



# SHANTI UGANDA

*"If mothers are looked after, we will have a bright future. If mothers are educated, we will have a changed nation. If mothers make health the priority, they can build the future of a bright nation."*

- Sister Josephine, Head Midwife

## Monitoring and Evaluation System: Recommended Improvements and Implementation

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## Executive Summary

**Shanti Uganda needs a more robust data management system to support operations management and to report its impact to current and prospective investors.**

Shanti Uganda is a nonprofit organization with almost a decade of health impacts on the members of the Nsassi Village and its surrounding communities. In order to maximize its potential to transition into a social enterprise and scale its impact, Shanti Uganda staff must review and refine their current monitoring and evaluation (M&E) system in order to procure more funding. Additional funding will enable Shanti Uganda to continue the work of its mission, to eradicate preventable maternal mortality throughout East Africa, and to create a world where birthing mothers and women living with HIV/AIDs have agency over their own health and can support their families.

This document delineates Shanti Uganda's current reporting systems, identifies opportunities for the organization to refine its processes, and recommends changes to the existing system. The key recommendations include hiring a dedicated Records Officer, conducting monthly evaluation interviews with the Head Midwife, and tying enforcement and completion of data reporting to an employee's evaluation. It prepares the Shanti Uganda staff and management team to transition into an enhanced data collection and reporting system.

Global Social Benefit Fellows, Christine Cremer and Maggie May, from the Miller Center at Santa Clara University collaborated with the Shanti Uganda team members to understand, assess, and evaluate the current system. The recommendations are based on observations from seven weeks of field research with Shanti Uganda and its staff. We engaged in participant observation, recorded ethnographic field notes, and facilitated two focus groups at the Birth House. In total, we conducted 53 interviews with clients, mothers, teens, parents of teens, village health workers, midwives, nursing assistants, district health officers, and the local chairperson. We also shadowed midwives to learn how they collect and report data, and we spoke with employees to learn how they evaluate the impact of teen health, gardening, and nutrition workshops.

This Monitoring and Evaluation System Plan harnesses Shanti Uganda's impact model to fight maternal mortality, and it underscores the potential for growth through its business model.

## The Case for Improving and Upgrading Shanti Uganda's Monitoring and Evaluation System

Both the mission and services Shanti Uganda provides rely on proper data collection. The current M&E system lacks explicit, cohesive processes, depleting the accuracy and timeliness of the data reported to the District Health Office.

A clear, concise, and effective data collection system is critical as Shanti Uganda explores different avenues of impact (i.e. Teen Boys and Teen Girls Education, Gardening, and Nutrition Workshops) and continues Birth House services. Data from these various operations are sent to different entities, such as the government, board of directors, and operation coordinators. Thus, quality and control of the data is essential to the future sustainability of the organization.

As a Ugandan nonprofit, Shanti Uganda's heart and driving force comes from its local health professionals. Their aptitude and sensitivity towards Ugandans, specifically women and children, guide the needs and priorities of the organization as a whole.

Particularly, the midwives play an essential role in both providing health services and collecting data that is analyzed and reported to government and other relevant stakeholders. As the information is passed on, it is dependent on the last person's thoroughness. Ultimately, the accuracy and usefulness of the data is placed in the hands of the midwives who are collecting and reporting it. If there are issues with the midwives' ability to collect and report data at the ground level, the entire organization suffers as a consequence—including Shanti Uganda's internal efficiency, its relationship with the local government, and its external relationship with and interest of potential investors. Having data-oriented individuals with the competence to work with, analyze, and report data is an essential step toward building a more effective data collection system that is required for growth.

Our recommendations for improvement instill a fluid data collection process and management that appropriate individuals can understand and replicate. We created this plan while keeping in mind Shanti Uganda's vision for growth; this plan's goal reflects Shanti Uganda's goal. Ensuring optimal organizational efficiency enables Shanti Uganda's ideal future state as a social enterprise. This enterprise model can be realized through a unified, replicable and teachable M&E system that produces coherent, accurate, and meaningful data.



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## Overview of Recommendations

These recommendations are intended to enhance the existing M&E system with Shanti Uganda's end goal in mind—to report impact to possible investors and increase Shanti Uganda's capacity for transition into a social enterprise. All recommendations are made based on observations from seven weeks of field research with Shanti Uganda and its staff. We engaged in participant observation, recorded ethnographic field notes, and sat in on two focus groups at the Birth House. In total, we conducted 53 interviews with clients, mothers, teens, parents of teens, village health workers, midwives, nursing assistants, district health officers, and the local chairperson. We shadowed midwives to learn how they collect and report data, and we spoke with employees to learn how they evaluate the impact of teen health, gardening, and nutrition workshops. Our interviews—designed collaboratively with local translators—included questions pertaining to the impact the organization has on the personal lives, the Nsassi village, and the greater Luweero district.

- Hire a dedicated Records Officer to manage Birth House data
- Conduct a monthly evaluative interview with the Head Midwife
- Tie enforcement and completion of data reporting to the evaluation of an employee
- Communicate overall impact using a new column in Health Management Information (HMIS) book
- Transition from a tri-annual to a bi-annual growth reporting schedule
- Add a Key Performance Indicator tab on Birth House spreadsheet
- Communicate scope of impact in Social Impact Report

For analysis see Appendix A.



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### Note to Reader:

*So far, this document has framed the necessity for and possible means of achieving complete, accurate, and current data. While the M&E System is relevant to anyone associated with Shanti Uganda, the remainder of the document is designed with specific audiences in mind. The following color coding is intended to direct the reader to the section with which they should be most familiar. It identifies the intended target audiences of each of the documents, such that any individual affiliated with the organization, from midwives to interns to administrators, can understand which section they should focus their attention.*

- **Improvements: System Components and Operations** *will be most valuable to the Program and M&E Coordinator and M&E Intern. It proposes a procedural outline for implementing recommended changes to the current monitoring and evaluation system.*
- **Implementing the Improvements: Birth House, Teen Health Education & Community** *will be most valuable to the midwives, Records Officer, and programming interns who collect data on a daily basis. It instructs and guides staff members who are in charge of the birth house services, teen health education workshops, and community sustainability on the importance and fundamentals of the enhanced data collection system.*

*These sections elaborate on operational procedures in detail and may not interest Shanti Uganda Board members; however, board members are encouraged to view them in order to be fully informed. Additionally, these sections should be updated, revised, and expanded upon to suit the needs of the M&E system as the organization scales.*



# The System: Current and Future

In order to be financially secure, increase midwife effectiveness, and enhance operating efficiency, Shanti Uganda needs a robust data management system to support operations and report its impact to current and prospective investors. This system is critical for organizational improvement and fulfillment of Shanti Uganda's mission to reduce maternal and infant mortality. The following describes the current system and recommendations for improvement. The recommendation outlined in this document builds on the current M&E system rather than replacing it.

