

## HIGHLIGHTS

### Update on outbreak of circulating vaccine derived poliovirus type 1 in Lao People's Democratic Republic

As of 18 January, the total number of confirmed circulating vaccine derived poliovirus (cVDPV) cases in the Lao People's Democratic Republic is seven: five cases are confirmed based on virus isolation from case stool specimens, and two cases confirmed based on epidemiological linkage with laboratory-confirmed contacts, in accordance with the WHO guidelines. The date of onset of the last case is on 18 December 2015.

In all, six rounds with trivalent oral polio vaccine (OPV) are planned from October 2015 to March 2016 (four subnational and two national) with ~ 10 million doses to be administered to children younger than 15 years of age. The fourth round is planned for 25 January-7 February 2016. This round will include the 15 provinces first targeted in the December 2015 round as well as high-risk districts in the three outbreak provinces. In addition to targeting children <15 years of age, 19 high risk districts are targeting persons of all ages for vaccination. This age range was determined because two confirmed cases were between 15 and 40 years of age.

In line with the IHR Emergency Committee recommendations, on 13 January 2016 the Honourable Prime Minister of the Lao People's Democratic Republic officially declared the cVDPV1 outbreak as a National Public Health Emergency.

As required by the WHO Polio Outbreak Response Guideline, in case of polio outbreak, a quarterly external assessment should be conducted to ensure quality and appropriateness of the response activities. The first assessment in the Lao People's Democratic Republic is scheduled to take place during 25-29 January 2016 by a team comprised of staff members from WHO Headquarters and the Western Pacific Regional Office; UNICEF Headquarters and the East Asia and Pacific Regional Office and United States Centers for Disease Control and Prevention.

## 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](mailto:WPR_EPIdata@wpro.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), 2013–2015

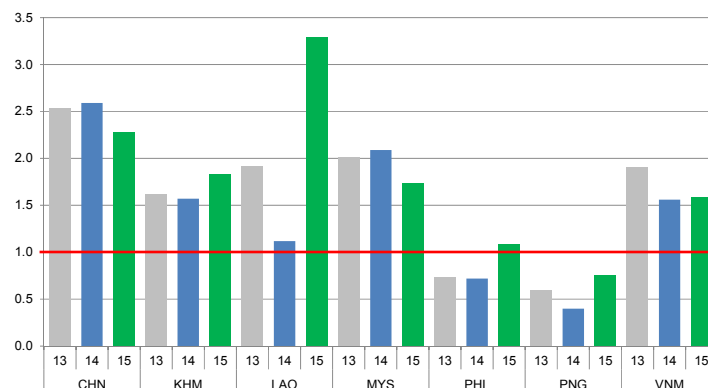


Chart 2. Adequate specimen collection rate, 2013–2015

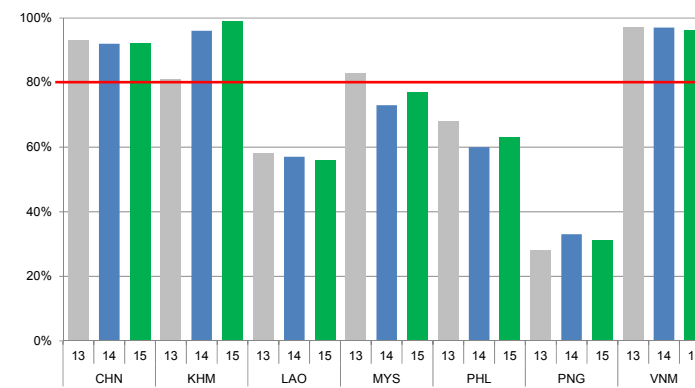


Chart 3. Percentage of reported AFP cases by number of polio vaccination doses, 2015

