

HIGHLIGHTS

Regional Director advocate for the Polio Endgame Strategy in WPRO

In June, the Assistant Director-General, Dr Bruce Aylward (Polio Emergencies and Country Collaboration), gave a special lunch seminar on the challenges of managing the Polio Endgame. The session was held in collaboration with another Assistant Director-General, Dr Keiji Fukuda (Health Security), who presented on the WHO response to the Middle Eastern Respiratory Syndrome (MERS).



Dr Aylward began his presentation by underscoring the key role the Western Pacific Region played in the polio eradication effort. In 2000, the Western Pacific Region gave critical proof that eradication is operationally feasible when the Region was declared polio-free. He also emphasized why eradicating poliovirus, and not just controlling it, is so important. He highlighted the cost-effectiveness of polio eradication, particularly for low-income countries. He also acknowledged the moral responsibility the global health community has to eradicate polio, as eradicating polio will ensure that even the most marginalized and vulnerable children in the world are safe from the devastating and life-long paralysis due to poliovirus.

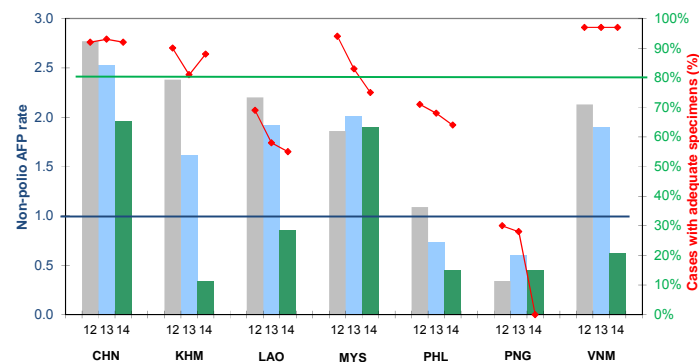
Dr Aylward went on to explain the key challenges of completing the polio endgame and ensuring a polio-free world. One key challenge will be the rapid introduction of IPV into all exclusively OPV-using countries. Another challenge will be to switch from trivalent OPV to bivalent OPV. Additionally, during the final stages of the endgame, all regions must remain vigilant and ensure rapid detection and response to a polio importation. This was underscored by the increase in poliovirus transmission in recent months and the declaration of the WHO Director General that the international spread of wild poliovirus in 2014 is a "Public Health Emergency of International Concern". Dr Aylward concluded his presentation by reminding the audience that "eradication attacks inequities; the ultimate in social justice".

This presentation requested by the Regional Director targeted all WHO staff to be briefed on the progress of this global priority programme and its implications in terms of public health achievements.

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: WPR_EPIdata@wpro.who.int
Web: www.wpro.who.int/immunization

