

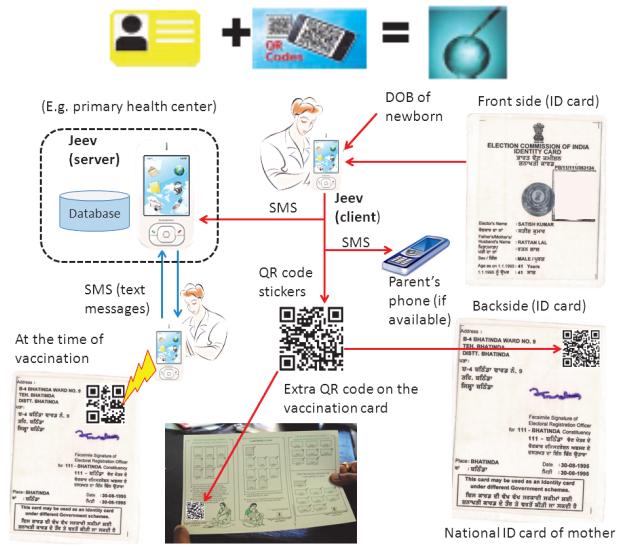
The “Jeev” Cell Phone Application for Tracking Vaccination Coverage

Immunization

Despite the existence of vaccines for preventable diseases, 24 million children annually do not receive proper immunizations, putting them at risk for death before age five.

Convenience

Jeev is an easy to use, inexpensive cell phone based application that utilizes existing QR code technology.



Researchers at UMKC have developed a new application called Jeev for tracking the vaccination coverage of children in rural communities. Jeev synergistically combines the power of smartphones, cellular infrastructure, QR codes, and national identity cards. Jeev is based on a client-server model: it has client-side software and server-side software. The server-side runs on a smartphone and is responsible for storing and managing the vaccination records of children. The server-side and client-side communicate via SMS text messaging and do not require a data communication network like 3G. The transmitted data is encrypted for security reasons.

A smartphone is a perfect choice because the computing infrastructure in rural areas is minimal. Having access to netbooks with Internet connectivity in these areas would be expensive. The server can be remotely located in a community clinic or health care facility. A health worker carrying a smartphone running the client can access the vaccination record of a child from the server and request it to update the record with new vaccine doses. The client can also request the server-side to create a new vaccination record for a child. The server-side and client-side communicate via SMS text messaging and do not require a data communication network like 3G. The transmitted data is also encrypted for security reasons.

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