ETS User Survey Report

Adamawa State ETS Programme

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1 List of Acronyms

BP/CR	Birth Preparedness and Complication Readiness
CHEW	Community Health Extension Worker
ETS	Emergency Transport Scheme
LGA	Local Government Area
MMR	Maternal Mortality Rate
NDHS	National Demographic and Health Survey
NPM	National Project Manager
NURTW	National Union of Road Transport Workers
PHC	Primary Health Care
SFH	Society for Family Health
SMoH	State Ministry of Health
TBA	Traditional Birth Attendant

2 Executive Summary

The Emergency Transport Scheme (ETS) project started in July 2013 and aims to contribute to reducing maternal mortality in Adamawa State, Northern Nigeria, through the utilisation of the National Union of Road Transport Workers' (NURTW) commercial taxi drivers who are trained to provide an affordable, accessible, safe and timely emergency transport service for pregnant women in labour or for those experiencing complications during their pregnancy.

A Midline survey was undertaken in 2016 which used a random sampling methodology for the sample selection in order to be representative of the general population. Whist there is value in the findings of the Midline and consistency with the Baseline in its approach, only 12 of respondents had used ETS. This meant there was a need to go directly to the users of the emergency transport scheme in order to have a large enough sample of users to draw conclusions and useful information from and so the ETS User survey was created.

The main objectives of this ETS User survey were to inform the intervention as well as to provide information for effective project management. It was an opportunity to gather qualitative data as well as quantitative data regarding ETS. The focus was on women aged 13 – 49 years who had used ETS in the past for a complication during pregnancy or delivery, or for a normal delivery.

The ETS User survey was conducted in March 2017 in three Local Government Areas (LGAs), Ganye, Guyuk and Jada, in Adamawa State. 150 women were selected based on the above criteria and were interviewed and asked questions about health and transport seeking behaviours.

The following are the major findings of the survey:

- ETS was organised in under 30 minutes 97% of the time and took less than 30 minutes to reach a health facility 89% of the time. ETS outperforms other modes of transport in both arranging and travel times. It is generally accepted that pregnant women experiencing a complication or labour receiving health care within a two-hour window can result in a better health condition. 99% of ETS trips are organised and completed in under one hour. This information points to the potential of ETS to contribute to a reduction in maternal mortality in Adamawa State.
- With ETS there is a significantly lower number of women who paid immediately for the service than those using non ETS modes of transport. The vast majority do not pay at all for ETS services with only 4% of women being asked for a fare. This is very encouraging as we knew from the formative research and baseline study that the cost of transport was a very real barrier for women travelling to health facilities.
- 75% of those interviewed stated that they had experienced at least one complication in their last or current pregnancy. It would appear that women who have had previous experience of maternal complications are more prevalent amongst those utilising ETS. It may be the case that the experience of a previous complication may heighten the awareness of emergency support services such as ETS in women's birth preparedness for future pregnancies.
- 86% of women interviewed received medical treatment for their complication at the health facility where they normally receive ANC and another 8% receive care at a hospital or clinic.
- The survey showed that 90% of the women interviewed had a facility based delivery. The availability and willingness to use ETS shows clearly the positive impact ETS can have for women delivering.
- Data from the ETS User survey showed 68.6% of women gave birth in a health facility with an additional 22% delivering at a hospital. The remaining 9.2% delivered at home or a TBAs home, generally due to a fast labour or not reacting to the labour quick enough once it started to organise transport in time to reach a health

facility. Additionally, this may account for some women who wanted to give birth at home and had only used ETS at some stage during their pregnancy when a complication arose. Not every single ETS journey relates to a birth.

- On the question of how post-natal complications were treated, the data showed that the majority of women (65%) went to the hospital/clinic. This high percentage of women who went to a hospital or clinic pre and post-delivery can be said to be due in part to the availability of ETS.
- Regarding transport and birth preparedness, the survey showed that the majority of women came to know about ETS through a family member, an ETS NURTW driver or a health facility.
- The vast majority of women know how to contact an ETS driver when needed. For a small amount, it was the husband who contacted the driver when needed. Only one woman out of 150 did not know how to contact a driver.
- Ownership of and access to a mobile phone is high. This allows the project to have confidence in the community's ability to contact ETS volunteers and that communication in not a barrier to accessing the service.
- During the course of the survey no women report a dissatisfaction with ETS or the service the drivers provided.

This survey builds on the understanding of how and why ETS users make use of the emergency transport scheme. This increased understanding allows for the development of next steps to ensure continual improvements are made to the ETS. Based on the information gathered it is known that women gain their knowledge about ETS from family members, NURTW drivers and health facilities. Motorparks at the moment do not appear to be actively sensitising motorpark patrons. The potential for motorparks to sensitise communities about the ETS is therefore largely untapped. Efforts should be made by NURTW State and LGA members to encourage motorpark-based NURTW members to distribute ETS driver's numbers and sensitise patrons about ETS. There is also the opportunity to utilise community leaders, churches and mosques more than is currently happening. Churches and mosques are locations where many people gather frequently.

The technical steering group has, to date, been successful in its ability to gather many stakeholders together and plan for the future of ETS. They have also been instrumental in supporting the ETS volunteer drivers through their support at events such as the volunteer celebration day and contributions such as hand sanitiser. Project assistance to the TSG should continue to the end of the project, but in the capacity of support to the TSG not direct planning and input. This is to ensure the TSG will be in a position to be self-sustainable and continue after the project has finished.

The NURTW is vital to the continued operation and ultimate sustainability of ETS. They must continue to be involved in ETS clubs, TSGs and other activities relating to the project. With their continued and constant involvement in the project they will be in a stronger position when the projects ends to keep ETS operational. Ultimately the NURTW are the owners and keepers of ETS and with support from the TSG will lead ETS in the State and its sustainability.

3 Introduction

3.1 Maternal health profile in Nigeria and in Adamawa State

Nigeria's Maternal Mortality Rate (MMR) of 576 deaths per 100,000 live births is one of the ten highest in sub-Saharan Africa, according to the 2013 Nigerian National Demographic and Health Survey (NDHS) estimates[1]. For every 1,000 live births in Nigeria during the seven years preceding the 2013 NDHS, approximately six women died during pregnancy, childbirth, or within two months of childbirth. A 2007 UNICEF publication[2] on Maternal, Newborn and Child Health suggests the disparity between the six zonal areas of Nigeria can be quite significant. The publication states MMR in the North-East zone (which includes Adamawa State) is 1,549/100,000 in comparison to the South West zone which has a MMR of 165/100,000. This indicates Adamawa State's MMR is almost certainly much higher than the national rate. Data from the project's baseline study indicates that less than 20% of women deliver in a health facility. The NDHS[3] states that 33.4% of women deliver at health facilities in Adamawa State, against a national average of 36%.

In Adamawa State health service vehicles are few, distances are great, and transport is prohibitively expensive for the majority of people. This is particularly true for those experiencing emergencies who typically experience exploitive fare price hikes during times of emergency. For these reasons, it is beyond the means of many women to seek assistance at time of birth or when they suffer potentially life-threatening complications.

3.2 The Context of the Investigation

In July 2013, Transaid and Society for Family Health (SFH) received a grant from Comic Relief and this grant was for the purpose of launching a sustainable Emergency Transport Scheme (ETS) over a five-year period in Adamawa State, North East Nigeria. ETS is implemented in collaboration with the National Union of Road Transport Workers (NURTW) - the labour union that coordinates the activities of taxi drivers, the Adamawa State Government and the local communities in 16 LGAs. The NURTW is.

The commercial taxi drivers from the NURTW offer free transport to pregnant women to travel to health facilities. The drivers that volunteer to be a part of the scheme, are sensitised about subjects relating to maternal mortality and trained to transport pregnant women seeking an institutional delivery and those experiencing complications in a timely, safe and affordable[4] way.

3.3 Purpose of the Study

A Midline study was conducted in 2016 in accordance with the ethically approved protocol submitted in 2014. The protocol was respected and followed and gave the project a study that is comparable with the Baseline study. There is strength in this approach and it is defendable as a random study across the population over the period of the project. However, there are limitations in this approach for the project and the project needs to have additional data which it can use to inform the interventions and make sure that the project is as impactful as possible.

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[1] National Population Commission (NPC) [Nigeria] and ICF International. 2014. Nigeria Demographic and Health Survey 2013. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF International.

[2] https://www.unicef.org/nigeria/ng_publications_advocacybrochure.pdf

[3] Ibid.

[4] Affordability is measured in terms of price reduction on the transport service. Results from formative research in Adamawa State, but also elsewhere in Nigeria, show that exploitative prices are frequently applied to those in need when an emergency occurs. The ETS is promoted as a free service though sometimes the cost of fuel is paid and some families give drivers money as a show of appreciation for the service they provided.

The approved protocol for the three studies (Baseline, Midline and Endline) follows a random sampling approach. This approach fulfils the task of a random study across the population in order to understand the projects impact across the whole population. However, given the nature of the intervention as being focused on medical complications (in its original design) inevitably means that the beneficial effects of the ETS apply only to a proportion of the whole population. It was therefore considered necessary to undertake more targeted sampling of ETS users in order to understand the intricacies of its working on the ground and where, if any, there are gaps to be improved or situations where unique trends are happening that warrant investigation and understanding. This is why this additional survey was required, to target only women who have used ETS.

Based on the National Population Commission, 2006 Census, it is estimated that in the 12 months leading up to the midline research, August 2015 to July 2016, approximately 161,000 live births occurred in the 16 LGAs the project is working in. In the same 12-month period 6,016 women were transported via the project's ETS. The total number of women transported by ETS over the 12 months as a percentage of the estimated total number of live births is 3.74%.

From the Midline study results 12 women stated they had used ETS to be transported for delivery. This amounts to 4.15% of those women interviewed who stated they had a live birth in the past 12 months. Although this appears to show a slight overreporting of ETS exposure, a larger number of women who had used ETS was hoped for in order to have a large enough sample to draw conclusions from. However, this approach could not provide such numbers as the protocol was constructed for random sampling and therefore there was no biasing or targeting of women who had used ETS.

The main objectives of the ETS User survey were:

- To provide information for project management
- To collect quantitative and qualitative data on key transport and maternal health care indicators
- To obtain data from respondents on: access to health facilities services (costs, time and availability of transport) and health and transport-seeking behaviours.
- To identify information gaps which may be further explored.

3.3.1 Project Indicators

The survey was also an opportunity to gauge the progress of some of the project outcome indicators, specifically;

- ***ETS use***
    - *How drivers are contacted*
    - *What is ETS being used for*
    - *Understanding basic costs and timings around ETS use.*

- ***ETS awareness***
    - *"Between 50 to 65% of community members (age range 15 – 64) understand the purpose of ETS"*
    - *"Between 35 to 45% of community members (age range 15 – 64) know how to contact their local ETS driver"*

  The two project indicators above on ETS awareness could not be answered from this survey. The survey targeted ETS users so there would be extremely high results for both of these indicators. The targeted sampling of ETS users would not be representative of the general population.

4 Methodology

4.1 Timeline

In November 2013, prior to the baseline survey, formative research was carried out in Adamawa State to gather the necessary information linked to important project indicators. In June 2014, the Adamawa State Ministry of Health (SMoH) gave ethical clearance for the baseline, midline and endline protocol. The baseline survey began in August 2014 with data entry, cleansing and analysis carried out and completed in early 2015. The midline survey began in August 2016 with data entry, cleansing and analysis carried out and completed September to November 2016. An additional set of questionnaires to supplement the sample size for the midline study was conducted in March 2017. In February 2017, the Adamawa State Ministry of Health (SMoH) gave ethical clearance for the ETS User survey. The ETS User survey began in March 2017 with data entry, cleansing and analysis carried out and completed in April to June 2017.

Table 1: Activities to date

Activities to date	Dates
Formative research	November 2013
Ethical approval	June 2014
Baseline survey	August 2014
Midline survey	August 2016
Midline supplement	March 2017
ETS User survey	March 2017

4.2 Sample size

For this survey, a purposive sampling approach was used. Health facilities and Local Government Areas (LGAs) were specifically targeted using the criteria laid out below.

In order to ensure that ETS was fully operational in all LGAs and to give a set time period to be used for the criteria that is comparable operationally over all 16 LGAs, the 13-month period of September 2015 to September 2016 was selected. 6,636 ETS transfers were made during this period with the mean monthly LGA ETS transfers being 32. There were variations in the number of transfers per LGA with the highest and lowest mean transfers per month being 94 and nine respectively.

Within Adamawa State two LGAs were selected to participate in the survey. The two LGAs were selected according to the following criteria:

- An LGA was a LGA that was performing, on average, lower than the majority of LGAs in terms of the average monthly number of transfers using the project's ETS.
- An LGA was a LGA that was performing, on average, higher than the majority of LGAs in terms of the average monthly number of transfers using the project's ETS.

Guyuk LGA was selected as the low performing LGA which had recorded 128 transfers over the period. Jada LGA was selected as the high performing LGA which had recorded 1,226 transfers over the period.

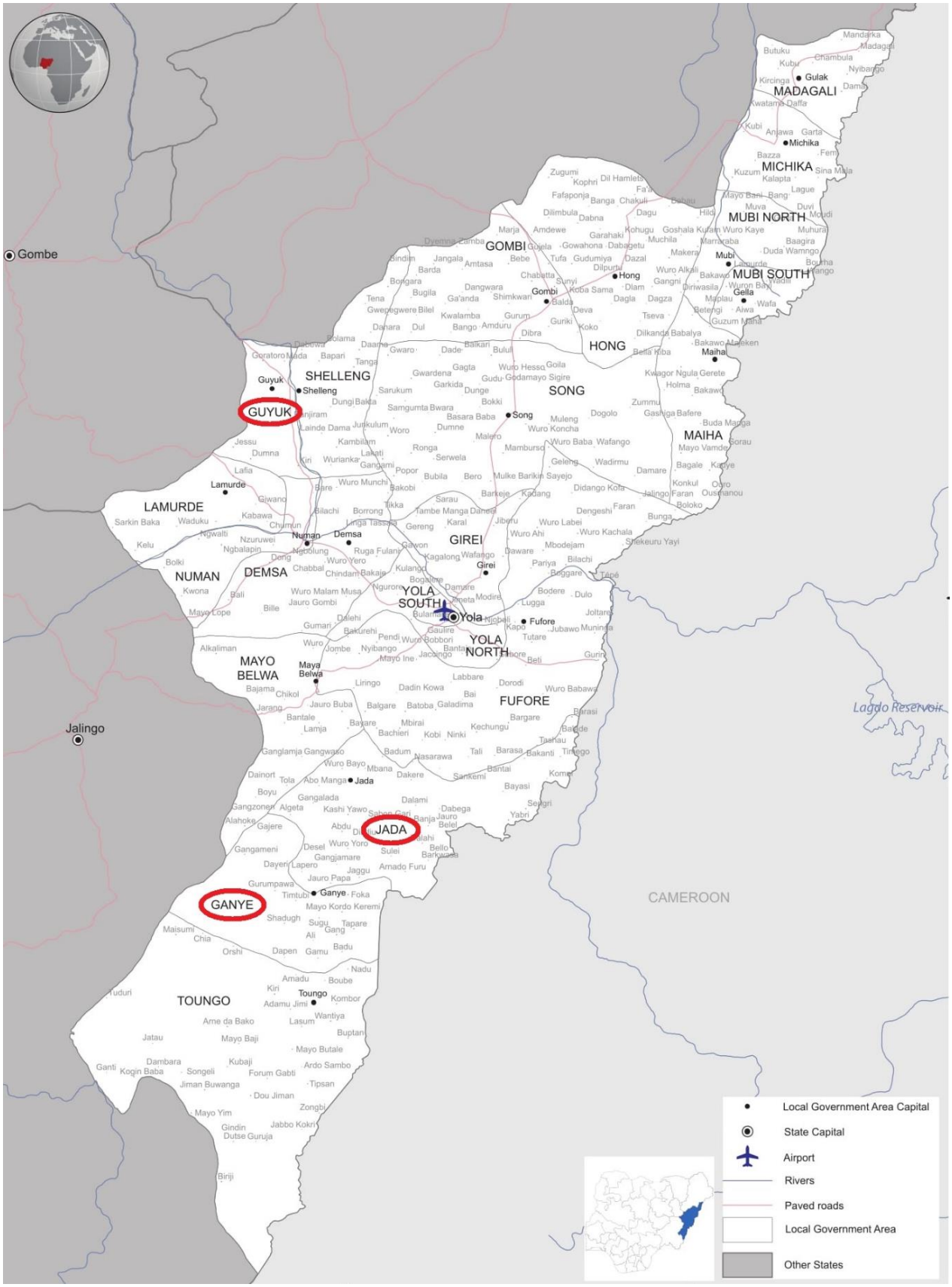
In each of these two LGAs, one health facility was selected that was considered accessible and one that was considered less accessible. The level of accessibility was defined by distance, time and affordability of transport. It was

assumed that if there were higher than average numbers of ETS transfers none of these factors were considered a prohibiting factor in accessing the facility with the opposite, a health facility with lower than average numbers of ETS transfers, considered less accessible. If there were a situation where the required number of interviewees are not met additional facilities could be selected based on the same criteria to complete the necessary number of interviews, see Table 2, for that type of facility. During the field work additional health facilities were indeed required due to the ability to contact and availability of the intended interviewees.

In Guyuk LGA the two chosen facilities were Cottage Hospital Guyuk for the accessible facility and Gunda PHC as the less accessible hospital/health facility. In Jada LGA, the two chosen facilities were So'o Clinic for the accessible facility and Gonglare Health Care as the less accessible hospital/health facility. In both of these LGAs additional health facilities were selected to achieve the total number of interviewees required.

In addition to these facilities, one more facility was selected that was the highest performing facility across all the LGAs in the 13-month period, Ganye General Hospital in Ganye LGA. This was selected to understand why ETS has been as successful here as it has been.

The map below, Figure 1, details the locations of the LGAs in Adamawa State.


