

Dr. Vinod Bura, Team Lead WHO IPD, thanked NCCPE Chair and members and assured the committee for incorporating all feedback and recommendation given.

At the end of session, NCCPE Chair discussed on follow-up of 13th SEA RCCPE recommendation and thanked everyone presented in the meeting for making NCCPE country report for RCCPE. EPI chief delivered brief closing remarks. He acknowledged NCCPE chair and members for continued guidance and suggestion for strengthening polio eradication programme.

Annex-1:

Agenda: National Certification Committee for Polio Eradication (NCCPE) Meeting

Oartment of Health Teku, Kathmando

Date: 11 October 2021, Monday Time: 11:30 – 12:30 PM Venue: WHO IPD Meeting Hall, Teku

Time	Topics	Facilitator/Presenter
11:30-11:45	Welcome remarks Objectives of the meeting	Dr. Badri Raj Pande, Chair NCCPE FWD- Director/EPI Chief
11:45- 12:15	Review and Finalize NCCPE report to SEA-RCCPE Discussion	Dr. Badri Raj Pande, Chair NCCPE
12:15- 12:30	Closing remarks Vote of thanks	 Dr. Badri Raj Pande, Chair NCCPE FWD- Director/EPI Chief

Section Chief

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under five children since earlier time. He raised concern on how to sustain current polio surveillance network of WHO IPD when GPEI funding is ramp down from 2019. He informed forthcoming 14th SEA-RCCPE meeting and suggested partners and FWD to work closely for NCCPE country report for RCCPE. NCCPE chair appreciated the presentation and active participation of NCCPE members.

At the end, EPI chief acknowledged NCCPE chair and members for continued guidance and suggestion for strengthening polio eradication programme.

Annex-1:

Agenda: National Certification Committee for Polio Eradication (NCCPE) Meeting

Date: 23 Sep 2021, Thursday Time: 11:30 – 1:45 PM Venue: WHO IPD Meeting Hall, Teku

Time	Topics	Facilitator/Presenter
11:30-11:45	Welcome remarks	FWD- Director/EPI Chief
	Objectives of the meeting	Dr. Badri Raj Pande, Chair NCCPE
11:45- 12:30	 Impact of COVID-19 on National Polio surveillance activities (Polio RI and AFP and Environmental Surveillance status) Update on Poliovirus Lab containment activities-NPHL 	 Dr. Vinod Bura Mr. Bal Krishna Awal, NPHL
12:30 - 1:00	 How to sustain polio surveillance activities? Guidance Note Planning for 14th SEA- RRCPE meeting 20-22 Oct 2021 	Dr. Badri Raj Pande, Chair
1:00-1:15	Polio Transition	FWD/EPI Chief
1:15- 1:30	Discussion and way forward	All participants
1:30- 1:45	Closing remarksVote of thanks	 Dr. Badri Raj Pande, Chair NCCPE FWD- Director/EPI Chief



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National Certification Committee for Polio Eradication (NCCPE) Meeting, Minute

Date: 22 March 2022, Tuesday Time: 10:00 AM -1:00 PM Venue: WHO IPD -Teku Kathmandu

Meeting Attendees:

S.N.	Name	Designation	In-Person/Virtual
1	Dr. Badri Raj Pande	Chairperson, NCCPE	In-person
2	Dr. Vraj Kishore Thakur	Member, NCCPE	In-person
3	Dr. Hukum Deo Sah	Member, NCCPE	In-person
4	Mr. Arjun B. Singh	Member, NCCPE	In-person
5	Dr. Rameshwor Man Shrestha	Member, NCCPE	In-person
6	Mr. Sagar Dahal	EPI Chief, FWD	In-person
7	Dr. Vinod Kumar Bura	Team Lead, WHO-IPD	In-person
8	Mr. Bimalesh Kumar Jha	Lab Technologist, NPHL	In-person
9	Dr. Rahul Pradhan	NPO, Immunization	Virtual
10	Ms. Mona Lacoul	NPO, Data	In-person
11	Dr. Pasang Rai	NPO, Surveillance	in-person
12	Dr. Dipendra Khatiwada	SMO, Link Person	Virtual
13	Ms. Rojeena Pradhan	Admin and Finance Assistant	In-person
14	Mr. Sushil Shakya	Data Assistant	Virtual
15	Ms. Punyashwori Koju	Data Assistant	In-person
16	Ms. Kavita Bhandari	Consultant, WHO IPD	In-person
17	Mr. Bhisnu Poudel	Consultant, WHO IPD	In-person

The meeting started with welcome remark from EPI Chief, Mr. Sagar Dahal. He welcomed all participants including NCCPE members, WHO IPD and NPHL staffs. Dr. Badri Raj Pande, Chairperson NCCPE- Nepal, explained basic purpose of the meeting and called the meeting to order.

