

## HIGHLIGHTS

### 23rd Informal Consultation of the Global Polio Laboratory Network

The 23rd Informal Consultation of the Global Polio Laboratory Network (GPLN) convened on 15-16 March 2017 in WHO Headquarters, Geneva, Switzerland.

Eradication of poliomyelitis has never been so close. There is a paradigm shift that demands more close and effective linkages between all components of the Global Polio Eradication Initiative (GPEI) with GPLN. For the first time ever, polio surveillance focal persons representing all six WHO regions, were invited to join regional coordinators of polio laboratories to attend the Informal Consultation of the GPLN. The main focus of discussions during this two-day meeting was on building strong linkages between laboratory and field surveillance regarding:

- monitoring of OPV2 withdrawal, detection of type 2 viruses and outbreak/event response plan;
- reviewing current strategies/changes on AFP and supplementary surveillance of poliovirus;
- options for post-eradication surveillance strategies, including transition planning.

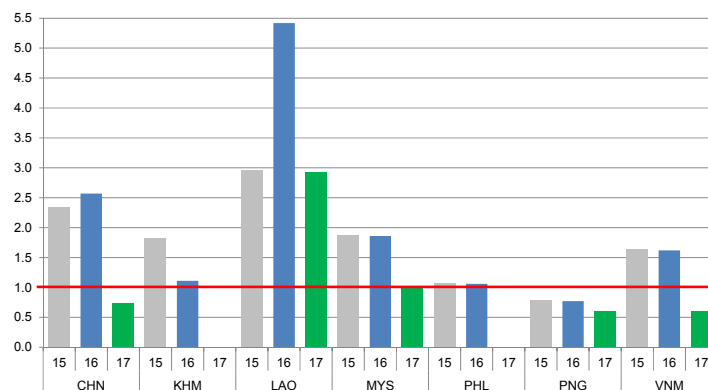


Discussions during the meeting, as well as experience shared by several regions, were important inputs to the development of the Polio Post Certification Strategy (PCS). The PCS will be further presented to the Member States during the upcoming meetings of the Regional Technical Advisory Groups for immunization.

## 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/en](http://www.wpro.who.int/immunization/en)

Chart 1. Non-polio AFP rate (per 100 000 persons < 15 years of age), 2015–2017\*



\* AFP rate annualized as of week 11

Chart 2. Adequate specimen collection rate, 2015–2017

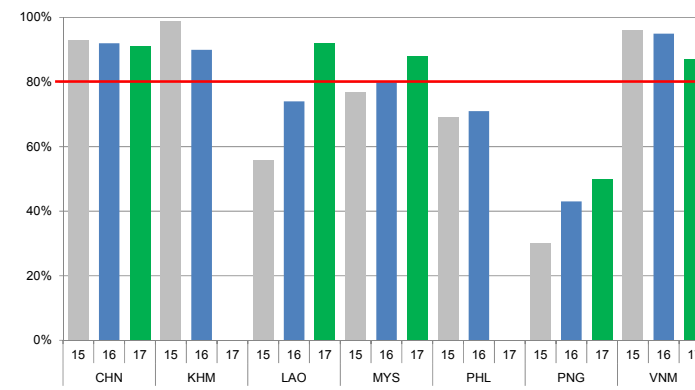


Chart 3. Percentage of reported AFP cases by number of polio vaccination doses, 2016

