

# First Days

## Mobilizing Community Health Workers to Improve Maternal and Child Health in India



**Divya Ramachandran**

Ph.D. Candidate

Dept. of Computer Science

U.C. Berkeley

**John Canny**

Professor

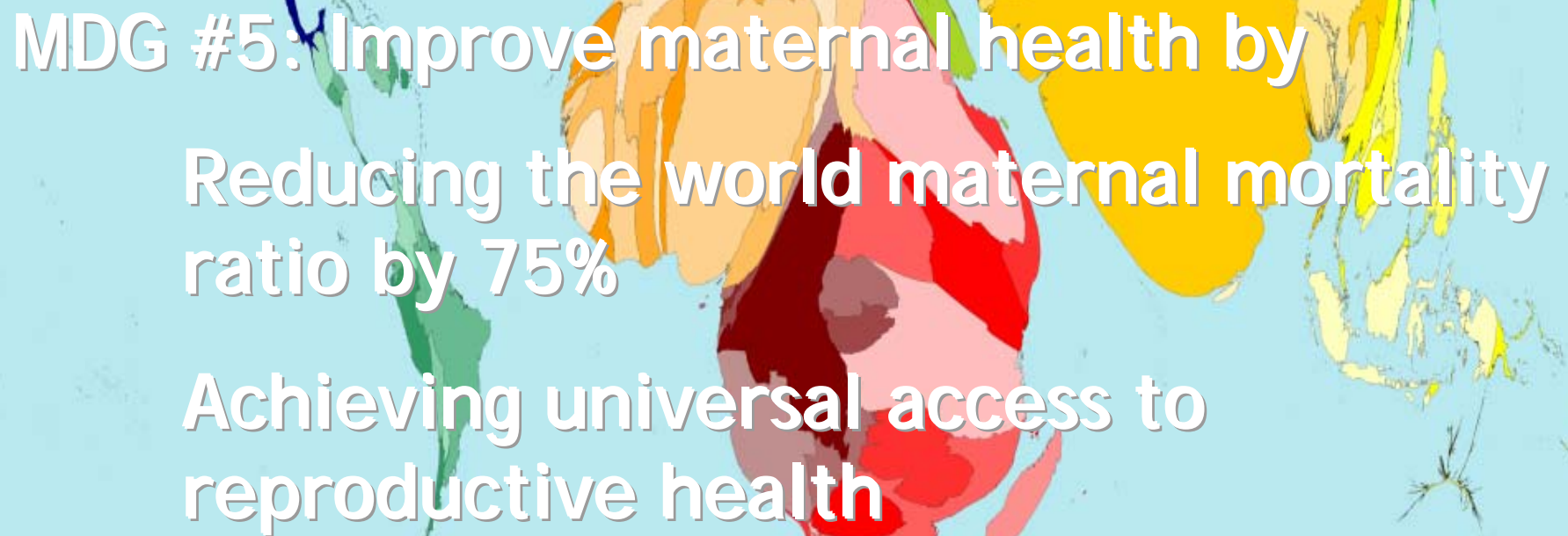
Dept. of Computer Science

U.C. Berkeley

October 23, 2008

**BiD**

BERKELEY INSTITUTE OF DESIGN



MDG #5: Improve maternal health by

Reducing the world maternal mortality ratio by 75%

Achieving universal access to reproductive health

Territory size is proportional to # of deaths due to complications in pregnancy in 2000.

