REVISED REPORT ON

KNOWLEDGE, ATTITUDE AND PRACTICE (KAP) STUDY ON HEALTH SERVICE DELIVERY AND HEALTH SEEKING BEHAVIOUR

SADRS
Inquiry Leads to Impact
SOCIAL AND DEMOGRAPHIC RESEARCH SOLUTIONS SL LTD

MINISTRY OF HEALTH AND SANITATION
WITH SUPPORT FROM UNICEF

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EXECUTIVE SUMMARY

Background

The public sector, through the Ministry of Health and Sanitation (Moths), remains the largest provider of healthcare services in Sierra Leone. Although other entities such as faith- based organizations and the private sector also provide healthcare services to sections of the population, the Moths remains the major service provider of health. At the same time, the delivery capacity of Moths was severely tested by the outbreak of the Ebola Virus Disease (EVD). While the epidemic is over, the event showed the vulnerability in Sierra Leone's health system services.

Survey Objectives

This survey provides valuation information on providers as well as users feedback on the quality of health service delivery, highlighting the opportunities and the underlying challenges. The survey will also assess user and providers' perceptive on the responsiveness of health systems to the needs of local populations and gauge the perceptions of communities on the constraints that inhibit adoption of positive health behaviours. It will also solicit information on Social expectations, influences, norms that have the maximum impact on the changing the health services behaviours of mothers, caregivers and general public.

Methodology

The survey adopted a mix of qualitative and quantitative collection methods, with the quantitative research focusing on primary data at households. This solicited information on the relevant KAP issues from the user perspective and at public health facilities to gauge the perception of health care providers using a well structure questionnaire. A multi-stage random sampling technique was employed to select the locations and household respondents for participation in the survey. A total of 2,081 households were targeted for this survey, with a total of 1,961 completed questionnaires returned, implying a response rate of 94 percent . The qualitative methodology consisted of the Focus Group Discussion with communities with survey areas and Key Informant Interviews with relevant health care provider including District Health Management Teams (DHMTs) and Health Management Committees (HMCs) at the community level. A total of 58 interviews were conducted and 40 FGDs were conducted during the survey.

Key Findings and Results

The following is a summary of the key findings and results from the survey report.

Household Demographics

A total of **1,961** household respondents, accounting for approximately **0.6 percent** of the total households in the targeted chiefdoms. Females accounted for **24 percent** of respondents, while males accounted for **76 percent** of respondents. About **65 percent** of household respondents

have at least some level of formal education, with over a quarter (**28 percent**) with no formal education.

Feedback on Quality of Health Services

Nearly two-thirds of health service providers intimated the survey that their health facilities had some form of functional energy including solar facilities or electric powered generators. Improved water was also available to majority of health facilities covered by the survey. Significant challenges to emergency transportation facility remained at the disposal of health care providers, which tremendously affect the health service provision at especially hard-to reach areas within the country. Improved information, communication facilities remain a challenges to health care providers across the country.

Feedback on the Availability and Functionality of Basic Equipment

The survey also noted an overwhelming majority of providers the basic working equipment to support the delivery of deliver health services.

Feedback on Ante Natal and Post-Natal Care Services

The survey results indicates that almost all health care providers (99 percent) reported an encouraging level of visit of pregnant women for antenatal services, whilst a satisfactory level of post natal services at facilities.

Effectiveness of Service Delivery

The overall health care delivery was assessed based on the effectiveness of referral systems, health care monitoring and supervision, prevention of HIV/AIDS and other sexually transmitted diseases. Health facility mangers reported effective referral systems albeit with challenges in the transportation and logistical arragements. District Health Managemnt Teams (DHMT) carry health facility supervision and monitoring at least once every three months, to ensure the adherence of health standards and identify problems to health care service delivery.

Service Providers Feedback on Existing Opportuinties and Constraints

Health service providers noted certain skills to enhance the effective discharge of their fuctions; including communication skills, basic education and health professional skills acquired in the on-the job training program. These opportunities are often lost by the lack of the required essential facilities, inlcuing equipment, drugs and medical supplies as well as the non or irregular supervision of health staff.

Users Perception to Health Delivery Systems

User feedback on health systems services, were assessed based on access to health services, responsiveness and transparency of health services and the quality of health services

An overwhelming majority of users accessed health services from public hospitals and PHUs although the proportion of access varied across the different districts in the country, with the highest level of access to public health facilities observed in Pujehun district, and the least in Tonkolili District.

On the responsiveness of health services accessed in the past 12 months, over half of the surveyed household heads reported that providers were very responsive, i.e. always available to attended or provide treatment to them, members of their household, caregivers or Under-Five children at every visit. At community level, the conditions and attributes that users associated with a responsive health system, which implicitly revealed what the user desired of the health system, was more extensive than variables that the survey had used to measure responsiveness; namely the availability of health worker and the availability of treatment for the client. Most communities maintained their health workers were attending them to and they also felt being treated with respect.

On the level of satisfaction of the health care services, whilst a quarter of users mainly caregivers noted health care delivery as excellent, over half of the users surveyed were generally satisfied on the quality of health care noting the quality of health services provided to them as good, with small proportion reporting poor quality of health care services.

Users Attitude and Behaviour towards Maternal and Child Health

Assessing the knowledge and attitude of users on maternal and child health issues, respondents were asked on the behaviour towards treatment of children when sick with different ailments. While some visit health facilities immediately they feel unwell, others visit drug stores to purchase any drug they deem appropriate for the disease suspected or mention their health condition to the vendor who then decides on which drug is most appropriate. Some others also initiate treatment at home with some left over drugs or herbal preparations.

Caregivers Behaviour in treating children sick with basic ailments

A significant proportion of caregivers reported seeking treatments from health facilities in cases when their child were sick with basic ailments as fever, diarrhoea and difficulty in breathing, whilst some also sought treatment from Community Health Workers, who play active role in the delivery of community-based primary healthcare interventions linked to the health facility, coupled with good working relationship with communities give users confidence to seek their intervention. An appreciable number of caregivers also resorted to self-medication, a practice intended for effective and quick relief of symptoms without medical consultations, which also reduces the burden on health-care services, which are often characterized by constraint to accessibility in remote rural communities areas. Seeking

treatments from traditional healers/spiritual was not common among caregivers, although those were sought these kinds of treatment noted that its mainly as result of traditional beliefs, sometimes from the non availability of drugs at health facilities.

Caregivers Behaviour towards breast feeding during the first six months of life

Results indicates that about **62 percent** of caregivers interviewed exclusively breast-feeding within the first-six months of life, whilst over one-quarter reported using a combination of both breast milk and water. Only **9 percent** of caregivers used a mixture of breast milk, porridge and water, with fever than 2 percent depended largely on water for baby food during this period.

Caregivers Knowledge of Basic Matenal Health Care Services

The survey an encouraging proportion (96 percent) caregivers using health facilities to deliver, with the larger proportion of these in the Rural communities. Out of those that delivered outside of health facilities, mainly at home or Traditional Birth Attendants, a significant proportion were found in the Rural Areas. These have cited either distances to health facilities, stereotypic belief and confidence they have in TBAs or influenced by family members as the reason for this decision.

The KAP study noted that less than half of caregivers have the required knowledge of the full of six rounds of vaccines a child should take to be fully immunized. This situation is eminent in the urban communities compared to rural areas. This may be attritubed to either these rural communities have a relatively better messages on maternal health care including immunization messages, or Community Health Worker within these settings are more effectively compared to urban areas. However, there remain a relatively high proportion of caregivers who either do not know the number of rounds of vaccines their children should take or are not sure what immunization packages they should receive.

Caregivers Knowledge of Free Health Care Services

The survey results show an overwhelming proportion of caregivers are aware of the Free Health Services, was aimed at supporting the continuous availability of equipment, drugs, and other essential commodities. Nearly two-thirds of Caregivers noted that Free Health services provides free medical care for all under five children, free antinatal care and post natal services at public facilities.

On the beneficiaries of the Free Health Services, a significant proportion of caregivers interviewed noted that the Free Health Care Services covers under five children, pregnant women and lactating mothers. It is evident that most healthcare facilities are prepared and ready to handle some community health needs, nevertheless it is also apparent that government needs to increased coverage and access to essenti

al health services in rural areas, especially for children, the poor and drugs and medical supplies provided under the Free Health Care services and the cost recovery services, and in most cases these drugs are not distributed on time to the growing demand of vulnerable population it is expected to serve.

Recommendations

The survey recommends the need for increasing training facilities and capacity building opportunities for health care workers, to strengthen their competency, thereby enhancing the confidence level of users to access health facilities, in an effort to address the bottlenecks in service delivery at facilities. Additionally, there is also the the need to ensure increased availability of medical consumables to support the effective functioning of health facilities, especially in rural communities, with high level of poverty and population reliant on the Free Health Care services, whilst at the same time creating a partnership of government, including civil society organisations and local community representatives to monitor the effective implementation Free Health Care services.

Aslo, the Ministry of Health and Sanitation should embark on information dissemination and increased sensitization to ensure that users effectively distinguish between medical supplies for the Free Health Care services and the cost recovery services. This will promote the level of transparency and accountability in the discharge of health services as well build the confidence and trust between health care workers and the communities they serve.

The Ministry of Health and Sanitation and its development partners should endeavor to improve on the referral system in rural communities, especially in the provision of ambulances to hard-to-reach riverine communities and well as in a bid to address the emergency cases.

There is also the need to increase and sustain vaccination outreach, campaigns and sensitization especially in rural populations to promote effective use of health services.

On water sanitation and hygiene (WASH) services, the survey recommends that the Ministry of Health and Sanitation and its development partners to ensure a sustained and improved sanitation practices in rural community especially in waste management and excreta disposal, such as the use of Community Lead Total Sanitation (CLTS) programs.

CHAPTER ONE

1.0 Introduction

The public sector, through the Ministry of Health and Sanitation (Moths), remains the largest provider of healthcare services in Sierra Leone. Although other entities such as faith- based organizations and the private sector also provide healthcare services to sections of the population, the Moths remains the major service provider of health. At the same time, the delivery capacity of Moths was severely tested by the outbreak of the Ebola Virus Disease (EVD). While the epidemic is over, the event showed the vulnerability in Sierra Leone's health system services.

From a provider perspective, but also as the overall lead of health and sanitation services delivery, Moths deems it crucial at this period to understand citizens' experience and perception of both services, and healthcare seeking behaviour in a post EVD recovery context. The proposed research will provide empirical data that Moths will utilize in improving planning and delivery of health services, especially from a demand side perspective.

1.1 Specific Objectives

The specific objectives of the Knowledge, Attitude and Practice (KAP) study on health service delivery and health seeking behaviours among others, include:

i. Obtain provider and user feedback on quality of health services delivered to the population
ii. Assess provider feedback on existing opportunities/enablers and constraints to service delivery in Moths operated facilities
iii. Assess user and provider perspectives on responsiveness of health systems to the needs of local populations.
iv. Gain perceptions from communities that facilitate or inhibit adoption of positive behaviours
v. Obtain information from communities on social expectations, influences, norms that have the maximum impact on the changing the behaviours of mothers, caregivers and wider community. Round key behaviours e.g. Routine Immunization, Nutrition, WASH, Breastfeeding, Maternal and Child Care)

1.2 Ethical Consideration and Informed Consent

Each research team member was issued a clearance and approval letter obtained by SADRS from the MOHS. The team also sought and received authorization from the district and community leaders. The research coordinators carefully trained all team members in research ethics, to ensure respect, protection and promotion of the rights and privacy of respondents. Informed consent was sought and obtained from all respondents. Anonymity and confidentiality was assured with respect to recorded and reproduced interview data. The

consent form contained information on the purpose of the study, study team composition, expected duration of the study and expected length of the interviews and discussions.
The informed consent also described the right of the respondent to decline participation in the research or not to respond to specific questions without prejudice. Respondents were assured that their responses would not be shared with persons out of the research team, to ensure confidentiality.

1.3 Training of Field officers

1.3.1 Technical Lead Coordinator's Brief

The technical lead coordinators had a thorough one-day brief at SADRS office, where the research methodology and tools were examined and operational issues discussed. All instruments were thoroughly reviewed. This was done as a quality control measure to ensure that before the general training, the technical lead coordinators are on top of the situation, so that they would be in place to respond to any issues that would arise either during the training or data collection phase.

1.4 General Training

The training was a general training for supervisors and enumerators. Team members were trained in community entry protocols, recruiting and facilitating focus group discussion skills, administering questionnaires, research ethics etc. The team was divided into regional groupings to account for linguistic and cultural dimensions and questions were interpreted into the respective regional languages to ensure there is no meaning loss during administration in the field.

CHAPTER TWO

2.0 Research Methodology

2.1 The Overall Study Approach

A descriptive study design was used for the KAP survey, with the approach to both data collection and analysis primarily focused on describing observations in the population, as relevant to the parameters investigated by the study. Within this descriptive framework, SADRS presented a research table to Moths and UNICEF at the tendering stage, and also validated this at the inception phase of the assignment, as the basis for clarifying the scope of the research in terms of the issues to be explored by objectives, preferred data collection techniques and sources. Annex 1 shows details of the framework.

The study population constituted of both users and providers of health services in Sierra Leone. User population general covered women, children, young persons and other sub-populations. The household was used as the primary study unit. It is however worth to mention that because of the priority on improving child and maternal health outcomes among stakeholders at the moment, including the Moths, the research prioritised both sub-populations in its investigations on user perspective and experiences of the health systems services. For the provider perspective, the Moths was specifically interested in researching the relevant KAP dimensions, as it relates to health providers, at government owned facilities. Consequently, the study population for health service providers was restricted to health workers in Moths owned and operated health facilities.

Based on the data requirement outlined in the SARDS research framework, a mixed data collection method was used-i.e. the use of both quantitative and qualitative techniques was used to elicit data from samples of the user and provider populations. For the quantitative component, two separate surveys were conducted to obtain data on the variables of interest to the KAP study. One survey was done at the household level in order to obtain objective observations for health service users while the second survey obtained quantitative observations from government health service providers at the Peripheral Health Unit (PHU) level. Qualitative data was obtained through Focus Group Discussions (FGDs) with users of health services, as well as Key Informant Interviews (KIIs) with representatives of District Health Management Teams (DHMTs) and Health Management Committees (HMCs) at the community level.

The remaining sub-sections of the methodology will present detailed description of data collection and management processes associated with the quantitative and qualitative components of the study.

2.2 Methodology for Quantitative Data Collection

As already noted, two separate surveys were designed to obtain quantitative data from primary sources: i) household survey, researching the relevant KAP issues from the user perspective; and ii) the health facility survey, which assessed provider perspectives.

2.3 Household Survey

2.3.1 Selecting Chiefdoms

The chiefdoms are used as our Primary Sampling Units (PSUs) since they are the first units to be selected randomly in our multi-stage sampling. The team selects 30 percent of the chiefdoms in each district. The chiefdoms in the district headquarter towns are selected purposively since most of the district hospitals and referral health facilities are located in these chiefdoms. The remaining chiefdoms for each district are selected using simple random sampling method. The list of chiefdoms covered by the survey is provided in annex 1

2.3.2 Determining the Required Sample Size

For this survey, he household was used as the Secondary Sampling Units (SSUs) and the catchment areas/localities of the PHUs as the sampling cluster. Using the 2015 Sierra Leone Housing and Population Census data, the distribution of the SSU was obtained. It is therefore necessary to use an adjustment ''design effect'' to any formula in determining the effective sample size. For this study we use the simplified formula to calculate the effective sample size.

$$n = \left\{ \frac{c^2 NP(1-P)}{A^2 N + (c^2 P[1-P])} \right\} * D$$

Where:

Variable	Definition
n	Required sample size
N	Total number of households for the selected chiefdoms (2015 Census Figures)
P	Average proportion of the population that needs public healthcare service
1-P	Average proportion of the population that don't need public healthcare services
A	Margin of error deemed to be acceptable
c	Level of precision (how sure we need to be of the result)
D	Design Effect (the effect of the cluster (chiefdoms) sampling)

Using the formula above and with the total number of households from the 2015 Census figures, N= 326,549; the effective sample size n was computed as 2,081

The formula above was also used to determine the district sample size, where N was the total number of households of the selected chiefdoms. In a district Table 1 below shows the district sample sizes.

Table 1: Sample Size at District Level

District	Number of Chiefdoms/Wards	Number of Sampled chiefdoms	Total number of questionnaire
Bo	15	5	168
Bombali	13	4	179
Bonthe	11	4	59
Kailahun	14	4	155
Kambia	7	2	101
Kenema	16	5	180
Koinadugu	11	3	120
Kono	14	4	147
Moyamba	14	4	95
Port Loko	11	3	179
Pujehun	12	4	99
Tonkolili	11	3	158
Western Area Rural	4	1	132
Western Area Urban	8	2	309
Grand Total	**161**	**48**	**2,081**

2.3.4 Determining the Number of Household Questionnaire per Chiefdom

The number of household questionnaires per chiefdom was determined using probability proportional to size[1]. Weights were determined by dividing the number of household in each chiefdom by the total number of households of the selected chiefdoms in the district. The number of households in each chiefdom was determined by multiplying the district sample allocation by the respective weights for each chiefdom. Table 1 above show the number of household questionnaire allocated to each selected chiefdom.

2.3.5 Selecting Localities/Catchment Area

Based on the sampling frame provided by the MOHS, most of the Community Health Centres were located at chiefdom headquarter towns and according to the MOHS basic package of essential health service delivery of 2010, the CHCs are the largest PHUs that has the preventive, promotive and curative functions that serves a larger population of about 10,000 to 30,000. We allocated 80 percent of each chiefdom sample size to the chiefdom head quarter towns and it catchment area within a radius of 5-10 miles. The remaining 20 percent of the questionnaire is administered at localities of the remaining PHUs with equal proportion.

2.3.6 Household Survey Instrument

A structured questionnaire was administered (by enumerators) for the household survey. The instrument interviewed anywhere between two to four persons per surveyed household[2], with question items sectioned for individual respondent groups. Table 2 in annex 1 summarizes the domains researched by the questionnaire, by respondent group.

[1] Size is the number of household per chiefdom.

[2] The following respondents were selected at the household: first, the household head; followed by the main caregiver for under-five children in the household; then a woman who had delivered a child in the past 24 months, if there was one in the household at the time of the survey; finally, a pregnant woman found at the household at the time of the survey.

2.4 Health Facility Survey

2.4.1 Sampling of Health Facilities

For the health facility survey, three PHUs were selected in each chiefdom. PHUS in the chiefdom headquarter towns that mostly CHCs were selected purposively because of the larger catchment area they serve and also because most of CHCs serves as referral centres for the lower PHUs (CHP and MCHP). In addition, the CHCs handle some complicated and grave cases of childhood and maternal health cases that are of concern to the objective of the KAP survey. Table 2 below shows the distribution of the 149 surveyed facilities across the 14 health districts, by facility type.

Table 2: Distribution of Types of facility by Districts

District	Health Facility Type			
	CHC	CHP	MCHP	Clinic
Bo	9	6	0	0
Bombali	5	6	0	8
Bonthe	5	3	3	1
Kailahun	3	8	0	1
Kambia	1	5	0	0
Kenema	9	4	2	0
Koinadugu	2	3	3	1
Kono	3	5	2	2
Moyamba	6	4	1	1
Port Loko	3	4	0	0
Pujehun	3	1	8	1
Tonkolili	3	2	3	0
Western Rural	1	2	0	0
Western Urban	4	2	0	0
Total	**57**	**55**	**22**	**15**

2.4.2 Health Facility tool

The domains used for to solicit information at the facility level includes, demographic information of facility heads, the availability of basic essential services including drugs, medical supplies and other consumables at facilities and information on the functionality of equipment. A detailed description on the domains facility survey dimensions are provided in Table 3 in Annex I

2.5 Survey Respondents

A purposive approach was applied to the determination and distribution of sampling for the qualitative component of the study. For health services user perspectives, the respondent background was diverse, including FGD sessions with young persons, male and female (17-30 years old), and adult male and female (over 30 years old)[3]; KIIs were also held with HMC representatives, who were in the unique position of being service users, like the rest of the population, but also provided local management oversight Including monitoring of the FHC implementation) to the PHU in their respective localities. Health service provider perspectives

[3] Age groups disaggregated community FGDs in order to capture the unique experience and perspectives of the various age categories in the population.

were elicited through KIIs (and sometimes group interviews) with representatives of the DHMT.

Altogether, 58 interviews were conducted, including 40 FGDs[4] with community representative representatives; nine (9) KII with HMC representatives; and nine (9) KII with DHMT representatives. Table 4 below shows interview distribution across the districts.

Table 4: Qualitative Survey Discussions by District

District	FGD Community Representatives				KII: HMC Representative	KII: DHMT	Sub-Total
	Adult Men	Adult Female	Young Women[5] (17-30Yrs)	Young men[6] (17-30Yrs)			
Bo	1	1	1	0	1	1	**5**
Bombali	1	1	1		1	1	**5**
Bonthe	1	1		1	1	1	**5**
Kailahun		1	1				**2**
Kambia	1	1	1		1	1	**5**
Kenema		1	1				**2**
Koinadugu		1	1	1	1	1	**5**
Kono	1	1	1		1	1	**5**
Moyamba	1		1	1			**3**
Port Loko	1	1	1		1	1	**5**
Pujehun		1	1	1			**3**
Tonkolili	1		1		1	1	**4**
Western Rural	1	1	1	1			**4**
Western Urban	1	1		1	1	1	**5**
Total	**10**	**12**	**12**	**6**	**9**	**9**	**58**

2.6 Qualitative Data Collection Tool

In all, there were three separate respondent groups: i) community representatives; ii) HMC representatives; and iii) DHMT representatives. A separate topic guide was developed and administered to each respondent group. Table 5 below shows the subjects/issues that were explored, by respondent type.

[4] Between 8 and 10 respondents were recruited per FGD session
[5] Half the respondents on session with this group were pregnant women and lactating mothers
[6] Half the respondents on session with this group were fathers to at least one under-five child

Table 5: Focus Group Discussions and Key Informant Interviews Dimensions Explored

Issues/Domains Explored	Respondents		
	FGD: Community Reps	**KII: HMC Reps**	**KII: DHMT**
General perception of health services received/provided	X	X	X
Perception of attributes of responsive health system	X	X	
Proposed actions to make local health system more responsive and improve quality of care	X	X	X
Free Health Care implementation: what is working; what are the challenges	X	X	X
Health conditions managed by local health facility	X	X	
ANC visitation practices: how often women visit health facility at pregnancy	X	X	
Child delivery practices: where do women deliver babies	X	X	
Utilisation of ITN for pregnant women and under-five children: how common is this used by these sub-populations in local communities	X	X	
Household drinking water sources at farm and/or trading sites	X	X	
Breastfeeding practices among mothers: 0-6 month old babies	X	X	
Prevention of HIV transmission to unborn babies: actions pregnant women can take to minimise transmission	X	X	
Adolescent access to family planning services: where girls can access FP in the community	X	X	
Community perception of teenage girls (14/15-19 years old) who use family planning services	X	X	
Willingness of boys and men in communities to use condoms	X	X	
Access to health messages in past 12 months: which messages have reached communities; what channel is preferred for health messaging	X	X	
Reasons why people adopt/refuse to adopt health behaviour change messages	X	X	
Local change agents for health promotion messaging	X	X	
Availability of medicines and medical supplies at health facilities in the past 12 months			X
Availability of protocols and guidelines at health facilities			X
Supportive supervision visits to facilities in past 12 months			X
Basic services at local health facilities: status- availability and gaps			X
Effectiveness of referral services			X
Human resources for health situation at local facilities			X
Key challenges in district health services in past 12 months			X

2.7 Data Collection

44 SADRS researchers carried out data collection: 30 enumerators and 14 supervisors, with technical leadership from the SADRS technical team. Four-day training was organised for the data collection team, from 24th to 27th February 2017. The training covered the overall objectives of the study, protocols and interview guidelines, obtaining the informed consent process, FGD facilitation techniques and note taking, guidelines for safety and security precautions, as well as data quality assurance and control. One training day was used to pilot the data collection tools, which included the use of the Kobo Collect software for both the household and the health facility surveys.

Data Collection lasted a total of 12 days, from 1st to 12th April, including two travelling days. In order to enhance the efficiency of the process, the 44 data collectors were organised into seven teams, with each team deployed to collect survey data in two district that were next to each other.

2.8 Data Processing and Analysis

2.8.1 Household and Health Facility Data

Both survey data: household and health facility, were collected using electronic forms designed in Kobo Collect. The forms were loaded onto tablets and the technical team, often populating the forms with dummy data in order to test the reliability and user-friendliness of the interface, did mobile phones and series of trial runs. A major operational advantage with Kobo Collect, one reason why it was deployed among other options, was that it allowed for survey data to be collected offline, which meant researchers were able to collect data at every location. At the end of every one/two days, supervisors used uploaded the data, using the 3G Wi-Fi modems that was provided to them by SARDS.

Data management processes ran in parallel to the collection phase. The SARDS data management team downloaded both survey data on a daily basis and at the end of data collection; all data were exported into Excel format, cleaned and subsequently exported to SPSS. In parallel to data cleaning, a data analysis plan was finalised to guide analysis. For the purpose of the KAP survey, descriptive statistics, mainly the use of frequencies and percentages, were used to report observations.

2.8.2 Processing of Key Informant Interview and Focus Group Discussion Data

A pair of researchers, one serving as moderator and the other as note taker conducted all FGD and KIIs sessions. After fieldwork, the notes were compiled, and coding framework was developed to help organise the data by themes. With this coding framework, which was broadly aligned to the KAP objectives, the results of the qualitative results were summarised, first, as a standalone piece, and eventually integrated with the survey observations, mostly to help triangulate survey results and/or put those results into perspective.

2.9 Study Limitations and Challenges

- The study targeted the head of household as a proxy to the general Knowledge, Attitudes and Practices held by all members of the household. Ideally, the research team should have interviewed every adult, which was not possible due to time and cost implication. Therefore the results may not 100 percent accurately represent the community's perspectives as a whole.
- Interviews and the questionnaire captured self-reported information and relied primarily on respondents providing the right information. Misreporting by respondents cannot be ruled out.

- The questionnaire was translated from English to a widely spoken local parlance Krio. However, it was clear that not all the enumerators were comfortable in the translation from English to Krio. The translation increases the likelihood of misinterpretation of questions and possible chances for inaccurate response from the respondents
- Person-to-person surveys always carry the risk of skewed responses by inherent pressures respondents might feel to respond in a certain way. Enumerators were trained to be objective and were specially trained in techniques to probe for multiple responses. However, pressures to conduct a certain number of surveys in a given day can always limit the quality of these responses

CHAPTER THREE

3.0 Household Socio- Demographic and General information

3.1 Profile of Household Respondents

The survey captured a total return of 1,961 household respondents that were deemed valid, which accounted for 0.60 percent of the total households in the 49 chiefdoms[7] covered by the survey. The household respondents came from 322 sampled localities representing the four geographical regions: north, south, east and west of the country.

As evidence in most African societies[8] where most household heads are male, **76.5 percent** of the household heads interviewed were male and a significant proportion **23.5 percent** of household heads interviewed were female. The modal age cohort of household respondents regardless of gender was 35 – 44 years.

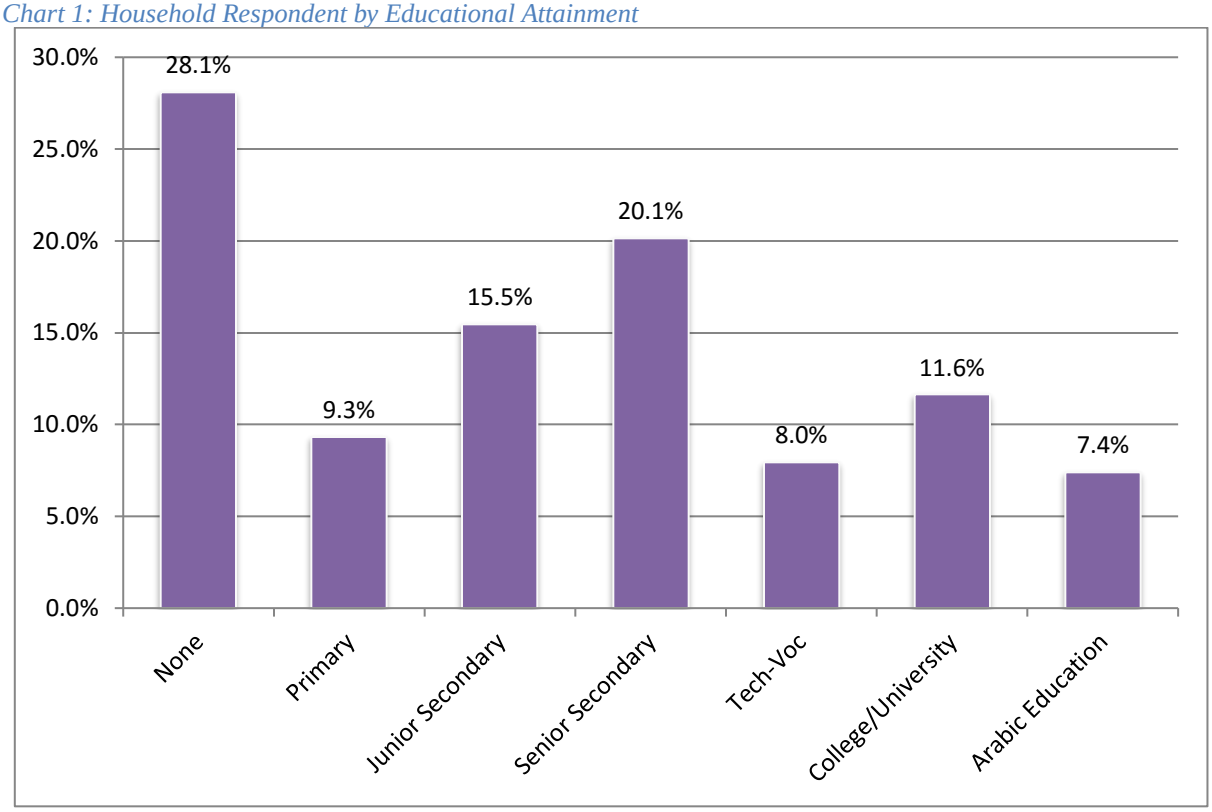
Table 6: Household Characteristics

Demographics	Characteristics	Percentage
Gender of HH respondent	Male	76.5
	Female	23.5
Distribution of Age of HH respondents	14 Years and below	0.2
	15 - 24 Years	2.2
	25 - 34 Years	20.7
	35 - 44 Years	33.6
	45 - 55 Years	26.9
	55 Years and above	16.4

The result shows about 28.1 percent of the respondents reporting that they did not go to school/attained formal level of education and 20.1 percent of the respondents attained senior secondary school as their highest-level of education.

[7] 2015 census figures of total number of households per chiefdom
[8] According to the Republic of Rwanda KAP survey on early nurturing of children report 2014

Chart 1: Household Respondent by Educational Attainment



Majority of the respondents (70 percent) acknowledged that they were married, 10.1 percent reported that they were widow/widower while 7.8 percent of the respondents claimed that they were co-habiting

Table 7: Marital Status of Household Respondents

Marital status	**Percentage**
Single	4.7
Married	70.0
Divorced	2.5
Co-habitation	7.8
Separated	5.0
Widow/**widower**	10.1

The survey data reveals that 36.9 percent of the respondents acknowledged that they have one child below the age 5 years while 26.6 percent confirmed that they do not have a child below 5 years as members of their household. 22.8 percent of the respondents confirmed that they have two children below 5 years. The average household size was estimated at 7.9 percent.

Slightly more than half (54.5 percent) of the respondents confirmed that they do not have any pregnant woman in their household while 41.5 percent of the respondents acknowledged

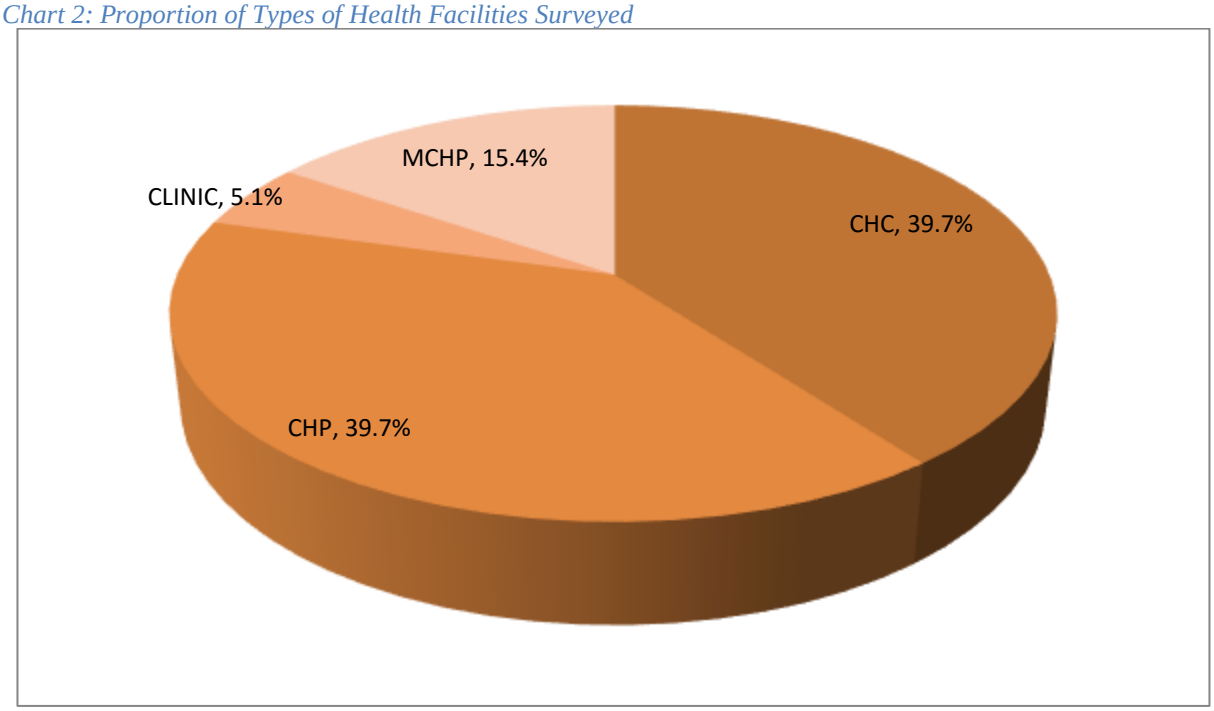
having one pregnant woman in their household whilst 3.7 percent of the respondents claimed that they have more than one pregnant women in their household.

The survey sought to know the number of households that have women that have delivered baby live or still birth in the last two years. The result shows that 47.6 percent of the respondents confirmed that the do not have women in their household that have delivered live or still birth in the past two years whilst 40.3 percent of the respondent acknowledged that the have one woman that have delivered baby live or still birth in the past two years while 10.1 percent of the respondents claimed having two women that have delivered babies live or still in the past two years.

3.2 Profile of Healthcare Service Providers

The KAP survey achieved valid returns of 136 questionnaires from healthcare service providers, account for 95 percent of the targeted survey sample size. Of this total, 15.4 percent were Maternal and Child Health Posts (MCHPs), 5.1 percent were Clinics while 39.7 percent were Community Health Centers (CHCs) and Child Health Posts (CHPs), each.

Chart 2: Proportion of Types of Health Facilities Surveyed



The highest number (15) of valid returns of health facility survey was observed in Kenema and Bo Districts while Pujehun, Kailahun, Kono, and Bombali recorded valid returns of 12 each. Bonthe District shows deemed valid return of 11 and Tonkolili and Koinadugu Districts have valid returns of 9 each. Moyamba and Port Loko recorded valid returns of 8 and 7 respectively. The table below shows the number of valid returns of health facility questionnaires by district.

Table 8: Health Facility Survey Returns by District

District	Facility Type				Total
	CHC	CHP	CLINIC	MCHP	
Bo	9	6	0	0	15
Bonthe	5	3	1	2	11
Moyamba	4	3	0	1	8
Pujehun	3	1	0	8	12
Kenema	9	4	0	2	15
Kailahun	3	8	1	0	12
Kono	3	5	2	2	12
Bombali	5	6	1	0	12
Tonkolili	3	2	1	3	9
Kambia	1	5	0	0	6
Koinadugu	2	3	1	3	9
Port Loko	3	4	0	0	7
Western Rural	0	2	0	0	2
Western Urban	4	2	0	0	6
TOTAL	**54**	**54**	**7**	**21**	136

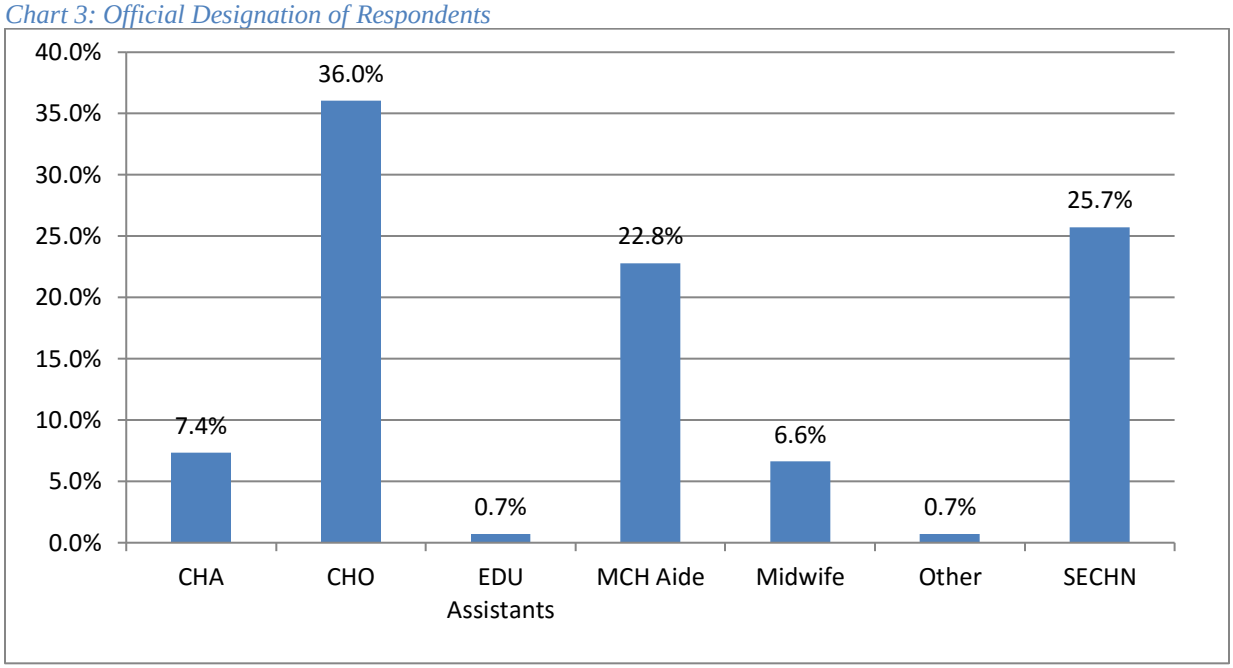
Most (60.3 percent) of the service providers interviewed were female while a significant proportion (39.7 percent) was a male respondent. Slightly half (54.4 percent) of the service providers interviewed were in the age cohort 35 to 44 years. The survey findings also revealed that 42.5 percent of the respondents that confirmed to be the head/in-charge of the facilities were male while 57.5 percent that confirmed to be the in-charge of the facilities were female.

