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Outline

- Background
- Project Objectives
- Project Design
- Project Implementation
  - Major progress and milestones achieved
  - Major successes or potential for further success
- Challenges and lessons learnt
- Sustainability
- Conclusion and next level
Fostering innovations

I take this opportunity to greet and welcome you to this session

I thank the CRS 2015 ICT4D Conference organizers for accepting me to speak.

Title: ICTs for reducing maternal preventable deaths.

About RCRA
RCRA is a charity organisation operating in south and western Uganda, works to improve the lives of women and children through Primary health care, education, clean water and sanitation, disaster relief system and emergence response, economic empowerment, health rights, ICT4D, Research, Advocacy, Food and Nutrition, child sponsorship and Climate change.

RCRA Mission:
Empowering communities for economic development, improved health, water, climate resilience by accelerating access to information to pursue social change through ICTs.
According to statistics from Uganda Communications Commission, the number of telephone subscribers had reached 10 million in March 2009 — up from more than 8.7 million in December 2008 — which was about one-third of the country’s population.

Approximately **800** women die of childbirth or pregnancy-related complications every day in the world.

In Uganda, maternal mortality remains high at 480 maternal deaths per 100,000 live births.

- This is in part due to inadequate access to health care information, lack of a functioning referral system, inadequate capacities of skilled personnel, poor interpersonal communication in antenatal care.
- Yet there are mobile phones, community radio FM's, projector, social media, Television, internet, desktop computers converging all those ICT tools would step in and reduce to zero all preventable maternal deaths.
Project Objectives

The project primary objective

• To increase access to primary healthcare information, improve maternal health and reduce child mortality through information communication technologies.

Specific objectives pretested.

• To investigate and act on the challenges mothers face at birth and during pregnancy in south and western Uganda.

• To assess the healthcare seeking behaviours at the health centres by pregnant women.

• To investigate the ability of pregnant women to access a mobile phone, call, read and response to a received healthcare message.

• To test m-interaction between the pregnant women, village health workers, government ambulances and the referral hospitals during at birth emergency.

• To investigate on the availability of antenatal care services at health centres and the adherence to the 4th appointments by the pregnant women.
Project Design

The project was pretested using information communication technologies like the mobile phones, radio FMFs, Laptops and web platform.

Mapping of pregnant women was done to locate their homes. E-questionnaires were administered to mine patients bio data including last safe menstruation period (LMP).
Project Implementation

My idea was to test establishment of better record keeping and communication between health care facilities, from the grass roots level to dispensaries, health clinics and district hospitals, and to develop a hybrid web/mobile tool to record and track maternal and health data, visits and follow ups and a toll free line for emergency response.

The outreach to the grass roots level was to be carried out by identifying Village health workers (VHTs) and equipping them with basic knowledge on reproductive as well as maternal health and mobile phones.

The web/mobile system was meant to be used to deliver first line support health services (such as basic information and education) through mobiles, as distance and accessibility were considerable hurdles to accessing health care.
- Major progress and milestones achieved

- RCRA trained health workers and community members to improve the availability of health related education among health workers and between health workers and clients.

- Village Health Teams (VHTs) in the pilot project paid 381 visits to pregnant women and increased the local clinic attendance with 18%.

- For the same period the 10 VHTs paid 255 visits to mothers with children under the age of five and increased the clinic attendance of this group with 23%.

- VHTs were trained in how to use the mobile phones, how to make referrals as well as in basic medical skills, for example how to identify and select number of symptoms and signs of danger during pregnancy.

- Pregnant women can access a phone within three households.
- Potential for further success

- The project also trained 18 health workers in the district to participate in the project.
- The primary health care outreach turn up calls for further outreaches.

• The 4 months pilot improved communication between the facilities and additional avenues to gather information and bring more women and children under the age of five in contact with trained health care professionals.
Risks and risks management

- One of the major challenges of the project itself was different forms of technical and infrastructure limitations. The health workers were not familiar with ICTs. *We resolved this by lecturing the district medical officers on the uses of ICT.*

- The need for information and education in health issues proved to be substantial, but the technical skill and penetration of ICT at the start of the pilot was not sufficient for this material to be delivered in eLearning form. This was due to scarce resources to have the platform in place(web/mobile tool)
Lessons learnt

During the initial visits to the field it became apparent that the Village Health Workers involved in the pilot project needed some training in how to approach mothers and children as well as reproductive, maternal and child health (especially on how to identify a select number of symptoms and signs to be able to refer the woman to a health facility).

This was done in collaboration with certified health workers from the district hospitals, who would also support and follow up during the course of the project test.

