

# **Polio Bulletin** 2024 Issue No. 1 - Week 1 (as of 2 January 2024)

#### HIGHLIGHTS



GPEI – a brief review of 2023 and full focus on 2024

The Global Polio Eradication Initiative has two goals laid out in its current strategy: to interrupt all remaining transmission of endemic wild poliovirus type 1 (WPV1) and to stop all outbreaks of variant poliovirus type 2 (cVDPV2). 2023 was a critical year for progressing on each of these, and while our urgent and diligent work to end polio must continue into 2024, the GPEI achieved incredible things in the past twelve months.

Despite significant geo-political and environmental challenges in the two remaining WPV1-endemic countries, Pakistan and Afghanistan, the polio programme has continued to reach greater numbers of children with polio vaccines.

Thanks to the novel oral polio vaccine type 2 (nOPV2), strong political commitment and community-based efforts to reach more children with the vaccine, the number of cases of variant poliovirus type 2 (cVDPV2) continued to decline in 2023.

Most importantly, thanks to the efforts of the GPEI and its partners, health workers vaccinated more than 400 million children in 2023, preventing an estimated 650,000 cases of paralysis from polio and saving the lives of up to 60,000 children.

For more information please visit:

https://polioeradication.org/news-post/gpei-a-brief-review-of-2023-and-full-focus-on-2024/\_

#### **CONTACT US**

Vaccine-Preventable Diseases and Immunization Regional Office for the Western Pacific World Health Organization P.O. Box 2932, 1000 Manila, Philippines Phone: +63 2 8528 8001 Fax: +63 2 8521 1036, 8526 0279 Email: wproepidata@who.int Web: www.who.int/westernpacific





Figure 2. Adequate specimen collection rate, 2021–2023



Figure 3. Percentage of reported AFP cases by number of polio vaccination doses, 2023



Figure 4. Percentage of reported AFP cases with pending classification > 90 days after onset, 2023



Note: Priority countries were selected for the charts. Official WHO acronyms have been used for abbreviation: CHN (China), KHM (Cambodia), LAO (Lao People's Democratic Republic), MYS (Malaysia), PHL (Philippines), PNG (Papua New Guinea), and VNM (Viet Nam).

## Table 1A. Classification of AFP cases with onset in 2022 and key surveillance indicators

	2021														
						Clas	sification				Indicators				
Country/area	Total reported cases	Annual expected cases <15 years of age	Total reported cases	Confirmed wild poliovirus	Vaccine- derived poliovirus (VDPV)	Polio- compatible	Discarded (Non-polio)	P	ending > 90 days <sup>1</sup> # (%)	Non-polio AFP rate	% with adequate specimens <sup>2</sup>	% investigated ≤ 2 days of notification <sup>3</sup>	Latest report date <sup>4</sup>	Days since last report <sup>5</sup>	
										≥ 1	≥ 80%	≥ 80%		≤ 30	
Australia	63	48	81	0	0	0	81	0	0 (0.0%)	1.70	72%	100%	11-Apr-23	-	
Brunei Darussalam	2	1	2	0	0	0	2	0	0 (0.0%)	2.16	50%	100%	20-Feb-23	-	
Cambodia	5	48	35	0	0	0	35	0	0 (0.0%)	0.73	63%	100%	01-Feb-23	-	
China	4769	2362	4225	0	0	0	4225	0	0 (0.0%)	1.79	92%	99%	26-May-23	-	
China, Hong Kong SAR	9	8	6	0	0	0	6	0	0 (0.0%)	0.78	67%	100%	28-Nov-23	-	
China, Macao SAR	1	1	1	0	0	0	1	0	0 (0.0%)	1.10	100%	100%	23-Feb-23	-	
Japan	0	148	41	0	0	0	40	1	1 (0.1%)	0.28	73%	98%	07-Dec-23	26	
Lao People's Democratic Republic	20	23	28	0	0	0	28	0	0 (0.0%)	1.22	64%	68%	09-Oct-23	-	
Malaysia	111	80	212	0	0	0	212	0	0 (0.0%)	2.65	76%	83%	03-Apr-23	-	
Mongolia	1	11	1	0	0	0	1	0	0 (0.0%)	0.09	100%	100%	10-Nov-23	-	
New Zealand	9	10	23	0	0	0	23	0	0 (0.0%)	2.37	35%	100%	28-Nov-23	-	
Papua New Guinea	52	38	59	0	0	0	59	0	0 (0.0%)	1.53	69%	83%	10-Nov-23	-	
Philippines	894	327	853	0	0	0	853	0	0 (0.0%)	2.60	79%	0%	23-Nov-23	-	
Republic of Korea	35	60	57	0	0	0	57	0	0 (0.0%)	0.95	82%	98%	08-Mar-23	-	
Singapore	4	6	11	0	0	0	11	0	0 (0.0%)	1.91	82%	82%	01-Feb-23	-	
Viet Nam	162	250	238	0	0	0	238	0	0 (0.0%)	0.95	98%	65%	12-May-23	-	
Pacific island countries and areas	16	11	7	0	0	0	7	0	0 (0.0%)	0.64	71%	71%	08-Nov-22	-	
Total	6153	3430	5880	0	0	0	5879	1	1 (0.02%)	1.71	88%	82%			

