

HIGHLIGHTS

An update on the switch from trivalent (tOPV) to bivalent oral polio vaccine (bOPV)

From 17 April to 1 May, 155 countries and areas participated in the historic synchronized switch from trivalent to bivalent oral polio vaccine. This event included the withdrawal of the type two component of the vaccine. The switch is the first step of objective 2 in the Polio Eradication and Endgame Strategic Plan 2013-2018, i.e., to withdraw OPV in a phased manner starting with the type 2 component following the declaration of the eradication of wild poliovirus type 2 in September 2015.

As of 10 May 2016:

- 154 of 155 (99%) countries and areas have already stopped using the trivalent oral polio vaccine.
- Independent monitoring to ensure the switch requirements have been met has begun in 149 of 152* countries (98%).
- The National Validation Committee has received switch monitoring data from 38 of 152 (25%) countries.
- WHO Regional Offices have received the final National Validation Reports from 36 of 155 (23%) countries.

Live update of which countries have undergone the switch can be followed here:

http://maps.who.int/OPV_switch/

Learn more about why the switch is such an important part of ensuring a polio-free world through this series of videos:

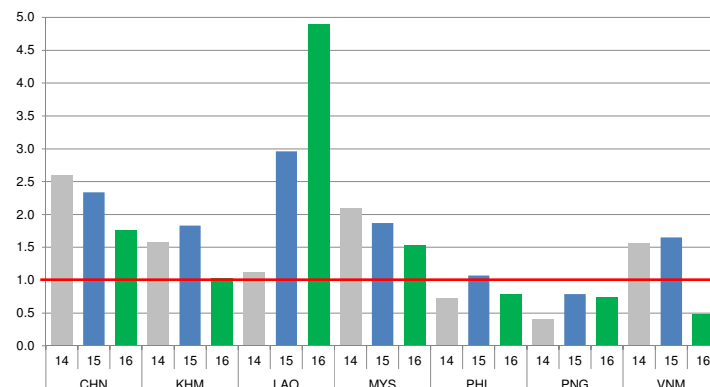
<https://www.youtube.com/watch?v=n9gjhFOiNKI>

* Note: No national validation committees nor formal switch monitoring was conducted in Israel, Malaysia and Poland since they use IPV-only schedules. The denominator for these indicators is 152; however, Israel and Poland have submitted formal statements to WHO EURO that no tOPV remains in the countries.

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 (per 100 000 persons < 15 years of age), 2014–2016*



* AFP rate annualized as of week 19

Chart 2. Adequate specimen collection rate, 2014–2016

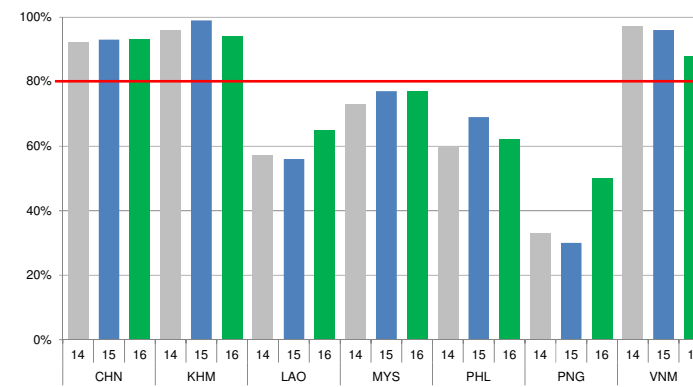


Chart 3. Percentage of reported AFP cases by number of polio vaccination doses, 2016

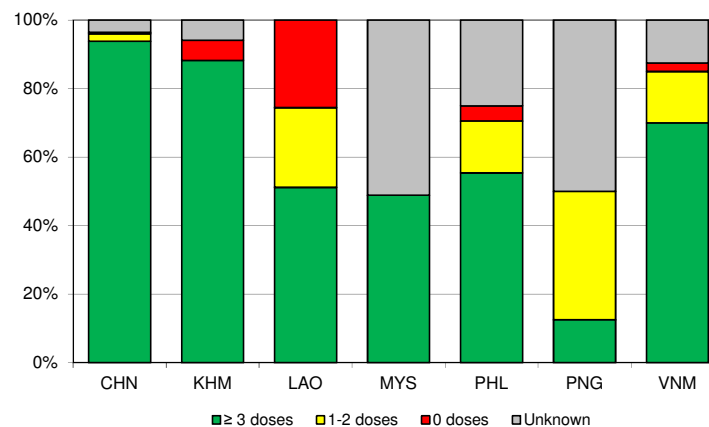
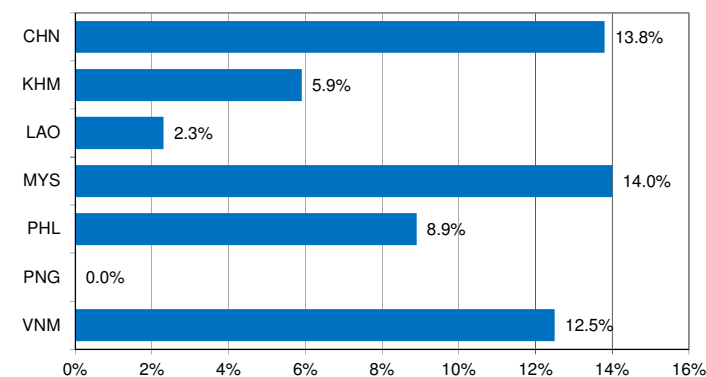


