Birthing Trends in Sierra Leone

EXAMINING THE FACTORS THAT DETERMINE WOMEN'S CHOICES TO DELIVER IN FACILITIES OR AT HOME

Public Health Major
Class of 2019

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Research Proposal
19th September 2018

Introduction

Throughout time, midwives have provided the majority of maternity care around the world, however, the late 1800s and early 1900s represented a time of change. The development of forceps in the mid-1700s, which were only used by physicians, introduced the doctor to maternity care" (Leggitt 2016, p.1). Historically, child birthing included use of various positions, included straws on the ground for absorption and birthing chairs or stools (Greene 2015). It was a sacred ritual process for women assisted by women. Child birth has always been, in every time, place and culture, one of the leading causes of death of women and the leading cause of death of new-borns.

With increasing knowledge in the process of childbirth, advanced monitoring systems became available to recognise and address complications to prevent adverse outcomes. Obstetric intervention originally consisted of extraction of the baby, usually when breech, to save the mother's life in obstructed labour (Drife 2002). However, according to the Merriam Webster dictionary, obstetrics has now become a branch of medical science that deals with pregnancy, childbirth, and the postpartum period. Obstetrix was the Latin word for midwife: it is thought to derive from obstare (to "stand before"), because the attendant stood in front of the woman to receive the baby. Only in the 20th century did the subject taught in medical schools change its name from "midwifery" to "obstetrics", perhaps because a Latin name seemed more academic than the Anglo-Saxon, derived from mid, "with", and wyf, "woman" (Drife 2002). Much of what we know and take for granted in relation to hygiene and bacterial infection was largely unknown until the mid to late 19th century and was responsible for a large number of maternal deaths. Thus, armed with this simple knowledge, birthing and operating rooms are now much safer places for women and babies. Similarly, advanced technological developments and an array of

modern investigations and equipment, in particular ultrasound, have transformed the practice of Obstetrics and gynaecology in the last 50 years. Even with these improvements maternal and infant deaths remain high in many areas of the world.

Montagu, Yamey, Visconti, Harding and Yoong (2011) conducted a secondary analysis of maternal delivery data from Demographic and Health Surveys in 48 developing countries from 2003 to 2011. From their study, they concluded that "in developing countries, most poor women deliver at home. This suggests that, at least in the near term, efforts to reduce maternal deaths should prioritize community-based interventions aimed at making home births safer" (Montagu et al. 2011, p. 1). From the results only about a quarter of the poorest women reported lack of facility access (i.e. the facility was too far away, or was closed, or the woman did not know where it was located) as the chief reason for delivering at home. About two thirds of the participants who were of the poorest women reported "not necessary" as the chief reason. "This motivation for delivering at home is likely to be influenced by social and cultural beliefs, at the household and community levels, related to the value of facility-based care" (Montagu et al. 2011). In this study, cost was rarely cited as a motivation for delivering at home. In this study differences in social and cultural settings of the countries were not accounted for. It also did not touch on ways to make home delivery safer.

Bohren, Hunter, Munthe-Kaas, Souza, Vogel and Gülmezoglu (2014) conducted research in 17 countries and they found that the emphasis placed on increasing facility-based deliveries by public health entities has led women and their families to believe that childbirth has become medicalized and dehumanized. "When faced with the prospect of facility birth, women in low- and middle-income countries may fear various undesirable procedures such as unfamiliar birthing positions, intrusive vaginal exams and unnecessary surgical interventions and may

prefer to deliver at home with a traditional birth attendant. Given the abundant reports of disrespectful and abusive obstetric care highlighted by this synthesis, future research should focus on achieving respectful, non-abusive, and high-quality obstetric care for all women" (Bohren et al. 2014, p.17).