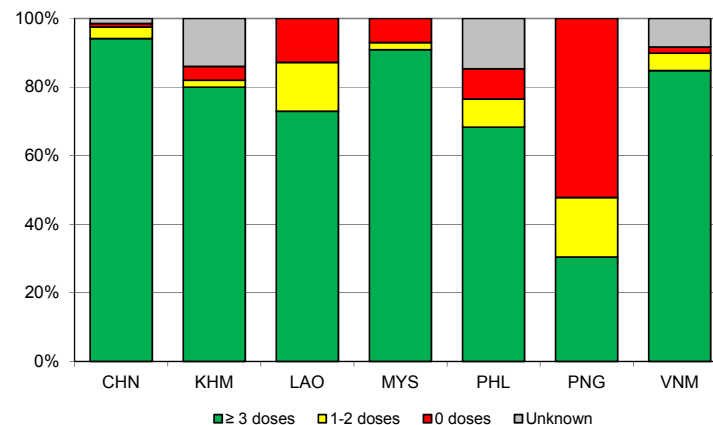
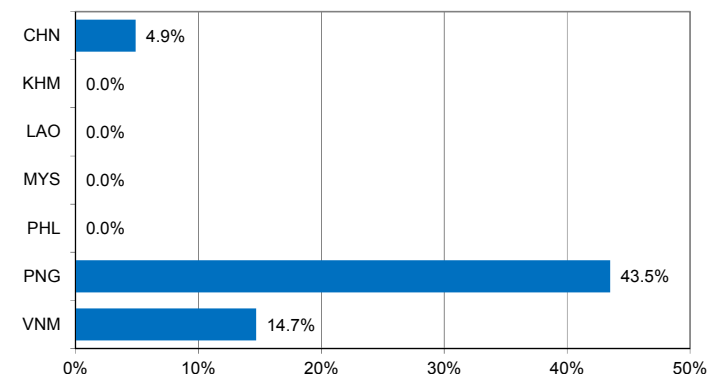


Chart 4. Percentage of reported AFP cases with pending classification > 90 days after onset, 2016



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 2016 and key surveillance indicators

Country/area	2015	2016												
	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
Australia	53	45	62	0	0	1	61	0	0 (0.0%)	1.38	45%	95%	20-Mar-17	-
Brunei Darussalam	3	1	1	0	0	0	1	0	0 (0.0%)	1.00	100%	100%	11-Jan-17	-
Cambodia	84	45	50	0	0	0	50	0	0 (0.0%)	1.11	90%	92%	16-Mar-17	-
China	5217	2234	5751	0	0	0	5353	398	279 (4.9%)	2.57	92%	100%	08-Mar-17	12
China, Hong Kong SAR	10	8	10	0	0	0	10	0	0 (0.0%)	1.25	90%	100%	09-Jan-17	-
China, Macao SAR	1	1	1	0	0	0	1	0	0 (0.0%)	1.00	100%	100%	12-Jan-17	-
Japan	-	163	-	-	-	-	-	-	-	-	-	-	-	-
Lao People's Democratic Republic	71	24	133	0	3 <sup>6</sup>	0	130	0	0 (0.0%)	5.42	74%	92%	13-Mar-17	-
Malaysia	144	77	143	0	0	0	143	0	0 (0.0%)	1.86	80%	81%	06-Mar-17	-
Mongolia	9	9	7	0	0	0	7	0	0 (0.0%)	0.78	71%	100%	13-Mar-17	-
New Zealand	7	9	12	0	0	0	12	0	0 (0.0%)	1.33	58%	83%	13-Mar-17	-
Papua New Guinea	27	30	23	0	0	0	13	10	10 (43.5%)	0.77	43%	91%	10-Mar-17	10
Philippines	413	394	417	0	0	0	417	0	0 (0.0%)	1.06	71%	95%	10-Mar-17	-
Republic of Korea	83	69	69	0	0	0	69	0	0 (0.0%)	1.00	94%	100%	27-Feb-17	-
Singapore	8	6	7	0	0	0	7	0	0 (0.0%)	1.17	100%	100%	06-Jan-17	-
Viet Nam	380	232	375	0	0	0	311	64	55 (14.7%)	1.62	95%	91%	16-Mar-17	4
Pacific island countries and areas	15	10	19	0	0	0	15	4	3 (15.8%)	1.90	68%	100%	21-Feb-17	27
<b>Total</b>	<b>6525</b>	<b>3357</b>	<b>7080</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>6600</b>	<b>476</b>	<b>347 (4.9%)</b>	<b>2.11</b>	<b>90%</b>	<b>98%</b>		<b>-</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
6. Includes two cases that are 15 years old or older

