

## HIGHLIGHTS

### First round of polio SIA in Papua New Guinea is completed

From 16 to 29 July the National Department of Health in Papua New Guinea with support from the WHO, UNICEF and other partners, conducted the first out of four planned rounds of polio supplementary immunization activities in response to the outbreak of type 1 circulating vaccine-derived poliovirus. The vaccination targeted around 300,000 children less than five year of age in three high-risk provinces: Eastern Highlands, Madang and Morobe. According to the preliminary reports, more than 70% of targeted children received polio vaccine. Although in all three provinces there are population leaving in remote, hard-to-reach areas, thanks to the efforts of all stakeholders, even these beneficiaries were reached by the health care workers using all possible means of transportation: land, water, air.



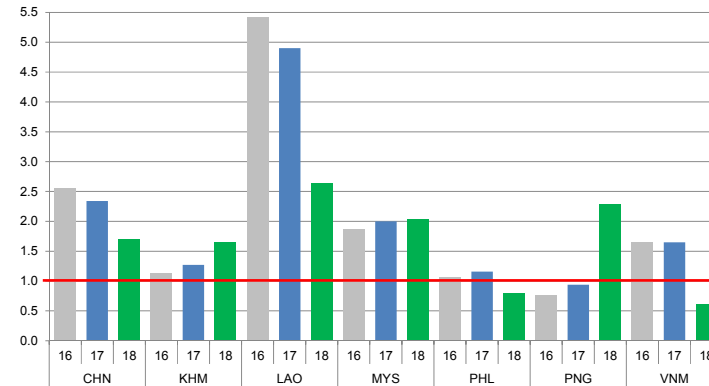
For more information please visit:

<https://twitter.com/WHOWPRO/status/1021959569432436737>

## CONTACT US

Expanded Programme on Immunization  
Regional Office for the Western Pacific  
World Health Organization  
P.O. Box 2932, 1000 Manila, Philippines  
Phone: +63 2 5288001  
Fax: +63 2 5211036, 5260279  
Email: [wproepidata@who.int](mailto:wproepidata@who.int)  
Web: [www.wpro.who.int/immunization](http://www.wpro.who.int/immunization)

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



\* AFP rate annualized as of week 30

Chart 2. Adequate specimen collection rate, 2016–2018

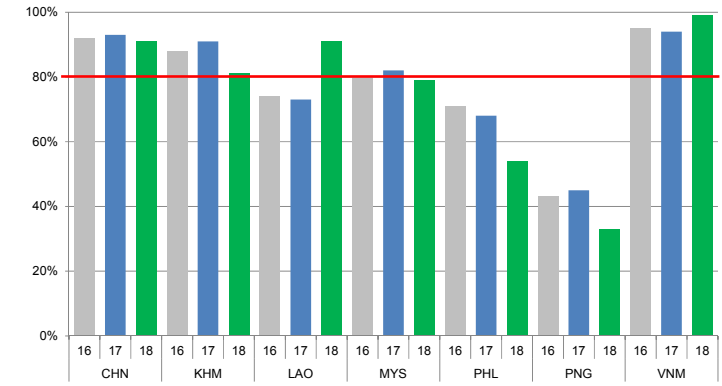


Chart 3. Percentage of reported AFP cases by number of polio vaccination doses, 2018