The project success lies on the willingness of the beneficiaries to welcome the project and collaboration with the village health structures.

The platform messages alone are not enough, there was need to introduce a toll free line to easy remote communication between the Pregnant women and the Clinical officer. When you send an sms, you will have limited proof whether or not the sms reached the client as compared to a direct toll free call approach on follow ups for ANC 4th visit.
Sustainability

- The most lasting impact of the pilot project was the increased 4th attendance at health care facilities by pregnant women and mothers with children under the age of 5 years.

- In terms of financial sustainability, we have developed a full proposal for funding to implement this idea in Kabarole, Kyenjojo, Kyegegwa and Kamwenge.

- We have a fundraising strategy to seek for funding from multinational and national maternal, newborn and child health and ICT4D donors.
Conclusion

- The project is sufficient to improve patient attendances at healthcare facilities and improve the maternal and child health information flow.

- The trainings provided to the community health workers have not only increased the attendance at health facilities but also underscored the importance of information and health care in the communities.

- While the project initially included aspects of outreach and eLearning to the health workers the core success and promised impact of the project...
Way forward

- During the pretest phase, I realized that knowing the LMP of the pregnant women would be an entry point to ending all preventable maternal deaths.
- Last menstruation period (LMP)-will help us to estimate the pregnant women’s anticipated safe dates of delivery.
- LMPs will systemically guide us in diffusing ANC reminders and healthcare information to the pregnant women respectively.
- The toll free line will facilitate referrals, emergence responses and ease patients to health workers remote interaction.
- The project will use available web/mobile platforms to collect 100,000 pregnant women/client records, track visits and follow-ups by the village health workers.
### The planned use of technology by different groups in the project.

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Technology</th>
<th>Purpose</th>
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</thead>
<tbody>
<tr>
<td>Village Health Workers (VHTs)</td>
<td>Use mobile Java enabled basic phones</td>
<td>To record patient data and follow up with the women and children in their communities. To receive information to convey to the community.</td>
</tr>
<tr>
<td>Dispensary level health workers</td>
<td>Use Java enabled basic mobile phones to</td>
<td>To register new patients and confirm visits. To send requests to join eLearning</td>
</tr>
<tr>
<td>Health center health workers</td>
<td>Use mobile phone and computers</td>
<td>To record new clients, confirm visits and follow up. To send requests to join eLearning</td>
</tr>
<tr>
<td>District hospital health workers RCRA</td>
<td>Use the web platform (through computers) GPS</td>
<td>To confirm visits, record additional information, and document further actions taken. To send enrollment requests for eLearning. To locate pregnant women and newborn.</td>
</tr>
<tr>
<td>Trimester</td>
<td>Decision Information contents to be sent by sms and voice call to rule the pregnant women using the platform.</td>
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</tr>
</tbody>
</table>
| First     | Send `< LMP:ddmmyyyy> <mobile number> <Name>` to `<xxxxx>`<br>  
Mrs.<name>, thank you for registration. Your probable date of delivery is dd/mm/yy. You will receive periodic advice for safe pregnancy. Type ”No” & send to `<xxxxx>` to cancel registration. By MoH, RCRA. |
| First     | ≥ 60 to ≤90 days Mrs.<name>, every pregnant mother should consult a health worker or doctor at least 1 time in 1st 3 months. If you did not consult yet, do it now & follow advice. Take rest. Avoid heavy work. Start saving money for child delivery. By MoH, RCRA. |
| Second    | 180 days Mrs.<name>, Consult health worker or doctor. Do it if you have not done yet. Take TT vaccine, iron-folate table & additional food. Maintain personal hygiene. By MoH, RCRA. |
| Third     | 240 days Mrs.<name>, go to health worker or doctor to check condition of pregnancy. Test urine for protein/glucose. Make a good plan for safe delivery, good in a health center. By MoH, RCRA. |
| Third     | 255 days Mrs.<name>, your tentative delivery: dd-mm-yyyy. Consult health worker or doctor. Take preparation for safe delivery. Make sure a trained person attends your delivery, good in health center. After delivery, check your & newbor s health from health workers or doctor within 48hrs. May Almighty help you. By MoH, RCRA. |
Projected Partners

- RCRA proposes to partner with the donors and the Government of Uganda (GoU)- Ministry of Health (MoH)
- We plan to work with existing districts health structures to minimize the cost of operation and achieve a big impact.
- This motivated RCRA to design this ICT4D project basing on the assumption of the available government structures for referrals and at birth emergence response.

We humbly welcome your support

http://rcradvocacy.blogspot.com

Thank You for listening.