### Medic Mobile

**Case study by UNESCO-Pearson Initiative for Literacy**

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Summary

Nepal has sustained a continued reduction in maternal and under-5 mortality rates, but there are still severe disparities between those of different socio-economic status (Nepal, 2015). In 2014, under-5 mortality rates per 1,000 live births were 1.5 times greater for rural than for urban areas, 2.4 times greater for mothers with low levels of education than for mothers with higher education, and 2.6 times greater for the poorest than for the wealthiest Nepali households (Nepal, 2015).

Following this trend in disparity, in 2014 the chance of receiving a full cycle of antenatal care (ANC) was twice as high among the wealthiest households and highest educated mothers than for the poorest and least educated mothers (Nepal, 2015). Also, the ratio of institutional delivery or delivery by a skilled attendant for highly educated mothers was over twice that for mothers with no formal education, and for the wealthiest households it was over three times greater than for the poorest (Nepal, 2015). Fewer than 20 per cent of all new mothers successfully complete the full cycle of three postnatal check-ups after giving birth (Nepal, 2017).

To address this shortfall, Medic Mobile was launched in Nepal in 2013 as a mobile phone-based health monitoring solution using a simple data capture interface appropriate for community health workers (CHWs) with low levels of literacy and technical skills. CHWs conduct home visits and register maternal health information directly to their mobile devices to provide increased coverage of ANC among rural women from poor households and with little formal education. A web-based digital dashboard allows CHW supervisors to monitor CHW activity and schedule follow-up services for those with high-risk pregnancies. Since its launch, the programme has been scaled up in Nepal to over 2,500 CHWs, and has been launched in twenty-two other countries, supporting almost 14,000 CHWs worldwide. The focus of this case study is the Medic Mobile implementation in Nepal.
Why selected

To ensure that the digital solution is as appropriate as possible, Medic Mobile has continually focused on a user-centred design approach, undertaking a range of activities such as user interviews and field visits, focus group discussions and role-playing with supervisors and CHWs, stakeholder and process mapping of current activities, paper-prototyping, usability tests, and pre- and post-tests for education and digital skills. The process followed offers an instructive example of good practice when designing with users.

Key takeaways

1 / Medic Mobile offers an accessible mobile health (mHealth) approach to support more connected and coordinated health-care systems.

2 / Medic Mobile recognizes that the process of user-centered design requires extensive collaboration with all types of users and key stakeholders.

3 / The Medic Mobile digital solution provides evidence of effective mHealth implementation among communities with low traditional and technical literacy.

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1 By traditional literacy is meant the ability to read and write.
In 1997 the government of Nepal instituted the national Safe Motherhood Programme, with a primary goal of reducing maternal and neonatal mortality (of new-borns up to one month) while improving overall health through preventive practices for antenatal care, delivery and the postnatal period (Nepal, 2017). While overall maternal and child mortality rates have steadily declined over the past fifteen years, limitations in knowledge about services among expectant mothers, institutional coverage, and service delivery have created disparities between mothers’ experiences along the lines of education, wealth and (rural or urban) location.

In addition to the Safe Motherhood Programme, the government added a policy in 2006 underscoring the importance of skilled birth attendance (SBA) at all deliveries through the national deployment of trained professionals. As part of its ongoing commitment to maternal and neonatal health (MNH), Nepal has a goal of 70 per cent of deliveries by institution or SBA by 2020 (Nepal, 2017). Some constraints that make achieving this goal difficult include inadequate referral mechanisms for receiving care, low coverage of ANC consultations, and lack of access to hospitals and health centres (Nepal, 2017).

Medic Mobile was developed with these specific constraints in mind.

In 2013, Medic Mobile partnered with the Ministry of Health in Nepal and One Heart World Wide\(^2\) to equip CHWs who conduct routine house visits for expectant mothers with basic mobile phones. The health workers receive reminders to follow up with mothers for ANC consultations, delivery procedures and postnatal care (PNC) visits. The primary objective of the programme was to increase rates of full ANC visits and institutional deliveries among expectant mothers. Medic Mobile’s target audience is the network of almost 60,000 CHWs in Nepal.

\(^2\) One Heart World Wide is an international non-governmental organization (NGO) working to strengthen public health services for mothers and children. www.oneheartworld-wide.org
Designing with the user

Central to Medic Mobile’s philosophy and practice is following a user-centred design approach, or what it calls human-centred design, in partnership with CHWs. Prior to pilot implementation, the Medic Mobile team ran two rounds of field tests, creating opportunities for local stakeholders to influence system design features. Over 40 percent of registered CHWs have no formal schooling (JSI, 2012). Therefore, the Medic Mobile team consciously included key stakeholder feedback from communities with low traditional and digital literacy as an added measure for ensuring an appropriate mobile health design solution.