Table 9: Demographic Characteristics of Health Facility Respondents

Demographics	Characteristics	Percentage
Gender of facility respondent	Male	39.7
	Female	60.3
Distribution of age of health facility respondents	25 to 34 Years	11.0
	35 to 44 Years	54.4
	45 and Above	34.6
Health facility In - charge	Male	42.5
	Female	57.5

The research further investigated to know the official designations of service providers interviewed. The result shows that majority (36.0 percent) of the service providers interviewed were Community Health Officers (CHOs) while a significant proportion (25.7 percent) of the service providers confirmed that they are State Enrolled Community Health Nurses (SECHN). About twenty three percent of the service providers acknowledged that they are Maternal and Child Health Aide (MCH Aide) whilst 6.6 percent confirmed that they are Midwives. Small proportions (0.7percent) claimed that they are Endemic Disease Control Unit (EDCU) Assistants and other designated official staffs at the facility.

Chart 3: Official Designation of Respondents



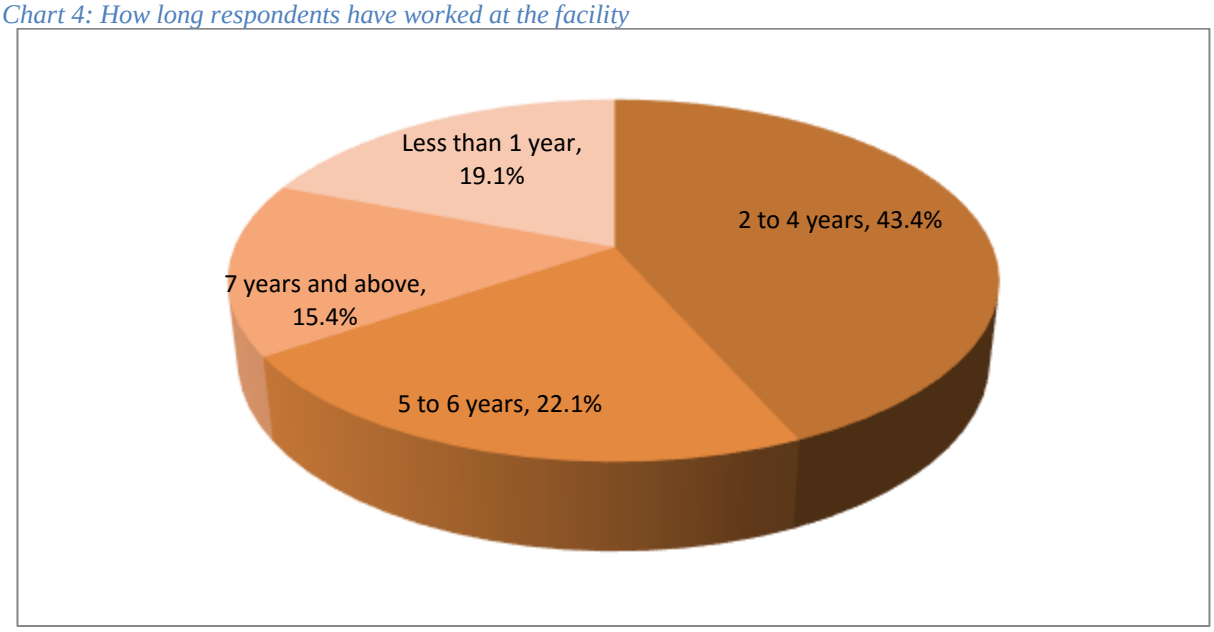
The primary role of service providers was also assessed. The facility survey data revealed that 39.4 percent of the respondents confirmed that their primary role at the health facility is to provide clinical services to patients (they can either be doctors, nurses, psychologists or laboratory technicians). Significant proportion (29.3 percent) of the service providers confirmed that their primary role at the facility is administrative while 21.2 percent admitted that they provide non-clinical services such as education and counseling. Slightly over ten percent of the respondents stated that they provide other services different from those mentioned above as their primary role at the facility.

Table 10: Primary role of Health Facility Respondents

Primary Role	**Percent**
Provide clinical services to patients (doctor, nurse, psychologist, lab technician, etc.)	39.4
Provide non-clinical services to clients (educator, counsellor, etc.)	21.2
Provide administrative role (receptionist, cashier, secretary, management, etc.)	29.3
Other	10.1

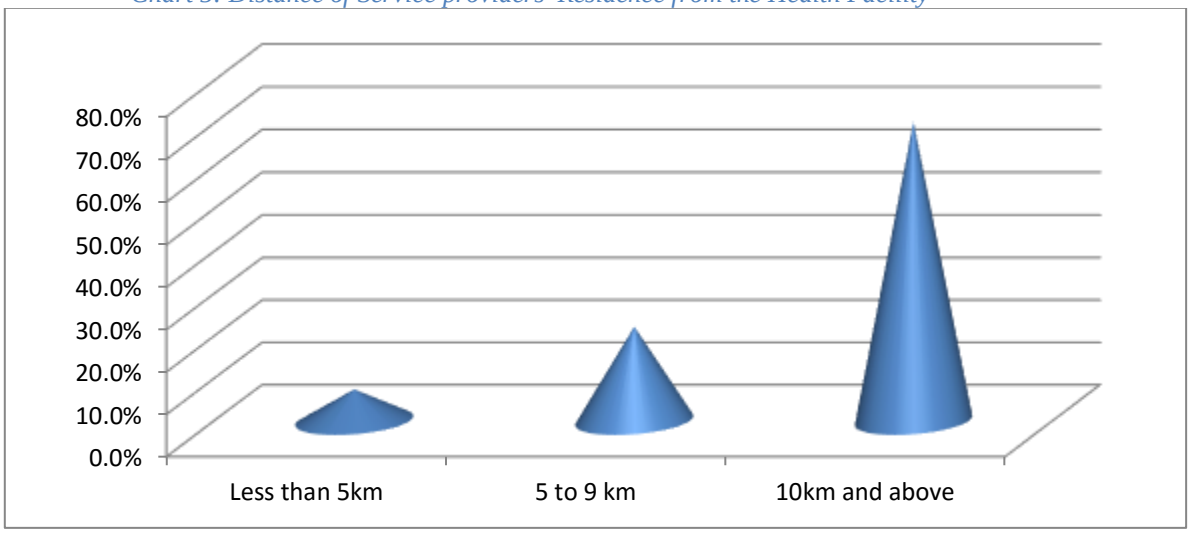
How long service providers have stayed and worked at the facility was also investigated. Analysis shows that about 43.4 percent of the service providers have worked at their health facilities for a period between 2 to 4 years without been transferred to another facility while 22.1 percent of the respondents reported that they have worked at their current facility for a period of 5 to 6 years. Slightly over 15 percent of the respondents acknowledged that they have worked at their current facility for over 7 years and above while 19.1 percent confirmed that they have been posted to the current facility less than a year ago.

Chart 4: How long respondents have worked at the facility



The residence of health service providers was probed by the survey. Findings shows that majority (80.1 percent) of the health service providers confirmed that they reside in staff quarters within the compound of the health facility; whilst 19.1 percent of the respondents reported that they reside within the community outside the precincts of the health facility. Findings further reveals a bout 70.4 percent of service providers are residing 10 meters and above away from the confines of the health facility, while 22.2 percent resides within five to nine meters in community away from the facility. Only few facility respondents at 7.4 percent reported that they reside in the community within a distance less than 5 meters from the health facility. Chart 5 below provides a description of the proportion of facility respondents' residences.

Chart 5: Distance of Service providers' Residence from the Health Facility

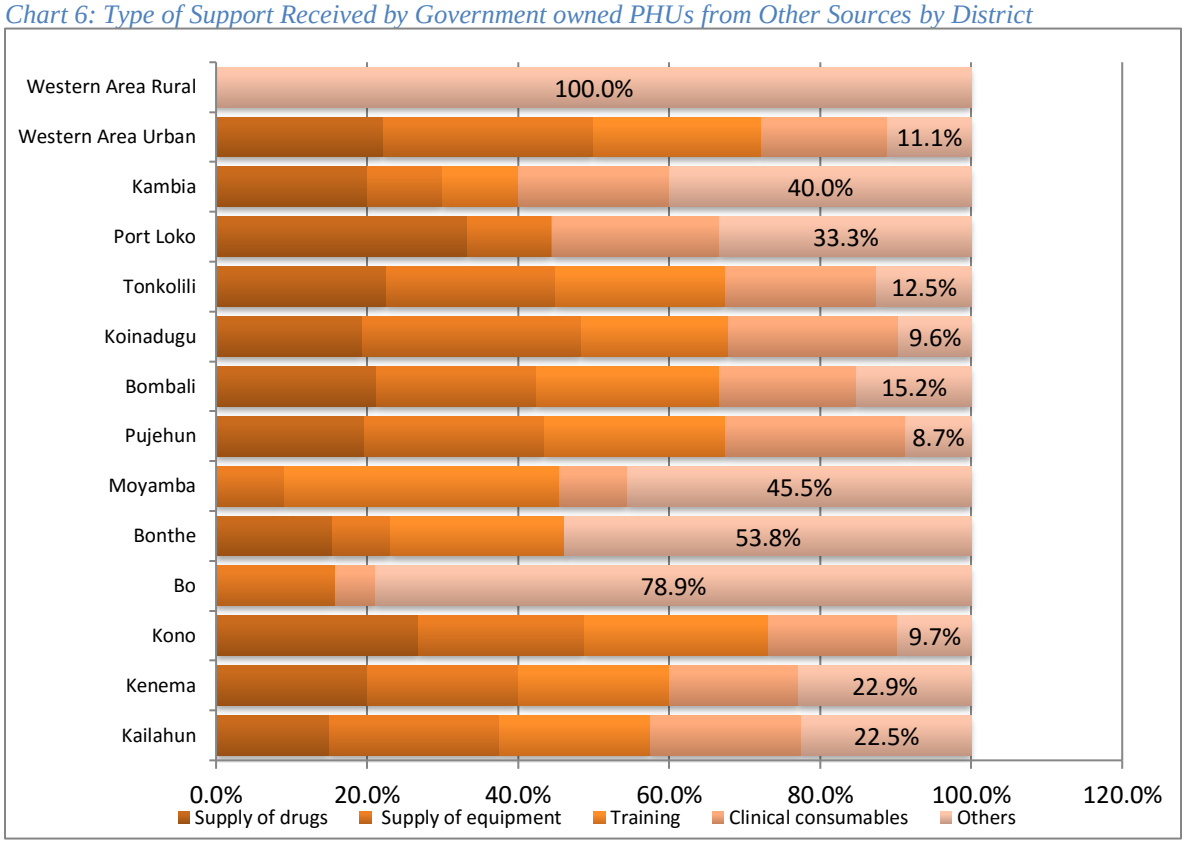


Large proportion (90.4 percent) of the health service providers confirmed that they are currently on payroll while 9.6 percent of the respondents reported that they are not on payroll. Majority (98.4 percent) of the respondents that are on payroll are receiving salaries from government while 1.6 percent reported that they are receiving salary from Non-Governmental Organizations (NGOs).

Large proportion (93.4 percent) of the health facilities covered by the survey is owned by government whilst 3.7 percent of the facilities are private owned and 2.9 percent are owned by Faith-based organizations. Findings further revealed that most (68.8 percent) of the health facilities that are owned by government confirmed receiving assistance or support from other sources whilst 31.1 percent of government owned health facilities reported that they are not receiving assistance or support from other sources.

The type of support or assistance these government owned PHUs are receiving from other sources was also probed. Almost all of the government owned PHUs in the districts with the exception of Western Rural District acknowledged support for drugs, equipment and clinical consumables from other sources and other supports from other sources that were not mentioned to the survey.

Chart 6: Type of Support Received by Government owned PHUs from Other Sources by District



CHAPTER FOUR

This chapter deals with the healthcare service providers' feedback on the quality of health service delivery and the existing opportunities and constraints to service delivery in their PHUs. It also looks at the Communication for Development indicators at PHUs.

4.1. Provider Feedback on Quality of Health Services

4.1.1 General Service Preparedness of health Facilities

To improve the health status of the population, a health system needs essential inputs and requisite support systems at healthcare service delivery units to promote effective and efficient delivery of healthcare services. Although healthcare services can be offered under various conditions, some common inputs are crucial under all conditions to ensure the preparedness of facilities for quality service delivery and utilization.

The survey considered the following components in assessing the preparedness of the facility to provide quality health services:

- Basic amenities for health services at facilities
- Availability of basic equipment to support quality health services
- Implementation of Infection Prevention and Control policies (IPC) in service delivery areas
- Diagnostic capacity

4.1.2 Service Providers' Feedback on Basic Amenities at Facilities

The survey reviewed six components, namely availability of electricity (access to national grid, solar or a functional generator with fuel), improved water source within the facility, water purification chemicals or filter, emergency transportation facility, communication equipment, improved water source (pipe borne water, water well with pump, etc) and computer with internet.

Electricity: For the purpose of this study, we defined availability of electricity at facilities if one of the following conditions was met: the facility is connected to the national grid, facility have functional solar system, and if the facility has a functioning generator with fuel on the day of the survey. Majority (74.3 percent) of the facilities confirmed that they have electricity according to the survey definition.

Improved water source: The study sought to know if healthcare facilities have an improved water sources. The study consider a source of water as improve if by nature of its construction or through active intervention, is likely to be protected from outside contamination, in particular from contamination with fecal matter. The result shows that 64.7 percent of the facilities acknowledged that they have improved water source within the facility.

Water purification: the survey shows that most (60.3 percent) of the facilities confirmed that they have water purification chemicals or filters.

Emergency transportation facility: Modes of emergency transportation for patients who needs to reach a healthcare facility or to be referred to another healthcare facility in an emergency vary in safety, comfort, and speed. Emergency transportation includes motorized vehicles (cars, motorbikes), and boats and must be able to traverse roads, non-road terrain, and water. In the rural areas of Sierra Leone, pregnancies and births are uneventful, and most pregnancies and births in the rural communities are at risk. Most often pregnant women develop a potentially life-threatening complication that calls for skilled care and some will require a major obstetrical intervention[9] to survive at referral hospitals. To improve health outcomes, pregnant women need access to efficient transportation options in low-resource settings. About 47.8 percent reported that the have access to emergency transportation facility.

Communication equipment: The result reveals that 39.7 percent reported having communication equipment and this can either be official mobile phone or radio.

Computer with Internet: A small proportion (5.1 percent) of the respondents confirmed that they have computers with Internet at their facilities.

Table 11: Proportion of the Availability of Basic Amenities at Facilities

Amenities	Percent of case[10]
Electricity	74.3
Improved water source within the facility	64.7
Water purification chemicals or filter	60.3
Emergency transportation facility	47.8
Communication equipment (Official mobile phone or radio)	39.7
Pipe borne water	37.5
Computer with internet	5.1

4.1.3 Service Providers' Feedback on the Availability and Functionality of Basic Equipment

The delivery of quality health services requires the availability and functioning of certain basic equipment at the health facility to guarantee its readiness to deliver basic health services. The KAP survey investigated the availability and functioning of four out of the seven WHO and USAID recommended basic equipment considered necessary to support quality health services.

[9] Obstetrical interventions includes, cesarean operations, blood transfusions, anticonvulsants/antihypertensive drugs, manual removal of the placenta and placental fragments/repair of genital lacerations, assisted vaginal delivery, and safe abortion care (either post abortion care or the complete package for abortion care)

[10] The question was a multiple response type.

The four basic equipment investigated by the survey include child/infant weighing scale, Stethoscope, Blood pressure apparatus and Refrigerator.

The result indicates huge proportion (95.5 percent) of service providers confirmed that they have child/infant weighing scale while 79.7 percent of the respondents confirmed that the scales are functioning. Slightly over ninety-five of the respondents claimed that they have stethoscope and blood pressure monitoring apparatus while 93.2 percent and 78.9 percent of the respondent confirmed the functioning of the stethoscope and blood pressure monitoring apparatus respectively. Majority (94.0 percent) of the respondents stated that they have incinerators out of which 90.2 percent are reported functional. Almost all (99.3 percent) of the respondents acknowledged that they have buckets for contaminated waste in all treatment areas however only 96.2 percent of the respondents confirmed that buckets are functioning. For refrigerators with solar powered, 94.8 percent of the providers indicated that they have refrigerators at their facilities but only 79.7 percent of them confirmed that the refrigerators are functioning.

Table 12: Proportion of Respondents Acknowledging the Availability and Functionality of Basic Equipment

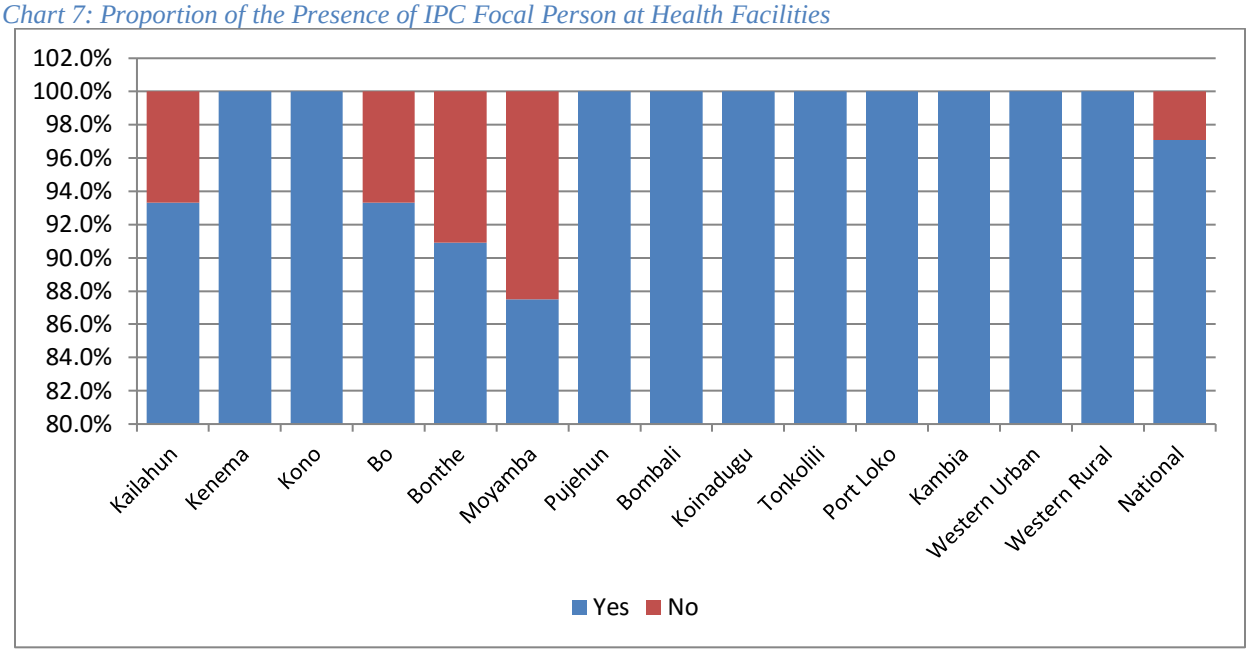
Equipment	Percent of Cases	
	Available	Functioning
Child/infant weighing scale- 1000 gram gradation	95.5	79.7
Stethoscope	95.5	93.2
Blood pressure apparatus	95.5	78.9
Incinerator	94.0	90.2
Buckets for contaminated waste in all treatment areas	99.3	96.2
Refrigerator (solar powered)	94.8	79.7

4.1.4 Presence of Infection Prevention and Control Policies (IPC) Focal Person

The adherence to Infection Prevention and Control (IPC) guidelines are necessary to prevent infections acquired in health facilities. It is essential for a health facility to have IPC focal person that will help to facilitate the implementation and compliance with IPC policies and procedures.

Majority of the health service providers (97.1 percent) interviewed acknowledged that they have IPC focal person. The result shows that all the service providers interviewed in Kenema, Kono, Pujehun, Bombali, Koinadugu, Tonkolili, Port Loko, Kambia, Western Urban and Western Rural Districts confirmed that they have IPC focal persons at their health facilities. 6.7 percent of the service providers interviewed in Bo and Kailahun reported that the don't have IPC focal persons at their facilities whilst 9.1percent of the service providers in Bonthe claimed that they don't have IPC focal person, and 12.5 percent of the service providers interviewed in Moyamba reported that their facilities don't have IPC focal persons.

Chart 7: Proportion of the Presence of IPC Focal Person at Health Facilities



The survey sought to know the extent of the implementation and compliance with IPC policies and procedure at health facilities. The result shows that 66.6 percent of the service providers confirmed that to some extent IPC policies are implemented and complied with at their facilities while 31.3 percent acknowledged that to a large extent IPC policy and procedures are implemented and complied with at the facilities. A small proportion (2.1 percent) of the service providers reported that IPC policies and procedure are not implemented at their facilities.

Chart 8: Extent of Implementation and Compliance with IPC Policies and Procedures

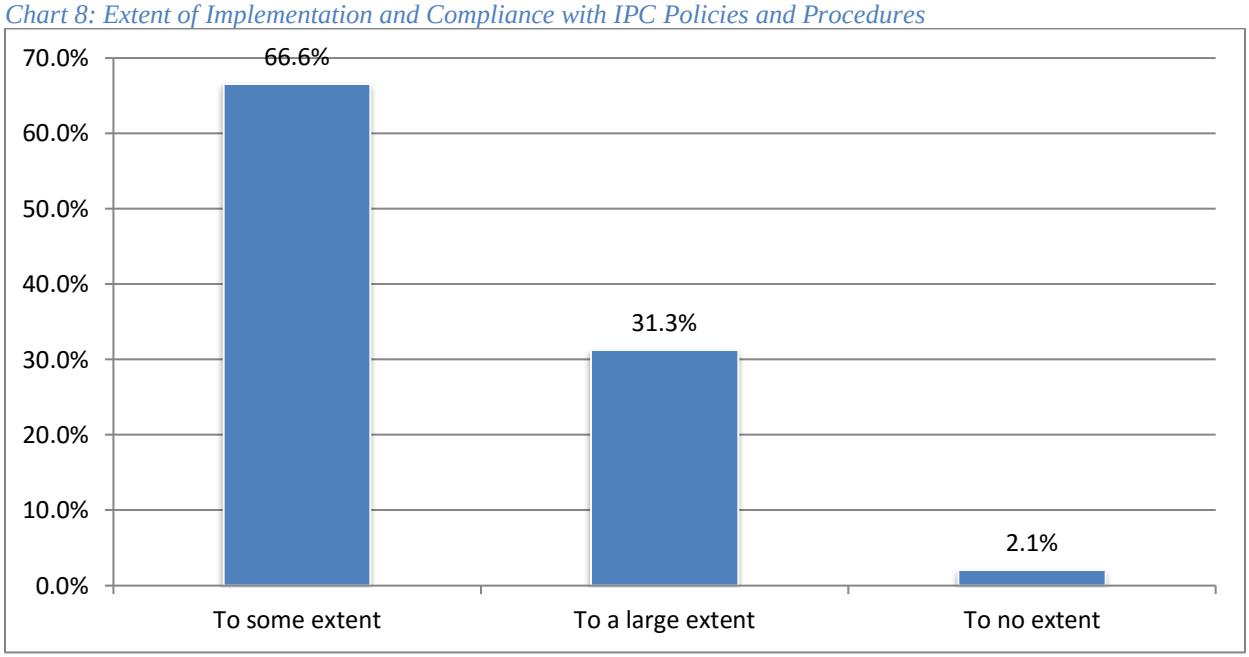


Table 12 below shows the extent to which IPC policies and procedures are implemented and complied with in each district.

Table 13: Extent of Implementation of IPC Policies and Procedures at Health Facilities by District

District	To a large extent	To some extent	To no extent
Kailahun	40.2	58.9	0.9
Kenema	52.1	44.8	3.1
Kono	10.4	88.5	1.1
Bo	28.6	68.8	2.7
Bonthe	22.5	70.0	7.5
Moyamba	39.3	53.6	7.1
Pujehun	53.1	44.8	2.1
Bombali	37.5	62.5	0.0
Koinadugu	22.2	77.8	0.0
Tonkolili	11.1	88.9	0.0
Port Loko	10.7	89.3	0.0
Kambia	18.8	77.1	4.1
Western Urban	37.5	62.5	0.0
Western Rural	62.	37.5	0.0

4.1.5 Diagnostic Capacity

Provision of diagnostic services is very much essential for clinical decision-making and enhancing delivery of quality healthcare services. In reviewing the information on diagnostic capacity at health facilities according to MOHS Basic Package of Essential Health Services for Sierra Leone (2010), health facilities are required to offer various types of diagnostic tests. Normally, health facilities are required to carry out certain basic diagnostic test which includes: clinical diagnosis for pregnancy, identifying and screening for danger signs during pregnancy, screening for pre-eclampsia or hypertension and screening for anaemia among others.

The result shows that over eighty percent of the respondents confirmed that pregnancy diagnosis, identifying/screening for danger signs, screening for pre-eclampsia or hypertension, screening for anaemia, and screening for RPR/HIV and STIs management are effective at health facilities whilst 40.3 percent of the service providers acknowledged that management of incomplete abortion (manual vacuum aspiration) is effective at the facilities.

Table 14: Proportion of Facilities with Diagnostic Capacity

Diagnosis types	Frequency	Percent of Responses	Percent of Cases
Diagnose pregnancy	128	19.9	95.5
Identify/ Screen for danger signs	128	19.9	95.5
Screen for pre-eclampsia or hypertension	114	17.7	85.1
Screen for anaemia	111	17.2	82.8
Screen (RPR/HIV) and manage STIs	109	16.9	81.3
Manage incomplete abortion (Manual Vacuum Aspiration)	54	8.4	40.3

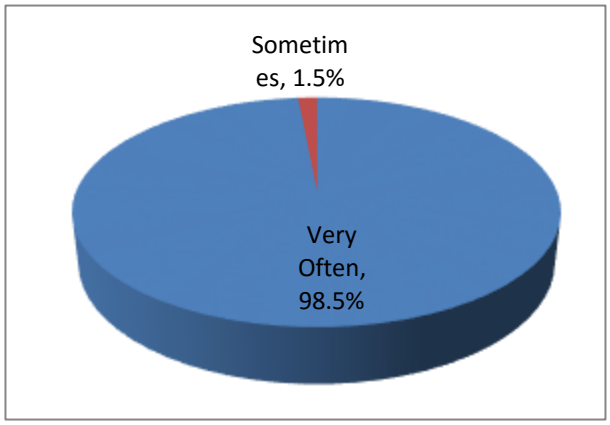
Table 14 below shows the proportion of respondents acknowledging the effectiveness of basic diagnosis capacity across the districts.

Table 15: Proportion of Facilities with Diagnostic Capacity by District

District	Diagnose pregnancy	Identify/ Screen for danger signs	Screen for pre-eclampsia or hypertension	Screen for anaemia	Screen (RPR/HIV) and manage STIs	Manage incomplete abortion (Manual Vacuum Aspiration)
Kailahun	11.2	11.2	10.4	8.2	8.2	3.0
Kenema	9.0	9.0	8.2	9.0	5.2	0.7
Kono	6.7	6.7	4.5	6.0	8.2	2.2
Bo	11.2	11.2	9.7	6.7	4.5	2.2
Bonthe	8.2	8.2	6.0	4.5	6.0	3.7
Moyamba	6.0	6.0	5.2	4.5	3.7	4.5
Pujehun	9.0	9.0	9.0	9.0	8.2	2.2
Bombali	9.0	9.0	8.2	9.0	9.0	2.2
Koinadugu	6.0	6.0	5.2	6.0	6.0	1.5
Tonkolili	3.7	3.7	3.0	4.5	6.7	3.0
Port Loko	5.2	5.2	5.2	5.2	5.2	5.2
Kambia	4.5	4.5	4.5	4.5	4.5	3.7
Western Urban	4.5	4.5	4.5	4.5	4.5	4.5
Western Rural	1.5	1.5	1.5	1.5	1.5	1.5
TOTAL	**95.5**	**95.5**	**85.1**	**82.8**	**81.3**	**40.3**

4.1.6 Service Providers' Feedback on Ante Natal and Post-Natal Care Services

Ante- Natal Care: Antenatal care (ANC) is the gateway for maternal, newborn, and child health care services. Antenatal care is considered as an opportunity for a mother and her child to interact with the health care system. The provision of ANC by a trained health service provider is to a large extent intended to monitor the status of a pregnancy, identify any complications associated with the pregnancy, and prevent adverse pregnancy outcomes. To be most effective, there should be regular ANC visit by pregnant women throughout their pregnancy.



Health service providers were asked how often pregnant women in the facility catchment area visit facilities for ANC services. Result shows that 98.5 percent of the service providers acknowledged that

pregnant women very often visit health facilities for ANC service while a small proportion (1.5 percent) of the service providers reported that pregnant women sometimes visit health facilities for ANC services.[11]

The result also revealed that in the Districts, Kailahun and Pujehun, pregnant women sometimes visit health centers for ANC services whilst all the respondents in the other districts confirmed that pregnant women very often pay visit at health facilities for ANC services. Table 15 below depict the percentage of health service providers that stated how often pregnant women visit health center for ANC service.

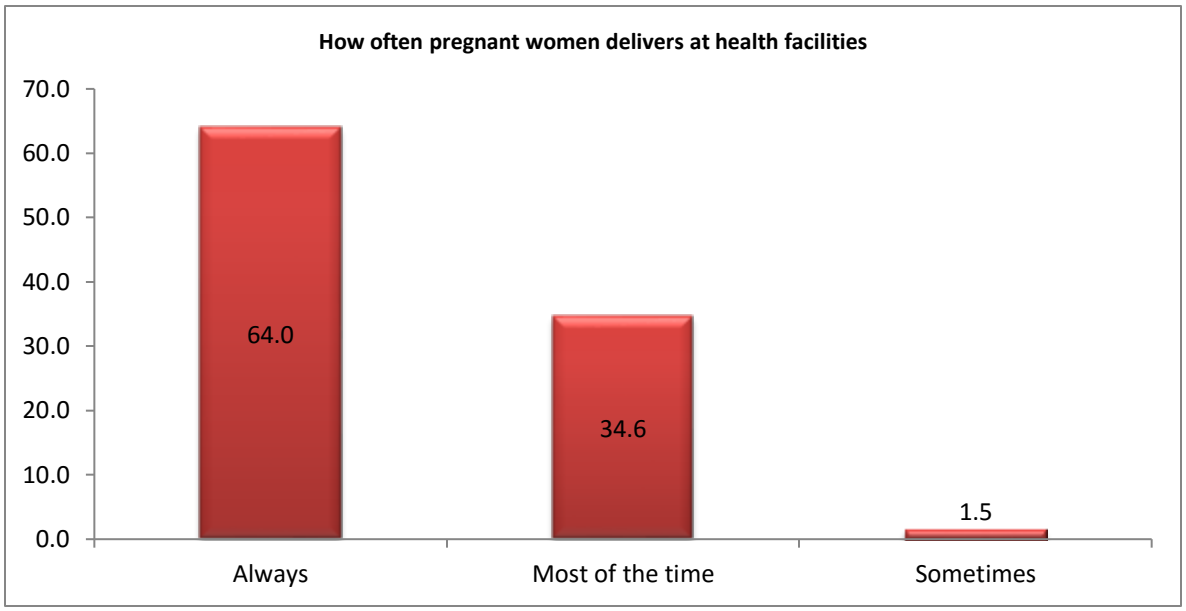
Table 16: Frequency of Anti Natal Care Services visit of Pregnant Women to Health Facility by District

District	Very Often	Sometimes
Kailahun	93.3	6.7
Kenema	100.0	0.0
Kono	100.0	0.0
Bo	100.0	0.0
Bonthe	100.0	0.0
Moyamba	100.0	0.0
Pujehun	91.7	8.3
Bombali	100.0	0.0
Koinadugu	100.0	0.0
Tonkolili	100.0	0.0
Port Loko	100.0	0.0
Kambia	100.0	0.0
Western Area Urban	100.0	0.0
Western Area Rural	100.0	0.0

The KAP survey further investigated to know how often pregnant women in the communities do deliveries at health facilities. Overall, 64.0 percent of the health workers interviewed acknowledged that pregnant women in the communities always deliver at health facilities while 34.6 percent claimed that most of the time pregnant women in the communities deliver at the health facility. Small proportion (1.5 percent) of the respondents reported that pregnant women in the communities sometimes deliver at health facility.

[11] Diagnose pregnancy (Clinic diagnosis), Identify/ Screen for danger signs (including swollen feet, bleeding, short height), Monitor growth of foetus (Height of fundus), Give prophylactic iron, folic acid, and multivitamins, Screen for pre-eclampsia or hypertension, Screen for anaemia etc

Chart 8: Frequency of Deliveries at Health Facilities



In-depth analysis shows that all the respondents in the Western Rural confirmed that pregnant women always do deliveries at health facilities while over 80 percent of the respondents in Kailahun, Kenema, Bo, Pujehun, Bombali and Western Urban districts acknowledged that pregnant women always do deliveries at health facilities. All the respondents in Port Loko and Kambia claimed that pregnant women most of the time deliver at health facilities. Bonthe, Moyamba, Koinadugu and Tonkolili Districts show significant proportion of respondents claiming that pregnant women most of the time deliver at health facilities.

Table 17: Frequency of Anti Natal Care Services visit of pregnant women to Health Facility by District

District	Always	Most of the time	Sometimes
Kailahun	93.3	6.7	0.0
Kenema	83.3	16.7	0.0
Kono	75.0	25.0	0.0
Bo	93.3	6.7	0.0
Bonthe	45.5	54.5	0.0
Moyamba	25.0	75.0	0.0
Pujehun	91.7	8.3	0.0
Bombali	83.3	8.3	8.3
Koinadugu	44.4	55.6	0.0
Tonkolili	11.1	77.8	11.1
Port Loko	0.0	100.0	0.0
Kambia	0.0	100.0	0.0
Western Urban	83.3	16.7	0.0
Western Rural	100.0	0.0	0.0
TOTAL	**64.0**	**34.6**	**1.5**

Post-Natal Care: Post –Natal Care (PNC) is also very much crucial for women and their newborn child. Lack of provision of proper PNC after the first six weeks of delivery may result to death or disability as well as missed opportunities to promote healthy behaviours, affecting women, newborns, and children.

The survey investigated the preparedness of health facilities in discharging PNC services. Five basic PNC services were explored. The result shows that all (100 percent) of the healthcare service providers acknowledged that thy provide postnatal vitamin A, 98.5 percent of the respondents claimed that they do issue prophylactic iron and acid to newborn babies whilst 81.2 percent acknowledged that they do detect and manage anaemia. Significant proportion (79.7 percent) of the respondents reported that they do carry out test to detect and manage urinary tract infection at their facility. Slightly over half (51.1 percent) of the respondents claimed that they do manage constipation and hemorrhoids at their facility.

