CSE 490D (Winter 2014) Designing Technology for Resource-Constrained Environments Immunization Cold Chain Status Reporting via SMS Jenny S. Kang, Isaac Reynolds, Jackson Roberts, Nicholas Shahan

Problem

More accurate and accessible reports on vaccine stock inventories and timely notifications of critical equipment failures are needed to help health workers effectively distribute vaccines across health centers. Our goal is to design a system that will allow for fast, easy reliable and accurate reporting in Laos, and generalize it to be usable by other countries.

Solution



Subscribed users

on reported data.



Architecture At the University Hosting of Washington In Deployment Service Country HTTP HTTP REST REST SMS Interchange Server DHIS2 Cold Gateway

An SMS message is sent reporting a vaccine stock outage.

Authorized receive alerts based managers can view data online.

Evaluation with Potential Clients

We discussed requirements with Ranjit Dhiman of UNICEF, who is using a prototype of a similar system in Laos. We also talked to Henry Mwanyika from PATH about adapting the project for use in Tanzania.

Related Work



We talked to two UW graduate students, Trevor Perrier and Fahad Pervaiz, who are currently supporting the prototype system in Laos. Other work at PATH has been focused on creating a data model that can be used in DHIS2 to record cold chain information. This model will be a necessary link between the SMS Interchange Server being developed and a deployment country's DHIS2 database.

Spring Quarter 2014 Timeline



http://courses.cs.washington.edu/courses/cse490d/14wi/