

Socio-cultural drivers for maternal health outcomes in Uganda



Introduction

There is no bigger disparity for any health care outcome between African and high-income countries than the morbidity and mortality of mothers and their babies. Disorders of pregnancy are more common and orders of magnitude more lethal for women in Sub-Saharan Africa (SSA) than in the UK. In Uganda, at least 16 women die everyday due to complications of pregnancy and at delivery.

Action to reduce these rates has been largely restricted to the fields of medicine and public health. At the same time, there is a spectrum of challenging social and cultural factors that are an inescapable context within which maternal mortality occurs. Effective interventions require a deep understanding of how social groups experience and perceive the medical problem. However, the challenge has been to design research methods that effectively engage hard-to-reach populations, are replicable and scalable and which provide valid empirical socio-cultural evidence.

Africa's Voices pilot study in 2015 used an innovative approach to understand beliefs concerning complications during pregnancy and at delivery, including; perceptions of risks, shared norms and practices, and perceived barriers to seeking medical help. Our focus was on pre-eclampsia in Kampala, Uganda - a condition that particularly affects African women and is fatal without medical intervention.

Results

To identify beliefs about the causes of complications during pregnancy and at delivery, we developed a coding scheme using manual and automatic techniques. There are 16 distinct themes (fig.3), categorised by locus of causality.

A. The mother (internal locus of causality):

1. **Mother's lifestyle** (poor diet, lack of exercise, promiscuity, overworking)
2. **Mother's biology/genetics** (too young/old, genetics)
3. **Delays in seeking healthcare** (missed check-ups, inaction) – *"She took long without going for medication. My mother passed away because of that"* - Woman, 25, Kampala
4. **Mother's negligence** (irresponsible, lazy)
5. **Mental/psychological issues** (stress, denial, fear, overthinking) – *"Over reacting or too much getting angry has done her bad coz even me I have lost three pregnancies due to the same problem"* - Woman, 31, Mukono
6. **Medical condition of the mother** (blood pressure, HIV, malaria, infections)
7. **Family Planning** (the perceived negative effects of)
8. **Substance abuse** (alcohol, drugs)

B. The government (external locus of causality):

9. **Lack of medical resources** (lack of clinics, hospital far away, scarcity of doctors)
10. **Low quality of professionals** (rudeness, bribing, abuse, unprepared professionals) – *"Is Mulago a government hospital coz when I took my pregnant daughter there they asked money from me"* - Anonymus
11. **Mother's lack of education/knowledge** (not enough information, ignorance)
12. **Immediate poverty** (poor sanitation, cannot afford travel – *"We are very far from the hospital even the transport is too expensive in my district"* - Woman, 51, Gulu

C. The husband or others (external locus of causality):

13. **Quality of relationship with the husband** (absent husband, unsupportive, adultery) – *"When I told my husband that I was pregnant to our second born, he said that I should abort it but when I refused, he stopped giving me monetary support"* – Woman, 24, Kampala
14. **Violence/abuse** (rape, domestic abuse)

D. Supernatural (external locus of causality):

15. **Traditional beliefs** (witchcraft, family cursed, traditional remedies) – *"For me I think it was just demons as usual"* - Woman, 24 Nakasongola
16. **Religious beliefs** (not praying enough, lack of faith)

