



ASEAN BIOLOGICAL THREATS SURVEILLANCE CENTRE

DISEASE ALERT



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First alert: May 22, 2025 | Poliomyelitis in Papua New Guinea

Sub-Locations Affected

Morobe Province (Lae City)

Event Description

On May 9, 2025, Papua New Guinea's International Health Regulations (IHR) National Focal Point (NFP) for Papua New Guinea (PNG) notified WHO of circulating vaccine-derived poliovirus type 2 (cVDPV2) detected in stool samples from two healthy children in Morobe province.



Figure 1. Map of Location affected
(Source: <https://en.wikipedia.org/wiki/Lae>)

Epidemiological Information

- On April 4, 2025, PNG detected circulating vaccine-derived poliovirus type 2 (cVDPV2), a sample collected from the Environmental Surveillance (ES) site catchment area in Lae city, Morobe province.
- On April 10, 2025, as part of an epidemiological investigation following the earlier cVDPV2 detection, stool samples were collected from 25 healthy children in the ES catchment area.
- On May 8, 2025, the WHO Polio Regional Reference Laboratory in Australia (Victorian Infectious Diseases Reference Laboratory, VIDRL) confirmed poliovirus type 2 in stool samples collected from two asymptomatic children in separate villages within the environmental surveillance catchment area of Lae City. All isolates were genetically linked to the environmental sample detected on 4 April 2025.

- National vaccination coverage in PNG remains low, with OPV3 coverage at 44% in 2024. In Morobe Province, coverage for bivalent oral polio vaccine (bOPV) ranged between 28–37% over the past five years, while the first dose of inactivated polio vaccine (IPV1) coverage remained at 52–54%. Lae City reported a higher coverage rate of 73% for bOPV and 90% for IPV1.
- National vaccination coverage in PNG remains low, with the third dose of the oral polio vaccine (OPV3) coverage at 44% in 2024. In Morobe Province, bOPV coverage ranged from 28–37% over the past five years, and IPV1 coverage stayed between 52–54%. Lae City reported higher rates, with 73% for bOPV and 90% for IPV1.
- In 1996, PNG reported its last wild poliovirus (WPV) case, and was then certified polio-free with the WHO Western Pacific Region in 2000.
- In 2018, however, an outbreak of circulating vaccine-derived poliovirus type 1 (cVDPV1) occurred across nine provinces, with 26 reported cases, including in Morobe Province—particularly Lae City, which is now experiencing a new poliovirus outbreak.
- While the Western Pacific Region remains free of endemic polio and has no other active outbreaks, the continued global circulation of poliovirus poses an ongoing risk of importation and potential outbreaks in areas with low immunity. The WHO assesses the risk of further spread of cVDPV2 in PNG as high due to low immunization coverage, particularly at the subnational level. Although the affected province does not border another country, its status as a commercial hub and seaport raises the risk of virus importation and exportation.

Response Measures

- In response to the case findings, health authorities have implemented several actions, namely: 1) ongoing activation of National and Provincial Emergency Operations Centers, 2) intensified AFP and environmental surveillance to identify further transmission, 3) nationwide acceleration of IPV catch-up campaigns to reduce paralysis risk, 4) technical preparations for a targeted oral polio vaccine type 2 (OPV2) immunization response in coordination with Global Polio Eradication Initiative (GPEI) partners, 5) cross-border coordination to support regional risk mitigation, and 6) regular updates shared via the IHR mechanism.
- The Department of Health is urging citizens to remain calm, only follow official updates from the PNG government, and refrain from sharing unconfirmed information.

- The WHO urges all countries, especially those with travel links to polio-affected areas, to strengthen AFP and environmental surveillance, expand surveillance coverage, and maintain high routine immunization at the district level to detect and respond to virus importation and prevent further spread.

Surveillance should be intensified nationwide, especially in areas linked to positive samples with all healthcare workers sensitized to AFP surveillance requirements. Contact tracing and community awareness activities are critical to identifying asymptomatic infections. In Lae City, the frequency of environmental sampling should be increased from monthly to twice monthly at three existing sites, with consideration given to expanding surveillance to additional locations within the city.

Vaccination should be made for a targeted OPV2 response campaign, in line with GPEI protocols. Authorities should actively identify and vaccinate children who have incomplete or no polio immunization history. Strengthening routine immunization, particularly with inactivated polio vaccine (IPV), remains critical to providing individual protection against paralysis and achieving long-term eradication goals.

- WHO advises that no restrictions on travel or trade to PNG are necessary based on the information available for the current event.

Sources:

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2. Medical Xpress (2025, May 19) The re-emergence of polio in Papua New Guinea shows global eradication remains elusive, Medical Xpress. Retrieved May 21, 2025, from <https://medicalxpress.com/news/2025-05-emergence-polio-papua-guinea-global.html>
3. BBC (2025, May 16). WHO declares polio outbreak in Papua New Guinea. BBC. Retrieved May 21, 2025, from <https://www.bbc.com/news/articles/cvg9men89yvo>
4. National Indigenous Times (NIT) (2025, May 16). Papua New Guinea polio outbreak confirmed. Retrieved May 21, 2025 from <https://nit.com.au/16-05-2025/17976/papua-new-guinea-polio-outbreak-confirmed>

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