Sistem Monitoring Imunisasi Logistik secara Elektronik (SMILE) is an innovative technological solution that aims to strengthen the immunization supply chain system in Indonesia – home to a birth cohort of nearly 5 million. It ensures that safe and effective vaccines are available to all children, at all times. SMILE enables real-time visibility of vaccine cold chain logistics by digitizing stock supplies and storage temperature across vaccine cold chain points. The mobile and web based application is being implemented by the Ministry of Health and supported by the United Nations Development Programme. Currently, SMILE is being piloted in 54 Puskesmas in Kota Bogor, West Java, and Kota Tangerang Selatan, Banten, with the goal of nationwide scale up.

WHAT’S BEEN ACCOMPLISHED SO FAR

- All vaccine inventories digitized at 58 cold chain points in West Java and Banten, linking to 2,723 Posyandu and private practices.
- Over 10,000 transactions per month on SMILE, showing high levels of usage and adoption by Pukesmas staff. Data entry errors have also been reduced by 74%.
- Vaccine stock-outs have been reduced by 36% and over-stocking by 56%. Vaccine stock wastage has been reduced by more than 90%.
- Over 100 vaccine handlers and health care workers have been trained on SMILE.
- 80 temperature loggers installed for remote temperature monitoring of cold chain equipment.
WHAT SMILE DOES

**Improves**
efficiency of vaccine cold chain logistics management by introduction of state-of-the-art technology for digitizing vaccine stocks

**Strengthens**
the immunization system by deploying trained human resources to districts for constant support to estimate vaccine requirements and provide supportive supervision

**Facilitates**
maintenance of optimum vaccine stocks by reducing instances of vaccine wastage and stock-out

**Develops**
standard operating procedures for systematic record-keeping of vaccine logistics

**Ensures**
quality and safety of vaccines through real-time information on storage temperature with the help of SIM-enabled temperature loggers

**Empowers**
the vaccine cold chain handlers at health centres through intensive training

**Informs**
policy and decision-making for immunization supply chain management at all levels

HOW SMILE WORKS

SMILE contributes to building a resilient and sustainable health system in Indonesia

- When implemented at national scale, SMILE has the potential to help achieve Indonesia’s goals of universal immunization and vaccine preventable disease eradication.
- SMILE boosts operational efficiencies, brings cost savings for government health providers and addresses inequities in vaccine coverage.