The push for facility-based births has also increased stigma; for example, the fear of unwanted HIV-status disclosure may prevent women from accessing facility delivery, as the lack of privacy in maternity wards impedes confidentiality (Turan Hatcher, Medema-Wijnveen, Onono, Miller, Bukusi, 2012). Many communities view pregnancy and childbirth as the outcome of a marital relationship, thereby potentially stigmatizing and disempowering unwed women seeking facility delivery. Delivering at home was a desirable choice for unwed women or adolescents to avoid embarrassment or discrimination at a facility, particularly because these women were often lacking emotional and financial support from their partner or parents (Oyerinde, Harding, Philip, Garbrah-Aidoo, Kanu, Oulare, Shoo and Daoh 2012).

Culture and faith play very significant roles in perceptions of ill health, perceptions of care received and in predicting future use of health facilities. Some women report that they did not consider pregnancy and delivery as illnesses (Gebrehiwot, Goicolea, Edin and Sebastian 2012). They perceived delivery as a natural process, an ordinary event that has been managed at home for generations. Previous non-complicated home deliveries further helped to reinforce this perception of delivery as a non-illness process (Gebrehiwot et al. 2012). High work load (83.2%), poor support from facility management (40%), and the discomfort of the work environment (28%) revealed by a study in Ethiopia showed how difficult the facility-based births are for medical professionals (Asefa and Bekele 2018).

Research Proposal
19th September 2018

Most women experience normal childbirth, and most babies are born healthy. Complications during childbirth, however, often cannot be predicted. For this reason, all women and babies require access to childbirth care from skilled care providers. Timely recognition and management of complications during childbirth is important, as is avoiding unnecessary medical interventions. The WHO Safe Childbirth Checklist Implementation Guide for Improving The Quality of Facility-based Delivery for Mothers and New-borns (World Health Organisation 2015) has a check list of items, which when utilized effectively can lead to the proper health of the mother and baby. However, in most developed settings facilities cannot fully provide all the items and services on the check list.

The push in facility-based births helps with routine infection prevention practices, using a partograph as an effective tool for monitoring the progress of labour, active management of the third stage of labour, hygienic cutting and tying of the umbilical cord, resuscitation if needed, essential new-born care (warmth, early and exclusive breastfeeding, and cleanliness), prevention of mother-to-child transmission (PMTCT) of HIV. It also increases client satisfaction and comfort, for example providing privacy, limited vaginal exams, permitting free movement, food and drink intake, encouraging use of a social companion at birth, and establishing a supportive relationship.

Therefore, I want to assess the experience of women who have had facility-based delivery versus home- based delivery in Sierra Leone and the reason for that decision.

Goal of the project

The goal of this project is to highlight the reasons for the choices women make when it comes to delivery in Sierra Leone. I hope that through my research and its replication, health stakeholders in Sierra Leone will be able to create projects that are able to better cater to the

needs and issues that my findings will present. I also hope that this paper will be the starting point for further research for me to personally engage in at the graduate level.

Justification

This project will be an excellent capstone for my public health self-determined major as my topic falls within the realm of maternal and child health. I was able to practice my survey developing skills and field work over the summer in order to collect data. I will also be able to draw on my experiences studying maternal and child health during my off-campus exchange and on campus classes. Public Health as a discipline requires observation of the barriers to health from through several lenses, attempting to prevent illness, limit disparities and promoting wellness. This research paper will draw on the perspectives of women in Sierra Leone on what is causing the disparities in choices for delivering or to simply assess if disparities exist.

Methods

During the summer, I collected data in Sierra Leone through a survey. Due to different levels of literacy, I translated and orally asked questions of participants. I then filled out their responses to the survey questions in the google form I had set up. The survey (see Exhibit 1) questions were approved by the IRB board of Skidmore College and the Sierra Leone Ethics and research committee.

Participants were randomly selected from different locations around Sierra Leone. Every day, I would choose a location that I was able to seat down with participants and ask them questions with some privacy. I would walk up to the women who seemed like they had a few

minutes to spare. I always began by introducing myself and telling them about the project. Each participants was approached and asked if they had any children younger than 10years old and if they would take a few moment to answer some questions about their delivery experience. Based on one's willingness to participate, the consent form was translated and read out loud and the participant acknowledge their rights. The questions in the survey were then asked and the participant's responses typed into the google form. Each participant was then given a local approximation of $1 for their participation. Some would also recommend other women they knew around who also had children under 10years.