1. Number (%) of reported cases pending classification more than 90 days from date of onset of paralysis to date of last report

2. Percentage of reported cases with two stool specimens collected 24 hours apart and within 14 days of onset of paralysis

3. Percentage of reported cases investigated within two days of notification

4. Report date is fixed as soon as all cases for the year have been classified

5. Countries are expected to submit data at least once per month to WPRO



Reached or surpass target Nearly reached target 0.5-0.99 for non-polio AFP rate; 60-79% for other indicators Substantially below target

#### Table 1B. Classification of AFP cases with onset in 2023 and key surveillance indicators

	2022 2023													
						Clas	sification				Indicators			
Country/area	Total reported cases	Annual expected cases <15 years of age	Total reported cases	Confirmed wild poliovirus	derived	Polio- compatible	Discarded (Non-polio)	F	> 90 days <sup>1</sup> # (%)	Non-polio AFP rate <sup>2</sup>	% with adequate specimens <sup>3</sup>	% investigated ≤ 2 days of notification <sup>4</sup>	Latest report date	Days since last report <sup>5</sup>
										≥ 1	≥ 80%	≥ 80%		≤ 30
Australia	81	48	82	0	0	0	72	10	0 (0.0%)	1.72	60%	99%	02-Jan-24	0
Brunei Darussalam	2	1	1	0	0	0	1	0	0 (0.0%)	1.08	100%	100%	16-Nov-23	47
Cambodia	35	48	46	0	0	0	39	7	0 (0.0%)	0.96	91%	98%	03-Dec-23	30
China	4225	1877	4825	0	0	0	1798	3027	2,124 (44.0%)	2.57	91%	99%	29-Dec-23	4
China, Hong Kong SAR	6	8	16	0	0	0	14	2	0 (0.0%)	2.07	88%	100%	05-Dec-23	28
China, Macao SAR	1	1	1	0	0	0	1	0	0 (0.0%)	1.04	100%	100%	06-Dec-23	27
Japan	41	144	53	0	0	0	45	8	1 (1.9%)	0.37	70%	91%	26-Dec-23	7
Lao People's Democratic Republic	28	23	39	0	0	0	24	15	0 (0.0%)	1.70	<b>87</b> %	90%	19-Dec-23	14
Malaysia	212	75	230	0	0	0	216	14	0 (0.0%)	3.05	85%	86%	27-Dec-23	6
Mongolia	1	11	1	0	0	0	1	0	0 (0.0%)	0.09	100%	100%	20-Dec-23	13
New Zealand	23	10	10	0	0	0	8	2	0 (0.0%)	1.04	30%	90%	01-Dec-23	32
Papua New Guinea	59	39	53	0	0	0	45	8	3 (5.7%)	1.34	60%	70%	24-Nov-23	39
Philippines	809	342	890	0	0	0	417	473	312 (35.1%)	2.60	66%	43%	19-Dec-23	14
Republic of Korea	57	57	49	0	0	0	41	8	0 (0.0%)	0.86	84%	100%	26-Dec-23	7
Singapore	11	6	3	0	0	0	3	0	0 (0.0%)	0.52	100%	100%	04-Dec-23	29
Viet Nam	238	222	263	0	0	0	145	118	35 (13.3%)	1.18	100%	33%	18-Dec-23	15
Pacific island countries and areas	7	10	24	0	0	0	20	4	0 (0.0%)	2.34	50%	63%	28-Nov-23	35
Total	5836	2921	6586	0	0	0	2890	3696	2,475 (37.6%)	2.25	<b>87</b> %	88%		