Gombe
Jalingo
CAMEROON
Lagdo Reservoir
MADAGALI
MICHIKA
MUBI NORTH
MUBI SOUTH
GOMBI
HONG
SHELLENG
SONG
GUYUK
MAIHA
LAMURDE
GIREI
NUMAN
DEMSA
YOLA SOUTH
YOLA NORTH
MAYO BELWA
FUFORE
JADA
GANYE
TOUNGO
Local Government Area Capital
State Capital
Airport
Rivers
Paved roads
Local Government Area
Other States

30 ETS transfer cases (any 30 cases over the selected timeframe) per facility in order to allow parametric statistical comparison across the locations to be undertaken. This meant the survey aimed to interview 150 women who had used ETS.

Table 2: Sample selection matrix: Number of ETS cases per facility and location

	High performing LGA (Jada)	Low performing LGA (Guyuk)	Highest performing facility	TOTALS
HF Level of access (accessible)	30	30		**60**
HF Level of access (less accessible)	30	30		**60**
Ganye General Hospital			30	**30**
TOTAL	60	60	30	**150**

4.3 Subject selection

Women between the ages of 13 and 49 that had used the ETS due to a complication during pregnancy or delivery, or for a normal delivery were targeted. The following process was undertaken to identify women that had been transferred via ETS to each of the selected health facilities;

1) A list of those women who had used the facility, by means of using the ETS, was produced using the project's driver database[5]
2) Women were telephoned, telephone numbers were provided from the ETS driver's logbooks and the driver databases, and consent requested for an interview and if granted, location of the interview agreed
3) A NURTW member, either a focal person, chairman or driver, was informed of the selected facility and invited to accompany the researcher to locate the women (in the majority of cases it was the driver) and their villages
4) When not enough women were identified, contacted and agreed to an interview, additional facilities (Table 3: Health facility matrix below) were selected using the same criteria as stated above. This allowed the remaining number of women to be identified and interviewed to ensure 30 interviewees per each type of facility
5) The same process was followed in all health facilities until the sample was found.

It was very important to have a local connection, a NURTW member, to allow smooth movement in the communities. This was based on lessons learned from the Baseline and Midline fieldwork on the importance of being accepted by the community and also to move freely and without suspicion due to the current security situation in Adamawa State.

Table 3: Health facility matrix:

[5] The driver database is an Excel database where all ETS transfers are recorded from the driver logbooks. It contains names of passengers, location of pick up, complication, and health facility.

Protocol selected health facilities	Additional health facilities
Cottage Hospital Guyuk	Baba Diya Private Clinic
Ganye General Hospital	Banjiram PHCC
Gonglare Health Care	Federal Medical Centre
Gunda PHCC	General Hospital Numan
So'o Clinic	Gunda PHCC
	Guyuk PHCC (Maternity Guyuk)
	Mbulo PHCC
	Purokayo PHCC
	Pwalamoliye PHCC
	Specialist Hospital Yola

Once women had been selected and had given consent to an interview, a questionnaire was used to conduct the interview. The **maternal health questionnaire** comprised of four modules;

1) A background module which gathered demographic characteristics of pregnant/recently pregnant women
2) A maternal health module which asked all pregnant/recently pregnant women aged 13-49 years about their health seeking behaviour
3) A delivery module that focussed on the experience of delivery and/or preparedness to deliver
4) A transport module which gathered information about transport seeking behaviours and ETS and other modes of transport in the area.

This questionnaire was an adaption of the questionnaire used for the Midline study. The main amendments were made to be able to differentiate the data between ETS and other modes of transport. The bulk of the questions remained the same from the Midline study. This was done in part to be able to compare answers from the ETS User survey and the Midline study which is representative of the general population.

4.4 Survey Implementation

Under the supervision of the National Project Manager[6] (NPM) two teams of three female interviewers with one field supervisor per team worked concurrently for over a week across the three LGAs. The female researchers were

[6] Ismaila Balogun

selected from the team of researchers that carried out the Midline study in 2016. As per both the Baseline and Midline study female researchers were used due to cultural norms that prevent unknown males entering the homes of other community members, seeking to speak with women. Refresher training was conducted for the researchers and the supervisors[7] prior to the field work.

Field debriefings with the researchers were carried out at the end of each day and information passed to the NPM when needed. When the field work was completed a day long debriefing was conducted that was attended by all the researchers, the supervisors and the NPM. This was an opportunity for the whole team to meet after the field work and collectively understand any challenges or issues that arose.

Supervisors conducted at least three spot-checks (one per researcher) to ensure the quality of the surveys and to ensure they were being conducted according to the protocol methodology. All of the questionnaires were reviewed by the field supervisors at the end of each day and at a second stage by the National Project Manager for quality control purposes.

Data was carefully treated throughout the whole process. Data was entered into Excel spreadsheet templates by four of the researchers who were proficient in the use of Excel and had access to a computer and by the two supervisors. In line with the protocol, the data was anonymised and only select Transaid staff will have access to the archived questionnaires.

[7] Abdurrazzaq Bello & Nasiru M. Baba

5 Findings

For the purpose of this report, in some cases the data was compared against the data from the Midline study conducted in August 2016. This is so data from ETS users can be compared against the general population to understand trends and identify differences by using the midline as a proxy for the general population. As stated the Midline study used random sampling and therefore presents a sample representative of the general population in terms of attitude and actions taken during and after pregnancy.

150 women who had used ETS participated in the survey.

In tables throughout this report where respondent rates are shown; *n* is the number of respondents to the question, whereas *N* is the total number of respondents.

5.1 Socio-Demographic Characteristics of Women

This section presents results on the socio-demographic characteristics of the women interviewed during the survey.

The characteristics of individuals in the households are show in the table below.

Table 4 – Socio-economic characteristics of respondents

Age	Number n(N) 150 (150)	Percentage
13 – 19	25	17%
20 – 29	65	43%
30 – 39	34	23%
40 – 49	4	3%
Age unknown	22	15%
Marital Status	**Number n(N) 150 (150)**	**Percentage**
Married	148	99%
Single	1	1%
Widowed/Separated/Divorced	1	1%
Religion	**Number n(N) 150 (150)**	**Percentage**
Christian	39	26%
Islam	110	73%
Traditional Religion	1	1%
Ever attended school	**Number n(N) 150 (150)**	**Percentage**

Yes	129	86%
No	21	14%
Educational attainment (Highest level of education completed)	**Number n(N) 150 (150)**	**Percentage**
Qur'anic Education Only	41	27%
Did Not Complete Primary School	14	9%
Primary School Completed	25	17%
Secondary School Completed	46	31%
Tertiary School/University Degree	3	2%
No formal education	21	14%

22 women did not know their exact age. The largest proportion of women, 43%, fell into the 20-29 age bracket, which is similar to the Midlines largest proportion of women, 44%, falling into the same age range. The selected sample size reflects a similar representation of age ranges as the Midline study. 11% of those interviewed were aged 18 or under with the youngest being 14 years old. Mean age for women interviewed during the ETS User survey was 26 years.

The vast majority of women, 98.67%, are married with only one respondent divorced and one widowed. Unlike the Midline study which found an almost even split across the two main religions of Nigeria: Islam (42% of respondents) and Christianity (58%), the ETS User survey found 26% were Christian while 73% were Muslim. This is most likely the result of the three LGAs selected out of the 16 that the project is operating simply being predominately Muslim.

The majority of the 150 women interviewed, 86%, have attended some form of schooling in the past. The largest percentage of women (31%) have completed secondary school with Qur'anic education being the second highest figure at 27%. These figures are again very close to the Midline data indicating comparable socio-demographic characteristics and thus a representative sample of the population.

Table 5 shows the main languages spoken by women who were interviewed during the Midline and ETS User survey.

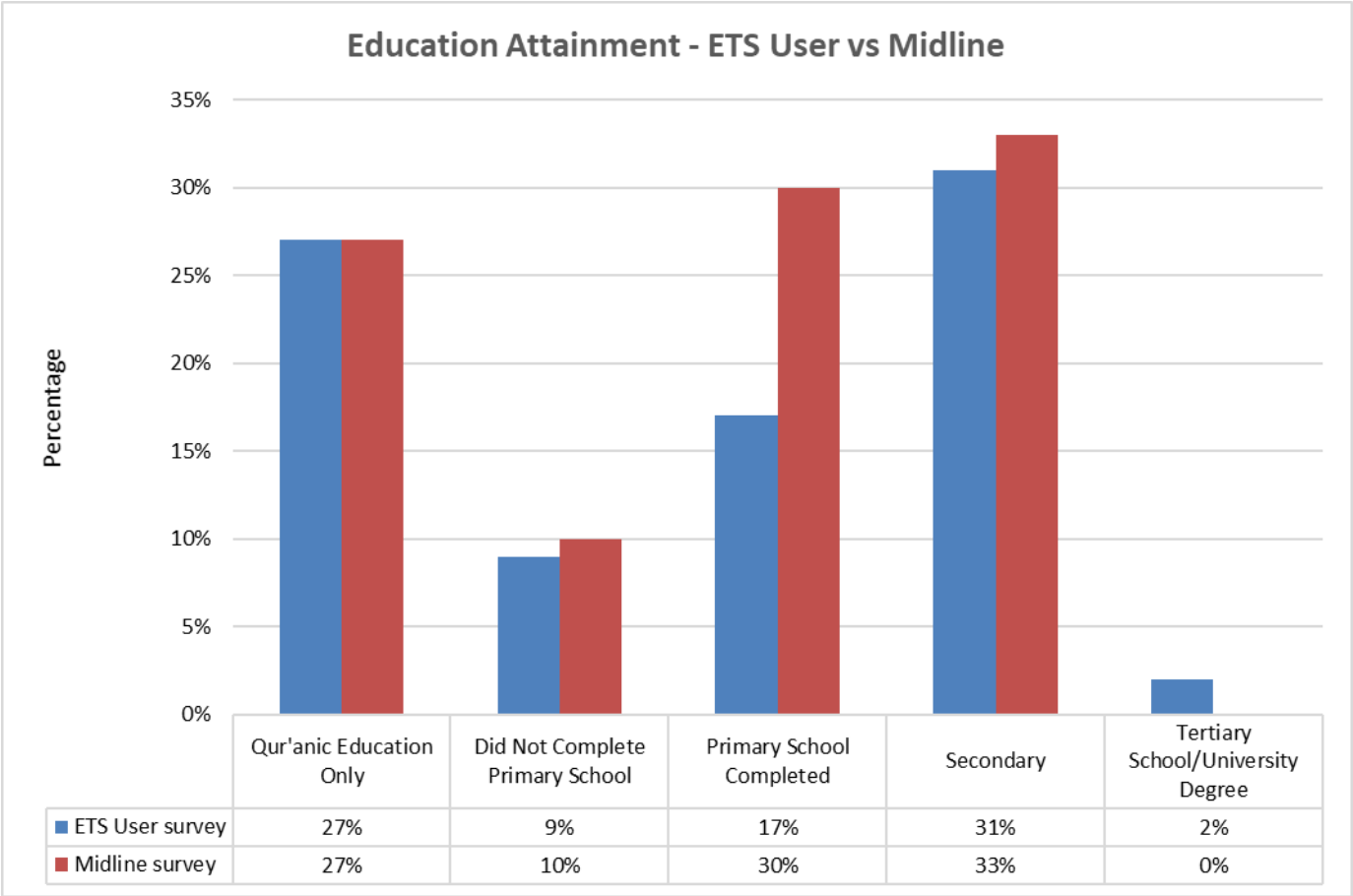
Table 5: Main languages spoken

Characteristics	ETS User survey	Midline
English	17%	9%
Hausa	92%	86%
Fulfulde	91%	37%
Chambe	26%	17%

Data from the Midline shows 25% of respondents spoke three or more languages while for the ETS User survey 35% of women spoke 3 or more languages. The significant difference between the Midline and this survey for those who speak Fulfulde is due to location. In Jada and Ganye LGAs the Fulani tribe accounts for a large portion of the population and their dialect is Fulfulde. In turn, this has the consequence that other tribes in the area also speak Fulfulde for ease of communication and trade.

The graph below shows a comparison of the highest level of educational attained by women surveyed as part of the Midline study and ETS User survey.

Figure 2 – Educational attainment of women



	Qur'anic Education Only	Did Not Complete Primary School	Primary School Completed	Secondary	Tertiary School/University Degree
ETS User survey	27%	9%	17%	31%	2%
Midline survey	27%	10%	30%	33%	0%

A similar proportion to the Midline completed secondary and tertiary levels of education. Those who have used ETS to reach a health facility show signs of, ability to or interest in knowledge from learning more languages to higher levels of education. There are of course many factors that influence if a woman decides to deliver at a health facility including the influence of family or husbands, economic status, other cultural norms, levels of health knowledge, physical accessibility and past experience, both good and bad.

6 Maternal health characteristics

Pre-natal, delivery and post-natal care health characteristics of pregnant and previously pregnant women who used ETS are important to understand. Information about continuum of care informs the project about the health seeking behaviours of those who have used ETS. This information can be compared against the general population to understand differences in health seeking behaviours. It is important to remember that all the women who took part in the ETS User survey are women who decided to go to a health facility. These women reflect, for the most part, those who have a positive attitude towards health care in pregnancy.

Of the 127 women who answered the question on their age at which they gave birth to their first child, the mean age was 19 years old with the youngest being 12 years. The mean age of the most recent child was 11 months, 148 women responded to this question.

The table below represents a breakdown of the ages of the 127 women who answered the question relating to their age at the time of their first pregnancy.

Table 6: First pregnancy age brackets

Age of first pregnancy	No. of responses
< 16 years	22
16 - 19	66
20 - 25	32
26 and older	7

6.1 Prenatal Care

During their most recent pregnancies, on average women (99% responded) had attended five[8] Ante Natal Care (ANC) visits. Women in the same age group, 13-49, during the Midline on average (68% responded) had attended four ANC visits. Between the women in this study and the general population there is a difference of one ANC visit for their current or last pregnancy. It must be noted this figure reflects what women stated during the interviews and was not verified with health facility records. The higher attendance of ANC visits may, as previously stated, reflect the women in this study's positive attitude to health care during pregnancy. It may in some cases also reflect lessons learnt from past experience of complications for other pregnancies.

Of those who attended ANC visits, 95% of them reported that they were told about danger signs while 5% were not informed of the danger signs during ANC visits.

The women were asked if they had experienced any complications during their current or most recent pregnancy. 75% of those interviewed stated that they had experienced at least one complication. The types of complications are listed below in figure 3. The Midline study stated that 57.9% of women had experienced at least one complication during their last or current pregnancy and in the Baseline study, 53.5% had experienced a complication. This is a significant

[8] 2013 Nigerian National Demographic and Health Survey estimates that nationally on average 51% of women had attended at least four ANC visits during their pregnancy.

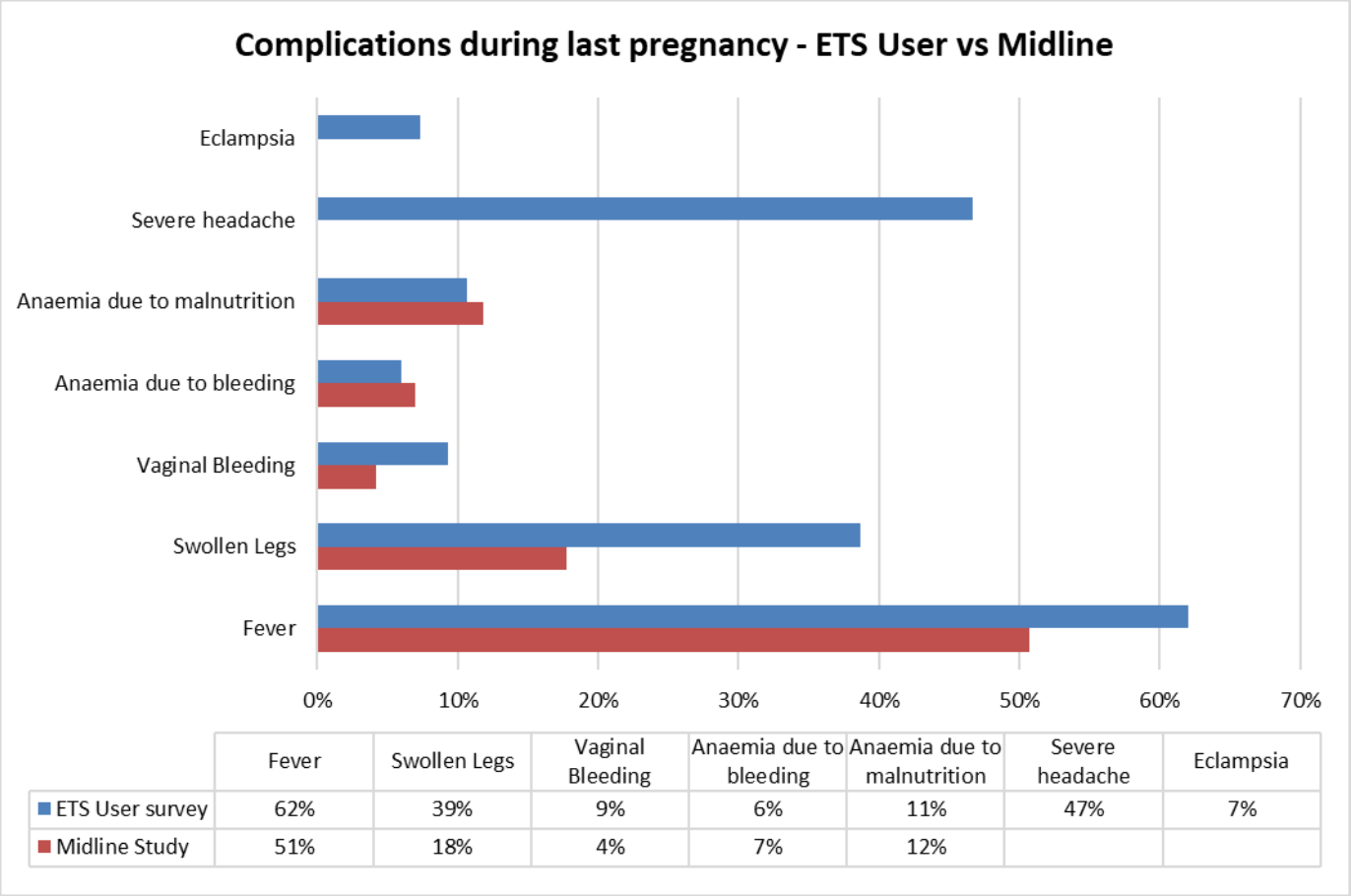
increase (almost 25%) in the proportion of women having experienced at least one complication. However, this increase could be expected due to the focus on women that have used the ETS and the very nature of ETS which specifically targets women with complications and who are delivering.