Green	Reached or surpassed target
Yellow	Nearly reached target: 0.5–0.99 for non-polio AFP rate; 60–79% for other indicators
Red	Substantially below target

Table 1B. 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	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	62	45	5	0	0	0	0	5	0 (0.0%)	0.53	20%	100%	17-Mar-17	3
Brunei Darussalam	1	1	0	-	-	-	-	-	-	-	-	-	11-Jan-17	68
Cambodia	50	54	0	-	-	-	-	-	-	-	-	-	16-Mar-17	4
China	5751	2256	350	0	0	0	0	350	0 (0.0%)	0.73	91%	99%	08-Mar-17	12
China, Hong Kong SAR	10	8	0	-	-	-	-	-	-	-	-	-	06-Mar-17	14
China, Macao SAR	1	1	0	-	-	-	-	-	-	-	-	-	20-Mar-17	0
Japan	-	161	-	-	-	-	-	-	-	-	-	-	-	-
Lao People's Democratic Republic	133	21	13	0	0	0	10	3	0 (0.0%)	2.93	92%	92%	13-Mar-17	7
Malaysia	143	77	16	0	0	0	2	14	0 (0.0%)	0.98	88%	50%	24-Feb-17	24
Mongolia	7	9	0	-	-	-	-	-	-	-	-	-	13-Mar-17	7
New Zealand	12	9	2	0	0	0	0	2	0 (0.0%)	1.05	0%	100%	13-Mar-17	7
Papua New Guinea	23	31	4	0	0	0	0	4	0 (0.0%)	0.61	50%	100%	10-Mar-17	10
Philippines	417	394	0	-	-	-	-	-	-	-	-	-	10-Mar-17	10
Republic of Korea	69	68	7	0	0	0	7	0	0 (0.0%)	0.49	57%	100%	27-Feb-17	21
Singapore	7	6	1	0	0	0	1	0	0 (0.0%)	0.79	100%	100%	09-Mar-17	11
Viet Nam	375	234	30	0	0	0	0	30	1 (3.3%)	0.61	87%	90%	16-Mar-17	4
Pacific island countries and areas	19	11	2	0	0	0	1	1	0 (0.0%)	0.86	0%	100%	21-Feb-17	27
<b>Total</b>	<b>7080</b>	<b>3386</b>	<b>430</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>409</b>	<b>1 (0.2%)</b>	<b>0.60</b>	<b>88%</b>	<b>97%</b>		<b>-</b>

- Number (%) of reported cases pending classification more than 90 days from date of onset of paralysis to date of last report
- Annualized non-polio AFP rate per 100 000 population under 15 years of age
- Percentage of reported cases with two stool specimens collected 24 hours apart and within 14 days of onset of paralysis
- Percentage of reported cases investigated within two days of notification
- Countries are expected to submit data at least once per month to WPRO

<b>Green</b>	Reached or surpassed target
<b>Yellow</b>	Nearly reached target: 0.5–0.99 for non-polio AFP rate; 60–79% for other indicators
<b>Red</b>	Substantially below target

Table 2A. Laboratory investigation of stool samples from AFP cases with onset in 2016 and key laboratory indicators