Chart 1. Non-polio AFP rate and adequate specimen collection rate, 2012–2014*



* AFP rate annualized as of week 27

Chart 2. Percent cases with pending classification > 90 days after onset, 2014

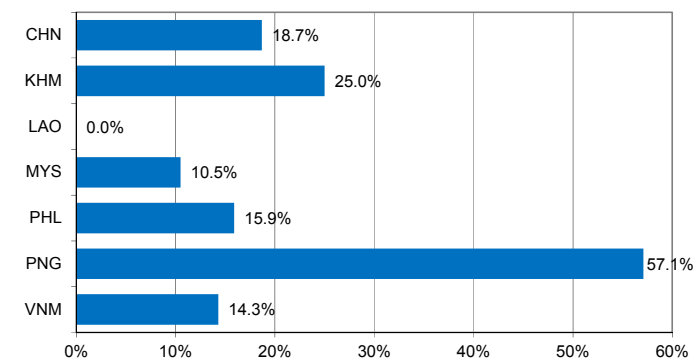


Chart 3. Polio immunization status of reported AFP cases, 2014

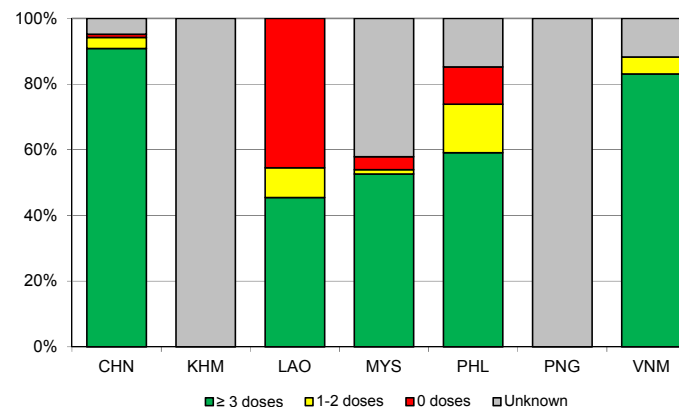
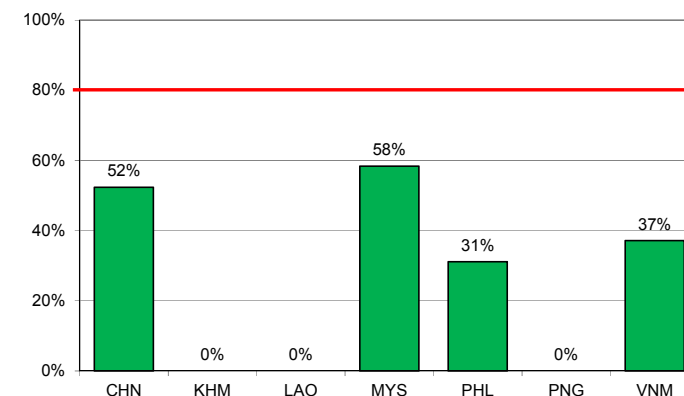


Chart 4. Percentage of samples received at the lab ≤ 3 days of collection, 2014



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 2013 and key surveillance indicators

	2012		2013													
	Total reported cases	Annual expected cases <15 years of age	Total reported cases	Classification						Indicators					Latest report date ⁶	Days since last report ⁷
				Confirmed wild poliovirus	Vaccine-derived poliovirus (VDPV)	Polio-compatible	Discarded (Non-polio)	Pending		Non-polio AFP rate	% with adequate specimens ²	% with any specimen ³	% investigated ≤ 2 days of notification ⁴	% with 60-day follow-up ⁵		
								Total	> 90 days ¹ # (%)							
≥ 1	≥ 80%		≥ 80%	≥ 80%												
Australia	56	43	62	0	0	1	61	0	0 (0.0%)	1.44	39%	71%	100%	0%	08-Apr-14	-
Brunei Darussalam	1	1	1	0	0	0	1	0	0 (0.0%)	1.00	100%	100%	100%	-	06-Feb-14	-
Cambodia	107	45	73	0	0	0	73	0	0 (0.0%)	1.62	81%	96%	78%	100%	13-Mar-14	-
China	6173	2225	5623	0	0	1	5622	0	0 (0.0%)	2.53	93%	99%	100%	98%	28-May-14	-
Hong Kong (China)	14	8	12	0	0	0	12	0	0 (0.0%)	1.50	100%	100%	100%	-	06-Feb-14	-
Japan	0	167	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Lao People's Democratic Republic	55	25	48	0	0	0	48	0	0 (0.0%)	1.92	58%	90%	98%	100%	26-May-14	-
Macao (China)	0	1	1	0	0	0	1	0	0 (0.0%)	1.00	100%	100%	100%	-	14-Jan-14	-
Malaysia	141	77	155	0	0	0	155	0	0 (0.0%)	2.01	83%	100%	85%	100%	31-Mar-14	-
Mongolia	9	7	7	0	0	0	7	0	0 (0.0%)	1.00	86%	100%	100%	100%	07-Mar-14	-
New Zealand	8	9	12	0	0	0	12	0	0 (0.0%)	1.33	50%	83%	83%	100%	27-Feb-14	-
Papua New Guinea	10	30	18	0	0	0	18	0	0 (0.0%)	0.60	28%	83%	83%	100%	26-Feb-14	-
Philippines	403	378	277	0	0	2	275	0	0 (0.0%)	0.73	68%	96%	98%	50%	08-Apr-14	-
Republic of Korea	95	76	84	0	0	0	84	0	0 (0.0%)	1.11	93%	100%	94%	100%	20-Mar-14	-
Singapore	10	6	7	0	0	0	7	0	0 (0.0%)	1.17	71%	100%	86%	100%	08-Jan-14	-
Viet Nam	514	241	459	0	0	0	459	0	0 (0.0%)	1.90	97%	99%	92%	100%	17-Apr-14	-
Pacific island countries	4	10	8	0	0	0	7	1	1 (12.5%)	0.80	63%	100%	100%	67%	14-May-14	54
Total	7600	3349	6847	0	0	4	6842	1	1 (0.0%)	2.04	91%	99%	98%	86%		