Table 18: Percent of case of health facilities providing the types of PNC Services

PNC Services	Frequency	Percent of Responses	Percent of Cases
Give postnatal vitamin A	133	17.4	100.0
Give prophylactic iron and folic acid	131	17.1	98.5
Detect and manage anaemia	108	14.1	81.2
Detect and manage urinary tract infection	106	13.9	79.7
Manage nipple or breast pain	92	12.0	69.2
Manage constipation and haemorrhoids	68	8.9	51.1
Counsel on birth spacing	127	16.6	95.5

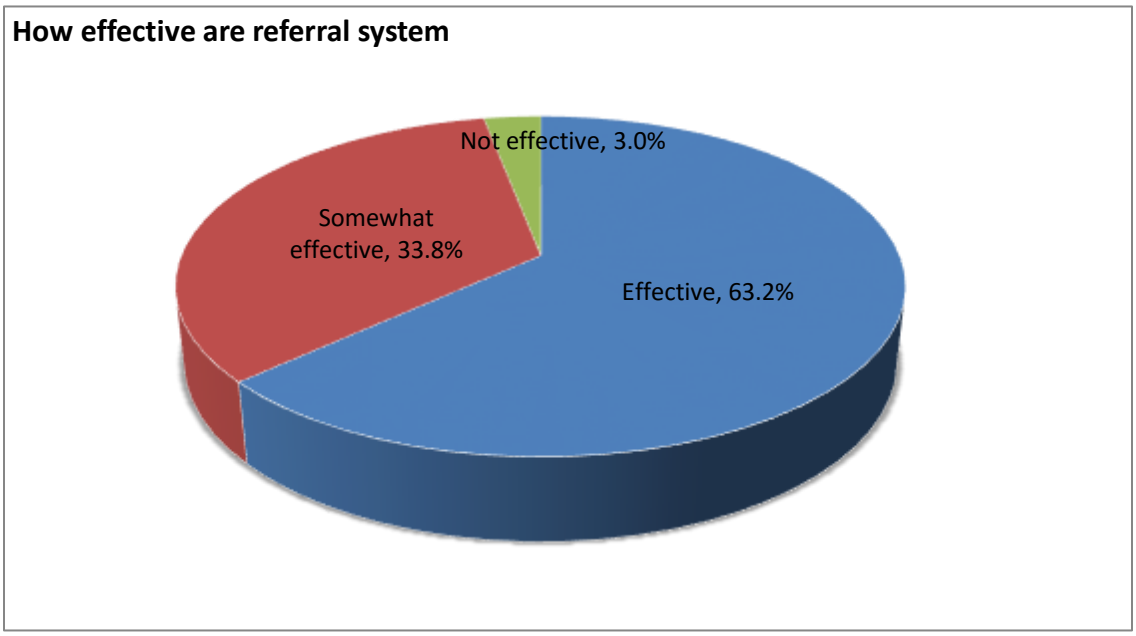
4.2. Effectiveness of Healthcare Service Delivery

Respondents were asked how effective are certain health related functions at the facilities. These functions include referral systems, health supervision and monitoring, interventions relating to family planning, intervention relating to the prevention of HIV/AIDS and other sexually transmitted infections and EPI interventions. These above mentioned functions were used as proxy to rate the effectiveness of health service delivery**.**

4.2.1 Effectiveness of Referral Systems

An effective referral system ensures a close working relationship between all levels of the healthcare system and helps to ensure people receive the best possible health care services closest to their homes. It also assists in making cost-effective use of hospitals and primary health care services. Not all health facilities have the required cadre of staff and equipment to handle certain health cases and in some instances referral of cases are proffered. Health service providers were asked if they usually do referrals of health case at the facilities. Result shows that 99.3 percent of the respondents confirmed that they do usually do health referral cases. Majority (63.2 percent) of the respondents rated the referral systems at their PHUs as effective while 33.8 percent of the respondents stated that the referral systems are somewhat effective. Some proportion (3.0 percent) of the respondents claimed that the referral systems are not effective.

Chart 9: Effectiveness of Health Care Referral Systems

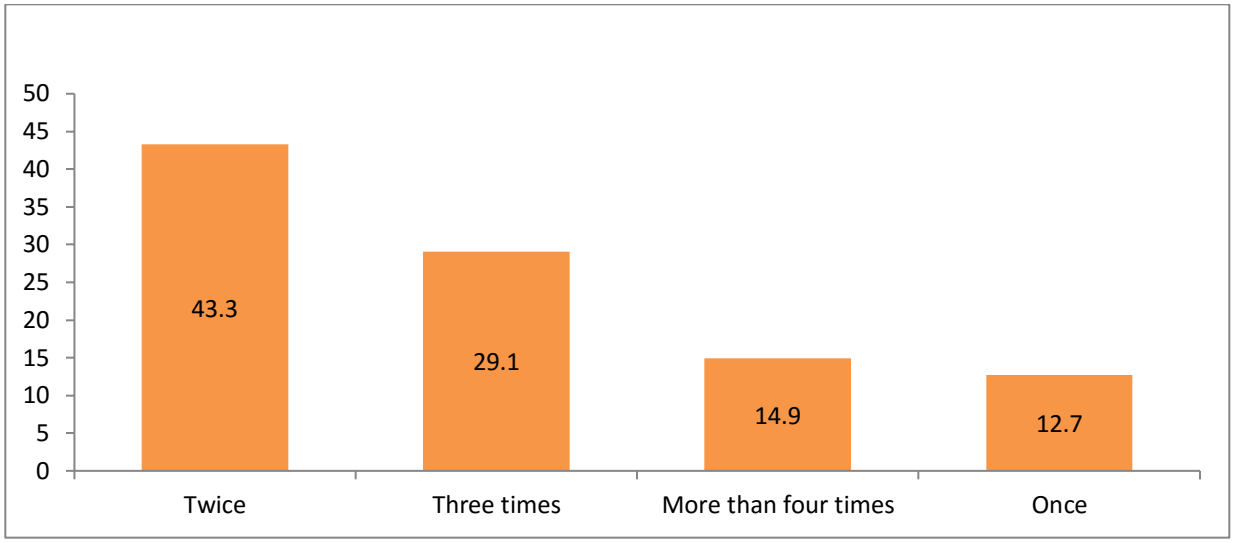


4.2.2 Effectiveness of Monitoring and Supervision System

Supervision of health workers by DHMT helps to promote adherence to health service delivery standards and also to identify problems that contribute to poor services delivery at facilities. Health service providers were asked how many times members of the DHMT visited their facilities in last three months prior to the survey for supervision and monitoring purposes.

Chart 10 below shows that 43.3 percent of the respondents stated that members of the DHMT visited their facilities for monitoring and supervision purposes twice during the last three months prior to the survey while 12.7 percent of the respondents claimed that members of the DHMT visited their facilities for monitoring and supervision only once in the last three months.

Chart 10: Proportion of District Health Management Team Reporting the Number of Visits to Health Facilities in the Last Three Months



Further analysis shows that 83.3 percent of the respondents in the Western Rural District reported that the DHMT visited their facilities only once in the past three months whilst a small percentage of respondents in Kailahun District claimed that the DHMT visited their facilities only once in the past three months. Majority (75.0 percent) of the respondents in Kenema District expressed that the DHMT paid monitoring and supervision visit to their facilities twice in the past three months prior to the survey. Bombali District shows significantly proportion (58.3 percent) of respondent, which stated that DHMT visited their facilities three times in the last three months for monitoring and supervision purposes followed by Bonthe District with a percentage respondent of 54.5 percent. Kono, Moyamba and Bombali districts are showing significant proportion (25.0 percent) of respondents that acknowledged that members of the DHMT visited their facilities more than four times in the last three months prior to the survey.

Table 19: Percentage of PHUs reporting the frequency of DHMT pays Monitoring and Supervision Visit by Districts

District	Once	Twice	Three times	More than four times
Kailahun	6.7	60.0	20.0	13.3
Kenema	0.0	75.0	16.7	8.3
Kono	0.0	41.7	33.3	25.0
Bo	13.3	66.7	13.3	6.7
Bonthe	0.0	45.5	54.5	0.0
Moyamba	37.5	25.0	12.5	25.0
Pujehun	0.0	50.0	33.3	16.7
Bombali	8.3	8.3	58.3	25.0
Koinadugu	22.2	33.3	22.2	22.2
Tonkolili	0.0	33.3	44.4	22.2
Port Loko	20.0	20.0	40.0	20.0
Kambia	16.7	33.3	33.3	16.7
Western Urban	83.3	16.7	0.0	0.0
Western Rural	50.0	50.0	0.0	0.0

4.2.3 Effectiveness of Family Planning Interventions

Family planning interventions are important for maternal and child healthcare. It is also a key element in upholding reproductive rights. Therefore, wherever maternal health, reproductive health, or child health services are provided, facilities should endeavor to increase appropriate family planning interventions and contraceptive services and also provide client education.

Almost all (99.3 percent) of the service providers interviewed acknowledged that they provide family planning services at the facilities. The result shows a large proportion (94.9 percent) of the respondents stated that counseling on informed choice is effective while 91.2 percent of the respondents expressed that the distribution of oral contraceptives and explaining their uses is effective. The insertion and removal of IUD was recorded as the least effective FP interventions at facilities.

Table 20: Percentage of PHUs providing various Family Planning Interventions

Interventions	Frequency	Percent of responses	Percent of Cases
Counsel on informed choice	129	11.7	94.9
Distribute Oral Contraceptives and explain their use	124	11.3	91.2
Education of adolescents on reproductive health at all levels	119	10.8	87.5
Administer Depot Provera and explain its use	116	10.6	85.3
Syndromic management of STIs for women	116	10.6	85.3
Syndromic management of STIs for men	113	10.3	83.1
Supportive services to adolescents seeking advice and care	113	10.3	83.1
Education of adolescents on family life skills at all levels	110	10.0	80.9
Distribute male & female condoms and explain their use	105	9.6	77.2
Insert & remove IUD and explain its use	54	4.9	39.7

4.2.4 Effectiveness of Expanded Programme on Immunization (EPI)

Health service providers were asked if they carry out EPI activities at their facilities. The result shows that almost all (99.3 percent) of the service providers interviewed admitted that they do carry out EPI activities at their facilities. Eight EPI activities were investigated. This include Information, Education and Communication (IEC), Behaviour Change Communication (BCC), Routine and Outreach immunization, Supplemental Immunization (EPI plus), Mobile services to communities outside the facility catchment areas, and Surveillance and case reporting of Immunizable diseases. The survey investigated the effectiveness of these EPI activities. The result shows that a significant proportion (96.2 percent) of the respondents stating that Information, Education and Communication is effective. Over 80 percent of the service providers expressed that routine and outreach immunization, BCC, Supplemental Immunization (EPI plus), and Surveillance and case reporting of Immunizable diseases are effective. A significant proportion (72.9 percent) of the respondents acknowledged that mobile services to communities outside of facility catchment area as the least effective EPI activity.

Table 21: Effectiveness of Expanded Programmes in Immunization activities at PHUs

EPI Activity	Frequency	Percent of responses	Percent of Cases
Information, Education and Communication (IEC)	128	18.2	96.2
Routine and outreach immunization	124	17.7	93.2
Behaviour Change Communication (BCC)	121	17.2	91.0
Supplemental immunization (and EPI plus)	119	17.0	89.5
Surveillance and case reporting of Immunizable diseases	113	16.1	85.0
Mobile services to communities outside of facility catchment areas	97	13.8	72.9

4.3 Service Providers' Feedback on Existing Opportunities and Constraints

The survey sought to know the existing skills the health workers have at the facilities that gives them advantage in carry out their duties. Five basic skills were investigated by the survey which include communication, cultural competence, training, professional experience and educational skills.

From the result, over 90 percent of the service providers (in-charges) interviewed rated communication skills, cultural competence, training, and education skill of health workers at health facilities as excellent while 88.2 percent of the respondent rated the professional skill of health workers as excellent.

Table 22: Service Providers' Feedback on Various Skills at PHUs

Skills	Frequency	Percent of Responses	Percent of Cases
Cultural competence skills	135	21.0	99.3
Communication skills	133	20.7	97.8
Training Skills	129	20.0	94.9
Education	127	19.7	93.4
Professional experience	120	18.6	88.2

The survey gauged the views of health service providers what they considered as bottlenecks in health service delivery. The KAP survey assessed nine indicators as bottlenecks to health service delivery.

The result revealed that majority (73.5percent) of the respondents expressed the availability of essential equipment as bottleneck to quality service delivery while 72.8 percent of the respondents claimed that the availability of required trained cadre of health workers as a bottleneck to health service delivery at facilities. Proper waste management system was considered the list 16.9 percent of the respondents as a bottleneck for service delivery.

Table 23: Bottlenecks to Healthcare Service Delivery at PHUs

Bottlenecks	Frequency	Percent of Responses	Percent of Cases
Required essential equipment	100	20.1	73.5
Availability of required trained cadre of health workers	99	19.9	72.8
Availability of essential drugs/medicine in stock	81	16.3	59.6
Availability of water	62	12.4	45.6
Referral services	54	10.8	39.7
Availability of consumables and supplies	53	10.6	39.0
Supportive supervision	26	5.2	19.1
Proper Waste management system	23	4.6	16.9

Further analysis reveals that Bo District shows the highest proportion (1.0 percent) of respondents that considered the availability of required essential equipment as bottleneck to healthcare service delivery while in Bonthe District the respondents did not considered the availability of essential equipment as bottleneck to healthcare service delivery. The availability of required trained cadre of health workers was also assessed as a bottleneck to healthcare service delivery where Kailahun and Bo Districts shows comparatively the highest percentage of respondents expressing the availability of required trained cadre of health workers at facilities as bottleneck to healthcare service delivery.

According to the result, Kailahun District shows the highest proportion (10.3 percent) of respondents claiming that the availability of essential drugs/medicine in stock as a bottleneck to healthcare service delivery while respondents in Tonkolili District did not consider the availability of essential drugs/medicine in stock at facilities as bottleneck to healthcare service. Comparatively, a significant proportion (6.6 percent) of respondents in Kailahun and Bonthe Districts expressed the availability water at facilities as a bottleneck to service delivery. Considering referral services as a bottleneck, majority (8.1 percent) of the respondents in Pujehun and Kailahun Districts considered referral services as a bottleneck to service delivery. The availability of medical consumables and supplies was also assessed as a bottleneck to healthcare service delivery and Pujehun District recorded the highest percentage (5.9 percent) of respondents considered the availability of medical consumables and supplies at facilities as a bottleneck to service delivery.

Table 24: Bottlenecks to Healthcare Service Delivery at PHUs by Districts

District	Required essential equipment	Availability of required trained cadre of health workers	Availability of essential drugs/medicine in stock	Availability of water	Referral services	Availability of consumables and supplies	Supportive supervision	Proper Waste management system
Kailahun	9.6	9.6	10.3	6.6	8.1	5.1	4.4	2.9
Kenema	7.4	6.6	5.1	4.4	6.6	3.7	2.2	2.9
Kono	4.4	7.4	0.7	0.7	5.1	3.7	0.7	0.7
Bo	11.0	9.6	9.6	5.1	4.4	2.2	1.5	2.9
Bonthe	0.0	0.7	1.5	6.6	2.2	0.7	0.0	0.0
Moyamba	2.2	0.7	2.2	2.9	1.5	0.7	0.0	0.7
Pujehun	6.6	6.6	6.6	5.9	8.1	5.9	4.4	2.9
Bombali	6.6	6.6	6.6	5.1	1.5	4.4	0.0	0.7
Koinadugu	5.9	6.6	5.1	3.7	0.0	2.9	3.7	1.5
Tonkolili	5.9	5.1	0.0	0.0	0.0	0.0	0.0	0.0
Port Loko	5.1	5.1	3.7	2.9	0.7	3.7	0.0	0.0
Kambia	4.4	3.7	3.7	0.7	0.0	3.7	0.7	0.7
Western Urban	3.7	3.7	2.9	0.7	1.5	2.2	0.0	0.7
Western Rural	0.7	0.7	1.5	0.0	0.0	0.0	1.5	0.0
TOTAL	**73.5**	**72.8**	**59.6**	**45.6**	**39.7**	**39.0**	**19.1**	**16.9**

The research investigated to know which factors service providers considered as demotivating factors in offering healthcare services. The factors that were investigated includes difficult working conditions, limited training opportunities for staff, no financial incentives and benefits, strained relationship with community, political interference, poor retention of staff, long length of rural posting, lack of proper accommodation for workers, and high workload and long working hours.

From the result, significantly large proportion (71.3 percent) of the respondents claimed that lack of proper accommodation for workers as one of the demotivating factors while 69.1 percent of the respondents acknowledged that difficult working condition as a demotivating factor. Strained relationship with the community was considered the list-demotivating factor, which accounted for 9.6 percent of the respondents.

Table 25: Demotivating Factors to Healthcare Service Delivery at Peripheral Health Units

Demotivating Factors	Frequency	Percent of Responses	Percent of Cases
Lack of proper accommodation for workers	97	18.1	71.3
Difficult working conditions	94	17.5	69.1
Limited training opportunities for staff	74	13.8	54.4
High workload and long working hours	73	13.6	53.7
Long length of rural posting	63	11.8	46.3
No financial incentives and benefits	59	11.0	43.4
Poor retention of staff	43	8.0	31.6
Political interference	20	3.7	14.7
Strained relationships with community	13	2.4	9.6

Further analysis revealed that Kailahun District shows comparatively high proportion (8.8 percent) followed by Kenema District (8.1 percent) of respondents acknowledging that lack of proper accommodation for service providers at PHUs as a demotivating factor while Western Rural show the list proportion (1.5 percent) of respondents expressing lack of proper accommodation as a demotivating factor.

Kailahun and Bo District are showing significant proportion (11.0 percent) of respondents reporting that difficult working conditions as a demotivating factor. Furthermore, Kailahun and Pujehun recorded the highest percentage (2.9 percent) of respondents expressing strained relationship with the communities as a demotivating factor whilst respondents in Kono, Bonthe, Bombali, Koinadugu, and Tonkolili Districts did not considered strained relationship with the communities as a demotivating factor.

Table 26: Demotivating Factors to Healthcare Service Delivery at Peripheral Health Units by Districts

District	Lack of proper accommodation for workers	Difficult working conditions	Limited training opportunities for staff	High workload and long working hours	Long length of rural posting	No financial incentives and benefits	Poor retention of staff	Political interference	Strained relationships with community
Kailahun	8.8	11.0	7.4	8.1	8.8	6.6	5.9	5.1	2.9
Kenema	8.1	7.4	5.1	7.4	5.1	5.1	3.7	1.5	1.5
Kono	2.2	2.9	7.4	0.7	0.0	2.9	1.5	0.0	0.0
Bo	9.6	11.0	8.1	6.6	7.4	2.9	5.9	1.5	0.7
Bonthe	8.1	3.7	2.2	2.2	2.9	4.4	1.5	0.7	0.0
Moyamba	3.7	2.2	2.2	4.4	1.5	3.7	2.2	0.7	0.7
Pujehun	7.4	8.1	6.6	8.1	5.9	6.6	5.9	4.4	2.9
Bombali	5.1	1.5	0.7	3.7	5.1	0.7	0.7	0.0	0.0
Koinadugu	2.2	4.4	0.7	2.9	3.7	1.5	0.7	0.0	0.0
Tonkolili	2.9	3.7	0.7	0.7	0.0	1.5	0.0	0.0	0.0
Port Loko	5.1	5.1	4.4	2.2	0.0	0.7	2.9	0.0	0.7
Kambia	2.9	3.7	3.7	2.9	1.5	0.7	0.7	0.0	0.0
Western Urban	3.7	3.7	4.4	2.9	3.7	4.4	0.0	0.7	0.0
Western Rural	1.5	0.7	0.7	0.7	0.7	1.5	0.0	0.0	0.0
Total	**71.3**	**69.1**	**54.4**	**53.7**	**46.3**	**43.4**	**31.6**	**14.7**	**9.6**

Providers of healthcare services were asked about human resource challenges. The human resource management issues that were investigated by the survey includes inadequate number of trained health professionals at facilities, inequalities in the distribution of available health professionals, low motivation of health workers, poor conditions of service, delay in recruitment and posting, and absence of structured career pathway for most cadres. The result shows that 77.2 percent of the respondents stated that poor conditions of service for health care staff is a major human resource challenge that hampers the effectiveness of health service delivery at PHUs while 72.8 percent of respondents claimed that low motivation of health workers is another serious challenged faced by healthcare workers. Significant proportion (69.1 percent) of respondents

acknowledged that delay in recruitment and posting of staff is a challenge that hinders the effectiveness of health service delivery.

Table 27: Human Resource Challenges to Healthcare Service Delivery

Challenges	Frequency	Percent of Responses	Percent of Cases
Poor conditions of service for health care staff	105	19.5	77.2
Low motivation of health workers	99	18.4	72.8
Delay in recruitment and posting of staff	94	17.5	69.1
Inadequate number of trained health professionals	86	16.0	63.2
Absence of structured career pathway for most cadres	78	14.5	57.4
Inequities in the distribution of available health professionals	76	14.1	55.9

From the result Bo District shows comparatively the highest percentage of respondents claiming that poor conditions of services is a major human resource challenge for health care workers while Western Rural records the least percentage (1.5 percent) of respondent reporting poor conditions of service as a human resource challenge. Low motivation of health workers was recorded as the second major human resource challenge for health staff. Kenema, Kono and Pujehun District expressed significantly high proportion (8.1 percent) of respondents reporting that low motivation as a challenge for health workers.

Table 28: Human Resource Challenges to Healthcare Service Delivery by Districts

District	Poor conditions of service for health care staff	Low motivation of health workers	Delay in recruitment and posting of staff	Inadequate number of trained health professionals	Absence of structured career pathway for most cadres	Inequities in the distribution of available health professionals
Kailahun	10.3	9.6	10.3	8.1	6.6	8.8
Kenema	8.8	8.1	7.4	6.6	5.9	5.9
Kono	8.1	8.1	8.8	8.8	7.4	8.1
Bo	11.0	9.6	9.6	7.4	3.7	8.1
Bonthe	5.9	2.2	0.7	4.4	2.2	2.9
Moyamba	3.7	4.4	2.2	2.9	4.4	0.7
Pujehun	8.1	8.1	8.1	7.4	8.1	6.6
Bombali	0.7	1.5	7.4	0.7	0.7	0.7
Koinadugu	0.0	2.2	3.7	2.9	0.0	0.7
Tonkolili	6.6	6.6	6.6	6.6	6.6	6.6
Port Loko	5.1	2.9	0.0	4.4	3.7	4.4
Kambia	4.4	4.4	0.0	0.7	2.9	1.5
Western Urban	2.9	3.7	3.7	1.5	3.7	0.7
Western Rural	1.5	1.5	0.7	0.7	1.5	0.0
Total	**77.2**	**72.8**	**69.1**	**63.2**	**57.4**	**55.9**

CHAPTER FIVE

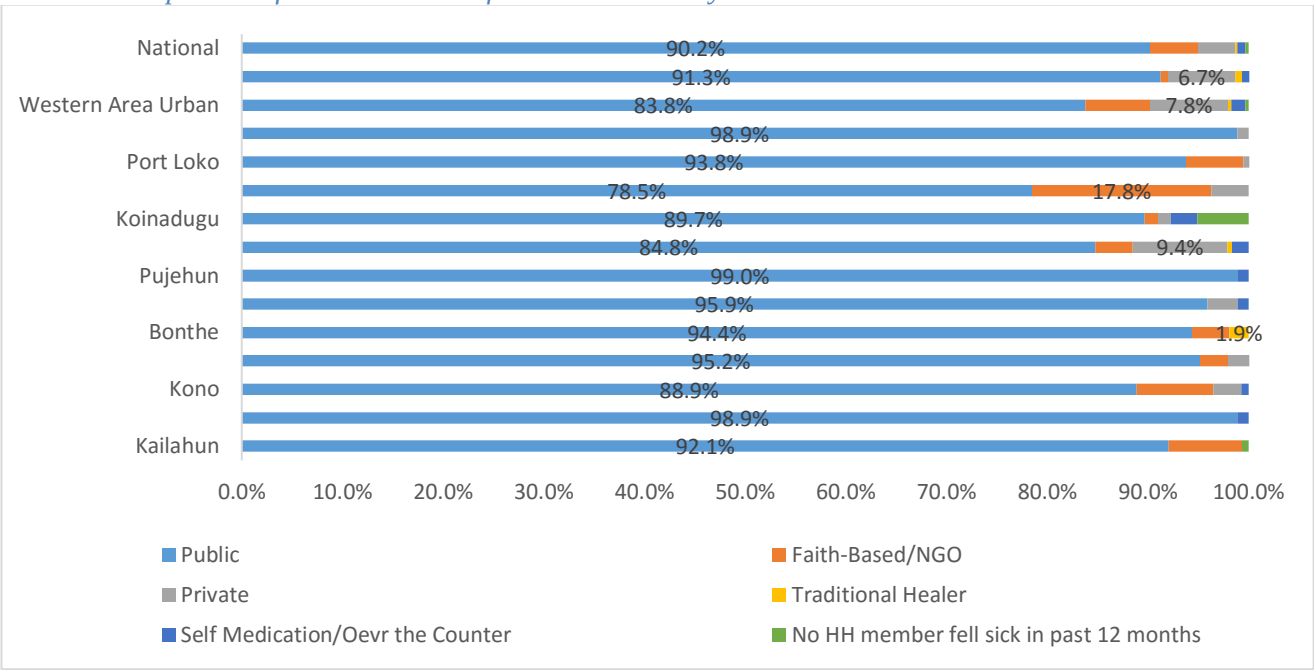
In this section, the report will present the findings of user feedback on health systems services, with particular reference to services accessed from the different provider categories, which includes public, private for profit and not-for profit facilities operated by Non-Governmental Organisations, in the past 12 months. The survey investigated several performance domains of health service delivery in order to build a comprehensive picture of citizens' perception. The following dimensions were investigated:

- Household access to health services
- Household perception on responsiveness and transparency of health services
- Perception of quality of health services

5.1 Household Access to Health Services

Household heads were asked where they and/or other household members had mainly sought health services. i.e. treatment and care, in the 12-month period to the survey. Chart 11 shows that, by far, the majority of household, 90 percent on average, accessed health services from public hospitals and PHUs. However, utilisation of public health facilities varied across districts, with the highest utilisation level observed in Pujehun district, at 99 percent, while the lowest, relatively speaking, was in Tonkolili district at 79 percent. Chart 11 below further reveals that faith-based/NGO operated facilities were being accessed by a minority of households; in Tonkolili, the proportion of the sampled households that used this source as the main provider was minor, but certainly stands out in relation to the other districts- 18 percent. As show in Chart 11, the proportion of households that used the private sector as the main health service provider in the past 12 months was quite marginal, although the results Bombali (9 percent), Western Urban (8 percent) and Western Rural (7 percent) were significant, compared to the other districts.

Chart 11: Proportion of Main Provider of Health Services by District



5.2 Household Perception on Responsiveness and Transparency of Health Services

5.2.1 Responsiveness of Health Services

Household opinion on responsiveness of health services accessed in the past 12 months was elicited from two household representatives: i) household head vis-à-vis to what extent they perceived the main health service provider (to the household) was responsive in the 12-mont period; and ii) main caregiver of children, particularly under-five children, with the focus being on perceived responsiveness of child health services accessed from local health facilities. In order to avoid ambiguity to gauging opinion on this subject, the survey used a scaled item, with a standard statement of the attribute of each item prepared and read to the respondent, who then selected the preferred option[12].

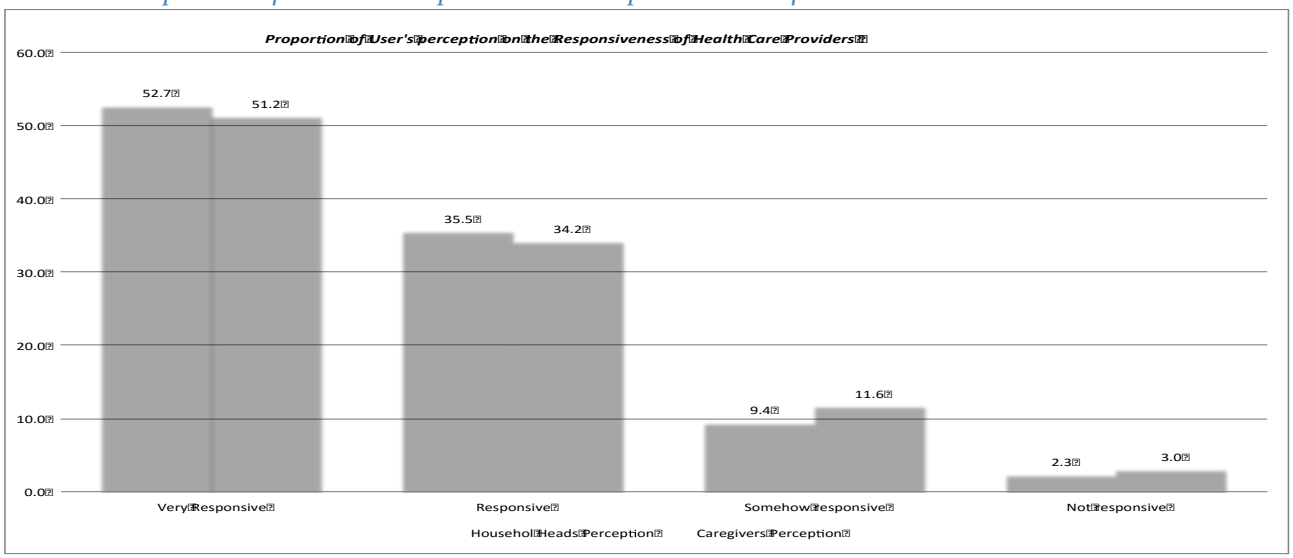
5.2.2 User's Perception on the Responsiveness of Health Care Providers

Chart 12 shows comparable results on perceived responsiveness of health service providers for both household heads and main caregiver to children. Overall, the majority of both respondents rated health services providers as responsive. Over half of the surveyed household heads at 53 percent and caregivers at 51 percent reported that providers were very responsive, i.e. always available to

[12] The applicable options ranged from being very responsive to not responsive. The options were defined as follows: i) Very responsive all the time: provider always available and attended to/provided treatment to household members at every visit in the past 12 months; 2) Responsive most of the time: provider most times available and attended to/provided treatment to household members on most visits but not all; 3) Somehow responsive: provider half the time unavailable to attend/provide treatment to household members at visits in the last 12 months; 4) Not responsive: provider mostly unavailable and/or unable to attend/provide treatment to household members at visits in the past 12 months

attended or provide treatment to them, members of their household, caregivers or Under-Five children at every visit. A very small proportion **2 percent** and **3** percent of household heads and caregivers, respectively, reported the lack of responsiveness of providers.

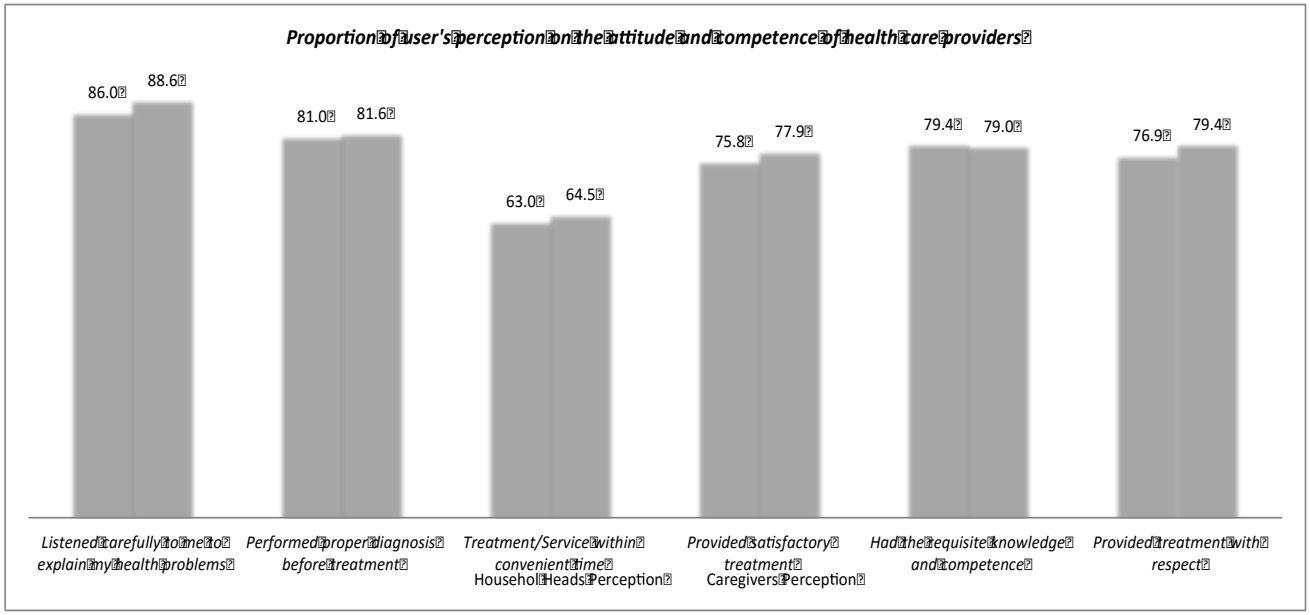
Chart 12: Proportion of User's Perception on the Responsiveness of Health Care Providers



As already indicated, the two attributes that the KAP survey had used to measure responsiveness were: a) the availability of a health worker at the time of visit to the facility; and b) the provision of care/treatment to the household member. The survey therefore investigated household feedback on provider attitude and competence, as further basis for examining the responsiveness dimension.

The survey results noted the perception of health care users on the attitude and competence of service providers on their visit to facilities. About 86 percent of household respondents and 89 percent of caregivers reported that health providers listened to them carefully to understand their medical situation in a bid to assist them. On average, 81 percent households and caregivers intimated the survey team that providers always performed thorough diagnosis to investigate the cause of the ailments at any visit at the facilities. A significant proportion (79 percent) of these respondents reported that providers have the requisite knowledge and competence to perform their works, whilst 78 percent of the users on average noted that provides treated them with the deserved respect. A detailed analysis of the health care users perception of provider's competence and attitude is presented in Chart 13 below.

Chart 13: Users' Perception on the Aptitude and Competence of Health Care Providers



Health care providers Western Area Urban were noted to be more competent with the right attitude to work, as reported 14 percent of users. Users expressed similar sentiments on their ability to diagnose disease before administering treatment, as suggested by 13 percent of households and 12 percent of caregivers in the Western Area. Also, these providers were noted to possess the requisite knowledge and competence as well providing satisfactory treatment and service to users with convenient time. The Table 29 below gives a detailed analysis of user's perception on health care provider's attitude and competency by District.

Table 29: Perception Health Care Provider's Attitude and Competence by District

District	Listened carefully to me to explain my health problems		Performed proper diagnosis before treatment		Treatment/Service with convenient time		Provided satisfactory treatment		Had the requisite knowledge and competence		Provided treatment with respect	
	HH	CG	HH	CG	HH	CG	HH	CG	HH	CG	HH	CG
Kailahun	7.0	7.6	6.9	7.2	6.8	7.2	6.7	7.1	7.6	7.6	7.2	7.4
Kenema	4.8	4.9	4.2	4.2	3.4	3.7	3.4	3.8	3.8	3.7	3.9	4.3
Kono	6.6	6.5	6.8	7.0	3.7	3.8	6.5	6.4	6.5	6.8	6.7	6.7
Bo	7.0	6.5	7.2	6.1	6.9	6.2	7.1	6.4	7.7	6.8	7.3	6.0
Bonthe	1.90	2.1	1.7	1.8	1.5	1.5	1.6	1.4	1.4	1.4	1.9	1.8
Moyamba	4.1	4.1	3.2	3.5	2.6	2.8	3.1	3.6	2.8	3.1	3.9	3.7
Pujehun	4.0	4.5	3.5	3.5	3.9	3.7	4.0	4.7	4.2	4.7	3.5	4.0
Bombali	9.3	9.1	8.3	9.5	7.4	7.3	6.7	6.9	7.6	7.1	7.2	8.1
Koinadugu	3.9	4.1	2.7	2.8	2.4	2.1	2.2	1.8	2.1	1.5	1.8	1.8
Tonkolili	5.9	6.1	6.7	6.8	4.2	4.1	5.9	6.5	6.1	6.4	6.0	6.4
Port Loko	7.9	9.2	8.1	9.0	5.5	6.9	8.4	9.3	8.1	8.9	9.0	9.8
Kambia	4.1	4.6	3.9	3.7	3.1	3.3	3.9	4.1	3.9	4.1	4.3	4.5
Western Area Urban	13.8	13.6	12.6	11.6	8.8	9.2	11.4	11.3	12.5	11.8	10.6	11.4
Western Area Rural	5.9	5.8	5.1	4.9	2.7	2.8	4.9	4.7	5.1	5.1	3.6	3.6

**Note: HH - Households & CG- Care Givers*

The theme of health system responsiveness was further explored through FGD with community representatives-i.e. ordinary men and women, as well as young people who use local health system services. As the data reveals, the conditions and attributes that users associated with a responsive health system, which implicitly revealed what the user desired of the health system, was more extensive than variables that the survey had used to measure responsiveness: i) health worker availability at time of visit; and ii) availability of treatment for the client. The attributes are categorized as follows:

1. ***Health worker factor***: Few critical conditions were linked to this domain. Firstly, it was mentioned across most districts that having a health worker ready and waiting to attend to patients was a key expectation of what local communities perceived as a responsive system. This expectation was held for secondary, as well as primary level health care, including MCHPs: *"In order for us to say that the facility is really responding to our health needs in time … the nurses should be there 24 hours to attend to us, like they do in the hospitals."* ***(FGD Women, 35 Yrs.+, Bo District)***. The second condition, which also emerged from the data, which, perhaps relate to the previous point, was that users expressed the desire for health workers to attend to them on time, without delay, when they make visits to the health facility. Finally, community representatives also cited that health worker attitude and relationship with the community was important in shaping their perception of a responsive health system. A health worker who maintained a good, healthy relationship with the local community, by being friendly, respectful and helpful to them when they came in for health visits were deemed to be more responsive to the needs of service users.