1. Number (%) of reported cases pending classification more than 90 days from date of onset of paralysis to date of last report

2. Annualized non-polio AFP rate per 100 000 population under 15 years of age

3. Percentage of reported cases with two stool specimens collected 24 hours apart and within 14 days of onset of paralysis

4. Percentage of reported cases investigated within two days of notification

5. Countries are expected to submit data at least once per month to WPRO



Reached or surpass target

Nearly reached target 0.5-0.99 for non-polio AFP rate; 60-79% for other indicators Substantially below target

		Results of virus isolation for AFP cases										1	1	Results of intratypic differentiation (ITD)/sequencing for virus isolates												,
		Tabal an of			Resu			i cuses			Intratypic			Type 1		1403	Type 2	itypic uniter		Туре			isolates			
Country/area	Polio laboratory <sup>1</sup>	Total no. of AFP cases with specimens	L20B positive	L20B positive + NPEV	NPEV only	Negative	Pending	% results reported ≤ 14 days ≥ 80%	% specimens positive for NPEV	Latest report date	differentiation/ Sequencing laboratory <sup>1</sup>	No. of isolates received	Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild			PV NF	PEV <sup>2</sup>	Pending ITD	Discordant pending sequencing	% ITD results reported $\leq$ 7 days of receipt $\geq$ 80%
Australia	VIDRL	78	1	1	3	73	0	95%	3%	31-Jan-23	VIDRL	3	0	0	0	0	0	0	0	0	0		3	0	0	100%
Brunei Darussalam	VIDRL	2	0	0	0	2	0	100%	0%	16-Jan-23	VIDRL	0	-	-	-	-	-	-	-	-	-		-	-	-	-
Cambodia	NIID	35	1	0	2	32	0	97%	7%	31-Dec-22	NIID	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China (total)		4182	2	7	1	4162	10	98%	0.1%	26-May-23		19	0	11	0	0	0	0	0	8	0		0	0	0	100%
China, Anhui	Prov. Lab	268	0	0	0	268	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Beijing	Prov. Lab	34	0	0	0	33	1	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Chongqing	Prov. Lab	36	0	0	0	36	0	97%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Fujian	Prov. Lab	132	0	0	0	132	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Gansu	Prov. Lab	52	0	0	0	50	2	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	- 1	- 1
China, Guangdong	Prov. Lab	452	0	2	0	449	1	92%	0.2%		Prov. Lab/CCDC	4	0	4	0	0	0	0	0	0	0		0	0	0	100%
China, Guangxi	Prov. Lab	216	0	0	1	215	0	100%	0.2%		Prov. Lab/CCDC	3	0	2	0	0	0	0	0	1	0		0	0	0	100%
China, Guizhou	Prov. Lab	175	0	0	0	173	2	97%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	- 1	
China, Hainan	Prov. Lab	48	0	0	0	48	0	96%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Hebei	Prov. Lab	225	0	0	0	225	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Heilongjiang	Prov. Lab	29	0	0	0	29	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Henan	Prov. Lab	437	1	2	0	432	2	100%	0.2%		Prov. Lab/CCDC	7	0	3	0	0	0	0	0	4	0		0	0	0	100%
