

Report on Proceedings of the State Consultation

Mobile Phones: A Tool for Social & Behavior Change

Date: July 11, 2014

Venue: Chennai, Tamil Nadu

INTRODUCTION: Mobiles for Social and Behaviour Change (MSBC)

The MSBC Consultation, a joint effort of UNICEF India and DEF, was organized on 11 July 2014 at Hotel GRT Grand in Chennai, Tamil Nadu. This consultation was the second one in the series of consultations as a part of Phase II of MSBC Project. The first consultation was organized on 17- 18 June 2014 at Courtyard by Marriott, Bhopal, Madhya Pradesh. The first consultation at Bhopal was more focused on identifying new interventions around health sector. These consultations provide a platform for sharing of knowledge and experiences in the area of mobiles deployed for development in the areas of health, education, women and child development, and water and sanitation. The main objectives of Chennai consultation were to share select case studies from Southern region that have effectively used mobile phones in the above stated areas; and to create a platform to share implementation mechanisms of the case studies to aid in developing partnerships between state government and MSBC players. The consultation involved various stakeholders including the government, private sector companies, non-profit sector, academia, device, VAS, and telecom players, practitioners, and experts. The consultation also provided a forum for discussion about partnerships and collaborative work amongst government, private, bilateral agencies, CSOs and others in mobiles for SBC.

OBJECTIVES

- Reflect on the reach, access, use and potential of using mobile phones amongst women, adolescent girls, boys and other stakeholders for Social & Behavioural Change (SBC) in Tamil Nadu;
- Understand some of the models being implemented using mobile phones for SBC; information/knowledge dissemination, tracking to enhance performance & accountability, support to frontline workers, and interpersonal communication;
- Assess the potential of the different interventions to be adopted for implementation and scale up;
- Explore partnerships and collaborative work amongst government, private, bilateral agencies, CSOs and others in mobiles for SBC in Tamil Nadu.

PROCEEDINGS

INAUGURAL SESSION:

After the welcome and consultation overview by DEF, and introduction of the invitees, practitioners, and participants, the consultation began with the inaugural session. The context of the consultation was set by **Mr. Arun Dhobal, WASH Specialist, UNICEF**. He talked about how mobile phones are able to increase awareness and to reduce risk from habits like open defecation. He told that as mobiles have become a part of life now, UNICEF has attempted to find ways to use them for extending

support to frontline workers. He suggested that this consultation may throw some light on how the frontline workers can be strengthened to promote sanitation and hygiene practices apart from bringing about behaviour change in communities and also how some of the practices in WASH sector can be adopted elsewhere. It may also pave path for the future partnerships.

Mr. Osama Manzar, the Founder and Director of Digital Empowerment Foundation described how modern world is now using mobile, and the consultation can provide a creative opportunity to explore how the mobiles can solve the problems in water and sanitation sector. He highlighted the potential of mobile phones to drive the behavior change.

Mr. G. Lakshmipathy, Additional Director, Department of Rural Development and Panchayat Raj, Government of Tamil Nadu pointed out that of the 95 lakh rural households in the State, 52 lakh homes did not have toilets and over 13 lakh homes had defunct toilets. He also elaborated about the frontline workers for water and sanitation in Tamil Nadu, called “Swatchchta Doots’”. Describing about mobile penetration in Tamil Nadu, he mentioned that the state has 71.81 million subscribers which is the second highest in the country after Uttar Pradesh. Mobile phones are now seen as interpersonal communication tool that enables anyone to have one-to-one interaction. He also emphasized that there is need to encourage to people to take up safe sanitation for maintaining their good health practices. Later he questioned the stakeholders if mobile phones could be used to bring about an attitudinal change towards sanitation among the rural population. Like the way, mobile phones have been used by health and education department, it can also help the department to reinforce message of having safe sanitation.

WORKING SESSION 1:

The first working session focused on the setting the context through presentations on the reach and potential of the use of mobile phones in TN.