   On the question of whether the health system was actually being perceived as responsive, based on the aforementioned standards, as defined by users, the qualitative evidence is mixed, although there were more positive sentiments expressed on health worker factors, overall. On the positive note, most communities maintained their health workers were attending them to and they also felt being treated with respect. As one FGD discussant pointed out, this was a major incentive to her decision to always returned to the same local facility for health care: *"As for me, and from my own experience with the health centre in this community, I can say they're really doing a good job because they haven't treated me badly since I started coming here when I got pregnant until the time I delivered my child. They will always treat me well, give me and my child sufficient drugs which I will take home and that's what keeps me going there and I'm always willing to go there and receive treatment whenever I am sick."* ***(FGD Young Women, 17-35 Yrs., Bombali District)***. At few communities, though, FGD discussants said (some) health workers at their local facilities were often disrespectful, with one FGD discussant in Kambia saying that nurses at his health facility were arrogant: "*The nurses at our health centre are arrogant."* ***(FGD Men, 35 Yrs.+, Kambia District)***. On the less positive side, an account on the health worker factor was sometimes weakening the responsiveness of health service delivery, not necessarily on purpose. For instance, facilities staffed by a single health worker appear to be failing on providing care to users for the simple reason that the lone health worker is absent from the facility, for whatever reasons, to provide care to the community. An FGD session with men, in Moyamba district, succinctly puts this gap in perspective: *"We only have one health worker here and*

when she is not around, that will be the end of the services until she returns. Or if she falls sick, the facility will be temporally closed down until she recovers." ***(FGD Men, 35 Yrs.+, Moyamba District)***

2. ***Infrastructure***: FGD sessions across many districts indicated that community folks also tied infrastructure, especially basic services (the availability or lack of it) to user judgment on the responsiveness of the local health system. Infrastructure items ranged from availability of delivery room/bed, to water and electricity at the health facility, and in few cases respondents also mentioned staff accommodation. It would seem from the data that users who lacked or did not feel that their local health facility had a specific infrastructure facility were often more likely to talk about it. For instance, the lack of a delivery room (or appropriate delivery bed) was mentioned as weakness at several communities. The absence of a delivery room did not only emerge as an issue for facilities in rural locations, it was also mentioned a few times at sites in urban and peri-urban locations. In Makeni, for instance, FGD discussants noted that because of their local facility did not have a delivery room, women had to be referred to the hospital when they go into labour, leaving them the burden of covering the long distance to get to access delivery services: *"I will also support[13] the issue of the labour room, as most times they will have to refer us to another centre or to the government hospital to go and deliver; if there is a labour room here that will not be the case and when you consider the distance from here to the government hospital, it is really a far distance to cover."(**FGD Young Women, 17-35 Yrs, Bombali District).***

   FGD respondents at sites in many districts mentioned that inadequacies in water supply and electricity services undermined the responsiveness of the local health facility: *"As for me, I want to believe that in order for the local health facility to quickly respond to our health needs, we need electricity at the health centre … As we speak now, we do not have electricity at the facility at all and we really need it for the health centre to function well."* ***(FGD Men, 35 Yrs+, Koinadugu District)***

3. ***Referral services***: At many communities, the importance of having an effective referral services was also cited as a critical condition that a responsive health system must be able to meet. The nature of referral services, as the data would suggest, were often expressed in the context of the health providers being able to provide emergency transportation services for the patient to access advanced care during medical emergencies. In this context, therefore, the role of the ambulance service was prominent in the discussions. Both FGD discussants as well as health management committee representatives at the community level highlighted that ambulance should be available to serve the entire population, not just to prioritise the free health care beneficiaries. It was further stated that sometimes-geographical barriers such as water bodies limited the effectiveness of the ambulance service, which ultimately weakens the overall responsiveness of the health system. The quotations below highlight both points:

[13] A woman gave this response when they were asked the factors that were affecting the responsiveness of the local facility to their health needs.

*"To be responsive, especially to the needs of pregnant women and other emergency cases that occur at night, let them have standby boat to ferry us across the sea, anytime there is emergency. Let them treat emergencies that are outside the Free Health Care as soon as possible and ask for the money later." **(FGD Women, 35 Yrs+, Kambia District).***

*"The health workers are doing their best, but when the ambulance comes to collect patient, they will have to wait at the crossing point until the local ferry comes over to collect them, what do you think will happen to the patient if the person is in a critical situation?" **(KII HMC, Bonthe District)***

4. Safety ***net***: At some communities, the perceived limited safety net that is built in the current system was singled out as a deterrent to having a health system that ensured the needs of vulnerable populations were also looked after. In interviews with community folks, two groups were often mentioned. Firstly, few FGD sessions mentioned that the health needs of the elderly population is not sufficiently prioritised at the moment, and because of this reason, health services do not respond to their needs, as required for their health and wellbeing. The second vulnerable group that was also mentioned was the (very) poor, the users who cannot afford to pay health charges: *"Having the required drugs is also necessary, especially for those that have no source of getting money."* **(FGD Women, 35 Yrs+, Port Loko District)**.

5.2.3 Transparency of Health Services

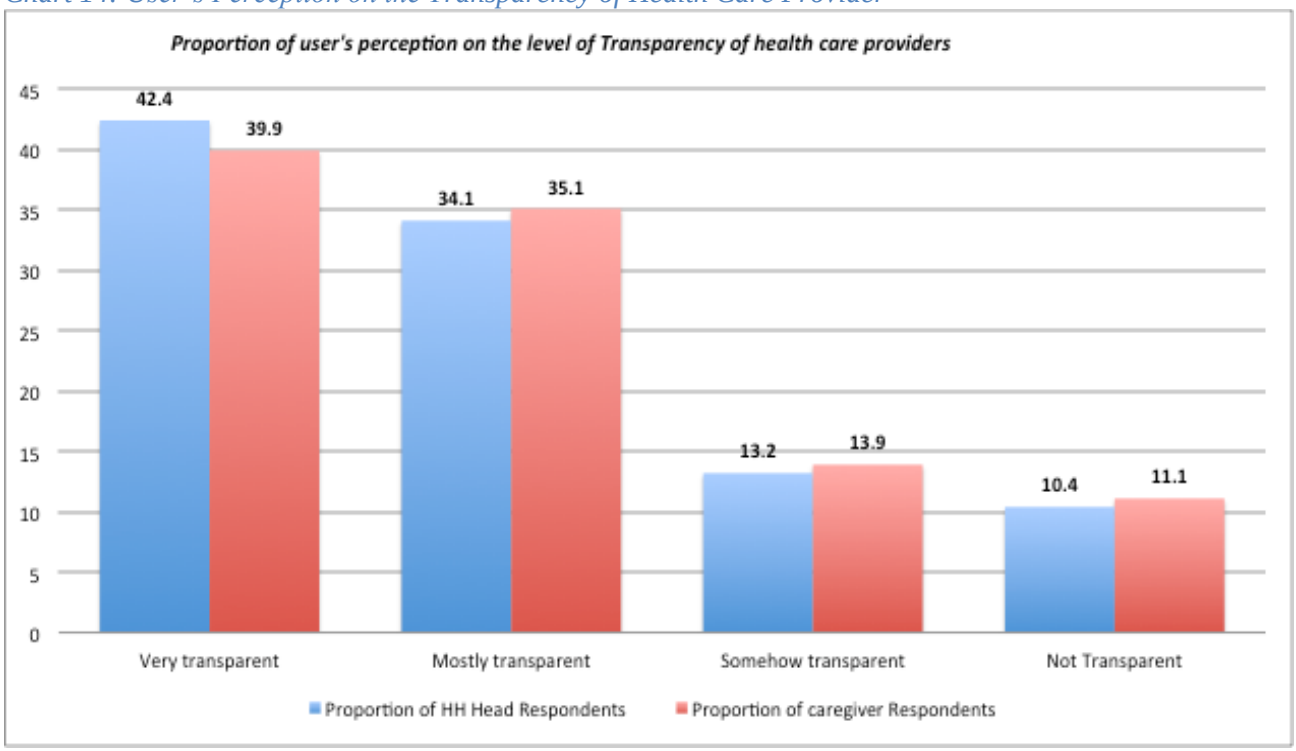
The level of transparency measured as the knowledge or information provided by the health care providers to users on payments made in respect of services supported by payment receipts for treatments or drugs. As with case of responsiveness, the survey team also investigated the level of transparency of service providers measured by the extent to which health providers always explained the full payment of treatment and issued receipt to the exact amount at every visit of household members and caregivers taking under five children to these facilities with the past 12 months.[14]

5.2.4 User's Perception on the level of Transparency of Health Care Provider

About **42 percent** and **40 percent** of household heads and caregivers, respectively reported that health care providers are very transparent; providing a full explanation on the payment of treatment and issued receipt to the exact amount for most health visits. A little over **10 percent** of household heads and **11 percent** caregivers, reported that health care provider are not transparent, as depicted by Chart 14 below.

[14] i) Very transparent: provider always explained the full payment of treatment and issued receipt to the exact amount **at every** visit; (ii) Mostly transparent: provider explaining the full payment of treatment and issued receipt to the exact amount for **most** health visits; (iii) Somehow transparent: provider explaining the full payment of treatment and issued receipt to the exact amount s**ometimes** for health visits; (iv) Not transparent: provider not explaining any payment of treatment and not issued receipt to the exact amount for most/all health visits, in the past 12 months

Chart 14: User's Perception on the Transparency of Health Care Provider



There was an appreciate level of transparency in the Western Urban District relative to other Districts, with **nearly 6 percent** of household heads and caregivers, each noting that providers were very transparent, **7 percent** of both (household heads and caregivers) of providers in same were mostly transparent, by providing detailed information for full treatment and issuing receipts for the exact amount of every visit users make in their facilities. Also, **3 percent of household heads and nearly 4 percent** of caregivers in Western Urban reported that health care providers were somehow transparent while 4 percent of the respondents (hou1sehold and caregivers) in Bombali District noted that providers are not transparent. Detailed information on the level of transparency by District is provided in Table 29 below.

Table 30: Proportion of Health Care Users' Perception on the Transparency of Health Care Provider by District

Districts	Very Transparent		Mostly Transparent		Somehow Transparent		Not Transparent	
	HH	CG	HH	CG	HH	CG	HH	CG
Kailahun	4.4	4.1	2.2	3.0	0.8	0.6	0.9	0.8
Kenema	2.5	2.7	1.1	1.0	0.6	0.6	0.2	0.1
Kono	4.4	4.1	2.2	2.5	0.6	0.6	0.2	0.1
Bo	4.9	4.3	1.8	1.9	0.6	1.2	0.1	0.0
Bonthe	1.3	1.0	0.5	0.8	0.9	0.9	0.1	0.1
Moyamba	1.1	1.2	2.5	2.7	0.8	0.6	0.5	0.6
Pujehun	1.8	1.7	1.4	2.3	1.4	0.8	0.7	0.4
Bombali	3.6	3.4	2.0	1.2	0.6	1.0	3.5	4.2
Koinadugu	1.5	1.4	1.6	1.2	0.5	1.0	0.5	0.4
Tonkolili	3.4	3.3	2.4	2.5	0.8	0.8	0.3	0.3
Port Loko	3.3	3.5	4.7	4.4	0.8	0.8	0.2	0.3
Kambia	2.1	2.2	1.7	1.8	0.7	0.3	0.1	0.3
Western Area Urban	6.3	5.5	7.0	6.6	3.0	3.9	1.3	1.7
Western Area Rural	1.8	1.5	2.7	3.1	1.3	0.9	1.9	2.1

**Note: HH - Households & CG- Care Givers*

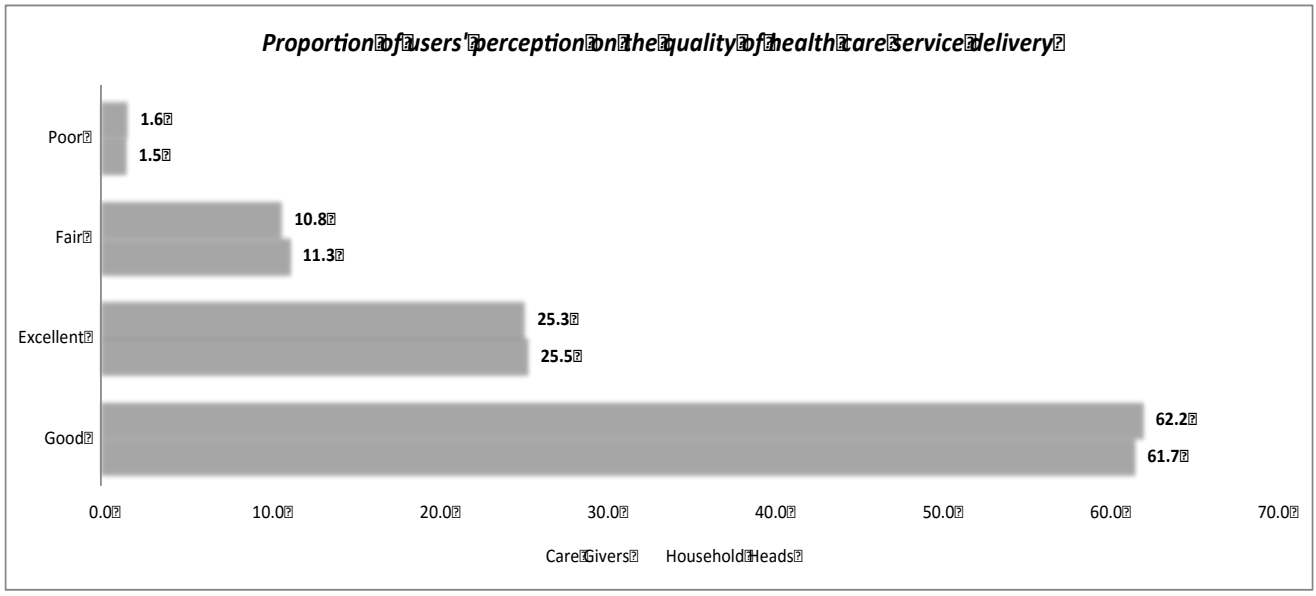
In exploring transparency issues in health service delivery, the qualitative evidence generally evolves around one major theme: the confusion around cost recovery drugs on the one hand and FHC drugs on the other: *"Most times we are asked to pay for the free health drugs and we do not know the difference between the free health care drugs and that of cost recovery drugs"* ***(FGD Men, Kono District).*** This issue cuts across districts and respondent groups, and it does seem that users often have the suspicion that health workers do classify FHC drugs under cost recovery, which leaves them no choice but to pay out of pocket for drugs, even when the patients qualify for the FHC coverage. Users said that running cost recovery parallel to the FHC often creates the situation where health workers would prescribe the drug to a FHC beneficiary, but then say the drugs are unavailable in the FHC package and if they wanted to have it they could buy from cost recovery. Because of this transparency concern, many respondents called for a significant increase in FHC monitoring at two levels. Firstly, they recommended for a more broad based partnership to FHC monitoring, whereby government, civil society organisations and local community representatives will intensify FHC implementation at the service delivery point. Secondly, respondents also suggested for government to pay closer attention to hospital pharmacies in order to minimize the conversion of FHC drugs into cost recovery items.

5.3 User Satisfaction on the Quality of Health Services

The household survey further asked both household heads and main caregivers to under-five children their opinion on the overall quality of health services received in the 12-month period to the KAP survey. Chart 15 shows that about a quarter (**25 percent**) of both household heads and caregivers interviewed noted that quality of the health services delivered by the facilities to which they access health care were excellent. Similarly, **62 percent** of both household heads and caregivers also acknowledged that the health care services were good, whilst **11 percent** and **2 percent**, each

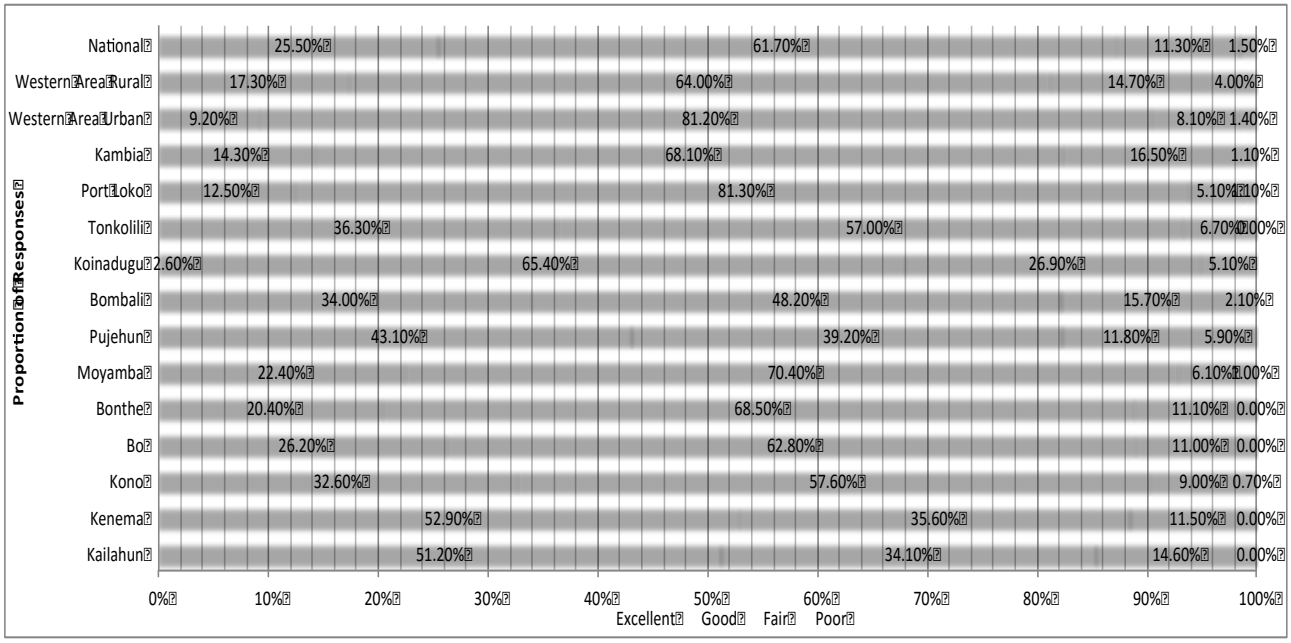
(household heads and caregivers) reported that the quality of the health services delivered were fair and poor, respectively.

Chart 15: Proportion of Health Care User's Perception on the Quality of Health Care Delivery



Across the Districts, over half of the respondents i.e. **52 percent** and **51 percent** in Kenema and Kailahun District, respectively noted that the quality of health services were excellent, with **6 percent** and **5 percent**, reporting poor quality of services in Pujehun and Koinadugu Districts, respectively. The Chart 16 below provides a detailed analysis of the household heads feedback on the quality of the health care services delivered by District.

Chart 16: Proportion of Health Care User's Perception on the Quality of Health Care by District



Analysis of the perception of Caregivers across the Districts shows that, about **4 percent** reported excellent services, in Kailahun and Bombali Districts, nearly **14 percent** and **7 percent**, respectively in Western Urban and Port Loko noted good quality services, and less than one percent (**0.5 percent**) reporting poor services in the Western Urban.

Survey data shows that users were generally satisfied with the quality of health services that they had accessed in the past 12 months. When this theme was further investigated from a qualitative perspective, the findings were less positive and not always consistent with the survey results. On the one hand, the respondents sampled for community level FGDs and KIIs expressed broad satisfaction with health systems services in the last 12 months. This was often linked to two factors: i) the existence of the free health care for pregnant women, lactating mothers and under-five children; and ii) the relationship respondents had with the medical personnel working at the health facility.

However, the respondents unpacked very specific issues that also hinted at dissatisfactions with specific aspects/elements of health service delivery. While those issues did not necessarily imply an overall lack of satisfaction with service delivery, they did highlight existing issues and bottlenecks that users deal with on regular basis. The report has organised these issues into the following sub-headings:

1. ***Health worker factor***: There was a lot of stories of being told by community representatives that health workers were anticipating/demanding payment for all sorts of services, ranging from pregnancy and delivery care, to expecting financial incentives (as handshakes) from users for simply doing their work. The data conveyed the impression that sometimes, users felt that some health workers were prioritising money over patient care and perhaps patient life. Narratives were told of health facilities charging pregnant women fees for purchase of exercise books and registration, charging separate delivery fee for birth (higher fees are charged for boys), asking parents to buy drugs for under-five children, etc. Aside from charging payment, other health worker related issues that emerged from discussions were that at some communities; the respondents believed that the local health facility was supplying free health care drugs, as well as food supplements, such as the corn soya beans, to the open market. At one location, in Kambia, focus group discussants also mentioned that the staffs at their local health facility were also employed at the private clinic in the same locality, and their experience was that the health workers were more concentrated on providing care at the private clinic. The following quotations illustrate the array of issues on health worker practices that does not seem to be supporting user satisfaction and trust in the public health system:

   "They request for money or blood when you have transfusion or Caesarean Section operation and blood is sold at Le ***90,000, Le 100,000, Le 200,000, Le 250,000, Le 500,000****/pint; it has no definite price. They refer you to the checkpoint pharmacy."* ***(FGD Women, Kambia District)***

*"Some of the things that we are not satisfied with when it comes to the health centre is that, if you happen to go there with an under five child, you will not spend less than eighty thousand Leones. Just to do lab test you will need a lot of money and if you don't have all the money, they will not give you all the result, instead they will just give you the ones you have paid for and hold onto the rest until you finished payment. We really need the help of government to look into some of these issues because I'm very much dissatisfied with such behaviour of the nurses." **(FGD Women, Bombali District)***

*They treat us free except we do some adjo/shake hand by giving them **Le 10,000 or Le 20,000**. But there is always difference between us and those that don't shake hands with the nurses. **(FGD Women, Bo District)***

*"There was a time when i went to hospital because a serious problem that is disturbing me in my life. … I have a problem with my stomach and that is taking me to the hospital frequently. When I went there they told me to pay **Le80, 000** just to do the test and I just had with me **Le65, 000**. I had to plead with the lady in the lab that I had only **Le65, 000** and she accepted and took the money from me. Then after the test was out, they directed me again to the doctor to do the prescription for me and the doctor made a prescription of up to a **Le105, 000** and there was nothing left with me again at that time. I told him about it and he told me to leave the test paper with him but I refused and took the paper with me and ran away and went to the private pharmacy and bought all the drugs they had prescribed and it cost less." **(FGD Women, Bombali District)***

2. ***Limited public investment in infrastructure***: At the same time, users across districts identified several infrastructure investment gaps that they believed was hampering service delivery quality and for that reason limiting their overall satisfaction. The poor state of delivery facilities at some health centres, with few facilities not having a delivery bed, was one area of dissatisfaction. The lack of health worker quarters was also a significant concern for the sampled communities that did not have one. Often, the argument was that because of the lack of an accommodation at the facility, the health worker resided in the community, usually at some distance off the facility. This distance then made health workers reluctant to attend to health emergencies at night (including child birth) over fear of safety and security. Also, respondents at few locations also lamented the poor state of the physical infrastructure, including dilapidated building: "*We do not have hospital in this community, because the structure you are seeing will collapse at any time. The walls are crack and there is no ceiling."* **(FGD Men, Moyamba District)**

3. ***Free Health Care implementation***: The qualitative evidence indicates that the FHC is widely known in communities, including the intended target group. This result validates the survey data, which also reported high-level awareness of the policy. However, there were significant gaps relating to the implementation of the FHC. Firstly, across districts, it was mentioned that shortages of FHC drugs were common and that stock outs will last for weeks at health facilities. Often when this happened, health workers simply provided prescriptions to FHC patients to buy cost recovery drugs or from pharmacies; the users d not usually come to the facility expecting to make out of pocket payment. Another source of dissatisfaction with the FHC was that the scheme did not provide sufficient drugs, often the drug supply to patients were limited to Panadol, anti-malaria drugs and syrup. At least in Kambia district, it was also

mentioned that the Guineans were coming in across the border to compete for FHC drugs, thereby depleting the limited stock that is supplied to the facility.

5.4 Means of Accessing Health Facilities

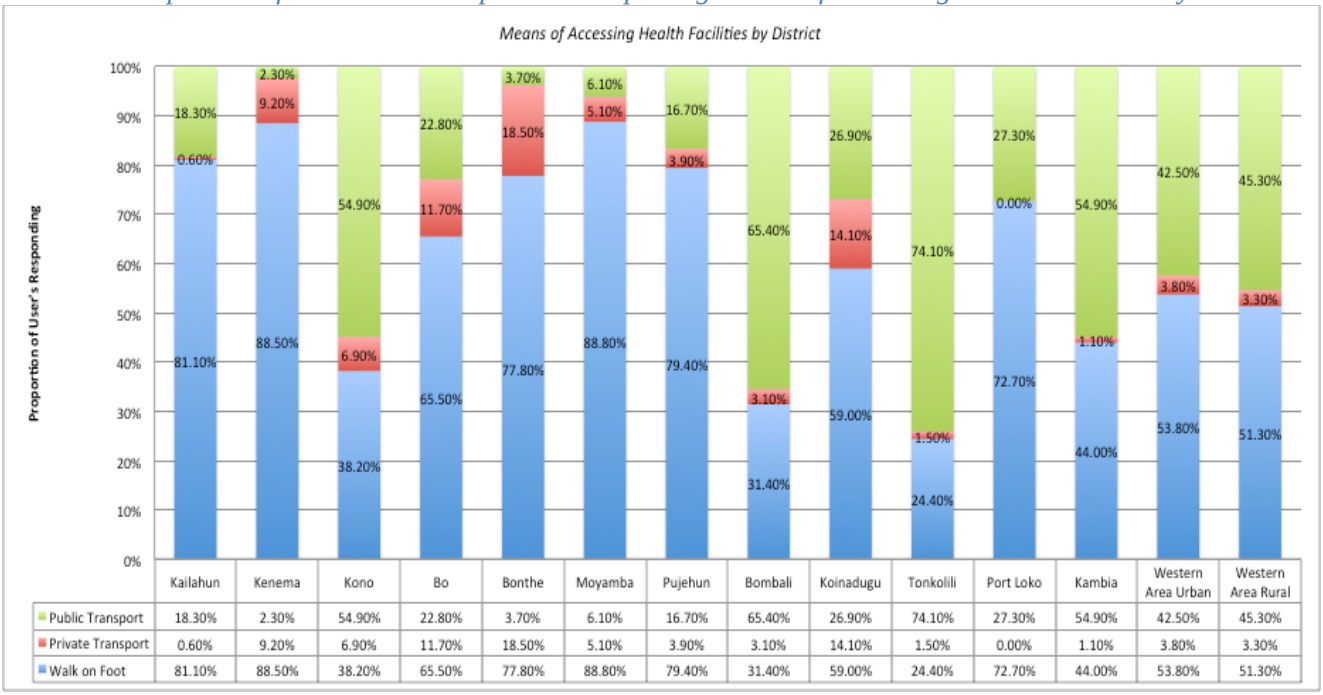
In spite the significant proportion of household heads receipt of health services from Government owned facilities across the country, access to these facilities remain a challenge. Slightly over 45 of these respondents are within walking distances from the facilities, and over half of them (**58 percent**) reported accessing health facilities on foot. Of these, 43 percent are with close-by and within working distance. About 37 percent access facilities with a public transportation means, as nearly 30 percent live far distances from the facilities and therefore require transportation to access these facilities.

Table 31: Proportion of Users' Access to Health Facility by Distance to Health Facility

Access to facility	Close, within walking distance	Not, so close, but still within walking distance	Far & require (public) transportation	Total
Walk on foot	43.1	14.7	0.3	58.1
Private transport	0.4	2.2	2.1	4.7
Public transport	1.9	5.6	29.7	37.1
Total	**45.4**	**22.5**	**32.1**	**100.0**

A very significant proportion of respondents (89 percent) each in Moyamba and Kenema Districts access facilities on foot, which 74 percent and 65 percent access facilities with public transportation means in Port Loko and Bombali Districts, respectively. Private transportation of accessing health facilities is a rarely common means across the District, with 19 percent and 14 percent of household respondents reporting using it in Bonthe District and Koinadugu Districts, respectively. Chart 16 below provides detailed information on the proportion of household respondent reporting means of accessing health facilities by District.

Chart 17: Proportion of Households Respondents Reporting Means of Accessing Health Facilities by District



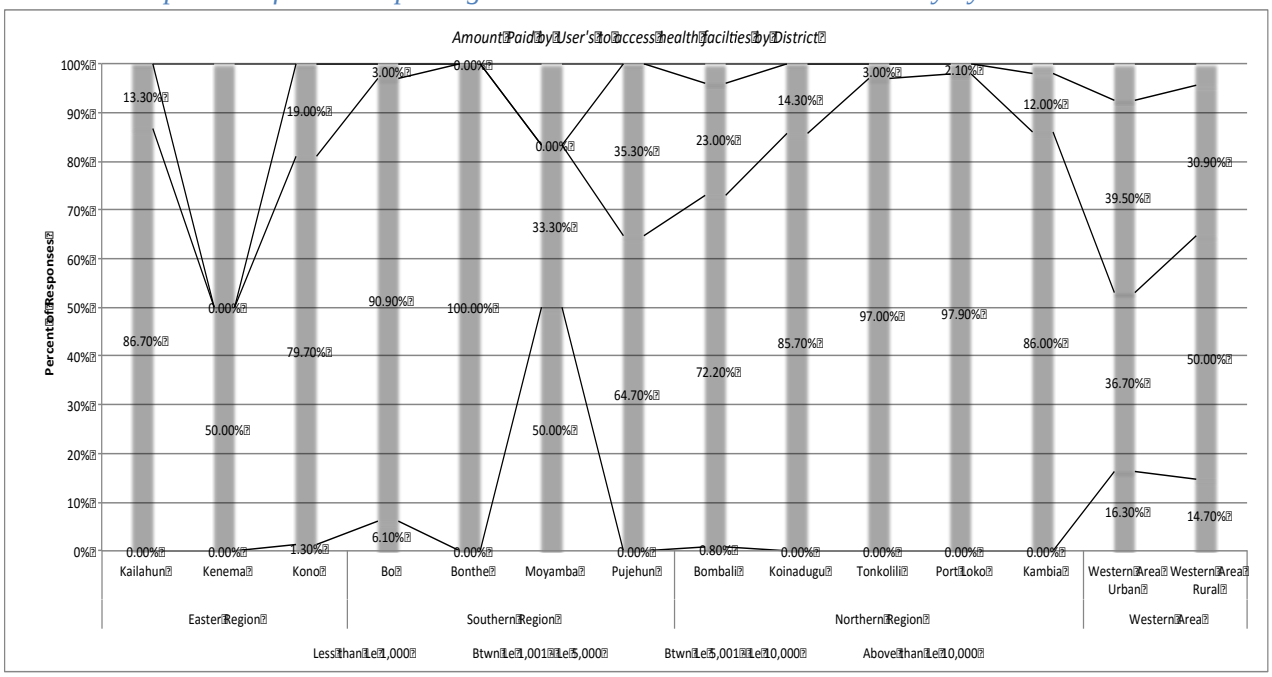
5.5 Amount as Transportation Cost To and From Health Facility

Physical inaccessibility to health facilities is a major obstacle to treatment seeking behaviour, and it is again clearly related to the possibility of and costs of transport. The survey results shows that over **71 percent** of household respondents reported paying between One thousand Leones to Five Thousand Leones (Le 1,000- Le 5,000) as cost of transportation to access health facility, while 20 percent reported paying between Le 5,001 – Le 10,000 as transportation fares to access facility. Only very few respondents reported paying over Le 10,000 as transportation cost to access these facility.

Table 32: Proportion of Users Reporting Amount Paid to Access Health Facility

Amount Paid for Accessing Health Facility	Percent
Less than Le 1,000	5.5
Between Le 1,001 - Le 5,000	71.3
Between Le 5,001 - Le 10,000	20.2
Above than Le 10,000	3.0

Chart 18: Proportion of Users Reporting Amount Paid to Access Health Facility by District



5.6 Factors that Influenced User to Visit Health Facility

The survey interviewed respondents on the factors that influenced them to access health care services in the facilities. Among the factors listed, **67 percent** of respondents noted that the health facilities that access services from are the only available alternatives within the localities, whilst **41 percent** and 40 percent attribute it to the competence and friendliness and general positive attitude of the health care workers at the facilities, respectively. Table 33 below detailed the factors that influenced users to access health facilities.

Table 33: Proportion of Users Reporting the Factors that Influence their Visit to Health Facility

Influencing Factors	No. of Responses	Percent of Responses	Percent of Cases
Only available health facility	1,300	22.0	66.9
More competent workers compared to other facilities	674	11.4	34.7
Facility has competent Health workers	787	13.3	40.5
Availability of drugs	591	10.0	30.4
Friendliness and general positive attitude	773	13.1	39.8
Has good/better amenities and environment	505	8.5	26.0
Affordable drugs and treatment	601	10.2	30.9
Fast recovery of Patients who that usually visit facility	657	11.1	33.8
Others factors (not specified)	27	0.5	1.4

Table 34: Proportion of User's Responses on the Factors that Influenced their to visit Health Facility by District

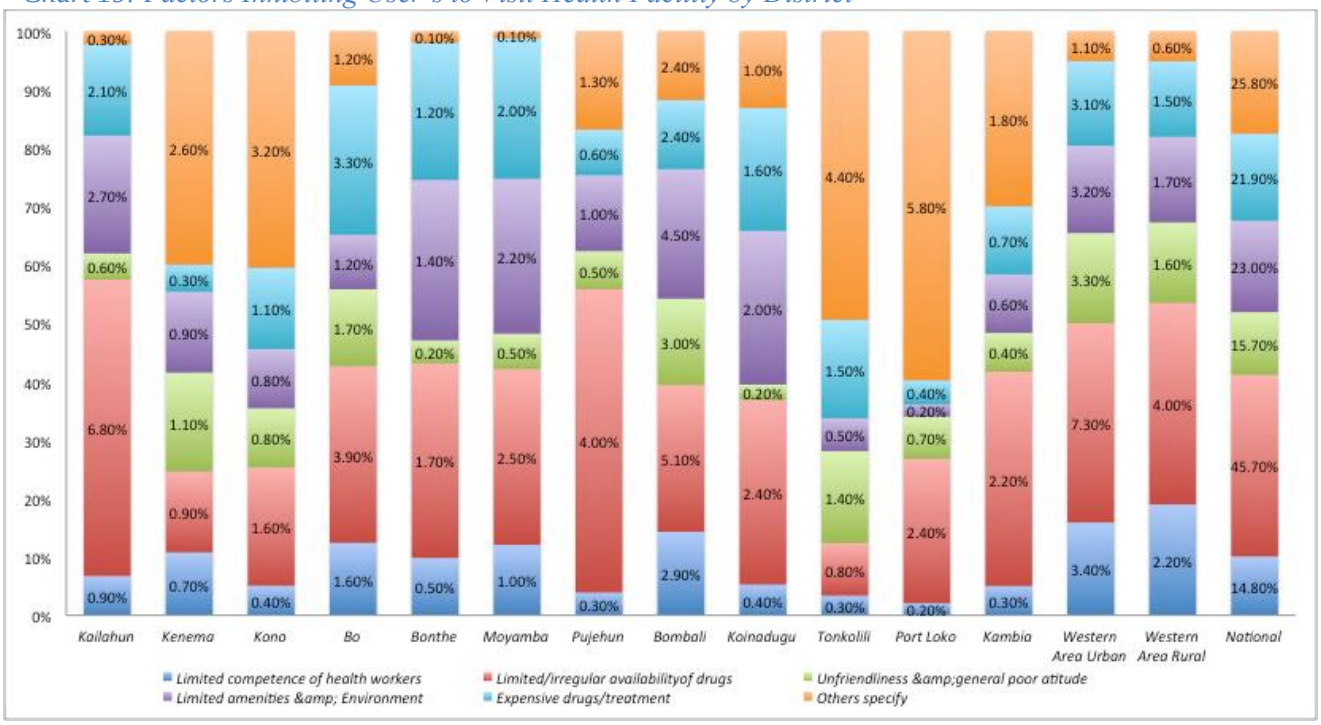
District	Only available health facility	Competency of workers compared to other facility	Competent Health workers	Availability of drugs	Friendliness and general positive attitude	Good/ better amenities	Affordability of drugs & treatment	Recovery of Patients	Others
Kailahun	11.5	8.9	10.7	2.9	10.7	6.3	7.3	11.6	3.7
Kenema	5.7	2.5	6.5	10.5	4.8	0.8	2.8	3.2	0.0
Kono	4.5	10.1	12.2	13.2	10.1	12.9	14.1	12.9	11.1
Bo	9.2	6.4	9.9	10.3	11.4	9.5	9.2	8.2	3.7
Bonthe	2.8	3.3	3.0	2.0	3.8	3.2	2.2	5.5	0.0
Moyamba	6.1	5.9	7.1	4.1	6.7	7.3	4.3	9.7	3.7
Pujehun	6.2	1.9	4.1	0.7	7.0	3.0	4.2	3.5	7.4
Bombali	11.2	12.3	9.3	11.5	5.4	6.9	9.5	7.2	7.4
Koinadugu	4.5	2.4	0.9	1.2	0.4	1.2	4.3	1.2	22.2
Tonkolili	5.3	12.9	10.5	15.4	11.8	15.8	15.1	11.7	0.0
Port Loko	7.5	13.5	5.2	13.9	13.5	11.5	15.0	7.3	0.0
Kambia	4.7	3.7	3.2	3.9	3.9	2.8	5.3	1.7	3.7
Western Area Urban	13.0	12.9	13.3	7.8	7.1	14.1	4.5	12.5	7.4
Western Area Rural	7.8	3.3	4.1	2.7	3.5	4.8	2.2	3.8	29.6
National	**66.9**	**34.7**	**40.5**	**30.4**	**39.8**	**26.0**	**30.9**	**33.8**	**1.4**

On the factors that discourage/inhibit users from accessing health facilities, about **46 percent** of the respondents highlighted the irregular or limited availability of drugs, whilst **23 percent** attribute their limitation of accessing health facilities to limited amenities and environment, and **22 percent** attribute it to the cost of cost or treatment at these facilities. Table 35 gives detailed proportion information on the factors that inhibit health care users from accessing health facilities.

