Acceptability of the Village Health Worker Program, Facilitators and Barriers to the use of Facility Delivery Services in Gombe State

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A QUALITATIVE STUDY

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Table of Contents

Executive Summary

In Gombe state, uptake of antenatal (ANC) and delivery services are 58.2% and 27.6% respectively.[1] The state's maternal and infant mortality rates are 1002 per 100,000 live birth, and 20.7 per 1000 live births respectively.[2] In order to reduce maternal and infant mortality rates of the state , the Village Health Worker (VHW) Program was implemented by the Gombe State Primary Healthcare Development Agency (GSPHCDA) in collaboration with Society for Family Health (SFH) across 50% geography (57 out of 114 wards) of the state.

Approximately 1200 women indigenes of Gombe state communities were selected and exposed to short (3 weeks) intensive training on basic maternal neonatal and child healthcare (MNCH) and deployed to educate and encourage pregnant women in the community through home visits, to use MNCH services. After almost two years (October 2016 to September 2018) of program implementation, mean uptake of facility delivery services in 57 VHW intervention wards was 65%. With 31 wards recording facility delivery uptakes from 51% to 80%, while 15 and 11 wards had facility delivery uptake of over 81%, and less than 50% respectively. In order to elucidate why some women beneficiaries of the VHW program delivered in the facility and others did not, this study assessed the acceptability of the VHW program and explored the facilitators and barriers to the use of facility delivery services among women beneficiaries of the VHW program.

Study respondents were 58 women selected from the three wards that represented the maximum (Banganje North - BN 96%), mean (Akko 65%) and minimum (Zange 23%) uptake of facility delivery services among the 57 VHW intervention wards. Socio-demographic information of respondents were collected with the aid of a survey. Qualitative data were collected from 6 focus groups (average of 10 women per group). Focus group discussion questions assessed respondents' views and experiences with VHWs and explored the facilitators and barriers to facility delivery services. Socio-demographic data were described in aggregates and percentages. FGD data were analysed through deductive theme analysis until all emerging themes are exhausted.

Mean age of respondents was 25 years old. In the 12 months preceding the study, over half (64%) of the respondents delivered in the facility, while the remaining 36% delivered at home. Findings from qualitative data indicated that respondents accepted and were satisfied with the VHW program. This satisfaction was associated with the fact that VHWs visited women in their homes and educated them on the importance of using MNCH services. Respondents also perceived that VHW's interventions has improved their uptake of MNCH services. Furthermore, respondents felt they had good interpersonal communication with VHWs because the VHWs were indigenous community members who were well-known to them. In addition, the

VHW messages and visual teaching aids were clearly understood, the VHW occupation was admired and was considered valuable to the VHWs as it gave them the opportunity to improve their literacy skills. Recommendations for the VHW program included scaling-up the program to other communities, offering VHWs basic obstetric training and permanent employment.

Most respondents' experience with facility delivery was positive, and the general preference for a female healthcare worker was not rigid. There was a general preference for facility delivery over home delivery. Factors that facilitated the use of facility delivery services included geographical and financial accessibility, and support from significant family members (husbands and mothers-in-law). While barriers to the use of facility delivery services included availability of alternative care, household and facility level factors. Recommendations to improve the uptake of MNCH services at the facility level included cost-free services, gifts incentives, and healthworkers' positive attitude. While on the community level, the VHW program should get male stakeholder buy-in, and strategically target and educate more women on the health benefits of using MNCH services.

The key characteristics of the VHW program that made it effective were the fact that VHWs were community members, visited women in their homes, and their messages were clearly understood. Preference for facility delivery services over home delivery was related to receiving immediate quality care. Barriers to facility delivery uptake were mentioned by more respondents from Zange Ward, followed by Akko Ward respondents and least by BN Ward respondents. Barriers unique only to Zange were transportation cost to facility, out of pocket payment for services and the availability of traditional birth attendant (TBA) services. While barriers common to both Zange and Akko wards were lack of healthcare workers 24 hours-a-day at facilities, imminent delivery, and non-availability of husbands to accompany their wives to the facility at the on-set of labour.

This study has shown that the VHW program is generally acceptable and appreciated by the beneficiaries of the program and has been perceived to be instrumental in increasing the uptake of facility MNCH services. However, there are some facility-based, household level and socio-cultural factors unique to each study ward that limited facility delivery uptake. Therefore, the plan to scale-up and improve the effectiveness of the VHW program must adapt a multi-pronged approach that will address these multi-level factors in order to optimize the uptake of facility MNCH services.

Background and Objectives

Nigeria, with a Maternal Mortality Ratio (MMR) of 814 per 100 000 live births, translates into 19% of all maternal deaths worldwide: and ranks as the country with the second highest MMR globally after India.[3] The country also has high infant and neonatal mortality rates of 30 and 37 per 1,000 live births respectively.[1,4] Maternal and neonatal health (MNH) services include antenatal (ANC), delivery and postpartum care. Lack of, or poor access to maternal healthcare adversely impact on maternal and infant outcomes such as maternal and infant mortality. There are approximately 7 million births occurring in Nigeria annually,[3] however, only 61% of pregnant women attend antenatal care (ANC) at least once, and only 37% of births occur in a health facility.[1] Most out-of-facility births occur in the rural areas,[1] where one-half of the population reside.[4]

Interventions to address the wider socio-cultural determinants that adversely affect maternal and infant health must recognize the religious and socio-cultural diversity of the country. First, Nigeria is virtually divided into a Christian dominated South (84.4% of Christians), and Muslim dominated North (81.8% of Muslims). While the North-Central middle belt has a more equitable distribution of the major religious faiths (42.0% Muslims, 56.0% Christians, and 2% other religions).[5,6] Second, Nigeria's 36 states and Federal Capital Territory are grouped into six geo-political zones, namely: the South-South, the South-East, the South-West, the Northeast, the North-West and the North Central Zones[7]. Maternal and neonatal health (MNH) indicators are generally better in the southern parts of the country compared to the northern parts.

For instance, MMR in the North is usually over 1,000 per 100,000 live births, and often below 300 per 100,000 live births in the South.[8] Likewise, neonatal mortality rates are worse in the North (41.0 per 1,000 livebirths), and better in the South (36.0 per 1,000).[1] These indicators mirror the stark differences in the uptake of maternal, neonatal and child health (MNCH) services in the southern and northern parts of the country. For instance, the percentage of women who deliver in the health facility is highest in the southern regions (73- 78.8%), then in the North-Central (45.7-67.2%), and least in the Northern-East and North-West regions (13 - 29%).[6,9] Likewise, births attended by a skilled attendant are fewer in rural areas (22.7–46.6%) compared to urban areas (67–79.2%).[101] Therefore, evidence-base interventions to ameliorate the country's alarming maternal and infant mortality rates should prioritize rural-northern Nigeria. However even within the North, the North-East with facility delivery uptake of 20.5%, fares only better than the North-West region which has a facility delivery uptake of 12.8%.[11] Furthermore, among the six geo-political zones, the North-East has the highest MMR (1,549 per 100,000 livebirths), which is almost 10-fold more than the MMR in the South-West (165 per 100,000 livebirths): the zone with the lowest MMR in the country.[12]

Gombe state is one of the six states of the North-East geo-political zone. The state is divided into 11 Local Government Areas (LGAs), and has a population of 2,365,040 million, 1,120,812 are female, out of which 38% (422,644) are women of child bearing age (15-49 years). Uptake of ANC and delivery services are 58.2% and 27.6% respectively.[1] The state's MMR, and infant rates are 1002 per 100,000 live birth, and 20.7 per 1000 live births respectively.[2] Though the state has up to 12 different ethnic groups, Hausa is the inter-ethnic medium of communication, and literacy rates for females and males are 30% and 68% respectively.[2] The health system infrastructure is relatively weak in Gombe. Majority of the public health facilities lack adequate skilled health personnel.[2] The few health professionals (111 doctors, 889 nurses and midwives, and 1,464 community and environmental workers), are grossly inadequate for the population.[13]

Community Health Workers

Community Health Workers (CHWs) are a low cadre of healthcare providers who deliver health services to women and children at the household level particularly in low resource settings where healthcare workers are scarce.[14] The CHWs are community members trained and deployed in the community to provide culturally appropriate health services.[15,1617] Findings from other low resource countries indicate that the CHW programs have being instrumental in reducing maternal and neonatal mortalities, and improvements in new born care practices and healthcare-seeking behaviours.[14]

Gombe State Village Health Worker Program

The Village Health Worker (VHW) Program in Nigeria, which is equivalent to the CHW in other countries, is led by the Government through the Nigerian National Primary Health Care Development Agency (NPHCDA), to be implemented at the state levels through the State Primary Healthcare Development Agencies (SPHCDA). The VHW program in Gombe State is the first state-led community base intervention supported by the Nigerian government. The Gombe State VHW program was implemented in October 2016 by the Gombe State Primary Healthcare Development Agency (GSPHCDA) in collaboration with Society for Family Health (SFH), a Nigerian indigenous Non-Governmental Organization. The VHW Program was implemented across 50% geography of the state[18] to address the critical shortage of skilled healthcare personnel with the aim of reducing maternal and infant mortality rates.[2] The GSPHCDA supports the VHW program by offering technical and supervisory support through Maternal and Child Health Officers, Community Health Extension Workers, and Ward Development Committee Members. The GSPHCDA also finances VHW's monthly stipend of ₦4000 ~ USD11 (at exchange rate ₦365 to USD1). Further technical and supervisory support is also offered by SFH through the training of VHWs, and supervisory support through 11 Program Officers - POs (SFH employees). Each PO is assigned to one of the 11 LGAs of the state to monitor VHWs deployed in their respective LGAs, and to collect/collate monthly data from the VHWs. SFH is funded by the Bill and Melinda Gates Foundation to offer this support.

VHWs are women indigenes of Gombe State that are selected based on the following criteria:

1. Preferably married and with permission from husband
2. Reside in the community
3. Minimal educational qualification: primary school leaving certificate
4. Age- 15yrs and above (flexibility in age to list secondary school leavers who are more likely to be able to read and write)
5. Fluent in the local language
6. Familiar with norms and values of the community
7. Willing to link activities to ward facilities

Selected VHWs (approximately 1200) were exposed to a three-week intensive training which included classroom and field sessions. After the training, successful VHWs were branded, supported with resource, deployed to and operationally function in various communities to enhance the use of MNCH services. Deployment and distribution of VHWs within communities is commensurate with the population and peculiarities of the communities.[18] After almost two years (October 2016 to September 2018) of VHW program implementation, mean uptake of facility delivery services among VHW intervention wards (50% of the State) was 65%. With 31(54.5%) of the wards recording facility delivery uptakes from 51% to 80%, while 15 (26.3%), and 11 (17.5%) of the VHW intervention wards have facility delivery uptake of over 81%, and less than 50% respectively.[1] The fact that in some VHW intervention wards facility delivery uptake was less than 50%, indicates that some women beneficiaries of the program still encounter barriers to the access and use of facility delivery services. Even though the services of CHW/VHWs are usually appreciated by the women beneficiaries of the program,[17,19] the main barriers to access and uptake of facility-based MNH services in low resource countries including Nigeria are geographical and financial inaccessibility, lack of support from significant others (mothers-in law and husbands), healthcare worker understaffing and worker attitude.[20] The influence of the aforementioned factors in some VHW intervention wards and not in others, could explain the disparity in the uptake of facility delivery services. Therefore, the aim of this study is to assess the acceptability of the VHW program and explore the facilitators and barriers of facility delivery uptake, among VHW intervention wards.

[1] Data collected from the Village Health Worker Program by Society for Family Health

Study Objectives:

1. To assess the general acceptability of village health worker services among women beneficiaries of the Program
2. To explore the factors that facilitate the use of facility delivery services for women beneficiaries of the Village Health Worker Program
3. To explore barriers to the use of facility delivery services for women beneficiaries of the Village Health Worker Program

Methodology

Study Setting

The study was conducted within VHW intervention wards in Gombe State. The state has 114 wards grouped into 11 Local Government Areas (LGAs) (fig.1).

Figure 1: Map of Gombe State Showing Eleven Local Government Areas

The 11 LGAs are grouped into 3 senatorial zones: namely Gombe-North, Gombe-Central, and Gombe-South. The VHW program has been implemented in 57 out of the 114 wards of the state spread across the three senatorial zones (Table 1).

Zones	Local Gov. Areas	Number of VHW Intervention Wards	Mean Facility Delivery Uptake
Gombe-North	Funakaye Dukku Kwami Nafada	26	**55%**
Gombe-Central	Akko Gombe Yamaltu-Deba	11	**70%**
Gombe-South	Billiri Kaltungo Shomgom Balanga	20	**75%**
Total		**57**	

Table 1: Local Government Areas, Number of VHW Intervention Sites, and Facility Delivery Uptake[2]

The average uptake of facility delivery service within the 57 VHW program intervention wards was 65% (±17.6%), with records of 54,678 facility deliveries and 28,569 home deliveries[3]. However, facility delivery uptakes varied among the senatorial zones, with the South (75%) having the highest uptake, followed by the Central Zone (70%) and least uptake is in the northern Zone (55%) (Table 1). To elucidate the reason(s) for disparity among the three senatorial zones, and why some women who are beneficiaries of VHW program would deliver in the facility and others would not, study participants were selected from the three wards that represented the maximum (Banganje North - BN 96%), mean (Akko 65%) and minimum (Zange

[2] Data collected from the Village Health Worker Program by Society for Family Health
[3] Data collected from the Village Health Worker Program by Society for Family Health

23%) uptake of facility delivery services among the 57 VHW intervention wards. In addition, each of the selected ward represents one of the three senatorial zones of the state (Table 2).

Zone	VHW Intervention Ward	Number of VHW	Facility Delivery Uptake
Gombe-South	Bangaje North	23	96%
Gombe-Central	Akko	33	65%
Gombe-North	Zange	26	23%

Table 2: Selected Wards and Facility Delivery Uptake

Study Population Eligibility Criteria

Women beneficiaries of the VHW program in Gombe State that have delivered either at home or at the facility within the 12 months preceding the time of study, residing either of the study selected wards: BN, Akko, and Zange.

Recruitment

Participants were recruited by POs through the VHWs. For each study selected ward, the PO responsible for that ward purposefully selected a VHW who identified focus group discussion (FGD) eligible clients and verbally invited them to participate in the focus group. Recruitment was stopped once a target of 10 women had been reached for each FGD. Interested respondents showed up for the FGD on the appointed date and time. The study was fully explained, and consent sought by Research Assistants (RAs) in the language preferred by the respondent English or Hausa using the appropriate study information sheets (Appendix IA) or (Appendix IB) respectively. Written or verbal respondent consent was obtained prior to initiation of data collection.

Data Collection

Prior to each FGD, socio-demographic information of all respondents was collected by trained bi-lingual English and Hausa speaking RAs using an interviewer-administered survey consisting of open and close ended questions that was administered either in English (Appendix II A) or Hausa (Appendix II B) according to the respondent's preference. The first part of the survey captured socio-demographic information of respondents such as age, educational status, religion, ethnicity, and occupation. While the second part of the survey captured the obstetric history of respondents (number of births, number of home and facility deliveries, use of traditional birth attendants, and the duration of contact with a VHW). The survey took about 5 minutes to complete per respondent.

In total, six FGDs were conducted. The study was designed to conduct two focus groups (10 respondents per group) from each of the selected VHW intervention wards. For each ward, the first FGD was to consist of women who delivered in the facility (facility group) within the last 12 months, while the second FGD was to consist of women who delivered at home (home group) within the last 12 months preceding the study. In Akko and Zange wards with delivery uptakes of 65% and 23% respectively, we were able to recruit one facility and one home group from each ward. However, considering BN has an almost 100% facility delivery uptake, it was not possible to find and recruit women who delivered at home. Therefore, for BN ward, both FGD groups consisted of women who delivered in the facility in the last 12 months. In addition, the first BN group had only seven respondents because three respondents left before the study commenced, and for the second BN group, one of the respondents who left before the first focus group commenced, returned to join the second group. In aggregate, there were 4 facility groups (two from BN, one from Akko and one from Zange) and two home groups (one from Akko and one from Zange).