It would appear that women who have had previous experience of maternal complications are more prevalent amongst those utilising ETS while those women who have no previous experience of maternal complications account for a smaller percentage (25%) of those utilising the service. It may be the case that the experience of a previous complication may heighten the awareness of emergency support services such as ETS in women's birth preparedness for future pregnancies.

The Midline data showed that over 68% of women chose to deliver at home with only 29% of women delivering at a health facility. The data from this survey and the Midline reaffirms a cultural norm of delivering at home for the most part unless there is a major complication. There are projects as well as government programmes aimed at increasing institutional deliveries but for now the data from this project's surveys indicate women still prefer to give birth at home and when there is a complication go to a health facility. It is however encouraging to see 25% of ETS transfers are not for complications and that the communities are utilising the service in this way. The proportion of women without a complication is similar to the data coming from the driver database, which is 19.2% of all ETS transfers do not involve a complication.

Figure 3 below shows the frequency of different types of complications experienced during pregnancy. Respondents here were presented with multiple answers to this question. 21% of women experienced only one pregnancy related complication during their pregnancy. However, 43% of women had two or three complications during pregnancy and 11% had four or more complications.

Figure 3. Complications experienced during last pregnancy

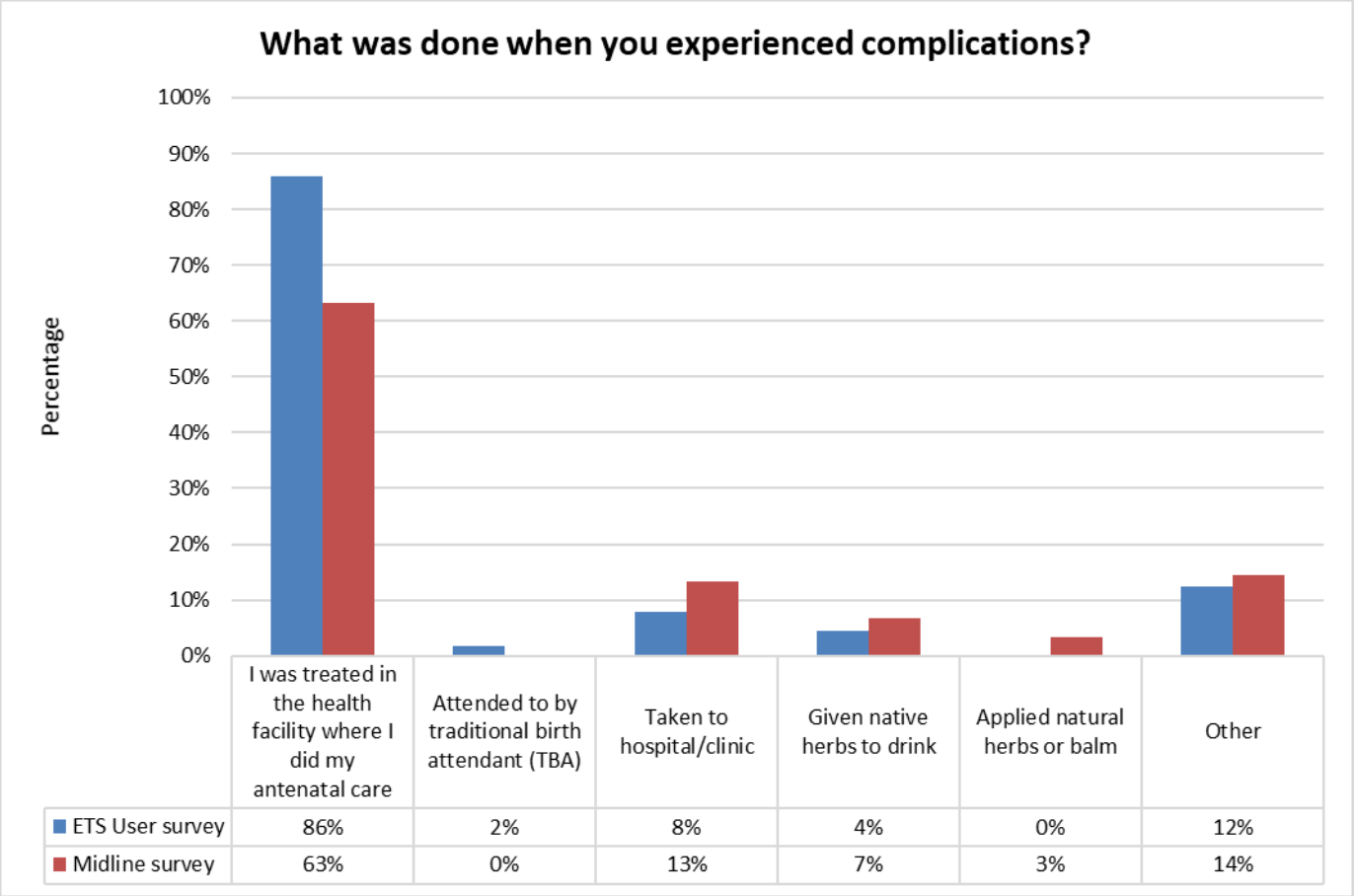


	Fever	Swollen Legs	Vaginal Bleeding	Anaemia due to bleeding	Anaemia due to malnutrition	Severe headache	Eclampsia
ETS User survey	62%	39%	9%	6%	11%	47%	7%
Midline Study	51%	18%	4%	7%	12%		

Fever was by far the most commonly experienced complication at 62%. This was also the case in the Midline study where 51% of women had experienced fever. The second most commonly reported complication during this survey was Severe headache at 47% of respondents. Severe headache and Eclampsia were not options in the Midline study and therefore no comparison can be made. As mentioned previously it was expected that many more complications would present in these findings in comparison to the Midline study due to the nature of this survey's sampling approach. The higher frequency of previous experience of vaginal bleeding amongst ETS users compared to the midline survey may again highlight a heightened awareness of the need for emergency support services as a result of the significant consequences such complications could have.

During the survey, women were also asked what action was taken once the complications were experienced. The graph below illustrates women's answers. Women could give multiple answers to this question.

Figure 4. Response to complications during pregnancy



86% of women received treatment for their complication at the health facility where they received ANC and another 8% went to an alternative hospital or clinic. 12% stated “Other” which includes taking some form of pain killer or medicine from a pharmacy or doing nothing at all. A smaller proportion of women during the Midline study went to any form of health facility or hospital to receive treatment for their complication.

Again, this reflect the attitude of those women who use ETS and could indicate an increased awareness of the need for health care and to be treated at health facilities.

6.2 Delivery and newborn care

This module proposed questions about where women decide to give birth and about how the health facility is reached. These questions contribute to understanding the role ETS plays in delivery.

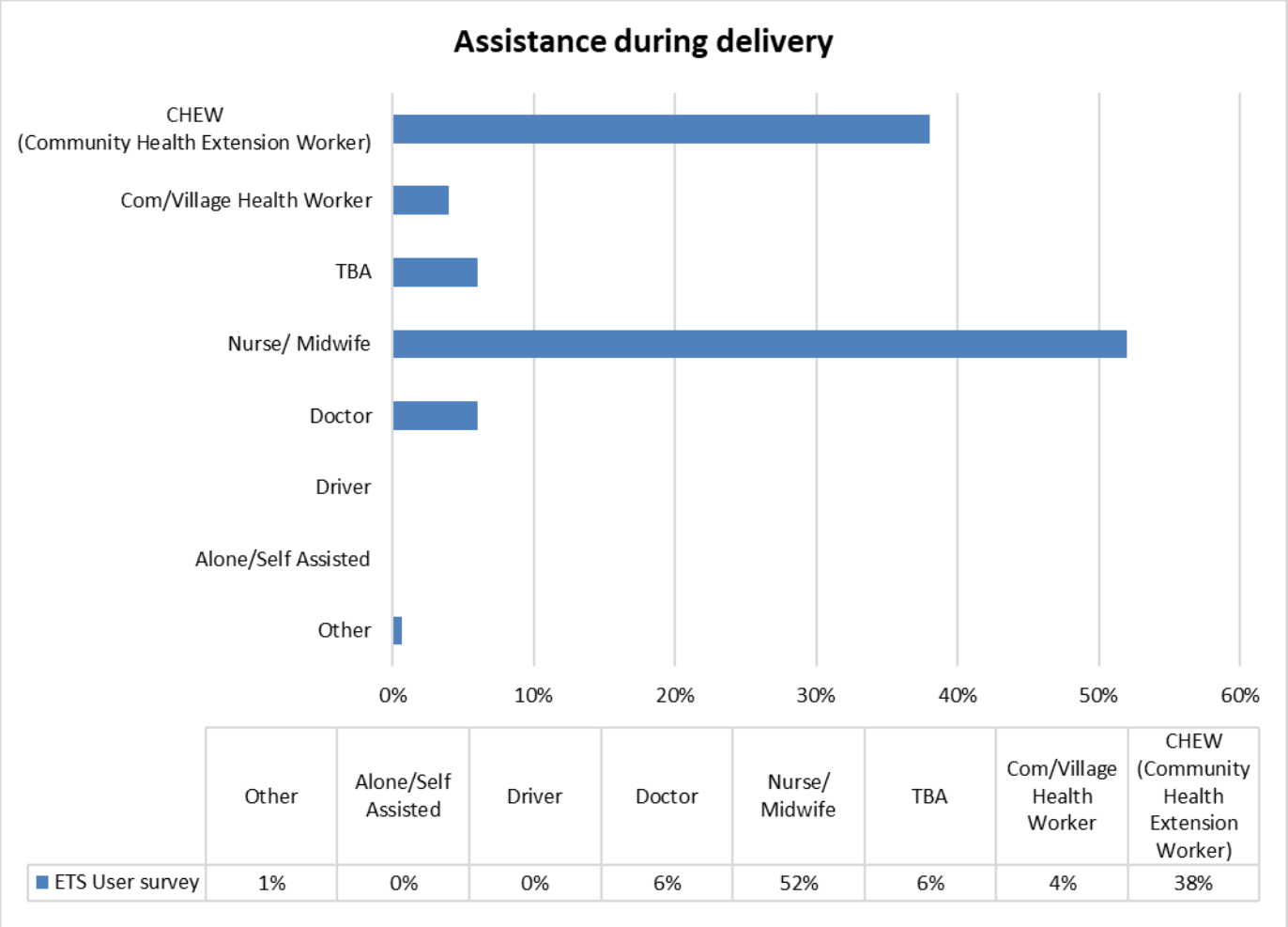
Table 7 – Baby's birthplace

Characteristic	Number n(N) 150 (150)	Percentage
Baby's Birthplace		
At home/Relative's Home	13	8.6%
House of TBA	1	0.6%
Hospital (secondary and tertiary)	33	22%
Primary Health Care Centre	103	68.6%
On means of transport to HF	0	0%
Other	0	0%

High delivery rates are expected from this survey due to the fact women who have used ETS are being targeted. The 8.6% of women who give birth at home or a relative's home may be due to a fast delivery or not reacting to the labour quick enough once it started to organise transport in time to reach a health facility. Additionally, this may account for some women who wanted to give birth at home and had only used ETS at some stage during their pregnancy when a complication arose.

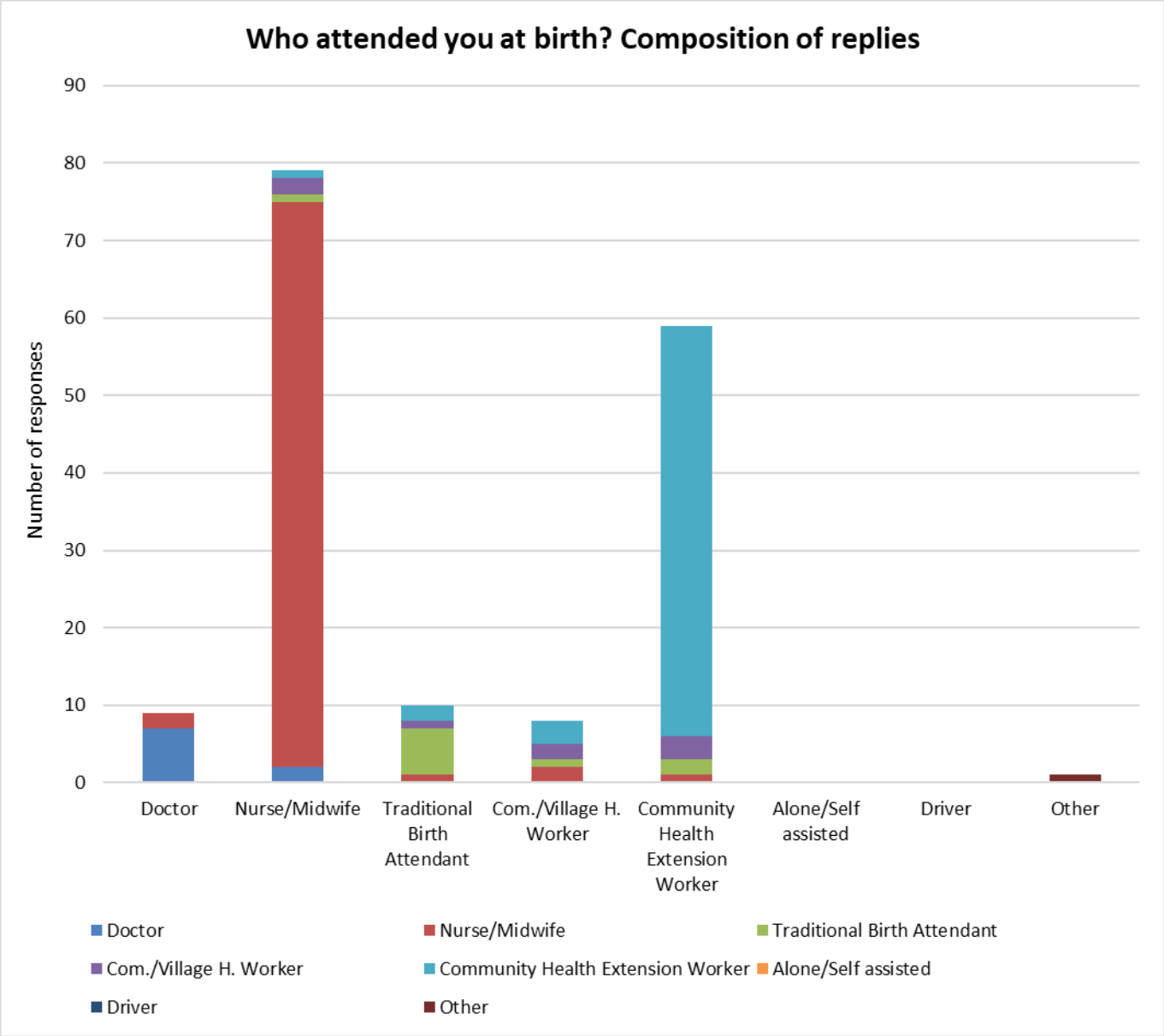
Figure 5 and Figure 6 below illustrate who helped the woman with the delivery. Because women could give multiple answers, the box details the composition of replies.