Country/area	Polio laboratory	Total no. of AFP cases with specimens	Results of virus isolation for AFP cases									Introtypic differentiation/ Sequencing laboratory <sup>1</sup>	No. of isolates received	Results of intratypic differentiation (ITD)/sequencing for virus isolates															
			L20B positive	L20B positive + NPEV	NPEV only	Negative	Pending ≤ 14 days	Pending > 14 days	% results reported ≤ 14 days		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			
									≥ 80%	% specimens positive for NPEV				Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild	Sabin	VDPV					≥ 80%		
Australia	VIDRL	47	0	0	3	44	0	0	94%	5%	27-Jan-17	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brunei Darussalam	VIDRL	1	0	0	0	1	0	0	100%	0%	27-Jan-17	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cambodia	NIID	51	2	0	11	38	0	0	88%	20%	30-Jan-17	NIID	3	0	0	0	0	2	0	0	1	0	0	0	0	0	0	100%	100%
China (total)		5663	66	1	417	5164	0	15	96%	6%	08-Mar-17		163	0	43	0	0	16	0	0	97	1	6	0	0	0	0	99%	99%
China, Anhui	Prov. Lab	325	3	0	12	310	0	0	100%	3%		Prov. Lab/CCDC	5	0	1	0	0	0	0	4	0	0	0	0	0	0	100%	100%	
China, Beijing	Prov. Lab	44	0	0	1	43	0	0	100%	2%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Chongqing	Prov. Lab	183	5	0	8	170	0	0	99%	4%		Prov. Lab/CCDC	3	0	0	0	0	0	0	3	0	0	0	0	0	0	100%	100%	
China, Fujian	Prov. Lab	108	2	0	2	103	0	1	97%	2%		Prov. Lab/CCDC	11	0	5	0	0	0	0	6	0	0	0	0	0	0	100%	100%	
China, Gansu	Prov. Lab	406	8	1	23	374	0	0	88%	4%		Prov. Lab/CCDC	10	0	0	0	0	3	0	0	7	0	0	0	0	0	89%	89%	
China, Guangdong	Prov. Lab	321	3	0	44	274	0	0	100%	11%		Prov. Lab/CCDC	19	0	7	0	0	1	0	0	11	0	0	0	0	0	100%	100%	
China, Guangxi	Prov. Lab	362	5	0	49	308	0	0	98%	11%		Prov. Lab/CCDC	6	0	2	0	0	0	0	4	0	0	0	0	0	0	100%	100%	
China, Guizhou	Prov. Lab	119	1	0	3	115	0	0	99%	3%		Prov. Lab/CCDC	8	0	2	0	0	2	0	0	4	0	0	0	0	0	100%	100%	
China, Hebei	Prov. Lab	456	7	0	50	399	0	0	87%	9%		Prov. Lab/CCDC	10	0	5	0	0	0	0	5	0	0	0	0	0	0	100%	100%	
China, Heilongjiang	Prov. Lab	249	1	0	23	225	0	0	100%	8%		Prov. Lab/CCDC	1	0	0	0	0	0	0	1	0	0	0	0	0	0	100%	100%	
China, Henan	Prov. Lab	239	0	0	4	235	0	0	99%	2%		Prov. Lab/CCDC	18	0	7	0	0	0	0	5	0	0	6	0	0	0	100%	100%	
China, Hubei	Prov. Lab	226	1	0	12	213	0	0	99%	5%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Hunan	Prov. Lab	89	0	0	7	82	0	0	100%	6%		Prov. Lab/CCDC	2	0	0	0	0	0	0	2	0	0	0	0	0	0	100%	100%	
China, Jiangsu	Prov. Lab	121	1	0	3	114	0	3	84%	2%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Jiangxi	Prov. Lab	399	7	0	31	360	0	1	95%	6%		Prov. Lab/CCDC	2	0	1	0	0	0	0	1	0	0	0	0	0	0	100%	100%	
China, Jilin	Prov. Lab	41	1	0	0	40	0	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Neimongol	Prov. Lab	169	5	0	6	157	0	1	97%	3%		Prov. Lab/CCDC	10	0	3	0	0	0	0	6	1	0	0	0	0	0	100%	100%	
China, Ningxia	Prov. Lab	388	3	0	43	342	0	0	95%	9%		Prov. Lab/CCDC	2	0	0	0	0	0	0	2	0	0	0	0	0	0	100%	100%	
China, Shaanxi	Prov. Lab	42	1	0	1	40	0	0	100%	2%		Prov. Lab/CCDC	2	0	0	0	0	0	0	2	0	0	0	0	0	0	100%	100%	
China, Shandong	Prov. Lab	115	1	0	4	110	0	0	98%	3%		Prov. Lab/CCDC	12	0	1	0	0	2	0	0	9	0	0	0	0	0	0	100%	100%
