

Encouragement Systems

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Problem space & Project description

- **Maternal and neonatal mortality are HIGH**
 - 530 women die in childbirth for every 100,000 births in Kenya versus 24 deaths per 100,000 births in the U.S.
- **Clinic visits during pregnancy are LOW**
 - Currently, women often receive little antenatal care, only attending 1 of the 4 recommended clinic visits during pregnancy, sometimes due to poor planning or lack of information.
- We are trying to encourage and empower women to take their health care into their own hands
- Governments in various countries will hopefully want to implement similar solutions
- Pregnant women and health clinics will be affected
- Our solution provides information to educate women so they can make good decisions

Related Work

- **MOTECH** sent messages to women in Ghana and found that they needed to use voice messages due to low literacy rates
- **WelTel Kenya1** send weekly messages to HIV-infected patients in Kenya and require patients to respond. Patients who received SMS support had significantly improved drug adherence and rates of viral suppression compared with the control individuals.
- Encouragement System vs. Reminder System
- Focus on education and providing paths to direct action

Fieldwork Findings

- Talked to Dr. Jennifer Unger from Department of Global Health
- Learned about the context of the problem we are trying to solve
 - Scope
 - Obstacles
 - Current situation

Basic Scenario

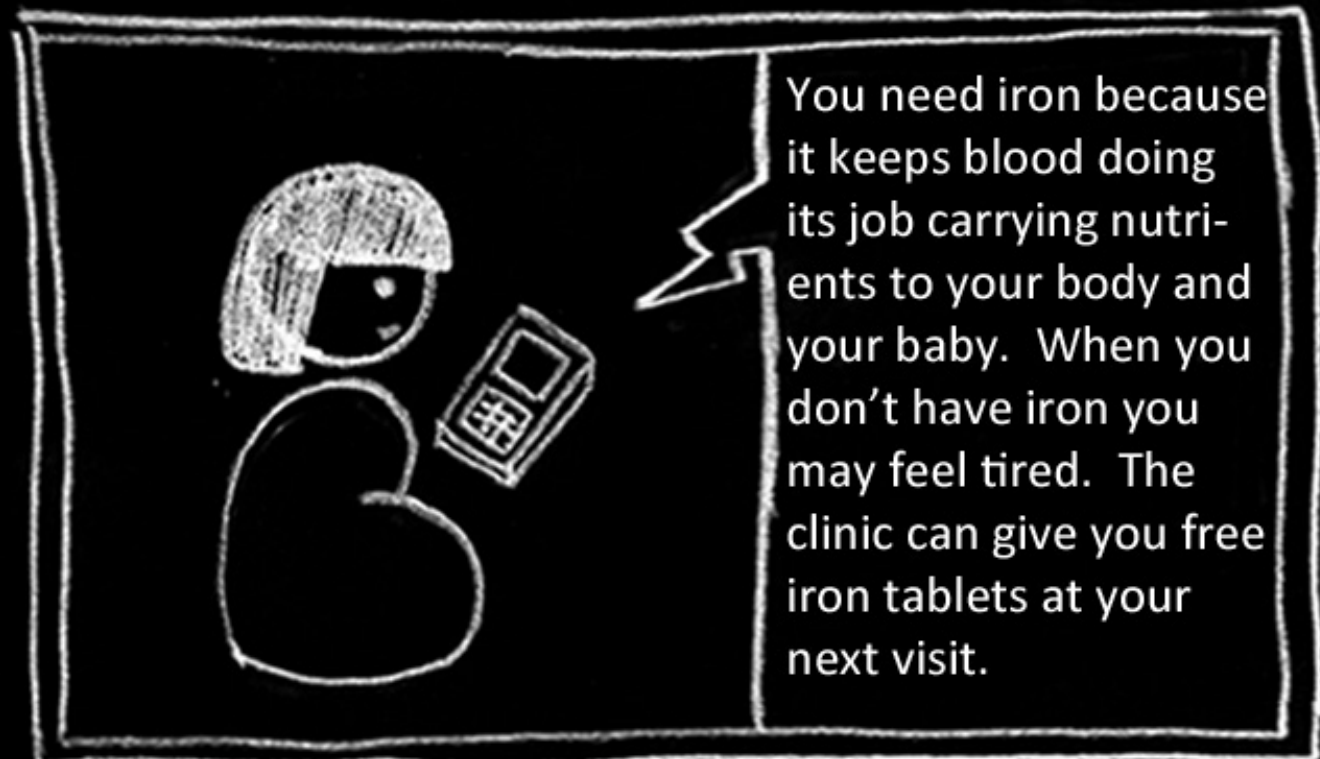