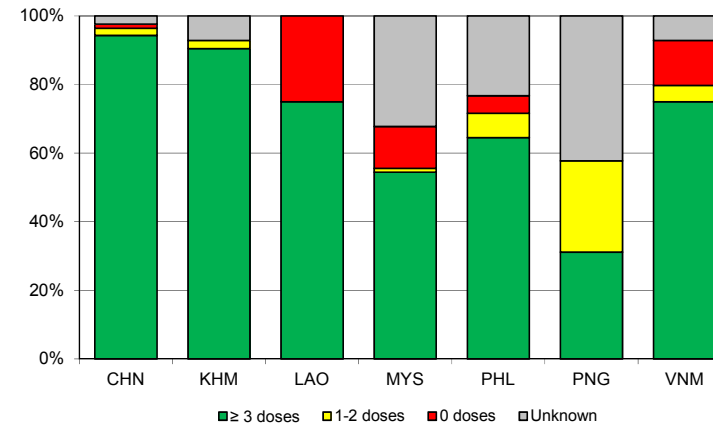
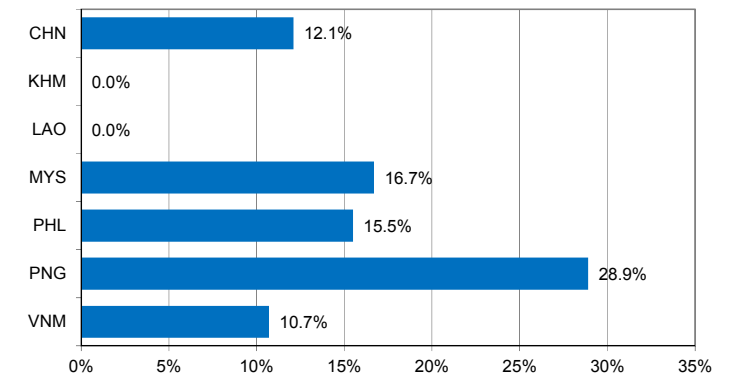


Chart 4. Percentage of reported AFP cases with pending classification > 90 days after onset, 2018



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 1A. Classification of AFP cases with onset in 2017 and key surveillance indicators

Country/area	2016	2017												
	Total reported cases	Annual expected cases <15 years of age	Total reported cases	Classification						Indicators			Latest report date <sup>4</sup>	Days since last report <sup>5</sup>
				Confirmed wild poliovirus	Vaccine-derived poliovirus (VDPV)	Polio-compatible	Discarded (Non-polio)	Pending		Non-polio AFP rate	% with adequate specimens <sup>2</sup>	% investigated ≤ 2 days of notification <sup>3</sup>		
								Total	> 90 days <sup>1</sup> # (%)					
≥ 1	≥ 80%	≥ 80%	≤ 30											
Australia	62	45	60	0	0	1	59	0	0 (0.0%)	1.33	37%	97%	11-Jul-18	-
Brunei Darussalam	1	1	1	0	0	0	1	0	0 (0.0%)	1.00	0%	100%	09-Jan-18	-
Cambodia	51	45	57	0	0	0	57	0	0 (0.0%)	1.27	91%	95%	07-Feb-18	-
China	5691	2256	5278	0	2	0	5276	0	0 (0.0%)	2.34	93%	100%	02-May-18	-
China, Hong Kong SAR	10	8	15	0	0	0	15	0	0 (0.0%)	1.88	80%	100%	01-Mar-18	-
China, Macao SAR	1	1	2	0	0	0	2	0	0 (0.0%)	2.00	50%	100%	18-Jan-18	-
Japan	-	161	-	-	-	-	-	-	-	-	-	-	-	-
Lao People's Democratic Republic	133	21	103	0	0	0	103	0	0 (0.0%)	4.90	73%	73%	27-Feb-18	-
Malaysia	143	77	154	0	0	0	154	0	0 (0.0%)	2.00	82%	90%	06-Mar-18	-
Mongolia	7	9	6	0	0	0	6	0	0 (0.0%)	0.67	83%	100%	11-Jan-18	-
New Zealand	12	9	13	0	0	0	13	0	0 (0.0%)	1.44	38%	100%	02-Mar-18	-
Papua New Guinea	23	31	29	0	0	0	29	0	0 (0.0%)	0.94	45%	100%	24-May-18	-
Philippines	417	400	462	0	0	0	462	0	0 (0.0%)	1.16	68%	97%	21-Jun-18	-
Republic of Korea	70	68	68	0	0	0	68	0	0 (0.0%)	1.00	94%	100%	12-Mar-18	-
Singapore	7	6	7	0	0	0	7	0	0 (0.0%)	1.17	86%	100%	07-Feb-18	-
Viet Nam	382	234	385	0	0	0	385	0	0 (0.0%)	1.65	94%	89%	13-Jun-18	-
Pacific island countries and areas	20	11	16	0	0	0	16	0	0 (0.0%)	1.45	63%	100%	16-May-18	-
<b>Total</b>	<b>7030</b>	<b>3383</b>	<b>6656</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>6653</b>	<b>0</b>	<b>0 (0.0%)</b>	<b>1.97</b>	<b>90%</b>	<b>98%</b>		