China, Hubei	Prov. Lab	108	0	0	0	108	0	92%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Hunan	Prov. Lab	198	0	0	0	198	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Jiangsu	Prov. Lab	173	0	0	0	173	0	99%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Jiangxi	Prov. Lab	142	0	1	0	141	0	99%	0.4%		Prov. Lab/CCDC	1	0	0	0	0	0	0	0	1	0		0	0	0	100%
China, Jilin	Prov. Lab	31	0	0	0	31	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Liaoning	Prov. Lab	60	0	0	0	60	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Neimongol	Prov. Lab	93	0	0	0	93	0	99%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Ningxia	Prov. Lab	12	0	0	0	12	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Qinghai	Prov. Lab	6	0	0	0	6	0	67%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Shaanxi	Prov. Lab	71	0	0	0	71	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Shandong	Prov. Lab	243	0	0	0	243	0	99%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Shanghai	Prov. Lab	33	0	0	0	33	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Shanxi	Prov. Lab	79	1	1	0	76	1	97%	1%		Prov. Lab/CCDC	1	0	1	0	0	0	0	0	0	0		0	0	0	100%
China, Sichuan	Prov. Lab	348	0	0	0	348	0	99%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	- 1	-
China, Tianjin	Prov. Lab	11	0	0	0	11	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Xinjiang	Prov. Lab	88	0	1	0	87	0	100%	1%		Prov. Lab/CCDC	2	0	0	0	0	0	0	0	2	0		0	0	0	100%
China, Yunnan	Prov. Lab	207	0	0	0	206	1	90%	0%		Prov. Lab/CCDC	1	0	1	0	0	0	0	0	0	0		0	0	0	100%
China, Zhejiang	Prov. Lab	166	0	0	0	166	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Tibet	Prov. Lab	9	0	0	0	9	0	33%	0%		CCDC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
China, Hong Kong SAR	PHLC	6	0	0	0	6	0	100%	0%	26-Jan-23	PHLC	0	-	-	-	-	-	-	-	-	-		-	-	- 1	-
China, Macao SAR	PHLC	1	0	0	0	0	0	100%	0%	03-Jan-23	PHLC	0	-	-	-	-	-	-	-	-	-		-	-	-	-
Japan	NIID	36	0	0	0	36	0	97%	0%	01-May-23	NIID	0	-	-	-	-	-	-	-	-	-		-	-	-	-
Lao People's Democratic Republic	NIID	28	0	0	2	26	0	96%	5%	10-Oct-23	NIID	0	-	-	-	-	-	-	-	-	-		-	-	-	-
Malaysia	IMR	223	0	0	4	219	0	91%	1%	15-Dec-23	IMR/VIDRL	0	-	-	-	-	-	-	-	-	-		-	-	-	-
Mongolia	NCPH	1	0	0	0	1	0	100%	0%	06-Nov-23	NCPH/NIID	0	-	-	-	-	-	-	-	-	-		-	-	-	-
New Zealand	IESR	15	0	0	2	12	0	100%	7%	16-Feb-23	IESR	0	-	-	-	-	-	-	-	-	-		-	-	-	-
Papua New Guinea	VIDRL	57	1	1	4	51	0	81%	8%	14-Nov-23	VIDRL	3	0	0	0	0	0	0	0	0			3	0	0	100%
Philippines	RITM	827	5	1	63	758	0	98%	6%	11-Sep-23	RITM/NIID	19	0	8	0	0	0	0	0	11	0		0	0	0	100%
Republic of Korea	KDCA	57	0	0	7	50	0	82%	11%	19-Jan-23	KDCA	0	-	-	-	-	-	-	-	-	-		-	-	-	-
Singapore	SGH	11	0	0	0	11	0	95%	0%	11-Jan-23	SGH	0	-	-	-	-	-	-	-	-	-		-	-	- '	-
Viet Nam (North)	NIHE	155	0	0	26	129	0	100%	16%	15-Dec-23	NIHE/NIID	0	-	-	-	-	-	-	-	-	-		-	-	-	-
Viet Nam (South)	PI	79	0	0	5	74	0	100%	6%	09-Jan-23	PI/NIID	0	-	-	-	-	-	-	-	-	-		-	-	-	-
Pacific island countries and areas	VIDRL	7	0	0	1	6	0	85%	15%	24-Aug-22	VIDRL	0													l	-
Total		5800	10	10	120	5648	10	97%	2%			44	0	19	0	0	0	0	0	19	0		6	0	0	100%