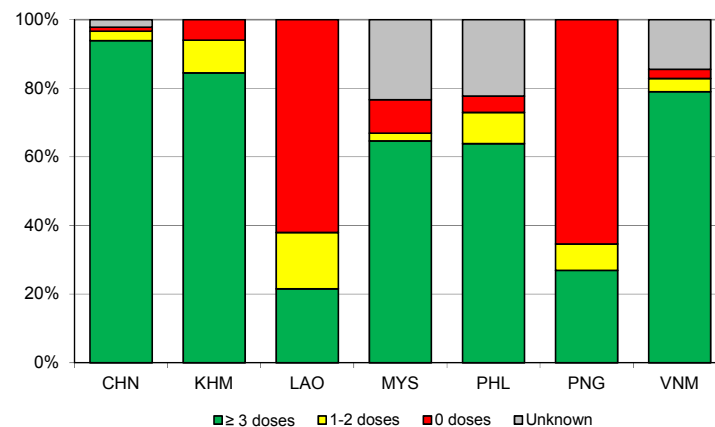
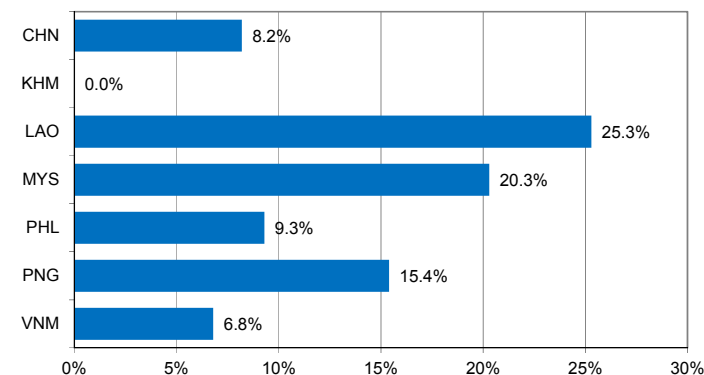


Chart 4. Percentage of reported AFP cases with pending classification > 90 days after onset, 2015



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 1. 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 <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                          | 60                   | 44                                     | 57                   | 0                         | 0                                 | 0                | 41                    | 16          | 4 (7.0%)                     | 1.30               | 25%                                    | 98%  | 12-Jan-16                       | 6                                   |
| Brunei Darussalam                  | 4                    | 1                                      | 3                    | 0                         | 0                                 | 0                | 2                     | 1           | 0 (0.0%)                     | 3.00               | 100%                                   | 100%   | 06-Jan-16                       | 12                                  |
| Cambodia                           | 72                   | 46                                     | 84                   | 0                         | 0                                 | 0                | 74                    | 10          | 0 (0.0%)                     | 1.83               | 99%                                    | 100%   | 01-Jan-16                       | 17                                  |
| China                              | 5758                 | 2234                                   | 5096                 | 0                         | 0                                 | 1                | 3871                  | 1224        | 420 (8.2%)                   | 2.28               | 92%                                    | 100%   | 13-Jan-16                       | 5                                   |
| China, Hong Kong SAR               | 19                   | 8                                      | 10                   | 0                         | 0                                 | 0                | 10                    | 0           | 0 (0.0%)                     | 1.25               | 60%                                    | 100%   | 06-Jan-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                                     | 79                   | 0                         | 7 <sup>6</sup>                    | 0                | 38                    | 34          | 20 (25.3%)                   | 3.29               | 56%                                    | 97%  | 17-Jan-16                       | 1                                   |
| Malaysia                           | 161                  | 77                                     | 133                  | 0                         | 0                                 | 0                | 90                    | 43          | 27 (20.3%)                   | 1.73               | 77%                                    | 59%  | 29-Dec-15                       | 20                                  |
| Mongolia                           | 9                    | 9                                      | 9                    | 0                         | 0                                 | 0                | 7                     | 2           | 0 (0.0%)                     | 1.00               | 100%                                   | 100%   | 04-Jan-16                       | 14                                  |
| New Zealand                        | 8                    | 9                                      | 7                    | 0                         | 0                                 | 0                | 5                     | 2           | 2 (28.6%)                    | 0.78               | 29%                                    | 100%   | 06-Jan-16                       | 12                                  |
| Papua New Guinea                   | 12                   | 34                                     | 26                   | 0                         | 0                                 | 0                | 16                    | 10          | 4 (15.4%)                    | 0.76               | 31%                                    | 77%  | 11-Dec-15                       | 38                                  |
| Philippines                        | 272                  | 387                                    | 418                  | 0                         | 0                                 | 0                | 355                   | 63          | 39 (9.3%)                    | 1.08               | 63%                                    | 97%  | 12-Jan-16                       | 6                                   |
| Republic of Korea                  | 88                   | 70                                     | 82                   | 0                         | 0                                 | 0                | 78                    | 4           | 0 (0.0%)                     | 1.17               | 85%                                    | 87%  | 15-Jan-16                       | 3                                   |
| Singapore                          | 8                    | 6                                      | 8                    | 0                         | 0                                 | 0                | 8                     | 0           | 0 (0.0%)                     | 1.33               | 100%                                   | 88%  | 05-Jan-16                       | -                                   |
| Viet Nam                           | 361                  | 231                                    | 367                  | 0                         | 0                                 | 0                | 271                   | 96          | 25 (6.8%)                    | 1.59               | 96%                                    | 96%  | 06-Jan-16                       | 12                                  |
| Pacific island countries and areas | 15                   | 10                                     | 13                   | 0                         | 0                                 | 0                | 7                     | 6           | 1 (7.7%)                     | 1.30               | 69%                                    | 100%   | 29-Dec-15                       | 20                                  |
| <b>Total</b>                       | <b>6876</b>          | <b>3354</b>                            | <b>6393</b>          | <b>0</b>                  | <b>7</b>                          | <b>1</b>         | <b>4874</b>           | <b>1511</b> | <b>542 (8.5%)</b>            | <b>1.91</b>        | <b>89%</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
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 3. Laboratory confirmation of polio isolates from environmental samples in 2014–2015 <sup>1</sup>