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 with at least one specimen
4. Percentage of reported cases investigated within two days of notification
5. Percentage of reported cases with inadequate specimens followed-up within 60 days of onset of paralysis
6. Report date is fixed as soon as all cases for the year have been classified
7. Countries are expected to submit data at least once per month to WPRO

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 2014 and key surveillance indicators

	2013		2014													
	Total reported cases	Annual expected cases <15 years of age	Total reported cases	Classification						Indicators					Latest report date	Days since last report ⁷
				Confirmed wild poliovirus	Vaccine-derived poliovirus (VDPV)	Polio-compatible	Discarded (Non-polio)	Pending		Non-polio AFP rate ²	% with adequate specimens ³	% with any specimen ⁴	% investigated ≤ 2 days of notification ⁵	% with 60-day follow-up ⁶		
								Total	> 90 days ¹ # (%)							
≥ 1	≥ 80%		≥ 80%	≥ 80%												
Australia	62	44	18	0	0	0	15	3	2 (11.1%)	0.79	39%	72%	83%	0%	25-Jun-14	12
Brunei Darussalam	1	1	0	-	-	-	-	-	-	-	-	-	-	-	06-Feb-14	151
Cambodia	73	45	8	0	0	0	0	8	2 (25.0%)	0.34	88%	100%	100%	0%	02-May-14	66
China	5623	2225	2269	0	0	0	986	1283	425 (18.7%)	1.96	92%	98%	100%	72%	02-Jul-14	5
Hong Kong (China)	12	8	9	0	0	0	7	2	1 (11.1%)	2.17	89%	100%	100%	100%	02-Jul-14	5
Japan	0	167	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Lao People's Democratic Republic	48	25	11	0	0	0	5	6	0 (0.0%)	0.85	55%	100%	91%	0%	06-May-14	62
Macao (China)	1	1	1	0	0	0	1	0	0 (0.0%)	1.93	0%	100%	100%	100%	12-Jun-14	25
Malaysia	155	77	76	0	0	0	58	18	8 (10.5%)	1.90	75%	100%	55%	32%	20-Jun-14	17
Mongolia	7	8	3	0	0	0	1	2	0 (0.0%)	0.72	100%	100%	100%	-	09-Jun-14	28
New Zealand	12	9	2	0	0	0	0	2	1 (50.0%)	0.43	50%	100%	100%	0%	16-May-14	52
Papua New Guinea	18	30	7	0	0	0	0	7	4 (57.1%)	0.45	0%	100%	57%	0%	13-Jun-14	24
Philippines	277	378	88	0	0	0	19	69	14 (15.9%)	0.45	64%	93%	95%	3%	12-May-14	56
Republic of Korea	84	76	44	0	0	0	34	10	0 (0.0%)	1.12	82%	100%	95%	88%	19-Jun-14	18
Singapore	7	6	4	0	0	0	4	0	0 (0.0%)	1.28	75%	100%	100%	100%	03-Jun-14	34
Viet Nam	459	241	77	0	0	0	13	64	11 (14.3%)	0.62	97%	100%	88%	0%	26-May-14	42
Pacific island countries	8	10	5	0	0	0	0	5	4 (80.0%)	0.96	40%	60%	60%	0%	16-Jun-14	21
Total	6847	3351	2622	0	0	0	1143	1479	472 (18.0%)	1.51	89%	98%	98%	54%		

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 with at least one specimen
5. Percentage of reported cases investigated within two days of notification
6. Percentage of reported cases with inadequate specimens followed-up within 60 days of onset of paralysis
7. Countries are expected to submit data at least once per month to WPRO

Green	Reached or surpassed target
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Table 2A. Laboratory investigation of AFP cases with onset in 2013 and key laboratory indicators

