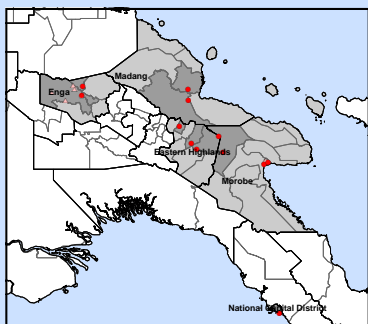


HIGHLIGHTS

Second round of polio SIA in Papua New Guinea is completed

From 20 August to 9 September, the National Department of Health (NDOH) in Papua New Guinea with support from WHO, UNICEF and other partners, conducted the second round of polio supplementary immunization activities in response to the circulating vaccine-derived poliovirus type 1 (cVDPV1) outbreak. The vaccination targeted more than 700 000 children less than five years of age in nine high-risk provinces; reported coverage as of 12 September is 91%.

Considering high proportion of population susceptible to poliovirus, which was accumulated due to low routine vaccination coverage in previous years, the NDOH made



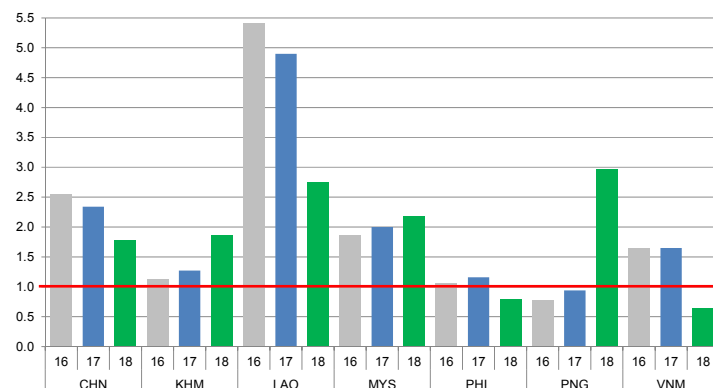
decision to increase the target population group for the 3rd and 4th nationwide rounds up to 15 years of age.

As of 12 September there are 12 confirmed cVDPV1 cases in five provinces.

CONTACT US

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Chart 1. Non-polio AFP rate (per 100 000 persons < 15 years of age), 2016–2018*



* AFP rate annualized as of week 36

Chart 2. Adequate specimen collection rate, 2016–2018

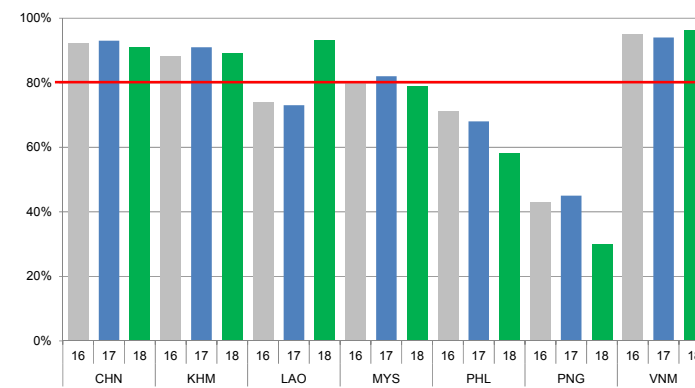


Chart 3. Percentage of reported AFP cases by number of polio vaccination doses, 2018