## Table 2A. Laboratory investigation of stool samples from AFP cases with onset in 2022 and key laboratory indicators

1. CCDC (Chinese Center for Disease Control and Prevention, China); IESR (Institute of Environmental Science and Research, New Zealand); IMR (Institute of Medical Research, Malaysia); KDCA (Korea Disease Control and Prevention Agency, Republic of Korea); NIHE (National Institute of Hygiene and Epidemiology, Ha Noi, Viet Nam); NIID (National Institute of Infectious Diseases, Japan); NCPH (National Center for Public Health, Mongolia); PHLC (Public Health Laboratory Center, China, Hong Kong SAR); PI (Pasteur Institute, Ho Chi Minh, Viet Nam); RITM (Research Institute for Tropical Medicine, Philippines); SGH (Singapore General Hospital); VIDRL (Victorian Infectious Diseases Reference Laboratory, Australia) 2. NPEV growing in L20B cells

#### Table 2B. Laboratory investigation of stool samples from AFP cases with onset in 2023 and key laboratory indicators

	1	Results of virus isolation for AFP cases										Results of intratypic differentiation (ITD)/sequencing for virus isolates														
				1	Resu	ILS OF VIEUS IS	OldUON TOF A	FP cases			To base based on		-	Type 1		Res	Type 2	typic differ	renuation (	uation (1	Type 3	encing for	virus isolate	s		
Country/area	Polio laboratory <sup>1</sup>	Total no. of AFP cases with specimens	L20B positive	L20B positive + NPEV	NPEV only	Negative	Pending	% results reported ≤ 14 days ≥ 80%	% specimens positive for NPEV	Latest report date	Intratypic differentiation/ Sequencing laboratory <sup>1</sup>	No. of isolates received	Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild	Wild	Sabin	VDPV	NPEV <sup>2</sup>	Pending ITD	Discordant pending sequencing	% ITD results reported ≤ 7 days of receipt ≥ 80%
Australia	VIDRL	73	0	2	2	67	2	94%	4%	28-Dec-23	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brunei Darussalam	VIDRL	1	0	0	0	1	0	0%	0%	09-Oct-23	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cambodia	NIID	46	0	0	7	39	0	96%	14%	25-Dec-23	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China (total)		4642	1	15	0	4209	417	98%	0.2%	29-Dec-23		45	0	18	0	0	0	0	0	0	27	0	0	0	0	97%
China, Anhui	Prov. Lab	284	0	1	0	263	20	99%	0.2%		Prov. Lab/CCDC	4	0	2	0	0	0	0	0	0	2	0	0	0	0	100%
China, Beijing	Prov. Lab	48	0	0	0	43	5	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Chongqing	Prov. Lab	45	0	0	0	40	5	98%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Fujian	Prov. Lab	126	0	0	0	117	9	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Gansu	Prov. Lab	103	0	0	0	95	8	99%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Guangdong	Prov. Lab	441	0	0	0	405	36	94%	0%		Prov. Lab/CCDC	3	0	1	0	0	0	0	0	0	2	0	0	0	0	50%
China, Guangxi	Prov. Lab	205	0	3	0	163	39	98%	0.9%		Prov. Lab/CCDC	8	0	2	0	0	0	0	0	0	6	0	0	0	0	100%
China, Guizhou	Prov. Lab	200	1	0	0	183	16	100%	0%		Prov. Lab/CCDC	2	0	1	0	0	0	0	0	0	1	0	0	0	0	100%
China, Hainan	Prov. Lab	32	0	0	0	29	3	93%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Hebei	Prov. Lab	280	0	0	0	257	23	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Heilongjiang	Prov. Lab	52	0	0	0	51	1	98%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Henan	Prov. Lab	594	0	4	0	568	22	100%	0.3%		Prov. Lab/CCDC	10	0	6	0	0	0	0	0	0	4	0	0	0	0	100%
