

HIGHLIGHTS

Fourth Meeting of the Combined Subregional Committees for the Certification of Poliomyelitis Eradication and Verification of Measles Elimination in Pacific Island Countries and Areas

The fourth meeting of the combined sub-regional committees for the certification of poliomyelitis eradication and verification of measles elimination in Pacific island countries and areas was convened from 12 to 14 July 2016 in Apia, Samoa. The photo shows the participants of the meeting.



The photo shows a group of approximately 15 people, including men and women in professional attire, posing for a group photo outdoors in a lush green setting with palm trees and a building in the background.

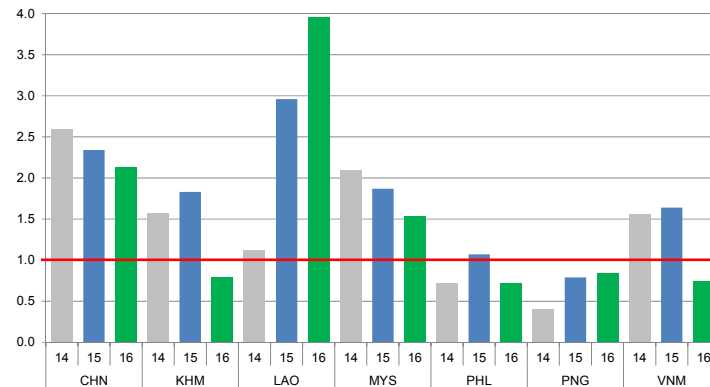
- to review and classify pending AFP cases; and
- to draft the annual progress report on maintaining poliomyelitis free status in Pacific island countries and areas

The WHO Regional Office for the Western Pacific updated the committee on the global eradication of polio, and sustaining polio-free status in the region. The committees then reviewed the immunization and surveillance performance of the 21 Pacific island countries and areas of the Western Pacific Region. All countries have now introduced at least one dose of inactivated polio vaccine (IPV) in their national immunization programmes. In addition the committee validated the successful switch from trivalent oral polio vaccine (tOPV) to bivalent OPV (bOPV) for the 10 countries that participated in the globally synchronized switch in April 2016. Finally, the committee developed sub-regional- and country-specific recommendations.

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Chart 1. Non-polio AFP rate (per 100 000 persons < 15 years of age), 2014–2016*



* AFP rate annualized as of week 29

Chart 2. Adequate specimen collection rate, 2014–2016

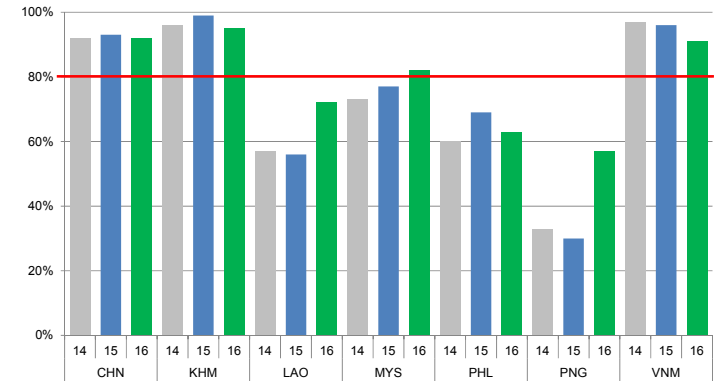


Chart 3. Percentage of reported AFP cases by number of polio vaccination doses, 2016