Table 35: Factors Inhibiting User's to Visit Health Facility

Limitations to Access health care services	No. of Responses	Percent of Response	Percent of Cases
Limited competence of health workers	291	10.1	14.8
Limited/irregular availability of drugs	896	31.1	45.7
Unfriendliness & general poor attitude of providers	308	10.7	15.7
Limited amenities & environment	451	15.7	23.0
Expensive drugs/treatment	429	14.9	21.9
Others factors (not specified)	506	17.6	25.8

Chart 19: Factors Inhibiting User's to Visit Health Facility by District



CHAPTER SIX

6.0 Knowledge and Practices Relating to Key Maternal and Child Health Issues

6.1 Caregivers Knowledge and Attitude Towards Key Maternal and Child Health

Assessing the knowledge and attitude of users on maternal and child health issues, respondents were asked on the behaviour towards treatment of children when sick with different ailments. While some visit health facilities immediately they feel unwell, others visit drug stores to purchase any drug they deem appropriate for the disease suspected or mention their health condition to the vendor who then decides on which drug is most appropriate. Some others also initiate treatment at home with some left over drugs or herbal preparations.

6.1.1 Caregivers Behaviours Towards Children Sick with Fever

Understanding caregiver's knowledge and behaviour towards the treatment of fever for their children, the survey asked caregivers on the kind of actions they took in responds to such ailment. Out of the 1,916 respondent targeted for the survey, about 664 (N=664) responded to this questions, representing 34.7 percent of the total responses. Of this, **78.8 percent** of the respondents noted that they sought treatments from health facilities when their children were sick with fever, **11.9 percent** from Community Health Workers, whilst **11.4 percent** resorted to self-medication. Table 36 below details the actions taken by caregivers for treatment of their under-five children sick with fever.

Table 36: User's Behaviour Towards Treatment of Children Sick with Fever

Actions	No. of Responses	Percent of Responses	Percent of Cases
Nothing	38	5.1	5.7
Treated at home/self medication	76	10.2	11.4
Took child to health facility	523	70.4	78.8
Took child to Community Health Worker for treatment	79	10.6	11.9
Took child to traditional healer/spiritual healer	5	0.7	0.8
Took child to pharmacy/drug store	21	2.8	3.2
Took child to religious leader	1	0.1	0.2

The result shows that most of caregivers interviewed have sought treatment from health facility when their children were sick with fever. Out of the **79 percent** of caregivers that took their children to health facilities for treatment when sick with fever, **38.0 percent** are in the Rural Areas whilst and **40.8 percent** of the caregivers are in the Urban Areas. Out of the 11.9 percent of caregivers that reported taking their children to Community Health Workers when sick with fever, 6.6 percent are in the rural areas and 5.3 percent are in the urban areas. Silimaly, out of 11.4 percent of the caregivers that reported treting their children at home when sick with fever, 7.1 percent of them are in the rural settlements whilst 4.4 percent of the caregivers are in the urban settlements. Table 37 below shows the percentage by stratum and actions taken by caregivers when their children are sick with fever.

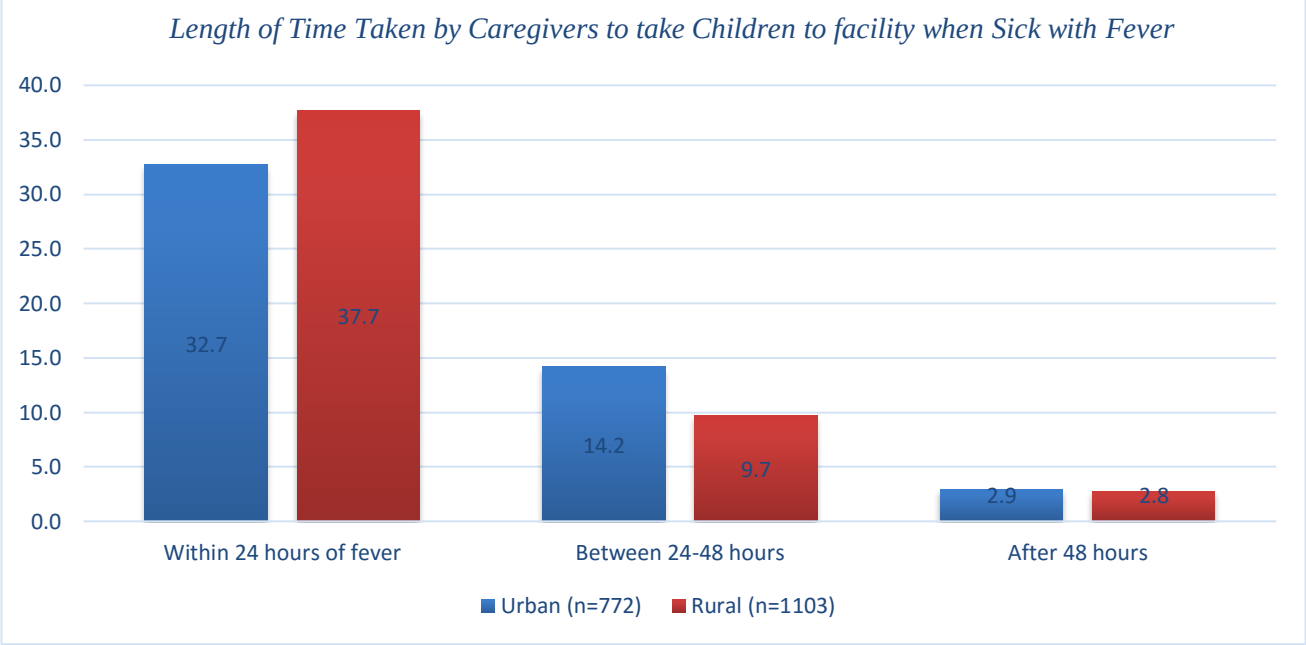
Table 37: Caregivers's Behaviour Towards Treatment of Children Sick with Fever by Area of Residence

Actions	Urban	Rural	Total
Nothing	3.9	1.8	5.7
Treated at home/self medication	4.4	7.1	11.4
Took child to health facility	40.8	38.0	78.8
Took child to CHW for treatment	5.3	6.6	11.9
Took child to traditional healer/spiritual healer	0.0	0.8	0.8
Took child to pharmacy/drug store	1.8	1.4	3.2
Took child to religious leader	0.2	0.0	0.2

About 24 percent and 6 percent only took the sick children to health facility with 24-48 hours and after 48 hours of ailment. Nearly **3 percent** of caregivers in both urban and rural areas took over 48 hours to take their children sick with fever to health facilities. Among the reasons proffered for going first to health facilities include; the kind of services rendered, the proximity to the health facility, lack of knowledge of the cause of their disease condition and not getting cured after self-medication or seeking treatment at the drug store. Caregivers in rural areas (**38 percent**) attended medical care for the children sick with fever with 24 hours, with **32 percent** of same in urban areas.

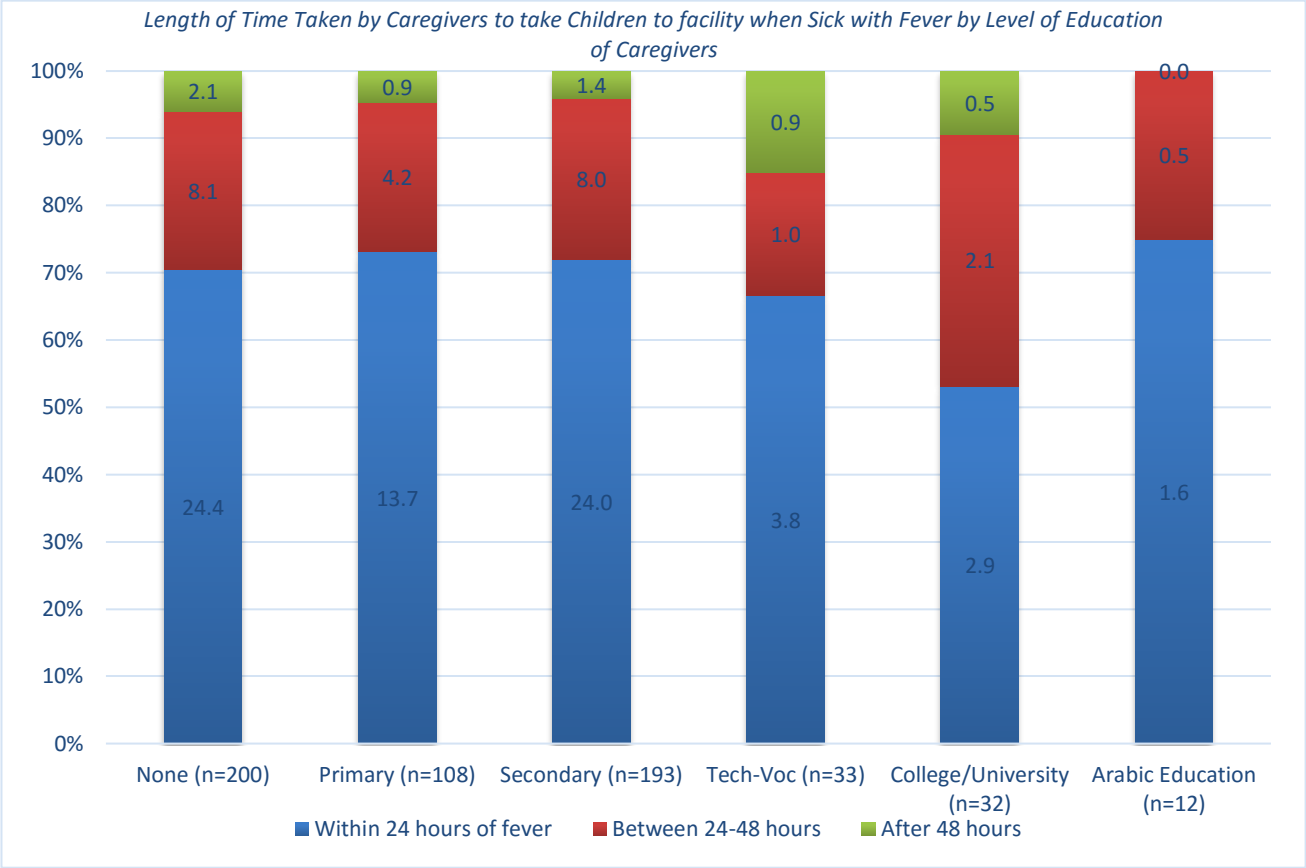
The relatively lower proportion of caregivers resorting to health facilities in the Urban Areas could be associated to different reasons, including self-medication (see Chart 20 for details).

Chart 20: Length of Time Taken by Caregivers to take Children to facility when Sick with Fever by Area of Residence



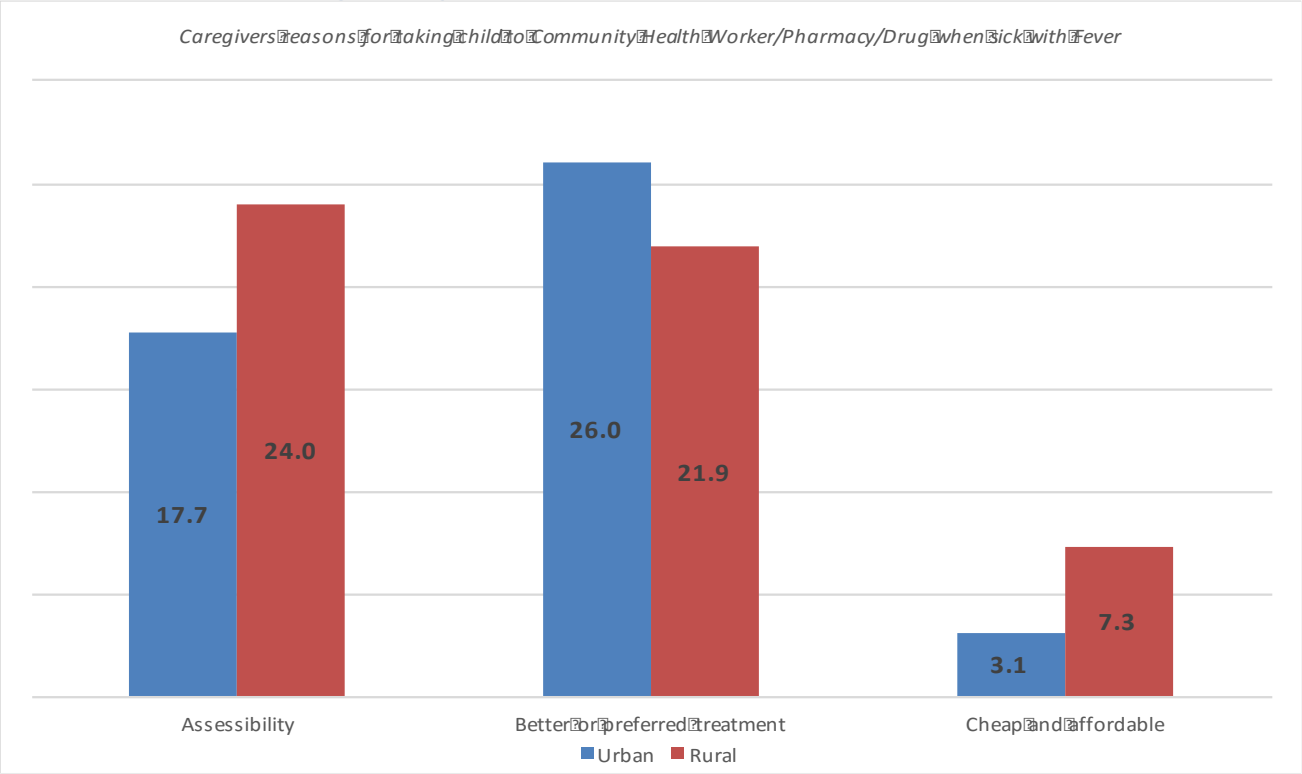
The survey noted that the level of education in insignificant to the knowledge of caregivers accessing health care facilities to seek treatment for their children sick with fever. The Chart 21 below show that nearly a quarter (24 percent) caregivers with no level of formal education sought treatment in facilities within 24 hours when their children got sick with fever .

Chart 21: Length of Time Taken by Caregivers to take Children to facility when Sick with Fever by Level of Education of Caregivers



For caregivers who resorted to community health workers or accessing pharmacies or drugs for treatment of their children with fever, **48 percent** noted that it is a more preferred or better treatment. Of this **24 percent** were in the rural areas and nearly **18 percent** in the urban area. This is so because CHWs play active role in the delivery of community-based primary healthcare interventions linked to the health facility, and the good working relationship with communities give users confidence to seek their intervention. About **42 percent** of the caregivers cited accessibility as the main reasons, of which 26 percent in the urban areas and **22 percent** in the rural areas. Only **10 percent** of caregivers who took their children to community health workers or pharmacy or drug stores, noted that is relatively cheap and affordable. Chart 22 below provides details analysis for the reasons proffered by Caregivers.

Chart 22: Reasons given by caregivers for Taking Children to Community Health Workers/Pharmacy/Drug Store when Sick with Fever by Area of Residence

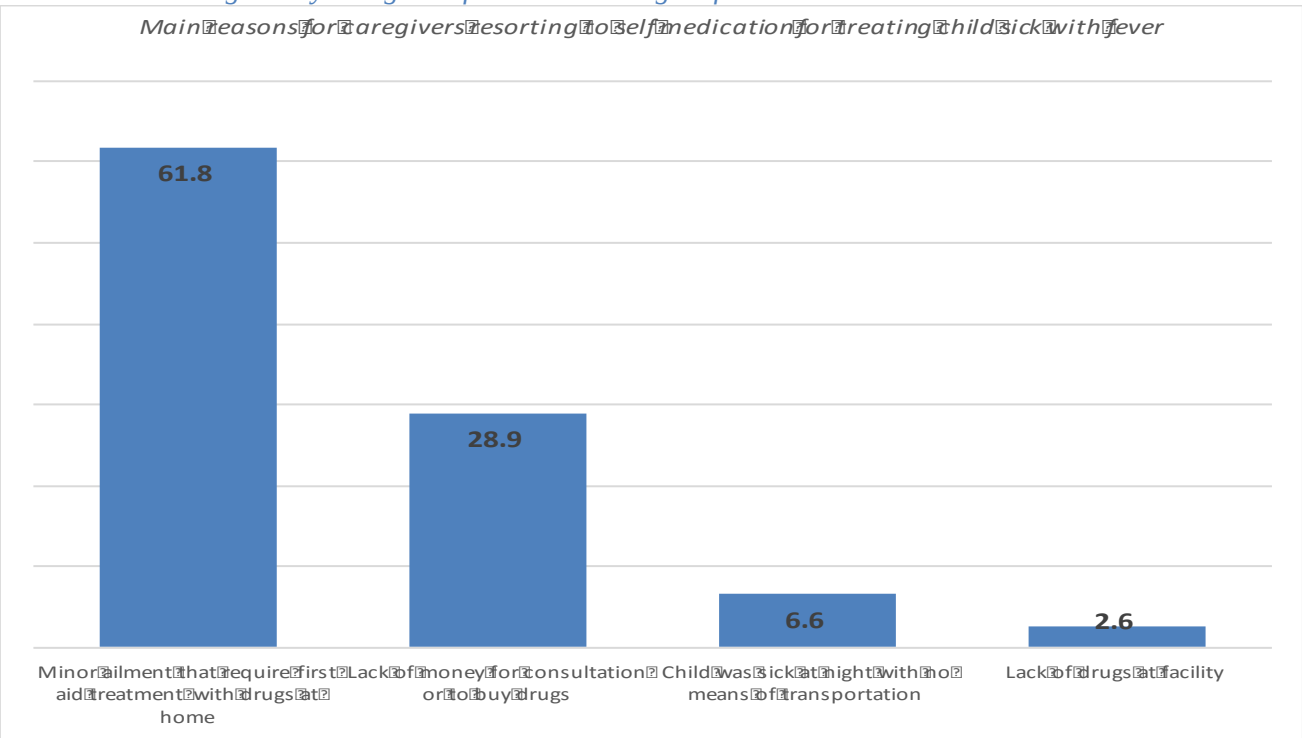


Out of the five (5) caregivers that sought treatment from traditional/spiritual healers, four of them noted that its mainly as result of traditional beliefs, whilst one noted that it is mainly as a result of non availability of drugs at health facility.

The practice of self-medication, which can be referred to as the use of drugs to treat self-diagnosed disorders or symptoms, or the intermittent or continued use of a prescribed drug for chronic or recurrent disease or symptoms, is intended for effective and quick relief of symptoms without medical consultations and to reduce the burden on health-care services, which are often characterized by constraint to accessibility in remote rural communities areas. The study noted that, caregivers have cited certain reasons for in self-medication are the urge of self-care, including the feeling of sympathy toward family members in sickness, lack of resources (poverty), ignorance, misbeliefs, extensive advertisement of drugs and availability of drugs in establishments other in drug stores.

Chart 23 below show that about **62 percent** of caregivers who treated their children at home or provided self-medication reported that the sickness was minor ailment the require first aid treatment with drugs available at home, **29 percent** noted that it was mainly as result of lack of money, while **7 percent** cited problems with transportation, was their children got sick at night and did not have the means to transport them to the nearest health facility. Only **3 percent** noted the lack of drugs at health facility prompted them to resort to treating their children at home.

Chart 23: Reasons given by caregivers for Administering Self Medication to Children Sick with Fever



Of this, **20 percent** are in the Western Urban Areas and **9 percent** in Western Rural Areas. About 10 percent of the respondents reported seeking treatment from community health workers in respond to aliments of children seek with fever, of which **3 percent** are in Western Urban District and Port Loko District. Self-medication or treating children sick with fever at home was also reported by **11 percent** of the respondents, of which with respondents from Bombali District and Kono District accounted for about **2.3 percent** and **1.8 percent**, respectively. Only a minimal **0.1 percent** of the respondents, all of who are in Kono District reported seeking treatments fro their children from religious leaders. The multiple responses on Table 38 below provides a detail assessment of the proportion of actions taken by respondents in treating fever in children by District, respectively.

Table 38: User's Behaviour Towards Treatment of Children Sick with Fever at District Level

District	Number of Responses (n)	Nothing	Self medication	Took child to health facility	Took child to CHW for treatment	Took child to traditional healer/spiritual healer	Took child to pharmacy /drug store	Took child to religious leader	% by District
Kailahun	50	0.0	0.3	6.3	0.9	0.0	0.0	0.0	7.5
Kenema	20	0.0	0.6	2.0	0.5	0.0	0.0	0.0	3.0
Kono	74	0.0	2.1	7.8	0.5	0.0	0.6	0.2	11.1
Bo	31	0.0	0.6	3.5	0.5	0.0	0.2	0.0	4.7
Bonthe	9	0.2	0.2	0.9	0.0	0.2	0.0	0.0	1.4
Moyamba	14	0.0	0.2	1.8	0.0	0.2	0.0	0.0	2.1
Pujehun	33	0.0	0.5	3.8	0.3	0.3	0.2	0.0	5.0
Bombali	75	0.8	2.6	6.9	0.8	0.0	0.3	0.0	11.3
Koinadugu	21	0.0	1.2	1.5	0.5	0.0	0.0	0.0	3.2
Tonkolili	34	0.0	0.9	4.1	0.0	0.2	0.0	0.0	5.1
Port Loko	59	0.0	0.5	4.7	3.2	0.0	0.6	0.0	8.9
Kambia	34	0.0	0.6	2.9	1.1	0.0	0.6	0.0	5.1
W/Area Urban	201	3.0	0.8	22.9	3.2	0.0	0.5	0.0	30.3
W/Area Rural	88	1.8	0.6	9.8	0.8	0.0	0.3	0.0	13.3
National	743	5.7	11.4	78.8	11.9	0.8	3.2	0.2	111.9

6.1.2 Caregivers Behaviours Towards Children Sick with Diarrhoea

One of the major causes of death in infants and children in developing countries is dehydration from diarrhea. Because this is easily treatable through oral rehydration therapy, health education programs should place management of diarrhea near the top of the priority list. Maternal knowledge and actions about what to do when children are experiencing diarrhoea is poor.

The survey therefore assesses the behaviour of caregivers in the treatment of children sick with diarrhoea, of which only 211(N=211) out for the 1,916 people surveyed responded to this question. The results showed that 86.3 **percent of caregivers** reported that they take their children to health facilities for treatment when sick with diarrhoea, whilst 41.7 **percent** of caregivers acknowledged providing oral rehydration solutions as a means of first aide treatment to diarrhea. The result revealed that 7.6 percent of caregivers gives traditional medicines to their childen when sick with diarrhea, and 4.0 percent of caregivers acknowledged that no action is taken when their children are sick with diarrhoea . Table 39 below provides details

Table 39: User's Behaviour Towards Treatment of Children Sick with Diarrhoea

Actions	No. of Response	Percent of Responses	Percent of Cases
No Action was taken	12	4.0	5.7
Child taken to health facility	182	60.7	86.3
Gave ORS solution	88	29.3	41.7
Gave traditional medicines	16	5.3	7.6
Other actions	2	0.7	0.9

Of the proportion of caregivers who sought treatment from health facilities, over two-third (75 percent) believed health facilities provides a more competent and reliable treatment, whilst 18

percent and 5 percent noted that due to the seriousness of the ailment, they needed emergency treatment and lack knowledge of how to handle the sickness, respectively.

The survey noted that out of the sixteen (5.3 percent) caregivers who mentioned seeking treatment from traditional medicines for children sick with diarrheoa, 7 of them (44 percent) each, noted that they have strong conviction and belief in traditional medicine and that traditional medicine is believed to cure faster than conventional medicine, whilst two (2) noted that it is relatively cheaper and more affordable.

Further analysis of the survey data indicates that, majority of caregivers (47.4 **percent**) who took their children sick with diarrahoea to health facility for treatment were in the Urbanl Area, whilst 38.9 **percent are**e in the Rural Areas. For those who sought treatment with the administration of Oral Rehydration Salt solution (ORS) 19.0 **percent** and 22.7 **percent** were in the Rural Area and Urban Area, respectively. About 7.1**percent** of the caregivers who resorted to traditional medicines were in the Rural Areas, whilst 0.5 **percent of the caregiver who resort to givng traditional medicines to their children sick with diarrhea are** in the Urban Areas. The analysis of caregiver's behavior towards children sick with diarrhea by strata is provided in Table 40 below.

Table 40: User's Behaviour Towards Treatment of Children Sick with Diarrhoea by Area of Residence

	Urban(n=120)	Rural(n=91)	Total (N=211)
No Action was taken	3.3	2.4	5.7
Child taken to health facility	47.4	38.9	86.3
Gave ORS solution	22.7	19.0	41.7
Gave traditional medicines	0.5	7.1	7.6
Other actions	0.9	0.0	0.9

At the District level, there was very relatively higher proportion of caregivers in the Western Area (2.4 **percent** in Western Urban and 2.8 **percent** in Western Rural) that did not taken any action to respond to their under-five children sick with diarrhea. The practice of traditional medicines was observed highers by caregivers in Bombali (3.8 percent) followed by Koinadugu 1.4 percent.. The administration of ORS solutions by caregivers was relatively predominant in Bombali District (12.8 **percent**), followed by Western Urban District (7.1 **percent**) and Port Loko District (4.7 **percent**). The practice of administering ORS solutions to under-five children with diarrhoea is very weak in Bonthe District (**0.0 percent**), Bo District, Moyamba District and Pujehun District, as reported by 0.5 **percent** of caregivers each. Although there was a relatively higher proportion of caregivers reporting that the resorted to health facilities for treatment of their children sick with diarrhea, this practice was relatively low in Bonthe District, 0.5 **percent** of caregivers, Moyamba District 0.9 percent and Koinadugu District at **1.3 percent**, with non of the caregivers (**0.0 percent**) in Pujehun District. A detail analysis of the caregiver's behavior towards the treatment of under-five children sick with Diarrhoea by District is provided in Table 40 below.

Table 40: User's Behaviour Towards Treatment of Children Sick with Diarrhoea by District

District	No. of Responses (n)	No Action was taken	Child taken to health facility	Gave ORS solution	Gave traditional medicines	Other actions	% by District
Kailahun	14	0.0	4.7	1.4	0.5	0.0	6.6
Kenema	15	0.0	2.8	4.3	0.0	0.0	7.1
Kono	17	0.0	4.7	3.3	0.0	0.0	8.1
Bo	8	0.0	3.3	0.5	0.0	0.0	3.8
Bonthe	1	0.0	0.5	0.0	0.0	0.0	0.5
Moyamba	3	0.0	0.9	0.5	0.0	0.0	1.4
Pujehun	1	0.0	0.0	0.5	0.0	0.0	0.5
Bombali	70	0.5	16.1	12.8	3.8	0.0	33.2
Koinadugu	10	0.0	1.9	1.4	1.4	0.0	4.7
Tonkolili	13	0.0	3.3	2.8	0.0	0.0	6.2
Port Loko	32	0.0	9.0	4.7	0.9	0.5	15.2
Kambia	10	0.0	2.8	1.4	0.5	0.0	4.7
W/Area Urban	74	2.4	25.1	7.1	0.0	0.5	35.1
W/Area Rural	32	2.8	10.9	0.9	0.5	0.0	15.2

6.1.3 Caregivers Behaviours Towards Children with Difficult Breathing

Acute respiratory infections (ARI's) normally referred to as difficulty breathing are a major cause of death in infancy and childhood in developing nations. The behavior of caregivers to under-five children with difficulty in breathing, mainly as result of respiratory infection, a leading cause of death in under-five children was assessed by the survey to determine the efforts in addressing this preventable disease. Table 41 below shows the percentage of respondents and the actions taken when their children are sick with difficult breathing.

Table 41: User's Behaviour Towards Treatment of Children Sick with Difficult Breathing

Actions taken	No. of Responses	Percent of Responses	Percent of Cases
Did not do anything	26	8.2	9.1
Treated at home/self medication	47	14.9	16.4
Took child to health facility	205	64.9	71.4
Took child to Community Health Worker	28	8.9	9.8
Took child to spiritual/traditional healer	1	0.3	0.3
Took child to private drug store/pharmacy	9	2.8	3.1

A total of **287** (N=287) people out the 1,916 surveyed responded to this question. Results indicates that 71.4 percent of caregivers take their children to health facilities when sick with difficult breathing, whilst 16.4 percent of caregivers treat their children at home or give self medication when sick with difficult breathing. About 9.8 percent of them take their children to community health workers, while 9.1 percent acknowledged taking no actions.

Assesing their responses by area of residence, out of the 71.4 percent of caregivers that reported taking their sick children with difficult breathing to health facility, 42.9 percent of them are in the Rural Areas with 28.6 percent are in the Urban Areas. Also, out of the 16.4 percent of caregivers that reported treating their children at home or providing self medication, 8.7 percent are in the Rural Areas with 7.7 percent in the Urban Areas. Table 42 bellows shows the percentage of caregivers by stratum and the actions taken when their children are sick with difficult breathing.

Table 42: User's Behaviour Towards Treatment of Children Sick with Difficult Breathing by Area of Residence

No action	**5.6**	**3.5**	**9.1**
Treated at home/self medication	7.7	8.7	16.4
Took child to health facility	28.6	42.9	71.4
Took child to CHW	4.9	4.9	9.8
Took child to spiritual/traditional healer	0.0	0.3	0.3
Took child to private drug store/pharmacy	0.0	3.1	3.1

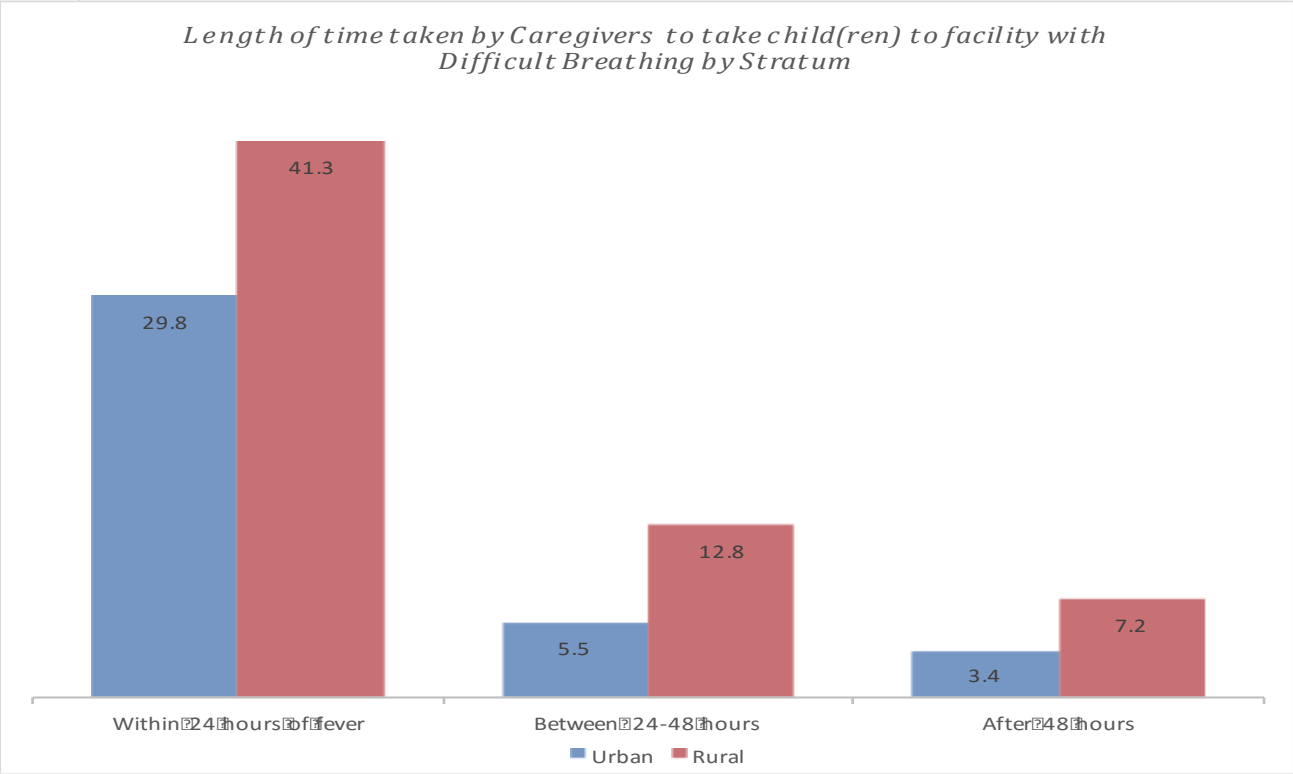
At the District level, about 11 percent of caregivers in Western Urban and Western Rural Districts each, resorted to health facility to seek treatment for children sick with difficult breathing, followed by Bombali District (**10 percent**). A relatively low proportion caregivers in Bonthe District (**0.3 percent**), Moyamba District (**0.6 percent**) and Pujehun District (**1.3 percent**) took their children to health facility treats them with difficult breathing ailments. Caregivers (0.3 percent) who resorted to traditional/spiritual healer for treatment were found in Bonthe District. Table 43 below provides a detailed explanation on the proportion caregiver's behavior towards treatments of children with difficult breathing.

Table 43: Health Care Behaviour Towards Treatment of Children with Difficult Breathing by District

District	No. of responses (n)	Nothing	Self medication	Took child to health facility	Took child to CHW	Took child to spiritual/traditional healer	Took child to private drug store/pharmacy	% by District
Kailahun	29	0.0	0.7	9.1	0.0	0.0	0.3	10.1
Kenema	12	0.0	0.0	3.8	0.3	0.0	0.0	4.2
Kono	23	0.0	2.8	5.2	0.0	0.0	0.0	8.0
Bo	21	0.0	1.0	5.2	0.7	0.0	0.3	7.3
Bonthe	2	0.0	0.0	0.3	0.0	0.3	0.0	0.7
Moyamba	2	0.0	0.0	0.7	0.0	0.0	0.0	0.7
Pujehun	5	0.0	0.3	1.4	0.0	0.0	0.0	1.7
Bombali	51	0.3	4.9	11.1	1.4	0.0	0.0	17.8
Koinadugu	10	0.3	1.7	1.4	0.0	0.0	0.0	3.5
Tonkolili	10	0.3	0.7	2.4	0.0	0.0	0.0	3.5
Port Loko	34	0.0	1.7	5.2	3.5	0.0	1.4	11.8
Kambia	11	0.0	0.7	1.4	1.0	0.0	0.7	3.8
W/Area Urban	55	4.9	0.7	11.8	1.7	0.0	0.0	19.2
W/Area Rural	51	3.1	1.0	12.2	1.0	0.0	0.3	17.8

The survey also noted that majority (**71 percent**) of caregivers that took their children to health facilities were done with 24 hours of the ailment of which 30 percent in the Urban Areas, and 41 percent in the Rural Areas. About **18 percent** took their children to health facilities between 24-48 hours (6 percent in Urban areas and 12 percent in Rural Areas), whilst nearly 11 percent (3.4 in Urban Areas and 7.2 in Rural Areas) took their children to health facility after 48 hours (See Chart 24 for details).

Chart 24: Length of Time Taken by Caregivers to Take Children with Difficult Breathing to Health facility by Area of Residence



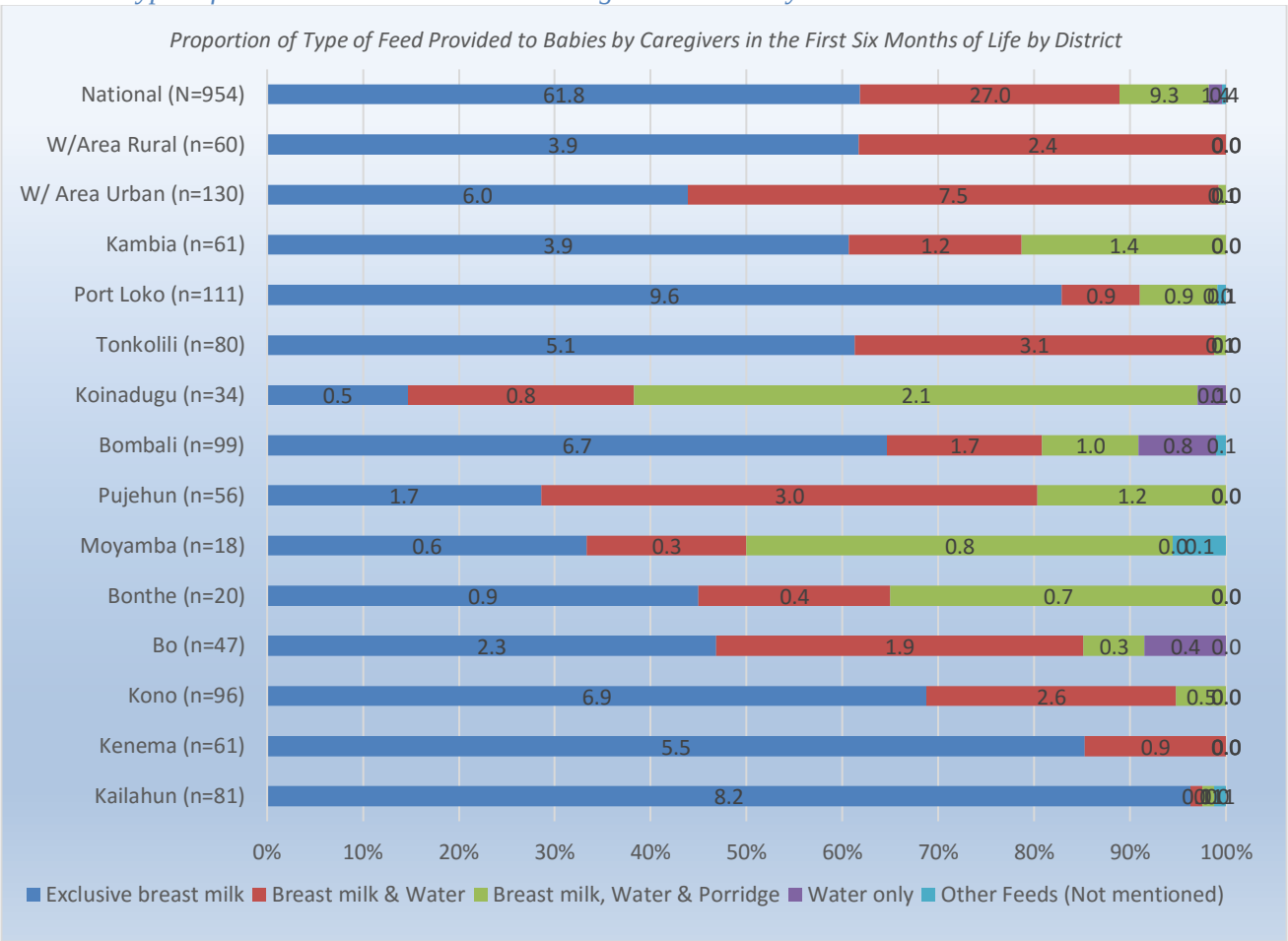
6.2 Type of Feeds Provided to Babies During the First-Six Months of Life

The World Health Organization recommends exclusive breast-feeding for the first six months of life. Breast milk remains the best source of nutrition for infants and mothers need to be motivated to continue as long as possible. For the first six months of life breast milk is the only food that your baby needs to grow and be healthy.

