

Analyzing the Demand for Reproductive Health Services in Ghana

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Abstract

Sexual and reproductive health (SRH) does not only involve the reproductive years but emphasizes the need for a life-cycle approach to health. Attainment of SRH depends vitally on the protection of reproductive rights; a set of long-standing accepted norms found in various countries and internationally agreed human rights instruments. The purpose of this report is to elaborate some of the elements of SRH, and recommend actions to improve SRH in WA municipality of the Upper West Region of Ghana. To ensure that greater demand for RHSs is generated towards creating a healthier nation. SRH comprised of disparate elements including safe motherhood, family planning, child health, harmful traditional practices, women empowerment, elimination of gender-based violence, etc. From the study, it was revealed that prenatal and postnatal care services are used more than the other Reproductive Health Service (RHS), this draws from the fact that most of the RHS and products identified in the municipality are peculiar to women. The Random Utility Model helped in analyzing this decision. It was also evident that the higher the level of education attained by the people in Wa municipality, the greater the usage of RHS and products. This report necessarily builds on and reinforces the analyses and recommendations made on the demand for SRH.

Keywords: Reproductive Health Product(RHS), Sexual and Reproductive Health(SRH), Ghana Health services (GHS), Wa Municipal

1.Introduction

Like general health, reproductive health is the complete well-being of persons at particular life cycles, and not merely the absence of disease or infirmity among such individuals. Examples of such individuals include men and women of reproductive age, infants, and children (Ajakaiye and Mwabu, 2007).

According to United Nations(UN), 2007, “reproductive health is a crucial part of general health, a central feature of human developmental health and is of universal concern”. Further indications are that reproductive health is a reflection of health during childhood, and crucial during adolescence and adulthood, sets the stage for health beyond the reproductive years for both women and men, and affects the health of the next generation. Being an important component of general health, UN labels it a “prerequisite for social, economic and human development”. Furthermore, according to Okurut (2009), the health outcome of the newborn is largely dependent upon the mother's health and nutrition status as well as her access to health care as an economic commodity.

Sexual and reproductive health, rights and services (SRH R&S) are important for everyone. Men and boys often suffer from a lack of sexual and reproductive rights through inadequate access to information, services and care, but women and young girls of childbearing age are generally more vulnerable to sexual assaults and reproductive ill-health. This is exacerbated in situations of conflict when women are exposed to increased levels of violence, lack of security and poor access to safe medical health services (Ancil et al, 2005).

Universal access to Reproductive Health Service (RHS) requires that all people can safely reach services without travelling for a long time or distance, and that those with disabilities can easily access buildings. Services and treatments must be affordable, and based on principles of equity such that poor people do not bear a higher burden from the cost than wealthy people. It also requires that services are of adequate quality (availability of skilled medical personnel, approved and unexpired drugs and equipment, proper infrastructure including safe water and sanitation); and that providers do not discriminate on the basis of sexuality, gender, ethnicity and age (Creel; Sass and Yinger, 2002). Care should also be sensitive to social and cultural considerations including gender, language and religion.

According to Ancil et al in Sexual and Reproductive Health, Rights and Services, 2005, despite sound arguments based on public health concerns, human rights and social justice, in many countries comprehensive reproductive health care is still insufficiently understood or applied. Quality of reproductive health care is about rights as well as services. When individuals and communities understand their rights, they are more likely to demand appropriate healthcare. This demand can, in turn, influence service providers and health systems by improving their understanding of how to supply better services (UNFPA, 2007).

Ensuring universal access to sexual and reproductive health (SRH) services and information is essential for

achieving many, if not all, of the Millennium Development Goals (MDGs), especially those on maternal health and child survival. Most maternal deaths can be prevented if there is skilled attendance at birth to cope with potentially fatal complications. The omission of universal access to reproductive health from the MDGs resulted in the neglect of SRH services and programs by policymakers and donors. In this direction in September 2006, the UN General Assembly incorporated universal access to reproductive health as a target of the MDG 5, to reduce the maternal mortality ratio by three-quarters (Bernstein and Hansen, 2006).

The Government of Ghana has a comprehensive population and reproductive health policy which endorses the principle that Reproductive Health care is a constellation of preventive, curative and promotional services for the improvement of the health and well-being of the population, and especially mothers, children and adolescents. (Ghana Ministry of Health Reproductive and Child Health Unit (RCHU), 2002).

In accordance with the Local Government Act 1993 (Act 462) the Wa Municipal Assembly is composed of the Municipal Chief Executive, the parliamentarian and Assembly members. According to 1st Draft MTDP 2010-2013 of the Municipality, the total population stands at 127,284 as at 2009 (male:61826 and female: 65,458) that constitutes a 6.6% change over estimated population for 2006 and gives 542 persons per square kilometer compared to 509 in 2006. The population is further projected to a total of 135,638 (males: 65,887 and females: 69,751) in 2012.

