

A unique solution to boost immunization in developing countries

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Gavi, NEC, and Simprints to create digital Immunization identities for children aged 1-5 with a digital ID linked to an accurate, complete medical record



Gavi, the Vaccine Alliance, NEC Corporation, and Simprints Technology Ltd. have signed a memorandum of understanding on the use of biometrics to improve immunization coverage in developing countries recently in Tokyo, Japan.

Despite enormous progress over the past two decades, there are still approximately 20 million children who do not receive a basic course of vaccines worldwide, leaving them exposed to some of the world's deadliest diseases. The fact that only half of all children under 5 in sub-Saharan Africa are currently registered at birth, leaving many without an official identity. This makes it difficult for health practitioners to ensure these infants get the vaccines they need at the right time.

Guided by Gavi's experience and expertise in immunization, this new project will combine Simprints' biometric fingerprint technology and NEC's reinforced authentication engine to help create digital identities for children 1-5 years of age and boost immunization coverage in developing countries.

This new partnership will deploy the world's first scalable fingerprint identification solution to give children aged 1-5 a digital ID linked to an accurate, complete medical record. All biometric records will be stored securely by Simprints, a UK-based non-profit social enterprise after caregivers give informed consent to taking their children's biometric data.

Implementing this plan with conventional extraction and matching engines would be very challenging since young children's fingerprints tend to be blurred due to their softness. NEC's fingerprint authentication engine has overcome this issue, with optimization for infant fingerprints and the use of fingerprint images taken with Simprints scanners. This combination has resulted in highly accurate authentication, with a certification rate of 99%.

The three partners will begin carrying out proof of concept validation of the technology in Bangladesh and Tanzania by early 2020. If successful, the project will then progress to linking children's digital identity with their vaccination record, helping health practitioners to track which children need to be vaccinated and when.

To date, Gavi has contributed to the immunization of over 700 million children in the world's poorest countries, and an estimated 10 million lives have been saved.

This initiative helps to promote the 17 Sustainable Development Goals (SDGs) established by the United Nations.