Scenario 1

before



Scenario 1

after



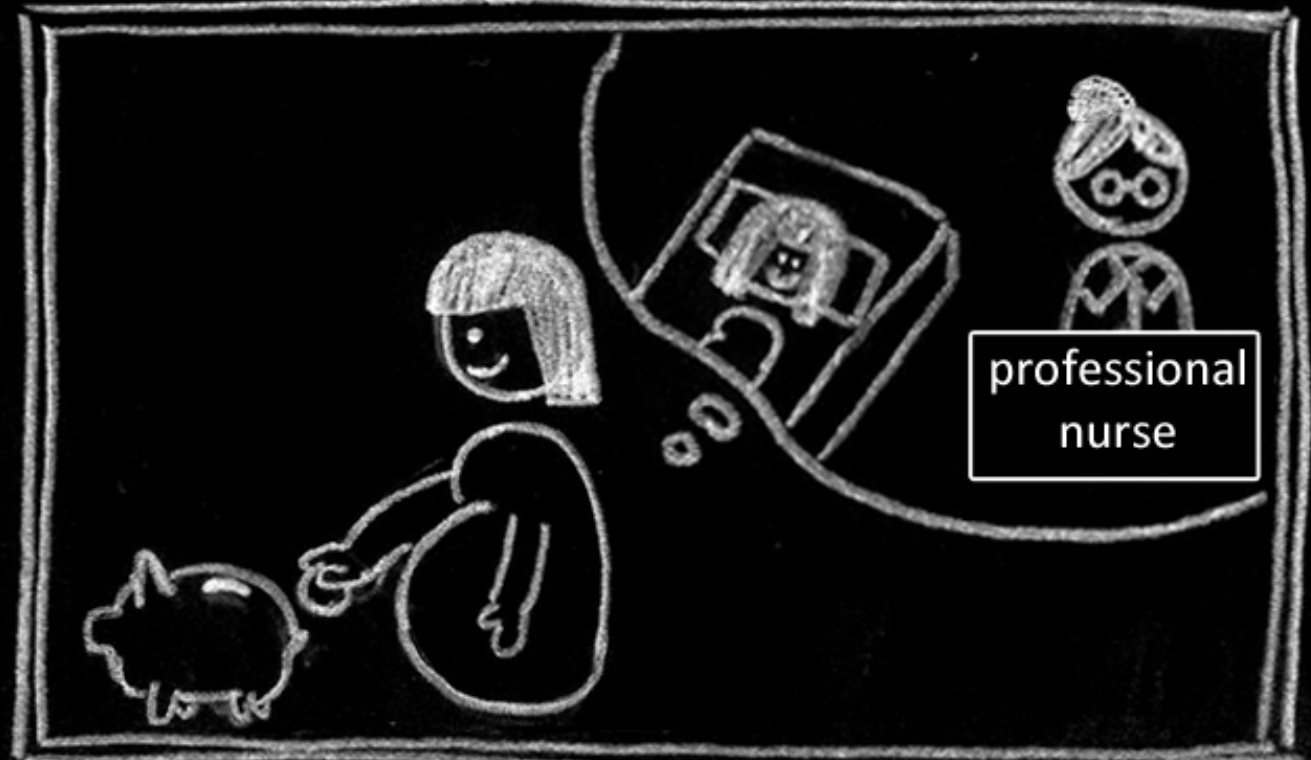
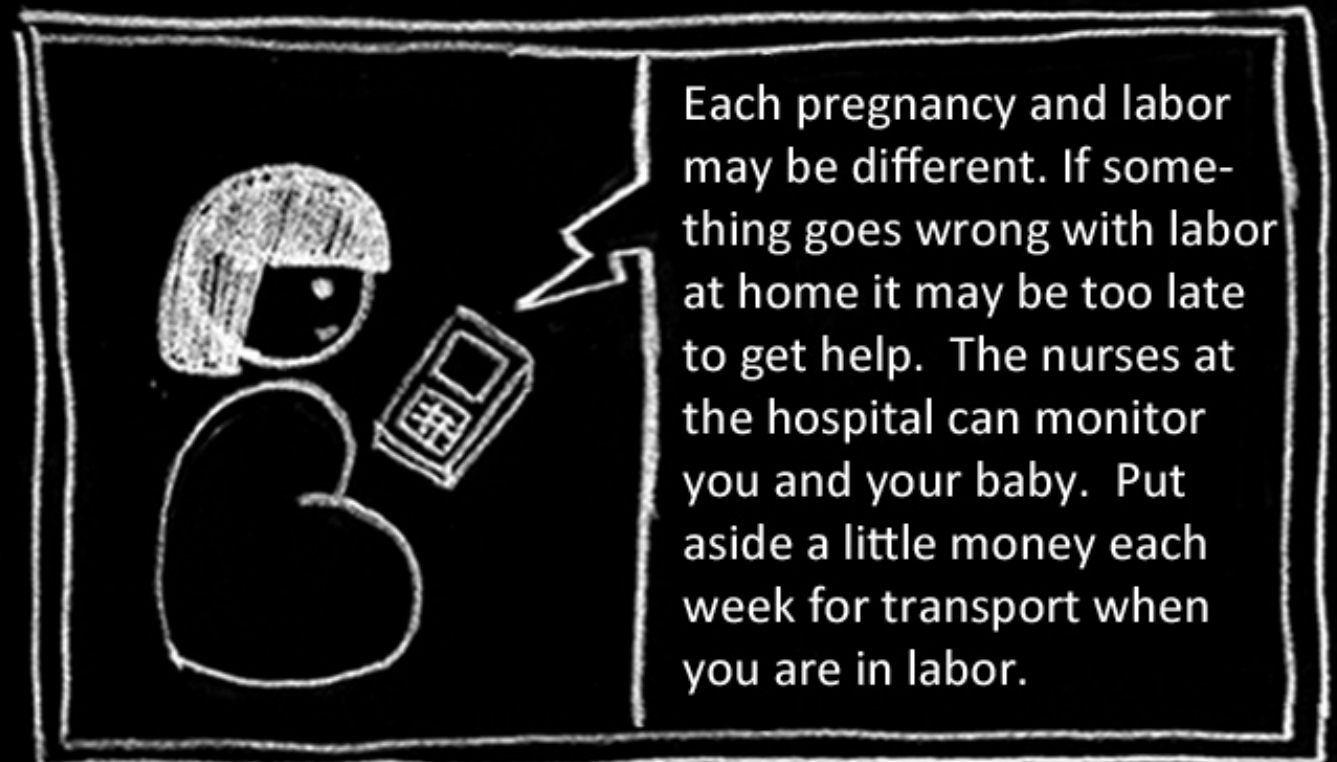
Scenario 2

before



Scenario 2

after



Architecture

- Server, GUI application, SMS tool
- Interactions
 - Server controls messages and organizes responses
 - Application modifies messages and handles responding
 - SMS tool handles sending and receiving messages
 - Uses internet and mobile networks
- Women use cell phones to interact with system
 - Do not pay to receive texts in Kenya

Next Steps

- Prototype will be low-fi but clickable - PowerPoint or Axure
- How will you iterate on your prototype and the UI?
 - We will show our prototype to Dr. Unger and get her feedback
- Issues
 - Scalability of response handling
 - Security of general system