All the six FGDs were conducted by a trained bi-lingual English and Hausa speaking RAs and guided by either the English (Appendix IVA) or Hausa (Appendix IVB) version of the FGD moderator guide. Two RAs conducted each FGD: one RA moderated the discussion while the second RA observed the discussion and noted respondents' non-verbal cues and synergistic group effects. The first section of the FGD moderator guide explored topics on participants' access, use, and satisfaction with facility delivery services. The second part of the guide examined participants' acceptability of the VHW program. All FGDs were audio recoded and notes taken with the consent of the respondents. To maintain anonymity and establish a conducive atmosphere for discussion, respondents used self-chosen aliases for each FGD. FGDs were conducted either in open out door settings or private rooms within the premises of the focal healthcare facility. The FGDs lasted approximately 90 minutes and respondents were provided with refreshment worth ₦500 ~ USD2 (at exchange rate ₦365 to USD1) at the end of the FGDs. The qualitative study time period was October 2018 to November 2018.

Data Storage and Analysis

Signed informed consent forms and completed socio-demographic surveys were returned to SFH - Gombe office, filled and locked in a secure cupboard. Audio tape recorders used for FGDs were also locked in a secure cupboard in SFH-Gombe office and were only accessible to research team.

The optional responses of the close ended questions of the socio-demographic surveys were coded. The coded and open-ended responses were input manually into MS Excel. Mean and standard deviation of respondents' age were calculated using MS excel formula function, while other socio-demographic

information of respondents were presented in aggregate and in percentages in a frequency distribution table showing breakdown by category and frequency (Tables 1 and 2).

All six focus groups were conducted in Hausa and were translated and transcribed into English by the RA that moderated the FGD. For quality control, after the transcription of the first 2 FGDs, the Principal Investigator (PI) reviewed the transcripts against the respective audio recordings to verify the quality of the translation and transcription. Transcripts were coded by the PI using NVivo 12 (Pro for Windows). The PI examined each transcript line for initial key themes using the principles of grounded theory[21], to develop a preliminary coding framework. As the emerging framework evolved, coding outcomes were shared on a power point presentation with managers and project officers of the VHW Program to consolidate codes into categories, and to identify overarching themes and sub-themes. All transcripts were analyzed through deductive theme analysis until all emerging themes are exhausted. Names of persons and places have been redacted in this report to ensure confidentiality.

Ethical Approval

Ethical approval was obtained from the Gombe State Ministry of Health.

Study Results

Table 3: Socio-demographic Information of Focus Group Respondents

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	All Groups
Sample Size	N=7	N=11	N=10	N=10	N=10	N=10	N=58
Age, years: mean (SD)	28.0 (± 4.0)	30.4 (± 4.2)	24.0 (± 3.0)	25.0 (± 5.0)	21.1 (±4.4)	23.0 (± 4.1)	25.1 (± 5.3)
Other Characteristics: n (%)							
VHW Intervention Ward	(BFDG1) [a]	(BFDG2) [b]	(AFG)[c]	(AHG)[d]	(ZFG)[e]	(ZHG)[f]	
Place of last delivery							
Facility	7 (100.0)	11 (100.0)	9 (0.0)	0 (0.0)	10 (100.0)	0 (0.0)	37 (63.7)
Home	0 (0.0)	0 (0.0)	1 (10.0)	10 (100.0)	0 (0.0)	10 (100.0)	21 (36.2)
Formal Education							
None	1 (14.3)	1 (9.0)	1 (10.0)	3 (30.0)	4 (40.0)	0 (0.0)	10 (17.2)
Informal Schooling[g]	0 (0.0)	0 (0.0)	5 (50.0)	0 (0.0)	0 (0.0)	9 (90.0)	14 (24.1)
Primary School	0 (0.0)	3 (27.0)	2 (20.0)	4 (40.0)	4 (40.0)	1 (10.0)	14 (24.1)
Secondary School	6 (85.0)	7 (64.0)	2 (20.0)	3 (30.0)	2 (20.0)	0 (0.0)	20 (34.4)
Occupation							
None	1 (14.3)	5 (45.0)	3 (30.0)	8 (80.0)	9 (90.0)	4 (40. 0)	30 (51.7)
Business/Trade	1 (14.3)	0 (0.0)	6 (60.0)	2 (20.0)	0 (0.0)	6 (60.0)	15 (26.8)
Professional[h]	0 (0.0)	0 (0.0)	1 (10.0)	0 (0.0)	1 (10.0)	0 (0.0)	2 (3.4)
Farmer	5 (71.0)	6 (55.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	11 (18.9)
Religious Affiliation							
Christianity	7 (100.0)	11 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	18 (31.0)
Islam	0 (0.0)	0 (0.0)	10 (100.0)	10 (100.0)	10 (100.0)	10 (100.0)	40 (69.0)
Ethnicity							
Fulani	0 (0.0)	0 (0.0)	8 (80.0)	9 (90.0)	2 (20.0)	2 (20.0)	21(36.2)
Tangale	7 (100.0)	11 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	18 (31.0)
Others[i]	0 (0.0)	0 (0.0)	2 (20.0)	1 (10.0)	8 (80.0)	8 (80.0)	19 (32.7)
Marital Status							
Single	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Married	7 (100.0)	11 (100.0)	10 (100.0)	10 (100.0)	10 (100.0)	10 (100.0)	58 (100.0)
Polygamous union[j]	0 (0.0)	0 (0.0)	6 (60.0)	3 (30.0)	5 (50.0)	5 (50.0)	19 (32.7)

SD – Standard Deviation

[a]BN Facility Group 1

[b]BN Facility Group 2

[c]Akko Facility Group

[d]Akko Home Group

[e]Zange Facility Group

[f]Zange Home Group

[g]Islamic or Bible School

[h]one VHW and one TBA

[i]Include four Boboriya, three Hausa, three Karekare, three Bolewa, two Kanuri one Waja and one Tera

[j]Calculated as a subset of married women: 19 married women with either one, two or three co-wives

Table 4: Obstetric History, Place of Delivery, Duration of Contact with VHWs

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	All Groups
Sample Size	N=7	N=11	N=10	N=10	N=10	N=10	N=58
			Other Characteristics: n (%)				
VHW Intervention Ward	(BFDG1)	(BFDG2)	(AFG)	(AHG)	(ZFG)	(ZHG)	
Number of living children							
None	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
1-2	2 (28.0)	3 (27.0)	2 (20.0)	5 (50.0)	5 (50.0)	4 (40.0)	21 (36.2)
3-4	4 (57.0)	4 (36.0)	5 (50.0)	3 (30.0)	4 (40.0)	3 (30.0)	23 (39.6)
5+	1 (14.3)	4 (36.0)	3 (40.0)	2 (20.0)	1 (10.3)	3 (30.0)	14 (24.1)
History of facility delivery							
None	0 (0.0)	0 (0.0)	0 (0.0)	2 (20.0)	0 (0.0)	9 (0.0)	11 (18.9)
1-2	5 (71.0)	2 (18.0)	2 (20.0)	6 (60.0)	7 (70.0)	1 (10.0)	23 (39.6)
3-4	2 (28.5)	5 (45.0)	5 (50.0)	1 (10.0)	3 (0.0)	0 (0.0)	16 (27.5)
5+	0 (0.0)	4 (36.0)	3 (30.0)	1 (10.0)	0 (0.0)	0 (0.0)	8 (13.7)
History of home delivery							
None	3 (43.0)	11 (100.0)	7 (70.0)	0 (0.0)	6 (60.0)	0 (0.0)	27 (46.5)
1,2	0 (0.0)	0 (0.0)	3 (30.0)	8 (80.0)	2 (20.0)	3 (30.0)	16 (27.5)
3+	4 (57.0)	0 (0.0)	0 (0.0)	2 (20.0)	2 (20.0)	7 (70.0)	15 (25.8)
Use of Traditional Birth Attendant							
None	4 (57.0)	11 (100.0)	9 (90.0)	2 (20.0)	6 (60.0)	0 (0.0)	32 (55.1)
1,2	3 (43.0)	0 (0.0)	1 (10.0)	7 (70.0)	2 (20.0)	3 (30.0)	16 (27.5)
3+	0 (0.0)	0 (0.0)	0 (0.0)	1 (10.0)	2 (20.0)	7 (70.0)	10 (17.2)
Last delivery							
Less than a month ago	0 (0.0)	1 (9.0)	2 (10.0)	2 (20.0)	0 (0.0)	0 (0.0)	5 (8.6)
1-3 months ago	3 (43.0)	3 (27.0)	2 (20.0)	6 (60.0)	3 (30.0)	1 (10.0)	18 (31.0)
4-6 months ago	2 (28.5)	1 (9.0)	2 (20.0)	1 (10.0)	4 (40.0)	5 (50.0)	15 (25.8)
7-9 months ago	0 (0.0)	3 (27.0)	3 (30.0)	1 (10.0)	2 (20.0)	2 (20.0)	11 (18.9)
10+ months ago	2 (28.5)	3 (27.0)	1 (10.0)	0 (0.0)	1 (10.0)	2 (20.0)	9 (15.5)
No response	0 (0.0)	0 (0.0)	1 (10.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.7)
First Contact with VHW							
Less than a month ago	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
1-3 months ago	1 (14.2)	1 (9.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (3.4)
4-6 months ago	1 (14.2)	0 (0.0)	2 (20.0)	3 (30.0)	0 (0.0)	0 (0.0)	6 (10.3)
7-9 months ago	2 (28.5)	1 (9.0)	2 (20.0)	4 (40.0)	1 (10.0)	0 (0.0)	10 (17.2)
10+ months ago	3 (43.0)	9 (82.0)	5 (50.0)	3 (30.0)	9 (90.0)	10 (100.0)	39 (67.2)
No response	0 (0.0)	0 (0.0)	1 (10.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.7)

Socio-demographic Information

Fifty-eight (58) women beneficiaries of the VHW program participated in the study. Mean age of all study respondents was 25.1 (± 5.3) years old. Respondents from BN were older than respondents from Akko and Zange Wards (fig.1)

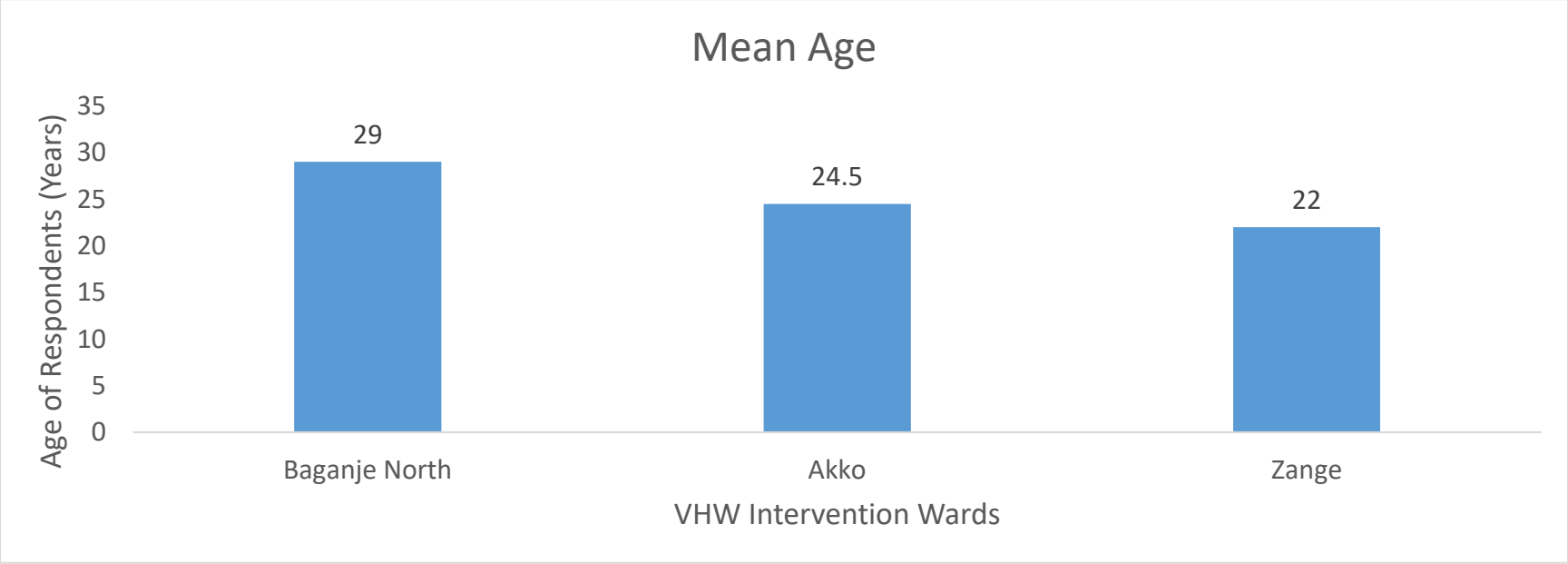

Figure 2: Mean Age of Respondents

Over half (59%) of the participants have been exposed to a secular educational system (either primary or secondary), while 41.3% have never been exposed to a secular educational system (fig 2). Approximately half of the participants (51%), have no occupation. The two most commonly stated occupations were business/trade (27%), and Farming (19%) (fig 3).

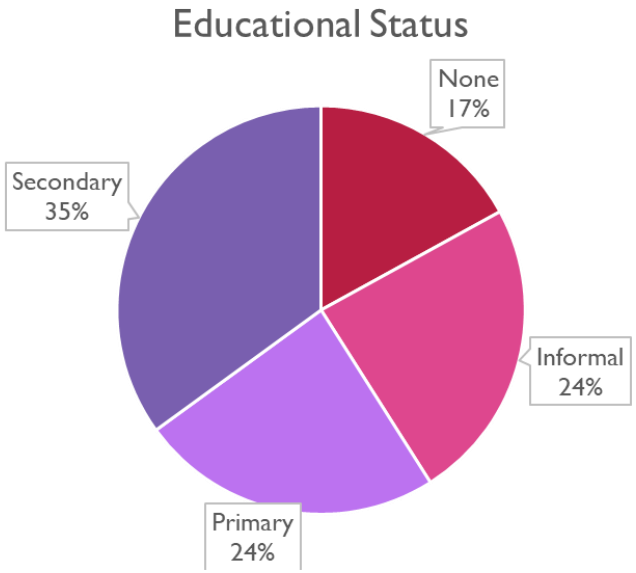

Figure 3: Educational Status

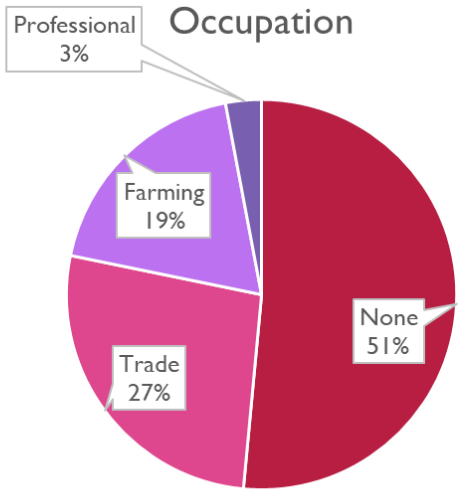

Figure 4: Occupation

There was a higher representation of Muslims (69%) and the Fulani (36.2%) ethic group (figs. 4 and 5)

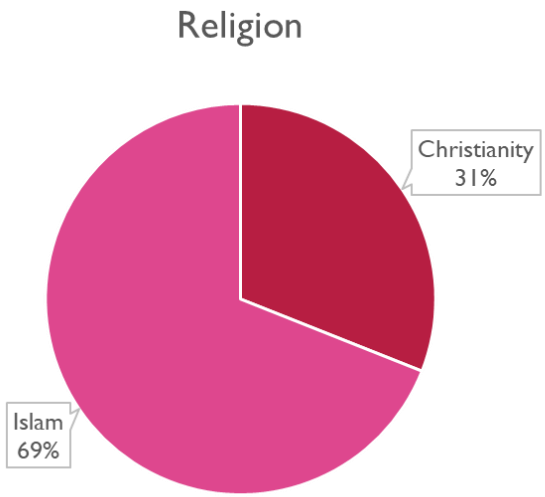

Figure 5: Religion

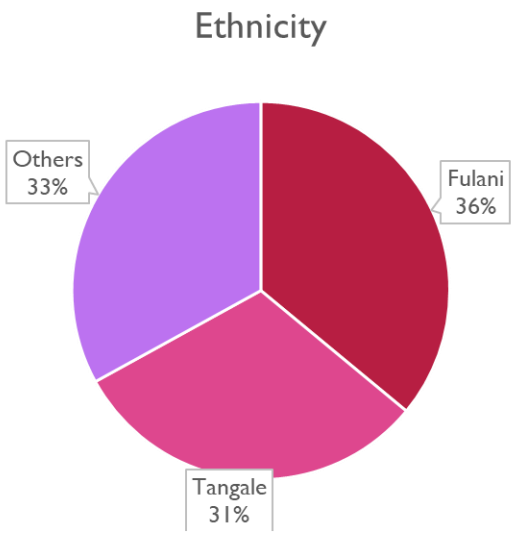

Figure 6: Ethnicity

All participants (100%) were married, with 32.7% of them in polygamous unions. Most participants 75.8% had between 1-4 living children while the remaining have 24% had more than five children (fig.8). Within the last 12 months, most (64%) of the participants delivered at a health facility, while the remaining (36%) delivered at home (fig.9).