Country	National polio laboratory ¹	Total no. of AFP cases with specimens	Virus isolation results							% specimens positive for NPEV	Latest report date	Intratyphic differentiation / Sequencing lab ¹	No. of isolates referred	Intratyphic differentiation (ITD) results									NPEV ³	Pending ITD	Discordant pending sequencing	% ITD results reported ≤ 7 days of receipt ≥ 80%			
			L20B positive	L20B positive + NPEV	NPEV only	Negative	Pending ≤ 14 days	Pending > 14 days	% results reported ≤ 14 days ²					Type 1			Type 2			Type 3									
														Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild	Sabin	VDPV							
Australia	VIDRL	44	0	0	9	35	0	0	100%	20%	29-Jan-14	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brunei Darussalam	VIDRL	1	0	0	0	1	0	0	100%	0%	29-Jan-14	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Papua New Guinea	VIDRL	18	0	0	3	15	0	0	100%	16%	29-Jan-14	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific island countries	VIDRL	8	0	0	4	4	0	0	100%	44%	29-Jan-14	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Japan	NIID	0	-	-	-	-	-	-	-	-	-	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cambodia	NIID	70	1	0	21	48	0	0	94%	24%	12-Feb-14	NIID	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	100%
Lao People's Democratic Republic	NIID	43	0	0	10	33	0	0	97%	21%	02-Apr-14	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malaysia	IMR	156	0	0	7	149	0	0	98%	3%	25-Feb-14	IMR	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mongolia	PHI	7	0	0	1	6	0	0	100%	14%	11-Feb-14	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Zealand	IESR	9	0	0	2	7	0	0	94%	22%	17-Mar-14	IESR	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Philippines	RITM	366	0	1	40	325	0	0	95%	9%	08-May-14	VIDRL	3	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	100%
Republic of Korea	NIH	83	0	0	2	81	0	0	100%	3%	18-Feb-14	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Singapore	SGH	7	1	0	0	6	0	0	100%	0%	15-Jan-14	SGH	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	100%
Viet Nam, North	NIHE	229	2	0	41	186	0	0	95%	15%	11-Feb-14	NIID	4	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	100%
Viet Nam, South	PI	225	2	0	21	208	0	0	98%	9%	18-Mar-14	NIID	4	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	100%
China	CCDC	5570	100	3	582	4885	0	0	60%	9%	14-May-14		261	0	71	0	0	95	4	0	77	14	3	0	0	0	0	0	100%
China, Anhui	Prov. Lab	268	4	0	35	229	0	0	52%	11%		Prov. Lab	12	0	3	0	0	4	0	0	5	0	0	0	0	0	0	0	100%
China, Beijing	Prov. Lab	31	1	0	0	30	0	0	77%	0%		Prov. Lab	15	0	6	0	0	6	0	0	3	0	0	0	0	0	0	0	100%
China, Fujian	Prov. Lab	161	4	0	16	141	0	0	80%	7%		Prov. Lab	8	0	2	0	0	3	0	0	3	0	0	0	0	0	0	0	100%
China, Gansu	Prov. Lab	112	4	0	6	102	0	0	73%	5%		Prov. Lab	12	0	1	0	0	6	0	0	5	0	0	0	0	0	0	0	100%
China, Guangdong	Prov. Lab	377	2	0	37	338	0	0	60%	8%		Prov. Lab	10	0	4	0	0	4	0	0	2	0	0	0	0	0	0	0	100%
China, Guangxi	Prov. Lab	248	4	0	28	216	0	0	20%	9%		Prov. Lab	13	0	3	0	0	4	0	0	6	0	0	0	0	0	0	0	100%
