VAX-ID® : an easy-to use device supporting the Global Polio Eradication Initiative

Idevax BV, Belgium May 2026

Poliomyelitis (polio) is a highly contagious acute disease caused by one of three poliovirus serotypes (poliovirus types 1, 2, or 3). Transmission can occur through fecal– oral and oral–oral routes. Polio mainly affects children aged <5 years.

Since the start of the Global Polio Eradication Initiative (GPEI) in 1988 there has been a >99% reduction in polio cases caused by Wild Polioviruses (WPVs) and 20 million paralysis cases prevented.

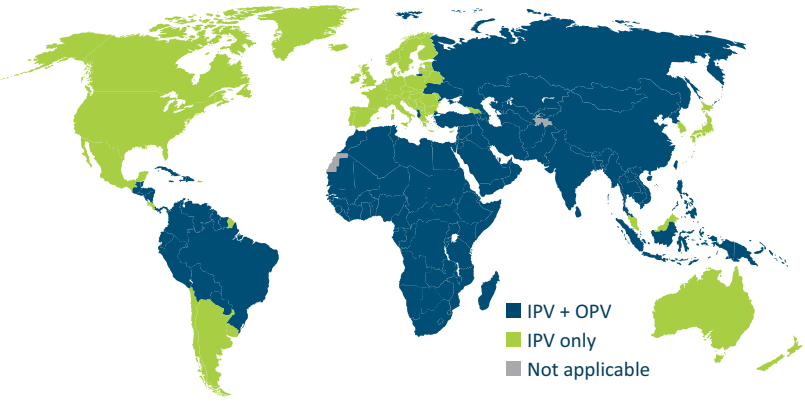
>99% reduction in polio cases

20M paralysis prevented

WPV2 & WPV3

eradicated

Depending on the local epidemiological and programmatic circumstances oral polio vaccine (OPV) and inactivated polio vaccine (IPV) given by injection are used in different combinations to ensure the best possible protection to populations. (PMID 38668278) Interestingly, studies have indicated that IPV may be more effective in boosting intestinal mucosal immunity than OPV. Both effectively stimulate humoral immunity. (PMID 31350192)



To overcome cost and availability challenges with the administration of IPV, countries can opt for a fractional dose (0.1 ml or 1/5 of a full dose) of non-adjuvanted IPV (fIPV).

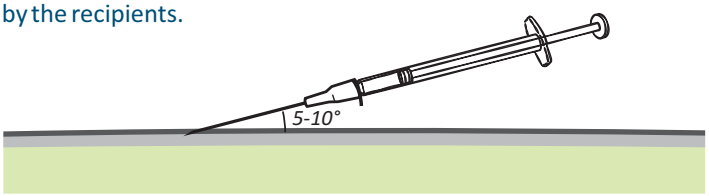
Multiple studies have demonstrated that intradermal (ID) administration of fIPV showed non-inferiority and no substantial difference in seroconversion when comparing 2 to 3 doses of ID fIPV, to 2 and 3 doses of full-dose IPV. Moreover, the vaccine was shown safe and immunogenic. Importantly, proper training for healthcare workers is essential to ensure correct administration. (WHO position paper June 2022; PMIDs 33939958, 24634499, 33284114)

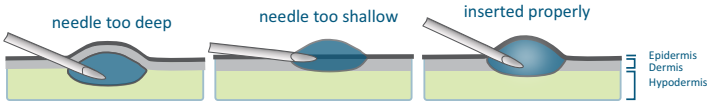
"As part of the response to the IPV shortage, PAHO/WHO recommended to implement the intradermal administration of one fraction of the complete IPV vaccine, specifically one fifth of the complete dose administered intramuscular."

Arbo et al, 2019 (PMID: 31095207)

World Health Organization

The current standard of care, the Mantoux technique uses a syringe and a needle whereby the needle needs to be inserted nearly parallel to the skin, at an angle of 5–15 degrees bevel up. The technique is challenging, difficult to standardize, requires extensively trained healthcare workers, and is perceived as painful by the recipients.

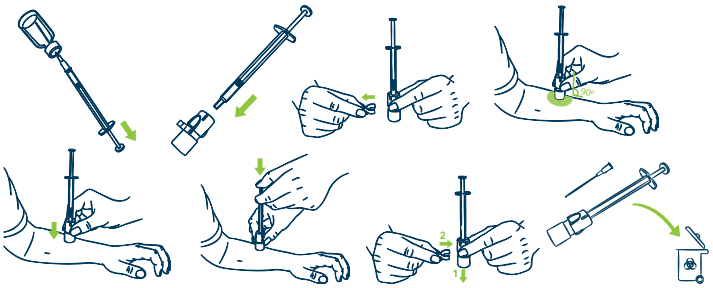




For LMIC, jet injectors are often used, but are not always perceived as more user-friendly than traditional needles and syringes. (PMID: 29980387)

VAX-ID®, an intradermal drug delivery device to overcome the challenges seen with the Mantoux technique and jet injectors.

VAX-ID® is a single-use intradermal injection adaptor for reliable and easy injection into the dermal layer of the skin. The device contains a short and thin microneedle and is applied perpendicular to the skin to allow for its controlled penetration depth.



LOW IN PAIN
Healthcare professionals gave VAX-ID high scores for usability. (PMID: 37330370, 30587432)

EASY TO USE
Acceptability studies show that healthy volunteers do not perceive intradermal injection using VAX-ID® as painful. (PMID: 30587432)

NO NEEDLE STICK
VAX-ID is configured with a safety pin which needs to be removed prior to use and placed back after use.
After injection, VAX-ID is to be placed in the sharps container.

TIME & COST SAVING
Performing an ID injection using VAX-ID® takes a maximum of 8 seconds compared to around 20 seconds for the Mantoux technique.