[[www.worldmapper.org](http://www.worldmapper.org)]

# Infant Mortality

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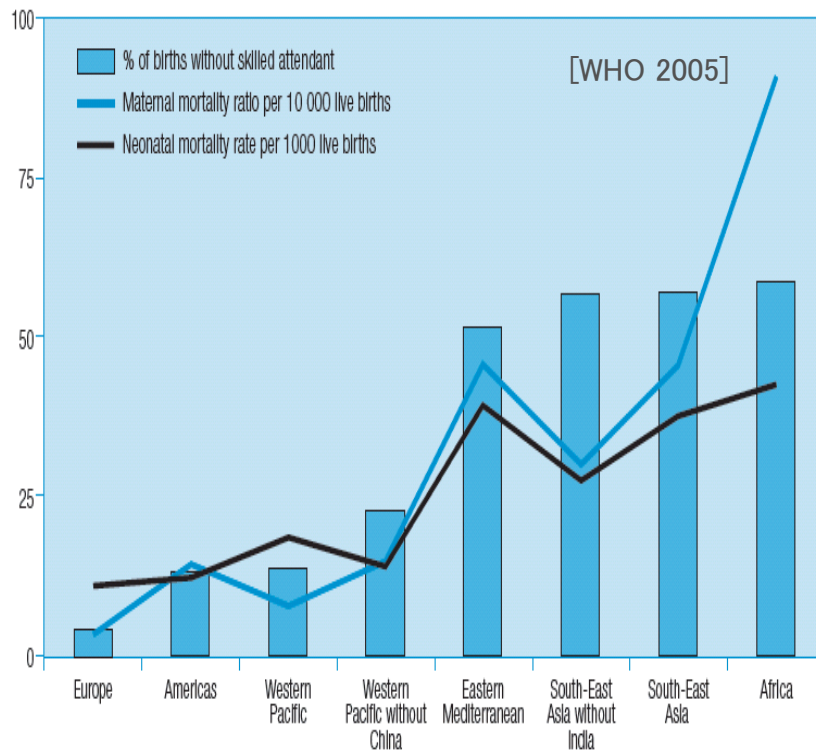
MDG #4: Reduce child mortality

Cut the under-five mortality rate by  
2/3

Territory size is proportional to # of deaths of infants in their first year of life in 2002.

# Skilled Delivery Care

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Maternal and neonatal mortality increase with the absence of a skilled birth attendant.

In India, more than 60% of deliveries are conducted at home.<sup>1</sup>

Less than 20% of home deliveries are attended by health personnel.

More than 75% of hospital deliveries are attended by a doctor.

Preliminary results have shown hospital deliveries can halve the number of maternal deaths.<sup>2</sup>

<sup>1</sup> International Institute of Population Sciences, National Family Health Survey, 2006

<sup>2</sup> Norway Office of the Prime Minister, 2008

# Prenatal Care

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20% of women in India do not receive any type of prenatal care

Most common reason for neglecting prenatal care is opposition by husband or family

Prenatal care is crucial for detecting and treating anemia, the cause of 1/5 of all maternal deaths in India

Women who receive sufficient prenatal care are 2–5 times more likely to deliver in institutions



# Qualitative Field Work

Interviewed 10 health workers,  
27 community members, and 12  
health worker training  
organizations