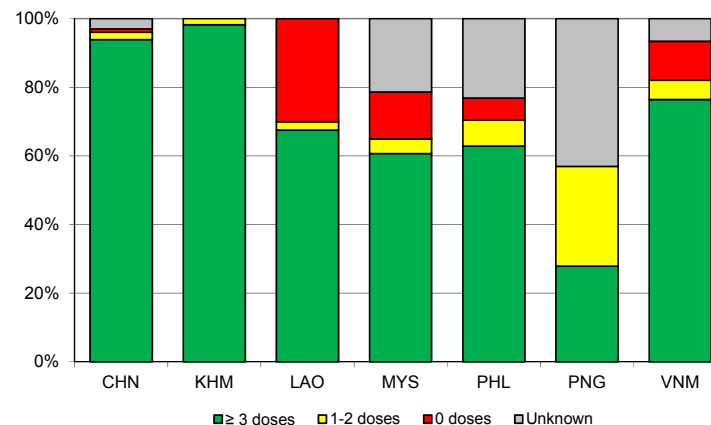
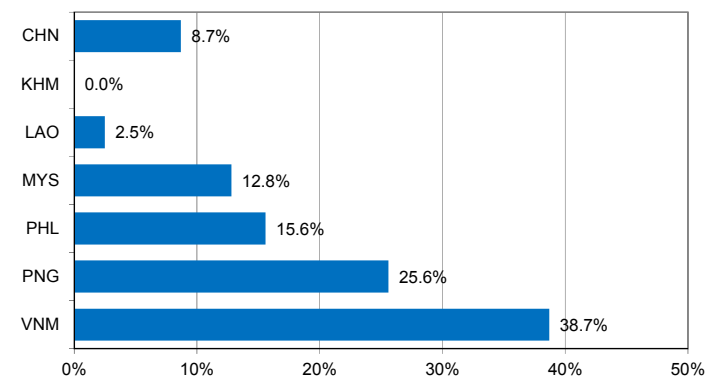


Chart 4. Percentage of reported AFP cases with pending classification > 90 days after onset, 2018



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 1. Classification of AFP cases with onset in 2018 and key surveillance indicators

Country/area	2017	2018												
	Total reported cases	Annual expected cases <15 years of age	Total reported cases	Classification						Indicators			Latest report date	Days since last report ⁵
				Confirmed wild poliovirus	Vaccine-derived poliovirus (VDPV)	Polio-compatible	Discarded (Non-polio)	Pending		Non-polio AFP rate ²	% with adequate specimens ³	% investigated ≤ 2 days of notification ⁴		
								Total	> 90 days ¹ # (%)					
≥ 1	≥ 80%	≥ 80%	≤ 30											
Australia	61	46	42	0	0	2	27	13	2 (4.8%)	1.32	48%	81%	07-Sep-18	5
Brunei Darrusalam	1	1	2	0	0	0	1	1	0 (0.0%)	2.89	100%	100%	03-Sep-18	9
Cambodia	57	44	57	0	0	0	51	6	0 (0.0%)	1.87	89%	86%	06-Sep-18	6
China	5278	2256	2778	0	1	0	1898	879	243 (8.7%)	1.78	91%	100%	05-Sep-18	7
China, Hong Kong SAR	15	9	7	0	0	0	5	2	0 (0.0%)	1.12	100%	100%	06-Sep-18	6
China, Macao SAR	2	1	1	0	0	0	1	0	0 (0.0%)	1.44	100%	100%	13-Aug-18	30
Japan	-	161	-	-	-	-	-	-	-	-	-	-	-	-
Lao People's Democratic Republic	103	21	40	0	0	0	31	9	1 (2.5%)	2.75	93%	73%	24-Aug-18	19
Malaysia	154	77	117	0	0	0	59	58	15 (12.8%)	2.19	79%	74%	20-Aug-18	23
Mongolia	6	9	5	0	0	0	4	1	0 (0.0%)	0.80	100%	80%	07-Sep-18	5
New Zealand	13	9	6	0	0	0	6	0	0 (0.0%)	0.96	67%	100%	31-Aug-18	12
Papua New Guinea	29	37	86	0	12	0	15	59	22 (25.6%)	2.89	30%	78%	12-Sep-18	0
Philippines	462	338	186	0	0	0	135	51	29 (15.6%)	0.79	58%	94%	17-Aug-18	26
Republic of Korea	68	67	41	0	0	0	31	10	0 (0.0%)	0.88	88%	100%	11-Sep-18	1
Singapore	7	6	8	0	0	0	8	0	0 (0.0%)	1.93	88%	100%	10-Sep-18	2
Viet Nam	385	234	106	0	0	0	50	56	41 (38.7%)	0.65	96%	87%	30-Aug-18	13
Pacific island countries and areas	16	11	1	0	0	0	1	0	0 (0.0%)	0.13	0%	100%	24-Aug-18	19
Total	6657	3327	3483	0	11	2	2323	1147	353 (10.1%)	1.51	87%	97%		

