SolDevelo
solutions development

MOTECH SUITE

Mobile Technology for Community Health Project

## SolDevelo's Case Study and Project Information

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What is MOTECH

The Mobile Technology for Community Health (MOTECH) Platform is an open source software project delivered by Grameen Foundation. It enables organizations building mHealth solutions to develop, manage, and monitor those solutions more quickly and cost-effectively with fewer technical resources. It also allows multiple mHealth solutions serving the same population to be deployed in a way that enables data sharing and a better experience for users of the system.

The MOTECH Platform is best-suited for mHealth applications which improve health by sending messages to patients and caregivers based on an evaluation of the recommended schedule of care compared to the patient's health-related actions.

MOTECH Suite provides a set of services encompassing five key functional mHealth areas:

- Behavior Change & Demand Generation
- Managing Patient Data
- Improving Worker Performance
- Last-Mile Supply Chain
- Patient Adherence.

SMS, IVR

Information Flow

Questions, Reports, Information

Information Flow

The diagram below shows the flow of client and reporting data in MoTeCH:

Legend
— Flow of patient information
— Flow of reporting data
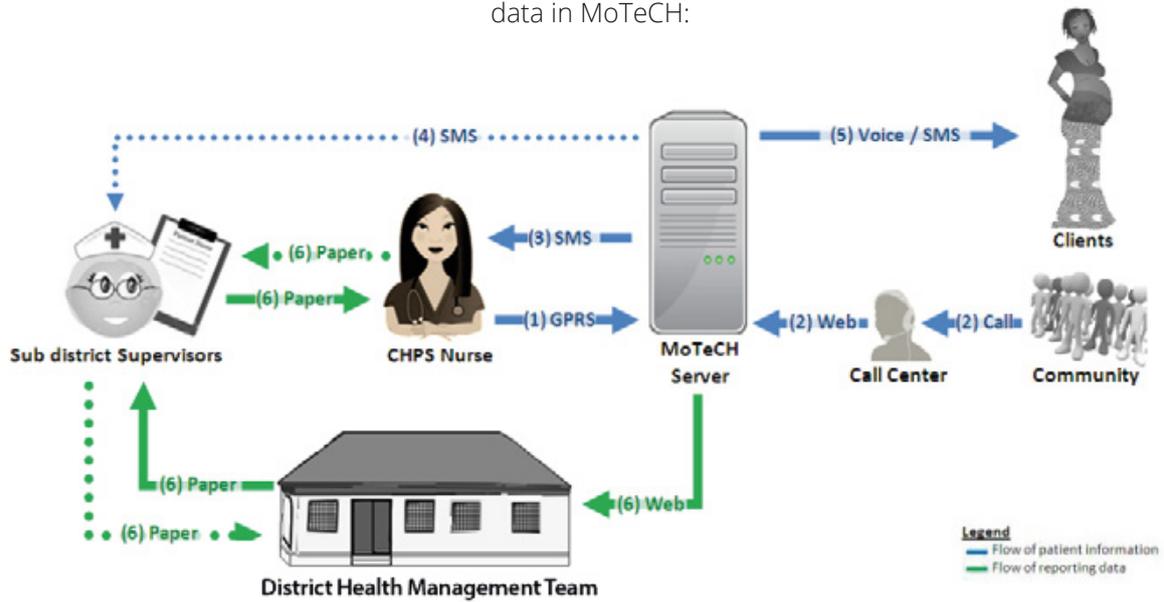
MOTECH Suite Enables

DEMAND GENERATION
Encouraging clients toward
health-seeking actions
with SMS and IVR messages

**HEALTHCARE WORKER
EMPOWERMENT**
Training, Job Aids,
Protocols & Data Entry
on mobile devices

**PATIENT & HEALTHCARE
WORKER REGISTRATION**
Knowing the ID of the actors
in the health system

SUPPLY CHAIN LOGISTICS
Reporting stock outs,
notification of shipments
& inventory tracking

**INTEGRATION WITH
CRITICAL SYSTEMS**
Ensuring health data
doesn't end up in a silo

ADHERENCE MONITORING
Verifying that regimens
and referrals are followed

FLW SUPERVISION
Managing workload
& FLW performance

Project Background
Based on Ghana Implementation

70%
PARENTS REACHED
Since launch of MOTECH project in Ghana.