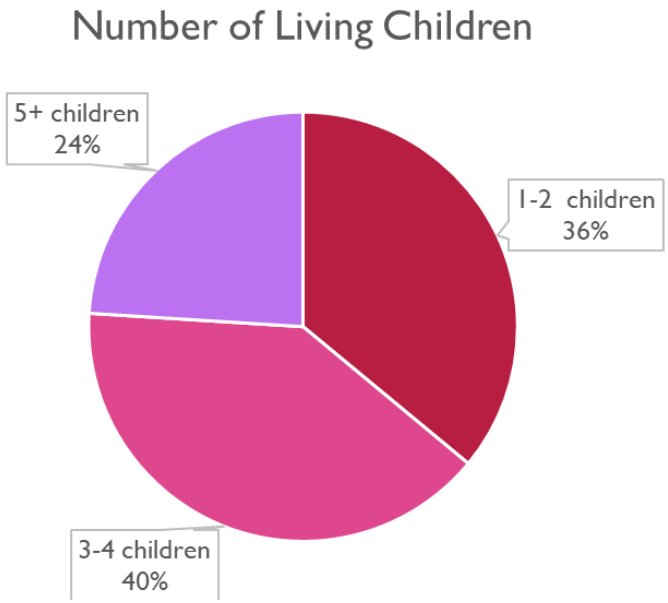

Figure 7: Number of Living Children

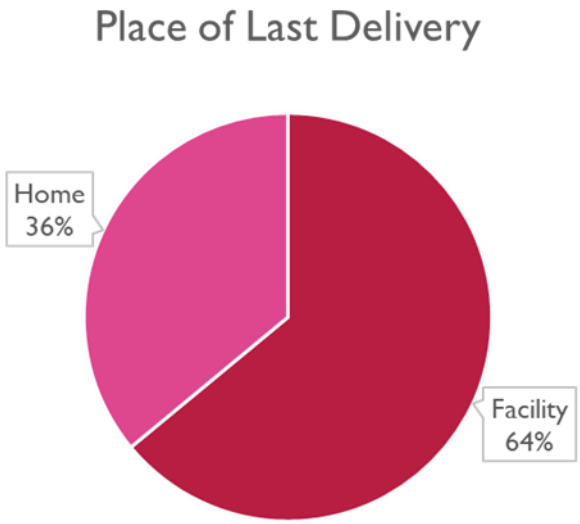

Figure 8: Place of Last Delivery

Most (67%) of the participants have been in contact with a VHW for a minimum of 10 months (fig 10).

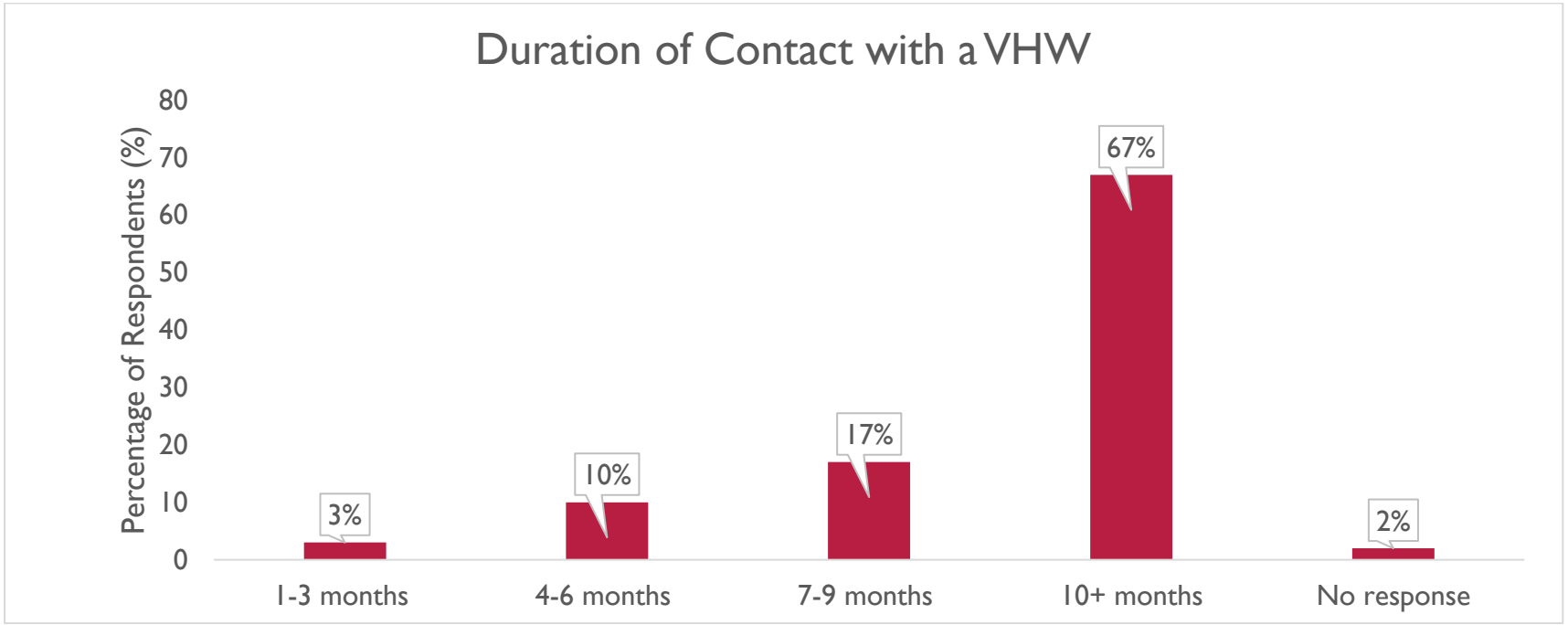

Figure 9: Duration of Contact with a VHW

Focus Group Discussion Findings

Eight (8) overarching themes emerged from the six focus group discussions: the first four themes centered around the role, acceptability, social value, and recommendations for the VHW program. While the last four themes centered on experience with, facilitators and barriers to facility delivery services, and recommendations on how increase the uptake of facility delivery services.

Role of VHWs

Home visits - The VHWs within one of the FGD groups stated that the services they provided to pregnant women included home visits to supply them with ANC medication (hematinics) and advise them to use MNCH services. The VHWs also conduct home follow-up visits to ensure that the women have attended their ANC appointments. At times, VHWs accompany women who are reluctant to attend their ANC appointment to the facility. As the VHW eloquently explained:

> *"When we visit the women, we explain things to them and we give them folic acid and fesolate. when we realize a women is reluctant in going for ANC appointment, : Like in cases of women that want to go the health facility or those who are shy especially when it's their first pregnancy, you* [the VHW] *tell her that get ready and ask your husband on so day I will come and accompany you to the facility for ANC. So, you come on the appointed day and escort her to the facility for ANC visit."*- 25-year-old, 4 FDs[4] 0 HDs[5] (AFG)[6]

Furthermore, the VHW explained that they assess and examine the mother-infant pair during postnatal visits by inquiring about the consistency of the mother's postnatal bleeding pattern, and physically examining the infant:

> *"After delivery, we visit them for postnatal. You observe the health of the mother and the baby; like in a day,you ask her about her blood flow like in a day, how often does she change her pad? When she tells you, you tell her to go to the facility. Like the baby, you carry him and check his eyes, and his body, his health and breathing pattern…"*- 25-year-old, 4 FDs 0 HDs (AFG)

[4] Facility Deliveries

[5] Home Deliveries

[6] Akko Facility Group

The names of study Respondents have not been included to maintain their anonymity. Respondents age is included as well has history of facility and home deliveries.

Home ANC registration - Most respondents appreciated the fact that VHWs come into their homes to register them for ANC appointments, and follow-up on them to ensure that they attended the appointments. They also appreciated the fact that the VHWs distributed drugs (hematinic) to them in their homes, implying that their health is already being protected even before they visit the facility. As one respondent stated:

> *"I enjoy their visitations a lot. They give us medication, so before you start going to the facility for ANC, you can start taking the medication they have already brought to you. So, you see that is protective before you come to the facility for further check-up. I like the fact that they go around the community."* - 26-year-old, 6 FDs 0 HDs (AFG)

Advise on using MNCH facility services - Respondents also stated that VHW messages targeted towards them and their husbands, have positively changed their perception and attitude towards the use of facility services for ANC, delivery and postnatal care. Prior to the advent of VHW intervention within communities, many women go through pregnancy and childbirth without ever using facility services. However, the health education and mentorship of VHWs has led many women to become enlightened and aware of the health benefits of facility MNCH services for the mother-infant pair which has resulted in a substantial increase in the uptake of facility MNH services.

> *"I'm enjoying their* [VHW] *services. Sometimes even if you are reluctant in access facility services but after their visit I just change my mind to avoid problem* [obstetric complications] *and visit the facility. Sometimes even if the husband have issue with you attending facility the VHW have a way to convincing him into allowing you attend facility."* – 23-year-old, 2 FDs 0 HDs (AHG)[7]

> *"Some women don't even have the intention of visiting the facility for ANC, but because of their persistent visits, they now go and when we go, we enjoy the facility visits because those drugs that we are given assists us a lot and protects us from diseases and make us healthy."* 20-year-old, 4 FDs 0 HDs (AFG)

> *"Back then we only go to the health facilities 3-4 times for ANC but now our perception has changed, we go for ANC, Delivery and PNC."* – 30-year-old, 3 FDs and 0 HDs (BFG2)[8]

Health education - respondents in all the six groups clearly stated that they were happy with the health education they received from VHWs. Apart from educating them on the benefits of utilizing facility-based MNCH health services, respondents stated that VHWs educated them on the danger signs of pregnancy, advised them on how to maintain personal and environmental hygiene, good nutrition, and counselling on

[7] Akko Home Group
[8] Banganje Facility Group 2

disease prevention and health promotion living habits. This is clearly indicated by respondent quotes below:

> *"We feel happy about them* [VHWs] *and they do tell us the importance of ANC and what will happen if you don't go, they also show us some danger signs that we need to take note of like swelling of the body, bleeding, lack of blood, abdominal pain, sever back pain and many more, any time we notice this signs we should rush to the hospital."* – 20-year-old, 1 FD and 0 HD (ZFG)[9]

> *"…they give advice to prevent complication during pregnancy. Like sleeping in treated mosquitoes nets, that you take medication and injection as specified for you. And that you should attend ANC for your unborn and for your sake. The food you are expect to eat, the way to hold your child and the way you breast feed your child until he/she grow s up."* – 18-year-old, 0 FD and 1 HD (AHG)

Some respondents went on to describe how VHW messages have positively influenced the manner they feed their infants. They iterated that their infants with whom they practiced exclusive breastfeeding as recommended by VHWs, were healthier than their preceding infants (whom they practiced mixed feeding).

> *"When I gave birth to my first child, there were no serious VHW services then I was told give the infant water immediately, which I did, that baby didn't show much growth and development like this one* [pointing to the baby on her lap] *because this baby was exclusively breastfeed."* – 30-year-old, 2 FDs and 1 HD (BFG1)

> *"When I gave some of my older children traditional medicine* [when they were infants] *they got sick a lot but this girl I am only breastfeeding her, I don't give her water and she don't fall sick a lot. They have enlightened me and I am now aware of the difference between what I practice before and now this girl, I didn't even encounter any problem. Even when she is teething but with the previous kids, I really suffered, there was a particular wound (infection) on the child's head and we normally block it, and it will result in swelling of the child's head. I didn't know it was a problem."* – 35-year-old, 1 FDs and 6 HDs (BFG1)[10]

Acceptability of VHWs

Good interpersonal communication with VHWs - most respondents in all the six groups indicated that they were contented with the fact that VHWs were indigenous members of their communities. Many respondents expressed that VHWs were either their friends, family members, housemates or neighbors. Thus, they could freely associate with, and trust to confide in them. As some respondents stated:

[9] Zange Facility Group
[10] Banganje Facility Group 1

"We grow up together, I have elder ones youngers one and my mates my friends as VHW so I'm free with them."- 31-year-old, 4 FDs and 2 HDs (AHG)

"We feel free with them [VHWs] *because while we live in the same community with some, we live in the same house with others.* – 25-year-old, 4 FDs and 1 HD (AFG)

"Honestly, we feel our community members are better [to serve as our VHWs]. *We will not refuse if they* [VHWs] *are from other communities but those from our communities are better.* – 25-year-old, 3 FDs and 1 HD (AFG)

Furthermore, respondents greatly valued the fact that VHWs were community residents and therefore their services are easily accessible on demand especially in case of an emergency. As one respondent expressed:

"Its better because if anything happen we can call her [the VHW] *at anytime since we are in the same community, I don't think it's a problem because she's from our community."* - 20-year-old, 2 FDs and 1 HD (ZFG)

Furthermore, respondents also expressed that they interacted freely with VHWs as they did not hesitate to ask them questions related to the informational messages and issues concerning their own personal health.

"Yes we feel free to ask them questions about information they delivers to us." - AR[11] (BFG2)

"...there are no questions I can't ask them." - 25-year-old, 0 FD and 2 HDs (ZHG)[12]

"[I] *Ask her about the solution to my bleeding during pregnancy, she told me to go to the facility to get medication*." - 27-year-old, 3 FDs and 0 HD (BFG2)

Information conveyed by VHWs clearly understood - respondents in the six focus groups strongly expressed that the information conveyed to them by VHWs was clear and comprehendible. When asked 'if they understood the message of the VHWs' they all responded in the affirmative:

"YES" – ARs (AHG)

[11] All Respondents
[12] Zange Home Group

"YES" - ARs (BFG2)

Furthermore, to demonstrate their level of understanding of the health education they received from VHWs, respondents iterated what they have learnt from those educative interactive sessions:

"I understand their [VHW's] *message very well. They talk about hand washing and keeping our surrounding clean, avoiding stagnant waters around our homes then going to facility and types of foods to be eaten."* – 34-year-old, 6 FDs and 2 HDs (AHG)

"They [VHWs] *show us pictures of various classes of food and how these foods can be eaten. You don't need to disturb your husband to buy you meat, fish but you can make use of beans which can serve the purpose."* – 18-year-old, 0 FD and 1 HD (AHG)

In addition, respondents in all six groups expressed that they clearly understood the information and picture illustrations on the flip charts used by VHWs as teaching aid during health talks. They also indicated that the information they received from VHWs were similar in content to the information they received from healthcare workers in the health facilities.

"Yes, we understand the pictures very well." – 20-year-old, 1 FD and 0 HD (AFG*)*

"They [VHWs] *use to show women during ANC, pictures of women with various complications.* – 23-year-old, 2 FDs and 1 HD (AHG)

"We understand every information the VHW conveys to us and there is no difference between from the information we get from the provider in the health facility." – ARs (ZHG)

Some respondents implied through their statements that they were more satisfied with VHWs strategy of delivering health educational sessions in comparison to what was accessible to them from facility healthcare workers. This is because while healthcare workers were permanently stationed in the facility and do not visit women in their homes, VHWs visit women in their homes and are therefore able to re-enforce their earlier message if they assess that the educational advice they provided is not being practiced. As one woman stated:

"The difference between the information the VHW conveys and that of health providers is that, the VHW advices me and always visits me at home to ensure I practice it while the health providers only advise us in the facility." - 30-year-old, 3 FDs and 0 HD (BFG2)

Respondents also expressed that they were receptive towards the health education delivered to them by VHWs because the VHWs enlightened them and explained pregnancy and other health issues to them within the comfort of their homes.