Initial design activities included mapping current health-care system activities with CHWs and their supervisors to identify constraints and opportunities, and validating sketches of the proposed platform interface before developing a prototype for field-testing. This process also involved individual interviews with staff at the government agency responsible for all public health programmes in the district.

Preliminary design activities led to a pilot implementation among seventy-seven CHWs and twenty-one supervisors in the Baglung District of Nepal. The purpose of the pilot was to test the feasibility of the platform among the sample of CHWs and to solicit feedback for improving its overall usability design. The pilot CHWs ranged in age from 20 to 71, with an average age of about 40. The sample for the pilot reflected the educational and ethnic distribution in the district (Figure 1).

Almost a third of the sample had no formal education and limited reading and writing proficiency, while 12 per cent of the sample had higher secondary education or above. The CHWs had between none and twenty-one years’ experience of community health work, with an average of 12.7 years. The pilot implementation stage resulted in critical shifts in the programme objectives and strategies concerning the system’s core technologies.
Validation and shifts in programme objectives

Health worker motivation. A major insight from the focus group sessions was that there was low motivation among CHWs because of a perceived sense of isolation from supervisors, and lack of support for their work (Sharma and Holeman, 2017). The group solicited for feedback indicated that the idea of linking their efforts to a larger system and receiving confirmation was appealing. Medic Mobile used this feedback to incorporate a personalized and automated SMS confirmation each time a report was submitted as a means of increasing the visibility of, and acknowledging, the CHWs in the health system. The pilot validated the fact that the automated response including a warm greeting and salutation using the CHW’s name was better received than a generic confirmation. Therefore, Medic Mobile carried this feature over into subsequent iterations of the platform.

Continuous adaptation. An early design of the Medic Mobile system included a reporting feature for flagging high-risk pregnancies in birthing centres. The pilot revealed that CHWs preferred making phone calls to ask for assistance with emergency issues, while they preferred the SMS system for non-emergencies and as a useful backup in low-network-coverage areas (Sharma and Holeman, 2017). Medic Mobile used this insight to redesign the workflow to allow CHWs to submit the reports after making an initial phone call. This underscores the importance of continuous feedback for a sustained user-design process.

Prior to field-testing, stakeholder groups were divided about the type of content to include in the CHW reporting system. Given that the tool was developed to improve ANC coverage, the field-testing revealed some clear areas that could be cut. Protocol items specific to health facility services that could not accurately be substantiated by self-reports at home (such as iron tablets given, and tetanus and diphtheria (TD) vaccination administered) were removed from the updated version. The resulting protocol was not only easier for CHWs to administer, but more focused on the intended purpose of the design solution.

Figure 2. CHW submitting data to the Medic Mobile reporting system using SMS

‘We receive a ‘Thank You!’ as soon as we submit anything using [Medic Mobile]. We are the happiest when we are thanked.’

– CHW in Baglung
Right-sizing the reporting system. During the initial field-testing process, stakeholder groups debated how much information the CHWs should submit through the reporting system, with some groups pushing for a more comprehensive reporting protocol. The pilot revealed important insights into what it was feasible for CHWs to achieve on the ground. Informed by the pilot outcomes, stakeholder groups were able to agree on a more limited set of essential data, and prioritize the primary objectives of the reporting system (Sharma and Holeman, 2017).

Expanding the role of the target group. The pilot implementation revealed a need to expand the target group of end users. The original design included a web-based dashboard system for displaying reports and CHW activity, but many CHW supervisors did not have computers and relied on SMS alerts from CHWs. The pilot showed the importance of their role for scaling up, and made it clear that the community supervisors needed more information to support CHWs. This insight has led to modifications in the roles of the CHW supervisors and their information needs.
Improving the efficiency of the technology

Feature phones and SIM card apps. The initial design of the Medic Mobile approach incorporated low-cost feature phones and SIM card apps. Compared with smartphone devices, feature phones were both more cost-effective to the programme and more familiar to CHWs. Also, CHWs often used SMS for communication in their daily lives, and feature phones were more reliable in environments with low internet connectivity. Pre-pilot stakeholder interviews called for a comprehensive digitization of the entire MNH protocol. Therefore, the team developed a SIM-based app for data collection and storage of report protocol. The app resided on the SIM card and ran on the phone. As a comprehensive reporting system, SIM app technology was attractive for its ability to support menu-driven forms to help mediate responses and ensure accurate data entry. The pilot experience led to three important findings regarding the initial design solution:

1. There was a need to validate CHWs’ ability to use the feature phone comfortably and adopt the SMS design approach. However, the menu-driven platform of the prototype presented a challenge because of its more technically complicated, multi-step interface.