99%
CLIENTS CHOSE IVR
Rather than SMS messages because they are easier to understand and share with family members.

4,300,000$
BUDGET FOR PROJECT
Founded by Bill & Melinda Gates Foundation.

MOTECH in Ghana has developed two interrelated mobile health services:

System for "Pregnant Parents"
- Regular educational messages sent based on estimated due date
- Choose to receive SMS or voice messages (IVR), in Kassim, Nankam, or English
- Frequency and time of day chosen when registering
- Informative and actionable

System for community health workers
- Develop simplified paper registers for clinical information
- Enter patient encounters using simple mobile phones
- Generate monthly reports
- Alerts and reminders for clients that need care

The two applications function together to enable appointment reminders for patients and nurses. Mapping patient data stored in MOTECH's electronic Medical Records System against Ghana Health Service care protocols allows for easy identification of clients who have missed health care appointments (e.g. vaccinations or postnatal visits). The MOTECH system detects when someone is due 7 or overdue for care and sends the patient a reminder through the Mobile Midwife application. On a weekly basis, nurses also receive lists of clients whose care is overdue on their MOTECH phones, enabling them to plan their outreach and home visiting schedules in a way that can maximize care coverage. Owing to the time-critical nature of postnatal care, these alerts are delivered to both the client and the nurse the moment that the appointment is due. This is especially useful in the case that a client delivers at home or in a referral facility which may not be responsible for delivery of postnatal care. If a client delivers at home, Mobile Midwife messages encourage her to notify the toll-free call center of the delivery.

While pregnant women see value in the Mobile Midwife messages, many depend on their husbands for cash and are concerned that asking for money for messages will increase marital strain. They report that it is often challenging enough to simply have the husband pay for proper food or transport to clinic, not to mention messages delivered over the phone.

Anticipating messages send by system will be listened to by both the pregnant woman and other family members, users are treated as "pregnant parents" and messages are targeted for all members of the family. Some messages are intended for men and are read by men. Other messages, especially those designed to dispel myths and cultural practices, are intended to be heard broadly within the community.

MOTECH Project Sample Functionality

Task Management

Manage your tasks easily.
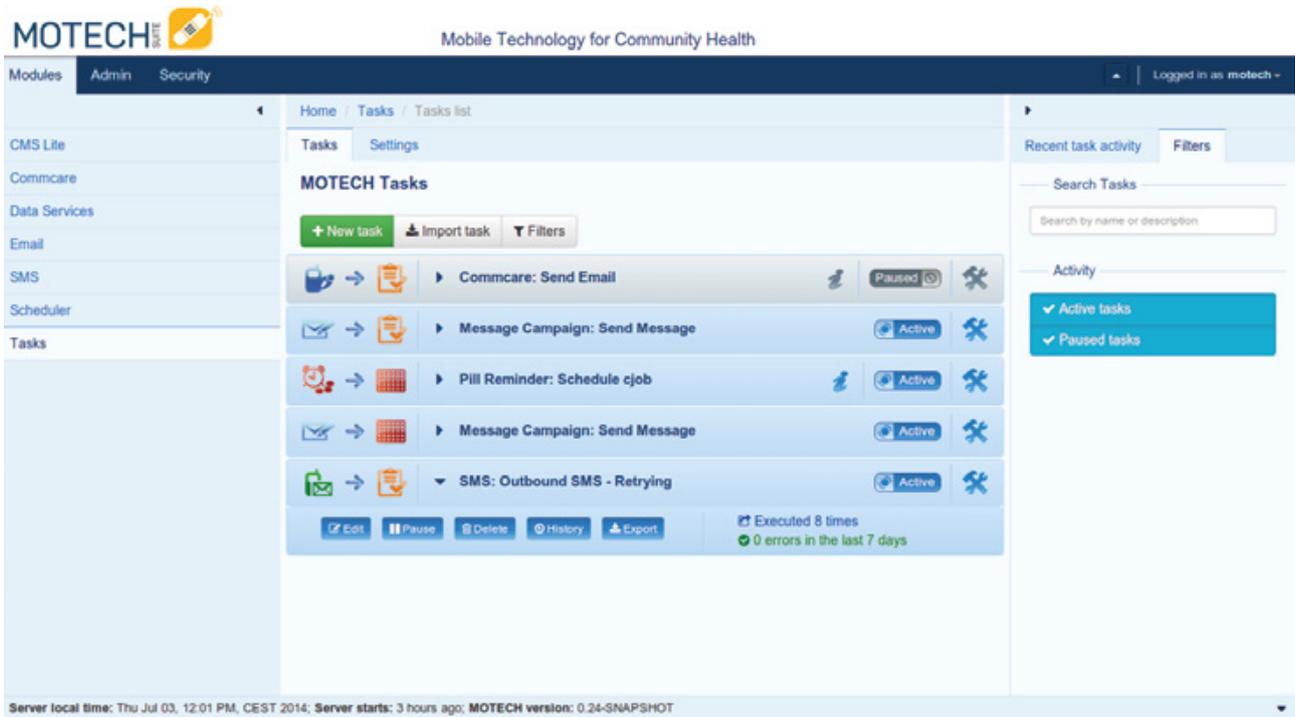
Information Flow

