



POLIO: SCIENCE & TECHNOLOGY

NEWS: Why is WHO cagey about publishing Meghalaya polio case details?

WHAT'S IN THE NEWS?

Despite knowing the results of the case on August 12, and the follow-up results of the child's immunological profile and virus circulation in the community before mid-September, WHO has not published the news

Meghalaya Polio Case and Vaccine-Derived Poliovirus (VDPV)

Case Details:

- A two-year-old boy from Meghalaya's West Garo Hills showed polio symptoms in August 2024.
- **Diagnosis:** Confirmed as a type-1 vaccine-derived poliovirus (VDPV) on August 12 by ICMR-NIV Mumbai; later confirmed by CDC Atlanta.
- **Immune Profile:** Tests showed the child had a normal immune profile, ruling out immunodeficiency-related VDPV (iVDPV).
- **Cause:** Due to mutation in the weakened type-1 virus from the oral polio vaccine; no evidence of community transmission.

Response Concerns:

- **WHO and GPEI Delay:** Despite receiving information by August 12, no official statement has been released, raising concerns over transparency.
- **Comparative Response:** GPEI previously announced cases in Israel (2022) and the U.S. (2022) within days, but delays were noted in WHO's official reporting for these cases.

Polio Virus:

- **Transmission:** Highly infectious, mostly affecting children under 5 via contaminated food or water.
- **Symptoms:** 72% asymptomatic; 1 in 200 cases may lead to paralysis.
- **Types:** Three serotypes - type 1, 2, and 3 (type 2 and 3 are eradicated).

Polio Vaccines:

- **Inactivated Polio Vaccine (IPV):** Killed virus, injectable, no risk of vaccine-derived polio, more expensive, needs trained staff.

Oral Polio Vaccine (OPV): Live weakened virus, oral drops, less expensive, provides intestinal immunity, but may mutate in under-immunized populations.



Vaccine-Derived Poliovirus (VDPV):

- **Mutation Risk:** Weakened virus in OPV can mutate in under-immunized areas.
- **Types of VDPV:**
 - **cVDPV:** Circulates in communities.
 - **iVDPV:** Occurs in immunocompromised individuals.
 - **aVDPV:** Source unknown.

Like the Health Ministry and the Meghalaya State government, WHO too has not made any official announcement of the case till date

■ On August 12, the ICMR-NIV Mumbai unit had shared the results of the Meghalaya polio case with the Health Ministry, the Meghalaya State government, and the WHO

■ Before mid-September, the follow-up test results of the child's immunological profile and virus circulation in the community were shared with the WHO, the Health Ministry and the State government

■ On September 16, WHO told The Hindu that the case was a type-1 VDPV. WHO also said that the child was not immunocompromised and there was no evidence of virus circulation in the community



■ Despite having all the details of the case, WHO has not published the

■ The Global Polio Eradication Initiative (GPEI) too has remained silent about the

■ On May 26, 2017, WHO posted the details about the three Zika virus cases in Gujarat between November 2016 and January 2017 just

■ Zika virus was no longer in circulation in Gujarat when WHO published the news. Also, like in the Meghalaya polio case, the Health

Prevention and Global Strategy:

- **High Vaccination Coverage:** Above 80% to prevent mutations.
- **Switch to IPV:** In areas with high immunization.
- **Environmental Surveillance:** Monitors for potential outbreaks.
- **Global Transition:** WHO recommends IPV and OPV use, with a gradual shift to IPV.

Source: <https://www.thehindu.com/sci-tech/why-is-who-cagey-about-publishing-meghalaya-polio-case-details/article68797671.ece>