Mr. P. Santosh, Senior General Manager, BSNL- Tamil Nadu circle set the context through statistics and presented certain trends on the reach and access of mobiles in Tamil Nadu. The presentation also reflected mobile penetration trends in the state, specifically in urban and rural regions, and among male, female, youth, and adolescents. There are 14,670 villages in Tamil Nadu, out of which 12,362 are covered by GSM. All the villages with population more than 5,000 have mobile penetration. He also told that BSNL Tamil Nadu has 83 lakh subscribers. He mentioned the contribution of mobile phones to rural livelihoods such as aiding in integrated functions, reducing distance, social mobilization through communication, bridging the digital divide in rural areas. He also pointed out some areas in which mobiles can play a role such as m-agriculture, m-health, mobile based primary health care system, m-banking, etc.

Madanmohan Rao, Research Advisor at Asian Media Foundation and Communication Centre, pondered beyond the mobile phone statistics, which were much better in Tamil Nadu when compared to other States (e.g. 110.07% tele-density). He said that in order to make some of the health and other basic schemes succeed, the key would be in finding out who had ‘ownership’ of the household mobile, whether the male head of the family or the women. He also highlighted the current trends on content and services imparted through mobile phones and the use of ‘value added services’ (VAS). His presentation also shared some of the initiatives where mobiles are being used in innovative manner to fulfill diverse objectives. He concluded with some discussion points like levels of digital literacy,

¹ Sanitation messengers – doing community awareness on sanitation

promotion of user-generated content for propagating safe sanitation practices via mobiles, which of the communication modes would work for sanitation by using mobiles; alerts/ IVR/ polling, etc.

Discussion Points:

- Developing discussion forums for productive deliberations about the workshop and potential way forward for example, Facebook groups, twitter meet-ups, etc.
- Mobile usage in Tamil Nadu literacy-neutral and most women use and operate the mobile phones independently, thus such reach to women may be harnessed for development with the help of technology for various developmental objectives, including water and sanitation
- Ownership of mobile phones also lies with most of the women.

WORKING SESSION 2:

LEARNING FROM EXPERIENCES: USE OF MOBILE PHONES FOR 1) INFORMATION DISSEMINATION & 2) MONITORING & TRACKING; 3) FOR SUPPORT TO FRONTLINE WORKERS - FOR TRAINING OR/AND AS A TOOL FOR ENGAGING COMMUNITY MEMBERS
1. Case Study presentations: Use of mobile phones to support Frontline Workers – through training or as a tool for engaging with community members.
Presentation Highlights and Discussion Points
AMMAJI MOBISODES (UNICEF)
<i>Alka Malhotra, C4D Specialist, UNICEF</i>
Alka from UNICEF initiated the “learning from experiences session” by showing examples of its Ammaji mobisodes that can increase awareness about safe motherhood, immunization and child development. 47 mobile episodes are developed by UNICEF as per the “Life-saving critical information guidelines” for pregnant women from the book “Facts for life”. These are 8-13 minutes long episodes which are given to the health workers like ASHA, AWW, ANMs on their mobile phones by loading on SD cards. Pretesting of 21 episodes was done on the field level. These mobisodes are now selected by National Health Mission, for purposes like information dissemination as well as for personal use as ready reckoner by the frontline workers. Basic training and orientation is required for health workers to access and use these mobisodes for information dissemination and interpersonal communication. The episodes have received positive feedback from the grass root level health workers. Certain challenges in using mobile technology were mostly technological, such as transferring mobisodes to mobile phones, difficulty faced by ASHA/AWW in handling / transfer of mobisodes, many ASHAs have basic mobile phone models without features like audio-video playback and Bluetooth.
Discussion points:
<ul style="list-style-type: none"> • Nishesh Mehta from NextDrop inquired about the ease of understanding of these mobisodes and whether conversion into icons has been done, to which Ms. Alka answered that these are already very simple so the need was not felt. Conversion into icons has not been done because of this. • The frontline workers use their own phones for these mobisodes, which are very basic feature-phones with necessary requirement of only 2 features; which are: 1. a colour monitor and 2. Ability to play media. These phones come with an SD card already in them. • All 47 episodes may be loaded on one SD card but priority themes are decided by the state, e.g. Bihar did not want to focus on HIV, so they omitted it. • 4 episodes on water and sanitation as well are there.
Rural Health Management Information System using Mobile/Tablets (RHMISS) (CDAC & Media Lab Asia)
<i>Abey S. A., Staff Scientist, Media Informatics Group, CDAC, Thiruvananthapuram</i>
RHMISS is an m-health tool that equips the frontline workers with hand held devices for data collection, follow-up, alerts & reminders using mobiles/tablets. The software used is mCare. With the collected data,