Figure 5. Assistance during delivery



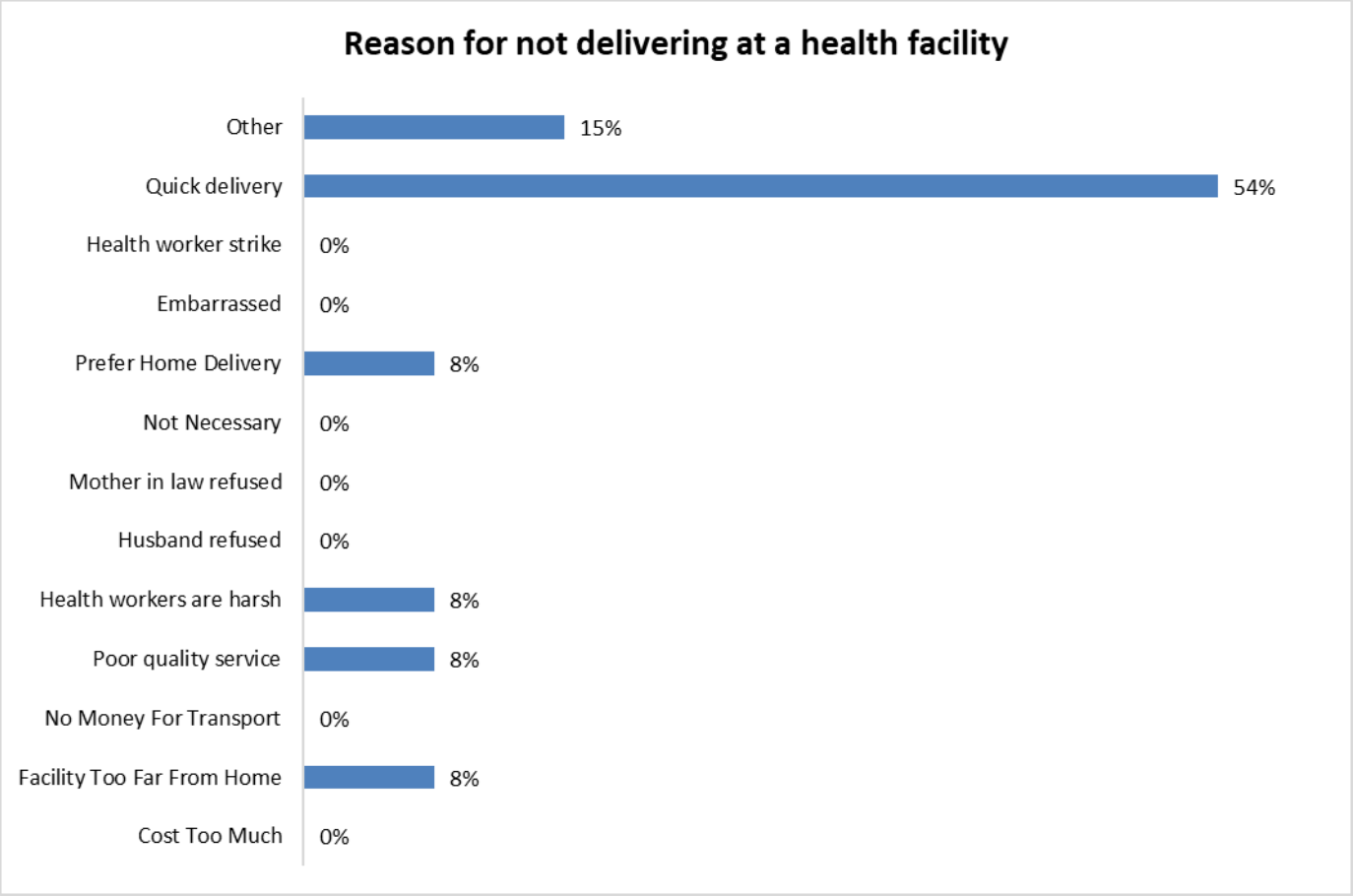
	Other	Alone/Self Assisted	Driver	Doctor	Nurse/ Midwife	TBA	Com/Village Health Worker	CHEW (Community Health Extension Worker)
ETS User survey	1%	0%	0%	6%	52%	6%	4%	38%

Figure 6. Who attended you at birth? Composition of replies



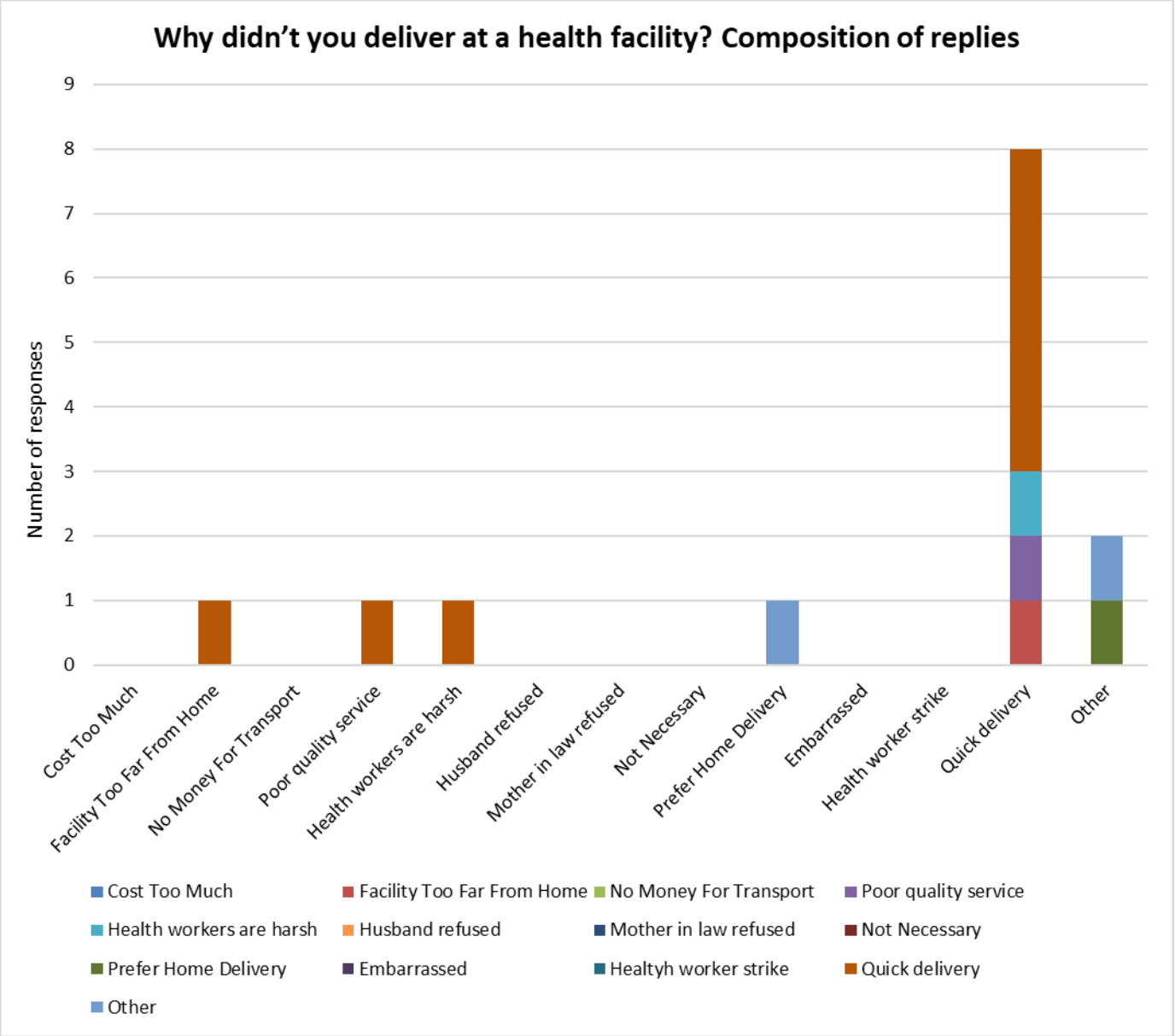
As can be seen from the two graphs above, the vast majority of women either had a nurse/midwife or Community Health Extension Worker (CHEW) assist with delivery. This is a reflection that 90% of the women interviewed had a facility based delivery. The one who responded "Other" was assisted by an ETS volunteer driver. Figure 6 shows a composition of replies and shows how some women had multiple people attending their delivery.

Figure 7. Reasons for not delivering at a health facility



Those women who did not deliver at the health facility, 9.3% of all women, were asked to explain the reason why they didn't go, as summarised in Figure 7 above. This was a multiple response question and the composition of replies is illustrated in Figure 8.

Figure 8. Why didn't you deliver at a health facility? Composition of replies



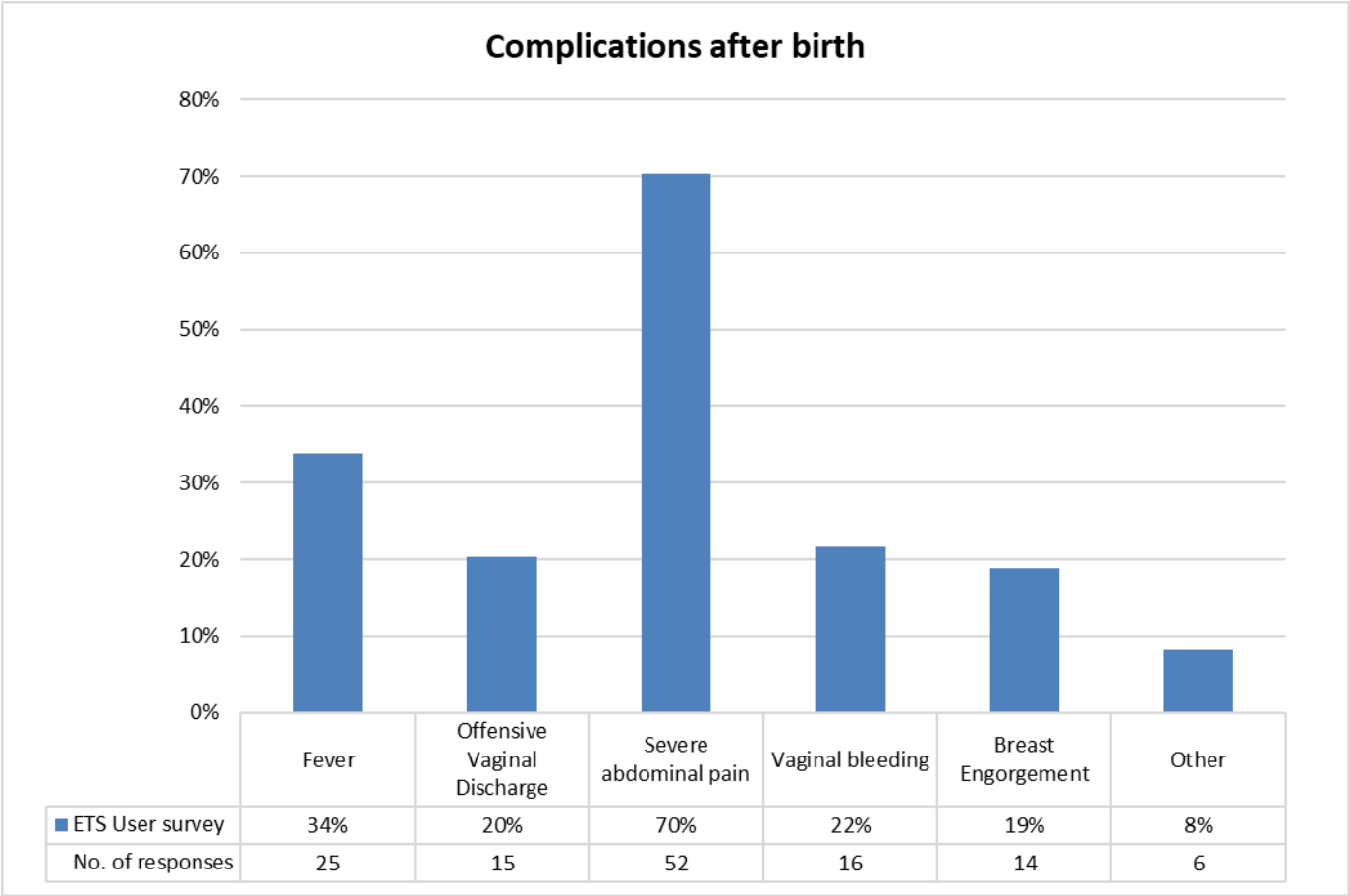
The overall figures for women who did not deliver at a health facility are very low due to the nature of the survey sampling, in as far as the fact all women interviewed had used ETS. Only 8.6% of the 150 interviewed did not deliver at a health facility.

The largest reported reason for not having an institutional delivery was a quick delivery, which 56% sited it as the only reason for not having an institutional delivery. Poor quality of service, health workers being harsh, and preferred home delivery were among some of the other reasons given.

6.3 Post-natal care

This section discusses the responses regarding women's experiences of post-natal complications and actions taken when ETS was involved. 49% of the women interviewed did experience at least one of the symptoms outlined below during their pregnancy. In a multiple response question, shown below in Figure 9, frequency of type of complications is reported.

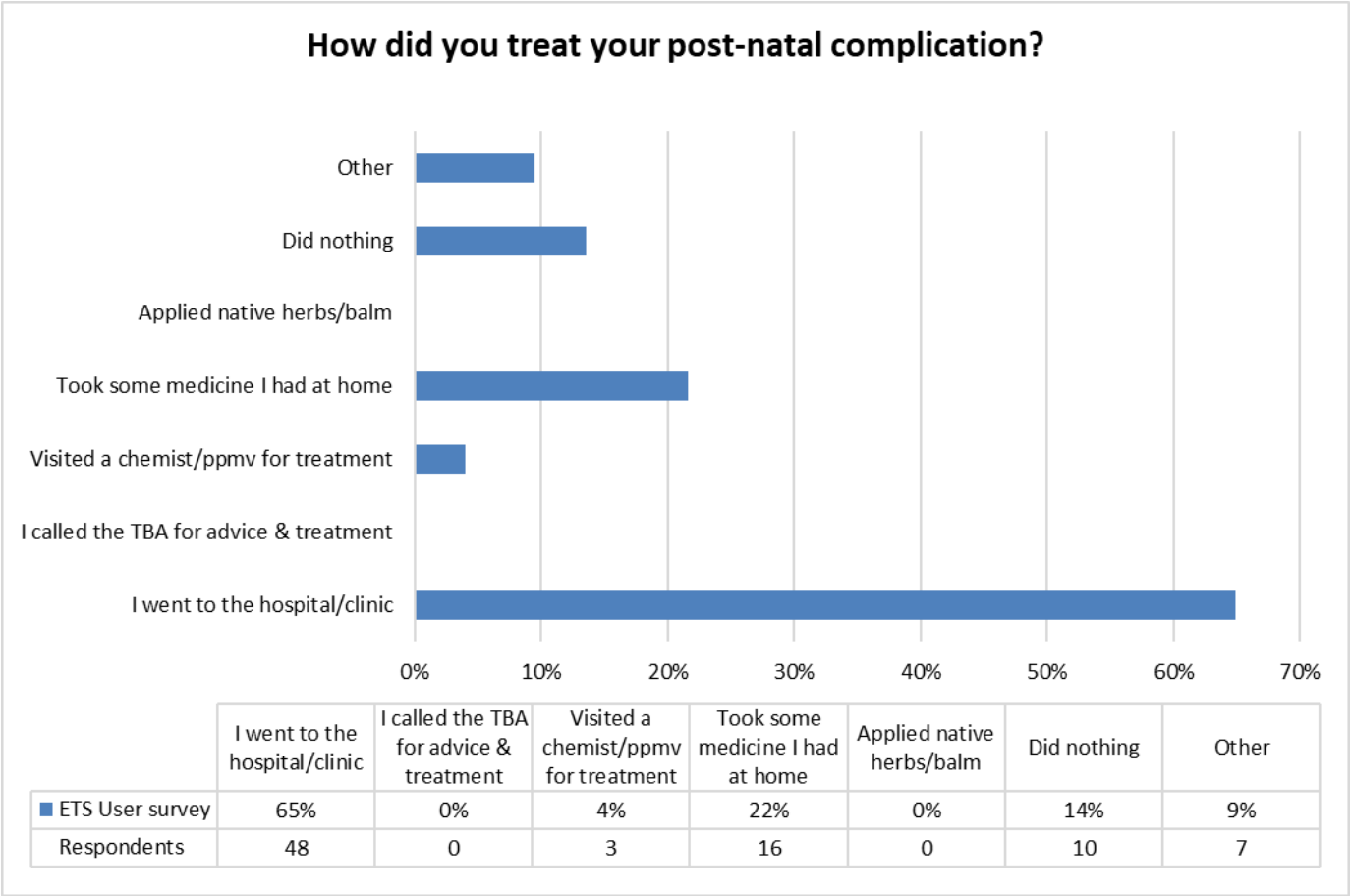
Figure 9. Type of complications experienced after birth



The highest recorded complication during the survey was Severe abdominal pain at 70%. The next most recorded cases were Fever at 34% followed by Vaginal bleeding at 22% and Offensive vaginal discharge at 20%. The women who took part in the ETS User survey, as already discussed, are women who have a positive attitude toward health care in pregnancy, as well as possibly learning from past negative experiences. As such these women may be more proactive at identifying complications or at the very least taking any issue during pregnancy very seriously. Alternatively, the general population may not identify complications such as Severe abdominal pain as a complication due to a lack of knowledge, experience or lack of ability to act on the complication.

The graph below illustrates women's answers when asked what actions were taken in response to experiencing the complication(s). Women could give multiple answers to this question.

Figure 10. Response to complications after birth (for ETS assisted delivery)



	I went to the hospital/clinic	I called the TBA for advice & treatment	Visited a chemist/ppmv for treatment	Took some medicine I had at home	Applied native herbs/balm	Did nothing	Other
ETS User survey	65%	0%	4%	22%	0%	14%	9%
Respondents	48	0	3	16	0	10	7

The majority of women (65%) went to the hospital/clinic and 22% took medicines that they already had at home. 14% did nothing to treat their complication which is very similar to the 12% of women who took no action in the Midline.

Of the seven women who stated "Other", two received injections while three others were either prescribed medicines or a family member such as a husband purchased medicines for them. The remaining two reflect some cultural norms still active in the state. One took honey for severe abdominal pain, considered a local cure all remedy. The other, on the advice of her mother, used hot water for vaginal bleeding, with the mother telling the woman not to go to the hospital as it was normal and would pass with time.