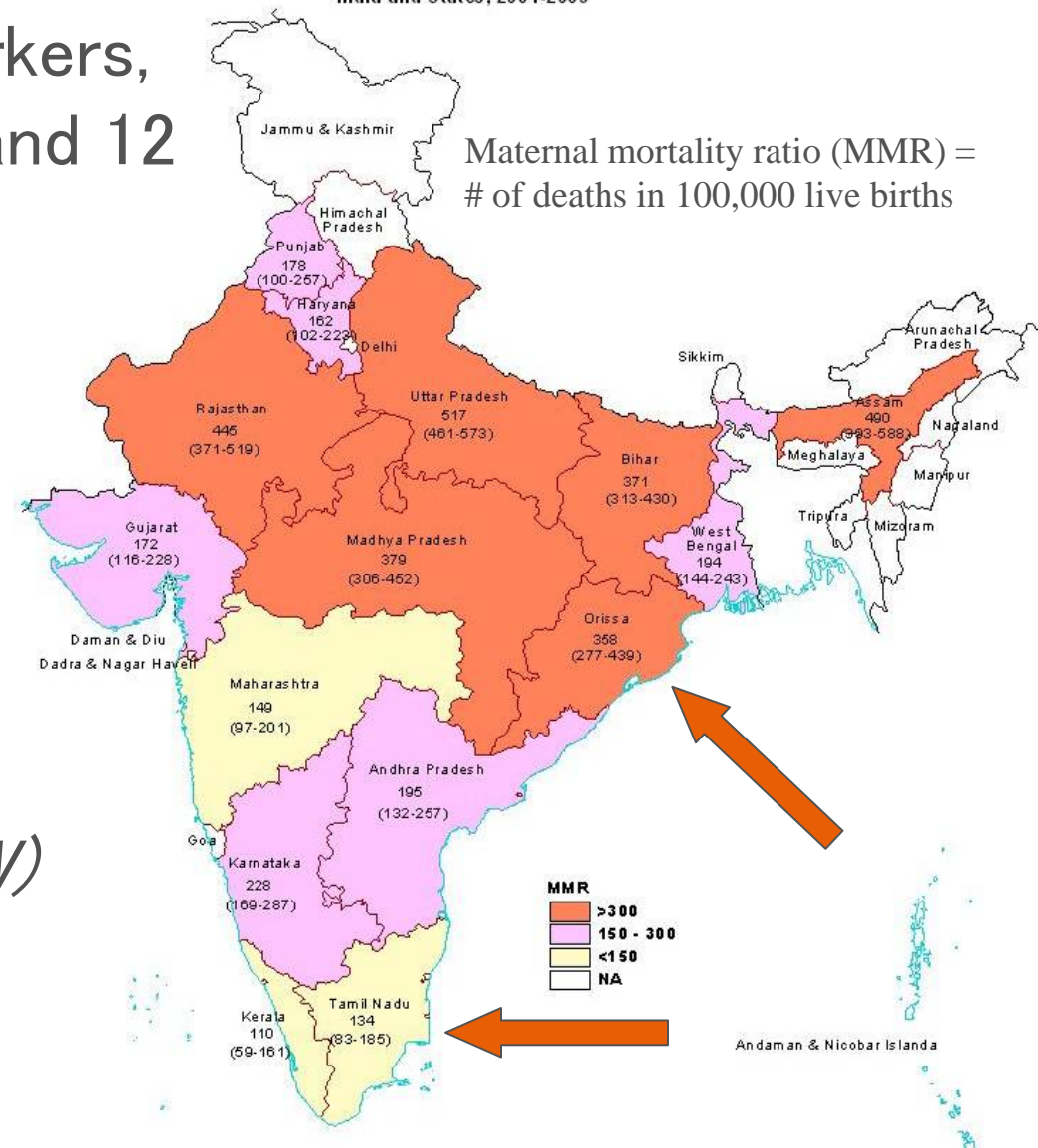
*Accredited Social Health  
Activist (ASHA)*

addresses maternal needs

*Anganwadi Worker (AWW)*

addresses infant needs

Chart 2: Maternal Mortality Ratio (MMR) along with 95% confidence interval, India and States, 2001-2003



Community reproductive health “promoter”

Receives performance-based compensation

Roles include:

- Conducting prenatal and postnatal home visits

- Encouraging breastfeeding

- Arranging for mother and child immunizations

- Monitoring child growth

- Counseling about nutrition and care during pregnancy

- Arranging for/accompanying women in institutional deliveries

- Teaching about family planning

Integrated child health service provider

Receives small but regular monthly salary

Roles include:

- Running morning preschool for children (3–5 years)

- Arranging for mother and child immunizations

- Distributing government–subsidized food

- Providing prenatal care and vitamins

- Monitoring child growth

- Referring malnourished children to hospitals

- Providing health education

# Discrepancies in Performance

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	Village 1		Village 2		Village 3	
	W	C	W	C	W	C
Prenatal Care	✓	✓	✓	✓	✓	✓
Postnatal Care						
Breastfeeding						
Immun.	✓	✓	✓	✓	✓	✓
Growth						
Counseling			✓	✓		
Inst. Deliveries	✓	✓	✓	✓	✓	✓
Fam. Planning						