| Country/area               | Intratype differentiation lab <sup>2</sup> | 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) <sup>3</sup> |  | 167                               | 167   | 0        | 79        | 0        | 0        | 129        | 2        | 0        | 115        | 0        | 0         | 0           | 0                             | 186                               | 68  | 0        | 121        | 0        | 0        | 122        | 0        | 0        | 116        | 0        | 287        | 0           | 7                             |
| China, Fujian              | Prov. Lab/CCDC                             | 14                                | 14  | 0        | 1         | 0        | 0        | 4          | 0        | 0        | 0          | 0        | 0         | 0           | 0                             | 15                                | 7   | 0        | 0          | 0        | 0        | 7          | 0        | 0        | 0          | 2        | 0          | 0           |                               |
| China, Gansu               | Prov. Lab/CCDC                             | 0                                 | 0   | -        | -         | -        | -        | -          | -        | -        | -          | -        | -         | -           | -                             | 8                                 | 5   | 0        | 3          | 0        | 0        | 0          | 0        | 0        | 6          | 0        | 8          | 0           | 0                             |
| China, Guangdong           | Prov. Lab/CCDC                             | 48                                | 48  | 0        | 21        | 0        | 0        | 22         | 0        | 0        | 15         | 0        | 0         | 0           | 0                             | 16                                | 7   | 0        | 6          | 0        | 0        | 5          | 0        | 0        | 2          | 0        | 10         | 0           | 0                             |
| China, Guangxi             | Prov. Lab/CCDC                             | 0                                 | 0   | -        | -         | -        | -        | -          | -        | -        | -          | -        | -         | -           | -                             | 29                                | 8   | 0        | 6          | 0        | 0        | 3          | 0        | 0        | 23         | 0        | 60         | 0           | 0                             |
| China, Heilongjiang        | Prov. Lab/CCDC                             | 18                                | 18  | 0        | 11        | 0        | 0        | 37         | 1        | 0        | 47         | 0        | 0         | 0           | 0                             | 6                                 | 4   | 0        | 1          | 0        | 0        | 5          | 0        | 0        | 1          | 0        | 5          | 0           | 0                             |
| China, Shandong            | Prov. Lab/CCDC                             | 48                                | 48  | 0        | 13        | 0        | 0        | 16         | 0        | 0        | 23         | 0        | 0         | 0           | 0                             | 18                                | 15  | 0        | 28         | 0        | 0        | 9          | 0        | 0        | 27         | 0        | 73         | 0           | 0                             |
| China, Shanghai            | Prov. Lab/CCDC                             | 12                                | 12  | 0        | 6         | 0        | 0        | 12         | 0        | 0        | 10         | 0        | 0         | 0           | 0                             | 4                                 | 4   | 0        | 0          | 0        | 0        | 3          | 0        | 0        | 1          | 0        | 13         | 0           | 0                             |
| China, Xinjiang            | Prov. Lab/CCDC                             | 27                                | 27  | 0        | 27        | 0        | 0        | 38         | 1        | 0        | 20         | 0        | 0         | 0           | 0                             | 18                                | 18  | 0        | 77         | 0        | 0        | 90         | 0        | 0        | 56         | 0        | 116        | 0           | 7                             |
| China, Yunnan              | Prov. Lab/CCDC                             | 0                                 | 0   | -        | -         | -        | -        | -          | -        | -        | -          | -        | -         | -           | -                             | 72                                | 0   | 0        | 0          | 0        | 0        | 0          | 0        | 0        | 0          | 0        | 0          | 0           | 0                             |
| Malaysia                   | IMR  | 21                                | 7   | 0        | 1         | 0        | 0        | 1          | 0        | 0        | 5          | 0        | 7         | 0           | 0                             | 0                                 | -   | -        | -          | -        | -        | -          | -        | -        | -          | -        | -          | -           | -                             |
| <b>Total</b>               |  | <b>191</b>                        | <b>174</b>                                  | <b>0</b> | <b>80</b> | <b>0</b> | <b>0</b> | <b>130</b> | <b>2</b> | <b>0</b> | <b>120</b> | <b>0</b> | <b>10</b> | <b>0</b>    | <b>0</b>                      | <b>215</b>                        | <b>70</b>                                   | <b>0</b> | <b>121</b> | <b>0</b> | <b>0</b> | <b>123</b> | <b>0</b> | <b>0</b> | <b>117</b> | <b>0</b> | <b>313</b> | <b>0</b>    | <b>7</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)
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 testing<sup>2</sup>, 2000-2015