## Current Monitoring and Evaluation System

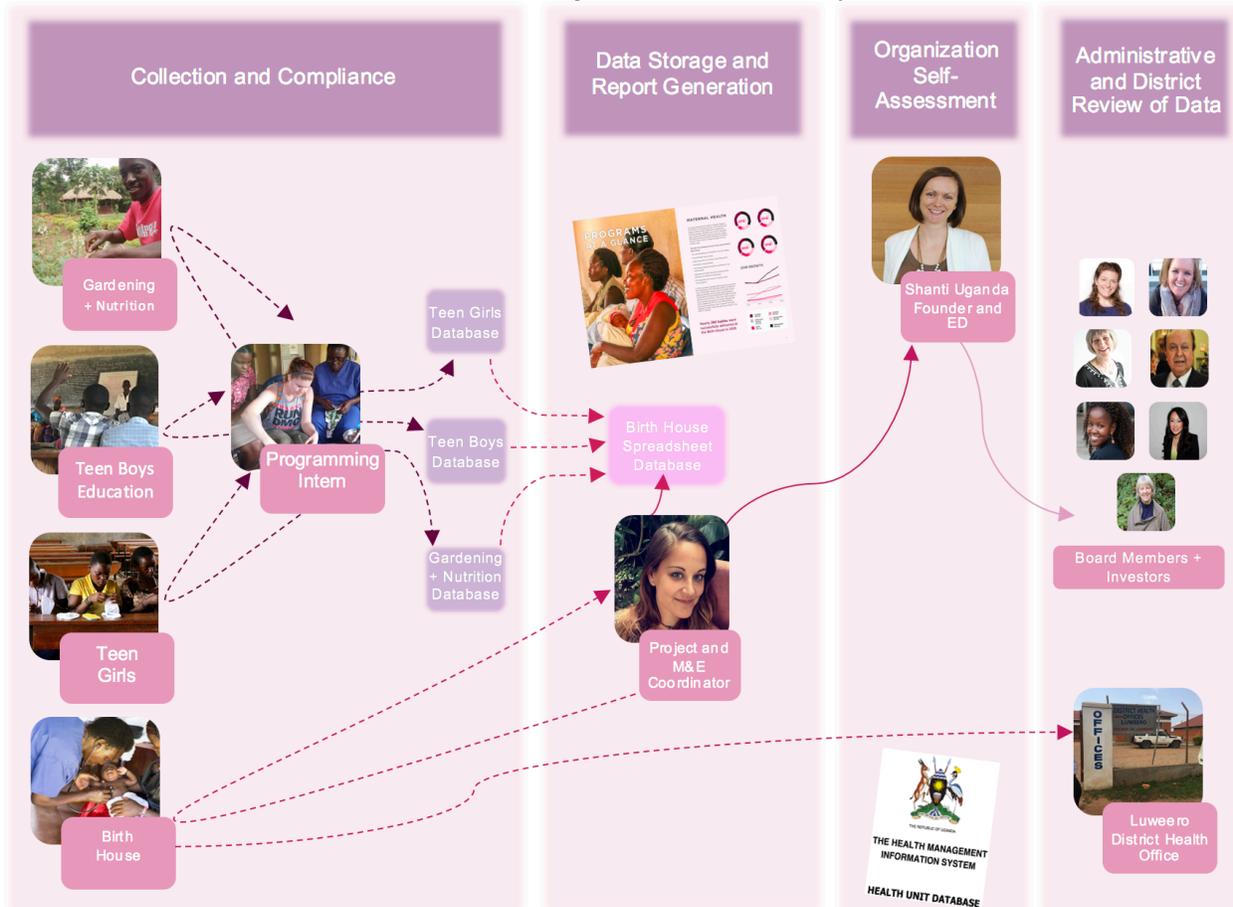


Figure 1. Overview of Current Monitoring and Evaluation System. The dotted lines represent gaps and inconsistencies in the system.

The current system centers on three main activities: Birth House services, teen health education, and community sustainability. Midwives are responsible for collecting and reporting data pertaining to Birth House services, and student interns are responsible





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for data pertaining to teen health education and community sustainability. The midwives collect patient information on a daily basis in the District Health Management Information books. The head midwife, Sister Josephine, totals the metrics in these books at the end of each month to report to the District Health Office (DHO) and the Project and M&E Coordinator. Shanti Uganda does not have a biostatistician (Records Officer) dedicated to and specializing in the collection, organization, and maintenance of data. This is currently handled by Sister Josephine, detracting from her primary responsibilities attending to patients within the Birth House. Her time-demanding, patient-centric tasks compete with the data-centric tasks. At the workshops, student interns distribute and collect surveys and solicit information predetermined by restrictive grants. The interns record responses in the spreadsheets within program-specific folders, where the data remains unused.

The system is composed of sources, collection methods, storage processes, and ongoing reporting processes. Data sources are events, such as workshops and birth house visits. Multiple Shanti Uganda staff members are responsible for recording and collecting the data. Midwives and interns collect and record the data before reporting internally to the organization and externally to the District Health Office. The M&E Intern and Project and M&E Coordinator oversee the storage of data pertaining to Birth House activities, as well as the organization of the data into useful reports. Ultimately, the organization leverages reports for self-assessment and impact measurement. Together, the various components compose a data management system. The remainder of this document explains the key upgrades of the system in further detail.

### **Sources: District and Shanti Uganda**

Each month, the Records Officer and the Project and M&E Coordinator deliver the HMIS 105 form to the District Health Office (DHO) in exchange for the district data from the DHO Biostatistician. The district data consists of Outpatient Care, Antenatal Care Attendance, Child Immunization, Family Planning Users, Maternity Indicators, and Postnatal Attendance data for both Shanti Uganda and the Luweero district. Additionally, the district data report includes data from previous fiscal years (dating back to July 2013-June 2014).