6.4 Birth Preparedness and Complication Readiness

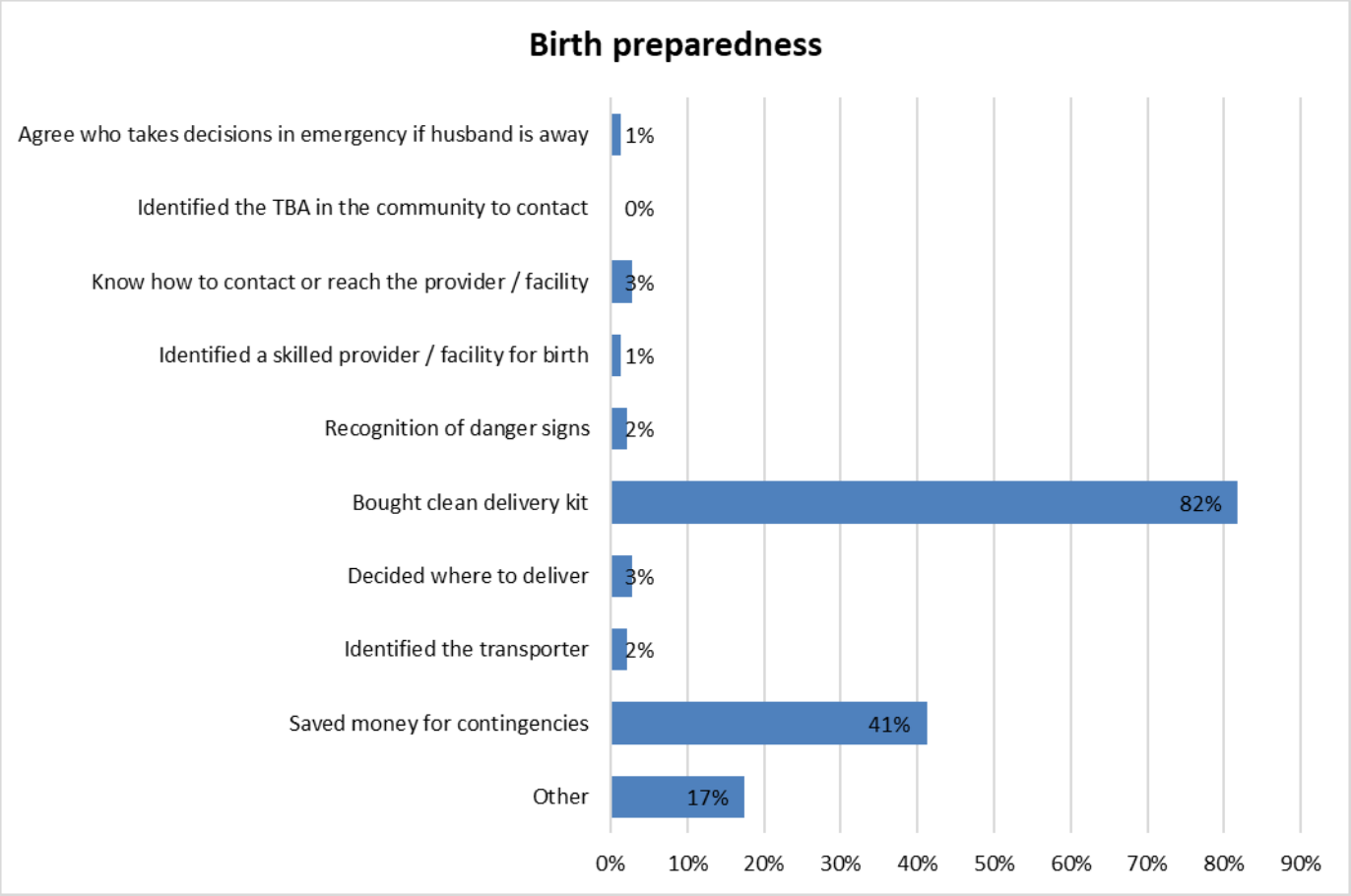
Birth preparedness (BP) and complication readiness (CR) can be defined as the process of planning for normal birth and anticipating actions needed in case of emergency (JHPIEGO, 2004)[9]. BP/CR encourages stakeholders involved in maternal mortality reduction such as women, households, and communities to make arrangements in preparation for a safe delivery. These arrangements can include; recognising danger signs in pregnancy, setting aside money to pay for service fees and transport and identifying or establishing available transport in order to reduce delays in reaching care once a problem arises[10].

[9] JHPIEGO, 2004, Monitoring birth preparedness and complication readiness. Tools and indicators for maternal and newborn health, USA.

[10] M. Kaso and M. Addisse, 2014, Birth preparedness and complication readiness in Robe Woreda, Arsi Zone, Oromia Region, Central Ethiopia: a cross-sectional study, Reproductive Health Journal.

Questions relating to birth preparedness and complication readiness were asked of the women as this is an indication of readiness to organise/pay for transport for timely access to skilled care in an emergency. Figure 11 below summarises the multiple responses.

Figure 11. Birth preparedness, complication readiness



Of the women preparing for birth, by far the majority opt to buy clean delivery kits, with 82% of women interviewed having purchased one. The next most common response when asked about their level of preparedness was saving money for contingencies at 41% of respondents. “Other” which accounted for 17%, mostly comprised of the purchase of food and clothes, all the other options scored less than 4% each. 0% for identifying a TBA may be due to a lack of a conscious decision making or planning to identify a TBA. Most rural areas have TBAs who everyone knows and they would be called upon during a complication or labour automatically and without thought. Such a cultural norm doesn’t constitute a plan or decision that must be made for those who were interviewed, just as automatically contacting a mother or husband during labour would not, it simply would just happen on the spot.

Interestingly the Midline study data showed that most women responded yes to having saved money for emergency with bought clean delivery kits’ being the second most common response. This indicates a reduction in women saving money. As was discovered during the Midline study in 2016, there was a reduction in women saving money in the two years since the Baseline data was collected. The continued reduction in the proportion of women sampled that save money could be attributed to challenges encountered due to the current economic situation. A large portion of rural

women generate income through the rearing of animals such as chickens, goats and sheep, and subsequently through trading them, whilst other women receive money from their husbands. The economic situation in 2014 is very different from 2016 and 2017. Food commodity prices have risen substantially and people are struggling to get what they need to eat. This naturally takes priority over saving money for emergencies.

Table 8 – Food commodity price rises

Food Commodity	2014 (Naira)	2016 (Naira)	2017 (Naira)	% rise since 2014
Bag of rice	4,000 (GBP 14.60)	11,000 (GBP 28.30)	10,000 (GBP 24.57)	250%
Bag of corn	7,500 (GBP 27.37)	20,000 (GBP 51.45)	13,000 (GBP 31.94)	173%

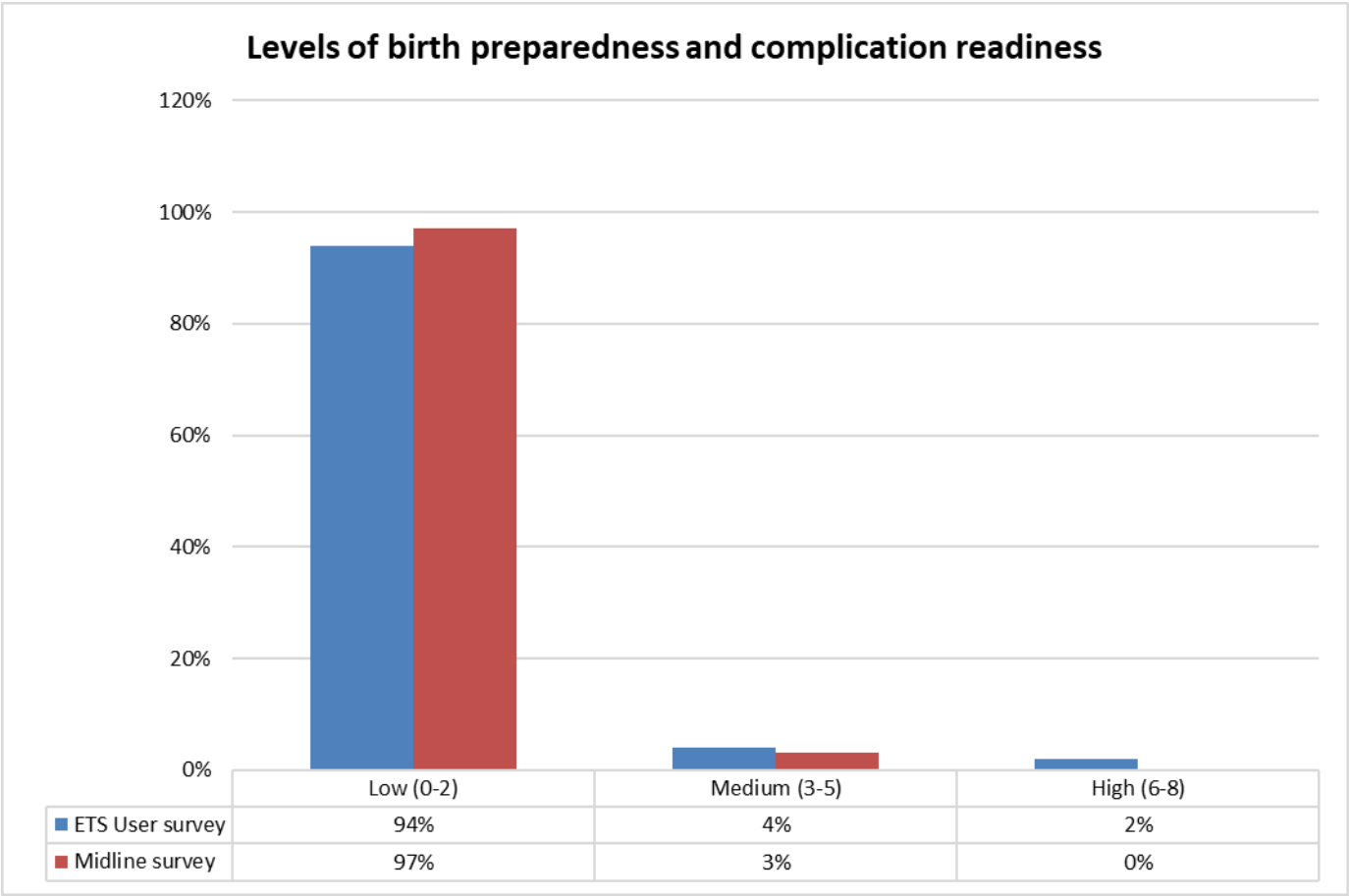
*** 274 Naira – GBP£1 (approx. 2014 average), 388.73 Naira – GBP£1 (XE.com 24/07/2016), 406.92 Naira – GBP£1 (XE.com 04/07/2017)**

Currently, those women who can and do prepare for childbirth buy clean delivery kits and save money and nothing significant has changed since the Baseline study apart from saving money had the highest percentage with buying delivery kits coming in second. There appears to be no significant changes in terms of behaviour for birth preparedness, that is, of those that do prepare the most common actions are saving money and buying delivery kits.

Birth preparedness was divided into three groups, the first accounting for those who took up to two actions to prepare, the next for those that took three to five actions to prepare and finally those who took six to eight actions to prepare for childbirth. The justification behind this analysis is that, in birth preparedness/complication readiness, taking one single action may not suffice in saving pregnant mothers' lives.[11]

Figure 12. Levels of birth preparedness

[11] Ibid, JHPIEGO, 2004.



As can be seen from the data above there are similar levels of birth preparedness between the two surveys with the only real difference being some women prepared with six to eight actions compared to none during the Midline. As stated before, the sample for this survey consists of ETS user and as such it would not have been unexpected to see an increase in those who prepare for childbirth with several actions. It is possible the current economic situation has influenced these results.

6.5 Transport and Birth Preparedness Characteristics

This module examines general transport seeking behaviours as well as knowledge of ETS. Before exploring access to transport and components such as time taken to arrange the transport and its cost, women's understanding of ETS

must first be examined. As part of this survey of ETS users it was important to determine the level of basic understanding amongst women about the use and purpose of the ETS. are important to understand.

Table 9 – Knowledge of ETSs existence

	Family member	A neighbour or friend	A public meeting	A NURTW driver	At a motorpark	Health facility	Market	Church/ mosque	Radio	Other
How did you come to know about ETS?	31%	18%	2%	27%	0%	31%	0%	6%	0%	2%
Respondents	47	27	3	41	0	47	0	9	0	3

Table 10 – Knowledge of the purpose of ETSs

	For pregnant women to get to a health facility	Affordable mode of transport	Timely mode of transport	Safe mode of transport	Available mode of transport	Other	Cannot answer question
What is the purpose of ETS?	99%	8%	11%	4%	7%	1%	1%
Respondents	149	12	16	6	11	2	1

Table 11 – Knowledge of how to contact an ETS driver

	By mobile phone to driver directly	By mobile phone to focal person (NURTW representative)	At the motorpark	In person (call to the driver's house)	Other	Don't know
How do you contact an ETS driver?	55%	13%	2%	33%	12%	1%
Respondents	83	20	3	49	18	1

The majority of women came to know about ETS through a NURTW driver, a family member or a health facility, 27%, 31% and 31% respectively. The next highest reported answer was through a friend at 18%. The most common sources of information about the project have similarly been found to be the case, anecdotally, in other Transaid ETS projects which have found that word of mouth is best spread via ETS drivers themselves as well as family members and staff at health facilities.

Motorparks, markets and churches/mosques scored low. There is an opportunity for motorparks to do more to promote the ETS particularly as they are managed by the NURTW. At the writing of this report radio segments were not yet being produced yet were being planned.

Women were asked an open question on the purpose of ETS and 99% of women interviewed understood ETS was for women to get to a health facility with some stating it was also for timely, safe, affordable and available transport. This is a tremendously positive piece of data. It shows that information about ETS is reaching the communities and most importantly those messages are being understood correctly. Information is coming through ETS NURTW drivers, family members and neighbours or health facilities. The one woman who could not answer the question was most likely a woman whose husband or a family member organised the ETS and she simply was not aware or involved in the process.

The women interviewed also communicated an understanding of how to contact ETS drivers when they are needed. 55% of women use a mobile phone, linking to the relatively high numbers of ownership or access to mobile phones discussed in section 6.5.1 of this report. Others go to the driver's house or call an ETS Focal Person to arrange the transport. Only 1% of those interviewed did not know how to contact an ETS driver. As all the women in this survey used ETS it can be assumed that a family member or husband arranged the ETS transport during their pregnancy and they know how to contact the driver.

6.5.1 Access to Transport

In the case of an emergency, ownership or quick access to a mobile phone is essential as shown in table 12 which shows mobile phones to be the most common means of communicating with ETS drivers. The table below summarises ownership and accessibility to mobile phones amongst the women surveyed.

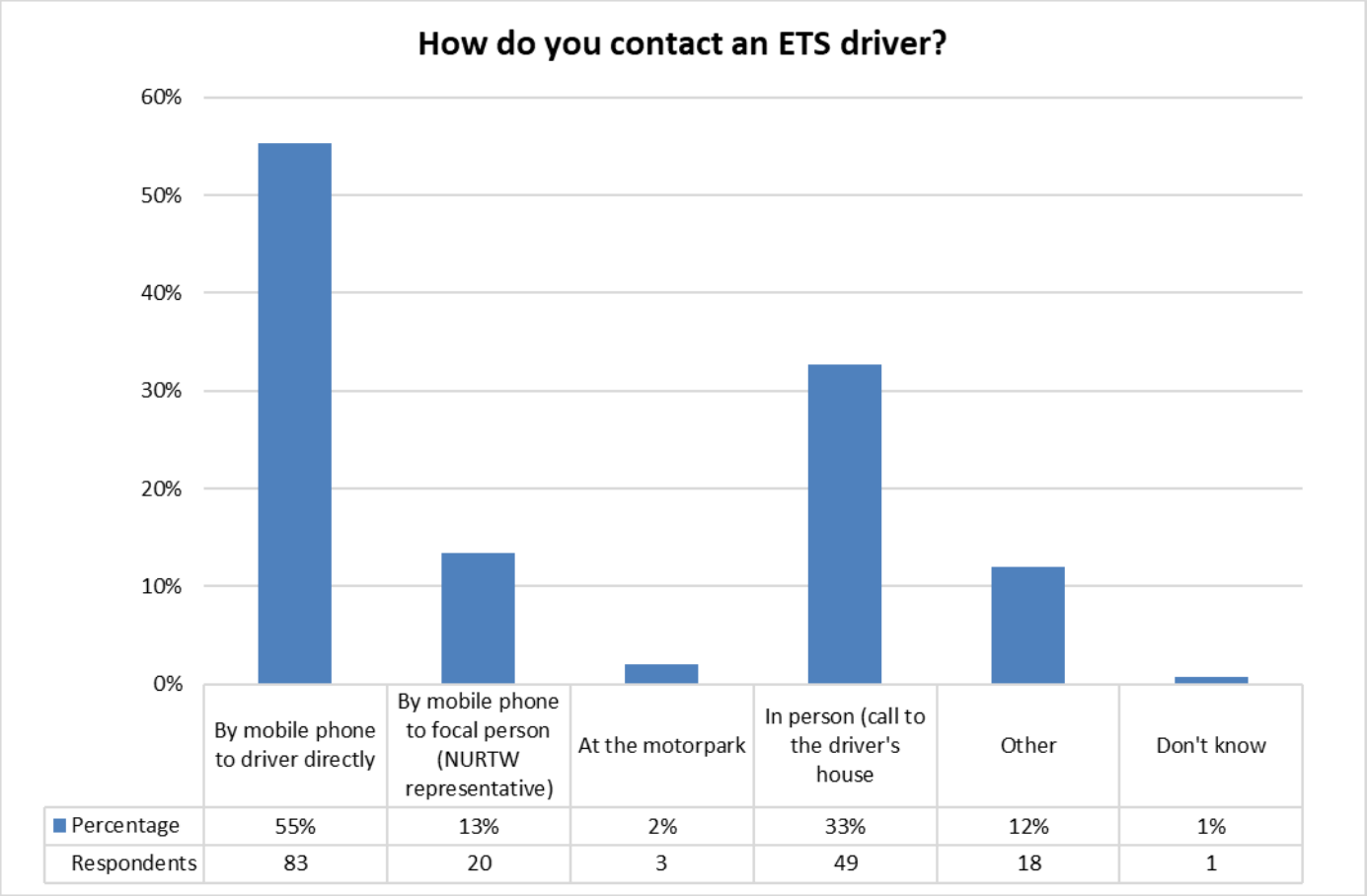
Table 12. Ownership and availability of mobile phones

Ownership of a mobile phone	ETS User	Midline
Yes	39%	24%
No	61%	76%
Access to a mobile phone		
Yes	92%	77%
No	8%	23%

As can be seen from the table above, ownership of and access to a mobile phone is higher in the ETS User survey sample than during the Midline. 39% of women own a mobile phone with 92% having access to a mobile phone. The data above indicates the majority of women have access to a mobile phone confirming that mobile phone ownership and access is at a relatively high rate.

To avoid bias towards those women that own or have access to mobile phones, those who do not have or have access to a mobile phone must be considered in the design and implementation of the ETS, such as the ability to go to driver's homes or go to motorparks. People's ability and understanding about how to contact an ETS driver is vitally important. The figure below details the respondent's understanding about how to contact an ETS driver.