2. It was necessary to expand the training module to include a comprehensive digital literacy component, covering the basic alphabets on the keypad and general operation of the feature phones. This needed to be offered prior to orienting the CHWs to the more advanced features of the Medic Mobile platform.

3. There was also a need to arrive at a consensus for streamlining the data capture process, as described above.

Through this pilot experience, Medic Mobile began to explore other SMS-based tools that did not involve a menu-driven platform, and simplified the data collection protocol.

Data entry with text forms.
Medic Mobile decided to test the use of web-based text forms that allowed CHWs to enter space-delineated lines of text to register data, instead of the multi-step menu approach of the SIM app used during the pilot. This switch reduced the number of key strokes needed to send an updated report. While SMS-based text forms – essentially structured SMS messages – have proved effective in similar studies for maternal health in Rwanda (Ngabo et al., 2012) and family planning in Malawi (Vollmer Lemay et al., 2012), stakeholders at pre-pilot design workshops were sceptical of this approach based on concerns related to data entry.

Text forms collect small amounts of structured data using ordinary SMS. To submit a text form, a CHW sends an ordinary SMS message with values delineated by spaces. A CHW might send a text message with content such as ‘P 8 Pabitra’, where ‘P’ indicates registering a new pregnancy, ‘8’ the number of weeks pregnant, followed by the patient’s name. In Nepal, text forms came to be seen as a viable option after insight was gained from a SIM-based pilot trial.

INSIGHT

Co-designing for improved usability
and poor adoption among CHWs used to the traditional paper-based system.

Prioritizing the reporting items captured and streamlining the protocol allowed the team to revisit the topic of alternatives to SIM card apps. Further research revealed that text forms have two key usability advantages over SIM card apps. They reduce hardware procurement costs and improve routine software updates as an alternative to convening CHWs and updating cards one at a time. CHWs also reported that communicating through SMS offered a more comfortable reporting technique and reduced overall reporting time as opposed to navigating through the menu-driven interface of a SIM app.

Enhanced information for CHW supervisors. Medic Mobile discovered that if it was to promote the use of the system by CHW supervisors for monitoring and supporting CHW engagement, the supervisors needed access to more information right on their phones. Focus group sessions with supervisors revealed that their priority data need was to verify that all expectant mothers were being registered. Therefore, Medic Mobile updated the automated SMS schedules to alert CHW supervisors each time a new pregnancy was registered. The alert was accompanied by a comprehensive report of delivery information related to the expectant mother, including anticipated delivery date, the assigned CHW and upcoming ANC consultations. The supervisor could then integrate the Medic Mobile Unique ID with the mothers’ official MNH register at the local clinic, and easily account for any discrepancies between the two systems.

**Design challenge**

Typing text even in the native language (Nepali) is difficult; CHWs were much more comfortable with structured alphanumeric digits.

**Responses**

- All Medic Mobile text forms are structured and require as little text as possible. Some examples of forms are: ‘P 12 Rita,’ ‘V 12345,’ ‘F 12345,’ ‘D 12345 H 1.’
- The date field was also replaced with number of days since last menstrual period (LMP). This change allowed CHWs to type one- or two-digit entries instead of the full date format. Example: Weeks since LMP (12) instead of Date of LMP (19/02/2017).

Design challenge

Remembering simple form syntax can be a challenge.

**Responses**

- All text forms are very short and simple, with a maximum number of four fields required: a) pregnancy status, b) number of weeks pregnant, c) mother’s first name, d) additional data point.
- Medic Mobile form codes are relatable to the action being performed so that they are easy to remember. All error responses and reminders contain the exact syntax of the text form that needs to be sent so that CHWs only need to refer to these messages to know what to send and when.
The digital solution

The Medic Mobile digital solution consists of structured SMS messages submitted by CHWs to a web-based application for registering expectant mothers. An automated reminder system and reporting dashboard supports the accountability between expectant mothers, CHWs and their supervisors. The system integrates digitized information from the official MNH register to improve institutional and SBA deliveries as well as ANC coverage for expectant mothers.