China, Shanghai	Prov. Lab	257	0	0	18	238	0	1	95%	6%		Prov. Lab/CCDC	4	0	0	0	0	2	0	0	2	0	0	0	0	0	100%	100%	
China, Shanxi	Prov. Lab	188	2	0	17	169	0	0	99%	7%		Prov. Lab/CCDC	13	0	4	0	0	0	0	9	0	0	0	0	0	0	100%	100%	
China, Sichuan	Prov. Lab	87	1	0	8	78	0	0	97%	6%		Prov. Lab/CCDC	6	0	0	0	0	2	0	0	4	0	0	0	0	0	100%	100%	
China, Tianjin	Prov. Lab	228	1	0	15	212	0	0	98%	6%		Prov. Lab/CCDC	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	100%	100%
China, Xinjiang	Prov. Lab	44	0	0	3	38	0	3	90%	6%		Prov. Lab/CCDC	4	0	0	0	0	2	0	0	2	0	0	0	0	0	0	100%	100%
China, Yunnan	Prov. Lab	201	0	0	21	176	0	4	97%	10%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Zhejiang	Prov. Lab	90	1	0	4	85	0	0	96%	3%		Prov. Lab/CCDC	5	0	0	0	0	2	0	0	3	0	0	0	0	0	100%	100%	
China, Hainan	Prov. Lab	110	5	0	3	101	0	1	90%	2%		CCDC	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	100%	100%
China, Liaoning	Prov. Lab	21	0	0	0	21	0	0	95%	0%		CCDC	4	0	1	0	0	0	0	0	3	0	0	0	0	0	0	100%	100%
China, Qinghai	Prov. Lab	30	0	0	2	28	0	0	92%	5%		CCDC	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	100%	100%
China, Tibet	Prov. Lab	5	1	0	0	4	0	0	100%	0%		CCDC	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	100%	100%
China, Hong Kong SAR	PHLC	10	0	0	0	10	0	0	96%	0%	14-Feb-17	PHLC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Macao SAR	PHLC	0	-	-	-	-	-	-	-	-	14-Feb-17	PHLC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Japan	NIID	-	-	-	-	-	-	-	-	-	-	NIID	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lao People's Democratic Republic	NIID	201	19	0	20	163	0	0	97%	8%	30-Jan-17	NIID	40	0	18	4	0	3	0	0	15	0	0	0	0	0	0	100%	100%
Malaysia	IMR	139	0	0	7	132	0	0	100%	5%	12-Jan-17	IMR	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mongolia	PHI	7	0	0	1	6	0	0	93%	7%	28-Jan-17	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Zealand	IESR	10	0	0	0	10	0	0	100%	0%	16-Jan-17	IESR	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Papua New Guinea	VIDRL	24	1	0	3	20	0	0	100%	12%	27-Jan-17	VIDRL	2	0	0	0	0	0	0	2	0	0	0	0	0	0	100%	100%	
Philippines	RITM	461	5	0	43	413	0	0	98%	7%	08-Mar-17	RITM	14	0	4	0	0	3	0	0	7	0	0	0	0	0	100%	100%	
Republic of Korea	NIH	67	0	0	7	60	0	0	95%	9%	18-Jan-17	NIH	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Singapore	SGH	7	0	0	0	7	0	0	100%	0%	02-Feb-17	SGH	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Viet Nam (North)	NIHE	208	6	0	26	176	0	0	99%	11%	06-Jan-17	NIHE	6	0	1	0	0	0	0	6	0	0	0	0	0	0	100%	100%	
Viet Nam (South)	PI	167	5	0	16	146	0	0	96%	9%	24-Jan-17	PI	14	0	2	0	0	2	0	0	10	0	0	0	0	0	100%	100%	
Pacific island countries and areas	VIDRL	16	0	0	5	11	0	0	97%	26%	03-Feb-17	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>		<b>7079</b>	<b>104</b>	<b>1</b>	<b>559</b>	<b>6401</b>	<b>0</b>	<b>15</b>	<b>95%</b>	<b>6%</b>			<b>242</b>	<b>0</b>	<b>68</b>	<b>4</b>	<b>0</b>	<b>26</b>	<b>0</b>	<b>0</b>	<b>138</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100%</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 2B. Laboratory investigation of stool samples from AFP cases with onset in 2017 and key laboratory indicators