The district data incorporates many of the same numbers Shanti Uganda records on a monthly basis—numbers of antenatal care attendance, family planning users, etc. This overlap in quantitative data enables Shanti Uganda to demonstrate how the organization stands within context of the Luweero District during the current and past fiscal years. This allows Shanti Uganda to measure its market penetration over time. Once the district data is obtained by the Records Officer, in accompaniment with the

Project and M&E Coordinator, the M&E Intern inputs the district data into the Birth House spreadsheet. The steps for inputting the district data are as follows:

- Open the Birth House spreadsheet and go to the “District Data” sheet. This sheet contains four main categories: Antenatal services, Child Immunizations, Family Planning Services, Maternity Indicators.
- Under the first category (i.e. Antenatal Services), right click on the row corresponding to the most recent year (i.e. Jul 2016 to Jun 2017). Select “Insert 1 row below.”
- In the row that was just added, label the left-most cell under the column “Period (Fiscal Year)” according to the year for which the data is being entered.
- Enter the number of ANC (Antenatal Care) 4<sup>th</sup> Visits for Women for Shanti Uganda and the Luweero District.
- Click the cell in the column “Shanti Uganda's Proportion of 4th Antenatal Visits in Luweero District” for the previous year. Click on that cell’s lower right hand corner and drag the blue outline down to the cell below in the row that was just added. This copies the formula into the new cell and calculates Shanti Uganda's Proportion of 4th Antenatal Visits in Luweero for the latest year.
- The formula for the “Total” row for that indicator automatically adjusts to include the added row, as do the graphs generated adjacent to the spreadsheet values.
- Repeat the previous 5 steps for each of the three remaining indicators (Child Immunizations, Family Planning Services, Maternity Indicators).

Acquisition of the district data enables Shanti Uganda to record their accomplishments under strict resources, accompanied with appropriate contextual information, to possible investors and stakeholders through the bi-annual Social Impact reports. Analysis of the Shanti Uganda’s proportion of the services provided throughout the Luweero District can reveal their growth, impact, and market share.

## Collection and Compliance

Within the existing system, interns coordinate monthly workshops and measure impact on workshop attendees using designated written and oral surveys. Interns record data from the surveys in a spreadsheet, but it is continually left unattended until the next growth report is made. The system requires interns to report on metrics from each workshop to the M&E Intern at the end of each month. The system is dependent on the role of the Project and M&E Coordinator to keep the programing interns accountable for completing this task on time and consistently.



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Likewise, the Records Officer is responsible for consolidating the data from the District Health Information record books and reporting on the form provided by the Project and M&E Coordinator. This form is turned into the M&E Intern at the end of each month.

The success of Shanti Uganda thus far has relied on the midwives and interns to collect and report data to the Project and M&E Coordinator. It is of critical importance that the Project and M&E Coordinator places strict deadlines for all associated employees and interns to comply with this essential step. Timeliness is important to maintain professionalism and keep the employees accountable for their work. Consequences for failure to update the data system will need to be determined by the Project and M&E Coordinator.

### Storage

Upon receiving the data from the interns and midwives pertaining to the four Birth House activities, the M&E Intern transfers the data into the Birth House Spreadsheet. Data for Key Performance Indicators (KPIs) is recorded on the relevant designated sheet for that year by the M&E Intern.

In the past, interns reported workshop data sporadically, and the Project and M&E Coordinator generated growth reports tri-annually. Now, the monthly reporting by interns and the Records Officer enable the M&E Intern to generate Social Impact reports bi-annually in collaboration with the Project and M&E Coordinator. The M&E Intern ensures the collection and recording of the appropriate data from the Programming intern and inputs their data into the Birth House Spreadsheet on the relevant sheet for the current fiscal year. The Birth House Spreadsheet encompasses data throughout all of Shanti's existence and the many indicators required by grants and district requirements.

In order to maintain the Birth House Spreadsheet, the M&E Intern provides the Records Officer with a "tool" (the Ugandan phrase for "form") to tally the values for the specified metrics each **week**. The same tool is used to tally the weekly totals into a single form for the entire month. The metrics are specified in the Birth House Statistics Spreadsheet. (See **Implementing the Improvements** for details pertaining to the Records Officer.)

Each **month**, the M&E Intern completes the following procedures:

- Receives the values for the KPIs from the Programming Intern via email (see **Implementing the Improvements** for the specific KPIs). There are 13 total KPIs for the Teen Girls, Teen Boys, and Community Sustainability Workshops.
- Collects the completed "tool" from the Records Officer.

- Inputs the numbers in the Birth House Spreadsheet.

At the end of each **fiscal year** in October, the M&E Intern completes the following procedures:

*Addition of New Sheet in Birth House Spreadsheet*

- Right click on the sheet for the current fiscal year and selects **Duplicate**. This ensures that the formulas are copied.
- Right click on the new sheet and selects **Rename** to rename the sheet with upcoming fiscal year cycle.
- Relabel the years at the top of each column.
- Delete all values within the new sheet, taking care not to delete the formulas in the “Total” column on the far right. The formulas are still correct if the cells in the “Total” column read “0”.

*Adjustment of To-Date Totals Sheet*

Throughout the following instructions, the iconography *n #* will be used to signify a generic single cell reference in Google Spreadsheets. *n* represents the column, referred to by a letter. *#* represents the row, referred to by a number. For example, B2 is the cell in column B, row 2.

- Go to the “To-Date Totals” sheet and right click the letter above the column for the current year.
- Select **Insert 1 right** and rename that column with the upcoming fiscal year.
- Adjust the formulas in the “Total” column to ensure that it includes the newly added fiscal year. Click on the first cell, “Overall Lives Impacted.” The formula should read **=SUM(B#: n #)** where *n* is the letter corresponding the newest column and *#* is the number corresponding to the row. Select that cell again, click on the lower right hand corner of that cell and drag it to apply the formula to the remaining rows.
- Source the data from the newest fiscal year sheet into the “To-Date Totals” sheet. Select a cell for a single metric and enter **=’20YY-20YY’! n #** where **20YY-20YY** is the name of the sheet and *n #* is the cell reference for the cell with the desired value. For example, the formula for total “1<sup>st</sup> ANC Visits” in 2017-2018” is **=’2017-2018’!N4**. This step must be done for each cell individually.





