

Mobile phones for health workers in primary care: implementation considerations

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Health workers increasingly use mobile phones and tablets to provide services (often referred to as an ‘mHealth’ intervention). For instance, health workers use mobile phones to communicate with patients and with other health workers (one of several telemedicine strategies), keep track of medicines and supplies, notify births and deaths, search for information, and for decision support. Some mHealth strategies may be particularly relevant in situations and settings where it is difficult to meet patients, the public and other healthcare staff face-to-face, such as during pandemics.

Questions for implementers when implementing mHealth strategies

Health systems questions

- Will health workers be part of the planning, implementation, and evaluation processes of mobile health programmes? Will their views be sought, and their perspectives taken at each stage of the programme?
- To what extent is political buy-in from health ministries required, and achieved, for the successful implementation of the mobile health programme?
- Has a proper assessment been made on whether health workers’ use of mobile devices is adding to or alleviating their workload? How will the extra workload that may occur, be accommodated for?
- If your intervention is intended to improve efficiency and

Who is this summary for?

Below are a set of questions that are drawn from the findings in the Cochrane Review, and that may help implementation agencies, ministries of health, programme managers, and other stakeholders to plan, implement, or manage mobile health programmes

About the review

A recent Cochrane Review of qualitative research explored how health workers view and experience the use of mobile phones and tablets when delivering primary healthcare services (Odendaal 2020). The review analysed 43 qualitative studies from around the world, and shows that health workers see a number of benefits but also challenges with mHealth.

How up-to-date was this review?

The review authors searched for studies that had been published up to January 2018.

coordination, is the health system in which it is set prepared for the extra demands that this may imply? For example, if a health worker calls for an ambulance or for professional backup, will such support be available; if an mHealth screening intervention results in increased clients at facilities, will the existing capacity of facilities be able to handle the increased workload? If no preparation is in place for extra demands on the health system, have you engaged with those who may be required to provide additional services, so they can make preparations?

- Do higher-level health workers have the time and means to respond when lower-level workers send them requests via mobile devices, and have lower-level workers' use of mobile devices been properly explained to all higher-level workers with whom they interact in delivering health care?
- Does your intervention require health workers at the same or different levels of hierarchy, to interact with each other? If so, are these health workers prepared for, and willing for the changes that may arise as a result of this interaction, such as new forms of supervision and accountability, immediacy of contact, and telephonic request for advice? What needs to be done to better prepare these relationships for the anticipated changes in expectations on all parties as a result of mHealth?

The questions presented in this summary are from a Cochrane Review. The review authors have searched for, assessed and summarised relevant qualitative studies using a systematic and pre-defined approach. They have then used the review findings to develop a set of questions for implementers.

Technical and infrastructural questions

- Does your setting have the necessary infrastructural and technological capacity to support the level of sophistication intended by the intervention, for example: is there sufficient electricity supply and electricity coverage, network capacity, technical support, and vendors to purchase phone credit or data for the level of intervention that you intend to implement? Have you considered how these might vary by region?
- Are the devices being used in the intervention sufficiently sophisticated for the level of intervention being planned, and are these devices replaceable or repairable within your setting? Have you considered who will repair them, and who will cover the costs?
- When planning mHealth programmes, has the number of staff and clients who have access to mobile devices been taken into account? Are there strategies in place when clients change their mobile phone numbers?
- Has adequate provision been made for health workers to have sufficient phone credit and data, without having to use their own resources?
- Is there a strategy to integrate the mobile health platform within existing electronic health information systems? Have you considered the requirements to ensure interoperability?
- Questions about health worker training and skills
- Has the programme management budgeted for adequate training of initial staff, refresher training and in-service training for new staff members?
- What is the level of digital literacy amongst those health workers who will implement the intervention, as well as managers and supervisors who will support them? What further interventions

are needed to ensure adequate skill levels are present at the beginning of the intervention and maintained over the course of the intervention?

- Has the programme management identified ‘champions’ amongst the workers whom they can call upon to assist those struggling with the devices?
- When the device allows the health worker to screen and diagnose clients, are they clinically equipped to respond appropriately to the results of the screening and diagnosing? Are they able to explain the results to the patient?
- Is there a system in place to allow staff who dislike, or who are not sufficiently digitally literate to use mobile devices, to continue with standard practice, such as a paper-based system for recording work?

Questions about sociocultural acceptance and equity

- Has enough been done to raise community- and client-level awareness of the mobile health programme, and its implications for the services delivered by it?
- What is the level of cultural acceptability of mHealth in the proposed setting? What is the existing level of trust between healthcare workers and the community? Have you considered that low levels of trust may be exacerbated by mHealth, for example fears about personal data?
- What other interventions are needed to increase trust, enhance acceptability of mHealth, and reduce skepticism amongst recipient communities?
- Are there specific social or geographical barriers which may interact with the intervention, such as women not being allowed access to phones? How might these be addressed in advance?
- Have you considered how barriers to mHealth use may further increase inequity, and what other interventions are required to reduce these inequities?

Content issues

- Have solutions been considered for tailoring or changing intervention content to engage clients who have low literacy, differing language skills, or limited digital literacy?
- Have solutions been considered for tailoring or changing intervention content to ensure the privacy and confidentiality of clients and to avoid any harms that a break in this privacy may cause?
- Has an attempt been made to explore how clients perceive different sources of digital health interventions as more or less reliable, trusted, and credible? Has an attempt been made to use those sources that are perceived as trusted, reliable, and credible to send digital health messages?
- Have members of the client target group been given an opportunity to offer feedback about their needs, preferences, and experiences regarding the intervention during intervention development, implementation, and evaluation?

Reference

This review is among a series of systematic reviews informing the WHO guidelines on digital interventions for health system strengthening (<https://bit.ly/2U7BXT6>)

The information for this summary is taken from the following Cochrane Review: Odendaal WA, Anstey Watkins J, Leon N, Goudge J, Griffiths F, Tomlinson M, Daniels K. Health workers’ perceptions and experiences of using mHealth technologies to deliver primary healthcare services: a qualitative evidence synthesis. Cochrane Database of Systematic Reviews 2020, Issue 3. Art. No.: CD011942. DOI: [10.1002/14651858.CD011942.pub2](https://doi.org/10.1002/14651858.CD011942.pub2)



Prepared by Cochrane Norway/
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Contact: claire.glenon@fhi.no