

## Mobile phones for community health workers of Bihar empower adolescent girls

Derek Treatman<sup>a</sup>, Mohini Bhavsar<sup>a</sup>, Vikram Kumar<sup>a</sup> & Neal Lesh<sup>a</sup>

Ruby, a 16-year-old girl who has recently entered puberty, sits next to an Accredited Social Health Activist (ASHA), named Sangeeta, who lives in Ruby's village Kalua in Bihar and provides basic health services and education as a volunteer for India's National Rural Health Mission (NRHM). Sangeeta had recently finished a three-day training on using a new mobile phone application called CommCare as a job-aid tool for counselling adolescent girls and women on menstrual hygiene, sexually transmitted diseases, and family planning methods.

Ruby gives her name, age, and a few other personal details for Sangeeta's record. Sangeeta then begins the first lesson on menstrual hygiene. Played through the mobile



Ruby (right) voices her opinions on community outreach after hearing health messages played from the mobile phone of her ASHA (left). Photo by Derek Treatman

phone's loudspeaker, Ruby hears general information and a few common myths about menstruation from recorded audio messages on the phone.

"Some people believe that during a woman's menstrual period she is impure and is unfit to do common household chores or cook. Would you agree or disagree?" the phone asks.

"Disagree!" Ruby says with conviction.

Sangeeta smiles and records the answer in the phone, which then responds, "That is absolutely correct! A woman's menstrual cycle is a natural physiological process signifying maturation of reproductive organs," and continues to say that women need not consider themselves impure.

Ruby has previously received education on topics like reproductive health, which today is uncommon for a young woman of her socioeconomic status in Bihar. Although these topics are far from breaching the school curriculum here, programmes run by local nongovernmental organizations (NGOs) enable women like Ruby to attend a few days of formal instruction to get the basic information they need to make choices about their health, their families, and their future.

<sup>a</sup> Dimagi, Inc., 585 Massachusetts Ave, Suite 3, Cambridge, MA 02139, USA  
Correspondence to Vikram Kumar (email: [information@dimagi.com](mailto:information@dimagi.com))

Although Ruby has already learned about female anatomy and menstruation, she explains that there is something new that she heard today from Sangeeta's mobile application.

"When a girl begins to menstruate, she needs to think about the possibility of pregnancy and using contraceptives, that she must not become pregnant because her pelvis is not strong enough. Adolescent girls who become pregnant can sometimes die or have a miscarriage," Ruby explains.

Through a mobile phone, this instruction can be given informally in one's own home, and personally, by a local health worker whom one knows and trusts. Information can also be given in a series of staggered, short lessons, allowing a health worker to focus on one topic at a time. Group training and classroom instruction, although highly beneficial, condenses a lot of information into a very short amount of time but does not allow the same level of intimacy or individual engagement.

Ruby continues, "I know that this information is important. My friends who are younger and those older, if they don't know, I will explain it to them. They are embarrassed and say, 'how could I possibly speak to my mother?' or 'how could I ask my auntie?' But I can explain it to them."

Ruby's home is just off a national highway that runs between Delhi and Kolkata, which means she has easy access to things like school and the local health centre. After school she travels by bicycle to nearby villages further into the interior of Bihar to tutor girls her age that don't have access to any formal education.

"People don't know anything there," she says. "They don't have books, or training, or anything. If I don't give them coaching, how will they learn?" Ruby speaks with a sense of urgency and responsibility perhaps uncommon for someone her age. We are delighted when she suggests using mobile phones to spread these messages further into the interior. She has echoed the very cause which brought us to India in the first place, and we are humbled to hear her say it.

Ruby has told her father that she will not marry until she is 21 years old, that for now she wants to study. Never before in a village of Northern India have we encountered such an emphatic and candid young woman; one who takes such sensitive information to heart and acts upon it, for herself and others. Sangeeta explains that she was married when she was 15 years old and had her third child by the time she was 20. As a growing, young woman, Ruby has turned to Sangeeta today as at many other times, for advice and support on matters such as marriage.

Working in rural health development programmes in India, it is easy to mistake adolescent girls as helpless or disempowered. As outsiders in a villager's home, women are often reserved and make infrequent eye contact. The sensitive topics of this intervention make conversation even more difficult, but Ruby reminds us not to generalize. She is the outspoken voice of impoverished adolescent girls who lack education but know of its importance. Unafraid to seek this knowledge on her own, she has become an advocate for young women in her village and others around it.