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

<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>	Reached or surpass target
<span style="background-color: yellow; width: 20px; height: 10px; display: inline-block;"></span>	Nearly reached target 0.5-0.99 for non-polio AFP rate; 60-79% for other indicators
<span style="background-color: red; width: 20px; height: 10px; display: inline-block;"></span>	Substantially below target

Table 1B. 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 <sup>5</sup>
				Confirmed wild poliovirus	Vaccine-derived poliovirus (VDPV)	Polio-compatible	Discarded (Non-polio)	Pending		Non-polio AFP rate <sup>2</sup>	% with adequate specimens <sup>3</sup>	% investigated ≤ 2 days of notification <sup>4</sup>		
								Total	> 90 days <sup>1</sup> # (%)					
≥ 1	≥ 80%	≥ 80%	≤ 30											
Australia	60	46	31	0	0	0	15	16	4 (12.9%)	1.17	48%	84%	13-Jul-18	18
Brunei Darrusalam	1	1	1	0	0	0	0	1	0 (0.0%)	1.73	100%	100%	07-Jul-18	24
Cambodia	57	44	42	0	0	0	23	19	0 (0.0%)	1.65	81%	86%	23-Jul-18	8
China	5278	2256	2218	0	0	0	1264	954	268 (12.1%)	1.70	91%	100%	25-Jul-18	6
China, Hong Kong SAR	15	9	5	0	0	0	4	1	0 (0.0%)	0.96	100%	100%	11-Jul-18	20
China, Macao SAR	2	1	1	0	0	0	1	0	0 (0.0%)	1.73	100%	100%	17-Jul-18	14
Japan	-	161	-	-	-	-	-	-	-	-	-	-	-	-
Lao People's Democratic Republic	103	21	32	0	0	0	22	10	0 (0.0%)	2.64	91%	72%	18-Jun-18	43
Malaysia	154	77	90	0	0	0	39	51	15 (16.7%)	2.03	79%	72%	12-Jul-18	19
Mongolia	6	9	2	0	0	0	1	1	0 (0.0%)	0.39	100%	100%	04-Jul-18	27
New Zealand	13	9	4	0	0	0	0	4	2 (50.0%)	0.77	50%	100%	26-Jun-18	35
Papua New Guinea	29	34	45	0	0	0	5	40	13 (28.9%)	2.29	33%	42%	31-Jul-18	0
Philippines	462	338	155	0	0	0	108	47	24 (15.5%)	0.79	54%	99%	24-Jul-18	7
Republic of Korea	68	67	28	0	0	0	20	8	0 (0.0%)	0.72	89%	100%	10-Jul-18	21
Singapore	7	6	3	0	0	0	3	0	0 (0.0%)	0.87	67%	100%	10-Jul-18	21
Viet Nam	385	234	84	0	0	0	22	62	9 (10.7%)	0.62	99%	86%	13-Jun-18	48
Pacific island countries and areas	16	11	1	0	0	0	1	0	0 (0.0%)	0.16	0%	100%	16-May-18	76
<b>Total</b>	<b>6656</b>	<b>3324</b>	<b>2742</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1528</b>	<b>1214</b>	<b>335 (12.2%)</b>	<b>1.43</b>	<b>87%</b>	<b>97%</b>		