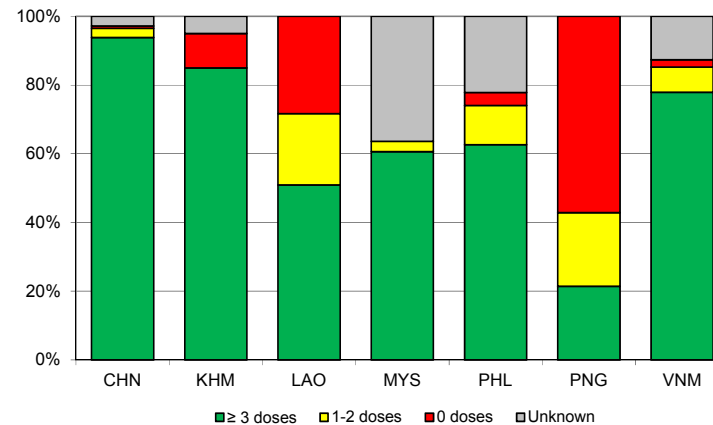
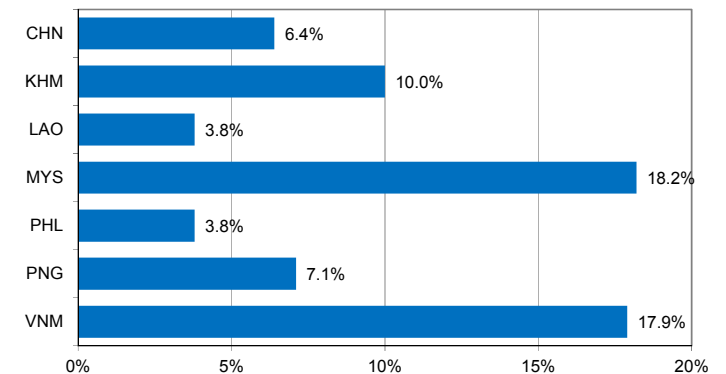


Chart 4. Percentage of reported AFP cases with pending classification > 90 days after onset, 2016



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 2015 and key surveillance indicators

Country/area	2014		2015											
	Total reported cases	Annual expected cases <15 years of age	Total reported cases	Classification						Indicators			Latest report date ⁴	Days since last report ⁵
				Confirmed wild poliovirus	Vaccine-derived poliovirus (VDPV)	Polio-compatible	Discarded (Non-polio)	Pending		Non-polio AFP rate	% with adequate specimens ²	% investigated ≤ 2 days of notification ³		
								Total	> 90 days ¹ # (%)					
≥ 1	≥ 80%	≥ 80%	≤ 30											
Australia	60	44	53	0	0	0	53	0	0 (0.0%)	1.20	26%	100%	19-Feb-16	-
Brunei Darussalam	4	1	3	0	0	0	3	0	0 (0.0%)	3.00	100%	100%	18-Feb-16	-
Cambodia	72	46	84	0	0	0	84	0	0 (0.0%)	1.83	99%	100%	01-Feb-16	-
China	5758	2234	5217	0	0	1	5216	0	0 (0.0%)	2.34	93%	100%	18-May-16	-
China, Hong Kong SAR	19	8	10	0	0	0	10	0	0 (0.0%)	1.25	80%	100%	04-Feb-16	-
China, Macao SAR	1	1	1	0	0	0	1	0	0 (0.0%)	1.00	100%	100%	15-Jan-16	-
Japan	-	163	-	-	-	-	-	-	-	-	-	-	-	-
Lao People's Democratic Republic	28	24	71	0	8 ⁶	0	63	0	0 (0.0%)	2.96	56%	99%	11-May-16	-
Malaysia	161	77	144	0	0	0	144	0	0 (0.0%)	1.87	77%	79%	18-Apr-16	-
Mongolia	9	9	9	0	0	0	9	0	0 (0.0%)	1.00	100%	100%	02-Mar-16	-
New Zealand	8	9	7	0	0	0	7	0	0 (0.0%)	0.78	29%	100%	15-Apr-16	-
Papua New Guinea	12	34	27	0	0	0	27	0	0 (0.0%)	0.79	30%	78%	31-May-16	-
Philippines	272	387	413	0	0	0	413	0	0 (0.0%)	1.07	69%	98%	29-Mar-16	-
Republic of Korea	88	70	83	0	0	0	83	0	0 (0.0%)	1.19	86%	87%	22-Mar-16	-
Singapore	8	6	8	0	0	0	8	0	0 (0.0%)	1.33	100%	88%	03-Feb-16	-
Viet Nam	361	231	380	0	0	0	380	0	0 (0.0%)	1.65	96%	95%	18-Jul-16	-
Pacific island countries and areas	15	10	15	0	0	0	15	0	0 (0.0%)	1.50	67%	100%	18-Jul-16	-
Total	6876	3354	6525	0	8	1	6516	0	0 (0.0%)	1.95	90%	98%		