Country/area	Poli 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	3	0	0	1	0	2	0	0%	100%	17-Mar-17	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Brunei Darussalam	VIDRL	0	-	-	-	-	-	-	-	-	17-Mar-17	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Cambodia	NIID	1	0	0	0	1	0	0	100%	0%	30-Jan-17	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China (total)		338	3	0	9	273	0	53	87%	3%	08-Mar-17		7	0	2	0	0	0	0	5	0	0	0	0	0	100%
China, Anhui	Prov. Lab	15	0	0	0	14	0	1	93%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Beijing	Prov. Lab	2	0	0	0	2	0	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Chongqing	Prov. Lab	8	0	0	0	8	0	0	81%	0%		Prov. Lab/CCDC	2	0	0	0	0	0	0	2	0	0	0	0	100%	
China, Fujian	Prov. Lab	7	0	0	0	7	0	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Gansu	Prov. Lab	35	0	0	1	32	0	2	97%	3%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Guangdong	Prov. Lab	15	0	0	3	11	0	1	100%	21%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Guangxi	Prov. Lab	29	1	0	0	27	0	1	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Guizhou	Prov. Lab	7	0	0	0	6	0	1	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Hebei	Prov. Lab	23	0	0	0	22	0	1	41%	0%		Prov. Lab/CCDC	1	0	0	0	0	0	0	1	0	0	0	0	0	100%
China, Heilongjiang	Prov. Lab	6	0	0	0	6	0	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Henan	Prov. Lab	16	0	0	0	12	0	4	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Hubei	Prov. Lab	8	1	0	1	6	0	0	100%	6%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Hunan	Prov. Lab	1	0	0	0	1	0	0	100%	0%		Prov. Lab/CCDC	2	0	1	0	0	0	0	1	0	0	0	0	0	100%
China, Jiangsu	Prov. Lab	9	0	0	0	5	0	4	40%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Jiangxi	Prov. Lab	28	1	0	0	26	0	1	56%	0%		Prov. Lab/CCDC	1	0	0	0	0	0	0	1	0	0	0	0	0	100%
China, Jilin	Prov. Lab	2	0	0	0	2	0	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Neimongol	Prov. Lab	11	0	0	0	11	0	0	82%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Ningxia	Prov. Lab	14	0	0	1	1	0	12	100%	25%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Shaanxi	Prov. Lab	4	0	0	0	4	0	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Shandong	Prov. Lab	11	0	0	0	10	0	1	100%	0%		Prov. Lab/CCDC	1	0	1	0	0	0	0	0	0	0	0	0	0	100%
China, Shanghai	Prov. Lab	22	0	0	0	8	0	14	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Shanxi	Prov. Lab	11	0	0	0	11	0	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Sichuan	Prov. Lab	9	0	0	1	7	0	1	75%	13%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Tianjin	Prov. Lab	15	0	0	0	12	0	3	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Xinjiang	Prov. Lab	1	0	0	0	0	0	1	-	-		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Yunnan	Prov. Lab	14	0	0	1	11	0	2	75%	8%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Zhejiang	Prov. Lab	6	0	0	0	3	0	3	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Hainan	Prov. Lab	6	0	0	1	5	0	0	100%	8%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Liaoning	Prov. Lab	2	0	0	0	2	0	0	100%	0%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Qinghai	Prov. Lab	1	0	0	0	1	0	0	100%	0%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Tibet	Prov. Lab	0	-	-	-	-	-	-	-	-		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Hong Kong SAR	PHLC	0	-	-	-	-	-	-	-	-	17-Mar-17	PHLC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
China, Macao SAR	PHLC	0	-	-	-	-	-	-	-	-	17-Mar-17	PHLC	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Japan	NIID	-	-	-	-	-	-	-	-	-		NIID	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lao People's Democratic Republic	NIID	17	0	0	2	15	0	0	100%	12%	06-Mar-17	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Malaysia	IMR	23	0	0	1	22	0	0	100%	5%	13-Feb-17	IMR	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Mongolia	PHI	1	0	0	0	1	0	0	100%	0%	09-Mar-17	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-
New Zealand	IESR	2	0	0	0	2	0	0	100%	0%	20-Mar-17	IESR	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Papua New Guinea	VIDRL	2	0	0	2	0	0	0	100%	67%	17-Mar-17	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Philippines	RITM	71	0	0	4	54	13	0	98%	6%	13-Mar-17	RITM	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Republic of Korea	NIH	5	0	0	0	4	1	0	100%	0%	27-Feb-17	NIH	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Singapore	SGH	1	0	0	0	1	0	0	100%	0%	17-Mar-17	SGH	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Viet Nam (North)	NIHE	14	0	0	1	12	1	0	96%	8%	14-Mar-17	NIHE	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Viet Nam (South)	PI	17	0	0	0	12	5	0	100%	0%	16-Mar-17	PI	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific island countries and areas	VIDRL	2	0	0	1	1	0	0	100%	50%	17-Mar-17	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>		<b>497</b>	<b>3</b>	<b>0</b>	<b>21</b>	<b>398</b>	<b>22</b>	<b>53</b>	<b>87%</b>	<b>3%</b>			<b>7</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</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 2016–2017 <sup>1</sup>