Dr. Vinod Kumar Bura, Team Lead WHO IPD, presented on Global Polio update and briefed on regional polio transition strategies including urgent need of National polio transition plan for Nepal to sustain current polio networks.

EPI chief made PowerPoint presentation on National update on Polio Surveillance and immunization-2021. He shared AFP surveillance indicators of 2019-2021 highlighting major AFP surveillance indicators including provinces. He also shared national and provincial level polio immunization coverage of 2019-2021 providing lists of low performing districts on OPV3 and fIPV3 in 2022. He discussed on major strength in polio surveillance and on critical areas of concern hand how to strengthen overall polio program in the country to sustain polio free status.

Later, EPI chief presented follow-up actions on recommendation made by 14th Regional Certification Commission for Polio Eradication -RCCPE (virtual) meeting held in October 2021 as below:

Recommendations for Nepal	Status as of 22 March 2022
Strengthening efforts to provide polio vaccine	Ongoing
to missed children by engaging local	i de
community with effective risk communication	





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Review of surveillance performance	Ongoing routine activity through technical support of independent monitors and SMO network at all priority subnational level.	
Expansion of Environmental surveillance sites	Continuous and ongoing activity both at subnational (field) and federal level.	
Full implementation of GAP III and visit eligible labs	Ongoing	
Simulation exercise of Polio Outbreak Preparedness plan by 2022.	Draft National Polio Outbreak response plan will be reviewed from FWD and endorsed by MoHP (expected Q2, 2022). Then, simulation exercise will be conducted by Q3, 2022.	
Meeting of National Task Force and update of lab inventory	NPHL has plan to conduct two National Task Force meetings in 2022. Field visit of eligible labs are ongoing (first visit completed in 3 rd week March 2022).	

Dr. Pasang Rai, NPO surveillance, presented on Polio risk assessment findings highlighting priority districts on surveillance and immunization. The district level polio risk-2022 showed 24 high risk districts, 27 medium risk districts and 26 low risk districts. Most high-risk districts are from Gandaki Province, Province 1 and Bagmati Province. The district level surveillance risk index showed seven (Ilam, Sarlahi, Kathmandu, Dang, Pyuthan, Rolpa and Salyan) high risk districts and district level susceptibility index showed 45 high risk, 14 medium risk and 18 low risk districts. Most high-risk districts under susceptibility index are from Gandaki Province, Bagmati Province and Province 1.

Mr. Bimalesh Kumar Jha updated on national polio laboratory surveillance. Mr. Jha elaborated terms of reference of National Task Force, polio Environmental surveillance (ES) activities, prioritization and geographical distribution of laboratories, update on recently visited laboratories including facilities inventory status. The national task force has updated inventory of seven (7) new facilities in 2021. The inventory of all 36 priority-1 facilities and all 15 priority-2 facilities were completed. NPHL has updated inventory digital database of all facilities. Mr. Jha presented briefly on Environmental Surveillance expansion plan, laboratory challenges, support required and way forward. At the end of the presentation, Mr. Jha shared that polio samples, both AFP and environmental sewage samples, are still being sent to NIV Mumbai. The chairman thanked all presenters for elaborate presentations.

NCCPE observation and Recommendations:

- 1. After presentation, general discussion followed. During discussion, the NCCPE chair highlighted on different activities of NCCPE members in sustaining polio free status including plan to participate in polio outbreak simulation exercise as recommended by RCCPE. Regarding other recommendations, Dr Pande pointed out on latest SAKE update on schedule of IPV vaccination. He recommends the need for rescheduling IPV administration in line with the immunization schedule as per SAGE recommendations.
- 2. As it was pointed out that 915,307 children, including 623,394 children had not been vaccinated due to unavailability of IPV vaccine in fiscal year 2018 and IPV doses had been missed during 2018-2020 and 205149 children had missed out OPV3 dose between 2018-2020, there was a need to develop strategies to identify these children, and program should ensure IPV vaccination of these children by end of 2022.