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 three 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 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	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	53	45	33	0	0	1	18	14	8 (24.2%)	1.31	48%	88%	15-Jul-16	4
Brunei Darussalam	3	1	0	-	-	-	-	-	-	-	-	-	06-Jun-16	43
Cambodia	84	45	20	0	0	0	15	5	2 (10.0%)	0.80	95%	95%	27-Jun-16	22
China	5217	2234	2655	0	0	0	1701	954	171 (6.4%)	2.13	92%	100%	13-Jul-16	6
China, Hong Kong SAR	10	8	7	0	0	0	6	1	0 (0.0%)	1.57	86%	100%	07-Jul-16	12
China, Macao SAR	1	1	1	0	0	0	1	0	0 (0.0%)	1.79	100%	100%	04-Jul-16	15
Japan	-	163	-	-	-	-	-	-	-	-	-	-	-	-
Lao People's Democratic Republic	71	24	53	0	3 ⁶	0	35	15	2 (3.8%)	3.96	72%	96%	24-Jun-16	25
Malaysia	144	77	66	0	0	0	30	36	12 (18.2%)	1.54	82%	56%	07-Jun-16	42
Mongolia	9	8	5	0	0	0	3	2	0 (0.0%)	1.12	60%	100%	01-Jul-16	18
New Zealand	7	9	10	0	0	0	1	9	5 (50.0%)	1.99	60%	90%	13-Jul-16	6
Papua New Guinea	27	30	14	0	0	0	9	5	1 (7.1%)	0.84	57%	86%	19-Jul-16	0
Philippines	413	394	158	0	0	0	137	21	6 (3.8%)	0.72	63%	92%	14-Jul-16	5
Republic of Korea	83	69	36	0	0	0	31	5	0 (0.0%)	0.94	92%	100%	18-Jul-16	1
Singapore	8	6	4	0	0	0	4	0	0 (0.0%)	1.20	100%	100%	05-Jul-16	14
Viet Nam	380	231	95	0	0	0	21	74	17 (17.9%)	0.74	91%	95%	17-Jun-16	32
Pacific island countries and areas	15	10	9	0	0	0	6	3	2 (22.2%)	1.61	78%	100%	27-Jun-16	22
Total	6525	3355	3166	0	3	1	2018	1144	226 (7.1%)	1.69	89%	98%		