Breastfeeding is the most recommended feeds for babies between the ages of 0-6months, and is considered healthy, natural, convenient, and free. It is a good way to bond with the baby with the mother and breast milk contains antibodies that lower the chance of your baby getting infections.

The survey results showed that **62 percent** of caregivers interviewed that exclusive breast-feeding was done within the first-six months of life, whilst over one-quarter (**27 percent**) reported using a combination of both breast milk and water. Only **9 percent** of caregivers used a mixture of breast milk, porridge and water. A little over 1 percent (**1.4 percent**) used water only. Chart 25 provides detailed information on the type of feeds provided by Caregivers by District.

Chart 25: Types of Feeds Provided to Babies During the First-Six by District



6.3 Child Health Seeking Practices and Behaviours

Many researches have noted that one method of place of delivery is an important component in reducing risk of infant and maternal mortality. The Sierra Leone MICS Report 2010 noted that proper medical attention and hygienic conditions during delivery reduces the risks of complications and infection that can cause morbidity and mortality to either the mother or the baby.

The survey therefore interviewed mothers/caregivers on the place of delivery their babies within the last 24 months. Results from the survey show that **96 percent** of Caregivers in the households surveyed reported delivering their babies at health facilities within the last 24 months of the survey. Of, this, **37 percent** in the Urban Areas and **59 percent** in the Rural Areas. The survey further noted only **2 percent** of the caregivers/mothers interviewed delivered their babies either at home or with Traditional Birth Attendants (TBAs). About **2.4 percent** of the mothers that delivered babies with TBAs were in the Rural Areas and 1.8 percent in the Rural Areas.

The survey further noted that about **22 percent** of caregivers/mothers between the ages of 23-32 years and between ages of **33-37 years**, respectively delivered babies at health facilities compared nearly 1 percent and 0.4 percent at home or with TBAs. Chart 26 below provides a detailed explanation of the place of delivery of babies by age of mothers/caregivers.

Chart 26: Place of Delivery of babies by Age of Mother/Caregivers

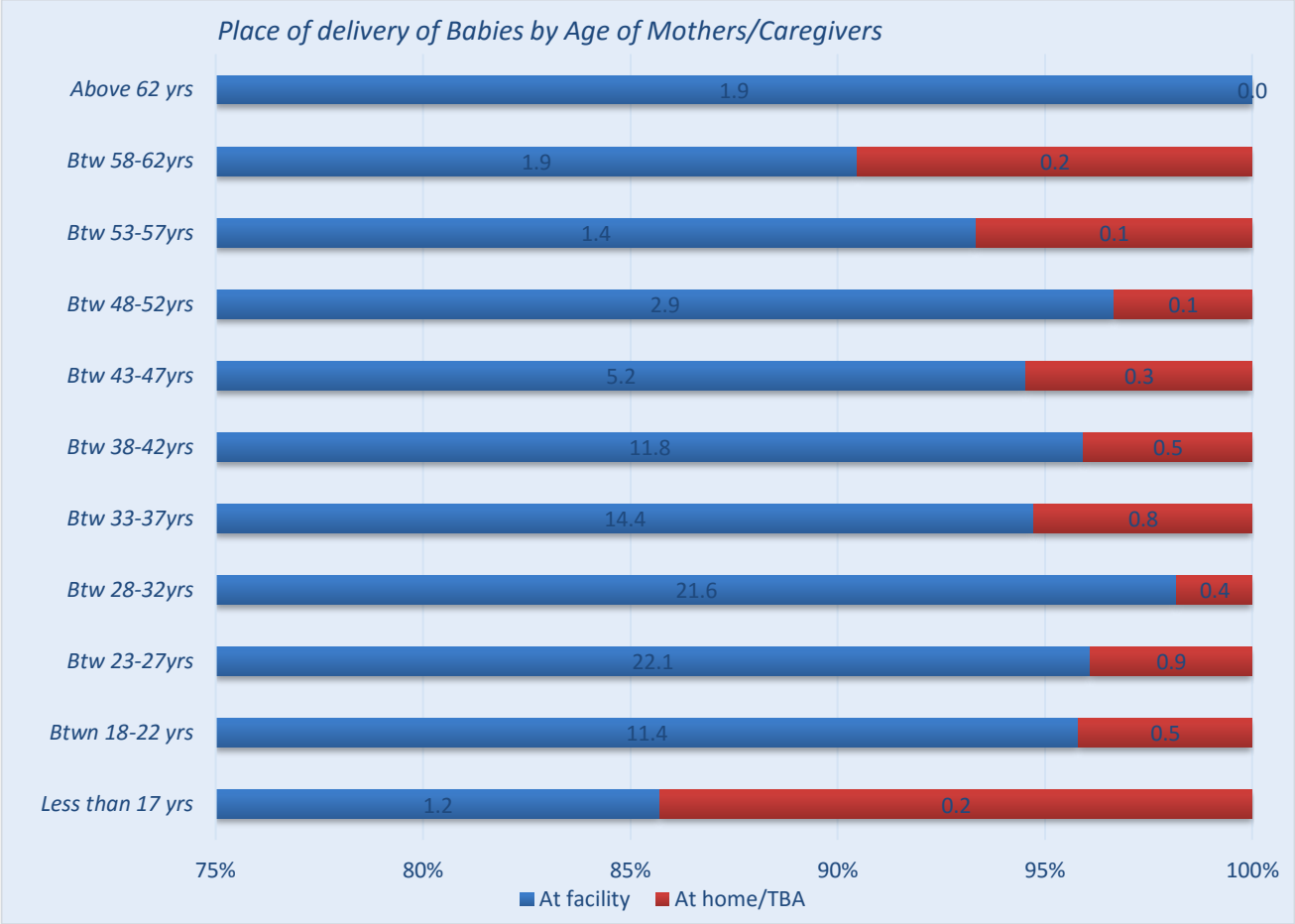
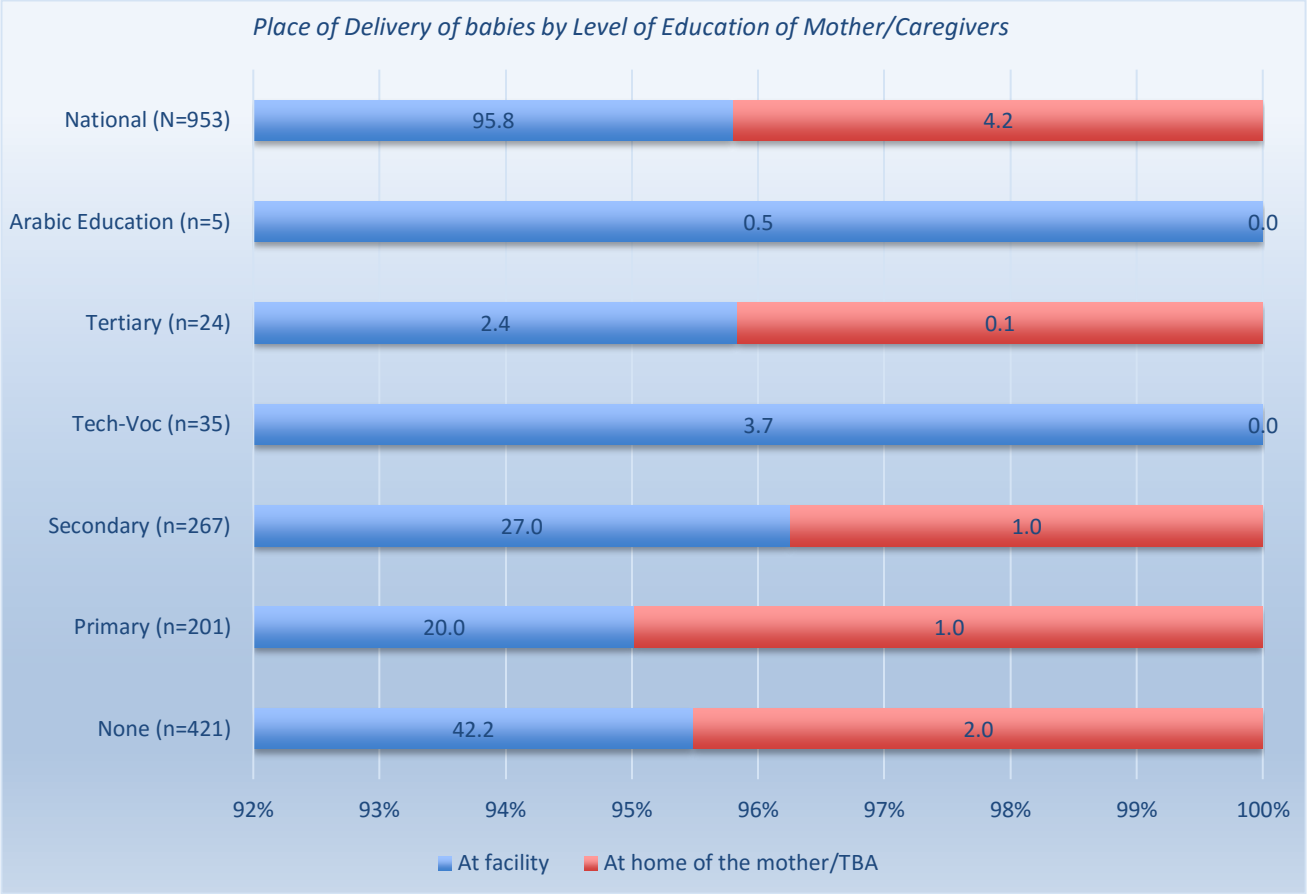


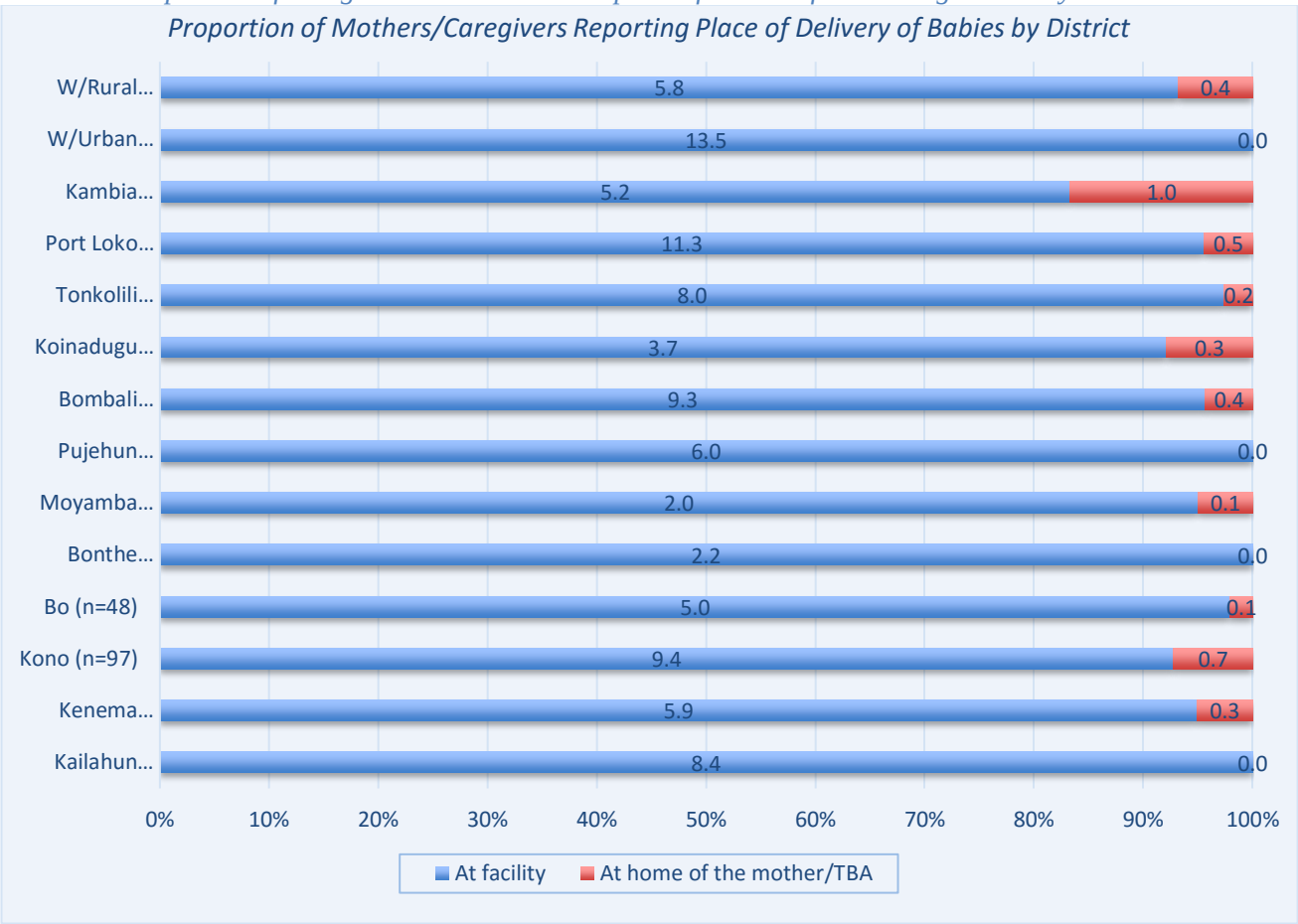
Chart 27 below show that the place of birth of caregiver is regardless of the level of their level of education. The data analysis showed that, out of the **4.1 percent** of caregivers who reported delivery with TBAs, 2 percent had no formal education, 1 percent had some primary and secondary education, each and less than one percent (0.1 percent) had tertiary education.

Chart 27: Place of Delivery of babies by Level of Education of Mother/Caregivers



The place of delivery of babies by caregivers was further analysed by District. The results showed that, of those caregivers that delivered in health facilities, **14 percent** and **12 percent** were in the Western Urban District and Port Loko Districts, respectively. Of those who delivered at home or with Traditional Birth Attendants, **0.3 percent** and **0.2 percent** are in Kambia and Kono Districts, respectively. Of the remaining who reported delivering at home or with Traditional Birth Attendants, **90 percent** reported that they preferred delivering at health facilities if given the options. The Chart 28 below gives a graphical description of the places of mothers or caregivers delivered babies, by District.

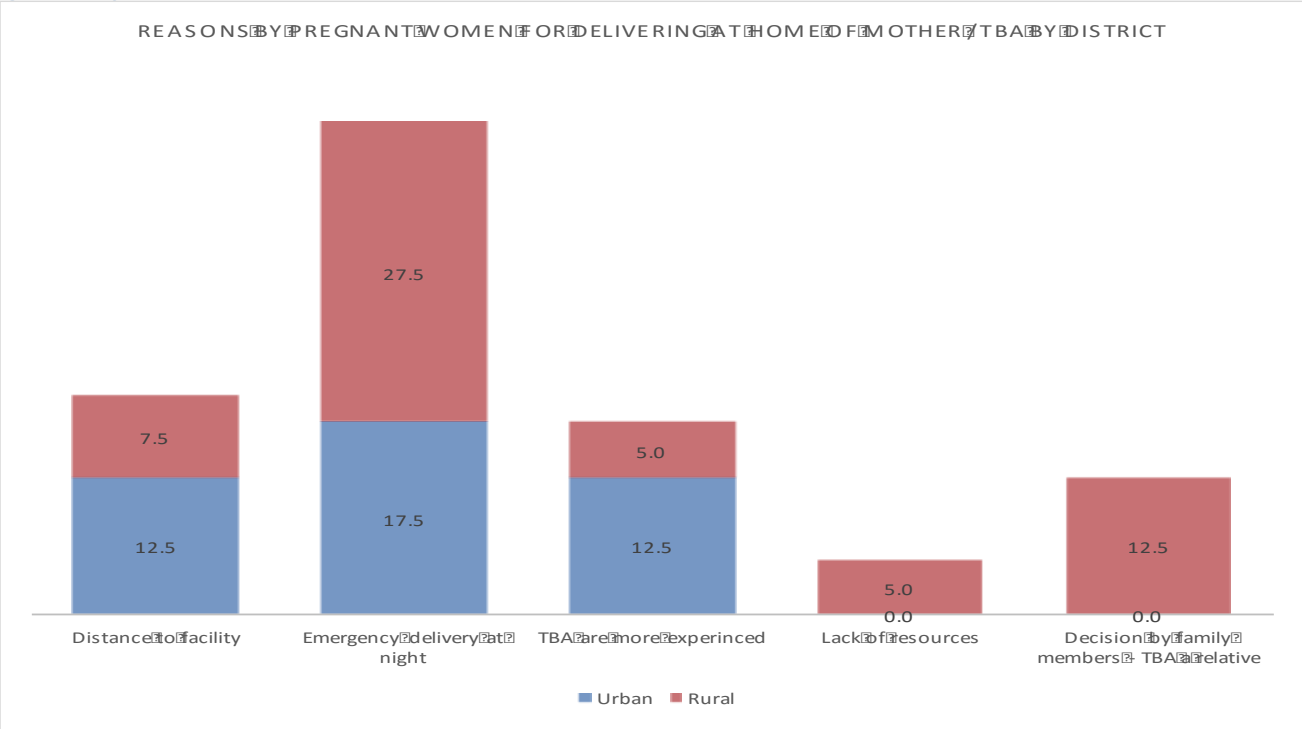
Chart 28: Proportion of caregiver or Mothers Perception of Places of Delivering Babies by District



Of the **4 percent** were caregivers interviewed that did not deliver at facilities, **45 percent** reported that they went into labour very late at night, which prompted an emergency, **20 percent** cited distance to health facility, **18 percent** noted that they preferred TBAs as they are noted to be more experienced, whilst **13 percent** said they were either influenced by family members to deliver at TBAs or TBAs were family relations. Only **5 percent** noted that they lacked the necessary resources to access health facility.

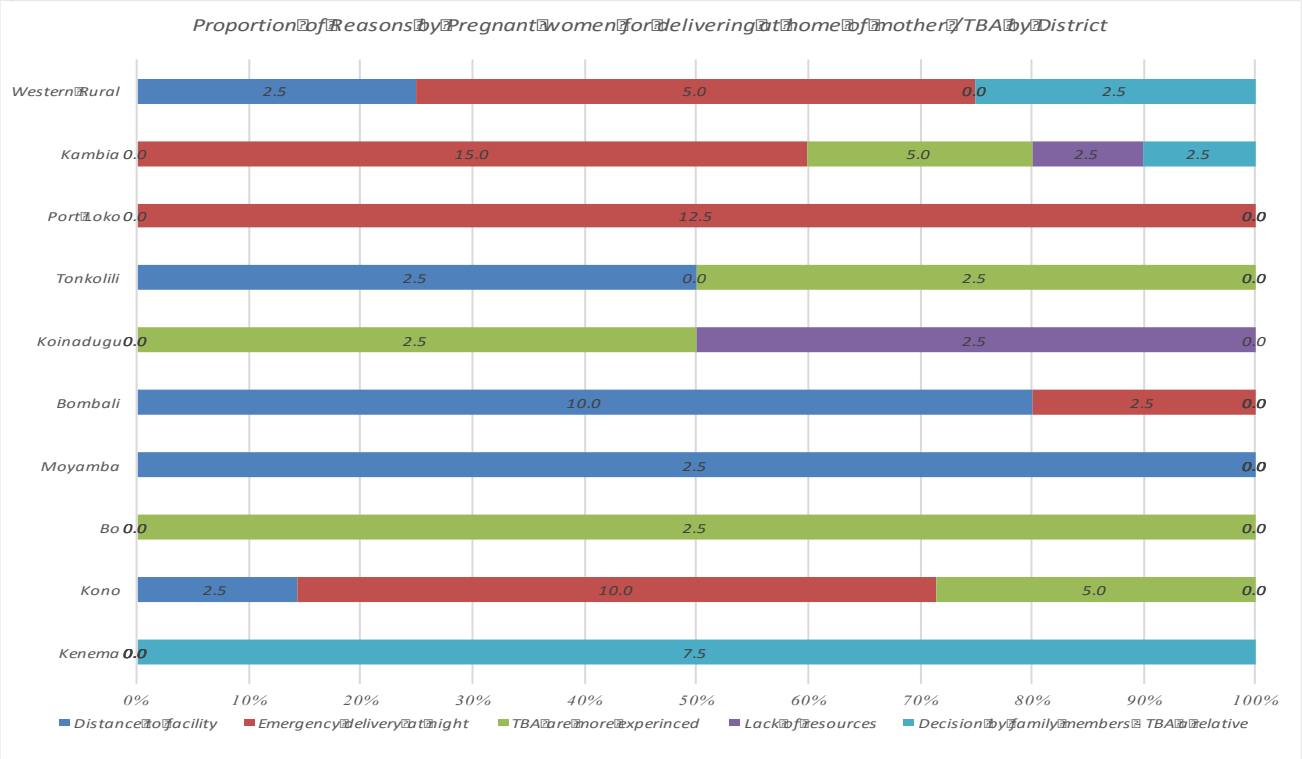
The survey also noted that over a quarter (**28 percent**) of those that delivered at TBAs as a result of emergency delivery at night were in the rural areas with **19 percent** in the urban areas. However, 13 percent of caregivers in the urban areas, and 8 percent cited distance to health facility in the rural areas. Chart 29 below provides a detailed explanation on the reason caregivers cited for not delivering at facilities by area of residence.

Chart 29: Reasons Given by Pregnant Women for delivering at Home of Mother/Traditional Birth Attendant by Area of Residence



Caregivers in 10 out of the 14 Districts reported deliveries of home or with Traditional Birth Attendants (TBAs). Fifteen percent out of the **45 percent** caregivers who cited emergency deliveries as the most reasons for not delivering at health facilities were in Kambia District, **13 percent** in Port Loko and **10 percent** in Kono District. Of the caregivers who cited distance to facilities as reasons for not delivering at health facilities, **10 percent** were in Bombali District and **2.5 percent** in Kono and Tonkolili Districts, each. Five percent of the caregivers who cited the experience of TBAs were in Kono and Kambia District, each. The Chart 30 below presents a detailed explanation of the reasons for caregivers not delivering at health facilities.

Chart 30: Reasons Given by Pregnant Women for delivering at Home of Mother/Traditional Birth Attendant by District

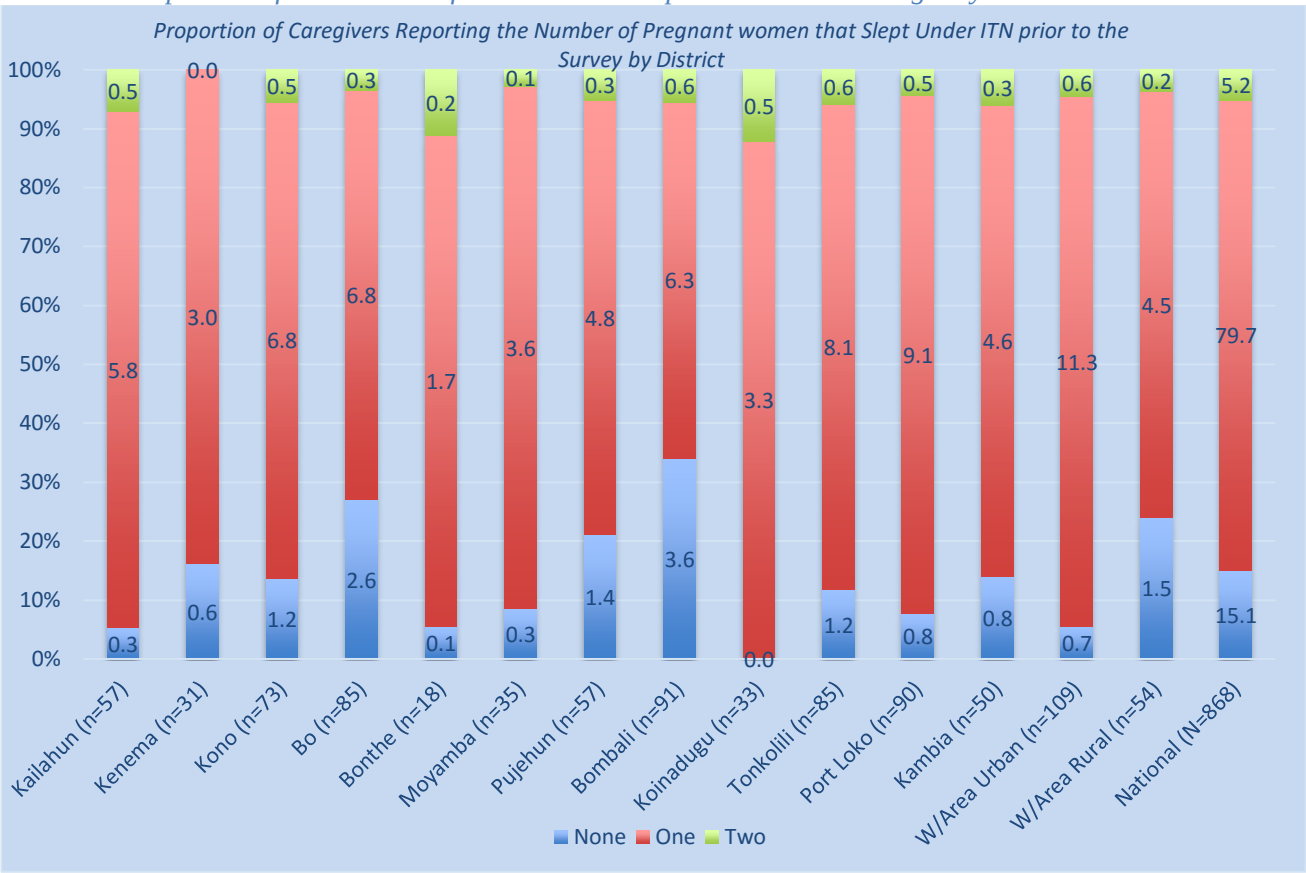


6.3.1 Use of Insecticides Treated Bed Nets (ITNs)

Caregivers were asked on the number of children under five years of age who slept on the ITN the night prior to the survey. About **868** out of the survey **1,916** respondents (**48 percent) reported having children under fives that slept** under ITN the night prior to the survey. Of this, of caregivers reported that only one child under five years of age slept under ITN, a little over one-quarter (**26 percent**) had two children who slept under the ITN the before the survey interview.

The District level analysis indicate that of the 48 percent of caregivers reporting having one child that slept under ITN the night prior to the survey, 26 percent were in the Western Urban District, 9 percent in Port Loko and Western Rural Districts, each. About 15 percent of the caregiver respondents in Western Urban District with 12 percent and 10 percent in Bombali and Port Loko Districts, respectively, noted that they had two children that slept under ITN the prior before the survey. Furthermore, out of the 16 percent of the respondents that noted that none of the children sleeps under ITN, nearly 18 percent were in Bo District, 17 percent in Bombali and 14 percent in the Western Urban District. The Chart 31 shows the proportion of caregivers reporting the number of under children who slept under ITN a night prior to the survey.

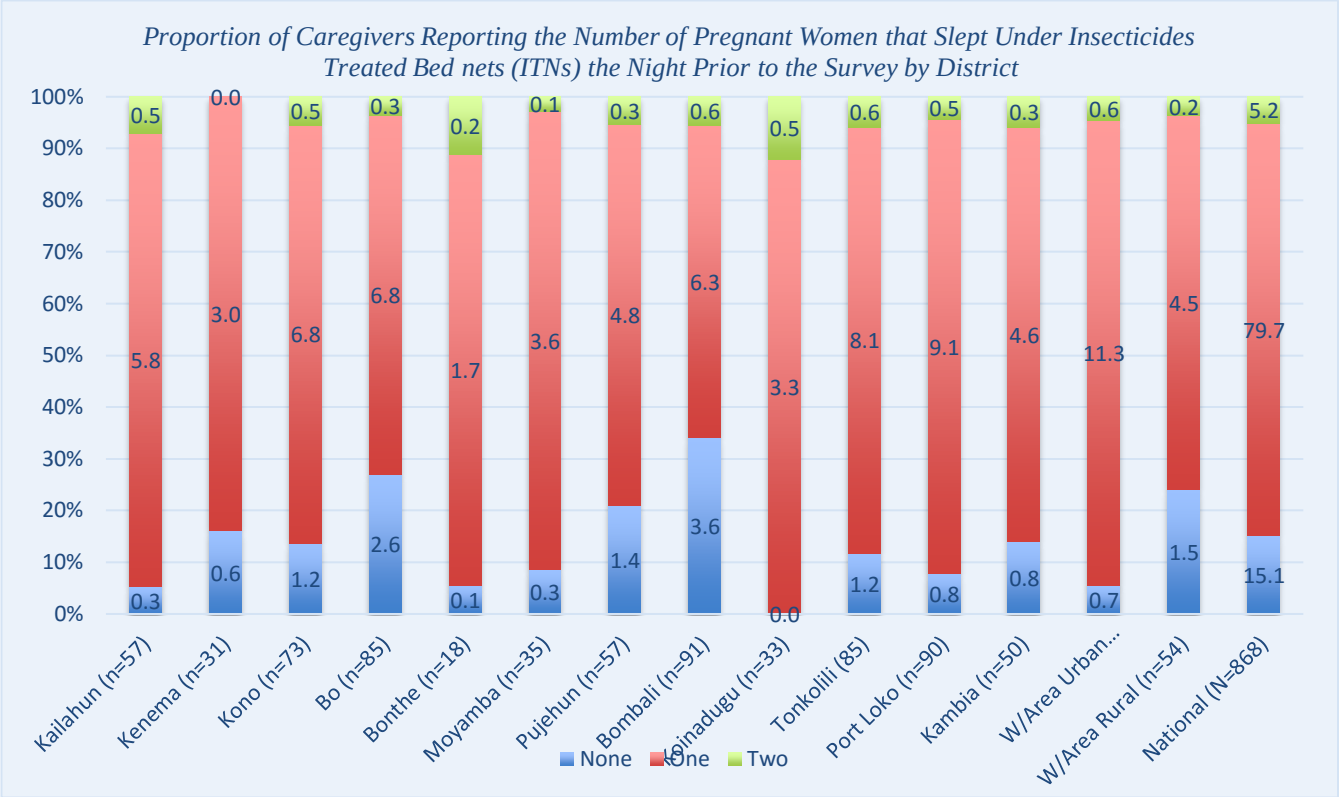
Chart 31: Proportion of the Number of Children that Slept under ITN Last Night by District



Caregivers were also interviewed on the number of pregnant women that slept under ITNs the night prior to the survey. About **737** out of the survey **1,916** respondents (**37.6 percent)** reported having pregnant women that slept under ITN the nite prior to the survey. Of this about **9 percent** are in the Rural Areas, with **6 percent** in Urban Areas.

At the District level, out of the number of caregivers that noted that none of the pregnant women in their household did not sleep under ITNs the night before the survey, **3.6 percent** were in Bombali District, **2.6 percent** in Bo District, **1.5 percent** in Western Rural District and **1.2 percent** each in Kono and Koinadugu Districts (See Chart 32 for details)

Chart 32: Proportion of Caregivers Reporting the Number of Pregnant Women that Slept Under Insecticides Treated Bed nets (ITNs) the Night Prior to the Survey by District



6.3.2 Care Giver's Knowledge on the Mode of Malaria Transmission

Caregivers were further assessed on the knowledge on the mode of transmission of malaria, people that are mostly vulnerable to the disease and how it could be prevented.

A total of 1,957 (N=1,957) out of the total 1,961 responded to this question. The multiple response results show that 1,824 out of the 1,957 cases representing 93 percent mentioned that malaria is transmitted as result of mosquito bite, 36 percent of all the cases mentioned that malaria is transmiited by drinking dirty water or food, whilst 76 percent of all the cases mentioned malaria transmission through dirty environment. Table 44 below gies a details analayis of the proportion caregivers behavior towards the treatment of children with difficult breathing by District.

Table 44: Health Care Behaviour Towards Treatment of Children with Difficult Breathing by District

Mode of Malaria Transmission	No. of Responses (n)	Percent Responses	Percent of Cases
Bitten by infection mosquito	1,824	38.1	93.2
Taking in dirty water/food	697	14.5	35.6
Beaten by excessive rain/sun	277	5.8	14.2
Dirty Environment	1,477	30.8	75.5
Witchcraft	30	0.6	1.5
Eating unripe mangoes/fruits	151	3.2	7.7
Living with sick person	187	3.9	9.6
Others please (specify)	19	0.4	1.0
Don't Know	130	2.7	6.6

The survey results show that noted that **38 percent** of caregivers interviewed noted that malaria is mostly transmitted by bites of an infected mosquito. Of this, **15 percent** of the respondents were in Western Urban District, 9**.3 percent** in Bombali, **8.8 percent** in Port Loko and **8 percent** in Kailahun District. Dirty environment was noted as another means of transmitting Malaria, as reported by **76 percent** of the respondents, of which **15 percent** and **7 percent** are in the Western Urban Districts and Port Loko Districts, respectively. About **36 percent** of the respondents noted that consumption of dirty food as a means of transmitting Malaria, of which **7 percent** and **5 percent** are in the Western Urban and Western Rural Districts. Whilst nearly **7 percent** of the respondents reported not having any knowledge on the modes of Malaria transmission, about **2 percent** attributed it to witch craft. Of this, **0.7 percent** is in Kailahun District, **0.2 percent** in Kenema, Western Urban and Western Rural Districts, each. Table 45 below shows the proportion of Caregiver's mode of transmission of malaria by District.

Table 45: Proportion Care Giver's Knowledge of Mode Malaria Transmission by District

District	No. of Responses	Bitten by infection mosquito	Consumption of dirty water /food	Beaten by excessive rain/sun	Dirty Environment	Witch craft	Eating unripe mangoes/fruits	Living with sick person	Others	Don't Know
Kailahun	163	3.3	1.5	1.1	2.7	0.3	1.1	0.8	0.0	0.1
Kenema	87	1.8	0.5	0.4	1.7	0.1	0.4	0.4	0.0	0.0
Kono	144	2.9	0.9	0.3	2.1	0.0	0.0	0.3	0.1	0.1
Bo	145	2.8	1.3	0.3	1.9	0.0	0.1	0.4	0.1	0.5
Bonthe	54	1.0	0.2	0.2	1.0	0.0	0.2	0.0	0.0	0.5
Moyamba	98	1.9	0.5	0.4	1.4	0.0	0.6	0.3	0.0	0.7
Pujehun	102	1.9	0.3	0.0	1.3	0.0	0.0	0.0	0.0	0.4
Bombali	188	3.8	1.9	0.5	2.5	0.0	0.3	0.5	0.0	0.1
Koinadugu	78	1.5	0.4	0.8	1.0	0.0	0.1	0.5	0.1	0.1
Tonkolili	135	2.7	1.2	0.1	2.2	0.0	0.1	0.4	0.0	0.1
Port Loko	176	3.6	0.4	0.1	3.0	0.0	0.0	0.2	0.0	0.1
Kambia	91	1.8	0.4	0.1	1.7	0.0	0.0	0.0	0.0	0.1
W/Area Urban	346	6.1	2.9	1.2	6.0	0.1	0.2	0.1	0.0	0.0
W/Area Rural	150	2.9	2.1	0.3	2.2	0.1	0.1	0.1	0.0	0.0
National (N)	1957	38.1	14.5	5.8	30.8	0.6	3.2	3.9	0.4	2.7

6.3.3 Care Giver's Knowledge on People Vulnerable to Malaria

The survey results shows that **1,959 caregivers** respondend to this question. Of this 94 percent of all these cases noted that children under five years of age are mostly vulberable Malaria. This also represent nearly **49 percent** of the total responses. About **76 percent** and **6 percent** of all cases, representing **40 percent** and **3 percent** of all responses of caregivers that mentoned, pregenant women and people living with HIV/AIDS, respectively been prone to Malaria. Very small proportion of caregivers (**0.3 percent)** mentioned that malnourished people are also vulnerable to this disease. Much as some of caregivers interviewed, about **9 percent** reported that there other category of people vulnerable to Malaria but these were not mentioned to the survey team, about 8 percent are not aware of the people vulnerable to malaria (see Table 46 for details).

Table 46: Proportion of Caregiver's Perception on the People Vulnerable to Malaria

Category of People	No. of Responses (n)	Percent of Responses	Percent of Cases
Children under 5 years of age	1,837	48.7	93.8
Pregnant women	1,497	39.7	76.4
People living with HIV/AIDS	112	3.0	5.7
Malnourished people	6	0.2	0.3
Other category of people (not mentioned)	176	4.7	9.0
Don't know	147	3.9	7.5

Analysing the data of responses at District level, of the **94 percent** Caregiver respondents noting that children under five years are most vulnerable to Malaria, a relative high proportion of these caregivers are in **17 percent** are in the Western Urban District, **9 percent** in Bombali Districts, whilst lowest proportion of **3 percent** are in Bonthe and Koinadugu Districts, each. Also, for the caregivers' who reported that pregnant women are vulnerable to Malaria, **15 percent** of these responses were in the Western Urban District, **8 percent** were in Port Loko District, with only **2 percent** in Koinadugu District and **2.6 percent** in Bonthe and Pujehun Districts, each. Whereas respondents noted that other category of people are vulnerable to Malaria, nearly **8 percent** do not know the category of people vulnerable to the disease, of which **1.3 percent** of these are in Bonthe District, and **1.1 percent** in Bo District. Table 47 below provides a detailed analysis of the caregiver's perception on the category of people vulnerable to Malaria.