Meeting Minute- National Certification Committee for Polio Eradication (NCCPE)

Date: 21 June 2022, Tuesday Time: 10:00 AM -1:00 PM Venue: WHO IPD -Teku Kathmandu

Meeting Attendees:

S.N.	Name	Designation	In-Person/Virtual
1	Dr Badri Raj Pande	Chairperson, NCCPE	In-person
2	Dr Vraj Kishore Thakur	Member, NCCPE	In-person
3	Dr Rameshwar Man Shrestha	Member, NCCPE	In-person
4	Mr. Arjun B. Singh	Member, NCCPE	In-person
5	Dr Hukum Deo Sah	Member, NCCPE	In-person
6	Dr Dipendra Raman Singh	Director General- Health	In-person
7	Dr Bibek Kumar Lal	Director, FWD	In-person
8	Mr. Sagar Dahal	EPI Chief, FWD	In-person
9	Ms. Lilee Shrestha	Chief Med. Technologist	In-person
10	Mr. Bimalesh Kumar Jha	Lab Technologist, NPHL	In-person
11	Mr. Mahesh Kharel	Microbiologist	In-person
12	Mr. Sanjay Kumar Mahaseth	PHO, FWD	In-person
13	Dr Rahul Pradhan	NPO, Immunization	In-person
14	Dr Pasang Rai	NPO, Surveillance	In-person
15	Dr Dipesh Shrestha	IMFP	In-person
16	Ms. Sanju Bohara	Trainee, WHO	In-person
17	Ms. Ranjana Chaudhary	Trainee, WHO	In-person

The meeting started with welcome remark from Dr Bibek Kumar Lal, Director- Family Welfare Division (FWD). He welcomed all participants including NCCPE members, WHO IPD and NPHL staffs. Dr Badri Raj Pande, Chairperson NCCPE-Nepal, explained basic purpose of the meeting and called the meeting to order.

Dr Rahul Pradhan, NPO Immunization WHO IPD on behalf of Team Lead WHO-IPD, presented on regional polio update. He briefed on regional AFP surveillance status comparing reported AFP cases, non-polio AFP cases of 2021 and 2022 by months. The reported AFP cases showed similar trends of last three years. He also explained status of ongoing environmental surveillance from five different sites of Kathmandu Valley with no evidence of any VDPV or wild polio virus.

Mr. Sagar Dahal, EPI chief, made presentation on National update on Polio Surveillance and immunization-2022. He shared AFP surveillance indicators of 2020-2022 comparing key surveillance indicators by provinces and highlighted Nonpolio AFP rate, stool adequacy rate and silent districts (34) on AFP case reporting. National AFP surveillance (data as of 17 June 2022) showed that 10 districts of Province 1, 3 districts of Bagmati Province, 8 districts of Gandaki Province, 5 districts of Lumbini Province, 4 districts of Karnali Province and 4 districts of Sudurpashchim Province are silent in AFP case reporting. Vaccination status of discarded AFP cases (age 6-59months) 2020-2022 showed less than 1 per cent of reported AFP cases were zero dose. These missed children were timely communicated to local authority for delayed vaccination.

Compared to 2020, OPV3 and fIPV2 coverage increased in 2021 and 2022. However, subnational data showed gap in coverage equity. Only Bagmati Province and Sudurpashchim Province coverage were 90% and above. OPV3 coverage in municipalities by province (data annualized for 11 months-current fiscal year) showed that 200 municipalities have less





than 70% OPV3 coverage and fIPV2 coverage in municipalities by province (data annualized for 11 months-current fiscal year) showed that 231 municipalities have less than 70% fIPV2 coverage.

EPI Chief also presented strengths and areas of concern related to National polio surveillance. The current polio networks have been able to achieve and maintain key surveillance indicators and supporting other nationwide VPD surveillance (measles and rubella, JE/AES, neonatal tetanus) and sentinel surveillances (rotavirus, IBD). EPI chief is aware of the delay in drafting polio transition plan, IPV missed cohort, advocacy on initiation and expansion of environmental surveillance from all priority major cities of country, update/development of National VPD surveillance guidelines including National Laboratory specimen collection SOP/guideline. Later, EPI chief presented follow-up actions taken by National Immunization Program (NIP) to improve coverage in less performing municipalities and on recommendation made by 14th Regional Certification Commission for Polio Eradication -RCCPE (virtual) meeting held in October 2021.

Ms. Lilee Shrestha from National Public Health Laboratory (NPHL) shared activities undertaken by NPHL on poliovirus laboratory containment activities. NPHL has been updating lab inventory of priority labs in the country. Mr. Bimalesh Jha, microbiologist from NPHL, updated environmental surveillance activities. NPHL conducted exploratory field visit in Biratnagar, Janakpur and Kathmandu for expansion of environmental surveillance sites and NPHL plan to initiate sample collection from 4 sites of Biratnagar, 5 sites of Janakpur.