- 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
- 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 2A. Laboratory investigation of stool samples from AFP cases with onset in 2015 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%			≥ 80%			≥ 80%							≥ 80%						
Australia	VIDRL	45	0	0	4	41	0	0	95%	5%	04-Mar-16	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Brunei Darussalam	VIDRL	3	0	0	1	2	0	0	100%	33%	04-Mar-16	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Cambodia	NIID	84	1	0	10	73	0	0	96%	11%	14-Jan-16	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
China (total)		5172	68	1	471	4632	0	0	96%	8%	18-May-16		177	0	52	1	0	61	7	0	54	0	2	0	0	0	0	0	98%		
China, Anhui	Prov. Lab	305	2	0	21	282	0	0	97%	6%		Prov. Lab/CCDC	4	0	1	0	0	1	0	0	2	0	0	0	0	0	0	0	100%		
China, Beijing	Prov. Lab	30	3	0	0	27	0	0	100%	0%		Prov. Lab/CCDC	10	0	3	0	0	4	0	0	3	0	0	0	0	0	0	0	100%		
China, Fujian	Prov. Lab	158	4	0	25	129	0	0	99%	15%		Prov. Lab/CCDC	11	0	0	0	0	7	0	0	4	0	0	0	0	0	0	0	100%		
China, Gansu	Prov. Lab	80	0	0	10	70	0	0	95%	9%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
China, Guangdong	Prov. Lab	356	9	0	13	334	0	0	96%	3%		Prov. Lab/CCDC	31	0	4	0	0	14	5	0	8	0	0	0	0	0	0	0	100%		
China, Guangxi	Prov. Lab	279	3	0	42	234	0	0	98%	12%		Prov. Lab/CCDC	6	0	0	0	0	2	0	0	4	0	0	0	0	0	0	0	0	100%	
China, Hebei	Prov. Lab	303	6	1	58	238	0	0	99%	15%		Prov. Lab/CCDC	10	0	7	0	0	3	0	0	0	0	0	0	0	0	0	0	0	100%	
China, Heilongjiang	Prov. Lab	129	1	0	5	123	0	0	100%	4%		Prov. Lab/CCDC	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	100%	
China, Henan	Prov. Lab	503	8	0	48	447	0	0	90%	7%		Prov. Lab/CCDC	16	0	11	0	0	1	0	0	4	0	0	0	0	0	0	0	0	100%	
China, Hunan	Prov. Lab	295	1	0	33	261	0	0	98%	10%		Prov. Lab/CCDC	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	100%	
China, Jiangsu	Prov. Lab	234	4	0	4	226	0	0	99%	2%		Prov. Lab/CCDC	6	0	2	0	0	2	0	0	2	0	0	0	0	0	0	0	0	100%	
China, Jiangxi	Prov. Lab	177	6	0	4	167	0	0	100%	2%		Prov. Lab/CCDC	12	0	6	0	0	4	0	0	2	0	0	0	0	0	0	0	0	100%	
China, Jilin	Prov. Lab	51	0	0	5	46	0	0	98%	7%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
China, Shaanxi	Prov. Lab	98	1	0	5	92	0	0	96%	4%		Prov. Lab/CCDC	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100%	
China, Shandong	Prov. Lab	371	1	0	34	336	0	0	98%	7%		Prov. Lab/CCDC	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	100%	
China, Shanghai	Prov. Lab	39	0	0	1	38	0	0	100%	3%		Prov. Lab/CCDC	4	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	100%	
China, Shanxi	Prov. Lab	126	0	0	12	114	0	0	90%	8%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
China, Sichuan	Prov. Lab	359	1	0	25	333	0	0	94%	6%		Prov. Lab/CCDC	5	0	0	0	0	2	0	0	3	0	0	0	0	0	0	0	0	100%	
China, Tianjin	Prov. Lab	42	1	0	0	41	0	0	100%	0%		Prov. Lab/CCDC	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	100%	