> *"I like the fact that they* [VHWs] *sit among us and explain things to us. I really like that."*
> - 20-year-old, 1 FD and 0 HD (AFG)

In addition to the benefits of getting important health educational sessions from VHWs, respondents also valued and anticipated VHW visits because they have developed affable relationships with them which has turned into a valuable companionship.

> *"What I like about them, when they entered my house, I use to be very happy because of the health education they gave me, they use to encourage me and they use to explain a lot of things, those that we don't understand, they make me more enlighten that is why I am interested in seeing them all the time because if they entered my house, my face is lid up, and I am happy because they came, we use to gist a lot and they calm me down even when I am over thinking, you will see that my anger will disappear and we will gist. That is why I am happy about them."*- 30-year-old, 2 FDs and 5 HDs (BFG1)

Satisfaction with VHWs - a majority of respondents expressed overwhelming satisfaction with the function of the VHWs and did not express any aspect of the VHW program in terms of MNCH services that they felt should be improved upon. Respondents also acknowledged that VHWs have taken over the support they get from their lay untrained relatives during pregnancy and childbirth. As some respondents stated:

> *"They are doing their best. I don't think there is any area* [in maternal and infant health] *that we need any more help* - 23-year-old, 1 FD and 2 HDs (AHG)
>
> *"Their* [VHWs] *work is very good, they teach everything pertaining childbirth and pregnancy."* - 25-year-old, 1 FDs and 3 HDs (ZFG)
>
> *"We like everything about the* [VHW] *program."* – AP (ZFG)

Respondents in all groups felt that the VHWs were enthusiastic and hardworking considering they transverse remote areas to be able reach women living there. They also stated that VHWs regularly visited them at home, registered them in their homes for ANC appointments, and were consistent in advising and reminding them to attend their facility ANC appointments. VHWs also intervened with husbands when necessary to allow their wives to attend their ANC appointments.

"They visit 'rugan Fulani' [remote Fulani communities], *from one village to the other 3 to 4 times a week. Some places can only be access using motorcycles. They are suffering."*
- 31-year-old, 1 FDs and 3 HDs (AHG)

"What I like about the VHWs is they go around the community and register us for ANC and encourage us to go for ANC appointments on time. If you do not go for your appointment, they will re-visit you and encourage you to go for your ANC appointment at the facility. Even some women that had no intention of going for ANC, will eventually go. When they meet your husband at home, they will ask him why you have not gone for your ANC appointment? So, they emphasize on the ANC appointments."- 25-year-old, 5 FDs and 0 HD (AFG)

Respondents were immensely grateful to VHWs for the services they are offering them. As some respondents stated:

"There is nothing we don't like about the [VHW] *program, and we want to say a big thank you to them* [VHWs] *we pray that Allah bless them all."- 15-year-old, 0 FD and 3 HDs (AFG)*

"They [VHWs] *are doing their best. God should bless them"*- AR (AHG)

Social Value of the VHW Program

Awareness of the benefit of MNCH services among family members (Mothers-in-law) - Some respondents mentioned that in the past mothers-in-law did not support their daughters-in-law to use facility MNCH services. Now that mothers-in-law are enlightened on the health benefits of MNCH facility services through VHW health education sessions, they now support their daughters-in-law to use MNCH services. This support is demonstrated by some respondent quotes below:

"My mother-in-law is happy. Before they stop us from going to the facility for delivery, but now everything has changed because of awareness, she always insists I should go for ANC and deliver at the facility because she said during their time, they really suffered but now everything has changed. - 33-year-old, 6FDs and 0 HD (BGD2)

"They [mothers-in-law] *agree because they know the importance of facility delivery. When the VHW come for sensitization, they engage all of us like 10 women at the sometime, including the mothers- in-law so; they don't have any problem as regards to that..."* - 25-year-old, 4FDs and 0HD (AFG)

"They [mothers-in-law] *are now wise"* - 35-year-old, 4FDs and 0 HD (BGD2)

Improve VHWs literacy levels - Some respondents indicated that they admired the fact that when selected community members qualify as VHWs, their literacy level improves. Though basic reading and writing skills are the requisite pre-criteria to be selected and trained as a VHW, some VHWs make extra effort to improve their literacy levels on the job. As stated by one of the respondents:

> *"What I like is some of them* [VHWs] *don't know how to write and read before, but now when they started the VHW they are able to read and write. Because when you don't know how to read there is no way you can (recording inaudible)."* - 30-year-old, 2 FDs and 1 HD (BFG1)

The VHW occupation is cherished and admired my respondents and some of them indicated that they would also love to be VHWs, and the VHW within the group also expressed that she was happy with the job. As some respondents stated:

> *"I love their* [VHW's] *bags and they* [VHWs] *way they always hold it* [VHW bag] *I feel like becoming a VHW too."* - 33-year-old, 6 FDs and 0 HD (BFG2)
>
> *"Yes, I do enjoy the* [VHW] *job."* - 25-year-old, 4 FDs and 0 HD (AFG)

Recommendations for the Village Health Worker Program

Up-scaling the program - most respondents when asked if they had more comments after the FGD discussions, they stated that they would like the VHW program to be scaled-up to other communities where the program is yet to be activated. This so that other women would also benefit from the services of VHWs with the intended consequence of reducing the prevalence of home deliveries and pre-term births in those communities.

> *"I want their work to reach others. To expand their scope to reach others."* - 23-year-old, 2 FD and 1 HD (AHG)
>
> *"There are areas that are lacking VHWs, so if it's possible they should also be given VHWs so that they too can benefit the way we are benefiting. It will also reduce the rate of home deliveries in such communities and also cases of woman with premature babies will be reduced."* - 30-year-old, 2 FDs and 0 HD (BFG2)
>
> *"Most especially we in rural areas, we have Fulani around us who doesn't have VHWs, so if it is possible, the Fulani women should also be trained as VHWs. It will also reduce issue of home delivery in their communities."* - 33-year-old, 6 FDs and 0 HD (BFG2)

Basic obstetric training and financial support for VHWs – some respondents expressed that though they appreciated the fact that VHWs accompanied them to the facility when in labor, they would be more grateful if the VHWs were trained to be able to assess their stage and progress of labor, so that their arrival at the facility for delivery will be targeted and timely. This is illustrated by some respondent quotes below:

> *"…if she* [VHW] *came, I want her to examine my stage and she will say no because she don't know how to. Her work is to convey to the facility. I want them to know more so as when the next I am about to deliver, she will take me check up on me and determine my stage of labor, so that we will go to the facility when it is time for delivery. We will wait together and when the stage of delivery is close, she will convey me to the facility."* - 29-year-old, 4 FDs and 0 HD (BFG1)

> *"…please help them* [VHWs] *with training on childbirth, because if we came to the hospital and if our delivery will be in 6 hours, we use to wait for a long period of time, with the health personnel, so if the VHW check she will be able to tell us when to go to facility. I want them to be trained so that they can help us in the community."* - 35-year-old, 1 FD and 6 HDs (BFG1)

Some respondents appreciated the services of VHWs to the extent that they felt that VHWs should become facility or government employees and should be provided with either transportation fee or a means of transport.

> *"They* [VHWs] *should be employed in the facility."* - 22-year-old, 1 FD and 1 HD (BFG1)

> *"…I wish the government will employ her* [the VHW] *and I will also benefit from her."*- 29-year-old, 4 FDs and 0 HD (BFG2)

> *"Mine is for those that are in distance communities the VHWs cannot reach them; if there is money their transportation should be paid."* - 29-year-old, 4 FDs and 0 HD (BFG2)

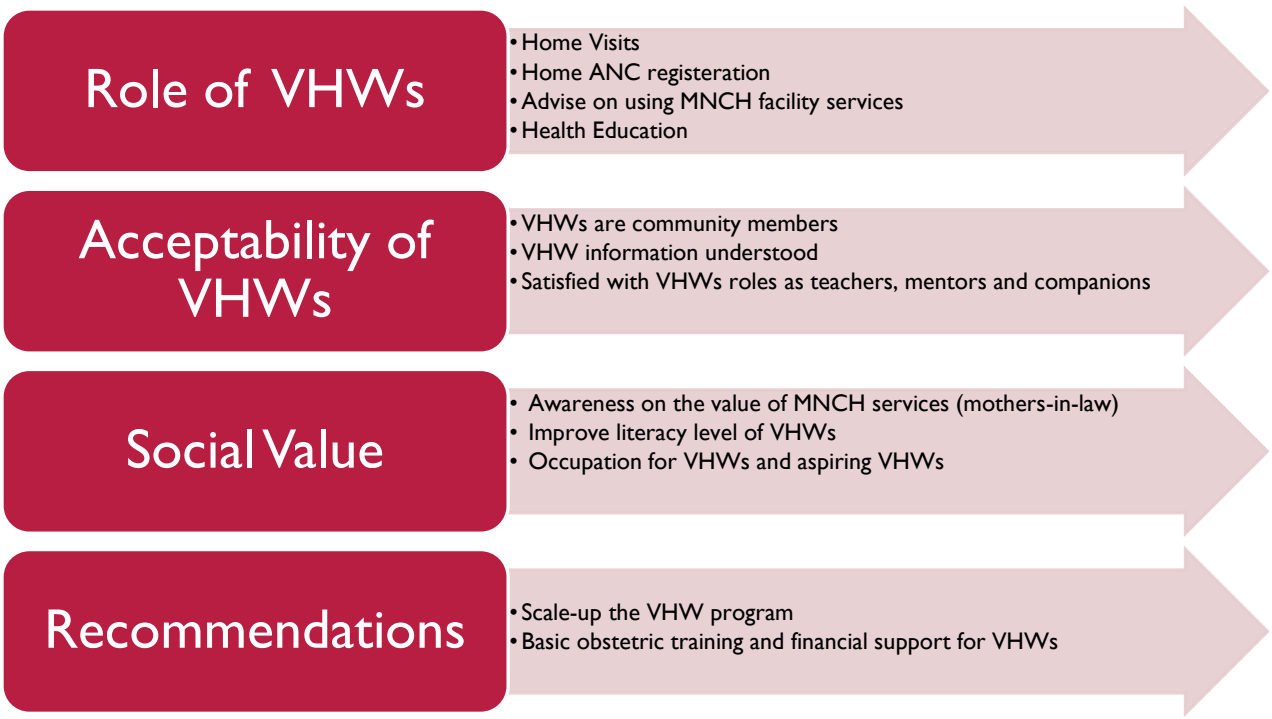

Figure 10: Village Health Worker Program

Respondents' Views and Experiences with Facility Delivery Services

Facility delivery better than home delivery - apart from family members (husbands and mothers-in-law), the study respondents (women beneficiaries of the VHW program) in all the six focus groups also believed the care the mother-infant pair received at the facility during delivery superseded the care accessible to them during home delivery. They acknowledged that at the facility there is medication available to prevent or arrest obstetric complications and protect the health of the mother-infant pair. These specialized drugs are not available to women who deliver at home. As on woman puts it:

> *"There is difference between facility care and care at home. At facility they use drugs that stops bleeding, helps in resolving retained placenta issues and drugs to dry the naval of the new born, they clean up the child immediately after delivery, but this is not the practice at home."* - 23-year-old, 2 FDs and 1 HD, (AHG)

Respondents also recognized that when obstetric complications arise as a result of home delivery, the mother-infant pair are eventually taken to the facility for specialized care. As one respondent stated:

> *"At the facility the baby and mother are well taken care of but at home if any emergency arises, they will still need to be brought back to the facility for proper care*."- 18-year-old, 0 FDs and 2 HD (ZHG)

Some respondents also acknowledged that home deliveries could lead to maternal and neonatal mortality:

> *"...When you deliver to home and start to bleed, you could die at home, but if you deliver at the facility, the health workers will know how to treat you..."*
> – 33-year-old, 6 FDs and 0 HD (BFG2)

> *"The difference is, in the, sometimes the child delivered is covered with leather* [amniotic sac] *like a ball. If it is in the facility, the sac will be slit immediately, to enable the child to breathe but if it is at home it will be difficult for them to realize, and the infant may eventually die…"*
> – 22-year-old, 1FD and 1 HD (BFG1)

Immediate care - some respondents expressed that they received immediate care at the facility when they come to deliver without having to wait long hours.

> *"They take good care of me. Immediately I arrived I was received, and they begin their examinations. They do everything for you until you deliver safely."* - 31-year-old, 1 FD and 3 HDs (AHG)

Even in instances when the healthcare workers were away from the facility, they rushed to get to the facility immediately they are informed or are aware that a pregnant woman in labor requires their service. As stated by one respondent:

> *"Once you come for delivery and the healthcare workers are informed, they will even come running to attend to you. Even if they are in their homes and they hear a car stop, and they are informed, they will even run to the facility."*- 25-year-old, 1 FDs and 0 HD (AFG)

Some respondents also expressed that healthcare workers are usually available in the facility even at night to attend to emergency cases as stated by two respondents:

> *"They* [healthcare workers] *are always around even at night to attend to emergencies."* - 31-year-old, 4 FDs and 2 HDs (AHG)

> *"When I start experiencing labour, I was conveyed to this hospital at about 3:00 a.m. I met the nurse on night duty and she took care of me…"* - 35-years-old, 1 FD and 6 HDs (BFG1)

Respective quality care - in all the six focus groups, respondents indicated that the healthcare workers at the facility treated them with dignity and respect and they did not experience any negative treatment from them.

> *"I feel happy because they give me care and respect, they don't have any problem*."- 24-year-old, 4 FDs and 0 HD (ZFG)

> *"When I was brought to the facility when I was in labour, when I came in the nurse that received me, received me with a smile and laughter and asked me what is the problem? I told her I was in labour. When I told her, I was in labour, she placed me on the bed, she examined my abdomen, when she examined my abdomen, she checked my BP* [blood pressure] *and kept me on the bed to rest.* - 30-year-old, 2 FDs and 5 HDs (BFG1)

Most of the respondents were satisfied with the quality of services they got from the healthcare workers at the health facility during delivery.

> *"I was taken to the health facility when I started labour, the health worker that received me, was with me throughout the process and kept checking on me at regular intervals till I delivered safely. She took very good care of me till I delivered, and I delivered successfully."* 30-year-old, 4 FDs 0 HD (BFG2)

> *"When I start experiencing labour, I was conveyed to this hospital at about 3:00 a.m. I met the nurse on night duty and she took care of me, she stayed close to me all night she didn't move away until I deliver my child, she cleaned the baby up and put him on my chest. She kept checking and examining me and I told her that she is more than my mother, I really appreciate her, she assisted me as expected and I am grateful."* – 35-year-old, 1 FD and 6 HDs (BFG1)

> *"No any bad treatment, they* [facility healthcare workers] *treat us well, and give us all assistance that we seek."* – All Respondents (BFG1)

Healthcare worker gender preference – only one respondent preferred a male healthcare worker over a female counterpart. She did not state any cultural or religious requirement for her choice rather her preference was associated with her experience of receiving quality care from a male healthcare worker. However, most respondents within the six focus groups preferred female healthcare workers to assist them during delivery. Just like the earlier respondent, their preference was not associated with any cultural or religious requirements, but the comfort and familiarity associated with being consulted by a healthcare worker of the same gender. As one respondent stated:

"I would prefer a woman not because of religion or culture but because a woman is my sister I can tell her anything but if it's a man, I will be shy to talk to him…" - 24-year-old, 4 FDs and 0 HD (ZFG)

Some respondents also believed that because female healthcare workers have experienced pregnancy, labor and delivery, they will be more understanding and sympathetic towards them during the labor and delivery process compared to the male counterparts:

"I will prefer a female health worker to attend to me because I will have this belief, she knows what I'm going through and know how to relate with me better than a male health worker who has not experienced labour before." - 23-year-old, 2 FDs and 1 HD (AHG)

However, some respondents expressed that though they preferred female healthcare workers to assist them during delivery, they will not refuse to be assisted by a male healthcare worker that happens to be the one available in the facility to attend to them. While some of the other respondents did not express healthcare worker gender preference. They indicated that their experiences with both female and male healthcare providers were satisfactory and therefore they had no preference between the two genders.