the system creates a central health database to help planning, decision makers, managers and researchers. It comprises of stand-alone application on mobile/handheld platform for health workers, web based application for synthesizing & analyzing the health data, and provision of a data repository. There are different modules available on the mobile application like prenatal care module, postnatal care module, etc. Pilot deployed at 20 PHCs/CHCs (120 Health Workers) of Tirur Taluk, Mallapuram, Kerala covering 7.22 lakhs population. Windows phone was used for pilot. (Not web-based on mobile phone). In this way, the practice empowers the health care workers and connects them with Directorate of Health Services and helps them for the early identification and timely referral of high risk Ante Natal cases. The impacts have been visible in terms of reduced maternal and infant deaths in Tirur Taluk.

Discussion points:

- On questioning about any experiences with usage of basic phones, Mr. Abey told that as the survey contains more information, and data has to be types and entered, it is difficult to load all this information on basic phones.
- The health workers are provided with phones, and they need to enter the data only once. There is uploader in the phone. Minimum data entry.
- Alka from UNICEF asked if these functions are possible on basic phones as well- quoted example from a project in Jharkhand and Kaushambi in Uttar Pradesh
- Data can be entered offline as well, and it gets uploaded when the server gets connected. The system also can sync if internet connectivity is there.
- Rohit Shetti from GRAAM suggested the need for buying the devices and providing them to the frontline workers as “collective property”, which led to discussion about the role of the device. The opinion of the majority was that simply buying a device won’t solve the problem. The device can help but a lot of hand-holding required. Design of the entire system is more important.

2. Case study presentations: Use of mobile phones for monitoring & tracking

Arogyashreni (Grassroots Research And Advocacy Movement - GRAAM)

Rohit Shetti, Coordinator – Advocacy- IT, GRAAM

Arogyashreni is a technology-enabled community-based monitoring mechanism that utilizes Interactive Voice Response System (IVRS) for ensuring sound monitoring of facilities and services at PHCs and for reviewing PHC progress. The practice drives community-led change in the public health system by enhancing its planning and monitoring capacity Gram is public policy research and advocacy firm. It is done by ranking of primary health centres by the community representatives on some specified parameters. GRAAM developed questionnaires for ranking of primary health centres for a comprehensive coverage. 112 rural PHCs in Mysore were covered. The ranking gets disseminated to taluk/district health officers/ doctors. Thus, it is a process of advocacy for change with use of technology. Ranking is done based on weighted averages. Other positive outcomes- community empowerment, drawing the community closer, negligible error margin- <2%, transparency, participation of community, better awareness, better articulation of issues and changes.

Discussion points:

- Discussion about the attitudinal issues- the system has reliable data about events like how many times a call was not answered. However, using such data for taking any action entails political and other repercussions.
- The experiences of field workers have been diverse, and there have been some cases of communities who are not very active to take up solutions as suggested by data. Some amount of elite capture is prevalent everywhere. Absolute democratic discussion very difficult. Perils of decentralization. Still it’s a positive step, if data is used for greater good.
- Upon questioning about the challenges in promoting this participation by the community, Mr. Rohit answered that the rural citizen has to be a part of institutions as a design of governance structures at village level. Then only the rural people can avail the services. E.g. Panchayats, committees like VHSC, etc. So such initiatives have to be started from the scratch, involving community mobilization and motivation about the benefits it will bring.

