

Outbreak of polio in Indonesia

Updated 13 May 2005



On 13 May 2005, two additional polio cases were reported in Indonesia, bringing the total number of cases to eight. The new cases are in the same district as the first case. Vaccine has been shipped to the provinces where supplemental immunization activities are scheduled to take place at the end of the month in response to this outbreak.

11 May 2005: Confirmed today are **six additional 'positive contact' cases**, from the same village as the index case, bringing the total number of 'positive contact' cases to 14. All 'positive contact' cases are from the same village as the index case. A 'contact case' is the positive isolation of wild poliovirus from stool samples collected from a healthy child. During a polio outbreak, stool samples are frequently collected from healthy children in and around an affected area - this helps to determine the extent of wild poliovirus circulation in the immediate environment.

10 May 2005: eight 'positive contact' cases were confirmed, from the same village as the index case. The first round of the 'mop-up' immunization campaign in West Java, Banten and Jakarta provinces will be conducted on 31 May - 2 June. The second campaign will be held on 28 June - 1 July. Both campaigns will aim to reach all of the provinces' 5.2 million children under the age of five years.

On 5 May 2005, three additional polio cases were reported in Indonesia, bringing the total number of cases to four. Two of the three cases are from the same village as the index polio case, and the third is from a neighbouring village. The cases are two boys and one girl, all previously un-immunized, who had onset of paralysis on 2, 9 and 10 April. An immunization response has already been conducted around these cases.

On 2 May 2005, the global reference laboratory in Mumbai, India, confirmed a wild poliovirus type 1 isolate, from an acute flaccid paralysis (AFP) case identified by the national surveillance system in Giri Jaya village, Sukabumi District, **West Java, Indonesia**. The case, an 18 month old child who was previously un-immunized, had onset of paralysis on 13 March 2005.

The findings of the investigation suggests recent introduction of wild poliovirus - genetic analysis of the virus demonstrates that its origin is in west Africa, similar to the viruses which caused the 2003/04 outbreak. Further analysis suggests the virus traveled to Indonesia through Sudan, and is similar to recently isolated viruses in Saudi Arabia and Yemen.

Indonesia has not had a wild poliovirus case since 1995.

Background

21 April: the National Polio Laboratory in Bandung reported a wild poliovirus isolate, from an AFP case identified by the national surveillance system in Giri Jaya village, Sukabumi District, West Java.

23 April: a team comprising staff from the Ministry of Health, West Java provincial health authority, Sukabumi district health authority and WHO was in the infected area to conduct an immediate investigation and response. On 26 and 27 April, additional WHO staff from the Regional Office, New Delhi, and from WHO

Geneva joined this team to support and guide the investigation and response.

The Ministry of Health, Indonesia, supported by WHO, immediately intensified AFP surveillance in the infected district and surrounding areas and conducted an outbreak response immunization (ORI) in four villages in the immediate area of the case, reaching 4,000 children aged less than five years. The intensified AFP surveillance had detected seven additional AFP cases in the village of the index case. The findings of the investigation demonstrates recent introduction of wild poliovirus.

26 April: the Ministry of Health, in collaboration with WHO, sent the poliovirus isolate from this case to WHO's global reference laboratory in Mumbai, India, for genetic sequencing.

Action

- **An active house to house search for paralysed children** continues in communities in the area of the confirmed case.
- **Ministry of Health has issued a notification of the outbreak** to all provinces and to all surveillance units nationally to ensure that no new paralysis cases anywhere in the country are missed.
- Ministry of Health **continues to inform the press.**
- **Two rounds of mopping-up immunization** for all children aged less than 5 years in West Java, Banten and Jakarta Provinces will be conducted, to ensure that any transmission of wild poliovirus is rapidly interrupted, and to rapidly improve population immunity over a wide area of Java. The rounds will be conducted end-May and end-June, targeting approximately 5.2 million children. Extension of this activity to cover other areas (and possibly nationwide), will depend on the results of intensified active surveillance in the other provinces, and determination of wider spread.

Risks

The outbreak may continue to spread in the immediate area of the case and outside. Circulation of wild poliovirus could be occurring in other provinces in Indonesia; however this is unknown at the moment. The costs of the mopping up campaign are as follows: vaccine costs US\$1.17 million and operations costs US\$1.2 million.

Experience in polio eradication demonstrates that outbreaks can be quickly contained with high quality immunization campaigns which reach every child under five years of age. Global eradication efforts have reduced the number of polio cases from 350,000 annually in 1988, to 1,267 cases in 2004. Six countries remain polio-endemic, with a further six where polio transmission is re-established.

Polio status in Indonesia

Indonesia has not had a wild poliovirus case since 1995.

The Ministry of Health conducted national immunization campaigns each year from 1995 to 1997, followed by sub-national immunization campaigns in 1999, 2000 and 2001. A further national campaign was implemented in 2002 to maintain high levels of immunity in children. Routine polio immunization coverage of infants has been consistently above 90% nationally, although this average masks pockets where coverage is considerable lower.

Indonesia's surveillance system for paralysis in children is meeting globally recognized minimum standards, and a review by a team of international experts in June 2003 found that surveillance was adequate to detect wild poliovirus transmission.

Further information

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Detailed epidemiological information also available in the 6 May 2005 Weekly Epidemiological record, available online at: www.who.int/wer/2005/wer8018/en/

For funding and background, please see www.polioeradication.org