"I like both male and female because they have attended to me during my delivery. When I gave birth to my first daughter…, it was a male that attended to me but now it is a female that attended to me. [I prefer] *both."*- 25-year-old, 2 FDs and 0 HDs (BFG1)

Whereas others were more concerned with getting immediate quality care from whoever (male or female) that was available to attend to them in the facility when they come to use delivery services.

"For me any one [male or female] *on duty can take my delivery."* - 25-year-old, 0 FD and 2 HDs (ZHG)

"…I don't mind either of the sex I met, I am ok with whatever I met, I just want someone that will assist me, but men do try."- 30-year-old, 2 FDs and 1 HD (BFG1)

"Anybody [male or female] *can take my delivery as far as God gives me good health."* - 20-year-old, 1 FD, and 0 HD (ZFG)

Facilitators to Accessing Facility-base Maternal Neonatal and Child Health Services

Ease of accessibility – Some respondents expressed that they walked to the facility to attend ANC appointments because the facility is close to their residence. As one respondent stated:

"I walk down to the facility [for ANC appointments] *because it is close to my house."*
- 24-year-old, 4 FDs and 0 HD, (ZFG)

"If the facility is close to us everyone will have easy access to it and will deliver in it."
- 23-year-old, 2 FDs and 0 HD, (BFG2)

However, to access delivery services most respondents used either Emergency Transport Scheme (ETS)[13], family owned, or commercial vehicle/motorcycle to get to the facility. While the use of a commercial transportation services is associated with a cost, the ETS service is free of charge.

"I walk to the facility during ANC but utilize car or husband motorcycle during delivery."
- 15-year-old, 1 FD and 0 HD, (ZFG)

"I use bike to come because it is a bit far, so I do pay transport." - 15-year-old, 1 FD and 0 HD, (ZFG)

"When I started feeling the labour, we call the ETS and I was conveyed to the facility."
- 22-year-old, 1 FD and 1 HD (BFG1)[14]

"ETS it's free, we don't pay." - 23-year-old, 2 FDs, and 0 HD (BFG2)[15]

Support from Family (Husbands and Mothers-in-law) - most respondents in all six groups, including those who delivered at home in the last 12 months, expressed that their husbands and mothers-in law supported them in accessing and using MNCH facility-base services.

"My husband support facility delivery because of the extra care we get when we deliver and when there is an emergency, they take proper care of the situation, but Allah always bring my delivery at home, that is why all my delivery is at home I have never birth my babies at the facility." - 28-year-old, 0 FD and 5 HDs (ZHG)

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[13] ETS is a humanitarian service provided by commercial drivers and motorcycle riders and community members who volunteer to transport pregnant women in labour to the facility

[14] Bangaje North Facility Group 1

[15] Bangaje North Facility Group 2

"She [my mother-in-law] *allows me to for ANC and delivery. She wouldn't even allow me to stay at home without coming for ANC and delivery. She always allows me because of the importance for healthcare and to avoid complications. She ensures I attend ANC and when in labour she calls her son to convey me to the facility immediately without delay. She is very supportive."* - 31-year-old, 4 FDs and 2 HDs (AHG)

Barriers to Accessing Facility-base Maternal Neonatal and Child Health Services

Family, household level factors

Financial constraint - some respondents stated that even when women were aware of the health benefits associated with the use of facility-based MNCH services and wanted to use the services, expensive transportation and facility user fees could limit their access and use of the services. As some respondents eloquently expressed:

"…money can be a problem for those who are far because they need to pay for transportation and other necessities when they come to the hospital like drugs and other things so at times if they remember this they feel discouraged to come to the health facility." - 24-year-old, 4 FDs 0 HDs (ZFG)

"…some women are willing to go to the hospital, but lack of money is what is stopping them." - 30-year-old, 3 FDs and 5 home deliveries (HDs) (ZFG).

Imminent delivery – is another barrier to accessing facility delivery services for women beneficiaries of the VHW program. Thus, even though the women and their family members (husbands and mothers-in-law) are aware and appreciate the value of using facility delivery services, some women inevitably delivery at home when the delivery is imminent. For some, before the VHW arrives in their homes to accompany them to the facility, they would have already delivered. While for others, the delivery occurs before they are transported to the facility. Respondents with history of home deliveries iterated the reasons they delivered at home in the quotes below:

"Delivery at facility and ANC at facility is better than home delivery. …before I could get car to access facility services I delivered at home, if not I would not have delivered at home..." - 31-year-old, 1 FD and 3 HDs (AHG)

"My husband feels happy because at the facility they will check my health and that of the baby but when am about to come to the facility for delivery the baby comes out early than expected so they will just call on the TBA to attend to me." - 25-year-old, 1 FD and 3 HDs (ZHG)

"She [my mother-in-law] *likes it but when am in labor and they call her* [VHW] *before she gets to my place, I already deliver my baby."* - 20-year-old, 0 FDs, and 6 HDs (ZHG)

However, some respondents stated that when they inadvertently delivered at home and ended up with an obstetric complication such as a retained placenta, they accessed the facility so that the healthcare workers could assist in expelling the placenta. As some respondents stated:

> *"Yes* [I delivered at home] *when you call them* [ETS drivers], *they respond even if one deliver at home where one have delay placenta, you can utilize this drivers to convey you to the facility to have this placenta removed."* - 31-year-old, 4 FDs and 2 HDs (AHG)

> *"…before I could get car to access facility services I delivered at home, if not I would not have delivered at home. when I delivered at home I came to the facility because of retain placenta."* - 31-year-old, 1 FD and 2 HDs (AHG)

Non-availability of husbands – to accompany the wife to the facility at the on-set of labor, was another barrier to the access and use of facility delivery services. As some respondents stated:

> *"My husband feels happy* [about me delivering in the facility] *because it has to do with my health, but he is not always around* [to accompany me to the facility], *so whenever am in labor I call on the TBA who live close to my house instead of going to the facility for delivery."* - 20 year old, 0 FDs and 6 HDs (ZHG)

> *"I didn't deliver at the facility because there was no one to bring me to the facility when I was in labour."* - 25-year-old, 1 FD and 4 HDs (ZHG)

Facility level factors

Non-availability of health workers in the facility – when healthcare workers were unavailable in the facility, like when they are on official leave, during statutory holidays, or during labor strike, some women were unable to use facility delivery services. Consequently, these women end up delivering before they could access another facility (that is usually located at a further distance than the facility they initially intended to use). While others resorted to using the services of a traditional birth attendant (TBA) at home. As stated by some respondents:

> *"…I delivered at home because of health workers strike, before I could get a car to access facility service elsewhere, I delivered at home."* - 23-year-old, 2 FDs and 1HD (AHG)

> *"when we get to the facility its either they are on Christmas break or strike or the facility worker has gone home for wedding. The facility workers were on strike when I was in labor that was why they called the TBA to take my delivery."* - 25-year-old, 0 FD and 2 HDs (ZHG)

"I had my two kids during Christmas when all the staff were on break." - 15-year-old, 0 FD and 2 HDs. (ZHG)

Long waiting time at the facility - some respondents indicated that when healthcare workers do not attend to women that come for ANC appointments immediately, the delay leads to long waiting times that could drag into late night hours. Thus, when women stay out late due to this inefficiency, their husbands become reluctant in allowing them to access facility MNCH services in the future. As one woman stated:

"…I want them to improve on ANC, because when women come they don't attend to us until the women become plenty and they will find it hard to attend to us on time, some women end up going home late at night and husbands won't allow their wives go to the hospital again." – 22 year old, 2 FDs and 1 HD (ZFG)

Availability of alternate care

Traditional Birth Attendants (TBAs) – in communities where the TBA are still actively functioning as local healthcare service providers, some women use MNCH facility services for antenatal care (ANC), but delivered at home with the assistance of the TBA. One respondent's statement affirms this:

"We always come for antenatal but when it's time for delivery we have our TBA who attends to us at home."- 20-year-old, 0 FDs and 6 HDs (ZHG)

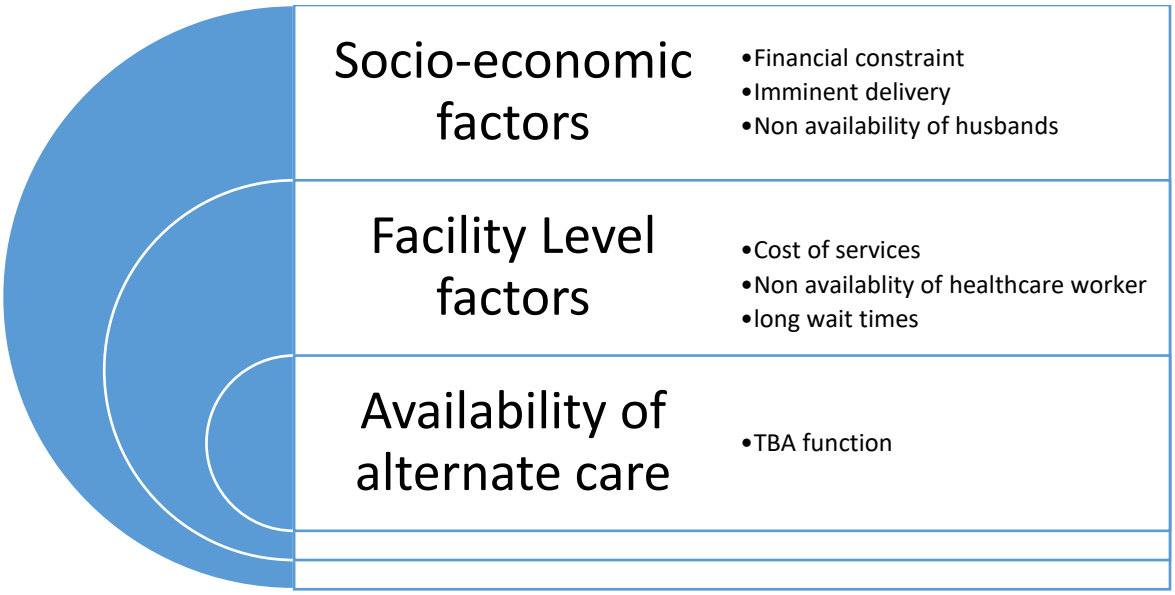

Figure 11: Barriers to the use of facility delivery services

Recommendations on how to improve facility delivery uptake

Socio-economic/facility level

Cost free services – some respondents said that if other women (who do not use MNCH services) became aware that delivery services were free of charge, they would be encouraged to come to the facility and deliver. Furthermore, respondents also expressed their appreciation of the fact that facility services are free of charge.

> *"By telling them that they don't need to pay any amount for the services, it's free. By telling them this they will like to come."* – 33-year-old, 6 FDs and 0 HD (BFG2)

> *"The services are free; we don't pay money so it should continue that way."* - 27-year-old, 3 FDs and 0 HD AP (BFG2)

While other respondents iterated that facility delivery services were not free of charge in their community as they usually pay a user fee (which they considered expensive). Therefore, they indicated that lifting facility delivery fees would increase the uptake of facility delivery services. As some respondents explained:

> *"In some facility, the money paid is very high, so reduction in service charge and free service and incentives given freely will attract women to facility to deliver.* - 23-year-old, 2 FD and 1 HDs (AHG)

"They [facility management] *should help us reduce the money they collect at the hospital after delivery, they should help us also by giving us drugs for free these will make women want to deliver at the facility and the facility workers should be friendly and accommodating.*
- 15-year-old, 0 FD and 2 HDs (ZHG)

"More women can be reached if they are told drugs at the facility are free." - 18-year-old, 0 FD and 2 HDs (ZHG)

Gifts to be given to women at the facility - other respondents said giving women who deliver in the facility free gifts in the form of free drugs, will increase uptake of facility delivery services. This is because the anticipation of receiving such gifts will retain current services users and entice other women (non-users) to use the services. Thus, one of the respondents indicated when other women saw the gifts she got from the facility, it enticed them to use facility MNCH services in the future:

"…when another woman sees those gifts; she will say, I will also go to the facility to deliver so that I can also get this type of bag. In the process, you realize that you are influencing a lot of women to deliver in the facility." - 25-year-old, 4 FDs and 0 HD (AHG)

"When gifts are given to women who deliver at the facility and their friends who deliver at home saw it and ask where they get it from, if they tell them at the facility when next they want to deliver they will go to the facility so they can get that gift too." - 25-year-old, 0 FD and 2 HDs (ZHG)

Other respondents suggested that Healthcare workers should create interactive and lively activities with, and among women who come to the facility to use facility-based MNCH services. They believed such activities will attract other women (passers-by) to the facility and be drawn towards using the services.

"When we come for antenatal to avoid boredom or tiredness the facility workers can tell us to clap or sing with these activities, we can draw the attention of other women to the facility for delivery." - 25-year-old, 0 FD and 6 HDs (ZHG)

Furthermore, some respondents stated that in order to get women who do not use MNCH facility services to start using them, other women with experience of using the services should inform those women about the type and quality of care they received at the facility. As one respondent stated:

"When the women who deliver at the facility get home and tell the other women how they care for them during delivery these will make the other women to want to deliver at the facility." - 28-year-old, 0 FD and 9 HDs (ZHG)

Friendly healthcare workers – some respondents expressed that in order to attract other women (those who do not deliver in the facility) to start delivering in the facility, the health workers should be friendly to the women who come for ANC appointments.

"To make women come to the facility, when they come for antenatal the facility workers should be friendly to pregnant women ..." - 25-year-old, 0 FD and 2 HDs (ZHG)

Male stakeholders

VHWs to reach village heads - some respondents believed that the best way to get women who do not use facility MNCH to start using the services, is for the VHWs to allay this concern to the Village Head. The Village Head will contact the women directly and emphasize to them the importance of using facility MNCH services. As on respondent puts it:

"If I talk to the women and they refuse I will talk to the VHW if she agrees to tell the village head about the women, then the village head will talk to them directly." - 30-year-old, 3 FDs and 0 HD (BFG2)

When asked if the Ward Head's interception will make women who do not deliver in facility to start delivering in the facility, all respondents within one of the focus groups responded in the affirmative:

"YES IT WILL" – AR (BFG1).

Furthermore, another respondent mentioned that in her community (BN), the Community Ward has already taken it upon himself to intervene when a woman refuses to use MNCH facility services:

"In my community the village head said any woman that refuse to go to the facility should be reported to him." – 33-year-old, 6 FDs and 0 HD (BFG2)

VHWs to reach husbands - Some respondents expressed that one of the most important factors that determines a woman's uptake of MNCH services is her husband's approval for her to use the services. So even when some women agree and are willing to use MNCH services, their husband's non-approval becomes a barrier to them using the services. Therefore, respondents emphasized the importance of VHWs actively engaging husbands in educational talks on the health benefits of using MNCH on the mother-infant pair. This is because husbands' approval and support are almost synonymous with the wife agreeing to use facility MNCH services. As some respondents stated:

"In my opinion, some husband don't like the services rendered by the VHW. VHW should first advocate to the husband, then the wife because if he didn't agree [for the wife to use MNCH services] *the wife might not agree, that's why she should advise the husband before meeting the wife and I think that will help them*." - 35-year-old, 1 FD and 6 HDs (BFG1)

"Some men don't like their women to come for ANC, so the VHW should meet the man and advise him that going to the facility is good." - 35-year-old, 1 FD and 6 HDs (BFG1)

"The men should be included in meetings even if it's not going to be together with the women so that they can be told the importance of going to the facility because most of the women are being denied going to the facility by their husband." - 24-year-old, 4 FDs and 0 HD (ZFG)

VHWs to target more women at gatherings - for women who do not come to the facility to deliver, VHWs should be persistent in visiting them in their homes regularly and informing them of the health benefits of using MNCH services, and the possible adverse effects (obstetric complications) associated with the non-use of the services.

"They should add more effort to their work because if you visit a woman once and she refuses to attend to you, when you go subsequently she will attend to you, the VHW should tell her to go for ANC she should also tell her the benefit of attending ANC, and the health implications of not attending ANC. Some women if you go the first time she would ignore you because she doesn't know the importance of it so she should go back again to remind her." – 24-year-old, 4 FDs and 0 HD (ZFG)

Another way to reach women who do not use facility delivery services, is to mobilize all women in the community in a public area or at social gatherings and inform them about the health benefits associated with using facility MNCH services.