National Polio outbreak response plan is being updated in the light of recent global guidelines and final draft will be circulated among the stakeholders by August 2022. Polio Outbreak Response Simulation exercise will be subsequently carried out. Because of time constraint, meeting attendees decided to continue remaining presentation and update in next NCCPE meeting.

Discussions:

NCCPE was informed about the meeting on drafting National Polio Transition Plan. Attendees discussed on hiring a national consultant to draft it. It was suggested that a National Consultant be appointed for the job with technical support by international expert as required. Attendees also suggested that National Consultant will work in close coordination Family Welfare Division, relevant division of Department of Health Services and partners in drafting a Plan. WHO regional office can consider hiring international consultant for technical support, feedback, and review of National Polio Transition Plan. The Director General remarked that he was keen to see the plan early and appreciated work carried out by the SMO in immunization program in general and monitoring of Covid-19 vaccination besides their routine work on polio surveillance activities.

NCCPE chair suggested rescheduling of fIPV vaccination schedule in accordance with recent SAGE recommendation to provide two doses. He suggested that the first dose fIPV be given at 14 weeks and second dose at 9 months of age.

NCCPE members shared field observations findings from Dadeldhura and Dolakha districts. Some of the key recommendation made by NCCPE members include special attention on district cold chain system to ensure effectiveness of vaccination program, training to health staffs of both reporting unit and non-reporting units on AFP surveillance and ensuring proper documentation of AFP surveillance in all reporting units. Further, quarterly coordination meeting among health office, municipalities, and health post to bridge gap in coordination function besides providing orientation on importance of AFP surveillance to local health staffs, health coordinators, ayurvedic doctors and paramedics was suggested.

EPI chief acknowledged NCCPE chair and members for continued guidance and suggestion for strengthening polio eradication program. NCCPE Chair acknowledged the participation of the Director General of Health Services for most part of the meeting and thanked for his guidance. He thanked the NCCPE members for active participation. He was appreciative of the presence of Director FWD, EPI chief, NPHL officials, IVD staff and other invitees and for their participations. He acknowledged active cooperation and support from NIP and concluded the meeting.

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Meeting Action Plan:

Activity	Coordination	Status and Timeline
Draft Polio Transition Plan- Nepal	FWD, WHO	WHO Nepal to hire an international consultant for technical support, feedback, and review of National Polio Transition Plan by 30 July 2022.
Efforts to provide IPV vaccine to missed children	FWD, WHO	 NIP conduct National Immunization Advisory Committee (NIAC) meeting to identify strategies on reaching missed IPV cohort and endorse a document from NIAC by 30 July 2022. NIP to draft GAVI IPV application to catch missed children by 30 Aug 2022.
Simulation exercise of Polio Outbreak Preparedness plan	FWD, WHO	 Update National Polio Outbreak response plan in line with Global guideline (30 Aug 2022). Conduct Polio Outbreak Simulation exercise by 30 Sep 2022.
Expansion of Environmental surveillance sites	NPHL	 Environmental Surveillance sample collection training of province 1 completed in June 2022. NPHL conducting field visit — Janakpur, Pokhara by Q3,2022. NPHL plan to conduct National workshop on Environmental Surveillance by Q3, 2022.

Annex 1: Meeting Agenda- National Certification Committee for Polio Eradication (NCCPE) Meeting

Date: 21 June 2022, Tuesday Time: 10:00AM –1:00 PM Venue: WHO IPD -Teku Kathmandu Date: 21

Meeting Agenda/Schedule

Time	Topics	Facilitator/Presenter
11:0-11:10	Welcome remarks	FWD- Director/EPI Chief
	Objectives of the meeting	Dr. Badri Raj Pande, Chair NCCPE
11:10- 11:45	Global Polio Surveillance Update National Polio Surveillance update-2022	Dr. Vinod Bura, IPD Team Lead
	Wationari one survemance aparte 2022	Mr. Sagar Dahal, EPI Chief
11:45 – 12:15	Polio Outbreak Response Plan- what are new in International Guideline?	Dr Pasang Rai
12:15-1:15	Discussion:	All NCCPE members and invitees
	Polio Outbreak Simulation exercise- Plan (when and how to conduct?)	
	IPV vaccination to missed cohort-	
1:15 - 1:30	Tentative field visit Plan of NCCPE members -2022	All NCCPE participants
1:30- 2:00	Closing remarks	Dr. Badri Raj Pande, Chair
	Vote of thanks	NCCPE
		 FWD- Director/EPI Chief

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Annex 2: Pictures of NCCPE meeting 21 June 2022.