Figure 13. How ETS drivers are contacted

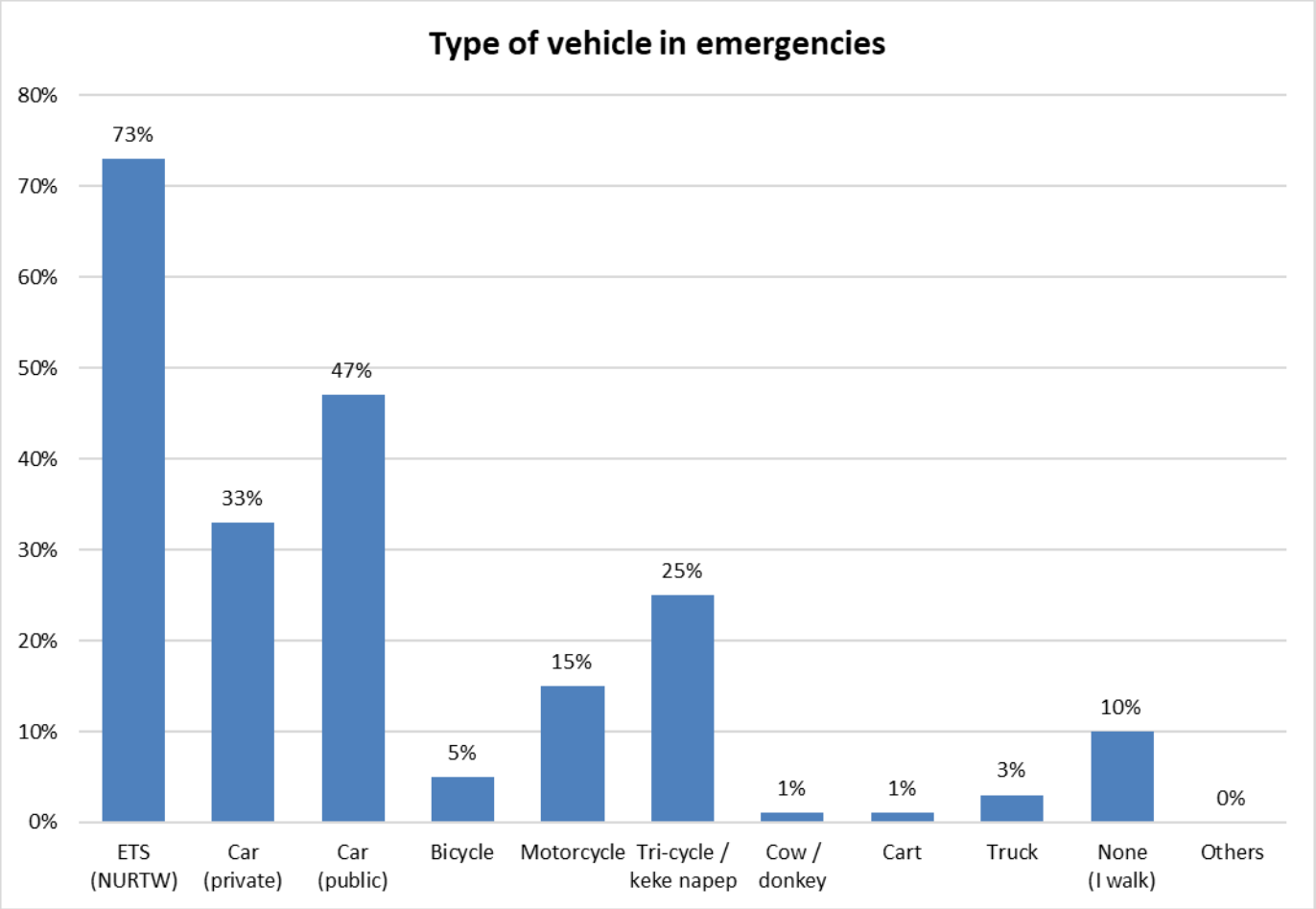


As can be seen from figure 13 women understand how to contact an ETS driver from those that were interviewed. It is noticeable that only 3% of respondents said that a driver could be contacted at a motorpark. As motorparks are operated by the NURTW and NURTW drivers work from or through motorparks, the communities should know that ETS drivers can be contacted through the motorparks. This may indicate a need for NURTW ETS focal persons to ensure at the motorpark level ETS is discussed and that the message of the ETS service is freely advertised and encouraged.

People's transport preference should be a consideration when setting up an ETS. It is important that ETS users are comfortable using a particular mode of transport and that it is appropriate according to a variety of factors such as local terrain, cultural norms and journey distance. Women were asked, in a multiple response question[12], what type of vehicle they would access during an emergency.

Figure 14. Type of vehicle that would be accessed in an emergency

[12] This was a multiple-choice question allowing participants to select multiple alternatives with more than one of these being correct. The y-axis therefore shows the percentage of respondents who selected each option.



For the purpose of this survey private cars are those not usually operated as a taxi or public mode of transport. That can be a car that belongs to a family member, such as a husband, or a car that a neighbour or friend owns. Public cars are those used for commercial purposes and generally refer to NURTW vehicles. The relatively high use of private and public cars could be a reflection of an improving security situation. With less incidents happening people will feel safer and more at ease to travel. Low motorcycle use could be a result of a shift in attitude to travelling and or the enforcement of the motorcycle ban has increased. Motorcycles may be viewed as a quick and affordable mode of transport and potentially seen as a safer mode of transport from a security threat point of view where busier locations such as motorparks or crowded vehicles have been the target for terror attacks in the past. This change in attitude to travel more in cars and less on motorcycles during maternal emergencies is positive if for nothing else, the increase safety of travelling in a car.

6.5.2 Cost of Transport

The cost of transport greatly influences people's transport seeking behaviours. Exploitive pricing during emergencies can be prohibitively expensive and force families to decide not to travel to a health facility even when their original intention was to go to the facility. The higher cost of four wheeled vehicles can also force families to take the decision to travel by the cheaper, but more dangerous, option of a motorcycle.

Table 13 reflects the answers of women when asked how much on average they save for an emergency and how much a transfer costs to the closest health facility under normal circumstances (not in an emergency) and when using ETS.

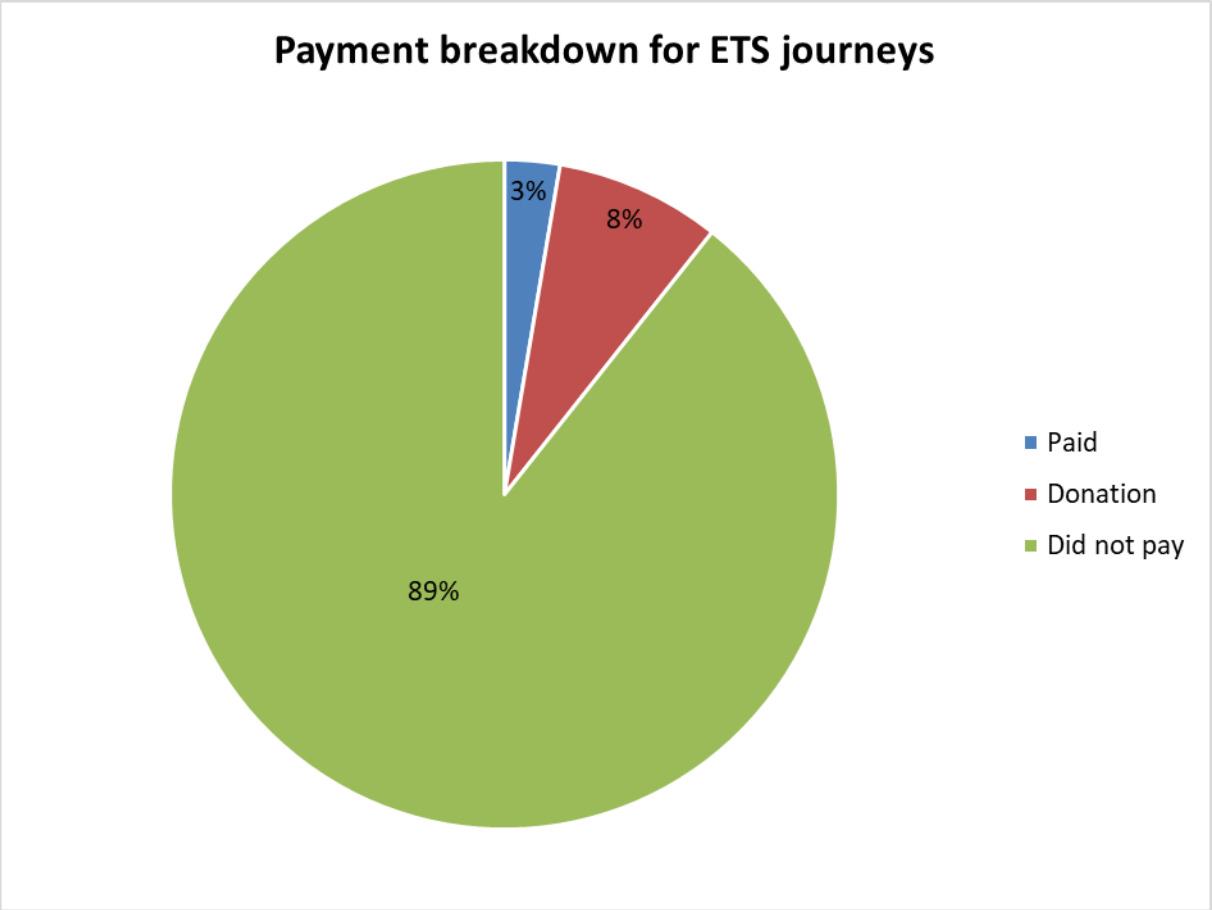
Table 13. Mean and median values of amount of money saved and cost of transport in emergencies

		Mean (Naira)	Median (Naira)
How much did/do you save for contingencies in this pregnancy or your last pregnancy?	ETS User	4,818 (GBP11.84)	4,500 (GBP11.05)
Cost of transport to nearest health facility – Non ETS	ETS User	453 (GBP1.11)	100 (GBP0.24)
Cost of transport to nearest health facility - ETS	ETS User	406 (GBP0.99)	200 (GBP0.49)
Non ETS versus ETS	% difference	-11%	100%

*** 406.92 Naira – GBP£1 (XE.com 04/07/2017)**

The data shows that women interviewed during the ETS User survey saved on average 4,818 Naira (GBP11.84) for contingencies during pregnancy. This could reflect a willingness and want to have an institutional delivery by those who seek out and use ETS. Costs regarding transport are lower for ETS, by 11%, than other modes of transport. It must be noted though that only 16 women paid for ETS, with 12 of those presumably giving an appreciative donation rather than a payment as the women stated the driver did not ask for a fare. 4 women (2.6%) were asked for and paid a fare for ETS at a lower rate than other modes of transport.

Figure 15. Payment breakdown for ETS journeys



It is conceivable that a contributing factor to this small difference between non ETS and ETS costs could be the introduction of the ETS and competitiveness among transport providers. The current economic situation may have forced taxi operators to keep low fares in fear of losing customers.

All women interviewed were asked how they pay for transport during an emergency, ETS and non ETS, and 100% of them stated paying in cash. Table 14 presents results concerning the stage at which payment is made for transport used during an emergency to travel to a health facility. This is undoubtedly a factor that influences women's transport seeking behaviours during a maternal emergency especially where access to cash and credit is limited. The request for immediate payment can lead to additional delays in accessing health care if the woman does not have the money requested by the driver upfront.

Table 14. Payment for emergency transport – prior to or after referral?

	NON ETS	ETS
Emergency transport payment arrangements	**Women n(N)** **150 (150)**	**Women n(N)** **150 (150)**
Immediately	93%	10%
After Referral	2%	1.3%
Did Not Pay	5%	88.7%

The majority of women had to pay for non ETS transport immediately. For ETS transport there is a significantly smaller number, 10%, who paid immediately. 88.7% of those using ETS did not pay at all for the service compared to only 5% for non ETS transport.

This small number of people paying for ETS indicates that the ETS has had time to establish itself and that the majority of drivers understand ETS is a free service after having received more mentoring and supervision. ETS is promoted as a free service however, there are occasions when small contributions to fuel are requested for example due to the length of a particularly long journey. Most of the payments made are in fact donations, or signs of appreciation from ETS users. Therefore, the fact that 10% of women are paying to use or donating to the ETS service is no real cause for concern.

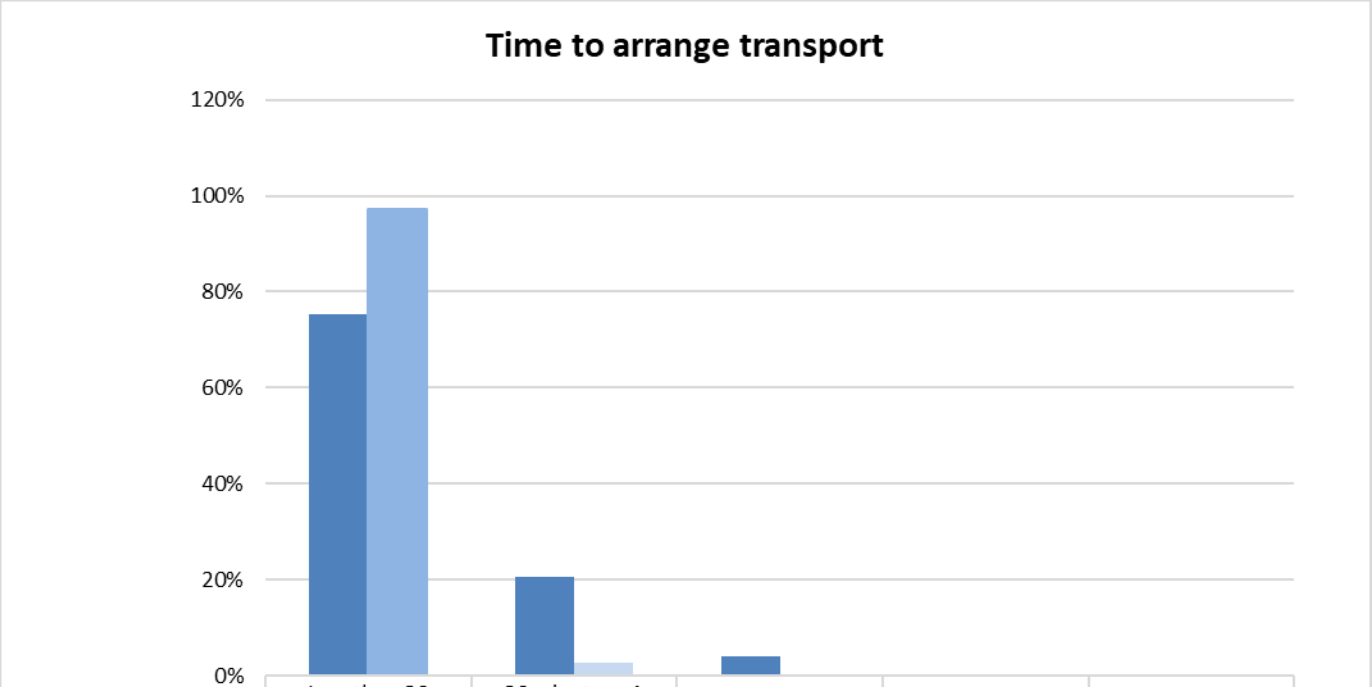
6.5.3 Time to health facility

The time taken to reach a health facility is another variable that influences people's health seeking behaviours. Moreover, it directly impacts women's health condition upon arrival at the health facility. Evidence shows that the longer a woman takes to reach a health facility during an emergency, the worse her health condition may become.[13]

Figure 16 shows the time it took respondents to organise ETS transport compared with other modes of transport.

Figure 16. Time to arrange transport

[13] Turner et al., 2013, Linking Rural Communities with Health Services: Assessing the Effectiveness of the Ambulance Services in Meeting the Needs of Rural Communities in West Africa; Africa Community Access Programme (AFCAP), Transaid, 2013



	Less than 30 minutes	30 minutes - 1 hour	1 hour - 2 hours	More than 2 hours	Longer
ETS User (Non ETS)	75%	21%	4%	0%	0%
ETS User (ETS)	97%	3%	0%	0%	0%
ETS User (Non ETS)	113	31	6	0	0
ETS User (ETS)	146	4	0	0	0

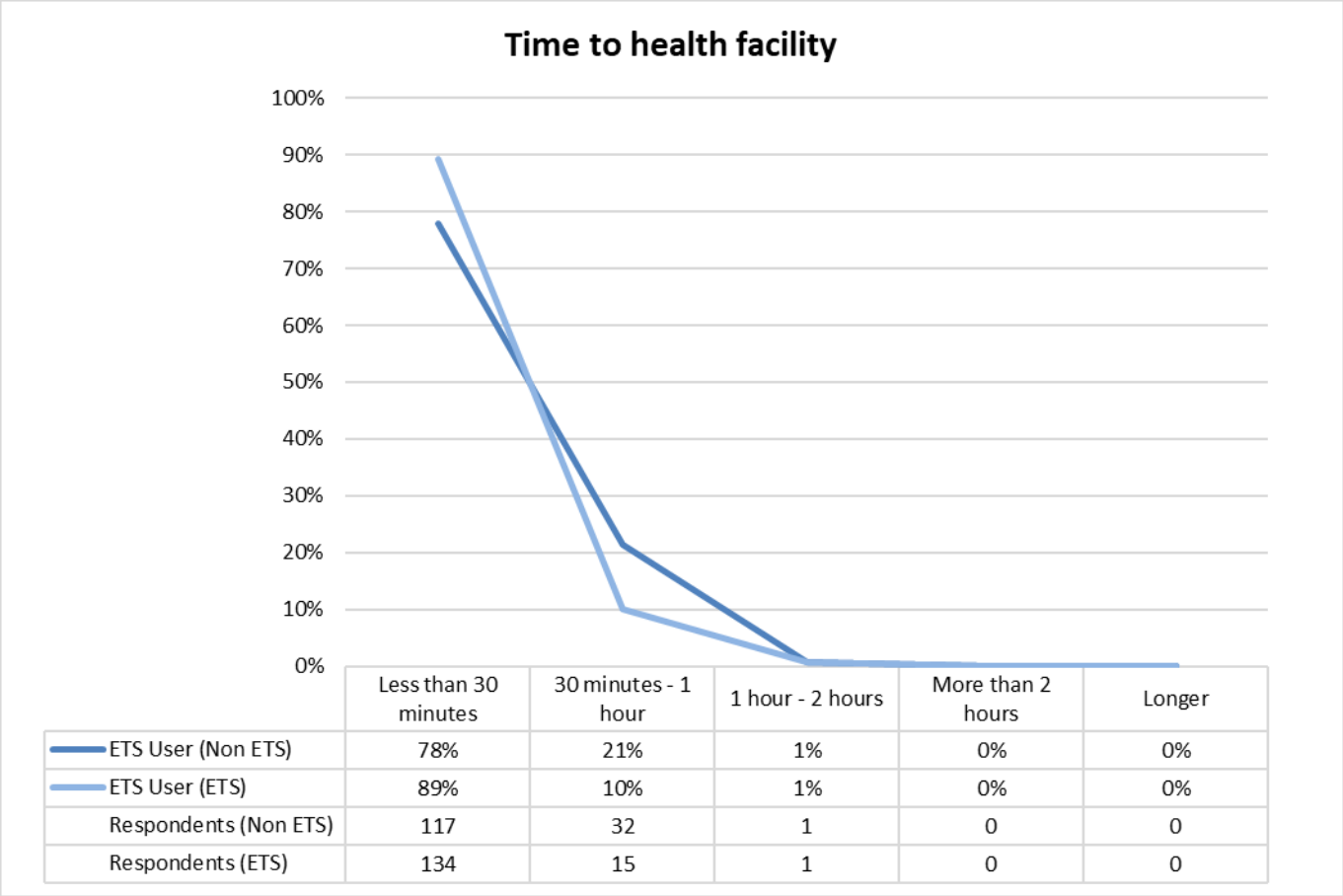
As can be seen from the graph above ETS outperforms other modes of transport in its ability to be organised quickly. There has been an increase from 83% to 97% since the Midline, of ETS journeys being able to be organised in less than 30 minutes. Similarly, those stating ETS takes 30 minutes to one hour to organise has dropped from 17% to 3%. There have been improvements in other modes of transport too, such as those stating transport takes 30 minutes to one hour to organise has drops from 37% in the Midline to 21%. However, these timings show the faster response and greater availability from ETS drivers when responding to an emergency situation.