China, Xinjiang	Prov. Lab	114	3	0	16	95	0	0	98%	13%		Prov. Lab/CCDC	6	0	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	100%	
China, Yunnan	Prov. Lab	212	7	0	21	184	0	0	93%	9%		Prov. Lab/CCDC	16	0	6	0	0	4	0	0	6	0	0	0	0	0	0	0	0	86%	
China, Zhejiang	Prov. Lab	187	3	0	18	166	0	0	95%	8%		Prov. Lab/CCDC	10	0	2	1	0	4	0	0	1	0	2	0	0	0	0	0	0	100%	
China, Chongqing	Prov. Lab	75	1	0	8	66	0	0	99%	7%		CCDC	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	67%	
China, Guizhou	Prov. Lab	210	0	0	27	183	0	0	99%	11%		CCDC	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100%
China, Hainan	Prov. Lab	39	0	0	3	36	0	0	90%	6%		CCDC	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	100%	
China, Hubei	Prov. Lab	179	1	0	22	156	0	0	96%	12%		CCDC	4	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	100%	
China, Liaoning	Prov. Lab	91	0	0	5	86	0	0	97%	4%		CCDC	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	100%	
China, Neimongol	Prov. Lab	89	2	0	3	84	0	0	99%	2%		CCDC	5	0	0	0	0	2	0	0	3	0	0	0	0	0	0	0	0	100%	
China, Ningxia	Prov. Lab	20	0	0	1	19	0	0	98%	3%		CCDC	4	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	100%
China, Qinghai	Prov. Lab	19	0	0	2	17	0	0	100%	11%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
China, Tibet	Prov. Lab	2	0	0	0	2	0	0	100%	0%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
China, Hong Kong SAR	PHLC	10	0	0	0	10	0	0	84%	0%	19-Jan-16	PHLC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
China, Macao SAR	PHLC	0	-	-	-	-	-	-	-	-	19-Jan-16	PHLC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Japan	NIID	-	-	-	-	-	-	-	-	-	-	NIID	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Lao People's Democratic Republic	NIID	76	11	2	7	56	0	0	99%	10%	07-Mar-16	NIID	18	0	5	6	0	2	0	0	5	0	0	0	0	0	0	0	0	100%	
Malaysia	IMR	147	0	0	11	136	0	0	98%	5%	11-Feb-16	IMR	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Mongolia	PHI	9	0	0	2	7	0	0	94%	22%	11-Jan-16	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
New Zealand	IESR	4	0	0	0	4	0	0	100%	0%	20-Jan-16	IESR	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Papua New Guinea	VIDRL	25	1	0	6	18	0	0	95%	21%	01-Feb-16	VIDRL	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100%	
Philippines	RITM	483	4	0	61	418	0	0	89%	10%	16-Mar-16	RITM	9	0	1	0	0	2	0	0	6	0	0	0	0	0	0	0	0	100%	
Republic of Korea	NIH	83	0	0	8	75	0	0	87%	8%	22-Mar-16	NIH	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Singapore	SGH	8	0	0	1	7	0	0	100%	6%	15-Jan-16	SGH	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Viet Nam (North)	NIHE	211	3	0	20	188	0	0	99%	9%	12-Jan-16	NIHE	7	0	4	0	0	2	0	0	0	0	1	0	0	0	0	0	0	100%	
Viet Nam (South)	PI	175	0	0	17	158	0	0	98%	10%	16-Feb-16	PI	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Pacific island countries and areas	VIDRL	15	1	0	3	11	0	0	93%	18%	01-Feb-16	VIDRL	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	100%	
Total		6550	89	3	622	5836	0	0	95%	8%			214	0	63	7	0	67	7	0	67	0	3	0	0	0	0	98%			