	Village 1		Village 2		Village 3		Village 4		Village 5	
	W	C	W	C	W	C	W	C	W	C
Preschool	✓	✓	✓	✓	✓	✓	✓	•	✓	•
Immun.	✓	✓	✓		✓	✓	✓	✓	✓	
Food			✓		✓	✓	✓	•	✓	•
Prenatal	✓	✓	✓	✓			✓		✓	
Growth	✓	✓	✓				✓		✓	
Vitamins	✓	✓	✓	•	✓	✓	✓	✓	✓	•
Referrals										
Health Ed.			✓						✓	

Roles performed by ASHA workers (left) and AWW workers (right) as reported by worker herself (W) and the community she serves (C).

“The problem with the AWW is, we still don’t know the exact function of the AWW, like the limitations of her work and things like that. All we know is she teaches in school...That is why people are not willing to get dependent on her.”

– Village committee member

Resource supply chain issues cause lack of trust and credibility.

“The chloroquine tablets come to [the AWW] regularly – we came to know of this fact from the radio and TV. But she only gives medicine to people whom she thinks are aware of their rights. To the others, she says no and sells the medicines for her personal profit.”

–Village chief

“The main problem I face is in the irregular supply of grains. People react strongly to that...When I go for growth monitoring of the children they say why weigh them when you don't give them anything to eat?”

– AWW

Young, reproductive-age women targeted by health workers have little decision-making power.

“I talk to the woman first. If she agrees, then OK, otherwise I have to talk with the mother-in-law as women will listen to their mother-in-laws.”

– ASHA

“But the main thing is to explain to the daughter-in-law, as she has to take care of herself. The mother-in-law may not have time to be that careful for her needs.”

– AWW

# Building Local Capacity

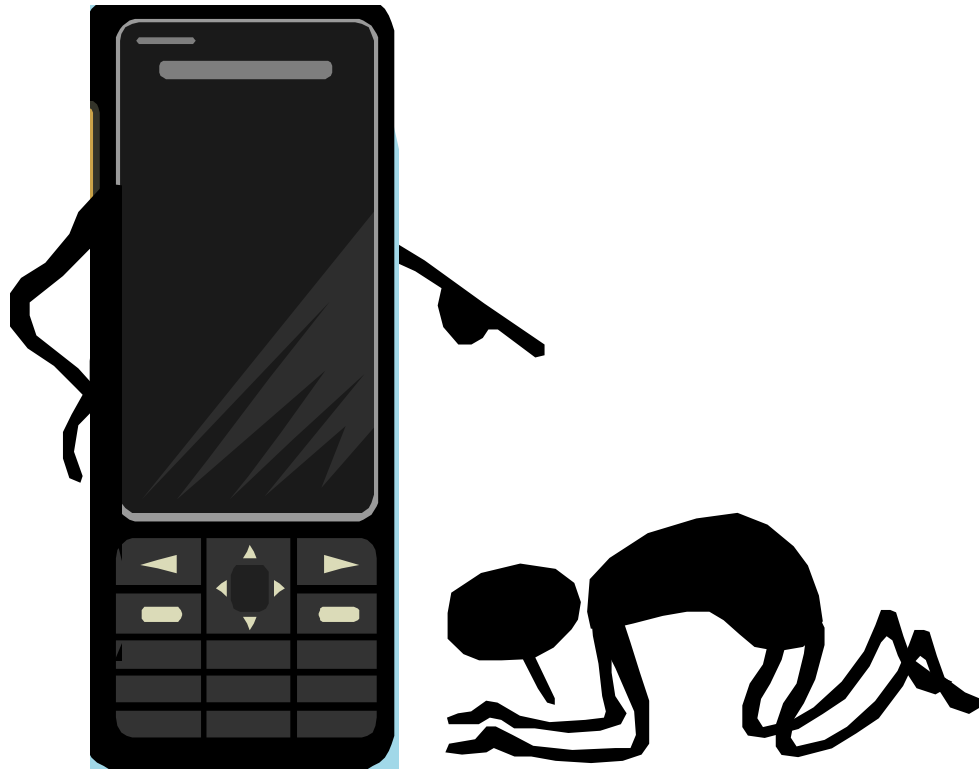
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Health workers need help persuading community members.