I have 100 responses to the surveys, I will start my analysis post the approval of my proposal. As my research focuses on factors leading to choices, I will look at factors such as ethnic group/tribe, age of mother and finances as variables that could predict who chooses to deliver at home and who chooses to deliver at a facility i.e. hospital, clinic. My dependent variable will be satisfaction which is measured in questions 12 and 14 (see exhibit 1) and my independent variable will be place of delivery. I will also create nested models that will control for tribe, income, age and previous experience of birthing (ie number of children). I will use dichotomous regression to assess the most significant predictor.

Based on this analysis, I will then proceed to write my research paper. I have left time to collect more data or new data for during winter break, to be able to refine and strengthen my research. With the guidance from my first and second reader, we will discuss the structure and presentation of my findings.

Timeline

October: Approval of research Proposal

1st and 3rd week in November: Meetings with first and second reader to commence data analysis.

4th week in November: Review of finding thus far. Reflection in terms of the sufficiency of data.

1st and 2nd week in December: If more data is needed, work on data collection methodology. If data is sufficient, commence writing of first draft.

1ST week in February: Methods and result section completed

2nd week in February: Methods and result section reviewed.

3rd and 4th week in February: Introduction completed and reviewed

1st to 3rd week in March: Analysis and conclusion completed

4th week in March: Analysis and conclusion reviewed

1st week in April: First draft edits and review

2nd week in April: Final edits and review. **Paper due**

Lydia Hammond-Jones

Research Proposal
19th September 2018

References

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Gil-Gonzalez D., Ruiz-Cantero M. T., Alvarez-Dardet C. 2009. "How political epidemiology research can address why the millennium development goals have not been achieved: Developing a research agenda." *Journal of Epidemiology and Community Health. 63:278–280.* doi:10.1136/jech.2008.082347

Greene, E. 2015. "Pregnancy and Childbirth for the Historical Author." Retrieved March 01, 2018 (http://www.elenagreene.com/childbirth.html)

Leggitt, K. 2016. "How Has Childbirth Changed in This Century?" Retrieved March 01, 2018 (https://www.takingcharge.csh.umn.edu/explore-healing-practices/holistic-pregnancy-childbirth/how-has-childbirth-changed-century#)

Montagu, D., Yamey, G., Visconti, A., Harding, A., & Yoong, J. 2011. "Where Do Poor Women in Developing Countries Give Birth? A Multi-Country Analysis of Demographic and Health Survey Data." Retrieved March 01, 2018 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3046115/#pone.0017155-Bustreo1)

Oya C. 2011. "Africa and the millennium development goals (MDGs): What's right, what's wrong and what's missing." *Revista De Economia Mundial. 27:19–33*. Retrieved March 01, 2018 (http://www.sem-wes.or)

Oyerinde K, Harding Y, Philip A, Garbrah-Aidoo N, Kanu R, Oulare M, Shoo R, Daoh K. 2012. "Barriers to Uptake of Emergency Obstetric and Newborn Care Services in Sierra Leone: A Qualitative Study." *Journal of Community Medical Health Education*. Retrieved March 01, 2018, (https://www.researchgate.net/profile/Koyejo_Oyerinde/publication/271101938_Barriers_to_Uptake_of_Emergency_Obstetric_and_Newborn_Care_Services_in_Sierra_Leone_A_Qualitative_Study/links/54eb39ec0cf25ba91c864bec.pdf)

Turan, J. M., Hatcher, A. H., Medema-Wijnveen, J., Onono, M., Miller, S., Bukusi, E. A., . . . Cohen, C. R. 2012. "The Role of HIV-Related Stigma in Utilization of Skilled Childbirth Services in Rural

Kenya: A Prospective Mixed-Methods Study." Retrieved March 01, 2018 (http://journals.plos.org/plosmedicine/article?id=10.1371%2Fjournal.pmed.1001295)

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Annotated Bibliography

Benova, L., Macleod, D., Footman, K.,..& Campbell, O. M. 2015. "Role of the private sector in childbirth care: Cross-sectional survey evidence from 57 low- and middle-income countries using Demographic and Health Surveys." *Tropical Medicine & International Health, 20*(12), 1657-1673. doi:10.1111/tmi.12598 Retrieved September 29th 2018.