"Women should be mobilized, married and pregnant women in an area and they should be adviced in a way it will make those that are not coming to start coming." – 30-year-old, 2 FDs and 1 HD (BFG1)

"More women can be reach when awareness is created at occasions such as naming ceremony." – 20-year-old, 0 FD and 4 HDs (ZHG)

Some respondents stated that they could help VHWs to access women who do not use MNCH facility services by either ushering the VHWs to the women's homes or pointing them out to VHWs during social gatherings.

"We can point out the houses of pregnant women we know so they [VHWs]*can enter and tell them the importance of antenatal and facility."* - 28-year-old, 0 FD and 9 HDs (ZHG)

"The help you need is from us the women since we are the ones that go out for occasions such as wedding and naming ceremony, we can recognize pregnant women and point them out for VHWs." - 15-year-old, 0 FD and 2 HDs (ZHG)

Some respondents also suggested that the women who do not use facility services should be educated by VHWs on the importance of delivering in the facility for the health benefits of themselves and their infants. As one respondent put it:

"By advising and telling them the type of care we received from the facility if they deliver at home there is no care, no injection, no drugs, nothing but if it's in the facility it will be different." - 30-year-old, 4 FD and 0 HD (BFG2)

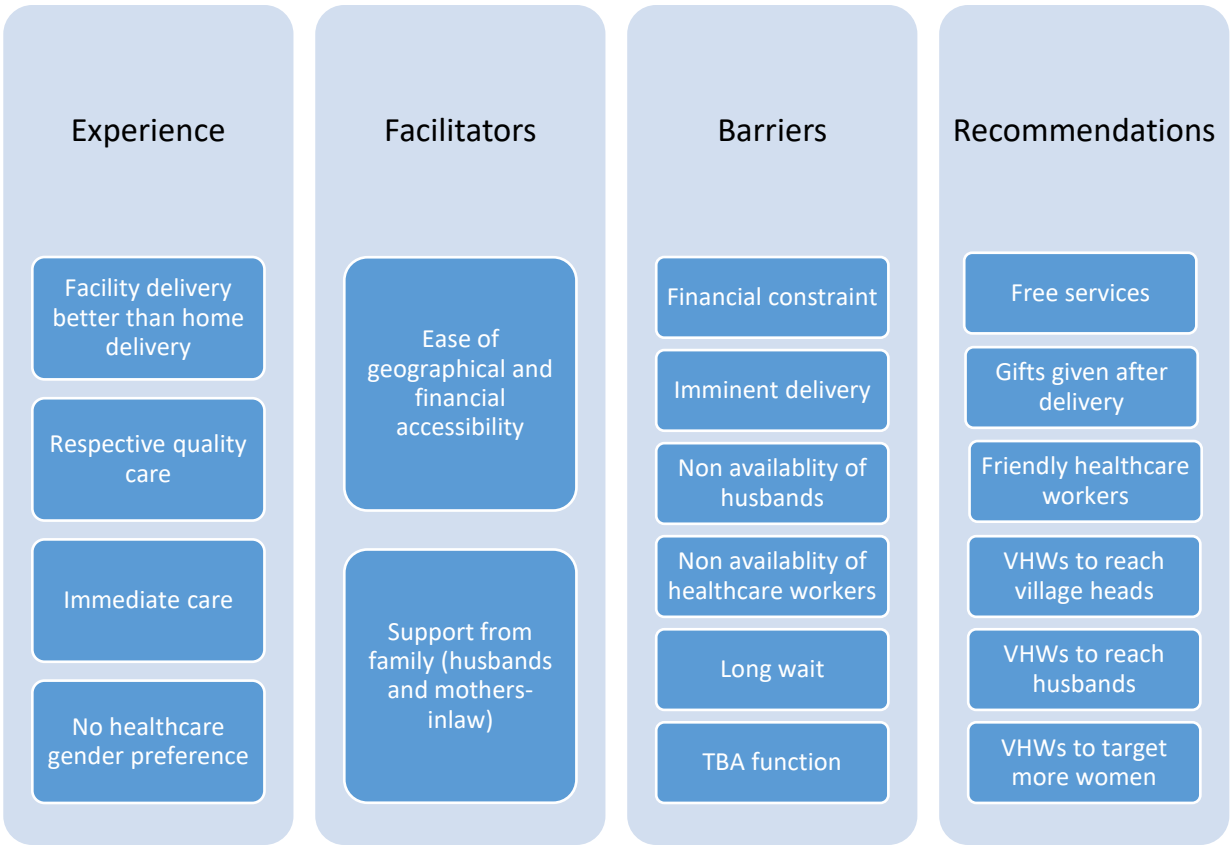

Figure 12: Facility delivery services

Discussion

The objectives of this report were to assess the acceptability of the VHW program and explore the facilitators and barriers to the use of facility delivery services for women beneficiaries of the VHW program.

Summary of findings

Qualitative data obtained from 58 women beneficiaries of the VHW program residing in BN, Akko, and Zange Wards, indicated that the VHW program was generally acceptable and appreciated by most of the study respondents. Respondents recommended that VHW program should be scaled-up to other communities and felt that VHWs' should be supported financially and be offered basic obstetric training.

Most respondents reported positive experiences with facility delivery services, and though most of them preferred a female healthcare worker to assist them during delivery, they would not refuse the services of a male provider. Respondents and their significant family members (husbands and mothers-in-law) generally preferred and believed facility delivery superseded home delivery in terms of care and health benefits available for the mother-infant pair. Factors that facilitated the uptake of facility delivery services were geographical and financial accessibility and support of significant family members (husbands and mothers-in-law). While barriers to facility delivery included financial vulnerability, imminent delivery, non-availability of husbands at onset of labour, long wait times at facility, availability of alternate care (TBAs) and non-availability of healthcare workers at the facility. Respondents recommended that in order to improve the uptake of facility delivery services, services should be cost-free, gifts in the form of free medication should be given to women, healthworkers should have positive attitude, and VHWs should try to get male stakeholder buy-in and more women should be educated on the health benefits of facility delivery services.

Acceptability of VHWs

Findings from the focus groups indicated that there were three main characteristics of the VHW program that contributed to its perceived ability to effectively engage women and facilitate their uptake of facility MNCH services. First, the VHW program is community based. Thus, the home visits conducted by VHWs to educate women on basic disease preventive and health promotive habits and of the value of using MNCH services seemed to have positively changed women's health seeking behaviours and increased their uptake of MNCH services. The perceived effectiveness of VHW home visits in the VHW program was associated with the fact the VHWs meet women in their homes rather than wait for them to reach the facility to access these services.

Second, the fact that VHWs were members of the communities in which they were deployed automatically bridged the socio-cultural barriers between them and the communities they serve thus, addressing the problem of healthcare provider obliviousness to community norms and values. In addition, receiving VHW services from familiar community members gave women the confidence to trust VHW's informational messages, the ease to ask questions and to act on the advice given to them by the VHWs. Considering most of the respondents are probably housewives (51% unemployed), and most likely stay at home most of the day as care providers, the VHW have become their companions providing them with mental and psychological support in addition to their basic VHW roles. Furthermore, the fact that VHW were community residents gave women the comfort and assurance of being able to easily access VHWs' assistance on demand.

Third, the educational component of the VHW program has been designed to meet the needs of the program beneficiaries. This is demonstrated by the fact that respondents indicated that they clearly understood VHW information targeted towards them, as well as the teaching tools (flip charts) used by the VHWs during educational sessions. Even though the VHW's educational content was similar in content to facility healthcare workers' messages, however, the perceived effectiveness of VHW messages is augmented by the fact that VHWs delivered their messages in the women's homes and are therefore able to assess women's understanding and practice of the message at follow-up visits.

Satisfaction and Social Value of VHWs

Respondents in all the six groups expressed overwhelming satisfaction with the VHW program. Apart from the information they accessed from VHWs, respondents adored VHWs' work ethics. They felt that VHWs were hardworking, took their jobs seriously, and respondents greatly appreciated the roles VHWs play in their lives as teachers, mentors, companions and educators. In line with respondents' satisfaction with the functions of the VHWs, they recommended that the VHW program should be scaled-up to other communities so that other women can also enjoy the benefits of the program with the intended consequence of reducing the rates of home deliveries and pre-term births in those communities. Furthermore, some respondents advocated for the VHWs to be trained on basic obstetric care in order to assist them in arriving in a timely manner at the facility for delivery. Some respondents also advocated for the VHWs be given permanent employment by the health facilities or by the government, and for their transportation cost to be borne by their employer(s).

Furthermore, the social value of VHWs included the involvement of significant family members (husbands and mothers-in-law) in their interventional educational talks on the value of using MNCH services on the health of the mother-infant pair. Thus, VHWs intervention has created more awareness among mothers-in-law and husbands whose buy-in is invaluable in women's access and use of facility delivery services.[20,22]

In addition, the success and accolades of the VHW program transcended its primary objective of increasing the uptake of MNCH services. The program has provided VHWs an occupation, a source of income, and platform to improve their literacy skills. Furthermore, the VHW program has become an admired and prestigious occupation within the community.

Views and Experiences with Facility Delivery

When respondents were asked to express their views with facility delivery services, interestingly, all respondents in all the six groups including those in the home delivery groups, acknowledged that facility delivery had more health benefits for the mother-infant pair than home delivery. Respondents demonstrated this knowledge by iterating the benefits of facility delivery over home delivery: prevention and treatment of obstetric complications, and the fact that obstetric complications that occur during home deliveries could lead to maternal and infant mortality if not referred to the facility in a timely manner.

In terms of experience with facility delivery services, most respondents reported having a good experience. They expressed satisfaction with the timely, respective reception, and quality of services they received at the facility. Furthermore, respondents' choice of either female or male health care worker had no cultural or religious underpinnings. They were more concerned with receiving immediate quality care. The overwhelming preference for female healthcare worker was mainly due to the familiarity and comfort of been assisted by same gender healthcare worker. Thus, indicating that though preferable, it might not be necessary to align patients with same gender healthcare worker in order to improve facility delivery uptake. The competence and accommodative attitude of the worker is more imperative.

Barriers to the use of facility delivery services (Zange Ward)

As expected, there were more respondents from Zange FGDs (facility delivery uptake 23%), that mentioned barriers to facility delivery uptake in comparison to the two other wards Akko and Zange with higher facility delivery uptakes of 65% and 96% respectively. Respondents from Zange ward listed the following among the barriers to facility delivery uptake:

- Cost of transportation to the facility
- Facility out-of-pocket payments
- Long wait times
- Unfriendly healthcare workers
- Active function of TBAs

As some respondents mentioned, because the facility was far from their residence, they had to get a commercial vehicle to transport them to the facility at a cost, and some of them mentioned that they were required to pay for delivery services at the facility. Considering only 7/20 (35%) of the respondents from

Zange Ward were engaged in an income generating occupation, such out-of-pocket payments could be extremely challenging for them to accommodate. In addition, some respondents from Zange Ward complained of long wait times at the facility when trying to access ANC appointments, and that healthcare workers could sometimes be unfriendly to women who patronize facility MNCH services.

Furthermore, the active function of a TBA in Zange was a barrier to the use of facility delivery services in the ward. Thus, in Zange, women purposefully use facility ANC services, but use the services of the TBA at the time of delivery. Furthermore, the use of The TBA could be related to long travel distance/time/cost of transportation to the facility, or socio-economic vulnerability and therefore women are unable to independently decide on, and eventually use facility delivery services.

Therefore, the cost of transportation to the facility, out-of-pocket payment for using facility services, long clinic wait times, unfriendly attitude of healthcare workers, and the function of TBAs in Zange, factors not mentioned by respondents from Akko and BN, could be among the underlying factors why facility delivery uptake in the former ward was much lower than the two latter wards.

Barriers to the use of facility delivery services (Akko and Zange Wards)

However, there were three barriers to facility delivery uptakes that were common to Akko and Zange wards:

- Absence of healthcare workers
- Imminent delivery
- Non-availability of husbands

Some women who delivered at home (Akko and Zange) indicated that the unavailability of healthcare workers in the facility at the on-set of labor, led them to deliver at home. Thus, this could imply that some facilities within these wards were either grossly understaffed or are not functioning 24-hours a day. Considering this barrier was not mentioned in BN, could imply that facilities in BN probably function 24 hours a day and/or manage their human resource in such a way that there was always a health personnel available to attend to a woman in labor. Thus, the lack of 24-hour facility service in some facilities Akko and Zange wards, probably contributed to higher numbers of home deliveries in those wards compared to BN.

Some women who delivered at home in the last 12 months preceding the study (in Akko and Zange), indicated that though they planned to deliver in the facility, they inevitably delivered at home because the birth was imminent. However, this barrier was not stated in BN ward, where all the women accessed facility delivery services. Imminent birth as a barrier to facility delivery could be related to the fact that some facilities are far from the women's residence (as in Zange Ward), therefore the incremental time required

to arrange for transportation to the facility after the on-set of labor could protract the arrival time at the facility.

Imminent delivery could also be due to socio-economic vulnerability of respondents in Akko and Zange. It can be deduced from the socio-demographic information of respondents (Table 3), that the socio-economic status of respondents from Akko (55% exposed to secular education, 40% had an occupation) and Zange (secular education: 35%, occupation: 35%), are lower than that of BN respondents (secular education: 89% occupation: 67%). Furthermore, respondents from BN (mean age 29 years old) were older than the Akko (24.5 years old) and Zange (22 years old) respondents. It is most likely that the older, more socio-economically empowered women (BN respondents) can effectively negotiate with their husbands on the importance of, and on the process of planning and leaving for the facility early unlike the younger, less socio-economically empowered women (Akko and Zange). Thus, imminent birth as a barrier to facility delivery mentioned in Akko and Zange wards and not in BN ward, is possibly related to women's socio-economic vulnerability, and inadequate planning to arrive at the facility in a timely manner and not necessarily an imminent physiological occurrence.

As some respondents from Akko and Zange stated, when their husbands were unavailable to accompany them to the facility at the on-set of labor, they ultimately delivered at home. This factor could be associated with the gender power dynamics, in which the husband is the sole decision maker of the family and he must be present to make the decision and make provision for and accompany the wife to the facility at the time of labor.[23,24] Thus, women's lack of autonomy in these two wards could be associated to the socio-economic disempowerment, and/or the cultural or religious barrier in which the woman requires the husband's permission or must be accompanied by him before travelling out of the home.[22,25] Considering this barrier was not mentioned in BN ward, could indicate that socio-economic and or religious/cultural factors are probably among the wider determinants of home deliveries. Thus, the similar socio-economic religious/cultural contexts of respondents from Akko and Zange wards (Muslim women of low socio-economic status), which differs from that of BN respondents (Christian women of a higher socio-economic status), could be among the factors responsible for the lower uptakes of facility delivery services in the two former wards in comparison to the latter. In addition, this finding reflects the earlier data which shows that nationally, uptake for facility delivery services is higher among Christians, compared to the Muslims.[26,27]

Recommendations on improving facility delivery Uptake

The fact that respondents gave constructive feedback on how they believed the uptake of facility delivery services can be improved in their respective communities, illustrates their trust in the value and benefit of facility delivery services to the mother-infant pair. Respondents gave recommendations to be targeted for the facility and community levels.

At the facility level, respondents gave two recommendations:

1. First recommendation: cost-free services: some respondents suggested that if women were made aware that facility delivery services were cost free, and the use of services would be accompanied with incentives (gifts), more women would endeavor to deliver in the facility. This point further illustrates that financial constraint is a major barrier to the use of facility services.
2. Second recommendation: active engagement of women at the facility: some respondents would like clinic wait times at the facility to be lively and engaging. This emphasizes that women probably experienced disheartening long waits at the facility which likely discouraged them from using the services.

At the community level, respondents also gave two recommendations.

1. First recommendation: was to improve women's health literacy either through VHW messages or messages from women who have used facility delivery services. This recommendation probably stemmed from the believe that an improvement in women's health literacy, will be associated with an increase in the uptake of facility delivery services. This likely indicates that respondents felt that women who do not use facility delivery services are likely not aware of the health benefits associated with using the service.
2. Second recommendation: some respondents emphasized the importance of getting community leaders and husbands' buy-in for women to use MNCH facility services. This is not surprising considering in most of sub-Saharan Africa, including Nigeria, male stakeholders play a vital role the use of MNCH services for women.[28,29]

Conclusion

This study has shown that the VHW program is generally acceptable and appreciated by the beneficiaries of the program and the VHW intervention has been perceived by respondents to be instrumental in increasing their uptake of facility delivery services. However, the barriers to the use of facility delivery services included family/household factors, facility-base factors, and availability of alternative care. Therefore, the plan to scale-up and improve the effectiveness of the VHW program must adopt a multi-pronged approach of addressing these multi-level factors that could limit the use of MNCH services.