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- 3. As Polio risk assessment revealed significant proportion of underperforming districts, it was recommended to FWD to organize a VPD expert committee meeting with Director General to provide advisory guidance to program division. EPI chief agreed that FWD would coordinate with DG to form Technical Working Group (TWG), a secretariate of National Task Force Committee, after completion of Typhoid vaccination campaign 2022.
- 4. It was recommended to FWD to share immunization/polio coverage update to province and palika to ensure palika ownership on immunization program. EPI chief pointed out that FWD had plan to share update, issues, and areas of concern with provinces and districts through virtual meetings.
- 5. It was recommended that International Cross border coordination meeting on surveillance be revived to share status of infectious disease across border.

Towards the end of session, EPI chief requested NCCPE members as National VPD expert committee members to support typhoid vaccination campaign, being held from 8 April to 1 May 2022, through active interview/interaction with media and supportive supervision with field visit. He acknowledged NCCPE chair and members for continued guidance and suggestion for strengthening polio eradication program. NCCPE chair thanked the members of NCCPE and all others for their active participations and presentations in particular the EPI chief for his welcome remarks and acknowledged his active cooperation and support to NCCPE and concluded the meeting.

Meeting Action Plan:

SN	Activity	Coordination	Timeline
1	Two new Environmental surveillance (ES) sites will be added to existing five ES sentinel sites.	NPHL	Q2-Q3, 2022.
2	Finalize and endorse Polio Outbreak Response plan- Nepal	FWD	Q2,2022
3	Desk- Polio outbreak response Simulation exercise	WHO	Q3,2022
4	Feedback to Province/district/municipality on surveillance/immunization status	FWD	Mid-April,2022
5	International Cross-border meeting	WHO	Q3,2022
6	Briefing Meeting of VPD/Immunization expert committees with Director General (DG) to provide advisory notes and form Technical Working Group (TWG) under National Task Force Committee of Polio containment.	FWD	Q2, 2022
7	Reschedule immunization schedule on IPV in line with SAGE recommendations	FWD	Q4,2022.





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Annex 1: Date: 22 March 2022, Tuesday Time: 10:00AM –1:00 PM Venue: WHO IPD -Teku Kathmandu

Time	Agenda	Facilitator/Presenter
10:00-10:05	Welcome remarks	FWD- Director/EPI Chief
	Objectives of the meeting	Dr. Badri Raj Pande, Chair NCCPE
10:05- 10: 15	Global Polio Update	Dr Vinod Bura, Team Lead WHO-IPD
10:15- 10:50	National update on Routine immunization and Polio Surveillance	Mr. Sagar Dahal, EPI Chief
	Follow up of 14th RCCPE recommendation	Mr. Sagar Dahal, EPI Chief
10:50- 11:00	Update on National Polio Laboratory surveillance-NPHL	Mr. Bimalesh Kumar Jha (NPHL)
11:00-11:10	Polio risk assessment-Findings 2021	Pasang Rai (WHO- IPD)
11:10 - 11:30	NCCPE Guidance to National Immunization program (NIP)	Dr. Badri Raj Pande, Chair NCCPE
11:30 - 12:00	Group discussion and feedback	All participants
12:00-12:20	Closing remarks and Vote of thanks	Dr. Badri Raj Pande, Chair NCCPE
		FWD- Director/EPI Chief
12:20- 1:00	Refreshment	

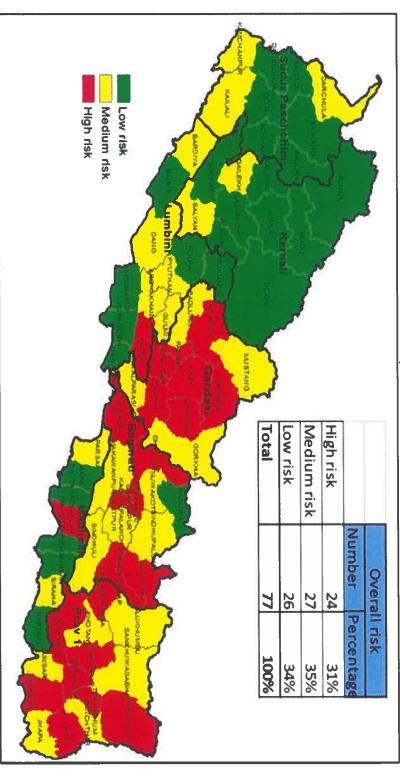
Annex 2: Nepal NCCPE meeting-22 March 2022.



Photo Courtesy: Dr. Pasang Rai WHO IPD Teku, Nepal

H. B.

District level polio risk-2022





Note: risk generated based on susceptibility index (60% weightage) and surveillance index (40% weightage)

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