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 2A. Laboratory investigation of stool samples from AFP cases with onset in 2017 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 <sup>1</sup>	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 <sup>2</sup>	Pending ITD	Discordant pending sequencing	% ITD results reported ≤ 7 days of receipt						
														Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild	Sabin	VDPV										
Australia	VIDRL	44	0	0	4	40	0	0	95%	10%	08-Feb-18	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Brunei Darussalam	VIDRL	0	-	-	-	-	-	-	-	-	08-Feb-18	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cambodia	NIID	57	0	0	6	51	0	0	96%	9%	26-Jan-18	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China (total)		5214	47	0	343	4824	0	0	96%	6%	02-May-18		131	0	40	0	0	0	0	0	64	19	8	0	0	0	0	0	0	0	99%	
China, Anhui	Prov. Lab	294	3	0	13	278	0	0	100%	4%		Prov. Lab/CCDC	8	0	6	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	100%	
China, Beijing	Prov. Lab	33	1	0	0	32	0	0	97%	0%		Prov. Lab/CCDC	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	100%	
China, Chongqing	Prov. Lab	66	0	0	2	64	0	0	91%	2%		Prov. Lab/CCDC	4	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	100%	
China, Fujian	Prov. Lab	179	1	0	11	167	0	0	95%	5%		Prov. Lab/CCDC	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	100%	
China, Gansu	Prov. Lab	90	0	0	2	88	0	0	98%	2%		Prov. Lab/CCDC	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	100%	
China, Guangdong	Prov. Lab	399	4	0	33	362	0	0	94%	7%		Prov. Lab/CCDC	12	0	6	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	100%
China, Guangxi	Prov. Lab	269	5	0	33	231	0	0	97%	11%		Prov. Lab/CCDC	10	0	4	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	100%
China, Guizhou	Prov. Lab	192	0	0	15	177	0	0	97%	7%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Hebei	Prov. Lab	282	4	0	28	250	0	0	99%	8%		Prov. Lab/CCDC	7	0	4	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	100%
China, Heilongjiang	Prov. Lab	106	1	0	5	100	0	0	100%	5%		Prov. Lab/CCDC	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	100%
China, Henan	Prov. Lab	513	7	0	57	449	0	0	91%	9%		Prov. Lab/CCDC	21	0	2	0	0	0	0	0	14	1	4	0	0	0	0	0	0	0	0	100%
China, Hubei	Prov. Lab	195	0	0	21	174	0	0	97%	10%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Hunan	Prov. Lab	265	1	0	18	246	0	0	99%	6%		Prov. Lab/CCDC	4	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	100%
China, Jiangsu	Prov. Lab	229	4	0	3	222	0	0	100%	1%		Prov. Lab/CCDC	8	0	2	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	100%
China, Jiangxi	Prov. Lab	163	1	0	16	146	0	0	95%	8%		Prov. Lab/CCDC	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	100%
China, Jilin	Prov. Lab	60	1	0	6	53	0	0	100%	8%		Prov. Lab/CCDC	4	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	50%
China, Neimongol	Prov. Lab	101	2	0	1	98	0	0	99%	0%		Prov. Lab/CCDC	5	0	3	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	100%
China, Ningxia	Prov. Lab	19	0	0	2	17	0	0	95%	11%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Shaanxi	Prov. Lab	111	1	0	2	108	0	0	92%	2%		Prov. Lab/CCDC	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	100%
China, Shandong	Prov. Lab	367	5	0	9	353	0	0	95%	2%		Prov. Lab/CCDC	26	0	1	0	0	0	0	0	7	18	0	0	0	0	0	0	0	0	0	100%
China, Shanghai	Prov. Lab	37	0	0	0	37	0	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Shanxi	Prov. Lab	157	0	0	6	151	0	0	94%	3%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Sichuan	Prov. Lab	365	0	0	21	344	0	0	96%	5%		Prov. Lab/CCDC	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100%
China, Tianjin	Prov. Lab	30	0	0	0	30	0	0	98%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Xinjiang	Prov. Lab	140	4	0	8	128	0	0	93%	5%		Prov. Lab/CCDC	8	0	5	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	100%
China, Yunnan	Prov. Lab	223	1	0	17	205	0	0	92%	6%		Prov. Lab/CCDC	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	100%
China, Zhejiang	Prov. Lab	173	1	0	7	165	0	0	99%	3%		Prov. Lab/CCDC	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	100%
China, Hainan	Prov. Lab	31	0	0	3	28	0	0	93%	8%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Liaoning	Prov. Lab	96	0	0	3	93	0	0	99%	2%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Qinghai	Prov. Lab	21	0	0	1	20	0	0	100%	5%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Tibet	Prov. Lab	8	0	0	0	8	0	0	63%	0%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Hong Kong SAR	PHLC	15	0	0	0	15	0	0	98%	0%	22-Jan-18	PHLC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Macao SAR	PHLC	2	0	0	0	2	0	0	100%	0%	22-Jan-18	PHLC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Japan	NIID	-	-	-	-	-	-	-	-	-	-	NIID	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Lao People's Democratic Republic	NIID	144	1	1	15	127	0	0	96%	10%	29-Jan-18	NIID	4	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	100%
Malaysia	IMR	182	0	0	9	173	0	0	98%	5%	09-Feb-18	IMR	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mongolia	PHI	7	0	0	0	7	0	0	100%	0%	27-Feb-18	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Zealand	IESR	9	0	0	0	9	0	0	100%	0%	23-Jan-18	IESR	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Papua New Guinea	VIDRL	26	0	0	8	18	0	0	100%	22%	08-Feb-18	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Philippines	RITM	483	6	0	27	450	0	0	98%	4%	26-Jun-18	RITM	15	0	4	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	100%
Republic of Korea	NIH	68	0	0	4	64	0	0	97%	4%	09-Feb-18	NIH	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Singapore	SGH	7	0	0	0	7	0	0	100%	0%	15-Feb-18	SGH	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Viet Nam (North)	NIHE	177	1	0	29	147	0	0	100%	14%	25-Jan-18	NIHE	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	100%
Viet Nam (South)	PI	194	0	0	34	160	0	0	100%	18%	21-Feb-18	PI	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific island countries and areas	VIDRL	16	0	0	5	11	0	0	100%	26%	08-Feb-18	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>		<b>6645</b>	<b>55</b>	<b>1</b>	<b>484</b>	<b>6105</b>	<b>0</b>	<b>0</b>	<b>96%</b>																							