Study Limitations

Our study is not without limitations:

1. Focus groups were conducted either within or around the premises of the health facilities. Even though health personnel and VHWs who helped recruit the women for the FGDs stayed away from the FGD premises, it is still possible that being within the premises of the facility limited respondents' from expressing their candid views on facilities MNCH services
2. Two of the focus groups: AFG and ZFG consisted of a VHW and a TBA respectively among study respondents. Thus, the presence of these professionals within the focus groups, would have limited respondents from expressing their candid views on the services of VHWs and TBAs
3. There were more facility delivery respondents than home delivery respondents. This is because the study could not recruit a home delivery group in BN ward

Study Strengths

1. The study represented the three senatorial zones (Gombe -North, Gombe-Central and Gombe-South) in Gombe State.
2. Our study is in line with the earlier collected quantitative data on facility delivery uptake among VHW intervention wards. This is because barriers to facility delivery uptake were mentioned by more respondents in the ward with the least facility delivery uptake (Zange 23%), by fewer respondents in the ward with the average facility delivery uptake (Akko ward 65%), and mentioned by very few respondents in the ward with the highest (BN 96%) facility delivery uptake.
3. The study collected data from beneficiaries of the VHW

Recommendations

1. Considering the VHW program seems to be a valuable and effective model to improve the uptake MNCH facility services, it will be valuable to scale-up the VHW program to the remaining 50% of Gombe State where the program is yet to be implemented, and eventually to the rest of the country
2. For VHW intervention wards with very low uptake of facility MNCH services, healthcare workers should be trained on positive attitudinal change towards women clients
3. Efforts should be made to locate facilities proximal to community residences to limit travel time and transportation cost to the facility
4. ETS services should be easily accessible and available in all VHW intervention wards to ease transportation to and from MNCH facilities
5. MNCH facilities should be adequately staffed, and healthcare workers should work on a 24-hour schedule to ensure that there is always a healthcare worker to attend to a woman in labor

6. VHW should target and educate women and their husbands on the importance of arriving timely in the facility during labor
7. Husbands should be advised to delegate a relative, friend or make provision for a VHW to accompany their pregnant wives to the facility at the onset of labor when the husband is unavailable
8. Women and their families (especially husbands) should be educated on the dangers of home deliveries and the of the possible adverse effects of delivering at home with the assistance of a TBA to the health of the mother-infant pair
9. The Wards Heads (community leaders) and the husbands should be targeted to encourage and support women to access and use MNCH services.

References

1. National Population Commission (NPC) and ICF International. Nigeria Demographic and Health Survey 2013. 1–400 (2014). Available at: https://dhsprogram.com/pubs/pdf/FR293/FR293.pdf.

2. Gombe State Ministry of Health. Gombe State Government Strategic Health Development Plan. 1–74 (2010). Available at: https://nigeriandocuments.blogspot.com/p/view-this-file_94.html.

3. World Health Organization (WHO). Trends in Maternal Mortality: 1990 to 2015; Estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. (2015). doi:ISBN 978 92 4 150363 1

4. Population Reference Bureau. 2018 World Population Datasheet: With a Special Focus on Changing Age Structures. 20 (2018). Available at: https://www.prb.org/2018-world-population-data-sheet-with-focus-on-changing-age-structures/.

5. Federal Ministry of Health. National HIV&AIDS and Reproductive Health Survey, 2012 (NARHS II Plus). *Federal Ministry of Health, Abuja, Nigeria,* (2013).

6. Fapohunda, B. M. & Orobaton, N. G. When Women Deliver with No One Present in Nigeria: Who, What, Where and So What? *PLoS One* **8**, (2013).

7. Federal Ministry of Health (FMoH). November 2010. *National Strategic Health Development Plan (NSHDP) 2010 - 2015* 2010–2015 (2015). Available at: http://www.health.gov.ng/doc/NSHDP.pdf.

8. Centre for Reproductive Rights (CRR) and Women Advocates Research and Documentation Center (WARDC). *Broken promises: human rights, accountability, and maternal deaths in Nigeria.* (2008).

9. National Bureau of Statistics. *The millenium development goals performance tracking survey report*. (2015).

10. Fagbamigbe, A. F., Hurricane-Ike, E. O., Yusuf, O. B. & Idemudia, E. S. Trends and drivers of skilled birth attendant use in Nigeria (1990-2013): Policy implications for child and maternal health. *Int. J. Womens. Health* **9**, 843–853 (2017).

11. Wong, K. L. M. *et al.* Why not? Understanding the spatial clustering of private facility-based delivery and financial reasons for homebirths in Nigeria. *BMC Health Serv. Res.* **18**, 1–12 (2018).

12. PATHS, DFID, UNICEF,UNFPA, USAID, WHO. Child Malnutrition and Mortality in Nigeria. *Mother, New born and Child Health and Mortality in Nigeria - General Facts* (2012). Available at: http://www.unicef.org/nigeria/ng_publications_advocacybrochure.pdf.

13. Gombe State. The Pathway to Improved Maternal and Newborn Health Outcomes Use of data for maternal and newborn health in. 1–10 (2016).

14. Aboubaker, S., Qazi, S., Wolfheim, C., Oyegoke, A. & Bahl, R. Home Visits for the Continuum of Care. **4**, 1–5 (2014).

15. Sam-Agudu, N. A. *et al.* The Impact of Structured Mentor Mother Programs on Presentation for Early Infant Diagnosis Testing in Rural North-Central Nigeria: A Prospective Paired Cohort Study. *J. Acquir. Immune Defic. Syndr.* **75 Suppl 2**, S182–S189 (2017).

16. Sam-Agudu, N. A. *et al.* The impact of mentor mother programs on PMTCT service uptake and retention-in-care at primary health care facilities in Nigeria: a prospective cohort study (MoMent

Nigeria). *J. Acquir. Immune Defic. Syndr.* **67 Suppl 2**, S132-8 (2014).

17. Wilford, A. *et al.* Exploring the care provided to mothers and children by community health workers in South Africa: Missed opportunities to provide comprehensive care. *BMC Public Health* **18**, 1–10 (2018).

18. Society for Family Health. Improving care of newborns and pregnant women in the community in northeast Nigeria. 1–60 (2016).

19. Ibeh, Christian. Epundu, U. *Study on the effect of community distribution of haematinics on the utilization of facility services in gombe state*. (2014).

20. Al-Mujtaba, M., Sam-Agudu, N. & Rosemary, K. Barriers to the practice of exclusive breastfeeding among HIV-positive mothers in sub-Saharan Africa: A Scoping Review of counselling, socioeconomic and cultural factors. *J. AIDS HIV Res.* **8**, 70–79 (2016).

21. Walker, D. and F. M. Grounded theory: an exploration of process and procedure. in *Qualitative Health Research* 16 (2006).

22. Al-Mujtaba, Maryam. Cornelius, Llewellyn J. Galadanci, Hadiza. Erekaha, Salome. Okundaye, N. Joshua. Adeyemi, Olusegun A. Sam-Agudu, N. A. Evaluating Religious Influences on the Utilization of Maternal Health Services among Muslim and Christian Women in North-Central Nigeria. *Biomed Res. Int.* **2016**, 3645415 (2016).

23. Anastasi, E. *et al.* Losing women along the path to safe motherhood: Why is there such a gap between women's use of antenatal care and skilled birth attendance? A mixed methods study in northern Uganda. *BMC Pregnancy Childbirth* **15**, 1–15 (2015).

24. Mcmahon, S. A. *et al.* experiences and responses Tanzania. 1–13 (2014). doi:10.1186/1471-2393-14-268

25. Sinai, I., Anyanti, J., Khan, M., Daroda, R. & Oguntunde, O. Demand for Women's Health Services in Northern Nigeria: A Review of the Literature. *Afr. J. Reprod. Health* **21**, 96–108 (2017).

26. Adewuyi, E. O. *et al.* Prevalence and factors associated with underutilization of antenatal care services in Nigeria: A comparative study of rural and urban residences based on the 2013 Nigeria demographic and health survey. *PLoS One* **13**, e0197324 (2018).

27. Fagbamigbe, A. F. & Idemudia, E. S. Barriers to antenatal care use in Nigeria: Evidences from non-users and implications for maternal health programming. **15**, 95 (2015).

28. Joint United Nations Programme on HIV/AIDS, (UNAIDS). *Gender Matters : Overcoming Gender-Related Barriers To Prevent New Hiv Infections Among Children*. (2014).

29. Mutale, W. *et al.* Exploring community participation in project design: application of the community conversation approach to improve maternal and newborn health in Zambia. *BMC Public Health* **17**, 1–14 (2017).

Appendices

Appendix IA: Research Information and Consent Form

Study Title: Barriers and Facilitators to the Utilization of Facility Delivery Services for Beneficiaries of the Village Health Worker Program in Gombe State

To the recruiter: The purpose of this form is to invite respondents and obtain their consent to participate in a focus group discussion (FGD). The content of this document will be introduced to the potential respondent in a language that they understand well, eg English, Hausa, or pidgin English

Purpose of study: This study will look at the factors that enhance or prevent women from using facility delivery services when giving birth, and their acceptability of the Village Health Worker Program.

Overall questions to be answered in this FGD will be related to:

- Barriers to the use of facility delivery services for women beneficiaries of the Village Health Worker Program
- Facilitators to the use of facility delivery services for women beneficiaries of the Village Health Worker Program
- Acceptability of Village Health Worker Services among women beneficiaries of the Program

Specific goals:

- To generate a list of problems and possible solutions related to the use of facility delivery services for women beneficiaries of the Village Health Worker Program so that the program can be improved
- To explore what elements of the Village Health Worker Program that will facilitate the uptake of facility delivery services
- To explore what elements of the Village Health Worker Program would need to be adjusted removed completely, or any new additions suggested.
- To assess to what extent the Village Health Worker Program is acceptable in the community
- To demonstrate the feasibility, and scalability of the Village Health Worker program to health policy makers

To the potential respondent: You have been asked to participate in an FGD funded by the Bill and Melinda Gates Foundation, and implemented by Society for Family Health. The purpose of this group is to try and understand the factors that enable some women to use health facility services when giving birth, and why other women do not use those services. We also what to know women's views and experiences with Village Health Workers (VHWs) so that the VHW services could be improved or modified. The information we will learn from this focus group will be combined with information from other focus groups to identified strategies to improve facility delivery service uptake especially in wards where not more than 5 out of 10 pregnant women use facility delivery services when giving birth.

Procedures: If you agree to take part in the study, you will join others in a discussion about your views and experiences with VHWs and on using or not using facility delivery services. The discussion should take between an hour and an hour and a half. Before participating in this discussion, we will assist you in completing a short background survey. The survey collects information on your age, marital status, education, and how often you delivered in the facility etc. It will take you about 5 to 10 minutes to fill out the background survey.

Potential benefit: You will get no direct benefit from being in the study. However, by doing the background survey and joining the group discussion you may learn more about the services provided by the VHWs, and the benefits of delivering at a health facility. Accessing this information could make your life better.

Anonymity and Confidentiality:

- Your survey answers will not be labeled with your name
- Although the focus group will be tape recorded, names of people and facilities you mention will not be included in the study reports
- We will destroy the tapes once we write down the information on them
- Results from this study may be published, but your name will not be used
- We also request that you do not disclose to anyone outside this group the content of what will be discussed

Right to withdraw: It is your choice to take part in this study or not. You do not have to take part. You are free to quit the study at any time. You do not have to answer any questions you do not like. If you choose not to take part or if you quit the study, it will not affect the services you get in the health facility and it will not affect the relationship you have with your VHW.

Costs to respondents: It will not cost you anything to take part in this study.

Payment to respondents: You will not be paid for participating in this study. Once you have done the background survey and finished the group discussion, you will be given refreshment equivalent of N500.

Potential health risk associated with participating in the study: There are no expected negative effects of participating in the focus group.

Can I be removed from the research? You can be removed from the study even if you do not agree to it. For example, you could be removed from the study if you do not follow their instructions.

Please contact only Ms. Maryam Al-Mujtaba (09081466790), or Mrs Magdalene Okolo (08036805701) if:

- You decide to stop taking part in the study.
- You have questions, concerns, or complaints.
- You need to report an injury from the study.
- If you choose to quit the study, there will be no bad effects

Please speak clearly so that your response can be recorded. In respect for each other, we ask that only one individual speak at a time in the group. There are no right or wrong answers to the focus group questions. We want to hear many different viewpoints and would like to hear from everyone. We hope you can be honest even when your responses may not be in agreement with the rest of the group. Further, all responses made by all respondents must be kept confidential/secret.

CONSENT FORM

You will be given a copy of this informed consent form after it has been signed and dated by you or by the research team member on your behalf.

I am 18 years old or older, I understand this information and agree to participate fully under the conditions stated above:

Full Study Title: **Barriers and Facilitators to the Utilization of Facility Delivery Services for Beneficiaries of the Village Health Worker program in Gombe State**

Respondent

By signing this form, I confirm that:

- This research study has been fully explained to me and all my questions have been answered to my satisfaction
- I understand the requirements of participating in this research study
- I have been informed of the risks and benefits, if any, of participating in this research study
- I have been informed of the rights of research respondents
- I have read each page of this form
- I have agreed to participate in this research study

_____ _____ _____

Respondent's Name Signature Date

Person obtaining consent

By signing this form, I confirm that:

- This study and its purpose have been explained to the respondent named above
- All questions asked by the respondent have been answer
- I will give a copy of this signed and dated document to the respondent

_____ _____ _____

_____ _____ _____

Name of Person obtaining Signature Date

consent (Please print)

☐ Consent was provided verbally (The entire consent form was reviewed with the respondent. The person obtaining consent has initialed the parts of the consent form that respondent provided verbal consent for.)

Appendix IB: Research Information and Consent Form (Hausa Abridged Translated Version)

Tattaunawa Akan Abubuwan Dake Taimakawa, Da Abubuwan Dake Hana Ma Mata Masu Juna Biyu Waddanda Suka Ji Fadakarwan 'Village Health Workers', Zuwa Asibiti Su Haihu A Jahar Gombe

Dalilin wannan tattaunawa: Dalilin wannan tattaunawa shine domin bu samu bayyani daga gare ku akan abubuwan da ke taimakama mata da abubuwan dake hana mata zuwa asibiti in zasu haihu, da kuma ra'ayin ku akan fadakarwan da Village Health Workers (VHWs) suke muku.

Kaddamar da tattaunawa: Tattauna da za muyi da ku sai dauki awa daya da rabi. Tattauna da za muyi da ku sai iyya kara muku fahimta akan ayukan da VHW suke yi don inganta lafiyarku da na yaranku. Kafin mu fara tattauna za muyi muku dan tabbayoyi akan makarantan ku, aikin da kuke yi, da kuma inda kuke haihuwa (minti 5-10)

Rufin Asiri:

- Duk amsan da zaku bamu baza mu dangana shi da sunayenku ba
- Za mu dauke magananku a recorder amma in mu rubuta tattaunawan da muka yi daku zamu share muryoyin ku daga cassette din
- Ko mun rubuta abunda kuga gaya muna, ba zamu rubuta sunnan ku ba
- Muna rokon ku da cewa abubuwan da zamu tattauna a nan kada a karas da zancen a wani wuri bayan mun tashi a nan

Daman Fasawa:

- Tattaunawa da zamuyi, gannin daman ku ne ba tilas bane akan ku
- Zaku iyya kuce za ku dakata da tattaunawa ku tafi gida in kunga dama
- Ba dole sai kun amsa kowace tabbaya ba
- In kun fasa tattawanawa a wannan muhawarar, ba zai sa a daina kullawa da ku a asibiti ba, kuma ba sai shafe dangantakanki da VHWs ba

Nawa za ku biya: Baza mu bukaceku da ku biya kudi ba don shiga wannan tattaunawan ba.