1 / **Remote registration.** Once an expectant mother is identified, the CHW registers her information via SMS text form. Medic Mobile’s web application then registers the pregnancy, creates a unique patient ID, calculates the expected date of delivery and schedules a series of automated reminder messages to the CHW related to ANC and anticipated delivery date.

2 / **Antenatal care reminders and advice.** The reminders system is scheduled based on the Nepali Ministry of Health’s protocol for recommended ANC visits. SMS alerts are automatically sent to CHWs for follow-up with the expectant mother throughout her pregnancy. During the consultation, the CHW provides counseling and antenatal education following the adapted government protocols, and reminds the pregnant woman to attend the nearest health facility for an ANC visit. CHWs follow up a few days later to confirm whether the pregnant woman completed her ANC visit at the health facility. If the woman has completed her visit, the CHW sends a confirmation SMS text form to the Medic Mobile application. If the CHW does not send a confirmation SMS within two weeks of the first ANC reminder, her supervisor is alerted for follow-up.

3 / **Emergency forms and birth reports.** The platform also incorporates a system for supervisors to flag pregnancies with danger signs so that these women are more closely supported by the CHWs. Alternatively, if a CHW identifies a danger sign during pregnancy, birth or postnatal period, she notifies a professional health-care provider by directly calling them or sending an emergency SMS to the Medic Mobile platform, which then immediately sends out SMS alerts to multiple clinic personnel. After the woman gives birth, the CHW confirms her delivery and whether the delivery was performed a) at home without a trained health worker, b) at home with a trained health worker, or c) at a health facility certified to provide basic obstetric care services.

4 / **Web application and analytics dashboard.** The text forms are integrated with the Medic Mobile web application and analytics dashboard, which can be translated into local Nepali languages. All the information sent and received by CHWs in the form of SMS messages is listed via a web-based application. The analytics dashboard displays preconfigured data reports addressing the CHW supervisor’s needs. The web-based application and the analytics dashboard are monitored by public health administrators at the district level.
Case Study: Medic Mobile by Medic Mobile

DigComp2.1: The Digital Competence Framework for Citizens (Carretero et al., 2017), developed by the European Commission, provides a common reference on how to describe key areas of digital competence and proficiency levels among individuals. UNESCO has applied this framework to understand the minimum skills needed to use Medic Mobile as well as thirty-one other digital solutions. Benchmarking digital competences is recommended because it provides a knowledge base from which to design appropriate solutions as well as to track progress of skills development. Please refer to the forthcoming UNESCO landscape review Digital Inclusion for Low-skilled and Low-literate People for the DigComp2.1 mapping and more information.

**RECOMMENDATION**

Benchmark the digital competences of users

During all Medic Mobile trainings, more time is spent on case-based exercises than on lectures or presentations. Trainees are paired in groups based on their technical competency levels and proximity of catchment area so they can continue to support each other if they have any difficulties after returning to their communities. Each training has a maximum of twenty participants, and there are at least two trainers per session. The initial training spans three days, and begins with a baseline questionnaire and pre-test of digital competencies. At the end of the training, participants complete a competency post-test to ensure they have the minimum skills needed to operate the Medic Mobile platform independently in their communities. After the training, CHWs receive an a comprehensive, illustrated user manual demonstrating basic concepts of mobile phone use such as sending and receiving messages and other relevant functions (Figure 6). In addition to the initial training, CHW supervisors convene monthly meetings to gather CHW feedback and provide continuing training and support. Every three to six months a more comprehensive refresher training is scheduled with all CHWs.
Medic Mobile’s Asia Regional Office is in Kathmandu, Nepal. All staff who directly support projects in Nepal and ongoing work with the Nepali Ministry of Health are based in the country. The team consists of two technical leads who support the setting-up and maintenance of the platform tools, six project managers and their assistants. South Asia has one Medic Mobile lead designer for the region. However, all team members are skilled in basic user-centred design methods to ensure that each Medic Mobile deployment is aligned with the organization’s core approach.