China, Hebei	Prov. Lab	387	12	2	62	311	0	0	64%	13%		Prov. Lab	18	0	9	0	0	3	0	0	6	0	0	0	0	0	0	0	100%
China, Heilongjiang	Prov. Lab	128	3	0	7	118	0	0	79%	5%		Prov. Lab	4	0	1	0	0	0	0	0	3	0	0	0	0	0	0	0	100%
China, Henan	Prov. Lab	576	13	0	103	460	0	0	55%	14%		Prov. Lab	27	0	6	0	0	14	0	0	7	0	0	0	0	0	0	0	100%
China, Hunan	Prov. Lab	297	2	0	41	254	0	0	90%	13%		Prov. Lab	4	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	100%
China, Jiangsu	Prov. Lab	289	9	0	7	273	0	0	43%	2%		Prov. Lab	11	0	9	0	0	1	0	0	1	0	0	0	0	0	0	0	100%
China, Jiangxi	Prov. Lab	190	2	0	14	174	0	0	70%	7%		Prov. Lab	31	0	0	0	0	11	4	0	2	14	0	0	0	0	0	0	100%
China, Jilin	Prov. Lab	64	0	0	3	61	0	0	61%	5%		Prov. Lab	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Shaanxi	Prov. Lab	110	1	0	2	107	0	0	91%	2%		Prov. Lab	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Shandong	Prov. Lab	389	17	0	32	340	0	0	69%	6%		Prov. Lab	31	0	9	0	0	11	0	0	11	0	0	0	0	0	0	0	100%
China, Shanghai	Prov. Lab	28	2	0	0	26	0	0	98%	0%		Prov. Lab	10	0	4	0	0	6	0	0	0	0	0	0	0	0	0	0	100%
China, Shanxi	Prov. Lab	212	3	0	9	200	0	0	42%	4%		Prov. Lab	6	0	2	0	0	2	0	0	2	0	2	0	0	0	0	0	100%
China, Sichuan	Prov. Lab	357	0	0	39	318	0	0	32%	10%		Prov. Lab	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Tianjin	Prov. Lab	23	1	0	1	21	0	0	87%	4%		Prov. Lab	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	100%
China, Xinjiang	Prov. Lab	86	5	0	6	75	0	0	81%	6%		Prov. Lab	12	0	2	0	0	7	0	0	3	0	0	0	0	0	0	0	100%
China, Yunnan	Prov. Lab	255	2	1	30	222	0	0	74%	10%		Prov. Lab	5	0	1	0	0	0	0	0	4	0	0	0	0	0	0	0	100%
China, Zhejiang	Prov. Lab	163	3	0	19	141	0	0	37%	9%		Prov. Lab	7	0	1	0	0	2	0	0	4	0	1	0	0	0	0	0	100%
China, Chongqing	Prov. Lab	82	0	0	8	74	0	0	78%	9%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Guizhou	Prov. Lab	232	0	0	23	209	0	0	74%	9%		CCDC	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	100%
China, Hainan	Prov. Lab	41	0	0	5	36	0	0	71%	11%		CCDC	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	100%
China, Hubei	Prov. Lab	230	3	0	31	196	0	0	40%	13%		CCDC	6	0	3	0	0	1	0	0	2	0	0	0	0	0	0	0	100%
China, Liaoning	Prov. Lab	109	0	0	14	95	0	0	72%	11%		CCDC	7	0	3	0	0	2	0	0	2	0	0	0	0	0	0	0	100%
China, Neimongol	Prov. Lab	80	3	0	3	74	0	0	67%	4%		CCDC	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	100%
China, Ningxia	Prov. Lab	19	0	0	0	19	0	0	55%	0%		CCDC	4	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	100%
China, Qinghai	Prov. Lab	16	0	0	1	15	0	0	63%	3%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Tibet	Prov. Lab	10	0	0	0	10	0	0	20%	0%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hong Kong (China)	PHLC	12	0	0	0	12	0	0	97%	0%	16-Jan-14	PHLC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Macao (China)	PHLC	0	-	-	-	-	-	-	-	-	16-Jan-14	PHLC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total		6848	106	4	743	6001	0	0	65%	9%			276	0	74	0	0	102	4	0	82	14	3	0	0	0	0	100%	