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## Dashboard

Key Performance Indicators (KPIs) are quantifiable measures used to evaluate the success of the organization in meeting objectives for performance. Within the Birth House Spreadsheet, a separate “KPI Dashboard” sheet contains all KPIs and synthesizes data from the sheets labeled by fiscal year. With the input of the Project and M&E Coordinator and public health advisors in mind, KPIs have been carefully selected for the dashboard. These KPIs are listed below:

Organization	<ul style="list-style-type: none"> <li># lives impacted</li> </ul>
Antenatal	<ul style="list-style-type: none"> <li>% increase in live births</li> <li>% increase in women given appropriate information on the prevention and recognition of STIs and reproductive tract infections (# of 1st ANC visits)</li> <li># of live births</li> <li># women given appropriate information on the prevention and recognition of STIs and reproductive tract infections (# of 1st ANC visits)</li> </ul>
Laboratory Tests	<ul style="list-style-type: none"> <li>% increase of females tested for STIs</li> <li>% increase of male partners tested for STIs</li> <li>% increase in clients tested for STIs</li> <li># of females tested for STIs/HIV</li> <li># of male partners tested for STIs/HIV</li> <li>Total clients tested for STIs/HIV</li> </ul>
Family Planning	<ul style="list-style-type: none"> <li>% increase in family planning uptake</li> <li># of women receiving family planning education and counseling</li> </ul>
Postnatal	<ul style="list-style-type: none"> <li>% increase in child immunizations</li> <li># of child immunizations</li> </ul>
Teen Boys	<ul style="list-style-type: none"> <li># of teen boys workshops conducted</li> <li># of boys educated</li> <li>% more boys understand how HIV/AIDS is passed from person-to-person</li> <li>% more boys understand how to avoid unplanned pregnancies</li> </ul>
Teen Girls	<ul style="list-style-type: none"> <li># of workshops conducted</li> <li># of girls educated</li> <li>% more girls who understand how HIV/AIDS is spread</li> <li>% more girls who understand how to avoid unplanned pregnancies</li> <li>% of girl participants who expressed a keen understanding of their importance and potential as a young woman</li> <li># of teen girls workshops completed</li> </ul>
Gardening and Nutrition	<ul style="list-style-type: none"> <li># of workshops completed</li> <li># of community members educated</li> <li># of participants who report an improved appreciation of sustainable farming practices</li> <li># of participants who report an improved understanding of nutrition and health for pregnant women and their families</li> </ul>

Table 1. KPIs listed in the KPI Dashboard.



## Red, Amber, & Green (RAG) Status for Dashboard

A red-amber-green light system indicates whether or not bi-annual targets have been met. When a metric is less than 50% of the target value, it is red; between 50-100% is amber. If a target has been met or exceeded, it is green. One can observe the 6-month target value in the column adjacent to the red-yellow-green indicator to judge how close the current total is to the target.

The cells under the “Current 6 Months (to date)” column have conditional formatting customized by selecting the cells containing a value, clicking **Format > Conditional Formatting...**, and adding rules. For reference, the following codes are used to generate the rules:

Color	Proportion of Target Value	Conditional Formatting Rule
Red	0-50%	Value is between 0 and $=0.5*\$G4$
Amber	50-99%	Value is between $=0.5*\$G4$ and $=\$G4$
Green	>100%	Value is greater than or equal to $=\$G4$
None		Cell is empty

Table 2. Codes for conditional formatting of RAG Status cells.

“G” in the formula corresponds to the column in which the target values are listed in the source spreadsheet. The dollar sign (i.e. \$G4) in the formula is a cell reference telling the formula to use the respective cells in the adjacent column for the calculation. Be sure that the “Apply to range” reflects the cells for which current 6-month totals are being taken into consideration. The conditional formatting allows the 6-Month Target Value to be adjusted as necessary without affecting the RAG system.

The Project and M&E Coordinator and other managers can consult the KPI Dashboard at any given time to conduct organizational self-assessment.

## Maintenance of KPI Dashboard

This KPI dashboard consolidates the most important indicators into a single spreadsheet within the “Birth House spreadsheet”. From the condensed list, the Project and M&E Coordinator can easily draw Key Performance Indicators for growth reports.

Every ***six months*** at the end of April and October, the M&E Intern completes the following procedures:





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## Adjusting the Cumulative KPIs

- Select the value for an indicator under the “Current 6 Months” column. Change the range to include the current six-month period—either November-April or May-October. The table below shows an example.

Sample Indicator	General Formula	Example Old (Nov-Apr):	Example New (May-Oct):
# of live births	=SUM('20YY-20YY'! n #: n #)	=SUM('2016-2017'!B126:G126)	=SUM('2016-2017'!H126:M126)

Table 3. Example formulas for the “Current 6 Months (to date)” cumulative KPIs. At the end of April, when preparing for the upcoming six-month period May-October, the range of rows are switched to **H#:M#**. At the end of October, when preparing for the upcoming six-month period November-April, the range of rows are switched to **B#:G#**.

- The formulas for the “Since 2011” column does not need to be changed. Ensure that the formulas are correct by checking that the cell reference in the formula **=’To date totals’! n #** (where *n* is the column and *#* is the row) matches that of the desired cell in the “To data totals” sheet.

At the end of each **fiscal year** in October, the M&E Intern completes the following procedures:

## Adjust the Growth KPIs

- Select the % growth value for an indicator under the “Since 2011” column. Changes the column letter to reflect the most current column in the “To-Date Total” Sheet. The table below shows an example.

Sample Indicator	General Formula	Example Old:	Example New:
% increase in live births since 2011	=('To date totals '! n #-'To date totals '!B25)'!B25	=('To date totals '!'G25-'To date totals '!'B25)'!B25	=('To date totals '!'H25-'To date totals '!'B25)'!B25

Table 4. Example formula for “Since 2011” KPIs. Total number of live births is in row 25 of the To-Date Totals sheet.

- Select the % growth value for an indicator under the “Past Fiscal Year” column. Changes the column letter to reflect the growth between the past two fiscal years. The table below shows an example.





