DESIGNING MOBILE-BASED IMNCI APP FOR FRONTLINE HEALTH WORKERS IN A TRIBAL SETTING OF GUJARAT, INDIA: ROLE OF USER RESEARCH

K. Talati[1], M. Dyshel[1], D. Patel[2], B. Gandhi[3], A. Phatak[4], A. Dongre[5], S. Nimbalkar[2,4]

[1]Department of Interdisciplinary Research, Foundation for Diffusion of Innovations, Vadodara
[2]Department of Pediatrics, Pramukh Swami Medical College and Shree Krishna Hospital, Karamsad
[3]Department of Tribal Initiatives, Foundation for Diffusion of Innovations, Dahod
[4]Central Research Services, Charutar Arogya Mandal, Karamsad
[5]Department of Community Medicine, Sri ManakulaVinayagar Medical College and Hospital, Puducherry

Background

❑In case of **I**ntegrated **M**anagement of **N**eonatal and **C**hildhood **I**llnesses (IMNCI), where the clinical guidelines and scope of service providers is well-defined, it allows an opportunity to translate it into point-of-care clinical decision support system.

❑Backed by increasing penetration of mobile internet, such an advent could help frontline health workers better assess in fields, provide appropriate care and reduce unnecessary referrals.

Aim

❑The scope of this research was usability and feasibility testing of the IMNCI mobile application to be developed based on the human-centered design approach and sound understanding of user group requirements.

Methodology

❑The user research included
   i.   Field observations of the frontline health workers (FHWs) - performing IMNCI assessment,
   ii.   Face-to-face interviews, and
   iii.   Analysis of IMNCI reporting format.

❑The observations and interviews covered different contexts of home-based newborn care visits, the reporting process and its impact on the worker, the needs of the workers and their acquaintance with mobile technology.
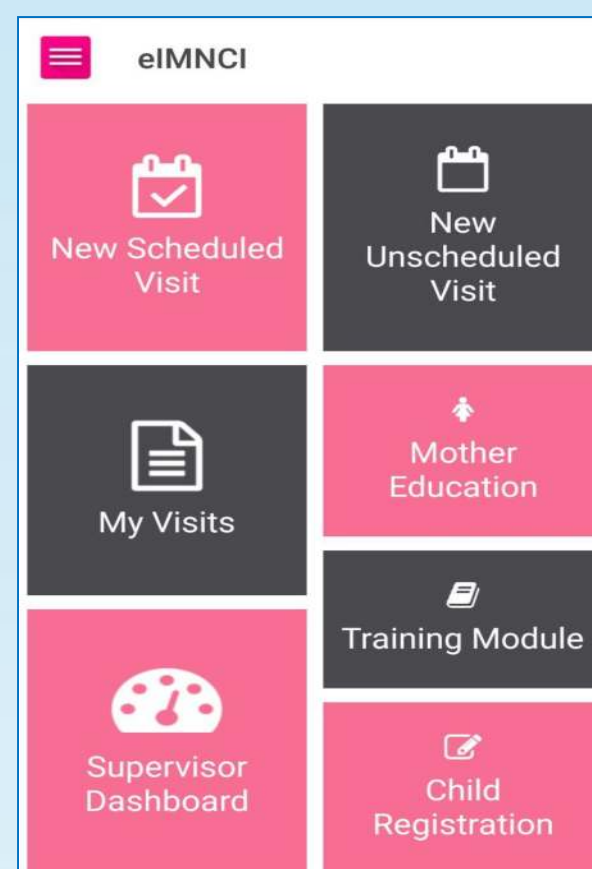
❑User feedback on paper prototype and computer-based wireframes about the main flow of the app was sought from primary users before formative usability tests.
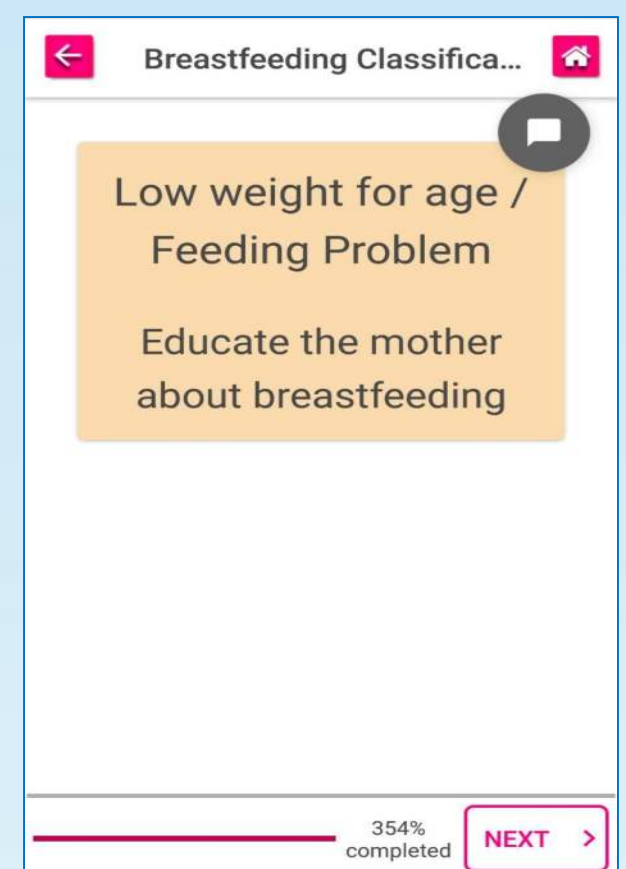
Results

❑The user research yielded significant findings that helped to shape the functionality of the application, as well as its user interface.

❑We found out that other workers in the primary healthcare center ecosystem can also use the application, but for different purposes: some of them, such as
   i.   Multi-purpose healthcare workers (MPHWs) can use it to assist the FHWs in the field;
   ii.   Medical officers and supervisors, may need it to receive timely information about the case statistics.

| **IMNCI Mobile App Home Page** | **IMNCI Mobile App Classification Screen** |

Conclusion

❑Human-centered design approach provides opportunity for designing app that will be easy to use even for those among FHWs/MPHWs who are new to smart phone technology.

❑It could also help minimize mechanical component of healthcare reporting to improve the data and supervision quality, data analytics, dashboard reporting and dissemination.

Mobile: (+91)**901-672-1001**
Email: kandarp.talati@gmail.com