VoiceNet & mHealth Solutions (Uniphore & RTBI)

Vijay R., Business Analyst, Uniphore

The practice allows mothers to monitor her kid's health that she has obtained from ICDS. Mothers can use voice based biometric system. Maternal and child monitoring tracking system is done with the help of voice biometrics for monitoring and tracking. First, the registration and voice authentication is done. Subsequently, the mothers visit the anganwadi centre, where they can enter and authenticate the data using a mobile phone, using voice. This real-time data entered by the mothers is available in a digitized format on ICDS portal. The system has a few limitations also, like disturbances in the surroundings may affect the data recording, authentication is required to rectify such problems. The handsets for functioning have varied settings and loudness of voice required to be clearly recorded also varies, this is also resolved by normalization.

Discussion points:

- Questions about the data from 104 patients who completed the treatment as on which of the two works better out of SMS/ a combination of methods; it was answered that some chose SMS, other chose combination.
- About the recognition technology in the phones, it was told that the technology is speaker-independent. It recognizes the words also. However, specific information like names cannot be captured. But short survey and close ended questions can be done.
- One project is currently operational, while one other project ran for a year and was then terminated. It was done with collaboration with CMC Vellore and the implementing agency needed to take it forward. It is a challenge to take the project forward without a study to check the feasibility and sustainability of the project.
- The project development takes 2-3 months for designing a system to record similar responses like this system. Already designed features can be used. If the system uses one language, there is less time required to develop it, and it requires longer duration to develop if more languages are incorporated.

CommCare and NEEDS: A system for data collection developed on basic feature phones

Presented by Osama Manzar, Director-Founder, Digital Empowerment Foundation

To take the discussion forward and to display a similar example to the practices discussed in the session, but using basic feature phones instead of expensive smartphones, Mr. Osama presented the case of CommCare in Jharkhand. It is a project by NEEDS piloted in Deogarh, Jharkhand. Minimum data is required to be entered and the system has pictures and voice to help the person in understanding the questions better. The questions asked are closed-ended and minimum data is required to put in, like yes/no/a number. Once typed, the data fed can also be seen as it is displayed on the screen in a compiled form in the end. Osama, Director, DEF told that they are already developing this application for androids as well, to improve the picture quality, include videos, and make further improvements.

3. Case study presentation: Use of mobile phones for information dissemination

NextDrop

Nishesh Mehta, Co-Founder and Vice President, NextDrop Inc.

The practice disseminates information on water availability to residents via automated calls and SMS. The person has to give a missed call on 08067264629, and one can receive an SMS immediately about the water supply and availability with tentative timings. Also, once the person is registered, an SMS is sent 60 minutes in advance, so that they can know about the water supply and can make arrangements accordingly. The data is gathered from the valve men. The valve men use IVRS every time when they access a valve and the information about valve number and opening and closing is recorded by the system. Thus, the valve men serve as a feedback system to next drop. There is a transparent service- supply time-chart to see variation/ consistency. There is a live monitoring dashboard for the same. Live water supply map can also be generated. The system can be accessed by using any phones, be it a feature phone or a smartphone. The SMSs are sent in English, while the voice messages are delivered in Kannada. Nishesh also displayed data on irregular water supply in Bangalore via live dashboard from pipe data. NextDrop has signed MoU with the government to get support from valve men using basic phones. The valve men signed up so that

they would be less bothered by constant phone calls (200+ per day earlier). As per the analytics of impacts in Hubli, 800 more families were reached via mobile monitoring of water supply/disruption. In case of pipe leakages, health alerts are also sent to citizens, e.g., boil water in aftermath of pipe break to make it safe to drink.