Table 2B. 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									Intratyphic differentiation/ Sequencing laboratory <sup>1</sup>	No. of isolates received	Results of intratyphic 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 <sup>2</sup>	Pending ITD	Discordant pending sequencing	% ITD results reported ≤ 7 days of receipt			
														Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild	Sabin	VDPV					≥ 80%		
Australia	VIDRL	21	0	0	0	18	0	3	97%	3%	13-Jul-18	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Brunei Darussalam	VIDRL	1	0	0	0	1	0	0	100%	0%	16-Jul-18	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cambodia	NIID	28	0	0	7	21	0	0	96%	23%	23-Jul-18	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China (total)		2178	15	0	156	1944	1	62	97%	6%	25-Jul-18		39	0	7	0	0	0	0	30	2	0	0	0	0	0	0	100%	
China, Anhui	Prov. Lab	127	1	0	8	113	0	5	100%	6%		Prov. Lab/CCDC	4	0	2	0	0	0	0	2	0	0	0	0	0	0	0	100%	
China, Beijing	Prov. Lab	16	0	0	0	15	0	1	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Chongqing	Prov. Lab	19	0	0	1	18	0	0	89%	3%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Fujian	Prov. Lab	73	1	0	1	68	0	3	100%	1%		Prov. Lab/CCDC	1	0	0	0	0	0	0	1	0	0	0	0	0	0	100%		
China, Gansu	Prov. Lab	46	0	0	2	41	0	3	100%	5%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Guangdong	Prov. Lab	170	1	0	9	159	0	1	90%	4%		Prov. Lab/CCDC	4	0	0	0	0	0	0	4	0	0	0	0	0	0	100%		
China, Guangxi	Prov. Lab	90	0	0	10	79	0	1	98%	11%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Guizhou	Prov. Lab	71	0	0	6	63	0	2	99%	8%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Hebei	Prov. Lab	122	0	0	16	105	0	1	100%	10%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Heilongjiang	Prov. Lab	46	0	0	2	44	0	0	100%	4%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Henan	Prov. Lab	250	1	0	33	215	0	1	100%	12%		Prov. Lab/CCDC	2	0	0	0	0	0	0	2	0	0	0	0	0	0	100%		
China, Hubei	Prov. Lab	73	0	0	6	67	0	0	99%	8%		Prov. Lab/CCDC	4	0	2	0	0	0	0	2	0	0	0	0	0	0	100%		
China, Hunan	Prov. Lab	87	0	0	14	72	0	1	98%	13%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Jiangsu	Prov. Lab	82	5	0	4	68	1	4	100%	5%		Prov. Lab/CCDC	7	0	0	0	0	0	0	5	2	0	0	0	0	0	100%		
China, Jiangxi	Prov. Lab	58	0	0	0	54	0	4	95%	0%		Prov. Lab/CCDC	1	0	0	0	0	0	0	1	0	0	0	0	0	0	100%		
China, Jilin	Prov. Lab	31	1	0	3	27	0	0	100%	6%		Prov. Lab/CCDC	4	0	2	0	0	0	0	2	0	0	0	0	0	0	100%		
China, Neimongol	Prov. Lab	39	2	0	2	35	0	0	97%	4%		Prov. Lab/CCDC	4	0	1	0	0	0	0	3	0	0	0	0	0	0	100%		
China, Ningxia	Prov. Lab	15	0	0	1	14	0	0	100%	7%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Shaanxi	Prov. Lab	46	0	0	0	41	0	5	88%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Shandong	Prov. Lab	185	1	0	8	165	0	11	100%	4%		Prov. Lab/CCDC	3	0	0	0	0	0	0	3	0	0	0	0	0	0	100%		
