

## **Summary of Discussion Forum for Module 2 of mHealth4SRH training course**

Two questions were posted to the discussion Forum on Tuesday 12<sup>th</sup> March at 12.00 noon. The session was scheduled to last for 24 hours, and it was closed on Wednesday at 12.00 noon. During this time, participants answered the two questions and several interacted with one another. However, a number answers came after the Forum was closed. In total, 22 participants took part in the discussion.

**In the first question, participants were asked, “*What barriers might be in your country concerning standards and interoperability?*”**

In response to this question, a number of participants mentioned barriers to mHealth (/eHealth) implementation in general. Of these, the most frequently mentioned issues were:

- Unreliable or lacking electricity supply (7 participants)
- Limited mobile network coverage, especially in rural and other remote areas (6 participants)
- Illiteracy (6 participants)
- Lack of awareness of mHealth, its potential and usefulness, amongst health care providers as well as the public (4 participants)

In terms of barriers to, specifically, standardization and interoperability, participants raised many issues, most of which were mentioned by more than one person:

- Lack of policies and strategies. This was by far the most frequently mentioned barrier to standardization and interoperability (9 participants). Without the guidance of strategic frameworks or policies, standardization and interoperability are difficult to achieve. It was noted that policy development is often a lengthy and challenging process in itself.
- Language barriers: another common issue (mentioned by 5 participants) related to challenges of working in multilingual/multicultural communities and countries
  - Standards being in English, while much of the population may not speak it
  - The use of many different languages in a given community or country
- Lack of trained human resources (5 participants), often due to costs, resulting in insufficient skills and knowledge
- Slow technology advancement
  - Internet availability and cost (2 participants)
  - The high cost of mobile devices that are advanced enough to handle certain mHealth applications (3 participants). E.g., an application may only be usable on smartphones, which tend to be prohibitively expensive; in some countries, most handsets lack ‘advanced’ features
  - Lack of training in programming and other technology-related fields
- Lack of effective coordination and communication between the various projects within a given country, making it difficult to assess the extent of standardization and interoperability

- Within a single project, having to use different technology for different parts of a process

An underlying, recurrent issue was that of financial constraints, affecting almost every aspect of implementation.

**In the second question, participants were asked, “If you have been involved in an mHealth project, have you ever included interoperability as one of the requirements for an mHealth application in that project that you were involved in? How and what was the result?”**

The majority (approximately two thirds) of responding participants have not yet been involved in any mHealth project, but many are looking forward to making use of the knowledge and skills they are acquiring during this course and plan to take issues of standardization and interoperability into consideration once they begin working on projects.

Of the participants who have been (or currently are) involved in mHealth projects, experiences varied:

- One participant had not been involved in an mHealth project, but did have experience in the use of telecare/telehealth for monitoring purposes/emergency assistance, where lack of standardization led to:
  - Limited choices due to being restricted to particular providers
  - Users being negatively impacted
  - Difficulties with data collection and analysis
- Another participant had been involved in an mHealth project where there were issues with interoperability - the data collection kit could only be used on smartphones, and only those running a particular operating system
- In another participant's mHealth project, where interoperability issues were taken into consideration, this had a positive impact on delivery of health services to patients. In this project's case, the system being used was able to communicate with and transfer data to three other types of systems; it was able to generate files/data in various formats.
- One participant had been involved in an mHealth project where interoperability was not considered; in fact it appeared that nobody from the team even knew about it.
- Four participants mentioned being in the process of working on mHealth (1 eHealth) projects where interoperability is being considered. In one of these projects, the system is expected to generate data/files in various formats. In another project, there are plans to use Web Standards in order to package data into various forms.

**Conclusion:**

Compared to last week's Discussion Forum, there was a 50% increase in the number of participants. There were a number of recurrent themes throughout the discussion.

Some of the participants conflated the challenges facing e/mHealth implementation and those facing standardization and interoperability. Though this is fine, it is important that participants be more precise in their interpretation of the question and the replies they provide. This is important for them to be able, in the future, to communicate their needs and requirements in a clear and precise manner. Defining the problem is half the solution.

Many participants were able to identify challenges and barriers to standardization and interoperability. These included the lack of policies and strategies, lack of trained human resources, slow technology advancement, financial constraints, language barriers, etc.

The majority of participants have not had any previous experience in mHealth. This is perfectly okay, as they are here to learn about mHealth implementation.

Where standardization and interoperability issues were taken into account, this had positive results in mHealth projects.

One participant noted that some barriers characterize aspects of mobile technology as a whole, e.g. restrictions which make it difficult –if not impossible - to integrate products/devices from different providers.