Chart 4. Percentage of reported AFP cases with pending classification > 90 days after onset, 2016



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 | 5218 | 0 | 0 | 1 | 5215 | 2 | 2 (0.0%) | 2.34 | 93% | 100% | 04-May-16 | 7 |
| 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 | 26 | 1 | 1 (3.7%) | 0.79 | 30% | 74% | 29-Mar-16 | 43 |
| 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 | 343 | 36 | 35 (9.2%) | 1.65 | 96% | 95% | 22-Mar-16 | 50 |
| Pacific island countries and areas | 15 | 10 | 14 | 0 | 0 | 0 | 10 | 4 | 4 (28.6%) | 1.40 | 71% | 100% | 11-Apr-16 | 30 |
| Total | 6876 | 3354 | 6525 | 0 | 8 | 1 | 6472 | 43 | 42 (0.6%) | 1.95 | 90% | 98% | | |

- Number (%) of reported cases pending classification more than 90 days from date of onset of paralysis to date of last report
- 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
- Report date is fixed as soon as all cases for the year have been classified
- Countries are expected to submit data at least once per month to WPRO
- 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 | 23 | 0 | 0 | 0 | 5 | 18 | 6 (26.1%) | 1.40 | 39% | 83% | 29-Apr-16 | 12 |
| Brunei Darussalam | 3 | 1 | 0 | - | - | - | - | - | - | - | - | - | 18-Feb-16 | 83 |
| Cambodia | 84 | 45 | 17 | 0 | 0 | 0 | 4 | 13 | 1 (5.9%) | 1.03 | 94% | 94% | 09-May-16 | 2 |
| China | 5218 | 2234 | 1438 | 0 | 0 | 0 | 244 | 1194 | 198 (13.8%) | 1.76 | 93% | 100% | 04-May-16 | 7 |
| China, Hong Kong SAR | 10 | 8 | 5 | 0 | 0 | 0 | 3 | 2 | 0 (0.0%) | 1.71 | 80% | 100% | 10-May-16 | 1 |
| China, Macao SAR | 1 | 1 | 0 | - | - | - | - | - | - | - | - | - | 21-Apr-16 | 20 |
| Japan | - | 163 | - | - | - | - | - | - | - | - | - | - | - | - |
| Lao People's Democratic Republic | 71 | 24 | 43 | 0 | 3 ⁶ | 0 | 25 | 15 | 1 (2.3%) | 4.90 | 65% | 95% | 11-May-16 | 0 |
| Malaysia | 144 | 77 | 43 | 0 | 0 | 0 | 11 | 32 | 6 (14.0%) | 1.53 | 77% | 44% | 18-Apr-16 | 23 |
| Mongolia | 9 | 8 | 2 | 0 | 0 | 0 | 1 | 1 | 0 (0.0%) | 0.68 | 100% | 100% | 06-May-16 | 5 |
| New Zealand | 7 | 9 | 7 | 0 | 0 | 0 | 1 | 6 | 0 (0.0%) | 2.13 | 43% | 86% | 22-Apr-16 | 19 |
| Papua New Guinea | 27 | 30 | 8 | 0 | 0 | 0 | 0 | 8 | 0 (0.0%) | 0.73 | 50% | 88% | 29-Mar-16 | 43 |
| Philippines | 413 | 394 | 112 | 0 | 0 | 0 | 71 | 41 | 10 (8.9%) | 0.78 | 62% | 93% | 11-May-16 | 0 |
| Republic of Korea | 83 | 69 | 10 | 0 | 0 | 0 | 3 | 7 | 0 (0.0%) | 0.40 | 90% | 100% | 22-Mar-16 | 50 |
| Singapore | 8 | 6 | 2 | 0 | 0 | 0 | 2 | 0 | 0 (0.0%) | 0.91 | 100% | 100% | 05-May-16 | 6 |
| Viet Nam | 380 | 231 | 40 | 0 | 0 | 0 | 6 | 34 | 5 (12.5%) | 0.47 | 88% | 98% | 14-Apr-16 | 27 |
| Pacific island countries and areas | 14 | 10 | 5 | 0 | 0 | 0 | 2 | 3 | 0 (0.0%) | 1.37 | 80% | 100% | 11-Apr-16 | 30 |
| Total | 6525 | 3355 | 1755 | 0 | 3 | 0 | 378 | 1374 | 227 (12.9%) | 1.43 | 89% | 97% | | |

- 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 one case that is 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 3. Laboratory confirmation of polio isolates from environmental samples in 2014–2015 ¹

| Country/area | Intratype differentiation lab ² | 2014 | | | | | | | | | | | | | 2015 | | | | | | | | | | | | | | |
|----------------------------|--|-----------------------------------|---|----------|-----------|----------|----------|------------|----------|----------|------------|----------|-----------|-------------|-------------------------------|-----------------------------------|---|----------|------------|----------|----------|------------|----------|----------|------------|----------|------------|-------------|-------------------------------|
| | | Total number of samples processed | Total number of samples with polio isolates | Type 1 | | | Type 2 | | | Type 3 | | | NPEV | Pending ITD | Discordant pending sequencing | Total number of samples processed | Total number of samples with polio isolates | Type 1 | | | Type 2 | | | Type 3 | | | NPEV | Pending ITD | Discordant pending sequencing |
| | | | | 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 | 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)
3. Reported data from China are currently being verified and may be amended in the next issue of the bulletin.

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