

## Report of an outbreak of polio in Sukabumi District, West Java, Indonesia

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**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. Seven additional AFP cases in the village of the index case have been detected, and are currently under investigation.

**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.**

### Situation

**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 has detected seven additional AFP cases in the village of the index case - these are now under investigation. 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.

### Next steps

The Ministry of Health Indonesia is planning a wide-scale immunization response.

Following a meeting on 29 April with the Minister of Health and senior members of her team, the following next steps have been agreed with partner agencies, including WHO and UNICEF:

- **An active house to house search for paralysed children** will continue in communities in the area of the confirmed case.
- **Ministry of Health will issue 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 will issue a press release** (already issued on Saturday, 30 April in Bandung).
- **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 should 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.

## Background

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 considerably 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.