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

Table 2. Laboratory investigation of stool samples from AFP cases with onset in 2018 and key laboratory indicators

Country/area	Polio laboratory	Total no. of AFP cases with specimens	Results of virus isolation for AFP cases										Intratyptic differentiation/ Sequencing laboratory ¹	No. of isolates received	Results of intratyptic differentiation (ITD)/sequencing for virus isolates																	
			L20B positive	L20B positive + NPEV	NPEV only	Negative	Pending ≤ 14 days	Pending > 14 days	% results reported ≤ 14 days	% specimens positive for NPEV	Latest report date	Type 1			Type 2			Type 3			NPEV ²	Pending ITD	Discordant pending sequencing	% ITD results reported ≤ 7 days of receipt								
												Wild			Sabin	VDPV	Wild	Sabin	VDPV	Wild					Sabin	VDPV						
									≥ 80%																							
Australia	VIDRL	31	0	0	1	27	2	1	96%	4%	07-Sep-18	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brunei Darussalam	VIDRL	2	0	0	0	2	0	0	50%	0%	10-Sep-18	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cambodia	NIID	54	0	0	11	43	0	0	98%	19%	10-Sep-18	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China (total)		2731	19	0	220	2423	1	68	98%	7%	05-Sep-18		52	0	8	0	0	0	0	38	6	0	0	0	0	0	0	0	0	100%		
China, Anhui	Prov. Lab	158	1	0	13	139	0	5	100%	8%		Prov. Lab/CCDC	4	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	100%	
China, Beijing	Prov. Lab	22	0	0	0	22	0	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Chongqing	Prov. Lab	20	0	0	2	18	0	0	85%	8%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Fujian	Prov. Lab	102	1	0	10	91	0	0	100%	8%		Prov. Lab/CCDC	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	100%	
China, Gansu	Prov. Lab	55	1	0	2	48	0	4	100%	4%		Prov. Lab/CCDC	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	100%	
China, Guangdong	Prov. Lab	225	1	0	15	208	0	1	91%	5%		Prov. Lab/CCDC	4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	100%	
China, Guangxi	Prov. Lab	116	1	0	12	102	0	1	97%	10%		Prov. Lab/CCDC	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	100%	
China, Guizhou	Prov. Lab	87	0	0	7	78	0	2	99%	8%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Hebei	Prov. Lab	149	0	0	19	129	0	1	100%	10%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Heilongjiang	Prov. Lab	61	0	0	2	59	0	0	100%	3%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Henan	Prov. Lab	316	1	0	45	270	0	0	100%	13%		Prov. Lab/CCDC	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	100%	
China, Hubei	Prov. Lab	90	0	0	7	82	0	1	99%	8%		Prov. Lab/CCDC	4	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	100%	
China, Hunan	Prov. Lab	123	0	0	14	107	0	2	98%	9%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Jiangsu	Prov. Lab	100	5	0	10	82	0	3	100%	10%		Prov. Lab/CCDC	13	0	0	0	0	0	0	7	6	0	0	0	0	0	0	0	0	0	100%	
China, Jiangxi	Prov. Lab	82	0	0	4	74	0	4	96%	3%		Prov. Lab/CCDC	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	100%	
China, Jilin	Prov. Lab	33	2	0	4	27	0	0	100%	9%		Prov. Lab/CCDC	4	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	100%	