This research highlighted that good-quality delivery care is one recognised strategy to address the gap of maternal mortality rates decreasing globally but remaining off track. This study examines the role of the private (non-public) sector in providing delivery care and compares the equity and quality of the sectors. It found that must women seek care in the private sector and therefore it is imperative to fully engage with the diverse array of providers in the private sector to promote quality intrapartum care, which is inextricably linked with achieving the Sustainable Development Goals and

universal health coverage. The study analysed data from 57 countries, which represented a total population of 3 billion people. There were 30 countries in the sub-Saharan Africa region, nine in the Middle East/Europe region, 10 in the Asia region and eight in the Latin America region. The included countries represented 83%, 29%, 88% and 20% of the populations of these four regions, respectively. The combined sample consisted of 865 547 women aged 15–49 years old, 337 208 of whom had a live birth in the recall period and constituted our analysis sample.

Bohren, M. A., Hunter, E. C., Munthe-Kaas, H. M.,...& Gülmezoglu, A. M. 2014. "Facilitators and barriers to facility-based delivery in low- and middle-income countries: a qualitative evidence synthesis." Retrieved September 19th 2018, (https://reproductive-health-journal.biomedcentral.com/articles/10.1186/1742-4755-11-71)

This systematic review synthesizes qualitative evidence related to the facilitators and barriers to delivering at health facilities in low- and middle-income countries. Its aim was to provide a useful framework for better understanding of how various factors influence the decision-making process and the ultimate location of delivery at a facility or elsewhere. The researchers conducted a qualitative evidence synthesis using a thematic analysis. Searches were conducted in PubMed, CINAHL and gray literature databases. Thirty-four studies from 17 countries were included. Findings were organized under four broad themes: (1) perceptions of pregnancy and childbirth; (2) influence of sociocultural context and care experiences; (3) resource availability and access; (4) perceptions of quality of care. Key barriers to facility-based delivery include traditional and familial influences, distance to the facility, cost of delivery, and low perceived quality of care and fear of discrimination during facility-based delivery. The emphasis placed on increasing

facility-based deliveries by public health entities has led women and their families to believe that childbirth has become medicalized and dehumanized. When faced with the prospect of facility birth, women in low- and middle-income countries may fear various undesirable procedures and may prefer to deliver at home with a traditional birth attendant.

Chinkhumbal J., Allegri M., Muula A., Robberstad B. 2014. "Maternal and perinatal mortality by place of delivery in sub-Saharan Africa: A meta-analysis of population-based cohort studies." *BioMedical Central Public Health*. Retrieved September 28th, 2018 (https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-14-1014)

In this study, they attempted to estimate the risk of mortality for home deliveries compared to facility-based deliveries. The study illustrates the complexity of the relationship between risk of mortality and place of delivery. At an individual level, evidence was found for the increased chance of perinatal losses following home compared to facility-based deliveries. Regarding maternal mortality, the results show that pregnant mothers delivering in facilities have a significantly higher risk of experiencing a maternal death than women delivering at home. From the research, they observed that high risk for maternal deaths at facilities makes it problematic to use as an outcome measure to assess the potential impact of interventions that promote facility-based deliveries. The impact of interventions aimed at increasing facility-based deliveries may therefore be better estimated in relation to reductions in morbidity, not just mortality.

Drife, J. 2002. "The start of life: a history of obstetrics." Retrieved September 18th, 2018. (http://pmj.bmj.com/content/78/919/311)

This article gives the history obstetrics and provides a good background of the reasons for the methods and belief systems that exist in delivery.