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Sample Indicator	General Formula	Example Old:	Example New:
% increase in live births in the past fiscal year	=('To date totals '! n 25-'To date totals '!(n -1)25)! (n -1)25	=('To date totals '!G25-'To date totals '!F25)!F25	=('To date totals '!H25-'To date totals '!G25)!G25

Table 5. Example formula for “Past Fiscal Year” KPIs. Total number of live births is in row 25 of the To-Date Totals sheet.

- Select the % growth value for an indicator under the “Current Fiscal Year” column. Changes the column letter to reflect the growth between the past two fiscal years. The table below shows an example.

Sample Indicator	General Formula	Example Old:	Example New:
% increase in live births in the current fiscal year	=('To date totals '!(n+1) 25-'To date totals '!(n) 25)!n 25	=('To date totals '!H25-'To date totals '!G25)!G25	=('To date totals '!I25-'To date totals '!H25)!H25

Table 6. Example formula for “Current Fiscal Year” KPIs. Total number of live births is in row 25 of the To-Date Totals sheet.

## Report Generation and Submission

KPIs are a useful for evaluating Shanti Uganda’s growth, as well as identifying areas of weaker, irregular, or unexpected activity. KPIs are also essential for crafting reports that assess growth and for effective management of the organization.

Ultimately, the M&E Intern and the Project and M&E Coordinator use the data from the KPI dashboard in a bi-annual Social Impact Report. This report utilizes the template provided in the sample Social Impact Report, replacing the previous numbers with up-to-date ones. The first Bi-Annual Report (BAR) covers the first six months of the fiscal year (November-April). The second report constitutes the Annual Growth Report (AGR). The AGR covers progress since the last bi-annual report, progress over the course of the past fiscal year, and organizational growth since 2011. The BAR and the AGR are delivered to Shanti Uganda’s Founder and Executive Director Natalie on or before the end of April and November, respectively.

The system allows the Shanti Uganda to track comprehensive growth from the beginning of the organization to the current state. In conjunction with Shanti Uganda staff and Santa Clara University faculty, metrics included in these reports were chosen to track both channels of Shanti Uganda’s mission—to provide access to quality healthcare and to increase the livelihood of women and their families.



## Workshop Data

While the Birth House spreadsheet consolidates necessary Birth House services indicators into a single spreadsheet, it lacks updated indicators for the teen girls, teen boys, and gardening and nutrition workshops. Using different spreadsheets for each workshop hinders the data collection efficiency because it makes it hard to keep track and organize the data.

New columns for each of these workshops indicators, as chosen by the specific workshop's funder, have been created in the Birth House Spreadsheet. Previously, data collected from survey responses was entered on separate spreadsheets for each specific workshop. Relocation of each of the workshop's indicators onto the Birth House statistics spreadsheet allows Shanti Uganda staff, specifically the Project and M&E Coordinator, to gauge workshop progress, make comparisons on a monthly and/or yearly basis, and gather and report workshop data for the bi-annual (BAR) and yearly (AGR) reports. New columns have been added to the tabs on the Birth House statistics spreadsheet labeled: 2016-2017, To date totals, and the KPI Dashboard to make sure data can be found on one comprehensive spreadsheet.

## Communicating Comprehensiveness

Shanti Uganda not only provides health services on Shanti Uganda grounds, but also throughout the wider community through personal house visits and local outreach events. However, in order to clearly communicate to investors the depth and breadth of Shanti Uganda's impact, Shanti Uganda needs a way to record the number of lives they are impacting on a daily, monthly, and yearly basis. Based on seven weeks conducting 53 interviews with clients, mothers, teens, parents of teens, village health workers, midwives, nursing assistants, district health officers, and the local chairperson it is evident that by treating a mother and her baby, Shanti Uganda is also impacting Ugandan families and community members.

One way to record this impact without an electronic medical record is to add a column on the District Health Management Information book labeled "number of occupants in client's household" (For specific instructions on implementing, see *Implementing the Improvements, Midwives*). It is important to note that this addition does not change the client identification or patient file system. As previously stated, this addition is also only for future data. (For past data, an estimation of the number of lives Shanti Uganda has impacted since its existence in 2010 can be calculated by multiplying the number of

Shanti Uganda clients by the average number of Ugandan household occupants. This crude estimation is simply an average and certainly not a precise number.) Moving forward, this additional column in the District Health Management Information book, which midwives will fill out when meeting with the patient and then reports to the M&E Intern at the end of each month, will allow the Project and M&E Coordinator to keep track of this organization-wide total in the Birth House statistics spreadsheet. The KPI Dashboard accounts for additional lives impacted via the workshops by including the attendance numbers in the formula that outputs the total lives impacted.

## Key Improvements

These key improvements are intended to provide Shanti Uganda M&E staff members with the tools necessary to improve the current M&E system. Although it requires effort and discipline, it allows Shanti Uganda to do more. A solid foundation in a data-based M&E system enables measured justification to expand the organization into a for-profit model, allows for discernment for areas appropriate for growth, and demonstrates to others an ability to manage the growth.

## Data Collectors

Title	Data Source	Current Employee
District Health Officer (DHO) Biostatistician	Collects district health data, including Shanti Uganda's, on a monthly basis	Tonny
Project and M&E Coordinator	Oversees all the different programs and M&E projects	Courtney
M&E Intern	Coordinates M&E operations at the Birth House	
Traditional Birth Assistant	Nutrition Workshops	Flora
Agriculturalist	Gardening Workshops	Ritah
Groundskeeper	Gardening Workshops	Kato
Programming Intern	Gardening and Nutrition Workshops	Iba
Programming Intern	Teen Health Workshops	Sabrina
Founder and Executive Director	Organizational Oversight	Natalie