# How can phones be persuasive?

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Alice

Mom, my friend Betsy is going to a rock concert next Saturday and invited me to go along. It's a concert by one of my favorite bands and I really want to go. It's going to be in the city about an hour away. It'll end pretty late at night so it would be best if one of us drove. Betsy's parents are taking her car on a trip, so I'll need to borrow your car.

Goal: To borrow mom's car to attend a rock concert.

# Persuasion and Dialogue

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Alice

Mom, my friend Betsy is going to a rock concert next Saturday and invited me to go along.

Where is it?

It's going to be in the city about an hour away

How are you going to get there?

It'll end pretty late at night so it would be best if one of us drove.

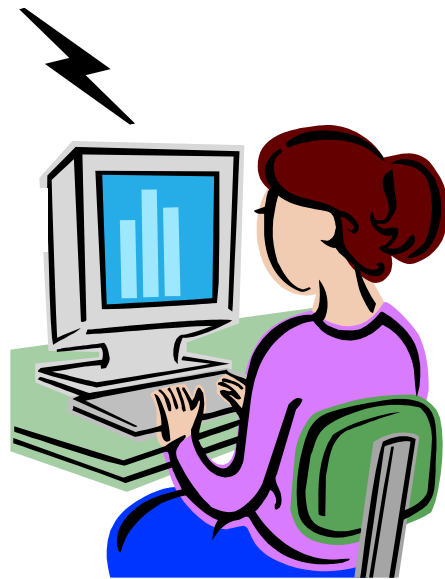
Is Betsy driving?

Betsy's parents are taking her car on a trip, so I'll need to borrow your car.

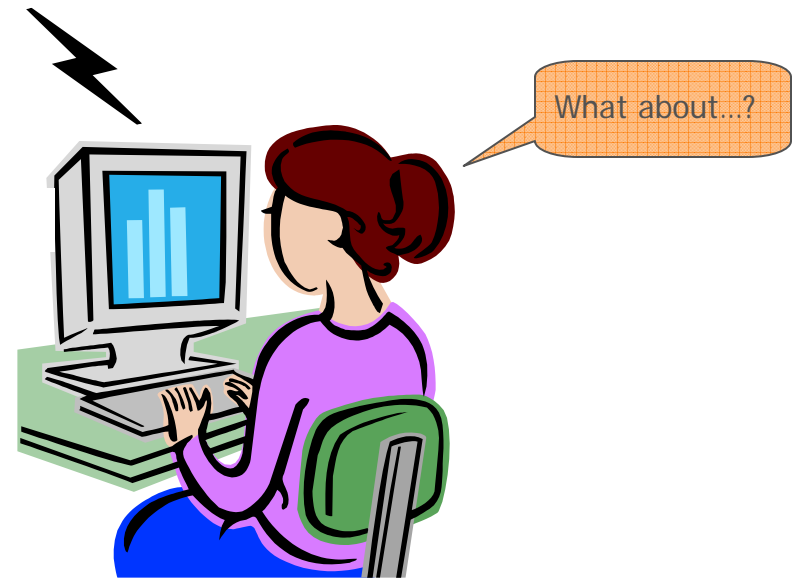
# Which is better?

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- (1) All the information right up front
- (2) Short relevant responses to prompts




Recorded Message System



Dialogic System

 The dialogic system will be more persuasive than the recorded message system.

 Participants using the dialogic system will receive less information than those using the recorded message system.