Discussion points:

- Upon asking whether the citizen has received the water supply for a particular day, if the answer is no, the information about the location of the home of the citizen is given to the concerned engineer and action is taken accordingly.
- The responses are also validated by citizen feedback, and by ringing and asking some other person from the area the complaint has been received from.
- There was a debate about the privacy issues associated. Nishesh told that the data about the citizen is not divulged to anyone as the policy of the company. Partnership with the water supply department imparts credibility to the venture. However, geographical information may be provided to other companies for their marketing campaigns. There was further debate on the ethics regarding the same.
- There was a discussion about the charges for the service, and the company has to decide the most suitable model for revenue generation. Currently, the citizens are charged Rs. 10/- a month, and Rs. 17/- are spent by the company. But they believe that the citizen should not pay for the service, so the solution is yet to be decided.

SUB-GROUP DISCUSSIONS AND PRESENTATIONS BY THEMATIC AREAS:

MOBILES AND BEHAVIOUR CHANGE:

Alka Malhotra from UNICEF India briefed the participants about the chief purpose of the MSBC project, which is to bring about social and behaviour change in the community. She elaborated that the behaviour change takes place at various levels, interpersonal-individual-group-community and society. For these processes, engaging the audience is of prime importance. She explained the behaviour change model, and related practices required to bring about the desired behaviour change. She also explained the linkages with the mobile phones in this context.

<i>Key learning from the case presentations on information dissemination, monitoring and tracking and support to frontline workers using mobile phones</i>	<i>Aspects of the case presentations that can be adopted for enhancing sanitation coverage and use</i>	<i>Improvisations required for use in the water and sanitation sector and the steps forward</i>
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Group 1:

<ul style="list-style-type: none"> • Mobiles can be a support system but not the solution. • Technology has not focused on the sanitation sector – need to explore best possible means of addressing the problem. • Combining traditional systems with technology seems to be the way forward focusing on youth, children and women who will be the torch-bearers for any behavioral change • Need to identify pilot studies which have worked and assess their scalability. 	<ul style="list-style-type: none"> • Information is one-way and it needs to be two-way. There should be a forum where citizen queries can be addressed and concerns clarified • Awareness on hygiene and sanitation has to be enhanced • Mobile technology can be used for reinforcing information through messages • To ensure uptake of government schemes promoting sanitation, government processes such as processing of applications for building toilets should be simplified and digitized. 	<ul style="list-style-type: none"> • Decentralization should be done • Toll free number can be set up for queries to be addressed • Attention to quality of construction, maintenance and upkeep of toilets • Ranking of Panchayats by quality and number of toilets available (like the GRAAM initiative) • Sanitation issues can be taken up as part of CSR activities.
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Group 2		
<ul style="list-style-type: none"> • Literacy and understanding and awareness of the use of mobile a necessity • So, orientation of relevance and contextualization; and NGOs who work with communities may be helpful in this process • NextDrop must be adopted and implemented in urban areas and the same could be explored further to make it relevant in rural areas including water availability in schools • Ownership from the government is essential in all 4-5 departments to adopt mobile as primary tool for communication • Scaled-up implementation strategy is extremely important 	<ul style="list-style-type: none"> • Target education community including teachers for awareness and necessary hygiene; they can take the message even to homes and to the community so there is ripple effect impact; • Water and Sanitation related messages can be spread through mobile; by targeting the teachers (using audio, video, texting); Standardization of content is also important • Anganwadis and SHGs may also be involved • PRIs should also be targeted • NextDrop and Caddisfly can be adapted • Mobisodes (Ammaji) can be adapted for information dissemination. 	<ul style="list-style-type: none"> • NextDrop may be modified appropriately for sanitation and hygiene sector • Collecting information on availability and non-availability • Qualitative analysis • Possibility of including toll-free number • Starting points can be Schools, Anganwadis and Sub-Health Centers • Unicef Chennai: Prioritization of key intervention in consultation with government and other stakeholders • CCFC (members in this group): is ready to take this forward to zero in the need analysis and solutions and make corresponding linkages and take the solutions to the ground through partner NGOs • Timeline: Next 6 months
Group 3:		
<ul style="list-style-type: none"> • Mobile phones may be effectively used for data collection • Mobile numbers of people who have toilets and don't have toilets along with profile • Reasons for not using • Reasons for not constructing • Two way communication- (IVRS) • Motivational messages • Monitoring and grievance redressal system • Mobisodes are a nice way for information dissemination 	<ul style="list-style-type: none"> • Mobisodes (Mobile episodes) on sanitation in phones of swatchchta doots/Anganwadi/VHNs • Photos of construction status & functional status by overseers (With GPS coordinates) 	<ul style="list-style-type: none"> • Analysis of mobile applications being used at the moment and integrate the mobile component to the higher-ups • Another internal consultation with other departments for convergence • Data collection in a holistic manner, including mobile phone numbers, regular updating • Planning for the resources required for the campaigns and mobile applications to be developed.