China, Hubei	Prov. Lab	125	0	0	0	91	34	98%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Hunan	Prov. Lab	242	0	0	0	223	19	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Jiangsu	Prov. Lab	177	0	0	0	161	16	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Jiangxi	Prov. Lab	151	0	0	0	139	12	88%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Jilin	Prov. Lab	38	0	0	0	33	5	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Liaoning	Prov. Lab	84	0	0	0	77	7	98%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Neimongol	Prov. Lab	118	0	1	0	103	14	100%	0.5%		Prov. Lab/CCDC	2	0	0	0	0	0	0	0	0	2	0	0	0	0	100%
China, Ningxia	Prov. Lab	19	0	0	0	17	2	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Qinghai	Prov. Lab	8	0	0	0	7	1	71%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Shaanxi	Prov. Lab	65	0	0	0	48	17	79%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Shandong	Prov. Lab	248	0	0	0	222	26	100%	0%		Prov. Lab/CCDC	3	0	1	0	0	0	0	0	0	2	0	0	0	0	100%
China, Shanghai	Prov. Lab	38	0	0	0	35	3	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Shanxi	Prov. Lab	95	0	2	0	90	3	98%	1%		Prov. Lab/CCDC	6	0	2	0	0	0	0	0	0	4	0	0	0	0	100%
China, Sichuan	Prov. Lab	335	0	1	0	310	24	98%	0.2%		Prov. Lab/CCDC	2	0	2	0	0	0	0	0	0	0	0	0	0	0	100%
China, Tianjin	Prov. Lab	12	0	1	0	10	1	100%	5%		Prov. Lab/CCDC	2	0	0	0	0	0	0	0	0	2	0	0	0	0	100%
China, Xinjiang	Prov. Lab	127	0	1	0	118	8	97%	0.4%		Prov. Lab/CCDC	1	0	1	0	0	0	0	0	0	0	0	0	0	0	100%
China, Yunnan	Prov. Lab	175	0	0	0	157	18	93%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Zhejiang	Prov. Lab	159	0	1	0	138	20	100%	0.4%		Prov. Lab/CCDC	2	0	0	0	0	0	0	0	0	2	0	0	0	0	100%
China, Tibet	Prov. Lab	16	0	0	0	16	0	94%	0%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Hong Kong SAR	PHLC	15	0	0	0	15	0	97%	0%	14-Dec-23	PHLC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Macao SAR	PHLC	1	0	0	0	1	0	100%	0%	14-Dec-23	PHLC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Japan	NIID	45	0	0	4	41	0	91%	8%	19-Dec-23	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lao People's Democratic Republic	NIID	39	0	0	1	23	15	100%	4%	19-Dec-23	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malaysia	IMR	244	0	0	18	226	0	87%	6%	01-Jan-24	IMR/VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mongolia	NCPH	1	0	0	0	1	0	100%	0%	29-Dec-23	NCPH/NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Zealand	IESR	7	0	0	1	6	0	100%	18%	29-Dec-23	IESR	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Papua New Guinea	VIDRL	53	6	0	4	43	0	97%	7%	11-Dec-23	VIDRL	33	0	10	0	0	0	0	0	0	23	0	0	0	0	100%
Philippines	RITM	847	12	0	40	775	20	97%	4%	28-Dec-23	RITM/NIID	62	0	26	0	0	0	0	0	0	36	0	0	0	0	100%
Republic of Korea	KDCA	49	0	0	6	40	3	93%	12%	26-Dec-23	KDCA	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Singapore	SGH	3	0	0	1	2	0	100%	33%	01-Jan-24	SGH	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Viet Nam (North)	NIHE	138	0	0	22	108	8	100%	17%	26-Nov-23	NIHE/NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Viet Nam (South)	PI	113	0	0	14	99	0	100%	12%	02-Jan-24	PI/NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific island countries and areas	VIDRL	23	0	0	3	20	0	95%	9%	14-Nov-23	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total		6340	19	17	123	5716	465	97%	2%			140	0	54	0	0	0	0	0	0	86	0	0	0	0	<b>99</b> %