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 2016 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								
Australia	VIDRL	25	0	0	2	21	2	0	93%	5%	15-Jul-16	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brunei Darussalam	VIDRL	0	-	-	-	-	-	-	-	-	15-Jul-16	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cambodia	NIID	20	1	0	4	15	0	0	95%	18%	11-Jul-16	NIID	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	100%
China (total)		2614	25	1	165	2381	1	41	96%	5%	13-Jul-16		69	0	7	0	0	16	0	0	37	0	4	5	0	0	0	0	98%	
China, Anhui	Prov. Lab	134	0	0	6	127	0	1	100%	4%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Beijing	Prov. Lab	17	0	0	0	17	0	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Fujian	Prov. Lab	79	2	0	2	75	0	0	100%	2%		Prov. Lab/CCDC	7	0	0	0	0	0	0	2	0	0	5	0	0	0	0	100%		
China, Gansu	Prov. Lab	52	2	0	0	50	0	0	96%	0%		Prov. Lab/CCDC	6	0	0	0	0	3	0	0	3	0	0	0	0	0	0	80%		
China, Guangdong	Prov. Lab	197	3	1	8	185	0	0	82%	3%		Prov. Lab/CCDC	6	0	0	0	0	1	0	0	5	0	0	0	0	0	0	100%		
China, Guangxi	Prov. Lab	163	0	0	18	145	0	0	100%	8%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Hebei	Prov. Lab	139	1	0	9	126	0	3	98%	5%		Prov. Lab/CCDC	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	100%		
China, Heilongjiang	Prov. Lab	46	0	0	2	41	0	3	98%	5%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Henan	Prov. Lab	183	1	0	21	159	0	2	82%	9%		Prov. Lab/CCDC	6	0	0	0	0	0	0	2	0	4	0	0	0	0	0	100%		
China, Hunan	Prov. Lab	125	1	0	13	110	0	1	100%	10%		Prov. Lab/CCDC	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	100%		
China, Jiangsu	Prov. Lab	88	0	0	2	85	0	1	100%	2%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Jiangxi	Prov. Lab	118	1	0	8	109	0	0	98%	6%		Prov. Lab/CCDC	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	100%		
China, Jilin	Prov. Lab	29	0	0	0	28	0	1	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Shaanxi	Prov. Lab	51	0	0	2	40	0	9	95%	2%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Shandong	Prov. Lab	170	2	0	7	161	0	0	99%	4%		Prov. Lab/CCDC	5	0	0	0	0	2	0	0	3	0	0	0	0	0	0	100%		
China, Shanghai	Prov. Lab	22	1	0	0	21	0	0	100%	0%		Prov. Lab/CCDC	4	0	0	0	0	2	0	0	2	0	0	0	0	0	0	100%		
China, Shanxi	Prov. Lab	93	4	0	2	87	0	0	98%	2%		Prov. Lab/CCDC	9	0	4	0	0	0	0	5	0	0	0	0	0	0	0	100%		
China, Sichuan	Prov. Lab	209	3	0	25	178	0	3	97%	10%		Prov. Lab/CCDC	5	0	0	0	0	2	0	0	3	0	0	0	0	0	0	100%		
China, Tianjin	Prov. Lab	19	0	0	0	19	0	0	100%	0%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Xinjiang	Prov. Lab	46	1	0	1	42	0	2	98%	2%		Prov. Lab/CCDC	4	0	0	0	0	2	0	0	2	0	0	0	0	0	0	100%		
China, Yunnan	Prov. Lab	159	0	0	8	144	0	7	93%	4%		Prov. Lab/CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Zhejiang	Prov. Lab	84	1	0	3	80	0	0	99%	2%		Prov. Lab/CCDC	3	0	0	0	0	2	0	0	1	0	0	0	0	0	0	100%		
China, Chongqing	Prov. Lab	37	0	0	1	34	0	2	100%	1%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Guizhou	Prov. Lab	101	1	0	8	90	1	1	97%	8%		CCDC	6	0	2	0	0	2	0	0	2	0	0	0	0	0	0	100%		
China, Hainan	Prov. Lab	22	0	0	3	19	0	0	95%	11%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Hubei	Prov. Lab	109	0	0	12	96	0	1	97%	10%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Liaoning	Prov. Lab	48	0	0	1	43	0	4	99%	1%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Neimongol	Prov. Lab	36	0	0	1	35	0	0	86%	3%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Ningxia	Prov. Lab	15	0	0	0	15	0	0	93%	0%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Qinghai	Prov. Lab	21	0	0	2	19	0	0	93%	7%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Tibet	Prov. Lab	2	1	0	0	1	0	0	100%	0%		CCDC	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	100%		
China, Hong Kong SAR	PHLC	6	0	0	0	6	0	0	93%	0%	06-Jul-16	PHLC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Macao SAR	PHLC	0	-	-	-	-	-	-	-	-	06-Jul-16	PHLC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Japan	NIID	-	-	-	-	-	-	-	-	-	-	NIID	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Lao People's Democratic Republic	NIID	103	15	0	8	80	0	0	99%	7%	11-Jul-16	NIID	25	0	10	4	0	3	0	0	8	0	0	0	0	0	0	100%		
Malaysia	IMR	88	0	0	3	85	0	0	99%	4%	13-Jul-16	IMR	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mongolia	PHI	5	0	0	0	5	0	0	70%	0%	07-Jul-16	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
New Zealand	IESR	7	0	0	0	6	1	0	100%	0%	29-Jun-16	IESR	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Papua New Guinea	VIDRL	10	0	0	2	8	0	0	100%	22%	15-Jul-16	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Philippines	RITM	203	3	0	20	171	9	0	96%	8%	13-Jul-16	RITM	8	0	2	0	0	3	0	0	3	0	0	0	0	0	0	100%		
Republic of Korea	NIH	35	0	0	5	29	1	0	96%	13%	18-Jul-16	NIH	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Singapore	SGH	4	0	0	0	4	0	0	100%	0%	15-Jul-16	SGH	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Viet Nam (North)	NIHE	93	3	0	13	65	12	0	97%	14%	08-Jul-16	NIHE	4	0	1	0	0	0	0	0	3	0	0	0	0	0	0	100%		
Viet Nam (South)	PI	62	2	0	10	46	4	0	95%	16%	18-Jul-16	PI	6	0	0	0	0	2	0	0	4	0	0	0	0	0	100%			
Pacific island countries and areas	VIDRL	9	0	0	3	6	0	0	95%	20%	15-Jul-16	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Total		3284	49	1	235	2928	30	41	96%	5%			114	0	20	4	0	26	0	0	55	0	4	5	0	0	99%			