Gebrehiwot, T., Goicolea, I., Edin, K., & Sebastian, M. S. 2012. "Making pragmatic choices: women's experiences of delivery care in Northern Ethiopia." Retrieved September 19th, 2018 (https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/1471-2393-12-113)

This study explores women's experiences and perceptions regarding delivery care in Tigray, a northern region of Ethiopia, and enables us to make suggestions for better implementation of maternal health care services in this setting. The research method included six focus group discussions with 51 women to explore perceptions and experiences regarding delivery care. The data were analysed by means of grounded theory. I am interested in formatting my paper in a similar structure as this. The thematic structure simplifies the complex concepts discussed.

Montagu, D., Yamey, G., Visconti, A., Harding, A., & Yoong, J. 2011. "Where Do Poor Women in Developing Countries Give Birth? A Multi-Country Analysis of Demographic and Health Survey Data." Retrieved September 15th, 2018 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3046115/#pone.0017155-Bustreo1)

Montagu et al are from the Global Health group, university of California San Francisco, World Bank and RAND cooperation. This study was conducted from 2003 to 2007 via secondary analysis secondary analysis of maternal delivery data from

Demographic and Health Surveys in 48 developing countries including Sierra Leone. The research was conducted because evidence-based clinical and preventive interventions to reduce this annual death toll are well documented. However, there is in fact considerable disagreement about how best to deliver these interventions. There are ongoing debates about whether more lives could be saved by delivering these interventions via scaled-up health care facilities or by scaling up community-based initiatives. This is especially important because in developing countries majority of the population are poor and they would be most affected by community-based initiatives or the lack thereof. This research looks at choices/options for delivery based on SES and this aligns with my topic. The paper is digestible and has lots of graphical representation of results making the understanding simpler. The study had two main findings. First, they found that the richest women in developing countries were much more likely than the poorest to report giving birth in a government facility. Second, a very high proportion of poor women in SSA, South Asia, and South East Asia reported giving birth at home. Contrary to other studies it gives us the numbers but not the motivation being them. For e.g; women who thought it was unnecessary to go to the hospital did not give any more qualitative data regarding that thought process. However, the findings suggest that efforts to reduce maternal and neonatal deaths among the poor should prioritize community-based interventions aimed at making home births safer. This study will support my paper by contributing qualitative data.

Moyer, C., Dako-Gyeke, P. and Adanu, R. 2013. "Facility-based delivery and maternal and early neonatal mortality in sub-Saharan Africa: A regional review of the literature." *African*

Journal of Reproductive Health. Retrieved September 29 2018. (https://www.ajol.info/index.php/ajrh/article/view/93744/83167)

This paper was a systematic literature review that identified studies documenting the factors associated with Facility Based Delivery, stratified by region. Rates of skilled birth attendance, facility delivery, maternal mortality, and early neonatal mortality were compared across nations and regions. The review demonstrated variability in the factors affecting facility-based delivery across regions and nations. Given enormous differences in economic development, government involvement in providing low-cost or free health coverage, and historical inclusion of traditional birth attendants in delivery practices, it is not surprising that the nations of Africa face different challenges from one another when encouraging women to deliver in facilities. Nonetheless, the review highlighted two relatively under-studied factors impeding the use of health facilities for delivery: lack of confidence in the healthcare system and cultural beliefs and norms.

Moyer, C. and Mustafa, A. 2013. "Drivers and deterrents of facility delivery in Sub-Saharan Africa: a systemic Review." *Reproductive Health Journal*. Retrieved 29 Sep. 2018 (https://reproductive-health-journal.biomedcentral.com/track/pdf/10.1186/1742-4755-10-40)

In the research, they discuss the choice of a Facility Bases Delivery (FBD) is a complex issue that is influenced by a host of factors, including characteristics of the pregnant woman herself, her immediate social circle, the community in which she lives, the facility that is closest to her, and context of the country in which she lives. While multivariate analysis suggests that across sub-Saharan Africa, maternal education, parity, rural / urban residence, household wealth, distance to the nearest facility, and number of

ANC visits are the factors most strongly and consistently associated with FBD, the literature suggests that dozens of additional factors appear to contribute to FBD rates in both bivariate and multivariate analyses. The study also looked at regional differences that are often associated with ethnic groups/tribes that can be helpful to my research analysis. The systematic review of the literature in this research, builds upon the previous reviews in several important ways, as it focuses entirely on sub-Saharan Africa, explicitly including African journals. This review proposes that the factors associated with facility delivery fall into five different categories: maternal, social, antenatal, facility-related, and macro-level factors.