1. CCDC (Chinese Center for Disease Control and Prevention, China); IESR (Institute of Environmental Science and Research, New Zealand); IMR (Institute of Medical Research, Malaysia); KDCA (Korea Diseases Control and Prevention Agency, Republic of Korea); NIHE (National Institute of Hygiene and Epidemiology, Ha Noi, Viet Nam); NIID (National Institute of Infectious Diseases, Japan); NCPH (National Center for Public Health, Mongolia); PHLC (Public Health Laboratory Center, China, Hong Kong SAR); PI (Pasteur Institute, Ho Chi Minh, Viet Nam); RITM (Research Institute for Tropical Medicine, Philippines); SGH (Singapore General Hospital); VIDRL (Victorian Infectious Diseases Reference Laboratory, Australia) 2. NPEV growing in L20B cells

		Total number of	Total number of					Discordant							
Country/area	Intratypic differentiation lab <sup>2</sup>	samples	samples with polio		Type 1			Type 2			Type 3		NPEV (%)	Pending ITD	pending
		processed	isolates	Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild	Sabin	VDPV	1	110	sequencing
Australia	VIDRL	10	1	0	0	0	0	0	0	0	1	0	100%	0	0
China (total)		472	116	0	111	0	0	0	0	0	160	0	39%	0	0
China, Fujian	Prov. Lab/CCDC	64	7	0	1	0	0	0	0	0	7	0	78%	0	0
China, Gansu	Prov. Lab/CCDC	25	11	0	13	0	0	0	0	0	15	0	68%	0	0
China, Guangdong	Prov. Lab/CCDC	48	25	0	8	0	0	0	0	0	25	0	33%	0	0
China, Guangxi	Prov. Lab/CCDC	12	5	0	9	0	0	0	0	0	4	0	92%	0	0
China, Heilongjiang	Prov. Lab/CCDC	23	5	0	0	0	0	0	0	0	5	0	39%	0	0
China, Jiangxi	Prov. Lab/CCDC	11	1	0	0	0	0	0	0	0	1	0	27%	0	0
China, Jiangsu	Prov. Lab/CCDC	124	0	0	0	0	0	0	0	0	0	0	4%	0	0
China, Liaoning	Prov. Lab/CCDC	18	7	0	1	0	0	0	0	0	9	0	11%	0	0
China, Neimongol	Prov. Lab/CCDC	12	4	0	2	0	0	0	0	0	14	0	0%	0	0
China, Qinghai	Prov. Lab/CCDC	9	2	0	5	0	0	0	0	0	0	0	11%	0	0
China, Shandong	Prov. Lab/CCDC	31	7	0	6	0	0	0	0	0	6	0	45%	0	0
China, Shanghai	Prov. Lab/CCDC	20	0	0	0	0	0	0	0	0	0	0	20%	0	0
China, Sichuan	Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Xinjiang	Prov. Lab/CCDC	23	12	0	12	0	0	0	0	0	32	0	26%	0	0
China, Yunnan	Prov. Lab/CCDC	52	30	0	54	0	0	0	0	0	42	0	90%	0	0
Malaysia	IMR/VIDRL	469	0	0	0	0	0	0	0	0	0	0	11%	0	0
Philippines	RITM	536	43	0	33	0	0	0	0	0	72	0	29%	0	0
Viet Nam	NIHE	101	0	0	0	0	0	0	0	0	0	0	7%	0	0
Total		1588	160	0	144	0	0	0	0	0	233	0	26%	0	0

## Table 3A. Laboratory confirmation of polio isolates from environmental samples in 2022<sup>1</sup> and key laboratory indicators

#### Table 3B. Laboratory confirmation of polio isolates from environmental samples in 2023<sup>1</sup> and key laboratory indicators