For the Nepal deployment, implementation was governed by the district health office. Medic Mobile staff conducted a training-of-trainers approach among health workers from government health facilities who were public health officers at the district office.
Monitoring and evaluation strategy

Medic Mobile believes that coordination between CHWs and clinics will lead to stronger adherence to a full cycle of ANC visits and facility-based deliveries, reducing maternal and neonatal mortality. The platform’s analytics dashboard is designed to provide real-time data to help users spot trends and improve support across the rural health-care system. The Medic Mobile dashboard reports on CHW user activity and engagement metrics alongside programme outcome metrics. Supervisors use the data to follow up with CHWs through phone calls or scheduled monitoring visits. Complementing dashboard data with user feedback and field-based observations is an important part of support visits. User feedback informs not only programmatic revisions but also improvements to the efficiency of the technology.

As part of its monitoring strategy, Medic Mobile runs a structured baseline and endline questionnaire for each training session to ensure participants have learned the skills that they require to make effective use of the digital platform. As noted earlier, many CHWs are not fully confident in their digital skills, so the Medic Mobile implementation modality and training curriculum incorporates additional support for CHWs requiring additional guidance. For example, CHW supervisors schedule more frequent follow-ups with these CHWs, or they are paired with a neighbouring CHW who is available to serve as a peer mentor. Monthly meetings and reviews are held with all CHWs.

Figure 7. Screenshot of the Medic Mobile digital dashboard
The Medic Mobile web application is a secure website with protocols in place that follow specific guidelines based on country and partner mandates. During the planning phase of each project, data security and confidentiality agreements are strictly defined and signed by all CHWs.

Data from a recent CHW intake training reinforces the need for digital skills training for mobile phone use prior to jumping into the Medic Mobile activities. Survey responses from 500 CHWs serving more than thirty communities reveal overall fluency with basic or routine functions such as switching on the device and checking the airtime balance. However, respondents indicated less familiarity with more advanced SMS features which are critical for Medic Mobile administration.

![Snapshot of CHWs’ baseline digital skills](image)

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**FINDING**

Peer mentoring improves skills

Many CHWs are learning to use mobile phones for the first time. The Medic Mobile training approach pairs high-literacy and low-literacy CHWs to support people with lower skills. Qualitative reports suggest that this has improved literacy for some low-literacy CHWs, not only in reading and writing but in basic fluency with important communication tools.
Results to date

Pilot results. One year since full deployment of the pilot in 2015, seventy-seven CHWs from four villages across Baglung District had used the SIM application to register 604 pregnant women and 215 births, almost two-thirds (64 per cent) of which were at official birthing centres (Medic Mobile, 2015).

During a series of focus group discussions held as a part of the interim qualitative evaluation of the programme, the CHWs stated that Medic Mobile’s tools had increased the frequency of contact with mothers and newborns, increased routine home visits to provide health services to pregnant women and new mothers, achieved timely management of complicated cases, and created a sense of achievement provided by immediate acknowledgement of their work (Medic Mobile, 2015).

In addition to achieving broad adoption of the Medic Mobile communication system, the pilot showed that a low-bandwidth mHealth system can reliably organize and automate SMS messages for improved adherence to the prescribed ANC schedule.

CHW digital skills. Post-test results from a training conducted with 500 CHWs across thirty-two communities revealed the strongest overall gains in the more complex mobile phone operations that CHWs initially struggled with most (Figure 9). There were 40–45 per cent gains in the ability to use SMS functions including retrieving specific SMSs and accessing the phones inbox.

Scale-up efforts. In terms of Medic Mobile’s activity metrics, the follow-on to the pilot deployment has seen an average CHW engagement rate of 60 per cent across Baglung district, which is above the internal programme target for monthly ANC coverage. This engagement rate represents the proportion of the 950 trained CHWs using the Medic Mobile platform to send at least one ANC report per month. So far, in Baglung itself a total of 6,920 pregnant women have been registered, with 13,567 confirmed ANC visits and 4,989 deliveries confirmed.

Preliminary evaluation findings from the pilot implementation revealed that users believe the mobile application made the CHWs’ work easier as they do not have to keep constant track manually of the timing for scheduled visits. Given the number of expectant mothers CHWs support monthly, it can be easy to lose track of paper registers. CHWs remind pregnant women about recommended clinic visits every three, six, eight and nine months. The CHWs may do actual home visits to the pregnant women more often. The reminders help them keep track of the visits.
Sustainability and future plans

Medic Mobile supports a growing network of implementing partners running community health programmes and building new models for CHW programmes. The platform is also well positioned to achieve government adoption of the approach and analytics tools due to positive uptake by county health management teams in Kenya and district health offices in Nepal. Globally, Medic Mobile is deployed across twenty-three countries supporting almost 14,000 health workers.