Table 1. Estimated population by sex and age cohorts of 2009 and 2012 of WMA

Age Cohorts	2009			2012		
	Male	Female	Total	Male	Female	Total
0-14	23,493	24,169	47,662	25,048	25,188	50,236
15-29	18,547	18,634	37,181	19,954	19,957	39,911
30-44	10,298	12,039	22,337	11,518	12,974	24,492
45-59	6,149	12,900	19,049	6,522	7,491	14,013
60-74	2,483	2,912	5,395	2,729	3,125	5,854
75+	856	953	1,809	852	1,016	1,868
Totals	61,826	65,458	127,284	65,887	69,751	135,638

Source: GES, Wa-Municipal, 2009.

This made the researcher to choose this area for study.

Reproductive health services in Ghana are provided mainly through primary health care centers, maternity homes, clinics, hospitals, teaching hospitals and nongovernmental organizations (NGOs) and these are publicly or privately owned. Even though much study has been conducted on the provision of reproductive healthcare services (supply-side analysis: World Bank, 1993. World Development Report-Investing in Health; WHO, UNICEF, UNFPA, World Bank - Maternal Mortality in 2005; WHO, 2007; World Bank, 2003- Making Services Work for Poor People; and the 2004 World Development Report), there is insufficient documentation on the consumption of such services.

It is within this premise that the study was initiated, to support consumption or patronage of the various forms of reproductive health care products and services, to improve health in the Municipality by creating an insight into their demand concerns. This study examines the patronage of reproductive healthcare services and products at the individual level and also a Reproductive health is a condition of total physical, mental and social well-being in all matters relating to the reproductive health system and to its function and processes. It implies that people have the capability to reproduce and the freedom to decide if, when and how often to do so. Reproductive health is not simply about the non-existence of disease or ill-health (Program of Action of the International Conference on Population and Development, 1994).

However, the researcher will organize his work by making introduction by giving a little information of the background of the study and the techniques he will use to organize the work. Related works of other researchers will be emphasized looking at both the theoretical and empirical aspect. The methods used in the paper and discussions of will also be looked at. Conclusion is drawn from it which helps to predict solutions to the problem stated.

2. Related Works

2.1 Empirical theories

Reproductive health is a condition of total physical, mental and social well-being in all matters relating to the reproductive health system and to its function and processes. Reproductive health is not simply about the non-existence of disease or ill-health (Program of Action of the International Conference on Population and Development, 1994).

Reproductive Health Services thus cover a wide range of services that contribute to reproductive health and well-being by preventing and solving reproductive and sexual health problems (Barker and Ricardo, 2005). Reproductive health services are mainly provided through primary health care centers, maternity homes, clinics, hospitals, teaching hospitals and non-governmental organizations (NGOs) and these are publicly or privately

owned. Discouragement of harmful traditional practices and gender based violence that affect the reproductive health of women and men; and Information and counseling on human sexuality, responsible sexual behavior, responsible parenthood, preconception care and sexual health. (Quality Health Partners, 2005)

The Contraceptive Pill, Injectable, Male Condom, Inter Uterine Device, Diaphragm, Spermicidal Foam/Jelly Female Condom are some of the family planning products available (Ghana Statistical Service, Health Research Unit et al, 2003). Knowledge about factors that promote health as acquired through counseling on nutrition, HIV/AIDS, family planning, and sexually transmitted diseases; Knowledge about types of reproductive and other services available in local health facilities, as well as best practices during pregnancy, information can be transmitted during routine immunizations sessions (Ajakaiye and Mwamba, 2007).

2.2 Experimental Literature theories.

However, many researchers propounded some theories in three aspect which helps health care utilization.

Firstly, the Psychological-Motivational Development or Health Belief Model, developed in the 1950s', Rosen stock model or psychological motivational determinants of health service utilization emphasize that the emotional rather than the cognitive beliefs of a person are crucial to understanding utilization. It was further developed as health belief model (cited in Phillips et al, 1990). The key concept is that, once the psychological condition of readiness to use health services exists, this may trigger action. The deficiency of this model is the fact that distance may act as a barrier to the recipient of care even if the psychological readiness and awareness of need to utilize exist.

Secondly, the Schuman's Model Developed in the mid 1960s', Schuman's model laid emphasis in the influence of social groupings and linkages in utilization. He argued that a cosmopolitan social structure is more likely to be related to a scientific orientation to provide medicine to heal, while parochial or traditional society is more likely to hold popular or folk beliefs (Phillips et al 1990). This model discusses the possible variable such as social groupings and linkages that influence the utilization of any health service in any society.