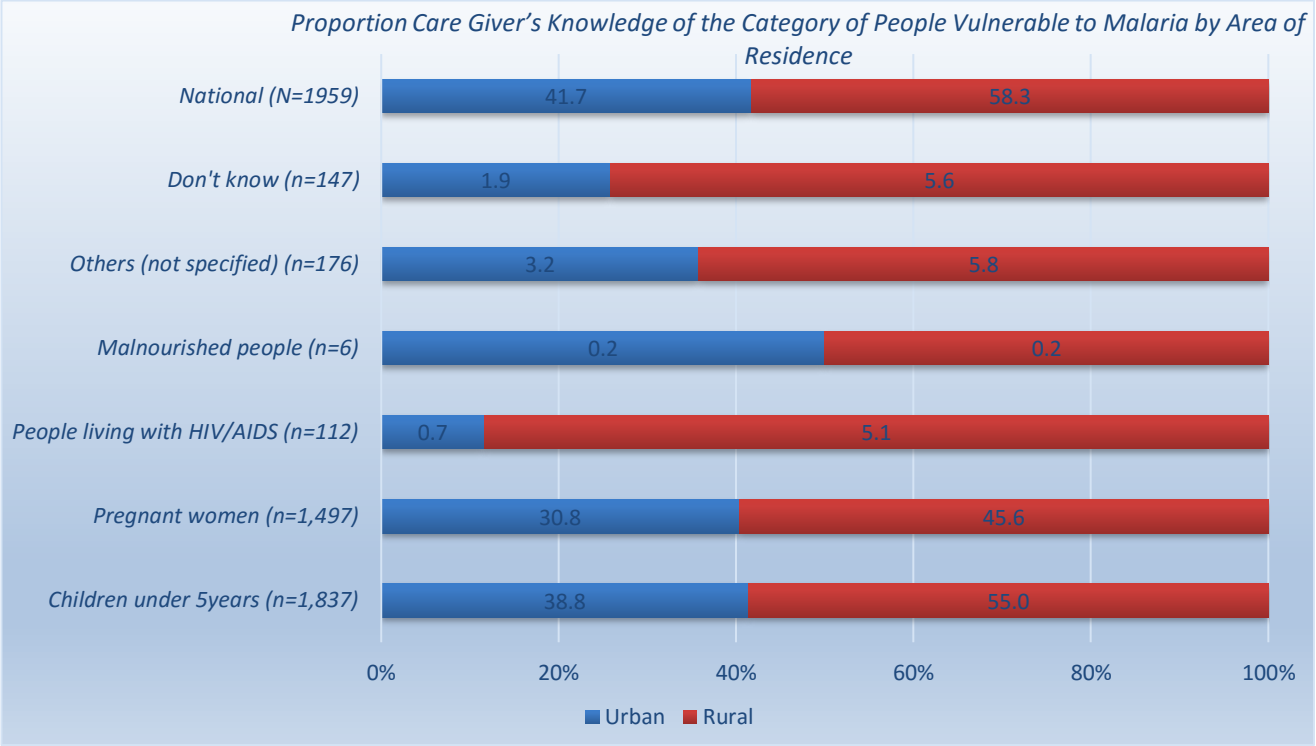
Table 47: Proportion Care Giver's Knowledge of the Category of People Vulnerable to Malaria by District

District	No. of Responses (n)	Children under 5years	Pregnant women	People living with HIV/AIDS	Malnourished people	Others (not specified)	Don't know
Kailahun	164	8.32	5.72	1.94	0.10	0.77	0.10
Kenema	87	4.34	4.24	0.36	0.00	0.00	0.10
Kono	144	7.20	6.02	0.20	0.00	0.10	0.46
Bo	145	6.69	5.62	0.10	0.00	1.23	1.12
Bonthe	54	2.71	2.60	0.56	0.00	0.82	1.28
Moyamba	98	4.65	4.75	1.23	0.00	1.23	1.23
Pujehun	102	4.85	2.60	0.00	0.05	0.77	0.66
Bombali	190	8.73	6.28	0.36	0.00	0.46	0.66
Koinadugu	78	3.06	2.04	0.05	0.00	0.56	0.56
Tonkolili	135	6.33	5.82	0.20	0.00	0.10	0.71
Port Loko	176	8.12	7.71	0.05	0.05	1.33	0.15
Kambia	91	4.34	4.13	0.10	0.05	0.36	0.15
W/Area Urban	346	17.25	14.85	0.36	0.00	0.41	0.20
W/Area Rural	149	7.20	4.03	0.20	0.05	0.87	0.10
Total	**1,959**	**93.77**	**76.42**	**5.72**	**0.31**	**8.98**	**7.50**

Out of the **1,959** Caregivers that responded to this questions, **58 percent** were in the Rural Areas and 42 percent in the Urban Areas. Of the proportion of caregivers in the Rural areas, **46 percent** noted that pregnant women are mostly vulnerable to Malaria, 55 cited children under five years of age, with 5 percent reporting people living HIV?AIDS. Also, out of the nerly 42 percent in the Urba Areas, about 39 percent reported childten under five yaers are most vulnerable to Malaria, 31 percent and

0.7 percent noted pregnant women and people living with HIV/AIDS, repectively.(See Chart 33 below for details)

Chart 33: Proportion of Caregivers Knowledge of the Category of People Vulnerable to Malaria by Area of Residence



6.3.4 Proportion Care Giver's Knowledge of Malaria Prevention Methods

Many researches indicate that Malaria presents major obstacles to social and economic development of many developing countries including Sierra Leone. Pregnant women and children under-five are mostly prone to the disease and interventions have been targeted at this group with the use of the Insecticides Treated bed nets (ITNs). According to the World Health Organization, World Malaria Report 2005 (Roll Back Malaria, 2005), ITNs reduce human contact with infected mosquitoes and have been shown to be an effective malaria prevention measure. The use of ITNs among pregnant women is associated with lower prevalence of malaria infections, lower occurrence of premature birth and significant reductions maternal anaemia. Furthermore, ITNs presents direct benefit to the individual, as well as it offers a protective benefit for the entire community, with increased reducing the transmission of Malaria. The optimal use of insecticide treated nets (ITNs) to prevent malaria in a community depends on vector behavior, mass distribution, knowledge and willingness of people to use the nets.

The survey interviwed all of the 1,961 (i.e. N=1,961) respondents on their knowledge and methods of Malaria prevention. Of this, 90 percent of all cases reported sleeping under ITN, which represent about **one-quarter (25 percent)** of the total responses. This proportion shows the use of the ITNs as the most effective means of preventing the disease. About 64 percent of all the cases of caregivers, representing nearly **18 percent** of all responses, cited the use of mosquito coils and 61 percent, noted

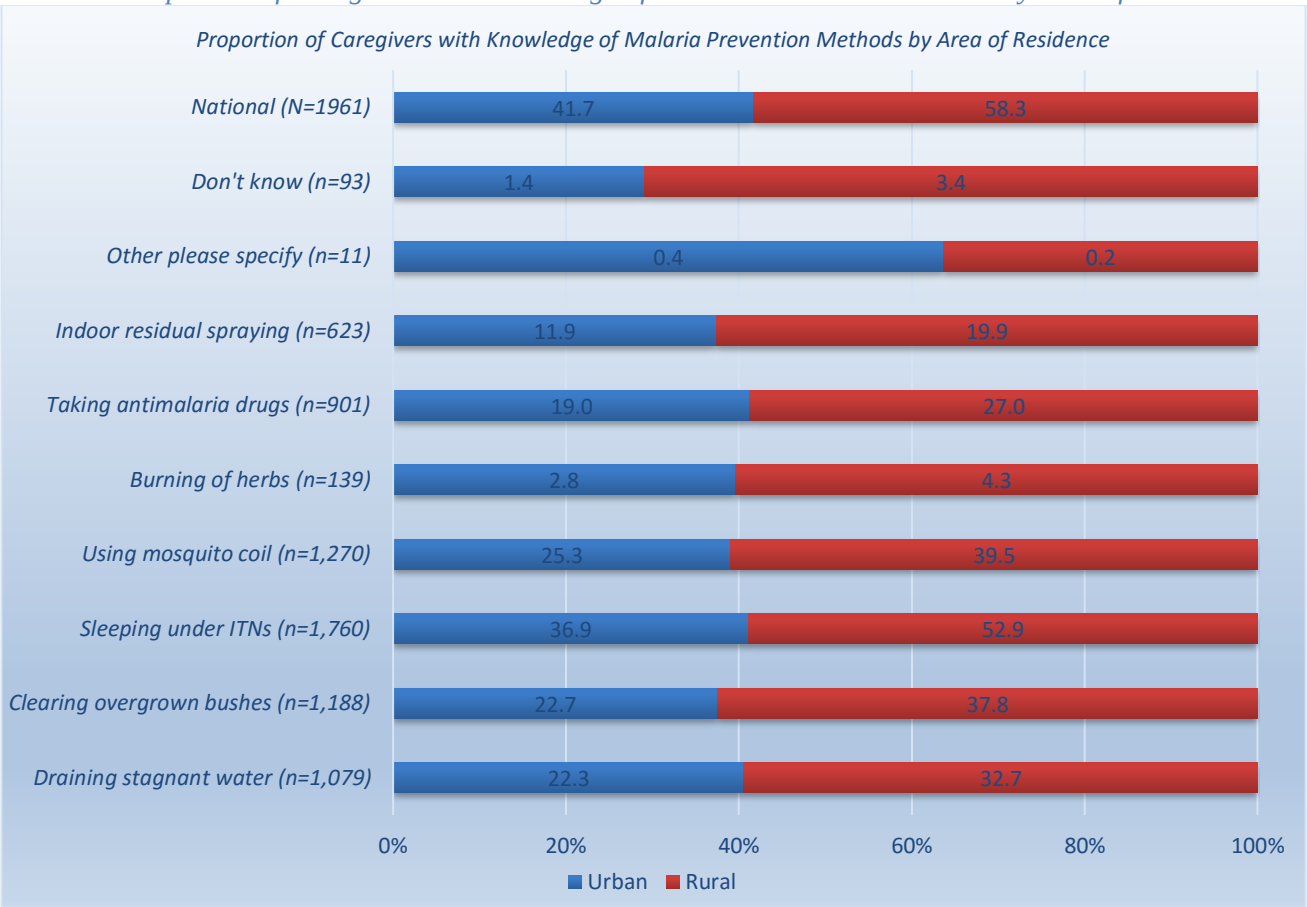
the clearing of overgrown bushes as some of the effective means of preventing Malaria disease.. About 55 percent noted the draining of stagnant water in environment, whilst 46 percent posited that taking antimalaria drugs would prevent the disease. Table 48 below details the proportion of caregivers knowledge on the methods of malaria prevention.

Table 48: Proportion of Caregivers Knowledge on the Methods of Malaria Prevention

Prevention Methods	No. of Responses (n)	Percent of Response	Percent of Cases
Draining stagnant water	1,079	15.3	55.0
Clearing overgrown bushes	1,188	16.8	60.6
Sleeping under ITNs	1,760	24.9	89.8
Using mosquito coil	1,270	18.0	64.8
Burning of herbs	139	2.0	7.1
Taking antimalarial drugs	901	12.8	45.9
Indoor residual spraying	623	8.8	31.8
Other methods not specified	11	0.2	0.6
Don't know	93	1.3	55.0

Assessing their responses by areas of residence, generally, about 42 percent of caregivers in the Urban Areas and 58 percent in the Rural Areas had knowledge on the methods of Malaria prevention of Malaria. Of this proportions, 37 **percent** and 53 **percent** of the caregivers in the Urban and Rural Areas, respectively, noted that the Malaria could be prevented by the effective use of ITNs. Out of the number of respondents who cited the use of mosquito coils, 40 percent are in the Urban Areas, whilst **25 percent** are in the Rural Areas. A detailed analysis of the caregiver's knowledge of the methods of malaria prevention by area is presented in Chart 34 below.

Chart 34: Proportion of Caregivers with Knowledge of Malaria Prevention Methods by Area of Residence



The results of the survey data showed that majority of the **25 percent** of them citing sleeping under insecticides treated bed nets as the most effective means of preventing malaria. Of this **15.2 percent** are in the Western Urban District, with **8.7 percent** in Bombali and Port Loko Districts, each. Although the majority of caregiver respondents noted that the use of ITNs as the most effective use of malaria, however only **2.3 percent** and **3.2 percent** of caregiver respondents in Bonthe and Koinadugu Districts, respectively. Of those that cited the use of mosquito coils, **13.5 percent** are in Western Urban District, **6.9 percent** in Port Loko Districts, with low proportion of caregivers in Pujehun District at **1.2 percent** and **2.0 percent** in Bonthe District. Table 49 below shows the proportion of Caregiver's mode of transmission of malaria by District.

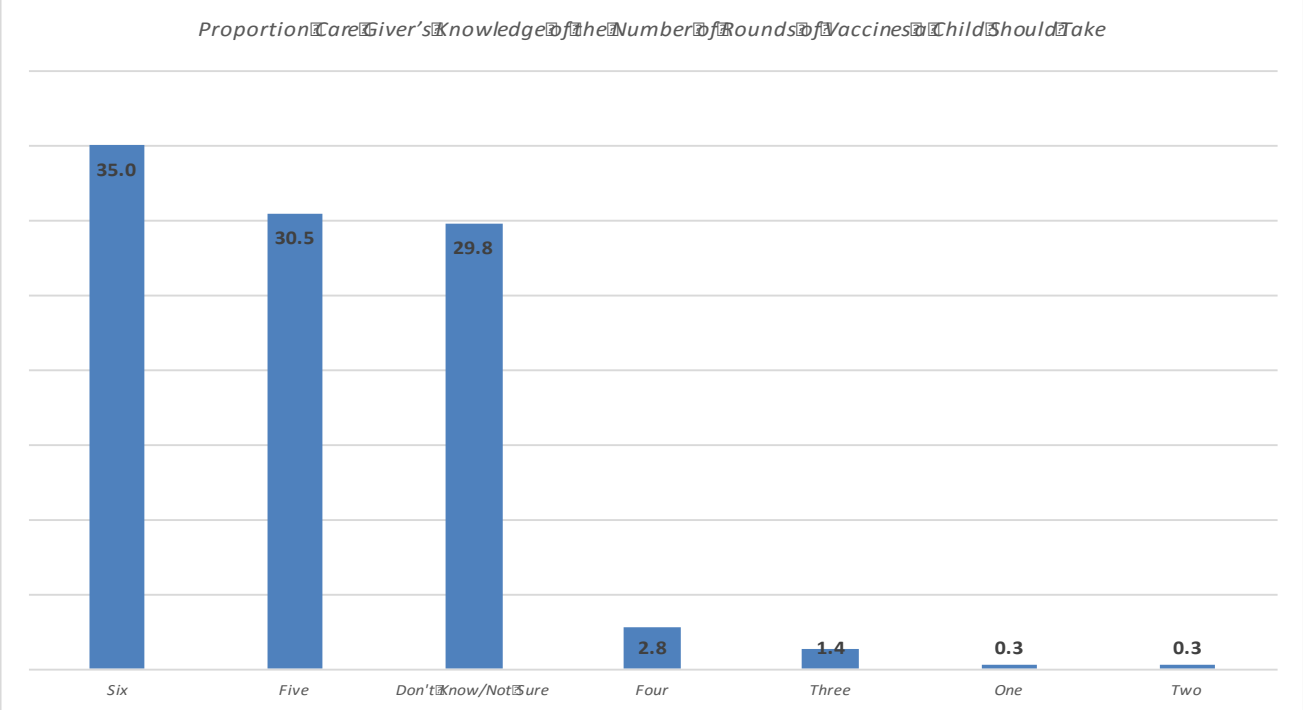
Chart 49: Proportion Care Giver's Knowledge of the Method of Malaria Prevention by District

District	No. of Responses (n)	Draining stagnant water	Clearing overgrown bushes	Sleeping under ITNs	Using mosquito coil	Burning of herbs	Taking antimalaria drugs	Indoor residual spraying	Other	Don't know
Kailahun	634	4.3	6.3	8.1	5.0	1.5	3.9	2.9	0.1	0.1
Kenema	316	1.0	3.2	4.0	3.8	0.7	1.9	1.5	0.0	0.1
Kono	485	3.7	3.4	7.3	3.7	0.2	3.6	2.5	0.1	0.2
Bo	438	4.1	2.7	6.2	4.2	0.1	3.3	0.8	0.1	0.9
Bonthe	231	1.3	1.4	2.3	2.0	0.4	1.6	2.0	0.0	0.7
Moyamba	363	2.3	2.2	4.3	3.4	0.4	2.3	2.6	0.0	1.0
Pujehun	295	3.2	3.1	4.3	1.2	0.1	1.6	0.7	0.1	0.8
Bombali	757	5.4	5.7	8.7	5.5	2.0	6.8	4.3	0.0	0.2
Koinadugu	252	1.1	3.0	3.2	2.8	0.2	0.7	1.4	0.0	0.4
Tonkolili	525	4.6	5.2	6.6	3.8	0.3	3.6	2.8	0.1	0.1
Port Loko	715	6.3	5.3	8.6	6.9	0.4	5.9	3.0	0.0	0.2
Kambia	382	3.7	2.9	4.3	3.7	0.3	3.5	1.0	0.0	0.2
W/Area Urban	1192	9.5	11.6	15.2	13.5	0.5	5.2	5.1	0.1	0.1
W/Area Rural	479	4.5	4.6	6.5	5.3	0.2	2.0	1.2	0.1	0.0
Total (N)	**7,064**	**55.0**	**60.6**	**89.8**	**64.8**	**7.1**	**45.9**	**31.8**	**0.6**	**4.7**

6.3.5 Caregiver's Knowledge on the Number of Rounds of Vaccination a Child Should Take

To ensure a reduction in infant mortality and the risks to certain disease, children under the ages of 0-59 months should complete the full dose of vaccines. It is therefore important for caregivers or mothers to note the full dose of vaccines or marklate for children between the ages of 0-59 months, to ensure that their children fully immunized against certain diseases. The survey interviewed Caregivers on their knowledge of maternal and child health, including the number of rounds of vaccinations that is required for under five children. About **35 percent** of the caregivers reported that children under five years should take six rounds of vaccination, 31 percent noted five, whilst nearly **30 percent** were either did not know or were not sure (See Chart 35 below for details).

Chart 35: Proportion Care Giver's Knowledge of the Number of Rounds of Vaccines a Child Should Take



Assessing caregivers knowledge of the number of rounds of vaccines a child should take to be fully immunized, the data analysis showed out of the **35 percent** that reported six rounds of vaccination, **15 percent** are in the Urban Areas and **20 percent** in Rural Areas. This implies that rural communities either have a relatively better messages on maternal health care including immunization messages, or Community Health Worker within these settings are more effectively compared to urban areas. However, there remain a relatively high proportion of caregivers who either do not know the number of rounds of vaccines their children should take or are not sure what immunization packages they should receive. This is evident from the survey finding that **19 percent** of caregivers that are either not sure or do not know the number of rounds of vaccines children under five should receive, compared to **11 percent** in Urban Areas. Table 50 below the proportion of caregiver's perception on the number of rounds of vaccines children fewer than five should receive by Area of Residence.

Table 50 : Proportion Care Giver's Knowledge of the Number of Rounds of Vaccines a Child Should Take by Area of Residence

No. of Rounds	No. of Responses (n)	Urban	Rural
One Round	5	0.21	0.05
Two Rounds	5	0.16	0.10
Three Rounds	27	0.73	0.68
Four Rounds	53	1.05	1.73
Five Rounds	582	13.88	16.61
Six Rounds	669	14.93	20.12
Don't Know/**Not Sure**	568	10.74	19.02
National (N)	**1,909**	**41.70**	**58.30**

Analysing the survey data by District, results show that out of the number of caregivers that reported that the full dose of vaccines or marlate is six rounds, compared to other Districts, a relatively large proportion of caregivers in the Western Urban District (**7.4 percent**) have knowledge of the full dose of vaccines/marlate, followed by Port Loko District and Western Rural Districts at **5.0 percent** and **4.0 percent**, respectively. However, a relatively small proportion of caregivers interviewed in Pujehun District (**0.6 percent**), Moyamba District (**0.4 percent**) and Bonthe District (**0.2 percent**), mentioned to the survey team that the full dose of vaccines or marklate a child should take is six rounds. Table 51 below provides detailed analysis of the caregivers' knowledge on the number of rounds children under five years should take to be fully immunized by District.

Table 51: Proportion Care Giver's Knowledge of the Number of Rounds of Vaccines a Child Should Take by District

District	No. of Responses (n)	One Round	Two Rounds	Three Rounds	Four Rounds	Five Rounds	Six Rounds	Don't Know/Not Sure
Kailahun	160	0.05	0.00	0.37	0.79	2.57	1.20	3.40
Kenema	86	0.00	0.00	0.00	0.00	1.05	3.09	0.37
Kono	143	0.00	0.00	0.05	0.42	1.89	3.82	1.31
Bo	142	0.00	0.00	0.21	0.10	1.89	1.52	3.72
Bonthe	53	0.00	0.00	0.10	0.05	1.78	0.16	0.68
Moyamba	96	0.00	0.00	0.05	0.31	2.88	0.37	1.41
Pujehun	102	0.00	0.00	0.00	0.05	0.05	0.63	4.61
Bombali	183	0.00	0.05	0.05	0.10	3.56	2.67	3.14
Koinadugu	70	0.00	0.00	0.05	0.10	1.15	1.36	1.00
Tonkolili	133	0.00	0.00	0.00	0.26	3.46	2.04	1.20
Port Loko	170	0.00	0.05	0.10	0.16	1.26	5.03	2.30
Kambia	91	0.00	0.00	0.00	0.21	0.68	1.68	2.20
W/Area Urban	337	0.21	0.05	0.16	0.10	6.50	7.44	3.20
W/Area Rural	143	0.00	0.10	0.26	0.10	1.78	4.03	1.20
National (N)	1,909	0.26	0.26	1.41	2.78	30.49	35.04	29.75

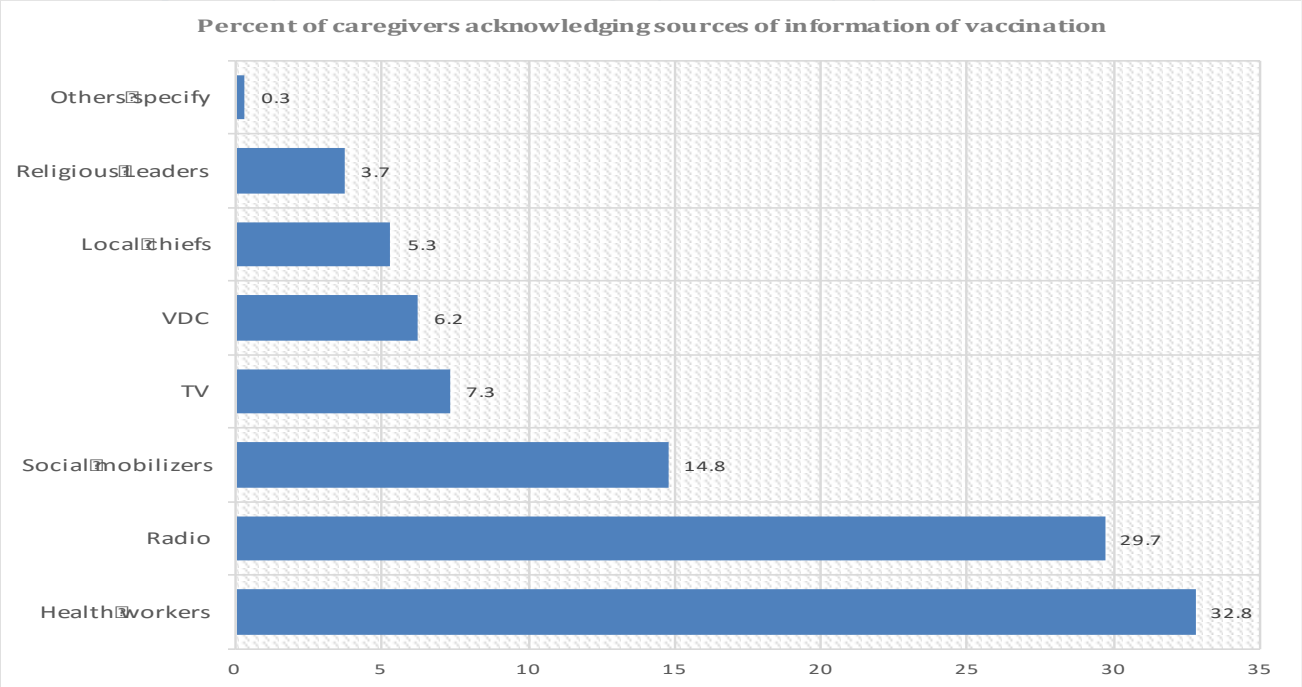
On the number of months at which child should take the full does of vaccination, **57 percent** of caregivers noted that full rounds of vaccinations should be administered to children between the ages of five to nine months, whilst nearly **30 percent** reported that they don't know the age at which a child should take a full dose of vaccinations. A detailed analysis of the months in which a full dose of vaccination should be administered is provided in Table 52 below.

Table 52: Proportion of Care Giver's Perception on the Months of Administration of full dose of vaccination

Period of Vaccination	No. of Responses	Percent of Responses
Btwn 0-4 months	38	2.0
Btwn 5-9 months	1,092	57.2
Btwn 10-14 months	124	6.5
Btwn 15-19 months	72	3.8
Btwn 20-24 months	3	0.2
Above 24 months	17	0.9
Don't Know	563	29.5
Total	1,909	100.0

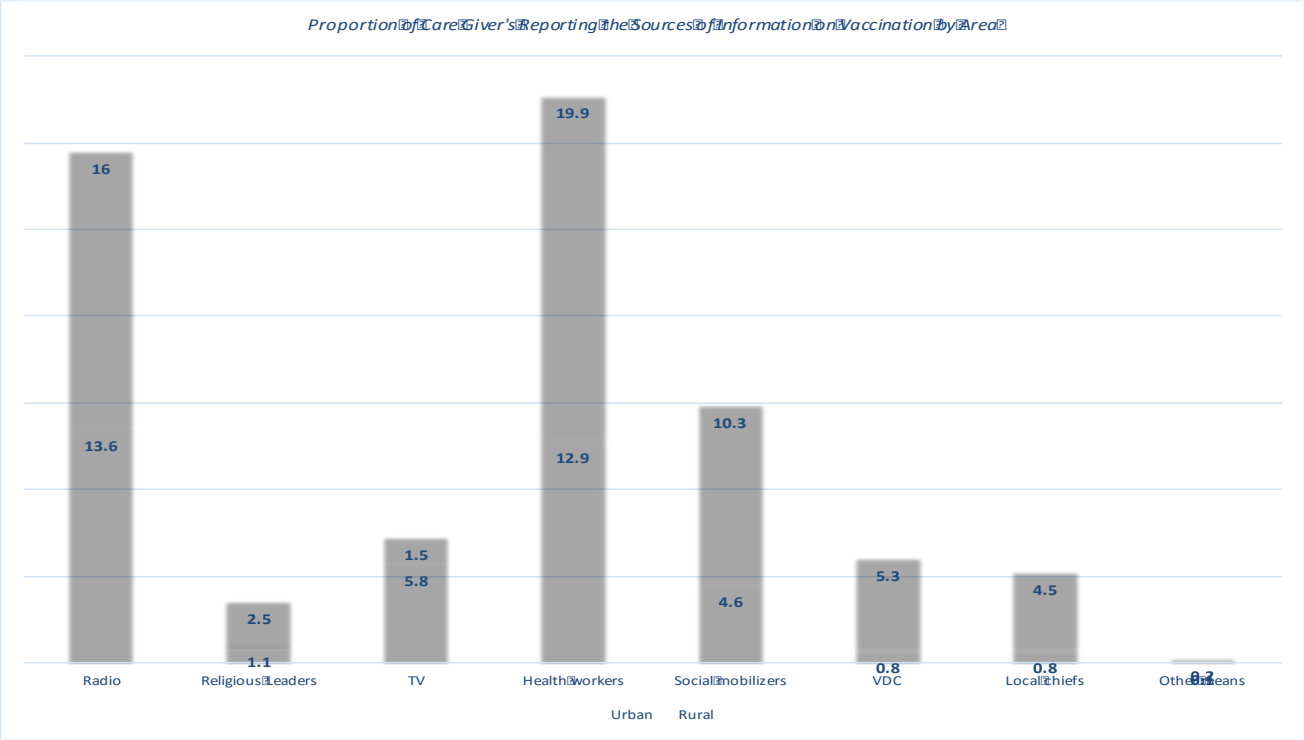
Asked on the sources of information on the vaccinations, about **33 percent** and **30 percent** of caregivers noted that information are mainly from health care workers and radio broadcasts, respectively. Community leaders including; religious leaders and local chiefs were also noted to have played important role in health care services in communities. About **15 percent** of caregivers reported to have received information on vaccination from social mobilizers and **7 percent** from TV stations, a little over **5 percent** from local chiefs. The Ministry of Health and Sanitation and its development partners have also engaged religious leaders in the dissemination of health care messages including information on vaccination, as reported by nearly **4 percent** of caregivers interviewed. Chart 36 below provides detailed analysis on the sources of information on vaccination.

Chart 36: Proportion of Care Giver's with Knowledge of the Sources of Information on Vaccination



Out of the total number of caregivers interviewed report receiving vaccination information from health care workers, **13 percent** and **19 percent** are in the Urban Areas and Rural Areas, respectively. Of the number of caregivers who reported sources of information on vaccination from radio, **14 percent** are in the Urban Areas and **16 percent** in Rural Areas. Detailed information on the proportion of caregivers reporting the sources of information on vaccination by area is presented in Chart 37 below.

Chart 37: Proportion of Care Giver's with Knowledge of the Sources of Information on Vaccination by Area of Residence



The survey also noted that about **68 percent** of caregivers reported having children aged 16-59 months in their households. Of this, about **63.4 percent** of these caregivers noted that these children (16-59 months) received the six separate rounds of vaccinations. The remaining **4.5 percent** of the caregivers with children aged 16-59 months did not receive the six separate rounds of vaccination. An estimated **65.2 percent** cited that their children were too young or were not at the required age, nearly **17 percent** of the caregivers reported not aware of the six separate rounds of vaccines, **11 percent** of them were too busy to take their children for vaccinations, **3 percent** had fear of the safety of the vaccines administered as their children often fall sick whenever they take vaccines. A minimal **1.1 percent** and **2.2 percent** reported that vaccines were not available at the facility and vaccinators were not in the facility at the time, respectively.

Of the number of caregivers/mothers who reported that their children aged **16-59 months** did not take the six separate rounds of vaccines, **46 percent** of them who noted that the children were too young or not at the required were in the Rural Areas with **29 percent** in the Urban Areas. About **19 percent** of caregivers or mothers who said that they were not aware of the six separate rounds of vaccines for children between the ages of **16-59 months** were in the Urban Area, and **8 percent** in the Rural Areas. Table 53 below discusses the full reasons given by caregivers or mother with children between ages of 16-59 months for not taken the six separate rounds of vaccines.

Table 53: Reasons for Care Giver's with Children (16-59 months) not taken the Six Separate Rounds of Vaccination by Area of Residence

Reasons for child (16-59 months) not Six Separate rounds of Vaccines	Urban	Rural
Child too young/**Not up to** the required age	29.3	46.1
Not Aware	19.1	7.9
Mother/**Caregiver too busy**	9.0	6.7
Vaccines not available at facility	4.5	1.1
Vaccinator not available at facility	0.0	2.2
Fear of Vaccine safety (child fall sick)	0.0	3.4

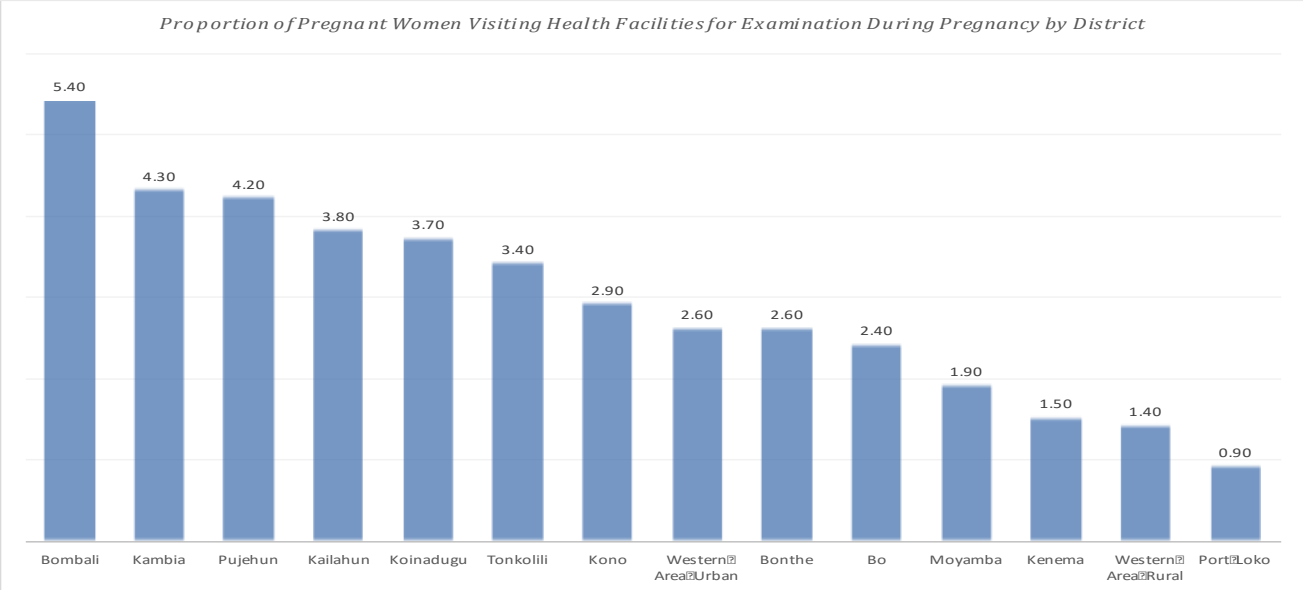
6.3.6 Utilisation of Antenatal Health Care Services

many researches have noted that good care during pregnancy is important for the health of the mother and the development of the unborn baby. Pregnancy is a crucial time to promote healthy behaviours and parenting skills. It is important to note that good antenatal care links the woman with the formal health system, increases the chance of using a skilled attendant at birth and contributes to good health through the life cycle. Effective antenatal care helps to prevent maternal and child death, by providing an operational continuum of care, especially before and during pregnancy, childbirth, and the postnatal period. It also provides women with appropriate information and advice for a healthy pregnancy, safe childbirth, and postnatal recovery, including care of the newborn, promotion of early, exclusive breastfeeding, and assistance with deciding on future pregnancies in order to improve pregnancy outcomes.

The study investigated the effective use of antenatal health care services by women in the households covered by the survey. An estimated **44 percent** of households covered had pregnant women, with only **41 percent** reported visiting health facilities during their pregnancy. Of this, **17 percent** in the Urban Areas and **24 percent** in Rural Areas.

Chart 41 shows that there was low proportion of women reporting antenatal visits in Port Loko District (**0.3 percent**), followed by Western Rural District at **1.4 percent**. Bombali District and Kambia District recorded a relatively higher proportion of pregnant women making antenatal visit, as reported by **5.4 percent** and **4.3 percent** of respondents interviewed, respectively.

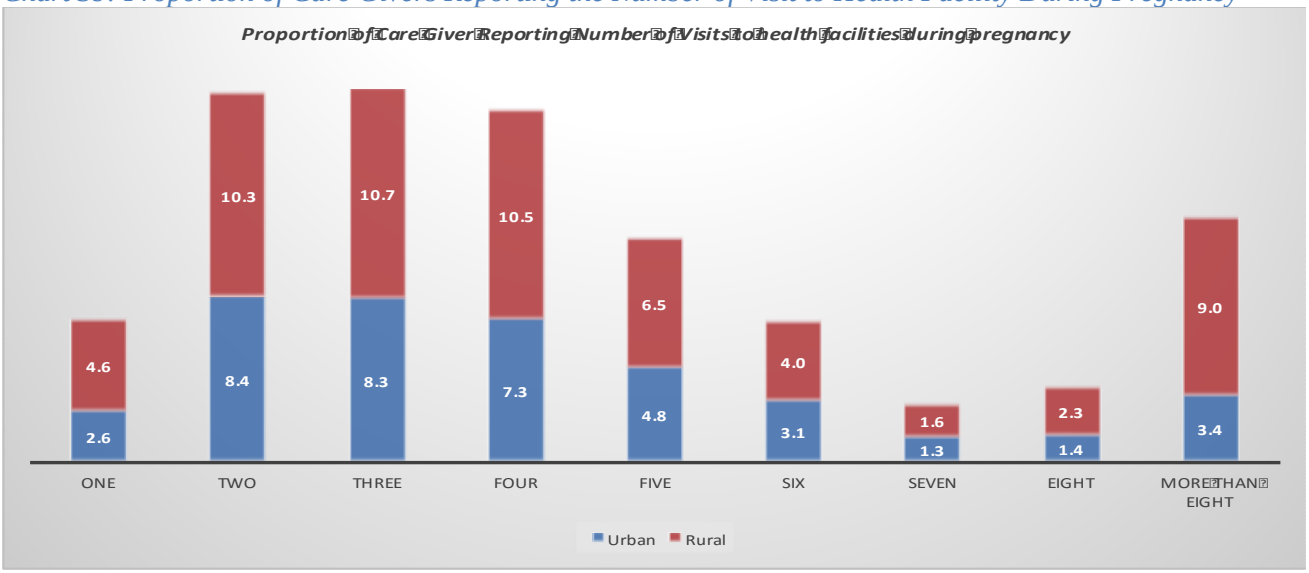
Chart 38: Proportion of Care Giver's with Knowledge of the Sources of Information on Vaccination by District



The World Health Organization recommends pregnant women should to conduct a minimum four antennal visit during pregnancy, with the first within 16 weeks, second between 24-28 weeks, the third by 32 weeks of pregnancy and the fourth within 36 weeks of pregnancy. Ideally pregnant women are also expected to make a maximum of 8 antenatal visits from the first month of missing a menstrual cycle.