# SHANTIUGANDA

## Recommended Monitoring and Evaluation System

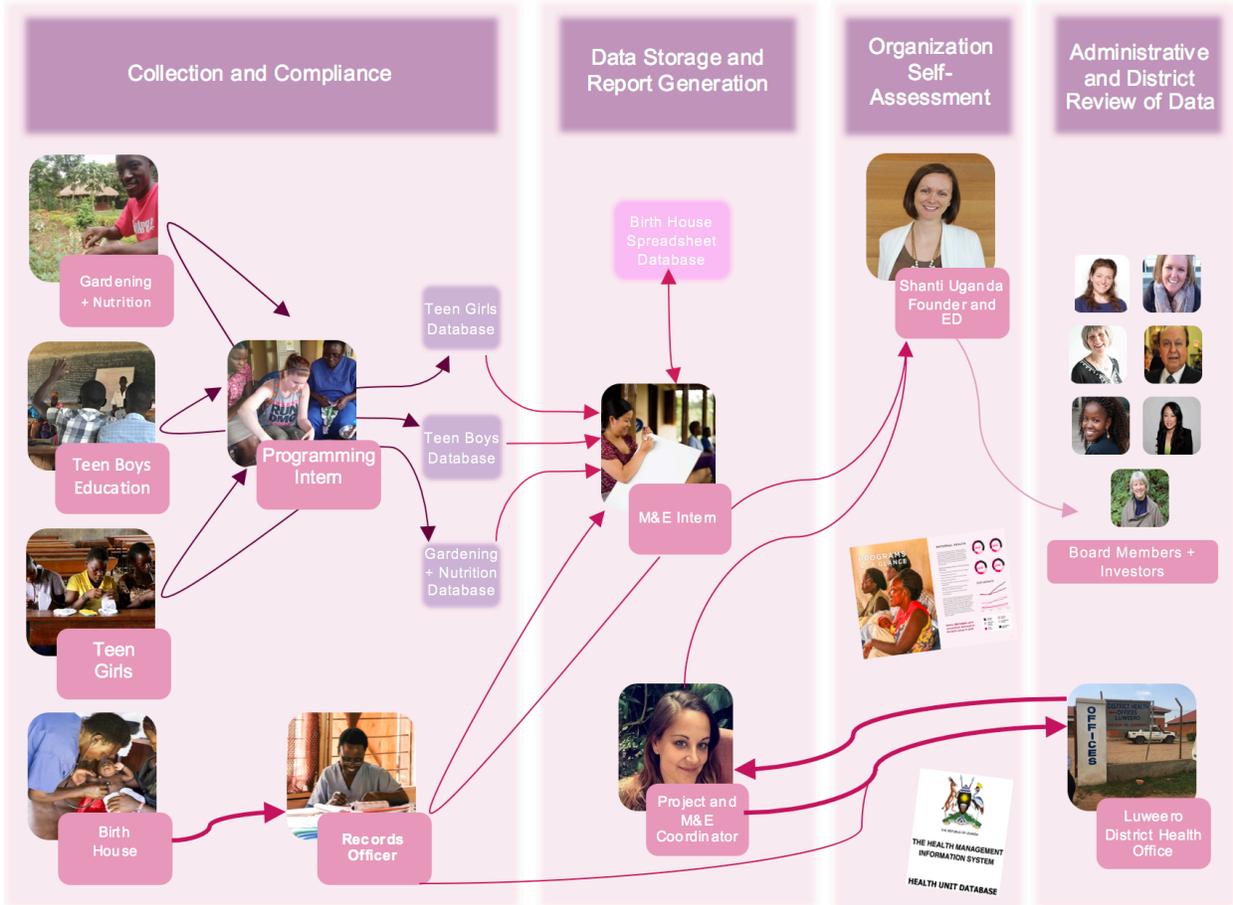


Figure 2. Overview of Recommended Monitoring and Evaluation System. The bolded lines emphasize where new system components have been added. The addition of the Records Officer and M&E intern help facilitate more effective and efficient collection and reporting of complete, accurate, and current data.



## Implementing the Improvements: Birth House, Teen Health Education & Community Sustainability

Complete, accurate, and current data is critical for effective organizational management, compliance with the District Health Office, and current and future investors. The volume and variety of collected data demand a dedicated focus and effort to efficiently and effectively collect and report operational and impact data. Shanti Uganda's employees have the competency to collect and organize complete data; however, their lean resources limit their capacity to do so.

Midwives and staff members at Shanti Uganda provide quality services that are highly regarded by clients. However, the success of the midwives and the sustained vitality and manageability of the organization require an integrated monitoring and evaluation system based on consistent data collection and recording.

A dedicated data collection effort builds on the existing data collection system to formalize its operations and associated vocabulary. A majority of the data collection operations remain the same, and some new components are added. Integration of existing and recommended operations will:

- streamline the overall system
- promote employees' dedication to data collection, organization, and reporting
- enhance the mindset around the importance of data to the organization

What follows is proposed architecture for such a system based on ethnographic observations and interviews conducted in July and August 2017 (see Appendix). The enhanced system outlined in this document designates roles and responsibilities to Shanti Uganda staff so that the organization can use Birth House and workshop data in impact reports more effectively and confidently by clarifying:

- Who is responsible for what (in regards to data collection)
- Why it is important
- What protocol needs to be followed

The following designates the roles and responsibilities of Shanti Uganda staff associated with the various activities under the current data collection and reporting system.



## Birth House Services

### *Midwives*



A midwife attends to a client and her newborn post-delivery.

Upon a patient visit, the midwives record patient information within the appropriate District Health Management Information books. In the past, midwives recorded a patient's name, village, parish, and age, as well as the information required by the district. This data collection system contains information required by the DHO. The Shanti Uganda Growth Reports require additional information to measure overall impact—the total number of lives impacted by the organization. An additional column in District Health Management Information book for Antenatal Services records this number. This column asks for the total number of household occupants, which is defined as any person or dependent who resides with the patient's family—including the patient. Each time a patient visits the Birth House, a midwife records the total number of household occupants with whom she lives. This allows Shanti Uganda to estimate the total number of lives they impact on a daily, monthly, and yearly basis.



### *Records Officer*

The Records Officer (one of the midwives until a full-time Records Officer can be hired) presides over the organization, maintenance, and reporting of the records in the District Health Information books.

At the end of each **week**, the Records Officer:

- tallies the metrics specified by the Project and M&E Coordinator (**See Note**)
- records those totals on the “tool” (the Ugandan phrase for “form”) provided by the Project and M&E Coordinator

At the end of the **month**, the Records Officer adds the weekly totals and records those totals in two forms:

- the “tool” provided by the Project and M&E Coordinator
- the Health Management Information System (HMIS) 105 form required by the District Health Office (DHO)

Then, the Records Officer—accompanied by the Project and M&E Coordinator—brings the HMIS 105 form to the District Health Office. It is critical that the HMIS 105 form is filled out completely and turned in on time. The Records Officer also returns the “tool” to the Project and M&E Coordinator for input into the Birth House Spreadsheet within the M&E google drive. The Birth House Spreadsheet stores the data electronically for future reference, analysis, and evaluation by staff and administrators. The Records Officer returns the completed form to the M&E Intern.