Country/area	Intratyptic differentiation lab <sup>2</sup>	2016													2017														
		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	0	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China (total)		337	168	0	179	0	0	174	0	0	496	0	223	4	0	17	9	0	9	0	0	0	0	0	40	0	7	0	0
China, Fujian	Prov. Lab/CCDC	60	12	0	3	0	0	1	0	0	11	0	42	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	
China, Gansu	Prov. Lab/CCDC	13	9	0	5	0	0	5	0	0	11	0	3	4	0	0	-	-	-	-	-	-	-	-	-	-	-	-	
China, Guangdong	Prov. Lab/CCDC	48	35	0	19	0	0	4	0	0	62	0	39	0	0	8	6	0	2	0	0	0	0	11	0	4	0	0	
China, Guangxi	Prov. Lab/CCDC	36	13	0	1	0	0	4	0	0	52	0	23	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	
China, Heilongjiang	Prov. Lab/CCDC	45	21	0	0	0	0	5	0	0	46	0	32	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	
China, Shandong	Prov. Lab/CCDC	37	24	0	25	0	0	15	0	0	33	0	33	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	
China, Shanghai	Prov. Lab/CCDC	24	18	0	17	0	0	4	0	0	34	0	18	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	
China, Xinjiang	Prov. Lab/CCDC	36	36	0	109	0	0	136	0	0	247	0	25	0	0	3	3	0	7	0	0	0	0	29	0	2	0	0	
China, Yunnan	Prov. Lab/CCDC	38	0	0	0	0	0	0	0	0	0	0	8	0	0	6	0	-	-	-	-	-	-	-	-	1	0	0	
Malaysia	IMR	10	0	-	-	-	-	-	-	-	-	-	6	0	0	2	0	-	-	-	-	-	-	-	-	0	0	0	
<b>Total</b>		<b>347</b>	<b>168</b>	<b>0</b>	<b>179</b>	<b>0</b>	<b>0</b>	<b>174</b>	<b>0</b>	<b>0</b>	<b>496</b>	<b>0</b>	<b>229</b>	<b>4</b>	<b>0</b>	<b>19</b>	<b>9</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>0</b>	<b>7</b>	<b>0</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); VIDRL (Victorian Infectious Diseases Reference Laboratory, Australia)

Table 4. Vaccine-derived poliovirus<sup>1</sup> identified from laboratory testing<sup>2</sup>, 2000–2016

Country/area	2000–2009 <sup>3</sup>	2010	2011	2012	2013	2014	2015	2016
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)	aVDPV3 (1 AFP) <sup>4</sup>
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							
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, or non-AFP cases  
 3. Refers to year of last VDPV case, and aggregate total of VDPV cases for 2000-2009  
 4. Based on laboratory reporting only; not yet classified by AFP surveillance