WORKING SESSION III: Discussion following the group presentations:

EXPLORING THE SCOPE OF MOBILES FOR SBC: PARTNERSHIPS AND WAY FORWARD

Alka Malhotra from UNICEF brought up a new idea of using of mobile games for propagating information and ideas about sanitation and hygiene. She also suggested that Dr. Chi Chi Cholappa (a fictional character to promote hygienic practices) may be mounted on mobile phones of Swacchta Doots in a changed format. Games for social change may be designed.

Rohit shetti from GRAAM talked about 3.7 crore missing toilets in India. Building capacities also needs to be looked at. Technology can be used for that. It was discussed that in Tamil Nadu, there are no missing toilets, but defunct/ dysfunctional toilets are there.

Representative from Loyola college gave a suggestion to hold one more meeting of similar type with all the stakeholders in the meeting, and piloting in one district to have a test.

Demonstration of Water Quality Testing Mobile Application

By: Caddisfly

Water quality testing kit is designed by Caddisfly. The required apparatus is a cartridge with reagent and an application on the mobile phone, and a back cover.

The entire procedure was demonstrated to the audience. The app uses phone flash. It is currently designed for use in Android phones, with camera and flash. It is an open-sourced mobile application. The result of the demo test detected 0.00 presence of fluoride. PH and nitrate may also be done. All colour change based tests may be done. Pre-testing for other water-tests is also being done.

Mobile Players: Views and Discussion:

- Mr. Sreehari Nambiar and Nishant Bhatnagar from Vodafone expressed their amusement on how a mobile phone can drive sanitation and hygienic practices.
- Mobile is a necessity but not sufficient for behaviour change.
- They promised to take the ideas forward to Vodafone Foundation and to organize some more workshops to pave the path forward.
- They can provide the required technology and infrastructure.
- Girl education initiative by Vodafone Foundation and issue of sanitation can be connected.
- Mr. Osama said that DEF and Vodafone can take it forward together. Agreement at central level will be helpful.

Reverie Language Technologies

Vivekanand Pani

In the end, there was a presentation from Reverie Technologies about their applications providing multi-lingual platform on mobile phones. The apps also have features like localized phonebook that convert phonebook into local language. Plustxt is an instant messaging app that has multi-language features. He also showed some snapshots to display how certain devices support only English language.

Mr. Osama told that Reverie is creating an app shop for all apps by DEF in local languages.

Conclusion and Way Forward

The session was concluded by Ms. Alka Malhotra from UNICEF. Mr. Osama asked Mr. Madan Mohan Rao to upload a tweet compilation of the entire consultation. Ms. Alka suggested the participants to go through the select case studies from southern India compiled by DEF, which have deployed mobile phones for bringing about social and behavioral change. The consultation concluded with the idea that there is a need of awareness programmes for the community and also capacity building programmes for the frontline workers to promote safe and hygienic sanitation practices and all the stakeholders definitely need to get involved in a collaborative manner.