**Note:** When tallying the overall impact metric, the Records Officer must give special consideration to which entries they include. If a patient return to the Birth House multiple times within a single week or month, their total number of household occupants will be recorded multiple times. Thus, it would be inaccurate to simply tally the number of household occupants. Rather, the Records Officer tallies the number of household occupants associated *only* with unique patient numbers.



A midwife records Birth House data.



## Teen Health Education

### *Programming Intern*

Individual interns are responsible for planning, executing, and reporting on the Teen Girls Workshops and the Teen Boys Workshops. Because the Teen Health Workshops are funded by Lush, they require specific indicators measured through questionnaires. At the beginning of the workshop, interns administer the respective Teen Boys pre-workshop questionnaire or Teen Girls pre-workshop questionnaire. At the conclusion of the workshop, attendees complete the appropriate Teen Girls post-workshop questionnaire or Teen Boys post-workshop questionnaire. After collecting this data on the paper questionnaires, the intern inputs the questionnaire responses into the spreadsheet within the program-specific folder. Within that spreadsheet, the intern tallies the data for specific, workshop-related KPIs:



A student intern with the midwives.

### *Teen Girls*

- # of workshops conducted
- # of girls educated
- % more girls understand how HIV/AIDS is spread from person-to-person
- % more girls understand how to avoid unplanned pregnancies
- % of girl participants who expressed a keen understanding of their importance and potential as young women

### *Teen Boys*

- # of workshops conducted
- # of boys educated
- % more boys understand how HIV/AIDS is passed from person-to-person
- % more boys understand how to avoid unplanned pregnancies

By the end of the month, the intern reports those metrics via email to the M&E Intern, who inputs the metrics into the Birth House Spreadsheet.



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## Community Sustainability: Gardening and Nutrition

### *Programming Intern*

Similarly, the individual intern who organizes the Gardening and Nutrition workshops is responsible for collecting and reporting data required by the funding entity Lush. Rather than conducting both a pre- and post-workshop survey, the intern administers a single survey during the workshop. After collecting this data on the paper questionnaires, the intern inputs the questionnaire responses into the spreadsheet within the program-specific folder. Within that spreadsheet, the intern tallies the data for specific metrics:

- # of workshops conducted
- # of community members educated
- # of participants who reported an improved appreciation of sustainable farming practices
- # of participants who reported an improved understanding of nutrition and health for pregnant women and their families

By the end of the month, the intern reports these metrics via email to the M&E Intern, who inputs the metrics into the Birth House Spreadsheet.

## Appendices

### Appendix A. Detailed Analysis of Recommendations

#### A. **Necessary Action:** Hire a dedicated data-oriented specialist, or “Records Officer”

##### Observations:

- Lean data collection system overburdens Head Midwife
- Head midwife is competent, but does not have the capacity within her work to consistently and accurately report timely data totals to the Project and M&E Coordinator and District Health Office

##### Rationale:

At the ground level, the data collected is in the hands of the Head Midwife. She not only has to fulfill her duty as a midwife, but is also in charge of the other midwives, nurse assistants, and the traditional birth attendant, helps organize all the operational tasks at the Birth House, and oversees and provides housing for both interns and several staff members. Her productivity and efficiency is capped as the Head Midwife and the role of data collection should be handed off to either a Records Officer or the Assistant Head Midwife. As previously mentioned, Shanti Uganda’s relationship with the District Health Office is critical to gaining rapport with the Nsassi Village and beyond, as well as gaining government funding.

##### Moving Forward:

In order to demonstrate how Shanti Uganda stands out against its local competitors, Shanti Uganda needs a data-oriented individual to accurately record their data and communicate their success.

#### B. **Necessary Action:** Conduct a monthly evaluative interview with the Head Midwife to assess overall Birth House performance

##### Observations:

- Inaccurate and tardy data given to the Project and M&E Coordinator and District Health Office at the end of the month limits capability of growth assessment

**Rationale:**

Reporting growth to possible investors is a critical step necessary to illustrate how Shanti Uganda stands out against its competitors and demonstrates their credibility as an organization. An evaluative interview of the Head Midwife conducted by the M&E Intern at the end of each month will keep employees accountable of each other and generate space for communication in order to improve from one month to the next. Growth is possible when all staff members are aware of the specific determinants that either enhance or inhibit their performance. Effective communication between the midwives, the Head Midwife, and M&E Interns is critical for proper maintenance of a robust data collection system.

**Moving Forward:**

Once a report has been generated and the team evaluates the progress, the M&E intern can consult the people in the field regarding Shanti's performance over the past six months, factors that may have influenced it, and hypothetical reasons for the observed performance. The questionnaire explores the following factors that influence the number of services delivered:

- Seasonal weather
- Holidays
- Trends among the beneficiaries
- Capacity of the Birth House staff (supply and demand)
- Facility resources
- Scheduling difficulties (availability of midwives)

Highlights from this interview must be reported to the board to ensure the board members are accurately informed on the performance on the ground. Board members in the loop of performance on the ground opens up space for the board to voice their concerns and suggestions regarding Shanti's status of growth. Monthly "check-ins," which are then relayed to board members, will strengthen the foundation of the organization and in turn inform executive decisions.

- C. Necessary Action:** Tie enforcement and completion of data reporting to the evaluation of an employee to ensure quality and control in data collection system

**Observations:**

- Missing data records in Birth House data spreadsheet
- During an Interview with the biostatistician at District Health Office, he reported monthly data totals as incomplete and tardy

**Rationale:**

Strict adherence to the data collection system will promote a culture of accountability within the organization and keep staff members informed about the quality of their work. As Shanti Uganda expands and collects more data, the quality and control of the data must also reflect its growth.

**D. Necessary Action:** Add a column to the District Health Management Information book for Antenatal Services records to communicate overall impact using new column in HMIS books

**Observations:**

- The Project and M&E Coordinator cannot measure the total number of lives impacted—directly and indirectly—by Shanti Uganda.