The survey therefore interviewed caregivers/pregnant women on the number of visit they made to health facilities during their pregnancy. Results show that 55 percent of caregivers reported making at least 4 antenatal visits during their pregnancy, of which 21 percent in Urban Areas and 34 percent in Rural Areas. Chart 39 below presents a detailed analysis.

Chart 39: Proportion of Care Givers Reporting the Number of Visit to Health Facility During Pregnancy



At the District level, the **63 percent** of caregivers in Bombali reported less than 4 antenatal visits, **59 percent** in Kono District, followed by **55 percent** in Koinadugu. For caregivers who made at least 4 antenatal visits, **75 percent** were in Port Loko, **71 percent** were in Bombali District. There was relatively lower proportion of caregivers in Bombali District, Kono District, and Koinadugu Districts who made at least four antenatal visits to health facilities, at **37 percent**, **41 percent** and **45 percent**, respectively. A detailed explanation on the number of antennal visits done by caregivers during pregnancy by District is presented in Tbale 54, below.

Table 54: Proportion of Care Givers Reporting the Number of Visit to Health Facility During Pregnancy by District

District	No. of Responses (n)	One	Two	Three	Four	Five	Six	Seven	Eight	More than Eight	% by District
Kailahun	51	0.25	1.63	1.13	1.38	0.50	0.25	0.25	0.25	0.75	6.39
Kenema	28	0.25	0.50	0.38	0.88	0.25	0.38	0.38	0.13	0.38	3.51
Kono	66	1.00	2.63	1.25	1.38	0.88	0.50	0.13	0.00	0.50	8.27
Bo	83	0.88	1.38	2.26	1.13	1.00	0.75	0.13	0.88	2.01	10.40
Bonthe	17	0.13	0.13	0.38	0.75	0.38	0.25	0.00	0.00	0.13	2.13
Moyamba	36	0.25	0.25	1.13	0.75	0.88	0.75	0.00	0.50	0.00	4.51
Pujehun	57	0.63	1.38	0.75	1.25	0.75	0.38	0.25	0.13	1.63	7.14
Bombali	73	0.63	2.26	2.88	2.51	0.50	0.38	0.00	0.00	0.00	9.15
Koinadugu	29	0.13	0.88	1.00	1.13	0.50	0.00	0.00	0.00	0.00	3.63
Tonkolili	85	0.88	2.63	1.88	1.88	1.00	0.63	0.25	0.38	1.13	10.65
Port Loko	75	0.38	1.00	1.00	1.38	1.00	0.50	0.88	0.50	2.76	9.40
Kambia	51	0.50	0.50	1.00	0.88	1.25	0.38	0.00	0.25	1.63	6.39
W/Area Urban	102	0.75	2.13	3.01	1.88	1.88	1.75	0.25	0.25	0.88	12.78
W/Area Rural	45	0.63	1.38	0.88	0.63	0.50	0.25	0.38	0.38	0.63	5.64
Total (N)	798	**7.27**	**18.67**	**18.92**	**17.79**	**11.28**	**7.14**	**2.88**	**3.63**	**12.41**	**100.0**

6.3.7 Proportion of Caregivers Knowledge of the Free Health Care Services

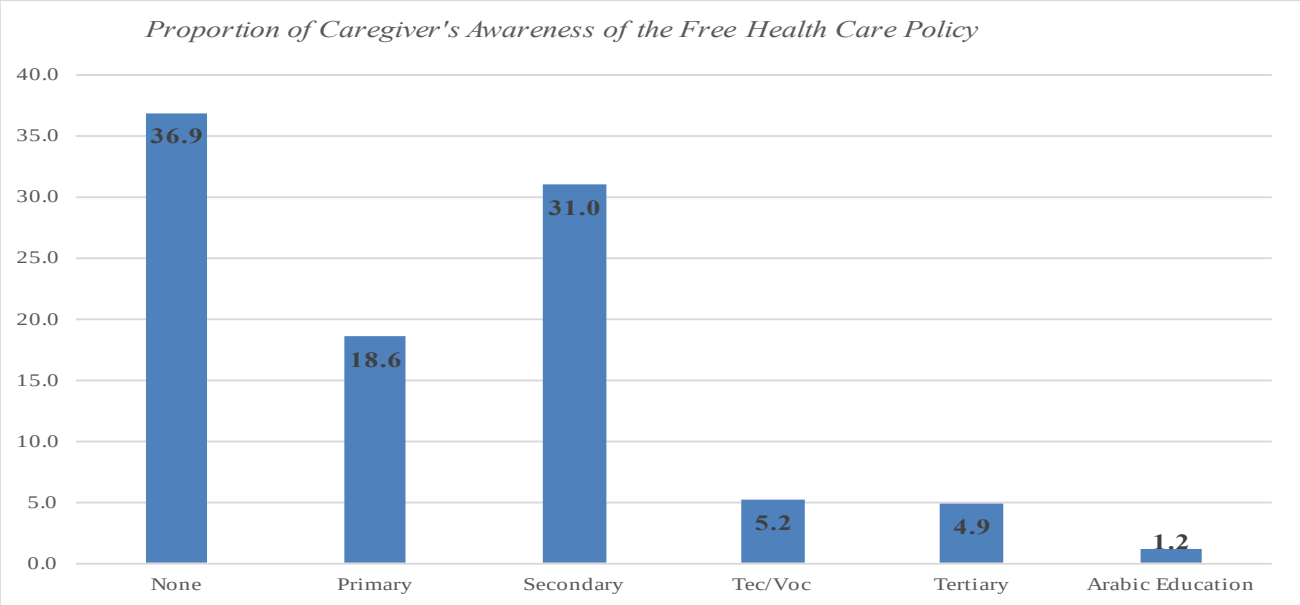
The Free Health Care Initiative (FHCI) introduced in 2010 is targeted at pregnant women, lactating mothers and under-five children with the aim of removing user fees and other health related financial costs, which were perceived to be a major deterrent to mothers and children using health services in Sierra Leone, a fact consistent with evidence at the international level. The FHCI programme aimed to make health services free at the point of delivery for the target populations of expectant and lactating mothers and children fewer than five years of age.

The Free Health Care Initiative was aimed at supporting the continuous availability of equipment, drugs, and other essential commodities, as well as strengthening the health service cadre with professional and qualified health workers and provision of an adequate infrastructure to deliver services among others. The programme was also targeted at reducing the financial barrier to service care for users by the elimination of user fees for targeted group of beneficiaries.

To this end, the survey assessed users especially caregivers' awareness of the Free Health Care Policy as well as their knowledge on the services provided on the Initiative. The results showed an overwhelming **98 percent** of caregivers' awareness of the Free Health Services, of which **41 percent**

in the Urban Areas and **57 percent** in the Rural Areas. Of the overwhelming majority of caregivers that reported knowledge of the Free Health Care Policy, nearly **37 percent** are uneducated and **31 percent** with secondary education. The detailed analysis of caregivers' awareness of the Free Health care Policy is provided in Chart 40 below.

Chart 40: Proportion of Care Givers' Awareness of the Free Health Care Policy



At the Districts, about there is little level of awareness of the Free Health Care Policy in Bonthe District (**2.7 percent**), followed by Koinadugu at **4.0 percent**. This could largely be attributed to the accessibility of the terrain. The highest level of awareness of the Free Health Care Policy is recorded in the Western Urban District (**17 percent)**, followed by Bombali District and Port Loko District at **9 percent**. Table 55 below provides the proportion of caregivers with the awareness of the Free Health Care services by District.

Table 55: Proportion of Care Giver's with Awareness of the Free Health Care Services by District

District	No. of Responses (n)	Aware	Not Aware	Proportion by District
Kailahun	51	8.3	0.1	8.4
Kenema	28	4.4	0.1	4.4
Kono	66	7.3	0.0	7.3
Bo	83	7.2	0.2	7.4
Bonthe	17	2.7	0.1	2.8
Moyamba	36	4.8	0.2	5.0
Pujehun	57	4.9	0.3	5.2
Bombali	73	9.0	0.7	9.7
Koinadugu	29	4.0	0.0	4.0
Tonkolili	85	6.9	0.0	6.9
Port Loko	75	8.8	0.2	9.0
Kambia	51	4.4	0.2	4.6
W/Area Urban	102	17.4	0.3	17.6
W/Area Rural	45	7.5	0.2	7.6
Total (N)	798	97.7	2.3	100.0

6.3.8 Care Giver's Knowledge of Free Health Care Services and the Category of Beneficiaries

Analysis of the Caregivers' knowledge of the services provided, show that about **74 percent** of all the caregivers ineterviwed noted that the Free Health services provides free medica care for all under five children, **70 percent** noted free antinatal care at public facilities. About **70 percent** of caregivers interviewed noted that the Free Health Care services covers free anti-natal care services at public facilities, whilst **68 percent** believes that free delivery at facilities is part of the free health services. Also, nearly 60 percent of the Caregivers noted that free post natal care services is part of the Free Haelth Care services at facilities. The proportion of caregivers acknoweldgeing the different free health care services highlighted by the survey is provided in the multiple response Table 56 below.

Table 56: Proportion of Care Giver's knowledge of the Free Health Care Services

FHC Services	No. of Response	Percent of Responses	Percent of Cases
Free ANC at public facilities	1,374	16.5	70.1
Free delivery at facilities	1,330	15.9	67.8
Free post natal at public facilities	1,169	14.0	59.6
Free family planning at public facilities	404	4.8	20.6
Free STI at public facilities	227	2.7	11.6
Free medical treatments for newborns	1,265	15.2	64.5
Free medical treatments for infants	1,069	12.8	54.5
Medical care for all Under Five Children	1,456	17.4	74.2
Other services (not specified)	52	0.6	2.7

On the beneficiaries of the Free Health Services, **a**bout **97 percent** noted that the Free Health Care Services covers under five children, **92 percent** and **70 percent** reported that the Free Health Services covers pregnant women and lactating mothers, respectively.

6.4 Water Sanitation and Health Services (WASH) Knowledge and Attitude in Households

The effects of poor sanitation seep into every aspect of life especially with health, nutrition, development, economy, dignity and empowerment. The study investigated the household behaviuor and practice WASH, including their treatment and handling of drinking water sources, excreta disposal and hand washing practices at households.

6.4.1 Sources of Drinking Water at Households

Household respondents were generally interviewed on their knowledge and attitude on WASH. On the sources of drinking water, about **40 percent** of household heads reported using protected dug well as the source drinking water for their households. Twenty percent (**22 percent**) and **6 percent** of household heads use in-house connections and bottled/plastic water, respectively as a means of accessing drinking water. Table 57 provides a detailed analysis on the sources of drinking water at District level.

Table 57: Proportion of Household Heads Reporting the Sources of Drinking Water by District

District	No. of Responses (n)	Open jar	Close jar	Open bucket	Closed container	Open container
Kailahun	164	0.41	1.33	2.24	0.05	4.34
Kenema	87	0.26	2.91	0.00	0.00	1.28
Kono	144	0.20	1.12	0.61	0.05	5.36
Bo	145	0.10	1.33	2.30	0.00	3.67
Bonthe	54	0.36	1.02	0.41	0.00	0.97
Moyamba	98	0.36	1.73	0.36	0.00	2.55
Pujehun	102	0.26	2.14	0.87	0.05	1.89
Bombali	190	1.28	2.70	2.24	0.05	3.42
Koinadugu	78	0.36	1.58	1.48	0.05	0.51
Tonkolili	135	0.10	2.19	0.87	0.00	3.72
Port Loko	176	0.10	0.20	1.43	0.00	7.24
Kambia	91	0.05	0.05	0.36	0.00	4.18
W/Area Urban	346	1.22	9.34	0.61	0.20	6.28
W/Area Rural	150	0.56	4.13	0.20	0.00	2.76
Total (N)	1,960	5.61	31.79	13.98	0.46	48.16

6.4.2 Kinds of Containers for Storing Drinking Water

Over **48 percent** of household heads interviewed noted that drinking water sourced for their household is stored in open containers, whilst **32 percent** and **14 percent**, reported storing their drinking water in close jar and open buckets, respectively. About **6 percent** of households interviewed keep their drinking water in open buckets, whilst less one percent (**0.5 percent**) keeps theirs in closed containers.

Analyzing the survey data at District level, of the **48 percent** of household head reporting the use of open container for storing drinking water, **15 percent** are in Port Loko District, **13 percent** in the Western Urban District, and **11 percent** in Kono District. Household respondents in Kenema and Koinadugu District reported the level proportion at **2.6 percent** and **1.1 percent**, respectively on the use of open containers for storing drinking water. Of the **32 percent** of household heads using close jar for storing drinking water, **29 percent** are in the Western Urban District, **13 percent** in Western Rural District, whilst the proportion of household responses using close jar in two were less than **1 percent**; Port Loko at **0.6 percent** and Kambia District at **0.2 percent**. Table 58 below show the proportion of household head reporting the type of containers for keeping Drinking Water by District.

Table 58: Proportion of Household Heads Reporting the Types of Containers for Keeping Drinking Water by District

District	No. of Responses (n)	Household connections	Borehole	Protected dug well	Unprotected dug well	River/stream	Bottled/plastic water
Kailahun	164	0.56	1.79	3.93	1.53	0.46	0.10
Kenema	87	1.63	2.24	0.36	0.20	0.00	0.00
Kono	144	2.04	1.73	3.37	0.10	0.00	0.10
Bo	145	0.36	1.33	4.34	0.41	0.92	0.05
Bonthe	54	0.10	0.46	1.63	0.00	0.51	0.05
Moyamba	98	0.00	1.58	3.06	0.05	0.20	0.10
Pujehun	102	0.10	0.10	3.27	1.53	0.20	0.00
Bombali	190	2.19	0.56	2.50	3.57	0.71	0.15
Koinadugu	78	0.56	0.77	2.40	0.05	0.15	0.05
Tonkolili	135	2.14	2.35	2.19	0.05	0.05	0.10
Port Loko	176	1.68	0.10	5.26	0.10	1.73	0.10
Kambia	91	0.15	0.20	3.93	0.00	0.31	0.05
W/Area Urban	346	9.85	1.12	1.94	0.15	0.05	4.54
W/Area Rural	150	0.61	1.02	1.79	2.45	1.38	0.41
Total (N)	**1,960**	**21.99**	**15.36**	**39.95**	**10.20**	**6.68**	**5.82**

On the frequency of cleaning of the water containers at household level, about **46 percent** of respondents interviewed noted that the containers are cleaned every time before storing water, whilst **45 percent** noted that they are cleaned on a daily basis. Only **9 percent** reported cleaning the water storing containers once every week (see Table 59 below).

Table 59: Proportion of Household Heads Reporting the Frequency of Cleaning Containers for Storing Drinking Water

Frequency of Cleaning	Frequency	Percent
Everyday	892	45.5
Once a week	170	8.7
Each time before storing water	899	45.8
Total	**1961**	**100**

Assessing the proportion of household responses on the frequency of cleaning containers storing drinking water, **17 percent** of the respondents who noted cleaning containers each time before storing water were in Port Loko District, **12 percent** in Bombali District, **11 percent** in Western Urban and **10 percent** in Tonkolili District. Less than **1 percent** of the respondents (**0.6 percent**) were in Kenema District. Of the **45.5 percent** of respondents reporting cleaning water storing container everyday, **22 percent** are in Western Urban District, **13 percent** in Kailahun District, whilst only **2 percent** and **1.2 percent** are in Port Loko and Kambia Districts, respectively. Also, of the nearly **9 percent** cleaning water storing container only once a week, **31 percent** are in the Western Urban District, nearly **15 percent** in Bombali District, **1.2 percent** in Kambia District and none (**0.0 percent**) in Kenema District. Table 60 below provides detailed information on the proportion of household heads reporting the frequency of cleaning water storage containers by District.

Table 60 : Proportion of Household Heads Reporting the Frequency of Cleaning Containers for Storing Drinking Water by District

District	No. of Responses (n)	Everyday	Once a week	Each time before storing water	Total
Kailahun	164	5.92	0.66	1.78	8.36
Kenema	87	4.18	0.00	0.25	4.44
Kono	144	3.21	0.61	3.52	7.34
Bo	145	4.23	0.31	2.86	7.39
Bonthe	54	1.38	0.41	0.97	2.75
Moyamba	98	2.04	0.97	1.99	5.00
Pujehun	102	1.73	0.15	3.31	5.20
Bombali	190	3.11	1.27	5.35	9.74
Koinadugu	78	1.99	0.20	1.78	3.98
Tonkolili	135	1.94	0.31	4.64	6.88
Port Loko	176	0.82	0.56	7.60	8.98
Kambia	91	0.56	0.10	3.98	4.64
W/Area Urban	346	10.05	2.65	4.95	17.64
W/Area Rural	150	4.33	0.46	2.86	7.65
Total (N)	**1,960**	45.49	8.67	45.84	100.00

6.4.3 Type of Materials used for Hand Washing at Households

Household heads were interviewed to solicit information on the hand washing practices, which message remain key component following the outbreak of the Ebola disease. The survey results show that significant proportion (**89 percent**) use soap for hand washing, whilst **4.3 percent** reporting not practicing hand washing at all. About **2 percent** use sand and water each, whilst less than one percent (**0.3 percent**) use other detergents not mentioned to the survey.

At the District level, **17 percent** of household respondents who use soap for hand washing are in the Western Urban District, **9 percent** are in Bombali District, whilst **2 percent** each are Bonthe and Koinadugu Districts. Of the **4.3 percent** household heads that reported not using any material for hand washing, **1.4 percent** are in Port Loko District, **0.97 percent** in Moyamba District, whilst **0.46 percent** are in Tonkolili District. Table 61 below presents detailed information on the proportion of Household Heads reporting the type of materials used for hand washing materials by District.

Table 61: Proportion of Household Heads Reporting the Type of Materials used of Hand Washing by District

District	No. of Responses (n)	Soap	Ash	Sand	None
Kailahun	164	6.63	0.97	0.25	0.25
Kenema	87	4.23	0.10	0.00	0.00
Kono	144	6.68	0.00	0.00	0.15
Bo	145	6.99	0.10	0.00	0.00
Bonthe	54	2.19	0.25	0.00	0.31
Moyamba	98	3.37	0.66	0.00	0.97
Pujehun	102	4.95	0.00	0.05	0.05
Bombali	190	9.23	0.05	0.36	0.05
Koinadugu	78	2.35	0.00	1.48	0.05
Tonkolili	135	6.02	0.00	0.05	0.46
Port Loko	176	7.55	0.00	0.00	1.43
Kambia	91	4.28	0.00	0.00	0.36
W/Area Urban	346	17.29	0.00	0.00	0.25
W/Area Rural	150	7.60	0.00	0.00	0.00
Total (N)	**1,960**	**89.34**	**2.14**	**2.19**	**4.33**

6.4.4 Types of Excreta Disposal Facilities used at Households

Most of the household heads interviewed (**88 percent**) reported that their households used pit latrines, whilst 8 percent uses water sealed flush latrines to dispose of excreta. A little over **4 percent** uses open defecation of which (3 percent open field and **0.7 percent** in rivers/streams/lakes) Only **0.2 percent** of household heads uses public facilities to dispose excreta in their households.

Out of the total number of households that disposes excreta in flush latrines, nearly **5 percent** are in the Urban Areas, with minimal **3 percent** in Rural Areas. Open pit latrines are common in Rural Areas at **42 percent** compared to Urban Areas at **36 percent**. Also out of the **4 percent** of households who uses open defecation, about **3.5 percent** are in the Rural Areas, with only **0.5 percent** in Urban Areas. Publicity toilet facilities are relatively predominant in urban Areas (**0.2 percent)** with none in the Rural Areas.

Analyses of the survey data at the District level revealed that, out of **88 percent** of respondents with open pit latrines, **15 percent** are in the Western Urban District, **8.5 percent** in Port Loko District, **8.2 percent** in Bombali District, whilst only **2.4 percent** are in Bonthe District. Also, of the nearly **8 percent** of respondents reporting using sealed or flush latrines, **2.4 percent** are in the Western Urban District, **1.3 percent** in Bombali District, and **1.1 percent** in Kono District. Open defecation relatively prevalent household in Kailahun District (**1.2 percent**), **1.0 percent** in Pujehun District, **and 0.7 perce**nt in Bo District. None of the respondents in Kono and Tonkolili Districts indicated using open defecation to dispose excreta in their households. The proportion of households reporting the types of excreta disposal facilities used at their households by District is presented in Table 62 below.

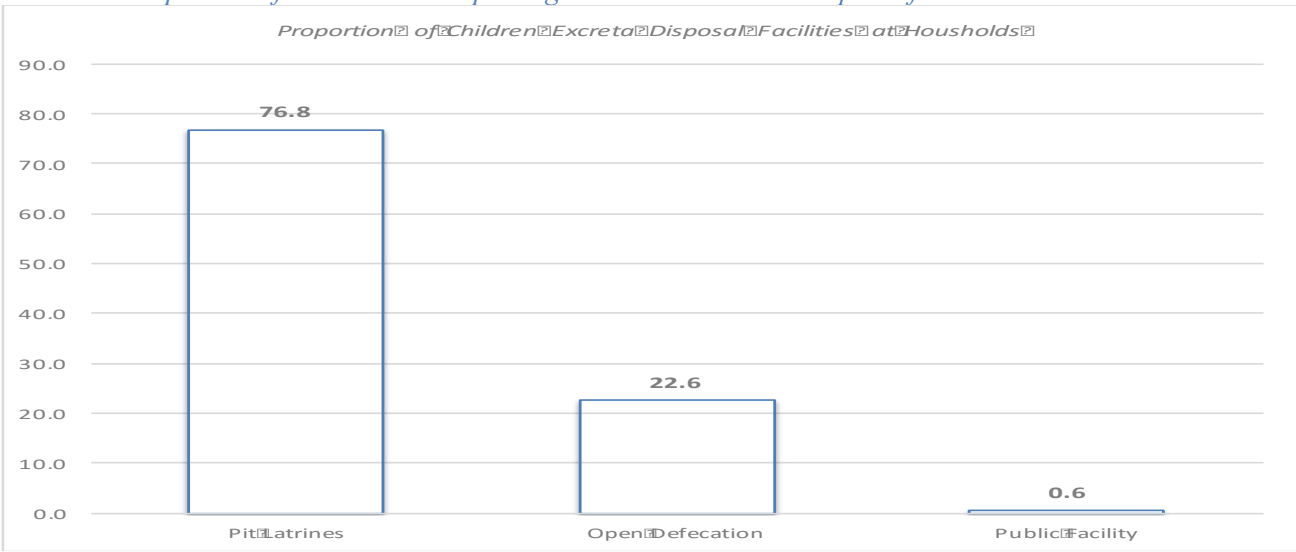
Table 62: Proportion of Households Reporting the Types of Excreta Disposal Facilities Used by District

District	No. of Responses (n)	Water sealed latrine (flush)	Open pit latrine	Open field	Public Facility
Kailahun	164	0.3	6.9	1.2	0.0
Kenema	87	0.0	4.3	0.2	0.0
Kono	144	1.1	6.2	0.0	0.0
Bo	145	0.4	6.3	0.7	0.1
Bonthe	54	0.3	2.4	0.1	0.0
Moyamba	98	0.2	4.7	0.1	0.0
Pujehun	102	0.4	3.8	1.0	0.1
Bombali	190	1.3	8.2	0.3	0.0
Koinadugu	78	0.3	3.6	0.2	0.0
Tonkolili	135	0.1	6.8	0.0	0.0
Port Loko	176	0.4	8.5	0.2	0.0
Kambia	91	0.1	4.5	0.1	0.0
W/Area Urban	346	2.4	15.1	0.2	0.0
W/Area Rural	150	0.9	6.7	0.1	0.0
Total (N)	**1,960**	**7.9**	**88.0**	**4.0**	**0.2**

6.4.4 Types of Excreta Disposal Facilities Used at Households

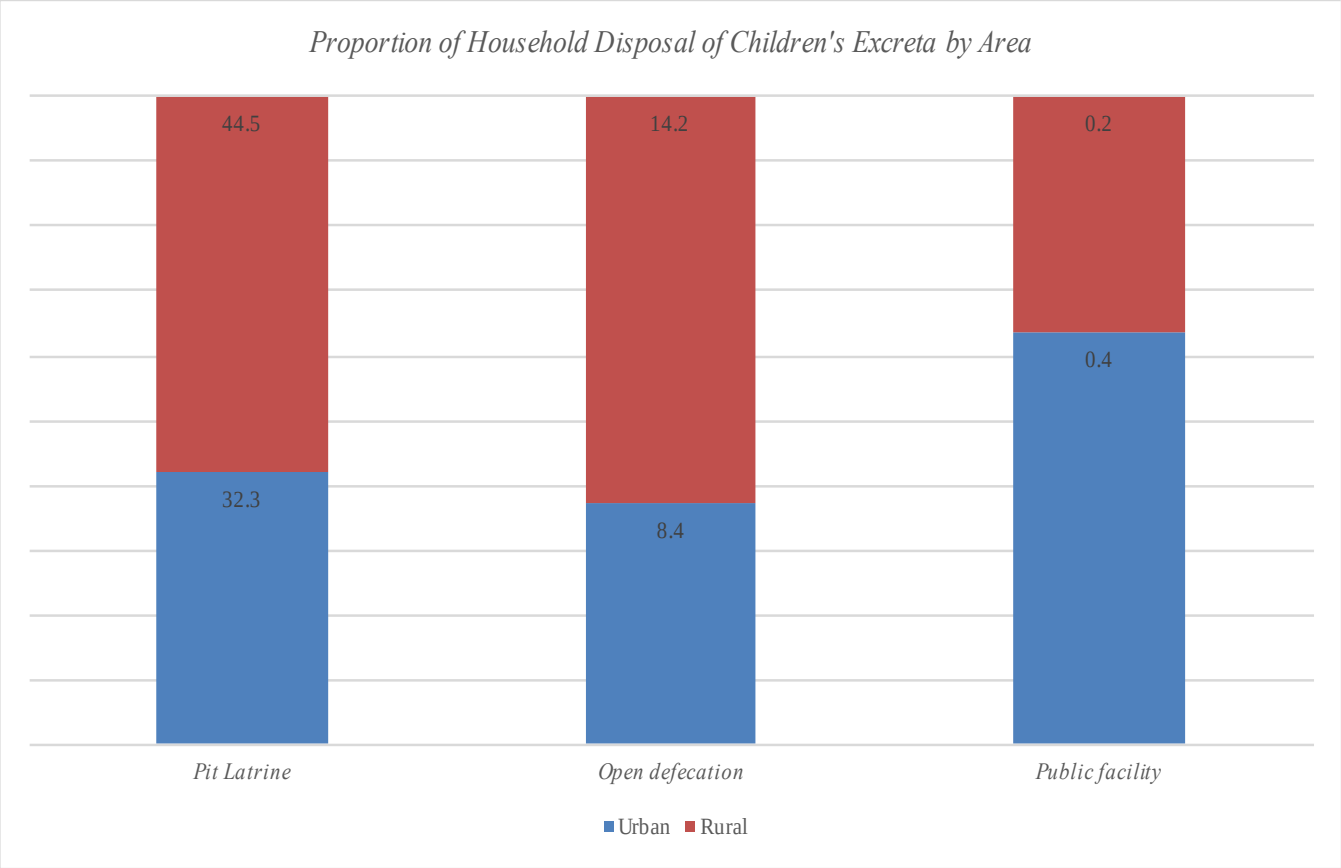
The survey further investigated the how children's excreta are disposed of in households. Chart 41 below show that over three-quarter of respondents (**77 percent**) uses dug-out pit latrines, nearly **23 percent** uses open defecation whilst less than one percent (**0.6 percent**) uses public facility to dispose children's excreta.

Chart 41: Proportion of Care Givers Reporting Children's Excreta Disposal facilities at Households



Out of the **77 percent** of households using pit latrines to dispose children's excreta, **32 percent** are in the Urban Areas with **45 percent** in the Rural Areas. Open defecation of children's excreta was reported in mainly rural communities at **14.2 percent** with only **8.4 percent** in Urban Areas. Public waste disposal facilities for children are relatively uncommon in Rural communities at **0.2 percent** compared to **0.4 percent** in Urban Areas (See Chart 42 below).

Chart 42: Proportion of Care Givers Reporting Children's Excreta Disposal facilities at Households by Area of Residence



CHAPTER SEVEN

7.0 Discussions and Conclusion

This study shows that the Sierra Leonean population is overwhelmingly dependent on the public health system for its health needs. The scale of this dependence is much higher than the average that has been determined for African countries, generally. It is estimated that the private sector/for-profit providers, as well as the not-for profit/faith based provide health care services to about **50 percent** of the population in Africa[15], which is way below the **10 percent** average reported for Sierra Leone, by this study. At the same time, the study concludes that the users of public health services are generally satisfied with the service delivery on important dimensions like responsiveness, transparency and quality. However, users gave higher ratings on satisfaction level to not-for profit and private sector health service providers; this evidence is consistent with observations in other countries[16].

This study draws the conclusion that in the context of Sierra Leone, public satisfaction is driven, in part, by the perceived responsiveness of the provider, based on two critical dimensions: i) the availability of a health worker at the time of a visit; and ii) the provision of treatment for the health condition, irrespective of the outcome of treatment. There is sufficient evidence base to suggest that the provider factor is, arguably, amongst the most critical driver of user satisfaction[17]. The provider factors are not just limited to having a staff in post, at the health facility. They further speak to other attributes relating to relationship and interaction with the patient (for example, how the health worker communicate to patients), health worker competence, etc. In order words, where users perceive the provider to be polite, respectful and better at communication, the outcome is that they are more likely to feel satisfied with the overall service delivery. Perhaps it might as well be that the weight that users attach to the health provider's technical and social skills probably go some way in compensating for other supply weaknesses in health services-i.e. drugs and medical supplies and infrastructure, when making judgment on overall satisfaction with the quality of health services.

The survey evidence shows positive ratings on satisfaction and responsiveness from users. The qualitative evidence however provided a host of issues that also reveal dissatisfaction with services. Firstly, the survey had measured transparency on the basis of clear information and evidence being provided for the cost of treatment and related services. This is an important parameter for measuring

[15] See "The Business of Health in Africa, available at: http://www.aho.afro.who.int/profiles_information/index.php/Sierra_Leone:Analytical_summary_-_Service_delivery#cite_note-twelve-2
Also See Financing Medical Improvement Quality in Africa, at: http://www.medicalcreditfund.org/about-us/content/#the-private-healthcare-sector

[16] For example, see "Public Service Delivery Survey 2014 Final Report. Available at: http://www.statehouse.gov.sc/uploads/downloads/filepath_78.pdf

[17] See "Client Satisfaction with Service Delivery in the Health Sector: The Case of Agogo Presbyterian Hospital. Available at: www.sciedupress.com/journal/index.php/ijba/article/download/7458/4455
Also see "Service quality perceptions and patient satisfaction: A study of hospitals in a developing country. Social Science and Medicine, 52(9), 1359-1370" file:///C:/Users/SAM/Downloads/556e501208aeccd7773f6d10.pdf

transparency and an important driver of citizen satisfaction with public service delivery[18]. The bottom line is, to the user, transparency transcends receipt; it is about streamlining communications and information flow to the user, so they are not being confused to make the wrong payment, or perhaps charged illegal fees for services. Obviously the most prominent talking point in this context is with the FHC, and there are two (sometimes related) charges relating to transparency and accountability issues. The first of those charges is the fuzziness surrounding what qualify as ***free health care*** drugs and what falls to ***cost recovery drugs***, and under what circumstances does an FHC drug (suddenly) qualify as cost recover. At the next level, it is perhaps the contentious issue of (illegal) out of pocket payment for drugs and other services received at the facility, especially, again, relating to the FHC. There is a catalogue of charges being issued to users of maternal and child health services, whether it is for ANC registration, for delivery, to providing care and treatment for a sick under-five child. This result is strongly corroborated by evidence from earlier research on this similar subject in Sierra Leone. It is reported that **67.2 percent** of patients/caregivers who visit Sierra Leonean PHUs make payment for one or multiple items; the payment burden disproportionately falls to FHC clients[19]. One would argue that perhaps the real concern of the health system should be: a) about illegal payments that are happening; b) about the mistrust that this will have on the health system in the long haul. As a study relevant to Sierra Leone has revealed, trust is a determinant in decision making on where people access health care services[20].

[18] See "Key Drivers of Citizen Satisfaction with Public Service Delivery: Pilot Report 2009/2010". Available at: http://www.psc.gov.za/documents/2010/ReportOfCitizenFinalPrint%20.pdf

[19] Pay No Bribe, Sierra Leone (September, 2006): Household Baseline Survey and Analysis of Afrobarometer Data. Available at: https://www.pnb.gov.sl/baseline-survey-for-pay-no-bribe/

[20] Worlds Apart? Health-seeking behaviour and strategic healthcare planning in Sierra Leone. Available at: https://www.files.ethz.ch/isn/159536/WP139.pdf

8. Recommendations

Basic on the finding of the survey, the following recommendations are proffered:

- In an effort to address the bottlenecks in service delivery at facilities, there is a need for increasing training facilities and capacity building opportunities for health care workers, to strengthen their competency, thereby enhancing the confidence level of users to access health facilities.
- The Ministry of Health and Sanitation should ensure increased availability of medical consumables to support the effective functioning of health facilities, especially in rural communities, with high level of poverty and population reliant on the Free Health Care services
- The Ministry of Health and Sanitation and its development partners should ensure the provision of financial incentives, especially remote area allowances to health care workers, by supporting and sustaining the Performance Base Financing (PBF) program to health facilities as a means of motivation.
- There is a need for inclusion of health care volunteers in facilities, as well as increase the number of health care worker to address the growing demand in especially facilities in rural communities.
- It is evident that most healthcare facilities are prepared and ready to handle some community health needs, nevertheless it is also apparent that government needs to increased coverage and access to essential health services in rural areas, especially for children, the poor and vulnerable groups. Most often, the Free Health Care drugs are not distributed on time that covers the health care needs of these vulnerable groups resulting to these vulnerable categories seeking traditional health care services. Health care workers should therefore endeavor to prioritize the response of the health care needs of vulnerable population, especially pregnant women, children lactating mothers and the elderly.
- There is a need for a broad based partnership of government, including civil society organisations and local community representatives to monitor the Free Health Care supplies to ensure effective implementation at the service delivery point.
- Furthermore, the Ministry of Health and Sanitation should embark on information dissemination and increased sensitization to ensure that users effectively distinguish between medical supplies for the Free Health Care services and the cost recovery services. This will promote the level of transparency and accountability in the discharge of health services as well build the confidence and trust between health care workers and the communities they serve.
- There also the need to closely monitor hospital pharmacies in order to minimize the conversion of Free Health Care drugs and medical supplies into cost recovery items.
- The survey finding evidently shows that blood transfusion service at healthcare facilities is one of the major challenges of health service delivery in almost all of the districts. It is

therefore recommended that Ministry of Health and Sanitation and it partners to establish and properly equip all District Hospitals and some large community health centres with blood transfusion services. Additionally, there is also the need to improve and strengthened laboratory services, by providing equipment and reagents, as well as the requisite human resource to manage these facilities.

- The Ministry of Health and Sanitation and its development partners should endeavor to improve on the referral system in rural communities, especially in the provision of ambulances to hard-to-reach riverine communities and well as in a bid to address the emergency cases.
- There is also the need to increase and sustain vaccination outreach, campaigns and sensitization especially in rural populations to promote effective use of health services.
- The Ministry of Health and Sanitation and its development partners should ensure sustained improved sanitation practices in rural community especially in waste management and excreta disposal, such as the use of Community Lead Total Sanitation (CLTS) programs.

ANNEX I

Table 2: Household Survey Dimensions

Section & Respondent	Dimensions Assessed
Section A- For Head of Household	A total of 33 questions in this section, investigating the following dimensions: • Basic socioeconomic and demographic data, including: sex; age; education; marital status; employment; household size; and household expenditure ranking. • Perception/Experience of access, responsiveness and quality of services, including: main choice of health service provider; distance and cost of accessing service; responsiveness; transparency of health charges; incentives and disincentives relating to main provider; and overall satisfaction with service quality. • Water, Sanitation and Hygiene (WASH) services: main source of drinking water; type of sanitation facility accessible to household; household treatment of water for drinking.
Section B- Administered to Main Caregiver of Under-Five Children in Household	44 question items were targeted at the main caregiver to children, particularly under-five children in the household, with the following issues covered: • Basic socio-demographic data: age; religion; education • Knowledge of: malaria transmission, vulnerable populations and control; vaccination standards; family planning methods; free health care policy. • Health seeking practices and behavior for under-five children: use of insecticide treated nets (ITNs); treatment for fever, diarrhea and difficult breathing • Perception/Experience of health system: responsiveness; transparency of health charges; and overall satisfaction with service quality
Section C- Administered to woman who delivered a baby in the past 24 months	This section contained 11 questions that explored: • Utilization of health systems services for delivery and postnatal care • Breastfeeding practices, 0-6 months
Section D- Administered to pregnant woman in household, at the time of survey	Section contained seven question, covering: • Antenatal care (ANC) visits • Perception of health worker attitude and competence at last ANC visit