China, Neimongol	Prov. Lab	51	2	0	2	46	0	1	98%	3%		Prov. Lab/CCDC	4	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	100%	
China, Ningxia	Prov. Lab	16	0	0	1	15	0	0	100%	6%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Shaanxi	Prov. Lab	53	0	0	1	51	0	1	88%	2%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Shandong	Prov. Lab	217	2	0	16	197	0	2	100%	5%		Prov. Lab/CCDC	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	100%	
China, Shanghai	Prov. Lab	13	0	0	0	13	0	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Shanxi	Prov. Lab	84	0	0	0	83	0	1	96%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Sichuan	Prov. Lab	158	0	0	5	146	0	7	98%	3%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Tianjin	Prov. Lab	14	0	0	0	14	0	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Xinjiang	Prov. Lab	76	1	0	5	69	0	1	89%	6%		Prov. Lab/CCDC	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	100%	
China, Yunnan	Prov. Lab	146	0	0	14	106	0	26	90%	9%		Prov. Lab/CCDC	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	100%	
China, Zhejiang	Prov. Lab	81	1	0	5	74	0	1	100%	6%		Prov. Lab/CCDC	5	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	100%	
China, Hainan	Prov. Lab	23	0	0	4	19	0	0	100%	15%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Liaoning	Prov. Lab	39	0	0	0	34	1	4	100%	0%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Qinghai	Prov. Lab	18	0	0	0	18	0	0	100%	0%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Tibet	Prov. Lab	3	0	0	1	2	0	0	60%	20%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Hong Kong SAR	PHLC	7	0	0	0	7	0	0	100%	0%	10-Sep-18	PHLC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Macao SAR	PHLC	1	0	0	0	1	0	0	100%	0%	13-Apr-18	PHLC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Japan	NIID	-	-	-	-	-	-	-	-	-	-	NIID	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Lao People's Democratic Republic	NIID	52	1	0	4	47	0	0	99%	5%	25-Aug-18	NIID	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	100%		
Malaysia	IMR	121	0	0	8	113	0	0	92%	5%	30-Aug-18	IMR	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mongolia	PHI	5	0	0	2	3	0	0	100%	40%	27-Aug-18	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
New Zealand	IESR	6	0	0	1	5	0	0	100%	17%	03-Sep-18	IESR	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Papua New Guinea	VIDRL	70	18	0	9	38	5	0	55%	11%	03-Sep-18	VIDRL	45	0	8	23	0	0	0	14	0	0	0	0	0	0	0	0	0	100%		
Philippines	RITM	266	4	1	12	235	14	0	94%	4%	04-Sep-18	RITM	10	0	2	0	0	0	0	8	0	0	0	0	0	0	0	0	0	100%		
Republic of Korea	NIH	41	0	0	4	34	3	0	100%	9%	11-Sep-18	NIH	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Singapore	SGH	8	0	0	2	6	0	0	93%	13%	07-Sep-18	SGH	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Viet Nam (North)	NIHE	116	3	0	14	89	10	0	100%	11%	24-Aug-18	NIHE	4	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	100%		
Viet Nam (South)	PI	81	3	0	8	67	3	0	100%	10%	28-Aug-18	PI	6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	100%		
Pacific island countries and areas	VIDRL	1	0	0	0	1	0	0	100%	0%	02-May-18	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total		3593	48	1	296	3141	38	69	97%	7%			118	0	20	23	0	0	0	0	69	6										