| Country/area                     | 2000–2009 <sup>3</sup> | 2010   | 2011   | 2012  | 2013  | 2014   | 2015   |
|----------------------------------|------------------------|--|--|---|---|--|--|
| Cambodia                         | 2006 - 1<br>Total - 2  |  |  |   |   |  |  |
| China                            | 2009 - 1<br>Total - 27 | aVDPV2 (3 AFP + 1 contact + 1 non-AFP)<br>aVDPV3 (1 AFP + 1 non-AFP) | aVDPV1 (1 AFP)<br>aVDPV2 (2 AFP + 1 contact)<br>cVDPV2 (1 AFP + 1 non-AFP)<br>iVDPV2 (1 AFP + 1 non-AFP)<br>iVDPV3 (1 AFP) | aVDPV1 (1 AFP)<br>aVDPV2 (2 AFP)<br>cVDPV2 (2 AFP + 1 contact)<br>iVDPV2 + iVDPV3 (1 AFP) | aVDPV2 (1 non-AFP)<br>iVDPV2 + iVDPV3 (1 AFP) | aVDPV1 (1 non-AFP)<br>aVDPV2 (2 AFP)<br>iVDPV3 (1 AFP) | aVDPV1 (1 AFP)<br>aVDPV2 (1 AFP)<br>iVDPV2 (1 AFP) |
| China, Hong Kong SAR             | 2005 - 3               |  |  |   |   |  |  |
| Japan                            | 2005 - 1<br>Total - 2  |  |  |   |   |  |  |
| Lao People's Democratic Republic | 2004 - 3               |  |  |   |   |  | cVDPV1 (7 AFP + 20 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, "vVDPV" = 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