		Total number of						Polio isolate	es						Discordant
Country/area	Intratypic differentiation lab <sup>2</sup>	samples	samples with polio		Type 1			Type 2			Type 3		NPEV (%)	Pending ITD	pending
		processed	isolates	Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild	Sabin	VDPV			sequencing
Australia	VIDRL	49	3	0	0	0	0	0	0	0	3	0	71%	0	0
Cambodia	RITM	12	1	0	0	0	0	0	0	0	1	0	42%	2	0
China (total)		418	123	0	105	0	0	0	0	0	190	0	27%	1	0
China, Fujian	Prov. Lab/CCDC	62	7	0	0	0	0	0	0	0	7	0	60%	1	0
China, Gansu	Prov. Lab/CCDC	27	12	0	12	0	0	0	0	0	7	0	15%	0	0
China, Guangdong	Prov. Lab/CCDC	44	26	0	13	0	0	0	0	0	35	0	52%	0	0
China, Guangxi	Prov. Lab/CCDC	9	4	0	3	0	0	0	0	0	9	0	67%	0	0
China, Heilongjiang	Prov. Lab/CCDC	6	3	0	8	0	0	0	0	0	13	0	0%	0	0
China, Jiangxi	Prov. Lab/CCDC	5	0	0	0	0	0	0	0	0	0	0	0%	0	0
China, Jiangsu	Prov. Lab/CCDC	98	4	0	1	0	0	0	0	0	3	0	5%	0	0
China, Liaoning	Prov. Lab/CCDC	35	14	0	3	0	0	0	0	0	24	0	6%	0	0
China, Neimongol	Prov. Lab/CCDC	16	7	0	14	0	0	0	0	0	13	0	0%	0	0
China, Qinghai	Prov. Lab/CCDC	10	1	0	0	0	0	0	0	0	1	0	10%	0	0
China, Shandong	Prov. Lab/CCDC	8	2	0	1	0	0	0	0	0	2	0	0%	0	0
China, Shanghai	Prov. Lab/CCDC	24	11	0	3	0	0	0	0	0	19	0	25%	0	0
China, Sichuan	Prov. Lab/CCDC	18	0	0	0	0	0	0	0	0	0	0	17%	0	0
China, Xinjiang	Prov. Lab/CCDC	24	18	0	42	0	0	0	0	0	45	0	0%	0	0
China, Yunnan	Prov. Lab/CCDC	14	7	0	3	0	0	0	0	0	4	0	57%	0	0
China, Zheijiang	Prov. Lab/CCDC	18	7	0	2	0	0	0	0	0	8	0	50%	0	0
Malaysia	IMR	330	0	0	0	0	0	0	0	0	0	0	48%	3	0
New Zealand	IESR	66	4	0	0	0	0	0	0	0	4	0	88%	0	0
Philippines	RITM	602	30	0	17	0	0	0	0	0	43	0	15%	0	0
Viet Nam	NIHE	57	0	0	0	0	0	0	0	0	0	0	5%	2	0
Total		1534	161	0	122	0	0	0	0	0	241	0	30%	8	0

1. Based on year of collection of sample, if available. Otherwise, based on year of receipt at reference laboratory.

2. CCDC (Chinese Center for Disease Control and Prevention, China); IESR (Institute of Environmental Science and Research, New Zealand); IMR (Institute of Medical Research, Malaysia); NIHE (National Institute of Hygiene and Epidemiology, Ha Noi, Viet Nam); RITM (Research Institute for Tropical Medicine, Philippines); VIDRL (Victorian Infectious Diseases Reference Laboratory, Australia)

#### Vaccine-derived polio virus identified from laboratory testing, 2018–2022

#### Figure 5A. China



Figure 5C. Papua New Guinea

45

40

35

30

25

20

15

10

5

0

2018

No. of cases/specimens



#### Figure 5B. Malaysia





1. Prefix letter refers to the VDPV category: "cVDPV" = circulating VDPV, "iVDPV" = immunodeficiency-associated VDPV, "aVDPV" = ambiguous VDPV. Suffix number refers to the poliovirus serotype (types 1, 2 or 3)

2. Community and healthy children

3. Contact of a different AFP case

Environmental

Non-AFP<sup>2</sup>

Contact<sup>3</sup>

AFP

## 7 Polio Bulletin