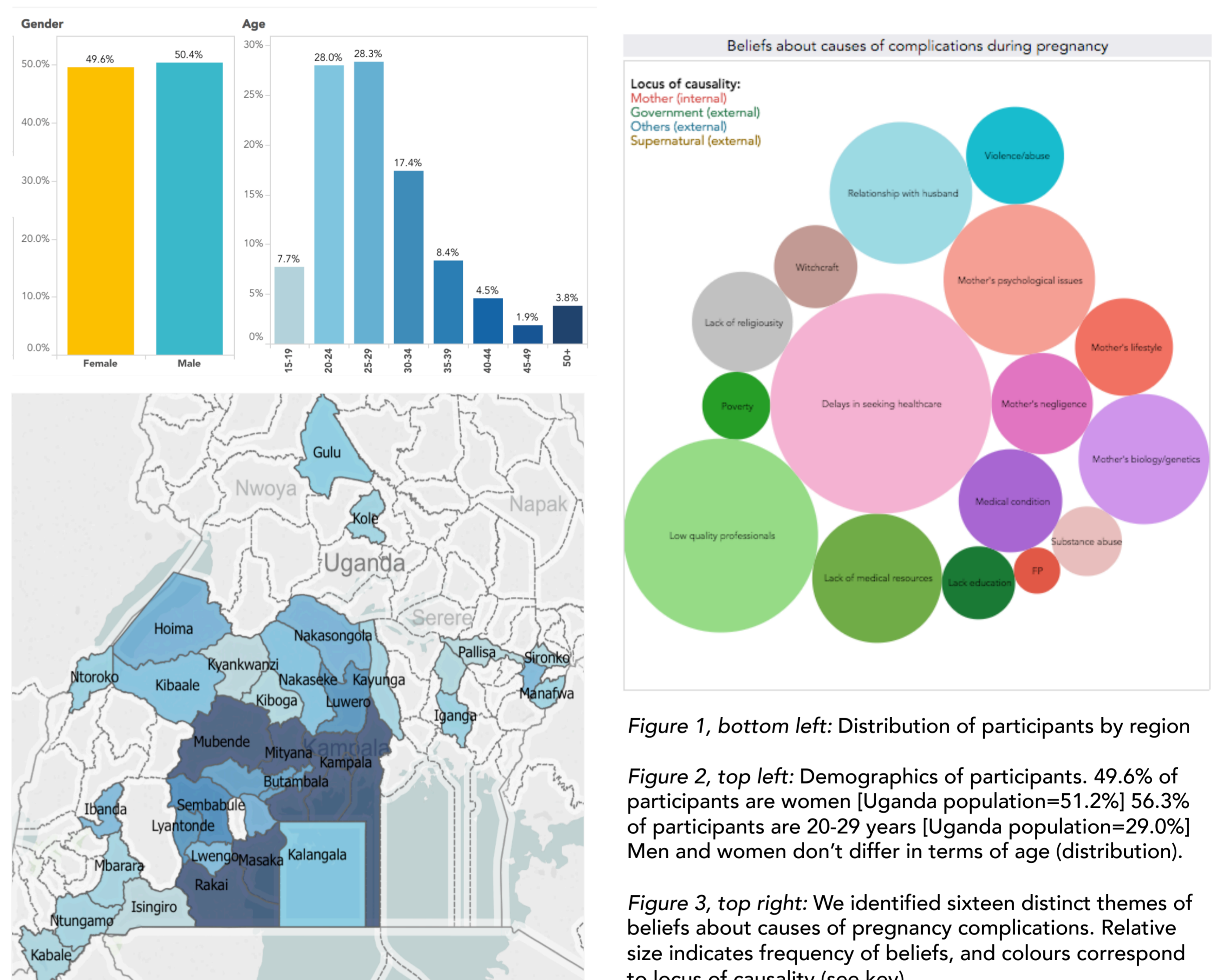
The most commonly perceived causes for complications during pregnancy are: Delays in seeking healthcare; Low quality professionals; Mother's psychological issues; Relationship with husband; Mother's biology/genetics. Men and women generally agree with the perceived causes of complications during pregnancy. But men are (%) more likely than women to attribute causes to: Mother's biology/genetics (23%); Mother's negligence (30%); Direct poverty (34%) and Witchcraft (110%). In turn, women are (%) more likely than men to attribute causes to: Mother's lifestyle (36.7%); Low quality of professionals (18.7%); Violence/domestic abuse (14.4%); and Lack of religiosity (12.1%).

Summary

In 2015 Africa's Voices carried out an interactive radio pilot in Uganda, gathering the views of over 2000 Ugandans (49.6% female) over four weeks on maternal health. The radio shows revolved around testimonials of women who had pre-eclampsia during their pregnancy and questions related to causes for their health complications.

This pilot revealed a range of socio-cultural obstacles to the demand of health services by pregnant mothers in Uganda. We identified gender variations in perception of internal (related to biology or supposedly dispositional traits of the woman) vs external causes (linked to low quality of health care, lack of support from husband or complications during pregnancy). For example, our research revealed that men tend to perceive internal causes, women more external. In turn, men tend to perceive themselves and their partners as not at risk, and that complications are more likely to happen to women other than their partner.

Our pilot taught us many lessons about the best ways to reach and engage Ugandans, especially women, through interactive radio and SMS. Results demonstrate the potential of radio audiences to generate data and Africa's Voices methods to provide rich, impactful insights into the socio-cultural beliefs related to medical conditions and practices.



Methods

Africa's Voices methods are grounded in African social realities, opting for low-tech but widely used communications channels and working with local languages and natural forms of expression. For this pilot, we partnered with three Luganda radio stations in Kampala, the capital city of Uganda. Over four weeks, each station broadcast a weekly interactive show that included a testimonial from a woman who had experienced pre-eclampsia, and a related question for the audience to respond to:

- Show 1: What do you think caused Nangoma's problems?
- Show 2: What can be done so that other young girls willing to give birth don't to go through the experience of Birungi?
- Show 3: How would your community explain Nanyonga's problem?
- Show 4: Did you or your wife deliver from the hospital? Why, or why not?

Listeners could participate by sending a free text message to Africa's Voices SMS platform. Some messages were read live on air. Participants received an SMS survey in reply that asked for their demographics and a topic-related question.

We gained 4462 SMS during the one month pilot study from over 2000 people. 49.6% of participants were women [Uganda population=51.2%] and 56.3% of participants were 20-29 years [Uganda population=29.0%] (see fig.1) . Most of the participants were from Central region of Uganda (see fig. 2), though some participants were from as far as Gulu (N), Ntoroko (W), Kabale (SW) and Sironko (E). Most messages were in Luganda, and some in English, requiring an innovative approach to analysis. We combined in-depth qualitative techniques with large-scale automated analysis.

1. After parsing the SMS data, we explore the messages with native speakers through the Africa's Voices interface.
2. We discovered a maternal health lexicon through co-occurrence networks for keywords. We collapsed keywords into themes and subthemes.
3. A subset of messages was manually labelled into themes by native speakers of Luganda and AVF researchers.
4. Based on keywords and rules from manual labelling, the remaining messages were automatically coded into themes.
5. Multiple iterations of testing and learning to achieve maximum precision of the coding process.