**Rationale:**

The data collected by Shanti Uganda in the past does not take into account all of the people impacted indirectly through relation to a mother who received care or beneficiary who attended the workshops. Looking retrospectively, a crude estimation can be derived by multiplying the number of first antenatal visits by the average size of a household in Uganda. Looking forward, however, the data collection incorporates individuals indirectly impacted. The additional column asks for the total number of household occupants, which is defined as any person or dependent who resides with the patient's family—including the patient. Each time a patient visits the Birth House, a midwife records the total number of household occupants with whom she lives. This allows Shanti Uganda to estimate the total number of lives they impact on a daily, monthly, and yearly basis.

**E. Necessary Action:** Transition from a tri-annual to a bi-annual growth reporting schedule

**Observations:**

- The Project and M&E Coordinator's time and resources are spread thin, so it is difficult to generate reports three times a year. In addition to organizing data, implementing new programs, managing interns, the Project and M&E Coordinator is responsible for generating reports.

**Rationale:**

Switching from a tri-annual report to a bi-annual report gives the Project and M&E Coordinator more time to assemble the data into a meaningful document for the Executive Director and Board of Directors. The mid-year report will be an abbreviated version of the annual growth report.

**F. Necessary Action:** Key Performance Indicator tab on Birth House spreadsheet

**Observations:**



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- The organization lacked a clear and concise list of KPIs, as well as a single location to easily view the most current data for those KPIs. The Project and M&E Coordinator spent an excessive amount of time searching for appropriate data in the Birth House Statistics spreadsheet each time she wrote a report. The KPIs used did not clearly represent impact. Metrics such as patient's blood Hemoglobin levels were not easily interpreted by administrators lacking a medical background, while others were complex to calculate. For example, the return rate for mothers attending all four antenatal visits is impossible to accurately track without an electronic medical record system.

### **Rationale:**

The Project and M&E Coordinator identified important metrics among the ones she collects and each month. They are simple to understand and pertinent to gauging impact. Both healthcare professionals and impact investors can observe value in the KPIs that make up the new KPI dashboard.

### **G. Necessary Action:** Consistency in bi-annual and annual report generation

#### **Observations:**

- The content and organization of reports vary. Tri-annual reports did not contain the same metrics or follow a similar format each time. Thus, it was difficult to observe growth and make comparisons over time. Any time a new Project and M&E Coordinator or M&E Intern begins work at Shanti Uganda, they lack explicit instructions for how to collect, organize, and report the data.

#### **Rationale:**

Ideally, intermittent impact reports convey the comprehensive impact of the organization over time. By consolidating a list of KPIs in a single location, the KPI dashboard standardizes the content of the bi-annual and annual reports. And the written instructions for report generation makes uniform comparison possible, even if a position is handed over to someone new. With consistent impact data and reporting, the organization can monitor changes and observe trends.

### **G. Necessary Action:** Communicate scope of impact in Social Impact Report

#### **Observations:**

- Women are coming from a variety of locations, not just within the local regions such as the Nsassi Village or Luweero District, but districts more than 2 hours away such as Kampala.

#### **Rationale:**

To illustrate to future investors where women are coming from to receive services.



## Appendix B. Highlights from Interviews with Beneficiaries

The following lists include points brought up in our interviews with Shanti Uganda beneficiaries highlighting areas of satisfaction, as well as dissatisfaction with the organization. These points summarize the highlights from 19 interviews and 2 focus groups consisting of 8 or more beneficiaries. Areas of satisfaction serve to acknowledge the many aspects of Shanti Uganda services that are successful and increase client retention. On the other hand, areas of dissatisfaction bring to attention aspects of Shanti Uganda that need improvement and/or are not present, but clients would like to see at Shanti Uganda.

### *Areas of Satisfaction:*

- Clean, beautiful environment
  - “Shanti Uganda is clean and they take care of you.”
- Cheap services allow mothers to invest in food and goods for their families
  - “Shanti offers free services to the community; this is quite different from other facilities. The services in government facilities are supposed to be free, but oftentimes there are no drugs. Compared to other facilities, mothers pay almost nothing; they are almost 100% free to the community.”  
-Head Midwife
  - “When I didn’t give birth here, they sent me to another hospital where they asked for 30,000 UGX. My husband would have had to pay that money. Otherwise, I could use that money to send my kids to school, buy them clothes, fix the house, or buy food. At Shanti, that don’t ask for that huge [amount of] money.”
- Nurses & midwives give quality & intentional care
  - “Shanti gives me peace. . .the nurses are kind, and they help where there is a need.”
  -
- Yoga relieves pain and is a great form of exercise
  - “I enjoyed yoga the most because the exercises would make the pain go away, and my stomach didn’t feel so heavy during pregnancy. I developed a love for yoga, continued to practice, and did it five times at Shanti. Yoga was my “immediate hope” and ‘first aid.’ I benefitted from [yoga] so much that I told my friends about it.”
- Certain nurses & midwives will go out of their way to make personal home visits
  - “Everyone at Shanti has their own nurse that will come to their home. Every midwife is good, but [my midwife] does home visits to check up on me.”

(For further analysis see *Social Impact Report*)

*Areas of Dissatisfaction:*

- Running water
- Consistent power
- Ultrasound machinery
  - “Shanti needs an ambulance. They should widen buildings, add scan because right now you have to go to town to get a scan.”
  - “The other night, there were 4 deliveries. And where you look at the space where people sleep, it was all filled. Mothers who have HIV cannot deliver here. Mothers who come for scanning, so funders could supply a scanning machine.”  
- Head Midwife
- Increase infrastructure/more maternity ward beds
  - “If the labor ward is full and there is another birth going on, the antenatal care room has no privacy from people outside.”
  - “So far in July, we have booked 170 new mothers. We are running out of spaces. And even the health workers are finding a problem finding transportation to work each day.”  
-Head Midwife
- Increase services for teen boys and adult males
  - Specifically STI testing
- Safe, affordable transportation at night
  - “I went to Kasana Health Center because Shanti is too far to reach at night.”
  - “At government hospitals, the nurses look at you, stop by you and say, ‘We already came for you!’ even though they haven’t. You are ignored in the labor ward, even after waiting for an entire hour. They are not patient with you. If you are in pain, they yell, ‘You are not the first one to give birth.’”
- Operating room/ higher-level care
  - Willing to pay more than 7,000 UGX (shillings) for advanced care