China, Shanghai	Prov. Lab	11	0	0	0	11	0	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Shanxi	Prov. Lab	81	0	0	0	80	0	1	96%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Sichuan	Prov. Lab	124	0	0	3	115	0	6	99%	2%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Tianjin	Prov. Lab	13	0	0	0	13	0	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Xinjiang	Prov. Lab	57	1	0	4	52	0	0	88%	7%		Prov. Lab/CCDC	2	0	0	0	0	0	0	2	0	0	0	0	0	0	100%		
China, Yunnan	Prov. Lab	114	0	0	13	97	0	4	90%	10%		Prov. Lab/CCDC	1	0	0	0	0	0	0	1	0	0	0	0	0	0	100%		
China, Zhejiang	Prov. Lab	66	1	0	5	59	0	1	100%	8%		Prov. Lab/CCDC	2	0	0	0	0	0	0	2	0	0	0	0	0	0	100%		
China, Hainan	Prov. Lab	20	0	0	4	16	0	0	100%	18%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Liaoning	Prov. Lab	31	0	0	0	26	0	5	100%	0%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Qinghai	Prov. Lab	13	0	0	0	11	0	2	100%	0%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Tibet	Prov. Lab	2	0	0	1	1	0	0	100%	33%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Hong Kong SAR	PHLC	5	0	0	0	5	0	0	100%	0%	23-Jul-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	50	1	0	4	45	0	0	99%	5%	17-Jul-18	NIID	1	0	0	0	0	0	0	1	0	0	0	0	0	0	100%		
Malaysia	IMR	87	0	0	7	80	0	0	89%	6%	09-Jul-18	IMR	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mongolia	PHI	4	0	0	2	2	0	0	100%	50%	30-Jul-18	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
New Zealand	IESR	4	0	0	0	4	0	0	88%	0%	30-Jul-18	IESR	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Papua New Guinea	VIDRL	20	2	0	2	16	0	0	94%	11%	31-Jul-18	VIDRL	4	0	0	4	0	0	0	0	0	0	0	0	0	0	100%		
Philippines	RITM	203	1	1	9	189	3	0	94%	4%	19-Jul-18	RITM	6	0	2	0	0	0	0	4	0	0	0	0	0	0	100%		
Republic of Korea	NIH	28	0	0	0	25	3	0	100%	0%	10-Jul-18	NIH	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Singapore	SGH	4	0	0	1	2	1	0	100%	20%	27-Jul-18	SGH	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Viet Nam (North)	NIHE	95	2	0	12	77	4	0	100%	12%	24-Jul-18	NIHE	3	0	1	0	0	0	0	2	0	0	0	0	0	0	100%		
Viet Nam (South)	PI	69	3	0	4	60	2	0	100%	6%	23-Jul-18	PI	6	0	0	0	0	0	0	6	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<b>Total</b>		<b>2799</b>	<b>24</b>	<b>1</b>	<b>204</b>	<b>2491</b>	<b>14</b>	<b>65</b>	<b>97%</b>	<b>6%</b>			<b>59</b>	<b>0</b>	<b>10</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100%</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); NIH (National Institute of Health, Republic of Korea); NIHE (National Institute of Hygiene and Epidemiology, Ha Noi, Viet Nam); NIID (National Institute of Infectious Diseases, Japan); PHI (Public Health Institute, 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 3. Laboratory confirmation of polio isolates from environmental samples in 2017–2018 <sup>1</sup>