Such increases in reduced timings could be due to several factors. As stated before, now that time has passed since the ETS implementation there has been time for the system to embed itself in the communities. With monitoring and supervision, the ETS has had time to establish itself and become a part of the health care system. The improved security situation, particularly at night, has no doubt contributed to quicker transport too. Additionally, the continued commitment of the leadership of the NURTW and the recognition of outstanding drivers during the ETS volunteer's day celebration all encourage drivers to act in a timely manner. Ultimately it is the hard work, perseverance and commitment of the ETS volunteer drivers that is reflected in these times.

A statistical comparison test of the difference in proportions of women who were able to arrange transport within 30 minutes was conducted for ETS users and non ETS users. This test was repeated for the proportions who took between 30 minutes and one hour; those who took between 1 hour and two hours, and those who took more than 2 hours. In all the cases, the results showed that users of ETS services took shorter time to organise transport. Specifically, significantly more ETS users took less than 30 minutes (P-Value < 0.01); significantly more non-ETS users took between 30 minutes and one hours (P-Value is < 0.01); and more than one hour (p-value < 0.01). These results show that ETS users took less than 30minutes to organise transport while non ETS uses took up to two hours.

The chart in Figure 17 illustrates the time taken to reach health facilities once the transport has been organised and the vehicle is with the user.

Figure 17. Time to reach a health facility



	Less than 30 minutes	30 minutes - 1 hour	1 hour - 2 hours	More than 2 hours	Longer
ETS User (Non ETS)	78%	21%	1%	0%	0%
ETS User (ETS)	89%	10%	1%	0%	0%
Respondents (Non ETS)	117	32	1	0	0
Respondents (ETS)	134	15	1	0	0

As can be seen from the ETS User data the majority of women using ETS and non ETS (89% and 78%) modes of transport reach facilities in less than 30 minutes. This slightly larger number of women reaching facilities faster using ETS most likely has the same contributing factors as discussed before, ETS is better established and security in the state is for now more stable.

By using ETS with its increased response time as well as the reduced transportation time, a major barrier is being combatted thanks to the ETS being in place. ETS is outperforming other modes of transport with the added benefit of it being a free or in a small number of cases lower cost than commercial rate service. This all points to the potential of ETS to contribute to a reduction in maternal mortality in Adamawa State.

A statistical significance test for the comparison of the times taken to reach a health facility was conducted for ETS users and non ETS users. The results show that significantly more ETS users took less than 30 minutes (P-Value = 0.004948 i.e. significant at 1% level of confidence); while significantly more non ETS users took between 30 minutes to one hour (P-Value is 0.007451; i.e. significant at 1% level of confidence). Therefore, more ETS users took less than 30 minutes, while proportionally more non ETS users took up took 1 hour.

6.6 Ganye General Hospital versus all other health facilities

As part of this study there was an interest to know if there were any significant differences between Ganye General Hospital, the highest performing facility in the project area, and the other selected facilities. If there was an apparent

reasoning behind the difference it could be used to inform the project and would aim to improve it through positive change. Of course, the difference might be simply down to a greater population size and thus more transfers.

The table below illustrates some of the major components of the survey questionnaire.

Table 15: Ganye, Guyuk & Jada major components

	Ganye	Guyuk & Jada
Location – Urban	73.33%	0.83%
Mean age	25.72	25.56
Attended school	96.67%	83.33%
Secondary level and above	50.00%	49.17%
Married	96.67%	99.17%
Mean age for first child	18.62	18.92
No. of ANC visits this/last pregnancy	4.4	5.4
Had a complication during this/last pregnancy	90.00%	71.67%
Delivered in a government hospital/primary health care centre	93.33%	90.00%
Complications during delivery	50.00%	57.50%
Complications after birth	66.67%	45.00%
Have a mobile phone	70.00%	30.83%
Access to a mobile phone	30.00%	63.33%
Found out about ETS from (most common means)	56.67% (health facility)	30.83% (NURTW Driver)
Level of birth preparedness - Low (0-2)	93.33%	94.17%
Medium (3-5)	3.33%	4.17%
High (6-8)	3.33%	1.67%
ETS - Time taken to arrange transport - less than 30 mins	100.00%	96.67%
Non ETS - Time taken to arrange transport - less than 30 mins	83.33%	73.33%
ETS - Time taken to reach facility - Less than 30 mins	100.00%	86.67%
Non ETS - Time taken to reach facility - Less than 30 mins	90.00%	75.00%
Non ETS - cost of transport to facility	262.67	504.42

Ganye General Hospital was the facility that had the highest number of women transported during the sample time frame and so the reason for this was investigated. As can be seen from the data above, there are some components that vary in their answers between Ganye General hospital and the other selected health facilities. These are:

- Location: 73% of all the cases in Ganye were urban while less than 1% in all the other facilities was urban. Thus, comparing Ganye with the other locations has an effect of also comparing urban to rural communities.
- Complications during pregnancy: 90% of women interviewed in Ganye had a complication during pregnancy compared to 72% in the other locations. These results show that significantly more cases at Ganye had complications (P-Value is 0.037206; significant at 5% level of confidence).

- Complications after birth: In Ganye 67% of women experienced a complication after birth compared to 45% elsewhere. This result shows that significantly more cases from Ganye had complications after birth (P-Value is 0.033745; significant at 5% level of confidence).
- Having a mobile phone: 70% of women in Ganye had a mobile phone while only 31% had a mobile phone in the other locations. Significantly more women from Ganye had a mobile phone (P<0.001).
- Having access to a mobile phone: In Ganye, the remaining 30% all had access to a mobile phone while in the other locations 63% had access. Significantly more women in the other areas had access to a mobile phone. Taken together, almost all women either had a phone or access to one. It is difficult to determine if there are differences to health seeking behaviour due to ownership as opposed to accessing a mobile phone.
- Where women found out about ETS: 57% in Ganye through a health facility, elsewhere 31% through a NURTW driver. There is no significant difference in the proportion of women who heard about the ETS through NURTW driver (The P-Value is 0.05448); showing that there is not sufficient evidence to suggest that NURTW drivers in Ganye informed proportionally more women. However, significantly more women heard about the service at a health facility in Ganye, compared to the other areas (P-Value is 0.000824; significant at 1% level of confidence).
- Cost of non ETS modes of transport to a facility: Average cost in Ganye Naira 263 (GBP0.65), average cost elsewhere Naira 504 (GBP1.24)

These findings go some way in explaining the difference between Ganye and the other facilities and the reasoning behind the difference in number of ETS transfers recorded. The largest and most obvious difference relates to the location which clearly plays a role. It would be logical to surmise that due to the urban setting of Ganye General Hospital there is a larger, denser population that rely on the facility versus those rural facilities in other LGAs. More people inevitably means a higher demand and so a larger number of transfers.

Other notable differences are having a mobile phone or having access to a mobile phone. Having a mobile phone or access to one enables swift communication in all respects. If used to contact an ETS driver or contact a relative, such as a mother, or husband it speeds up the process of having an institutional delivery. Ganye has 70% mobile phone ownership while the other locations only had 31%. Ganye being more urban than the other locations there is a potential that the urban based population is more affluent or wealthy and therefore more of them can afford mobile phones. Although the other locations did supplement these figures with 63% of women who did not own a mobile phone having access to one there clearly is an advantage to having instant and easy access to a mobile phone.

Interestingly there was a difference in how the majority of women found out about ETS. In Ganye it was through the facility while in the other locations it was through the NURTW volunteer drivers themselves. Those in Ganye had a slightly lower average number of ANC visits than the other locations so this probably doesn't play a major role in this statistic. The nature of the locations, again linking back to the urban and rural spread, is what may have contributed to this difference. In the other more rural locations transport plays a more crucial role in people's lives and they must avail of it more often and for longer periods due to distances to amenities such as schools, shops, markets and health facilities. Additionally, rural drivers may have to "work harder" for clients due to the population density and geographical spread of communities and towns or villages, unlike urban areas where larger populations in more densely populated areas would garner more clients. It is therefore assumed that rural drivers would want to spread the word about the ETS themselves rather than maybe, such as in urban areas, rely on others to spread the word.

In Ganye, the average cost of transport to a health facility was Naira 263 (GBP0.65) in comparison to the other locations at Naira 504 (GBP1.24). Initially this may seem to be counter-intuitive that the area with cheaper transport has more women seeking ETS services. There are several factors here that help us to understand this data. In rural areas distances are greater and road networks are generally rougher and less well maintained so the cost of a trip to a health facility will almost inevitably be more expensive. In addition, fuel prices are generally higher in rural areas where fuel is scarcer which also contributes to higher fares. Conversely in the urban area, Ganye, trips are shorter and fuel is cheaper and so average fares are cheaper. These factors don't affect the need for women to get to a facility for delivery and with factors already discussed such as population size and density, it is understandable that Ganye General Hospital has a high ETS transfer rate.

There of course must be another given factor not directly evident from the data presented and that is the ETS volunteer drivers. Without willing and able volunteer drivers, women would not be able to reach a health facility in such an efficient and economical manner. The drivers are the enablers to overcoming any transport related delays. This is not to say drivers in other locations or LGAs are less committed or effective as those in Ganye, it is simply a recognition of the role they are most likely playing to achieve the high numbers of transfers to Ganye General Hospital.

7 ETS user quotes

Throughout the ETS User survey a selection of quotes from the ETS users were gathered. This is an opportunity to hear from the EUS users directly in their own words. Below is a compilation of those quotes.

“We are grateful and will forever be. We pray it will continue.”

“Their work is good (the ETS drivers), and they keep to time in any Emergency.”

“ETS is good, Gowon (ETS Volunteer) is a good man, if you tell him your problem, he will help solve the problem.”

“I thank the driver for the help he has done to me, and I wish him well.”

“ETS helps in reduction of maternal mortality rates in this community.”

“The ETS has helped saved life and reduced death rate in the community.”

“The work is very good, it saves the lives of women. The ETS driver in this town is committed, dedicated and hardworking man, that helps in saving lives of women.”

“If not because of ETS drivers, we pregnant women in this village will die. We also appreciate them for their effort if we call them, even in the middle of the night they will come.”

“The driver helps us a lot whenever we call him, he will not hesitate to come on time.”

“ETS really help a lot, no waste of time, whenever we call them. We have seen progress in our community through ETS work.”

“ETS driver is very helpful to us, whenever we call him, he responds to us immediately and we are very impressed.”

“The ETS drivers are helping transport us to health facilities. We enjoy their work (ETS SERVICE) it really saves our lives in this community Purokayo.”

“ETS is helping the husband and wife and our whole community.”

“We appreciate what Alhaji is doing to us, he always saves our lives.”

“ETS help us in reducing transport fees. ETS save pregnant women or reduce rate of death.”

“We want to thank all the ETS drivers in our community.”

“Thanks to the ETS volunteer.”

“We are all happy with the ETS driver in our community.”

“In this community, we have nothing to say, only to say thank.”

8 Conclusion

This report presents keys findings and data from the 2017 ETS User survey. It was conducted observing the protocol, which was approved in February 2017, and the sampling approach. The purpose of this survey was to gain additional data, not obtained in the Midline Study, in order to better understand ETS and its operation from those who utilise the service.

The main headlines from the survey are;

- ETS was organised in under 30 minutes 97% of the time and took less than 30 minutes to reach a health facility 89% of the time. ETS outperforms other modes of transport in both arranging and travel times.
- 89% of women didn't pay for ETS, those that did, the majority donated rather than paid a fare.
- Only 4 women out of the 150 women, representing 2.6% of those interviewed were told there was a charge for ETS and paid for it.
- Regarding birth preparedness and transport, the survey showed that the majority of women came to know about ETS through a family member, an ETS NURTW driver or a health facility.
- The vast majority of women know how to contact an ETS driver when needed. For a small amount, it was the husband who contacted the driver when needed. Only one woman out 150 did not know how to contact a driver.
- During the course of the survey no women report a dissatisfaction with ETS or the service the drivers provided.

90% of women interviewed delivered at some form of health facility. The 8.6% of women who give birth at home or a relative's home may be due to a fast delivery or not reacting to the labour quick enough once it started to organise transport in time to reach a health facility. This may also account for women who wanted to give birth at home and had only used ETS at some stage during their pregnancy when a complication arose.

Ganye General Hospital presented an interesting case study. 73% of all the cases in Ganye General Hospital were urban compared with the less than 1% in all the other facilities. This is the largest and most obvious difference between Ganye General hospital, the highest performing facility in the project, and all the other facilities. It would be logical to assume that due to the urban setting of Ganye General Hospital there is a larger, denser population that rely on the facility versus those rural facilities in other LGAs. More people inevitably means a higher demand and so a larger number of transfers and hence its status as the highest performing facility during the survey.

75% of women interviewed stated that they had experienced at least one complication during their current or most recent pregnancy. The women who took part in the survey appear to have a positive attitude towards health care in pregnancy, as well as possibly learning from past negative experiences. These women may be more proactive at identifying complications or at the very least taking any issue during pregnancy seriously enough to go to a facility.

This survey has provided the opportunity to gain knowledge about the emergency system. It has allowed the start of the formulation of next steps to continually improve ETS. Based on the information gathered it is known that women gain their knowledge about ETS from family members, NURTW drivers and health facilities. Health facilities are a major contact point for women who are expecting a child, even if they only attend one ANC visit or attend a facility for another health reason. Distributing ETS drivers contact number and ensuring women understand the service is free at facilities is an important factor in ensuring ETSs sustainability and continued utilisation. There are areas where improvements in sensitisation could help to boost ETSs. Motorparks at the moment do not appear to be actively sensitising motorpark patrons. This is an untapped resource to spread the word of ETS. Efforts should be made by NURTW state and LGA members to encourage motorpark NURTW members to distribute ETS driver's numbers and sensitise patrons about ETS. There is also the opportunity to utilise community leaders, churches and mosques more than is currently happening. Churches and mosques are locations where many people gather frequently. They are ideal for talking to communities and informing them about ETS and what it should be used for.

ETS drivers must be encouraged to keep up the good work they have done to date and continue to offer the service free of charge. This could be done through sustaining the ETS volunteer day celebration on a bi annual basis with

external support, ETS club meetings and quarterly review meetings during which they meet with the leadership of the NURTW state council, government officials and TSG members.

The technical steering group has, to date, been successful in its ability to gather many stakeholders together and plan for the future of ETS. They have also been instrumental in supporting the ETS volunteer drivers through their support at events such as the volunteer celebration day and contributions such as hand sanitiser. Assistance to the TSG should continue to the end of the project, but in the capacity of support to the TSG not direct planning and input. This is to ensure the TSG will be in a position to be self-sustainable and continue after the project has finished.

The NURTW is vital to the continued operation and ultimate sustainability of ETS. They must continue to be involved in ETS clubs, TSGs and other activities relating to the project. With their continued and constant involvement in the project they will be in a stronger position when the projects end to keep ETS operational. Ultimately the NURTW are the owners and keepers of ETS and with support from the TSG will lead ETS in the state and its sustainability.

9 Annex

9.1 Annex 1 – ETS User survey questionnaire

ADAMAWA STATE ETS USER SURVEY ON MATERNAL HEALTH & TRANSPORT
MATERNAL HEALTH QUESTIONNAIRE
INDIVIDUAL INTERVIEW SCHEDULE FOR WOMEN AGED **13-49** YEARS

(MUST HAVE USED ETS EITHER FOR A COMPLICATION DURING PREGNANCY OR DELIVERY, OR FOR A NORMAL DELIVERY)

Q. ID ☐☐☐☐ 001 LOCAL GOVT. AREA ☐☐ 002 WARD ☐☐☐

003 LOCATION (URBAN=1 OR RURAL=2) ☐ 004 HEALTH FACILITY ☐☐

Introduction: My name is…… …… and I am working for Transaid. We are interviewing people here in [**NAME OF CITY, TOWN OR SITE**] in order to find out about certain behaviours that affect people's health in this environment.
Confidentiality and consent: I am going to ask you some questions, some of which may be very personal. Your answers are completely confidential. Your name will not be written on this form, and will never be used in connection with any of the information you tell me. You may need to know that this exercise is taking place in 2 LGAs in Adamawa State. Your honest answers to these questions will help us better understand what people think, say and do about certain kinds of behaviours. The information collected from you and people like you will be treated and will help the government to find solutions to some health problems affecting people in this environment. We would greatly appreciate your help in responding to this survey. My supervisor may come back later to verify this information.