Table 3. Laboratory confirmation of polio isolates from environmental samples in 2017–2018 ¹

Country/area	Intratyptic differentiation lab ²	2017													2018															
		Total number of samples processed	Total number of samples with polio isolates	Polio isolates									NPEV	Pending ITD	Discordant pending sequencing	Total number of samples processed	Total number of samples with polio isolates	Polio isolates									NPEV	Pending ITD	Discordant pending sequencing	
				Type 1			Type 2			Type 3								Type 1			Type 2			Type 3						
				Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild	Sabin	VDPV						Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild	Sabin	VDPV				
Australia	VIDRL	6	2	0	0	0	0	0	1	0	1	0	4	0	0	17	2	0	2	0	0	0	0	0	0	0	0	12	0	0
China (total)		325	188	0	213	0	0	0	0	0	650	0	1158	0	0	151	110	0	153	0	0	0	1	0	379	2	693	0	0	
China, Fujian	Prov. Lab/CCDC	53	22	0	8	0	0	0	0	0	42	0	331	0	0	49	34	0	9	0	0	0	0	0	77	1	382	0	0	
China, Gansu	Prov. Lab/CCDC	12	10	0	10	0	0	0	0	0	29	0	18	0	0	7	5	0	2	0	0	0	0	0	7	0	21	0	0	
China, Guangdong	Prov. Lab/CCDC	48	39	0	18	0	0	0	0	0	87	0	108	0	0	32	27	0	16	0	0	0	0	0	64	1	144	0	0	
China, Guangxi	Prov. Lab/CCDC	36	20	0	22	0	0	0	0	0	36	0	94	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-		
China, Heilongjiang	Prov. Lab/CCDC	42	17	0	12	0	0	0	0	0	34	0	112	0	0	9	7	0	1	0	0	0	0	0	16	0	3	0	0	
China, Shandong	Prov. Lab/CCDC	48	28	0	18	0	0	0	0	0	90	0	272	0	0	23	8	0	13	0	0	0	0	0	36	0	61	0	0	
China, Shanghai	Prov. Lab/CCDC	22	18	0	17	0	0	0	0	0	65	0	51	0	0	7	5	0	3	0	0	0	0	0	7	0	25	0	0	
China, Xinjiang	Prov. Lab/CCDC	36	34	0	108	0	0	0	0	0	267	0	115	0	0	24	24	0	109	0	0	0	1	0	172	0	57	0	0	
China, Yunnan	Prov. Lab/CCDC	28	0	-	-	-	-	-	-	-	-	-	57	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	
Malaysia	IMR	24	0	-	-	-	-	-	-	-	-	-	22	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	
Philippines	RITM	40	8	0	1	0	0	0	0	0	7	0	21	0	0	52	3	0	2	0	0	0	0	0	1	0	16	0	0	
Total		395	198	0	214	0	0	0	1	0	658	0	1205	0	0	220	115	0	157	0	0	0	1	0	380	2	721	0	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); IMR (Institute of Medical Research, Malaysia); RITM (Research Institute for Tropical Medicine, Philippines); VIDRL (Victorian Infectious Diseases Reference Laboratory, Australia)

Table 4. Vaccine-derived poliovirus¹ identified from laboratory testing², 2000–2018

Country/area	2000–2009 ³	2010	2011	2012	2013	2014	2015	2016	2017	2018
Australia									aVDPV2 (1 env)	
Cambodia	2006 - 1 Total - 2									
China	2009 - 1 Total - 27	aVDPV2 (3 AFP + 1 contact + 1 non-AFP) aVDPV3 (1 AFP + 1 non-AFP)	aVDPV1 (1 AFP) aVDPV2 (2 AFP + 1 contact) cVDPV2 (2 AFP) iVDPV2 (1 AFP + 1 non-AFP) iVDPV3 (1 AFP)	aVDPV1 (1 AFP) aVDPV2 (2 AFP) cVDPV2 (2 AFP + 1 contact) iVDPV2 + iVDPV3 (1 AFP)	aVDPV2 (1 non-AFP) iVDPV2 + iVDPV3 (1 AFP)	aVDPV1 (1 non-AFP) aVDPV2 (2 AFP) iVDPV3 (1 AFP)	aVDPV1 (1 AFP) aVDPV2 (1 AFP) iVDPV2 (1 AFP) aVDPV2 (1 env)	aVDPV3 (1 AFP)	aVDPV3 (1 AFP) iVDPV3 (1 AFP) ⁴	aVDPV2 (1 env) iVDPV3 (2 AFP) aVDPV3 (1 env) ?VDPV3 (1 env)
China, Hong Kong SAR	2005 - 3									
Japan	2005 - 1 Total - 2									
Lao People's Democratic Republic	2004 - 3						cVDPV1 (8 AFP + 21 contacts)	cVDPV1 (3 AFP + 4 contacts)		
Mongolia	2003 - 1									
Papua New Guinea										cVDPV1 (12 AFP + 6 contacts)
Philippines	2001 - 3					aVDPV2 (1 AFP)				
Viet Nam				aVDPV2 (2 AFP)						

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

2. Source of specimens could be AFP cases, contacts, non-AFP cases or environmental

3. Refers to year of last VDPV case, and aggregate total of VDPV cases for 2000-2009

4. Continuous excretion for 4 months; potential immunodeficient person.