In Nepal, the programme has expanded to three additional districts outside of Baglung, reaching over 2,700 CHWs supported by 200 health facilities. In 2018 the programme will be expanding to ten further districts in Nepal, with a cumulative reach of 7,000 CHWs.

Some of the districts in Nepal will be using the Medic Mobile tools to track immunizations as well. This intervention has the potential to reach more than 1 million Nepali women and children in low-income and under-served communities, every year.

Medic Mobile aims to scale its model nationally in Nepal, with support from the national government and local buy-in and ownership from the district health office. In the medium term, local and district governments have expressed a willingness to cover ongoing costs. In the long term, recurring costs could be sustained through a combination of local, district and national support, along with public–private partnerships. Although Medic Mobile will provide targeted support to initial districts replicating the deployment through 2017, the team envisions government staff deploying and managing these systems starting in 2018.

The Baglung intervention serves as a valuable example of how local resources can support sustained funding. Recently, local leaders in the community have allocated funds to cover the SMS costs and the cost of monthly incentives for CHWs. To date, about US$13,400 has been allocated from fifty-nine villages. This is a unique cost-sharing model Medic Mobile has implemented with local-level administrative bodies, and is hoping to replicate this model at higher levels of administration.

The cost of deployment per CHW is estimated at US$150–200 in the first year and US$10–15 each subsequent year. Costs associated with this estimate include technical assistance and training support, with hardware and software costs decreasing every year.

Medic Mobile is experimenting with direct ways to incorporate new features and workflows to influence the end users. One feature incorporates routine SMS educational messages to help CHWs review their skills, and mechanisms to ensure targeted support from their supervisors. This complementary feature to the training is intended to sustain learning on the part of the users as well as ensure that the lower-skilled CHWs are receiving additional and continuous support. An evaluation of the effectiveness of this SMS skills support approach will be aligned with the initial CHW trainings, and will commence at the end of 2017.

**IMPACT**

Medic Mobile improves digital literacy skills

53-year-old Sabitri Pun has been a CHW in Baglung for fifteen years. Until very recently, she had never used a mobile phone. During the three-day Medic Mobile training, she learned to power on and power off her mobile phone, to dial and save phone numbers, to compose structured SMS messages to register pregnancies and report on ANC visits of expectant mothers. Not only has learning to operate a mobile phone made it easier for her to monitor the health of pregnant women in her community, she reports that she is now comfortable using the device to communicate with her family and extended network of relatives.
Lessons learned and recommendations

Support scientific knowledge while respecting cultural beliefs. In rural Nepal, traditional beliefs sometimes come into tension with efforts to ensure that women give birth in health facilities with skilled attendants. As trusted community members, CHWs are uniquely placed to introduce biomedical knowledge in ways that respect local practices and cultural beliefs. Therefore, supporting CHWs is vital to improving health literacy in ways that reflect local priorities.

User-centred design requires collaboration. A rigorous, user-centred design process involves putting people first and revising throughout every stage of design, implementation and scale-up. This requires tight cooperation between several teams: CHWs and partners at the Ministry of Health, Medic Mobile’s project managers and regional designer, and Medic Mobile’s globally distributed product managers and software developers. Medic Mobile uses a combination of user-centred design and agile development methods. Experimenting with and documenting these methods is a priority for Medic Mobile’s research group because they see it as an important way of making their design process more consistent and rigorous.

Leverage policy agendas for sustainable solutions. At the policy level, securing support for the implementation of mHealth interventions is a major challenge. Medic Mobile’s success working alongside communities not only helps clarify their implementation needs, but improves the sustainability of effective mHealth solutions by informing government policy through evidence.

Scalability does not always require iteration with the same technology. When pilot outcomes do not result in scaling up a prototype technology, it does not imply that the technology did not play a role in the scaling process. In the case of Nepal, the initial SIM card app played a key role in building a consensus among stakeholders on prioritizing data collection needs. Tools that are appropriate at pilot stage may be less appropriate when applied at a larger scale, and vice versa. Results of co-design sessions and experimental trials of small pilots should be contextualized as waypoints on the journey to a more connected, coordinated delivery system.

Leveraging expertise within the user base. One of the primary challenges for Medic Mobile implementation has been the traditional and digital literacy capacity of the CHWs when working with mobile phone and SMS messaging. The team addressed this reality in part by pairing CHWs with weaker literacy skills and peers with stronger skills through a mentor model.
Medic Mobile is a technology non-profit organization that designs, delivers and supports software for health workers providing care to communities worldwide.

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References


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UNESCO Education Sector

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