Nawa za mu biya ku: Ba zamu biya ku kudi ba. Amma bayan mu gama tattaunawa da ku zamu baki abinci na

Abubuwan da yakamata a kiyaye:

- Ayi magana da karfi don mu samu mu dauke magananku a cassette
- Dan Allah muna rokonku in wata tana Magana, a barta ta gama kafin wata ta fara nata bayani
- Duk amsa da zaku bamu muna son muji; ba amsan da yake daidai ko ba daidai ba
- Dan Allah muna so kowache ta saki jikita ta fada muna gaskiyan abunda yake ranta ba da fargaba ba
- Ko da amsan ki bayi daidai da na sauran ba, ba damuwa
- Dan Allah kar mu karas da bayyanne da mukayi a nan a wage in mun tashi daga nan
- In kuna da tabbaya sai ku yi yansu kafin mu fara tattaunawa

- In kun amince da bayyanen damuka yi, sai ku taimaka muna ku sa hannu a wannan takardan
- Wace bazata iyya sa hannu ba zamu taimaka mata

Appendix IIA: Background Questionnaire

Barriers and Facilitators to the Utilization of Facility Delivery Services for Beneficiaries of the Village Health Worker Program in Gombe State

This survey is being conducted along with the focus groups. You may choose not to participate in the survey or to complete any item on the survey at any time. There are no risks or benefits to participating in this study. This survey does not collect information that would allow anyone to identify you and all responses to the survey will be reported as a whole and not individually. By completing this survey, you are consenting to participate in this study. Thank you!

As appropriate, please enter your response in the blank space or check a box.

1. Date (DD/MM/YYYY) ___/____/____ 2. Respondent ID _____ 3. Ward _____

4. Ethnicity _____

5. Highest level of education you have completed? (please check below)

☐ No formal schooling ☐ Informal schooling (Islamic/Bible Schooling)

☐ Vocational Training (sewing, trading) ☐ Some primary schooling

☐ Primary school completed ☐ Some secondary school / high school

☐ Secondary school / high school completed ☐ Post-graduate

6. What is your occupation?

☐ Unemployed ☐ Civil Servant ☐ Business/Trade ☐ Professional/Private

☐ Farming ☐ Other _____

7. What is your religion? ☐ None ☐ Christianity ☐ Islam ☐ Other_____

8. Marital status

☐ Married ☐ Never Married ☐ Divorced ☐ Separated ☐ Widowed ☐ Other_____

If never married, skip to question 11

9. If you are currently married are you currently in a polygamous marriage? ☐ Yes ☐ No

10. If currently in a polygamous marriage- how many co-wives are there including yourself? _____

11. Number of currently living children _____ 12. Number of children dead after delivered alive _____

13. How many times did you deliver in a health facility _____

14. How many times did you deliver at home? _____

15. How many times did you use a TBA for delivery (outside health facility)? _____

16. Where did you deliver your last baby? ☐ Health facility ☐ Home ☐ Other_____

17. When did you deliver your last baby? _____ weeks ago _____ months ago

18. When was your first contact with a Village Health Worker? _____ months ago; or _____ years ago

19. Date of Birth DD/MM/YY___/___/___ or How old are you in years: ___ years ☐ Don't know/Cannot remember

Appendix IIB: Background Questionnaire (Translated in Hausa)

Tattaunawa Akan Abubuwan Dake Taimakawa, Da Abubuwan Dake Hana Ma Mata Masu Juna Biyu Waddanda Suka Ji Fadakarwan 'Village Health Workers', Zuwa Asibiti Su Haihu

A Jahar Gombe

A zaba amsan da yayi daidai, ko a rubuta amsa a layi da ke gaba da tambayar da aka yi.

2. Date (DD/MM/YYYY) ___/____/____ 2. Respondent ID _____ 3. Ward _____

4. Meye yarenki? _____

5. Inna kika tsaya a karatu? (please check below) ☐ Ban yi makarantan boko ba amma ban a book ba (Islamiyya/makarantan Bible) ☐ Nayi makarata

☐ Makarantan sanna's (dinki, sanna'a) ☐ Na fara firamari amma ban gama ba

☐ Na gama firamari ☐ Na fara secandari amma ban gama ba

☐ Na gama secandari ☐ Na yi makaranta gaba da secandari

6. wane irin aiki kike yi yanzu?

☐ Ban da aiki ☐ Aikin gwamnati ☐ Sanna'a/Saye da sayarwa ☐ Aikin kwarewa/healthcare worker

☐ Inna noma ☐ Wasu _____

7. Meye addinin ki?

☐ Babu ☐ Kirista ☐ Musulunci ☐ Wasu_____

8. Ki na da aure?

☐ Inna da aure ☐ Mijina ya sake ni ☐ Na rabu da mijina ☐ Miji na ya rasu ☐ Ban taba aure ba

☐ Wasu_____

In baki taba aureba, ki tsallake zuwa tambaya na 11

9. Idan kina da aure a yanzu, kina da abokanen zama? ☐ Ai ☐ A'a

10. Idan kina da abokanen zama, ku nawa ne a wurin maigidan ku, ki irga da kanki _____

11. Yaran ki rayayyu nawa ne _____ 12. Yara nawa ki ka Haifa suka rasu baya kin haife su da rai? _____

13. Sau nawa kika haihu a asibiti? _____ 14. Sau nawa kika haihu a gida? _____

15. Sau nawa kika haihu da taimakon auguwan zoma? _____

16. A inna kika haife danki na karshe? ☐ Asibiti ☐ Gida ☐ Wani wuri daman_____

17. Yaushe kika haife danki na karshe? Sati _____ da suka wuche Watta _____ da suka wucce

18. Yaushe kika fara haduwa da Village Health Worker? _____ watanni da suka wuce; or _____ shekaru da suka wuce

19. Meye rannan haihuwanki DD/MM/YY___/___/___ ko shekarun ki nawa: ____ ☐ Bazan iyya tunaya ba

Appendix III Focus Group Respondents Log

Date: dd/mm/yyyy: ____/_____/_____ Ward: _____ Focus Group: _____ (home delivery/facility delivery/mixed)

Respondent ID	First Name, Last Name	Focus Group Name

Appendix IV A: Focus Group Moderator Guide

Study Title: Barriers and Facilitators to the Utilization of Facility Delivery Services for Beneficiaries of the Village Health Worker Program in Gombe State

(Focus Groups- for Village Health Worker Program Beneficiaries Who Delivered Babies in the last 12 months November 2017 – October 2018)

Before the group begins, conduct the informed consent process, including compensation discussion.

I. Introduction (5 minutes)

Good Morning/Afternoon/Evening: My name is_____. I will be your discussion leader for today. We are going to spend 1 hour and thirty minutes talking about issues that will help us better understand the why some women use facility delivery services and why other women do not use those services. We also want to get your views on the VHW program. You will also notice that there is an observer who will be taking notes of the conversation. This is being done to help us accurately track the conversations.

You can indicate what name you want to be addressed with during the discussion (you can use a nickname or an alternate name).

Let's introduce ourselves with names/nicknames we want to be addressed with. Please share with the group:
Fake name, Your favorite food;

Questions: if there are no further questions, we would like to begin the discussion. (Begin recording)

Facilitator to speak into the tape recorder: and mention the following: **Date, venue, time of FGD i.e ward and local government area and the respondents (home or facility delivery group)**

II. Main Discussion

Access to Facility Delivery (10 minutes)

Let's talk about getting to the health facility

1. First, tell us a bit about how you travel to the health facilities. Probes: Are the facilities too far from where you live or hard to get to? Do you have to pay for transportation?

2. How does your husband feel about you delivering your baby in the facility? Probes: why do you think he supports you to deliver in the facility? why do you think he doesn't support you to deliver in the facility?

3. How does your mother-in law feel about you delivering your baby in the facility? Probes: why do you think he supports you to deliver in the facility? why do you think he doesn't support you to deliver in the facility?

Views and Experiences about Facility Deliveries (25 minutes):

Let's talk about the care you get when you come to deliver in the health facility

4. How did you feel when you came to the facility to deliver your baby? If you have never delivered in the facility, tell us the experience of others. Probes: what usually happens- are you seen right away, or do you have to wait long? why is that the case? what do you think we should do to improve this?
   Do you feel that the staff treated you with respect and value your point of view?

5. How is delivering at the facility different from delivering at home? Probe: compare the services you get from the TBA to the services you received from a health care provider at the facility.

6. Do you have any special religious or cultural requirements- such as needing to be seen only by a female healthcare provider? How has the staff responded to these needs? Probe: Overall have you found the staff to be welcoming?

7. What do you think can be done to facilitate you to deliver in the health facility? Probes: ease access, improve quality of services, user fees

8. What do you think can be done to facilitate other women to deliver in the health facility?

Acceptability of the VHW Program (40 minutes)
The next part of the focus group looks the views and experiences of respondents with the VHW Program. Let's talk about your experiences with VHWs in your area.

9. How do you feel about the VHWs? Probe: How do you feel about the services they provide to you and other women?

10. What aspect of pregnancy and childbirth are the VHW not helping you with, that you would you like them to help you with?

11. How can VHW reach more women like you?

12. Do you feel you understand the information the VHW conveys to you when she visits you? Probes: How is the information she coveys to you different from the information you get from the providers in the health facility?

13. Do you feel you understand the flip chart the VHW uses for health education?
   Probes: do you see these kinds of charts in the health facility?
   How are the charts in the health facility different from the ones you see with VHWs?

14. Do you feel free to ask VHW questions about the information she delivers to you?
   Probes: what kind of questions can you ask her? What kind of questions are you not able to ask her?

15. Has VHW visits to the community changed your perception of facility deliveries?

16. How do you feel about the fact that the VHWs are members of your community? Probes: what problems do you think is associated with this? Why is that a good thing?

17. What do you like about the VHW program? 18. What do you not like about the VHW program?

III. Closing (10 min)

We would like to finish our discussion by asking if there are any suggestions you have for us or anything you would like to say in closing. (comment: allow time for general discussion).
We would like to thank you for spending time with us, we appreciate all that you told us.
(Comment: Issue their refreshment immediately)

Appendix IV B: Focus Group Moderator Guide (Translated in Hausa)

Tattaunawa Akan Abubuwan Dake Taimakawa, Da Abubuwan Dake Hana Ma Mata Masu Juna Biyu Waddanda Suka Ji Fadakarwan 'Village Health Workers', Zuwa Asibiti Su Haihu

A Jahar Gombe

(Tattaunawa – da mata da suka samu fadakarwa daga 'Village Health Workers' kuma sun haihu a cikin shekara daya da wuce November 2017 – October 2018)

Before the group begins, conduct the informed consent process, including compensation discussion.

IV. Gabatarwa (Minti 5)

Inna kwanan ku? Sunnan na _____. Ni zan jagoranci wannan tattaunawa da zamuyi yau. Za muyi kamar awa daya da rabi da ku. Zamu tauki wannan tattaunawa da zamuyi a casstte, kuma zakuga _____ tana zauna tana rubutu a kan abubuwan da muke fada. To wannan domin mu tabbabtar cewa duk abuda muka tattauna a nan an rubuta, amma ba za a rubut sunnayen ku ba.

Zaki iya ki fadi sunnan da kike so a kira ki dashi a wannan tattaunawan da zamu yi (sunnan karya, ko wani suna daban)
To yansu sai kowace ta fadi sunnan da take so a kira ta dashi a wannan tattaunawa da zamuyi.
Daya bayan daya
Sunnan da kika zabama kanki, Wane irin abinci yafi miki dadi?

Tabbayoyi: in bam ai tabbaya, sai mu fara tattaunawa. (Begin recording)

Facilitator to speak into the tape recorder: and mention the following: **Date, venue, time of FGD i.e ward and local government area and the respondents (home or facility delivery group)**

V. Ainihin Tattaunawa

Zuwa asibiti domin haihuwa (Minti 10)

Za mu fara da yanda kuke zuwa asibiti

1. Na farko, ku bamu labarin yanda kuke tasowa daga gidagen ku ku je asibiti. Karin Bayani: Kuna hawa moton haya, ko machine, ko da kafa? Asibitin nada nisa daga gidan ko? Kuna biyan kudin mota ko kudin machine?

2. Maigidan ki meye Ra'ayin shi game da Kiji asibiti ki haihu? Karin Bayani: Me kike ganin yake za maigidan ki ke so ki ji asibiti? Me kike ganin yake sa maigidanki baya zon ki haihu a asibiti?

3. Uwar mijinki meye ra'ayinta game da kiji asibiti ki haihu? Karin bayani: Me kike ganin yake sa uwar mijinki ta ke son ki haihu a asibiti? Me kike ganin yake da uwar mijinki bata zon ki haihu a asibiti?

Ra'ayin ku akan haihuwan asibiti (Minti 25):

Yanzu za mu tattauna akan kullawan da kuke samu a asibiti in kun zo haihuwa

4. Da kuka zo asibiti ki haihu, wane irin kullawa kuka samu? In baku taba haihuwa a asibiti ba, ki bamu labarin wasu da suka baku game da irin kulla da suka samu da suka je haihuwa a asibiti.
   Karin bayani: kukan samu kulla a nan take, ko sai kinta jira? Me kuke ganin dalillin dogon jira a asibiti?
   Me kuke ganin za'a iyya yi a gyara wannan matsala? Mallaman asibiti sun karrama ki?

5. Meye bambanchin haihuwa a gida da haihuwa a asibiti? Karin bayani: meye babbancin kullawan mallaman asibiti da na anguwan zoma?

6. Wanne mallaman asibiti kuka fi so ta karbi haihuwan ku? Mace ko namiji? Karin bayani: Meye dalillin zabin ki? In kin fada wanda kike zo ya karbi haihuwan ki a asibiti, mallaman asibiti suna biya miki bukarki?

7. Me kuke gannin sai taimaka muku zuwa asibiti ku haihu? Karin bayani: asibiti ya dawo kusa da gida ki, ko a gyara asibitin, ko haihuwa ya zama kwauta

8. Me kuke ganin sai taimaka ma sauran mata su zo asibiti su haihu?

Ra'ayinku akan VHWs (Minti 40)
Yanzu zamu tattauna akan ra'ayin ko akan VHWs

9. Meye ra'ayin ku akan fadakarwan da VHW suke yi muku? Karin bayani: kuna jin dadin fadakawars da suke muku?

10. Wane bangarorin ciki da haihuwa VHWs basa taimakon ku da su kuke so su su dinga taimaka muku da su?

11. Ya kuke ganin VHWs za su iyya haduwa da wasu mata kamarku wadanda kuke ganin suna bukatar fadakarwan da VHWs suke muku?

12. Kuna ganin bayanen da VHWs suke muku in zu ziyarce ku a gidagenku? Karin bayani: meye bambancin fadakarwa da VHWs suke muku da irin fadakarwa da mallaman asibiti suke muku?

13. Kuna gane hotunan da VHWs suke nuna muku lokacin da suke fadakar daku?
   Karin bayani: kuna ganin irin waddanan hotunan a asibiti? Meye babbancin the VHW da na asibiti?

14. Kuna sake jiki ku tambaye VHWs abubuwan da baku gane ba a kan fadakarwan da suke muku?
   Karin bayani: Wane irin tambayoyi kuke tambayansu? Wane irin tambayoyi ke muku wahalan tambayan su?

15. Ziyarar da VHWs suke muku ya canza ra'ayin ku akan zuwa asibiti ku haihu? Karin bayani: ta ya VHWs suka canza ra'ayin ku?

16. Meye ra'ayin ku da cewa VHWs mutanen anguwanku ne? Karin bayani: wane matsaloli kuke ganin wannan ke haifarwa? Karin bayani: kuna jin dadin cewa VHWs yan anguanku ne?

17. Me yake baku sha'awa akan VHWs? 18. Me baya baku sha'awa akan VHWs?

VI. Rufe Taro (10 min)

Za mu rufe wannan taro da tabbaya in akwai wani bayyani da kuke so ku kara akan wanda muka yi. (comment: allow time for general discussion). In akwai masu tambaya sai suyi yanzu (allow for questions, and give answers if necessary)

Muna matukar godiya da kuka zo daga gidagen ku kuka tattauna damu; Allah ya saka muku da alheri ya kuma maida ku gidagenku lafiya. (Comment: Issue their refreshment immediatel