Oyerinde K., Harding Y., Philip A., Garbrah-Aidoo N., Kanu R., Oulare M.,&…Daoh K. 2012. "Barriers to Uptake of Emergency Obstetric and Newborn Care Services in Sierra Leone: A Qualitative Study." *Journal of Community Medical Health Education*. Retrieved September 15th, 2018 (https://www.researchgate.net/profile/Koyejo_Oyerinde/publication/271101938_Barriers_to_Uptake_of_Emergency_Obstetric_and_Newborn_Care_Services_in_Sierra_Leone_A_Qualitative_Study/links/54eb39ec0cf25ba91c864bec.pdf)

Oyerinde and co-authors conducted this research in 2008 in Sierra Leone to study were to identify demand side barriers to the uptake of Emergency and newborn care (EmONC) in Sierra Leone and to develop possible strategies to improve accessibility, utilization and client satisfaction. The authors presented this research from both an anthropological standpoint and the supply of care. They analyzed for factors such as perception of care, culture faith and fatalism, status of women and gender barriers and many more. These themes relate directly to factors that might affect the choices women

have to make when deciding to deliver in facilities or at home. I like that it has categories of themes as it makes the results easier to read and understand. The topic itself is complex but the presentation of findings is well presented. In this paper, they have shown that the main barriers to utilization of maternal health services and EmONC services were prohibitive, inconsistent and unpredictable cost of services; inadequacy in supply and skills of healthcare providers; disrespectful care especially of adolescents and unwed mothers; and the perennial shortages of equipment and supplies. This study contributes to the growing body of literature on barriers to the delivery of emergency obstetric and neonatal care services in poor and post-conflict settings as well as the literature on disrespectful care as barriers to uptake of health services.

Treacy, L., & Sagbakken, M. 2015. "Exploration of perceptions and decision-making processes related to childbirth in rural Sierra Leone". *Bio Med Central pregnancy and childbirth* 15(1), 87. Retrieved September 15th, 2018 (https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-015-0500-9)

Treacy et al studied the perceptions and decision-making process of women and their communities during childbirth in rural Sierra Leone. This paper is well structured as it gives a detailed background on the state of maternal health and the data is as recent as 2016. This study was conducted in La-lenken section, Tonkolili district in the Northern Province of Sierra Leone. Data was collected a qualitative, cross-sectional study using purposeful sampling to obtain maximum variation. Data was collected through focus group discussions (FGDs) and individual and group in-depth interviews (IDIs) with recently pregnant women and members of their communities, totally 61 participants. The

structure of the paper is thematic in its set up and making the complex topic digestible. The findings of this study demonstrate that the decision-making processes during childbirth in rural Sierra Leone are dynamic, intricate and need to be understood within the broader social context. Decisions are usually socially negotiated and rarely made independently. Past experiences, social expectations and relationships of those involved, as well as the risks perceived by the individual and their community are also influential. Individuals may have preferences for where to give birth and with whom assisting, but these are weighed up against the complexity of enabling, supportive and inhibitory factors that are present within the health care systems and social context. This study has giving me ideas on how to thematically present my arguments.