1. 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, Hong Kong); 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. The target of 14 days for the timeliness of virus isolation will be used for all polio laboratories

3. NPEV growing in L20B cells

4. Twenty-two provincial laboratories in China perform ITD from 2013

Table 2B. Laboratory investigation of AFP cases with onset in 2014 and key laboratory indicators

Country	National polio laboratory	Total no. of AFP cases with specimens	Virus isolation results							% specimens positive for NPEV	Latest report date	Intratyptic differentiation / Sequencing lab ¹	No. of isolates referred	Intratyptic differentiation (ITD) results																		
			L20B positive	L20B positive + NPEV	NPEV only	Negative	Pending ≤ 14 days	Pending > 14 days	% results reported ≤ 14 days ²					Type 1			Type 2			Type 3			NPEV ³	Pending ITD	Discordant pending sequencing	% ITD results reported ≤ 7 days of receipt ≥ 80%						
														Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild	Sabin	VDPV										
Australia	VIDRL	4	0	0	0	4	0	0	88%	0%	14-Mar-14	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Brunei Darussalam	VIDRL	0	-	-	-	-	-	-	-	-	14-Mar-14	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Papua New Guinea	VIDRL	0	-	-	-	-	-	-	-	-	14-Mar-14	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Pacific island countries	VIDRL	2	0	0	0	1	1	0	100%	0%	14-Mar-14	VIDRL	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Japan	NIID	0	-	-	-	-	-	-	-	-	-	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Cambodia	NIID	15	4	0	2	7	2	0	100%	8%	30-Jun-14	NIID	8	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	100%		
Lao People's Democratic Republic	NIID	16	0	0	5	11	0	0	100%	28%	30-Jun-14	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Malaysia	IMR	81	0	0	2	74	5	0	100%	2%	11-Jun-14	IMR	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mongolia	PHI	3	0	0	0	2	1	0	100%	0%	05-Jun-14	NIID	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
New Zealand	IESR	2	0	0	1	1	0	0	100%	50%	04-Jul-14	IESR	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Philippines	RITM	155	1	0	5	135	0	15	91%	2%	01-Jul-14	RITM	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	100%		
Republic of Korea	NIH	44	0	0	0	39	5	0	92%	0%	19-Jun-14	NIH	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Singapore	SGH	4	0	0	0	4	0	0	100%	0%	30-May-14	SGH	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Viet Nam, North	NIHE	66	0	0	10	47	8	1	100%	17%	12-Jun-14	NIHE	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Viet Nam, South	PI	70	0	0	8	52	7	3	93%	12%	04-Jul-14	PI	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China	CCDC	2232	43	1	190	1939	1	58	61%	7%	02-Jul-14		118	0	31	0	0	45	2	0	40	0	3	0	0	0	0	0	0	95%		
China, Anhui	Prov. Lab	91	2	0	3	86	0	0	52%	3%		Prov. Lab	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Beijing	Prov. Lab	12	0	0	0	12	0	0	75%	0%		Prov. Lab	5	0	2	0	0	0	0	0	0	3	0	0	0	0	0	0	0	100%		
China, Fujian	Prov. Lab	90	0	0	11	79	0	0	91%	9%		Prov. Lab	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Gansu	Prov. Lab	54	1	0	1	52	0	0	69%	2%		Prov. Lab	6	0	2	0	0	2	0	0	2	0	0	0	0	0	0	0	0	100%		
China, Guangdong	Prov. Lab	143	1	0	20	122	0	0	75%	10%		Prov. Lab	4	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	50%		
China, Guangxi	Prov. Lab	98	2	0	23	72	1	0	6%	20%		Prov. Lab	5	0	0	0	0	2	0	0	3	0	0	0	0	0	0	0	0	100%		
China, Hebei	Prov. Lab	124	2	1	11	110	0	0	54%	7%		Prov. Lab	4	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	100%	
China, Heilongjiang	Prov. Lab	64	0	0	1	59	0	4	80%	1%		Prov. Lab	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	100%		
China, Henan	Prov. Lab	216	1	0	21	183	0	11	71%	8%		Prov. Lab	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	100%	
China, Hunan	Prov. Lab	91	1	0	11	75	0	4	80%	12%		Prov. Lab	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100%	
China, Jiangsu	Prov. Lab	108	10	0	2	93	0	3	38%	2%		Prov. Lab	26	0	6	0	0	14	0	0	6	0	0	0	0	0	0	0	0	95%		
China, Jiangxi	Prov. Lab	76	0	0	6	65	0	5	87%	7%		Prov. Lab	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Jilin	Prov. Lab	24	0	0	0	23	0	1	76%	0%		Prov. Lab	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Shaanxi	Prov. Lab	30	0	0	2	26	0	2	59%	7%		Prov. Lab	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Shandong	Prov. Lab	169	2	0	8	155	0	4	66%	4%		Prov. Lab	4	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	100%	
China, Shanghai	Prov. Lab	14	2	0	0	12	0	0	96%	0%		Prov. Lab	6	0	0	0	0	2	0	0	4	0	0	0	0	0	0	0	0	0	100%	
China, Shanxi	Prov. Lab	104	3	0	0	85	0	16	41%	0%		Prov. Lab	8	0	0	0	0	4	2	0	2	0	0	0	0	0	0	0	0	0	100%	
China, Sichuan	Prov. Lab	144	3	0	14	125	0	2	24%	9%		Prov. Lab	10	0	4	0	0	4	0	0	2	0	0	0	0	0	0	0	0	0	100%	
China, Tianjin	Prov. Lab	10	0	0	2	8	0	0	90%	15%		Prov. Lab	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Xinjiang	Prov. Lab	35	1	0	1	33	0	0	94%	1%		Prov. Lab	4	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	100%	
China, Yunnan	Prov. Lab	118	11	0	15	92	0	0	43%	11%		Prov. Lab	24	0	7	0	0	7	0	0	10	0	0	0	0	0	0	0	0	0	93%	
China, Zhejiang	Prov. Lab	75	0	0	5	70	0	0	42%	5%		Prov. Lab	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	100%	
China, Chongqing	Prov. Lab	40	0	0	6	31	0	3	72%	12%		CCDC	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	100%	
China, Guizhou	Prov. Lab	84	1	0	11	72	0	0	84%	12%		CCDC	4	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	100%	
China, Hainan	Prov. Lab	12	0	0	4	8	0	0	75%	25%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Hubei	Prov. Lab	78	0	0	11	67	0	0	55%	14%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Liaoning	Prov. Lab	61	0	0	0	59	0	2	85%	0%		CCDC	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	100%	
China, Neimongol	Prov. Lab	45	0	0	1	44	0	0	66%	1%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Ningxia	Prov. Lab	16	0	0	0	15	0	1	70%	0%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Qinghai	Prov. Lab	5	0	0	0	5	0	0	100%	0%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China, Tibet	Prov. Lab	1	0	0	0	1	0	0	0%	0%		CCDC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hong Kong (China)	PHLC	7	0	0	0	7	0	0	95%	0%	28-May-14	PHLC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Macao (China)	PHLC	0	-	-	-	-	-	-	-	-	28-May-14	PHLC	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total		2701	48	1	223	2323	30	77	63%	7%			128	0	31	0	0	55	2	0	40	0	3	0	0	0	0	0	96%			