Country/area	Intratyptic differentiation lab <sup>2</sup>	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	96	76	0	48	0	0	0	1	0	208	1	404	7	0	
China, Fujian	Prov. Lab/CCDC	53	22	0	8	0	0	0	0	0	42	0	331	0	0	36	29	0	6	0	0	0	0	0	66	1	252	7	0	
China, Gansu	Prov. Lab/CCDC	12	10	0	10	0	0	0	0	0	29	0	18	0	0	5	3	0	2	0	0	0	0	0	4	0	13	0	0	
China, Guangdong	Prov. Lab/CCDC	48	39	0	18	0	0	0	0	0	87	0	108	0	0	24	21	0	13	0	0	0	0	0	58	0	90	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	11	7	0	13	0	0	0	0	0	31	0	34	0	0	
China, Shanghai	Prov. Lab/CCDC	22	18	0	17	0	0	0	0	0	65	0	51	0	0	5	3	0	2	0	0	0	0	0	6	0	7	0	0	
China, Xinjiang	Prov. Lab/CCDC	36	34	0	108	0	0	0	0	0	267	0	115	0	0	6	6	0	11	0	0	0	1	0	27	0	5	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	41	3	0	2	0	0	0	0	0	1	0	14	1	0	
<b>Total</b>		<b>395</b>	<b>198</b>	<b>0</b>	<b>214</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>658</b>	<b>0</b>	<b>1205</b>	<b>0</b>	<b>0</b>	<b>154</b>	<b>81</b>	<b>0</b>	<b>52</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>209</b>	<b>1</b>	<b>430</b>	<b>8</b>	<b>0</b>	

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 poliovirus<sup>1</sup> identified from laboratory testing<sup>2</sup>, 2000–2018

Country/area	2000–2009 <sup>3</sup>	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) <sup>4</sup>	?VDPV2 (1 env) iVDPV3 (2 AFP) aVDPV3 (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 (1 AFP + 2 contacts) ?VDPV1 (1 AFP)
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.