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 2014–2015 ¹

Country/area	Intratyptic differentiation lab ²	2014													2015														
		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	3	0	-	-	-	-	-	-	-	-	-	3	0	0	29	2	0	0	0	1	0	0	1	0	26	0	0	
China (total) ³		167	167	0	79	0	0	129	2	0	115	0	0	0	0	1486	630	0	193	0	0	243	1	0	274	0	851	5	35
China, Fujian	Prov. Lab/CCDC	14	14	0	1	0	0	4	0	0	0	0	0	0	0	77	13	0	0	0	0	12	0	0	1	0	64	0	0
China, Gansu	Prov. Lab/CCDC	0	0	-	-	-	-	-	-	-	-	-	-	-	-	88	46	0	11	0	0	9	0	0	28	0	37	5	0
China, Guangdong	Prov. Lab/CCDC	48	48	0	21	0	0	22	0	0	15	0	0	0	0	171	43	0	11	0	0	24	1	0	7	0	128	0	0
China, Guangxi	Prov. Lab/CCDC	0	0	-	-	-	-	-	-	-	-	-	-	-	-	261	71	0	10	0	0	12	0	0	52	0	190	0	0
China, Heilongjiang	Prov. Lab/CCDC	18	18	0	11	0	0	37	1	0	47	0	0	0	0	47	20	0	2	0	0	16	0	0	2	0	27	0	0
China, Shandong	Prov. Lab/CCDC	48	48	0	13	0	0	16	0	0	23	0	0	0	0	305	108	0	43	0	0	25	0	0	40	0	197	0	0
China, Shanghai	Prov. Lab/CCDC	12	12	0	6	0	0	12	0	0	10	0	0	0	0	129	21	0	2	0	0	12	0	0	7	0	108	0	0
China, Xinjiang	Prov. Lab/CCDC	27	27	0	27	0	0	38	1	0	20	0	0	0	0	396	308	0	114	0	0	133	0	0	137	0	88	0	35
China, Yunnan	Prov. Lab/CCDC	0	0	-	-	-	-	-	-	-	-	-	-	-	-	12	0	0	0	0	0	0	0	0	0	0	12	0	0
Malaysia	IMR	21	7	0	1	0	0	1	0	0	5	0	7	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Total		191	174	0	80	0	0	130	2	0	120	0	10	0	0	1515	632	0	193	0	0	244	1	0	275	0	877	5	35

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 identified from laboratory testing², 2000-2016

Country/area	2000–2009 ³	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)	
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