1. 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, Hong Kong); 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. The target of 14 days for the timeliness of virus isolation will be used for all polio laboratories

3. NPEV growing in L20B cells

4. Twenty-two provincial laboratories in China perform ITD from 2013

Table 4. Vaccine-derived poliovirus, 2000–2013

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Cambodia						cVDPV3 (1 case)	cVDPV3 (1 case)							
China	aVDPV1 (1 case)	iVDPV1 (1 case) aVDPV3 (1 case)	aVDPV1 (1 case) aVDPV3 (1 case)		cVDPV1 (2 cases) ?VDPV1 (4 cases) ?VDPV2 (1 case)	iVDPV2 (1 case)	aVDPV1 (1 case) ?VDPV1 (7 cases) VDPV3 (1 case)	aVDPV1 (3 cases) ?VDPV1 (1 case)		aVDPV2 (1 case)	aVDPV2 (5 cases) aVDPV3 (2 cases)	aVDPV1 (1 case) aVDPV2 (3 cases) cVDPV2 (2 cases) iVDPV2 (2 cases) iVDPV3 (1 case)	aVDPV1 (1 case) aVDPV2 (2 cases) cVDPV2 (3 cases) iVDPV2 + iVDPV3 (1 case)	aVDPV2 (1 case) iVDPV2 + iVDPV3 (1 case)
Hong Kong (China)						?VDPV? (3 cases)								
Japan					?VDPV? (1 case)	?VDPV3 (1 case)								
Lao People's Democratic Republic					aVDPV2 (1 case) ?VDPV? (2 cases)									
Mongolia				?VDPV? (1 case)										
Philippines		cVDPV1 (3 cases)												
Viet Nam													aVDPV2 (2 cases)	