Signature/thumbprint of interviewee: _____ Date: _____

(Signature of interviewer certifying that informed consent has been given verbally by respondent if no other relative can sign on their behalf)

Interviewer's visit

	Visit 1	Visit 2	Visit 3
Date			
Result			
Interviewer			

Result codes: 1…Completed; 2…Respondent not available; 3…Refused; 4…Partially completed; 5… Others (Specify).

006 INTERVIEWERS: Code [____|____] Name_____ Signature_____

007 DATE OF INTERVIEW: ___\ ____ \ _____ TIME INTERVIEW STARTED_____
DD MM YYYY

CHECKED BY SUPERVISOR _____ CODE [__] __] Date _____

Name of Coder_____|__|__| Signature_____
Date_____

Section 1. Background information

No.	Questions and filters	Coding categories	Skip

B101	In what month and year were you born?	Month [___|___] Don't know month ……..88 Year [___|___ [___|___] Don't know year ……..8888	
B102	How old were you as at your **last** birthday? **[COMPARE WITH B101 IF NEEDED AND CORRECT B102]**	Age in completed years [___|___]	
B103	Have you ever attended school?	Yes…….. ….. 1 No…….. ……. 2	→ **NO, Skip to B105**
B104	What is the highest level of school you completed: Qur'anic, primary, secondary or tertiary education?	Qur'anic education only ----------1 Did not complete primary school ------2 Primary school completed ---------- 3 Secondary ---------- 4 Tertiary school/University degree----- 5	
B105	What is your marital status?	Married ---------- 1 Single ---------- 2 Widowed/Separated/Divorced---- 3	
B106	What is your religion?	Christianity ----------1 Islam ----------2 Traditional religion----------3 Others (specify) ----------6	
B107	What languages do you speak? **[DO NOT READ OUT OPTIONS; PROBE FULLY]**		

	Yes	No
English	1	2
Hausa	1	2
Fulfulde	1	2
Margi	1	2
Higi	1	2
Kilba	1	2
Njayi	1	2
Gaanda	1	2
Yungur	1	2
Bata	1	2
Bwatiye	1	2
Chamba	1	2
Lunguda	1	2
Others (Specify)		

Section 2. Maternal Health Characteristics

All women in the household aged 13-49 years who have used ETS Interviewer: When you get to the identified woman for

interview you must first complete the consent procedure (above) before proceeding with the interview. **IF TWO ELEGIBLES COMES FROM THE SAME HOUSEHOLD, CODE THE FIRST ONE "0001A" WHILE THE SECOND WILL BE "0002B"**

No.	Questions and filters	Coding categories	Skip
M101	Have you ever given birth? **['Baby cried or showed signs of life after delivery']**	Yes ---------- 1 No ---------- 2	→ **If NO Skip to M105**
M102	How old were you when you gave birth to your first child?	Age in completed years ☐☐	
M103	When did you last give birth? **[IF LESS THAN ONE MONTH CODE 000] CONVERT TO MONTHS IF GIVEN IN YEAR**	Months ☐☐☐ Can't Remember ---------- 888	
M104	**[CHECK M103]: Was your last delivery 12 months or below?**	Yes ----------1 No----------2	
M105	Are you currently pregnant? **[IF M101 IS NO & M105 IS NO/NOT SURE - TERMINATE INTERVIEW [CONTINUE INTERVIEW ONLY IF WOMAN HAS GIVEN BIRTH OR IS CURRENTLY PREGNANT AND HAS USED ETS]**	Yes ---------- 1 No ---------- 2 Not Sure ---------- 3	→ **If NO/NOT SURE Skip to M107**
M106	How old is your pregnancy? **[IF GIVEN IN WEEKS, CONVERT TO MONTHS]**	**Months** ☐☐	
M107	In this pregnancy/In your last pregnancy, how many times did you visit a health facility during your antenatal period?	Number of time ☐☐	
M108	During (any of) your antenatal care visit(s), were you told about the danger signs in pregnancy (pregnancy complications)?	Yes ----------1 No ----------2	

No	Questions and filters	Coding categories				Skip
	During this/last pregnancy, did you experience any of the following problem(s)? **[READ OUT OPTIONS]**			Yes	No	→ **If no to all questions, skip to D101**
		M109	Fever	1	2	
		M110	Swollen feet/hands/face	1	2	
		M111	Vaginal bleeding	1	2	
		M112	Anaemia (Lack of blood) due to bleeding	1	2	
		M113	Anaemia due to malnutrition	1	2	

		M114	Severe headache	1	2	
		M115	Eclampsia (seizures/fitting/ convulsions during pregnancy)	1	2	
M116	**[IF YES TO ANY OF QUESTIONS ABOVE, ASK]** Did you recognise the signs first at home or during an antenatal visit?	Home ---------- 1 Antenatal visit ---------- 2				
	[IF YES TO ANY OF THE PROBLEMS, ASK:] **MULTIPLE RESPONSE POSSIBLE** When you experienced these signs, what was done?			Yes	No	
		M117	I was treated in Hospital/Clinic where I do my antenatal care	1	2	
		M118	Attended to by Traditional Birth Attendant (TBA)	1	2	
		M119	Taken to Hospital/Clinic	1	2	
		M120	Given native herbs to drink	1	2	
		M121	Applied natural herbs or balm	1	2	
		M122	Others [Specify]	1	2	

Section 3: Delivery/New-born Care

(These questions relate to the baby that was born when using ETS)

No	Questions and filters	Coding categories	Skip
D101	Have you given birth within the last 12 months using ETS transport? **[CHECK M101]**	Yes ----------1 No ----------2	
D102A	Is the baby still living?	Yes……1 No……2	→ **If YES, go to D103**
D102B	At what age did the baby die? [**IF AGE GIVEN IN MONTHS OR WEEKS, CONVERT TO DAYS AND RECORD]**	Days ☐☐☐	
D103	When your (ETS) baby (NAME) was born, was he/she very big, bigger than average, smaller than average or very small?	Very Big ----------1 Bigger than Average ----------2 Average ----------3 Smaller than Average ----------4 Very Small----------5 Don't Know ---------- 8	
D104	Where did you give birth to your (ETS) baby (Name)? **DO NOT READ OUT OPTIONS**	At home/relative's home----------1 House of the TBA ----------2 Government Hospital ----------3 Primary Health Care Centre----------4 On the mean of transport that was taking me to the health facility ----------5 Others (Specify)----------6	
D105A	**(FOR HOSPITAL DELIVERIES ONLY)** Did you have a Caesarean section? **[EXPLAIN WHAT A CAESARIAN SECTION IS TO THE RESPONDENT]**	Yes……1 No……2	
	Who assisted with the delivery of your baby (Name)? **[MULTIPLE CODES POSSIBLE]**		

		Yes	No
D106	Doctor	1	2
D107	Nurse/Midwife	1	2
D108	Traditional Birth Attendant	1	2
D109	Com./Village H. Worker	1	2
D110	Community Health Extension Worker	1	2
D111	Alone/Self assisted	1	2
D112	Driver	1	2

D113 Other (please specify)

	If Respondent's response is "At Home" to D104, ask: Why didn't you deliver in a health facility? **Any other reason?** **[DO NOT READ OUT OPTIONS; PROBE FULLY]** **CIRCLE ALL MENTIONED**			Yes	No	
		D114	Cost too much	1	2	
		D115	Facility too far from home	1	2	
		D116	No money for transport	1	2	
		D117	Poor quality service	1	2	
		D118	Health workers are harsh	1	2	
		D119	Husband refused	1	2	
		D120	Mother-in-law refused	1	2	
		D121	Not Necessary	1	2	
		D122	Prefer home delivery	1	2	
		D123	Shy/Embarrassed to go the facility/Providers are male	1	2	
		D124	Health worker strike	1	2	
		D125	Quick delivery	1	2	
		D126	Others [Specify]			
	Immediately after delivery, did the baby experience any of the following: **[READ OUT THE OPTIONS ONE BY ONE, CIRCLE APPROPRIATELY, PROBE FULLY FOR OTHERS]**			Yes	No	**IF NO TO ALL, SKIP TO D138**
		D127	Breathing faster than usual	1	2	
		D128	Short rapid breaths	1	2	
		D129	Difficulty in breathing	1	2	
		D130	Not breathing at all	1	2	
		D131	Vomiting	1	2	
		D132	Others (specify)			
	[If Yes to any of the above, ASK] What was done for the baby?			Yes	No	
		D133	Taken to Hospital/Clinic	1	2	
		D134	Given native herbs to drink	1	2	
		D135	Blow the mouth/nose	1	2	
		D136	Used bulb syringe/mouth to suck out mucus	1	2	
		D137	Did nothing	1	2	
		D138	Turned the baby upside down and slapped the baby	1	2	

D139	**[Ask all who went to the hospital/clinic in D133]** Who told you to take the child to the hospital?	Self.....1 Husband.....2 Neighbour.....3 Traditional Birth Attendant.....4 Community Health Extension Worker.....5 Other relative.....6 Others Specify [ ].....7			
	During your (ETS) delivery, did you experience any of the following: **READ OUT THE OPTIONS ONE BY ONE, CIRCLE APPROPRIATELY**			Yes	No
		D140	Bleeding **before** the baby was born	1	2
		D141	Excessive bleeding **after** the baby was born	1	2
		D142	Prolapsed of the umbilical cord	1	2
		D143	Prolonged labour lasting more than 12 hours	1	2
		D144	Abnormal presentation **(EXPLAIN TO RESPONDENT)**	1	2
		D145	Retained placenta **[PLACENTA NOT COMING OUT WITHIN 20 MINUTES AFTER BIRTH]**	1	2
	[IF YES TO ANY OF THE PROBLEMS, ASK:] When you experienced these signs, what was done?			Yes	No
		D146	I was treated in Hospital where I delivered	1	2
		D147	Attended to by Traditional Birth Attendant	1	2
		D148	Taken to any other Hospital/Clinic	1	2
		D149	Given native herbs to drink	1	2
		D150	Applied nature herbs or balm	1	2
		D151	Others [Specify]	1	2
	Did you experience any of these problems after the birth of your baby? **[READ OUT THE OPTIONS ONE BY ONE, CIRCLE APPROPRIATELY]**			Yes	No
		D152	Fever	1	2
		D153	Offensive Vaginal Discharge	1	2
		D154	Severe abdominal pain	1	2
		D155	Vaginal Bleeding	1	2
		D156	Breast Engorgement (swollen painful breast)	1	2
		D157	Others (specify)	1	2

	[IF YES TO ANY OF THE SIGNS IN QUESTION ABOVE, ASK:] What did you do subsequently?			Yes	No	
		D158	I went to the Hospital/clinic	1	2	
		D159	I called the Traditional Birth Attendant for advice & treatment	1	2	
		D160	Visited a chemist/PPMV for treatment	1	2	
		D161	Took some medicine I had at home	1	2	
		D162	Applied native herbs/balm	1	2	
		D163	Did nothing	1	2	
		D164	Others Specify	1	2	

Section 4. Transport

T101	Do you have a mobile phone?	Yes ----------1 No ----------2			→ **If YES go to T103**
T102	Do you have access to a mobile phone within the community you can use in cases of emergencies?	Yes ----------1 No ----------2			
	If you needed a vehicle right now in case of a maternal emergency, what type of vehicle would you access? **[READ OUT THE OPTIONS ONE BY ONE, CIRCLE APPROPRIATELY]**		Yes	No	
		T103 ETS Driver (NURTW)	1	2	
		T104 Car (Private)	1	2	
		T105 Car (Public)	1	2	
		T106 Bicycle	1	2	
		T107 Motor Cycle	1	2	
		T108 Tri-Cycle/Keke NAPEP	1	2	
		T109 Cow/Donkey	1	2	
		T110 Cart	1	2	
		T111 Truck	1	2	
		T112 None (I walk)	1	2	
		T113 Others (Specify)	1	2	
T114	Are you aware of emergency transport (called ETS) offered by NURTW for pregnant women who need to be taken to a facility urgently?	Yes ---------- 1 No ---------- 2			→ **If NO go to T138**
	[IF YES IN T114] How did you come to know about ETS? **[DO NOT READ OUT OPTIONS; PROBE FULLY]** **CIRCLE ALL MENTIONED**		Yes	No	
		T115 Family member	1	2	
		T116 A neighbour or friend	1	2	
		T117 A public meeting	1	2	
		T118 A NURTW driver	1	2	
		T119 At a motorpark	1	2	
		T120 Health facility	1	2	
		T121 Market	1	2	
		T122 Church / Mosque	1	2	
		T123 Radio	1	2	
		T124 Other (Specify)	1	2	
	[IF YES IN T114] What is the purpose of ETS?		Yes	No	
		T125 for pregnant women to get to a health facility	1	2	

	[DO NOT READ OUT OPTIONS; PROBE FULLY] **CIRCLE ALL MENTIONED**	T126	affordable mode of transport	1	2	
		T127	timely mode of transport	1	2	
		T128	safe mode of transport	1	2	
		T129	available mode of transport	1	2	
		T130	Other (Specify)	1	2	
		T131	Cannot answer question	1	2	
	[IF YES IN T114] How do you contact an ETS driver? **[DO NOT READ OUT OPTIONS; PROBE FULLY]** **CIRCLE ALL MENTIONED**			Yes	No	
		T132	by mobile phone to driver directly	1	2	
		T133	by mobile phone to focal person (NURTW representative)	1	2	
		T134	at the motorpark	1	2	
		T135	in person (call to the driver's house)	1	2	
		T136	Other (Specify)	1	2	
		T137	Don't know	1	2	
T138	In this community, do you have emergency transport (called ETS) offered by NURTW for pregnant women who need to be taken to a facility urgently?	Yes ---------- 1 No ---------- 2				
T139	Have you ever refused to use ETS offered by the NURTW? (maybe when it was new you were unsure and used another mode of transport)	Yes ---------- 1 No ---------- 2 If yes, explain why				
T140	Do you know of anyone who refused to use ETS offered by the NURTW?	Yes ---------- 1 No ---------- 2 If yes, explain why				
T141	Does the community have dedicated funds for emergency transport of pregnant women who need to be taken urgently to a facility?	Yes ---------- 1 No ---------- 2 If yes, explain why				
	[IF YES IN T138] have you, a family member or someone else from the community whom you know, ever used this emergency transport?			Yes	No	
		T142	Self	1	2	
		T143	Family member	1	2	
		T144	Community member	1	2	

				Yes	No	
	What preparations did you make during your (ETS) birth **/** have you made in this pregnancy (respondent currently pregnant) in readiness for delivery? [**DO NOT READ OUT OPTIONS**]	T145	Saved money for contingencies	1	2	
		T146	Identified the transporter	1	2	
		T147	Decides where to deliver	1	2	
		T148	Bought Clean Delivery Kit	1	2	
		T149	Recognition of danger signs	1	2	
		T150	Identified a skilled provider/facility for birth	1	2	
		T151	Know how to contact or reach the provider/facility	1	2	
		T152	Identified the TBA in the community to contact	1	2	
		T153	Agree who take decision in emergency if husband is away	1	2	
		T154	Others (Specify)	1	2	
T155	**[If saved money for contingencies in T145, ASK]:** How much did/do you save for contingencies in this pregnancy or your (ETS) pregnancy? **(enter amount in Naira)**	Total Amount Saved N☐☐☐☐ Can't remember ---------- 2				
Questions T156-T161 are for ONLY when ETS <u>WAS</u> used For details on other modes of transport used in other instances use T162-T166						
T156	When you used ETS did the driver tell you there was a charge/fee?	Yes ---------- 1 No ---------- 2				
T157	How much did it **cost** you to transport yourself to nearest health facility in this community using **ETS**?	Total Amount paid N☐☐☐☐ Walk to the facility ---------- 1				
T158	How did you pay for **ETS**? (cash, micro credit, community loan) to visit hospital?	Cash----------1 Micro Credit ----------2 (credit from who? Specify) Community Loan ----------3 Not Applicable ---------- 4				
T159	If you have ever had to pay for **ETS** during a maternal emergency, did you pay immediately or after the referral?	Immediately ---------- 1 After the Referral ---------- 2 Did not pay ---------- 3				

T160	When you required **ETS** during an emergency how long did it take to arrange transport?	Less than 30 minutes ---------- 1 30 minutes – 1 hour ---------- 2 1 hour – 2 hours ---------- 3 More than 2 hours ---------- 4 Longer (please specify) ----------5	
T161	When you required **ETS** during an emergency how long did it take to reach the appropriate facility?	Less than 30 minutes ---------- 1 30 minutes – 1 hour ---------- 2 1 hour – 2 hours ---------- 3 2 hours – 3 hours ---------- 4 Above 3 hours ---------- 5 Longer (please specify) ----------6	
The following questions are ONLY for when other modes of transport were used in other instances, <u>NOT</u> ETS – MUST ALSO BE ANSWERED			
T162	How much did/does it **cost** you to transport yourself to nearest health facility in this community?	Total Amount paid N ☐☐☐☐ Walk to the facility ---------- 1	
T163	How would you pay for transport (cash, micro credit, community loan) to visit hospital?	Cash----------1 Micro Credit ----------2 (credit from who? Specify) Community Loan ----------3 Not Applicable ---------- 4	
T164	If you have ever had to pay for transport during a maternal emergency, did you pay immediately or after the referral?	Immediately ---------- 1 After the Referral ---------- 2 Did not pay ---------- 3	
T165	If you have ever required transport during an emergency how long did it take to arrange transport?	Less than 30 minutes ---------- 1 30 minutes – 1 hour ---------- 2 1 hour – 2 hours ---------- 3 More than 2 hours ---------- 4 Longer (please specify) ----------5	
T166	If you have ever required transport during an emergency how long did it take to reach the appropriate facility? **IF NEVER REQUIRED, ASK: How long will it take to reach the facility**	Less than 30 minutes ---------- 1 30 minutes – 1 hour ---------- 2 1 hour – 2 hours ---------- 3 2 hours – 3 hours ---------- 4 Above 3 hours ---------- 5 Longer (please specify) ----------6	

INTERVIEWER: THANK THE RESPONDENT AND CLOSE THE INTERVIEW