Vallieres, F., Cassidy, E. L., McAuliffe, E., Gilmore, B., Bangura, A. S., & Musa, J. 2016. "Can Sierra Leone maintain the equitable delivery of their free health care initiative? The case for more contextualised interventions: Results of a cross-sectional survey." *Bio Med Central Health Services Research* 16 doi: http://dx.doi.org/10.1186/s12913-016-1496-1 (https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-016-1496-1)

The authors of this research paper are from the Center for Global Health, Trinity College Dublin. The study was conducted in the rural district of Bonthe in the northern part of Sierra Leone. The main scope of the research was to highlight that increases have occurred in the update of services, but the inequitable distribution of health services and health facilities remain important factors underlying the poor performance of health systems to deliver effective services. The study was cross-sectional survey from 395 households. From the results they found that more mainland regions had more facility-based deliveries, higher chances of having skilled birth attendance and being fully

immunized. This study is important because I may be able to compare conditions that may be similar in that region that increased the facility-based deliveries. The format of the writing was simple and straight forward. The use of SPSS is also a similar software that I will be using for my research.

World Bank. (n.d.). Mortality rate, infant (per 1,000 live births). Retrieved March 01, 2018, (https://data.worldbank.org/indicator/SP.DYN.IMRT.IN?end=2000&start=1980&view=chart)

The world bank website contains data set will provide evidence of the rates of mortality of infants and mothers. It is a recognized data set that can be used to in academic research.

Research Proposal
19th September 2018

Exhibit 1
Survey Welcome:

By completing this survey, you will be participating in research conducted by Lydia Bernard-Jones, a student at Skidmore College. You are affirming that you are at least 18 years of age. This research involves no more than minimal risk. You will be asked a series of questions about your experience of delivering your child, which we ask that you answer to the best of your knowledge. You may skip any questions or stop participating at any time. By completing this survey, you will receive $3 (approximately 21,000 Sierra Leonean Leones).

In any sort of report that is published or presentation that is given, we will not include any information that will make it possible to identify a participant, and any data from this study that is released will not contain identifiable information. Should you wish to get in contact with the investigator, please contact Lydia Bernard-Jones at lbernar1@skidmore.edu. You may also contact her faculty advisor, Jen McDonald jmcdonal@skidmore.edu or you may contact Mary Hoehn, IRB Chair, at mhoehn@skidmore.edu.

The researchers have taken all reasonable measures to protect your identity and responses. All data will be reported in aggregate. The data are SSL (Secure Socket Layer) encrypted and are stored on a password protected database or on a password protected tablet. IP addresses are not collected. These measures provide the very high level of security that is used by financial institutions, and it is very unlikely that your data could be accessed by anyone. However, e-mail and the Internet are not 100% secure. Therefore, I will clear my cache after every response by participants after filling the survey on your behalf.

I am 18 years of age and consent to participating in this research. ____
I am not 18 years of age and I do not consent to participating in this research ____
Questions:

1 How many children have you delivered?

2 How old are your children?

3 Of these children,

a. How many did you deliver at home?

b. How many did you deliver in a facility?

4 Why did you choose facility or home delivery for x number of children?

5 Who was present in the room during your delivery of x children? (i.e. family)

6 Did you have any medical personnel present? If yes, who?

7 How would you rate the impact of the presence of health personnel during delivery?

Very Negative				Very Positive
1	2	3	4	5

Why?

8 If you answered No to Q6, what was the role of the people present in the room during delivery?

9 Did you go to any prenatal care visits or to a health agent during pregnancy?

10 If you answered Yes to Question 9, what was the advice in terms of what actual delivery would be like?

11 If you answered No to Question 9, how did you know the things you do about delivery?

12 Describe your experience during delivery, including interactions with everyone who was present.

13 After x was born, did you see and/or hold the baby immediately?

14 How would you rate your delivery experience for x baby?

Very Poor				Very good
1	2	3	4	5

Why?

15 What financial bracket does your family identify in?

< $65/month $66 - $132/month $133-$394/month. $395-$658/month > $659month

16 Are you the only partner/wife of your partner/husband?

17 What's your hometown/city?

18 What tribe/ethnic group do you identify with?

19 What is your age?

20 If someone were to ask you where they should deliver, where would you suggest - home or facility? Why?