Send SMS messages or e-mails with customizable actions.

Where MOTECH Is Used

MOTECH Ghana
Maternal & Child Health

ANANYA PROJECT (BIHAR)
Maternal & Child Health

**TREATMENT ADVICE
& MOBILE ALERTS** (INDIA)
HIV Regimen Adherence

**WORLD VISION
(SIERRA LEONE, UGANDA,
TANZANIA & ZAMBIA)**
Tuberculosis Management

**WORLD VISION
(ZAMBIA)**
HIV Referrals

WORLD HEALTH PARTNERS (BIHAR)
Tuberculosis Management
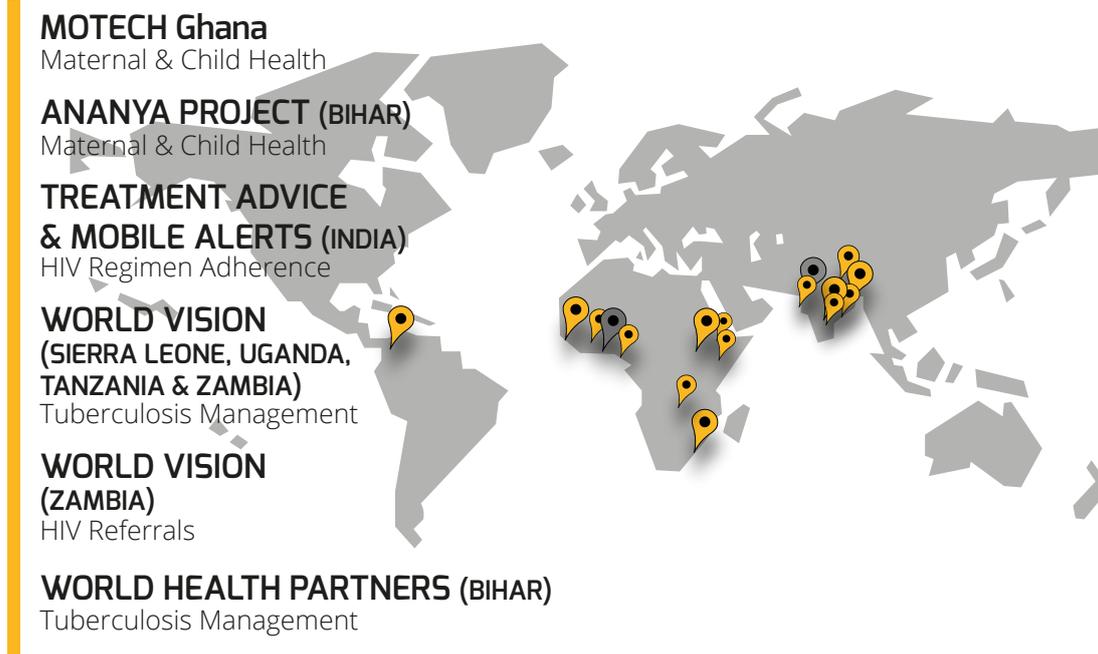
Our Involvement

We are an active part of the initiative designing and implementing technology to increase the quantity and quality of pre- and post-natal care in rural areas.

We are responsible for Project Management, Quality Assurance , Features development, Software development and Documentation.

- Requirements and Specifications
- Architecture Design
- Implementation and Testing
- Software validation and Integration
- Maintenance

SolDevelo Sp. z o.o.