# Content for Persuasive Materials

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Partnered with Rural Women's Social Education Center, near Chennai, Tamil Nadu

Conducted 2-day workshop with NGO health workers and trainers

Brainstormed important issues in maternal health and generated stories

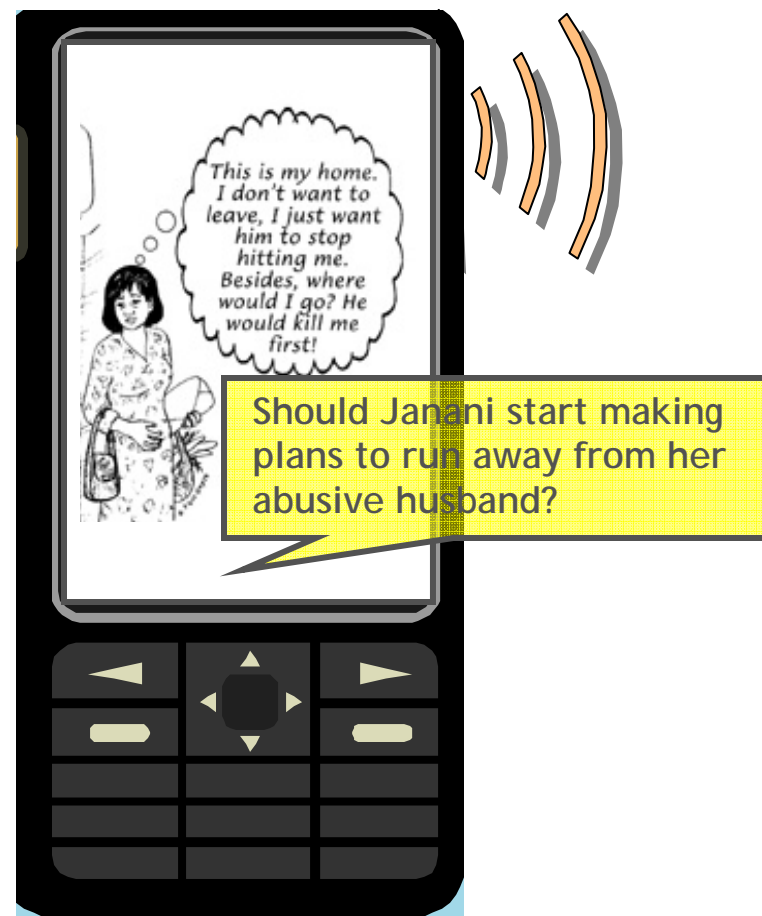
TV advertisements

paper prototypes of commonly used participatory methods



# Example Interaction

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	Interactive Stories
<b>Social Proof</b>	In groups, each individual votes on the decision in the story, but the majority decides the choice.
<b>Commitment &amp; Consistency</b>	After committing to a decision in the fictional setting, the need for consistency could influence future behaviors.
<b>Self-Efficacy</b>	Giving the user the decision-making power in the fictional setting could increase confidence.
<b>Liking</b>	Stories are used in tight-knit community settings where friends mutually persuade each other on the decisions to make.
<b>Authority</b>	Technology platform itself appears to be a credible and authoritative source.

Designing prototypes for testing in India in early spring

Target reproductive health outcomes include:

- institutional deliveries

- prenatal care

- iron pill consumption for anemia

- mother and child immunizations

Despite the presence of human resources, service delivery is still weak

Employed health promoters are limited in efficacy by issues in credibility

Health promoters could benefit from tools that increase their persuasiveness

Mobile technology holds promise as a platform for delivering persuasive materials

A group of approximately 15 children of various ages are gathered together, many with their hands raised in a gesture of appreciation or excitement. They are looking towards the camera with various expressions, some smiling. The background is a plain, light-colored wall. The overall mood is positive and grateful.

# Thank you!

Special thanks  
to Prabhu Dutta  
Das, Dhiren  
Patra, Gram  
Vikas staff,  
RUWSEC staff