



# Poliovirus

## Australian national notifiable diseases case definition

This document contains the surveillance case definition for poliovirus, which is nationally notifiable within Australia. State and territory health departments use this definition to decide whether to notify the Australian Government Department of Health and Aged Care of a case.

Version	Status	Last reviewed	Implementation date
1.5	Change of disease name. Changed from 'poliomyelitis' to 'poliovirus infection' to more accurately reflect both the notifiable paralytic and non-paralytic infections.		7 July 2015
1.4	<p>Corrections to Poliomyelitis paralytic infection. Changed National Poliovirus Reference Laboratory to National Enterovirus Reference Laboratory; and changed Polio Expert Committee to Polio Expert Panel.</p> <p>In Poliomyelitis paralytic infection case definition, spelt AFP in full; and corrected the title of WHO publication.</p>	<p>CDWG 2 October 2013</p>	1 January 2014
1.3	<p>Changes to Non-Paralytic Laboratory definitive evidence</p> <p>Changed National Poliovirus Reference Laboratory to National Enterovirus Reference Laboratory.</p> <p>Sabin-like poliovirus infection</p> <p>Added "except where there has been vaccination with Sabin oral polio vaccine in the six weeks* prior to the date of specimen collection."</p> <p>Added * Note: This period may be longer for immunocompromised individuals.</p>	<p>CDWG 2 October 2013</p>	1 January 2014
1.2	<p>In line with the recent WHO changes to the case definition, the following text under <b>Vaccine derived poliovirus (VDPV) infection</b></p> <p>1. Isolation of poliovirus (confirmed in the National Poliovirus Reference Laboratory) OR detection of</p>	<p>CDWG 1 December 2010</p>	1 July 2011

Version	Status	Last reviewed	Implementation date
	<p>poliovirus by nucleic acid testing (confirmed in the National Poliovirus Reference Laboratory)</p> <p>AND</p> <p>2. Detection of a vaccine derived poliovirus according to the current definition of the World Health Organization (reported by the National Poliovirus Reference Laboratory).</p> <p>Has been change to:</p> <p>Isolation of poliovirus (confirmed in the National Poliovirus Reference Laboratory) OR detection of poliovirus by nucleic acid testing (confirmed in the National Poliovirus Reference Laboratory), characterised as a vaccine derived poliovirus according to the current definition of the World Health Organization (reported by the National Poliovirus Reference Laboratory).</p>		
1.1	<p>The case definition has been split into two parts – 'Poliomyelitis (paralytic infection)' and 'poliovirus (non paralytic) infection.</p> <p>Isolation of viruses and detection by nucleic acid testing under laboratory definitive evidence for both 'Poliomyelitis (paralytic infection)' and 'Poliovirus (non-paralytic) infection' to be confirmed by the National Poliovirus Reference Laboratory instead of the WHO Western Pacific Regional Poliovirus Reference Laboratory.</p> <p>Under laboratory definitive evidence for 'Poliomyelitis (paralytic infection)' a third category of "vaccine derived poliovirus (VDPV) infection" has been added to the existing "wild type" and "vaccine associated" infection categories.</p> <p>Under clinical evidence for 'Poliomyelitis (paralytic infection)' the World Health Organization (WHO) clinical case definition ("Any child under 15 years of age with acute flaccid paralysis (including Guillain-Barré syndrome) or any person of any age with paralytic illness if polio is suspected") was adopted on the advice of the Polio Expert Committee (PEC).</p> <p>Under clinical evidence for 'Poliomyelitis (paralytic infection)' a footnote was added providing the WHO definition of acute flaccid paralysis as recommended by PEC.</p> <p>Under clinical evidence for 'Poliomyelitis (paralytic infection)' the wording " For a case to be classified</p>	<p>CDWG 29 June 2010</p>	<p>1 January 2011</p>

Version	Status	Last reviewed	Implementation date
1.0	Initial case definition	2004	2004

as VAPP the determination must be made by the Polio Expert Committee" was added.

## Reporting

Both **confirmed cases** and **probable cases** should be notified.

### Confirmed case

A confirmed case requires **laboratory definitive evidence** AND **clinical evidence**.

### Laboratory definitive evidence

#### Wild poliovirus infection

Isolation of wild poliovirus (confirmed in the National Enterovirus Reference Laboratory) OR detection of wild poliovirus by nucleic acid testing (confirmed in the National Enterovirus Reference Laboratory).

#### Vaccine-associated paralytic poliomyelitis (VAPP)

Isolation of Sabin-like poliovirus (confirmed in the National Enterovirus Reference Laboratory) OR detection of Sabin-like poliovirus by nucleic acid testing (confirmed in the National Enterovirus Reference Laboratory).

#### Vaccine derived poliovirus (VDPV) infection

Isolation of poliovirus (confirmed in the National Enterovirus Reference Laboratory) OR detection of poliovirus by nucleic acid testing (confirmed in the National Enterovirus Reference Laboratory), characterised as a vaccine derived poliovirus according to the current definition of the World Health Organization (reported by the National Enterovirus Reference Laboratory).

### Clinical evidence

Any child under 15 years of age with acute flaccid paralysis\* (including Guillain-Barré syndrome) or any person of any age with paralytic illness if polio is suspected.

For a case to be classified as VAPP the determination must be made by the Polio Expert Panel.

### Probable case

A probable case of poliomyelitis (paralytic infection) requires clinical evidence AND the case not discarded as non-polio paralytic illness by the Polio Expert Panel.

## Clinical evidence

As with confirmed case.

\* Acute flaccid paralysis syndrome is characterised by rapid onset of weakness of an individual's extremities, often including weakness of the muscles of respiration and swallowing, progressing to maximum severity within 1-10 days. The term "flaccid" indicates the absence of spasticity or other signs of disordered central nervous system (CNS) motor tracts such as hyperflexia, clonus, or extensor plantar responses. (Excerpt from *Acute onset flaccid paralysis*; World Health Organization 1993; WHO/MNH/EPI/93.3. Geneva)

## 2. Poliovirus (non-paralytic) infection

### Reporting

Isolation or detection of poliovirus from clinical specimens with laboratory definitive evidence should be notified.

This case definition should be used for asymptomatic patients or patients with illness not consistent with acute flaccid paralysis.

### Laboratory definitive evidence

#### Wild poliovirus infection

Isolation of wild poliovirus (confirmed in the National Enterovirus Reference Laboratory) OR detection of wild poliovirus by nucleic acid testing (confirmed in the National Enterovirus Reference Laboratory).

#### Sabin-like poliovirus infection

Isolation of Sabin-like poliovirus (confirmed in the National Enterovirus Reference Laboratory) OR detection of Sabin-like poliovirus by nucleic acid testing (confirmed in the National Enterovirus Reference Laboratory) except where there has been vaccination with Sabin oral polio vaccine in the six weeks# prior to the date of specimen collection.

# Note: This period may be longer for immunocompromised individuals

#### Vaccine derived poliovirus (VDPV) infection

Isolation of poliovirus (confirmed in the National Enterovirus Reference Laboratory) OR detection of poliovirus by nucleic acid testing (confirmed in the National Enterovirus Reference Laboratory), characterised as a vaccine derived poliovirus according to the current definition of the World Health Organization (reported by the National Enterovirus Reference Laboratory).