Thirdly, Life Cycle Determinant Model. This model did not explicitly include accessibility as a factor influencing utilization. The enabling factor implies a more general availability or absence of resources rather than an explicit proximity measure, he however, suggest that need variables are perhaps the most powerful predictors of utilization and also that the balance between factors may vary at different levels of service. This suggestion which was put forward by McKinley (1972), considers that many results are service specific, meaning that caution must be exercised in extrapolating findings beyond the service in which they are first observed (Phillips et al 1990).

Poor SRH accounts for an estimated one third of the global burden of illness and early death among women of reproductive age (Bernstein, 2006). Globally, more than one in ten married or in-union women worldwide have an unmet need for family planning. However, contraceptive use was much lower in Africa (36%) as compared to the other major regions in the world, where it ranged from 58% in Oceania to around 75% in Northern America and Latin America and the Caribbean. (UNFPA and the UN Population Division, 2017).

The Ghana health-care-development process demonstrates ways to address simultaneously the global agenda for accelerating access to reproductive and child health services. After a decade of global commitment to the 1994 ICPD Programmed of Action, concern is mounting that family planning and reproductive health issues are receding from national health-policy agendas in Africa. Moreover, global commitment to achieving the child-survival and maternal health MDGs take into account, evidence that these goals are not being met in Africa (Philips; Bawah and Binka, 2005).

The Government of Ghana has a complete population and reproductive health policy. Its reproductive health policy endorses the principle that Reproductive Health care is a constellation of preventive, curative and promotional services for the improvement of the health and well-being of the population, and especially mothers, children and adolescents. The components of reproductive health services include:

Safe motherhood: antenatal, safe delivery, post-natal care including breast-feeding, infant health, counseling, information, education, communication and services, education and services for prenatal health care; Family Planning; Prevention and management of unsafe abortion and post-abortion care; Prevention and management of reproductive tract infections (RTIs), including sexually transmitted infections (STIs) and HIV/AIDS; Prevention and management of infertility; Prevention and management of cancers of the female and male reproductive system, including breast; Responding to concerns about menopause and andro-pause; Discouragement of harmful traditional practices and gender based violence that affect the reproductive health of women and men; and Information and counseling on human sexuality, responsible sexual behavior, responsible parenthood, preconception care and sexual health. (Quality Health Partners, 2005)

Reproductive health services are provided mainly through primary health care centers, maternity homes, clinics, hospitals, teaching hospitals and nongovernmental organizations (NGOs) and these are public or privately owned (Quality Health Partners, 2005). Fig 2.1 is a map of health facilities in the municipality. The district hospitals usually serve anywhere between 75,000 and 95,000 people living in the area, while regional

hospitals serve up to 250,000. Health centers are usually led by medical assistants and serve around 20,000 people (QHP, 2005).

2.3 Factors Affecting Reproductive Service and Products Use.

There exist a number of intertwining socio-cultural, political and economic factors, reinforced by restrictive laws and policies, which can hinder access to services and information. People who are most vulnerable to sexual and reproductive ill health are often those who are denied access to SRH services (Institute for Development Studies Team, 2007).

Firstly, Issues around sex and sexuality are taboo in many cultures, and perceived stigma. Taboos are even more pronounced for people who do not conform to socially accepted norms of behaviour such as adolescents who have sex before marriage and men who have sex with men. In West Africa, some donors are apprehensive to fund research and support the service needs of men who have sex with men for fear that these activities might fuel anger in some communities and restrict progress made on less sensitive reproductive health programmes (Institute for Development Studies Team, 2007).

Secondly, Gender roles. Gender norms in numerous societies have a propensity to make men superior or active, women inferior or passive, and marginalize transgender people – making all of them vulnerable in different ways to SRH problems. In Botswana and Senegal married women are restricted from using contraceptives without the permission of their husbands, while in Zanzibar; unmarried women are denied contraceptives from health professionals. In many societies, women's health concerns are often considered less important than those of men and children, and household responsibilities can prevent them from spending time visiting a clinic (Institute for Development Studies Team, 2007).

Thirdly, Political factors. The local legal frame work is also important – repressive laws can prevent people's access to services, but others can enable access when enforced (Cook 2006). Even as reproductive health targets and rights have been agreed in international negotiations and universal access to reproductive health services integrated into the MDG5, many countries do not recognize sexual health as being distinct from reproductive health and the need for sexual health services and information as going beyond those concerning reproduction and HIV. Sexual health services have by and large been neglected because providing them requires governments to acknowledge sexual rights including sexual pleasure and sexual orientation; and address issues such as gender roles and power imbalances within relationships (Asimwe et al, 2005). For instance, in 2006 Nicaragua passed a law forbidding abortion under any circumstances, including cases where women's lives are at risk from continuing pregnancy (Bernstein et al, 2006).

National laws concerning SRH issues often remain ambiguous and inconsistent. For example, in Zimbabwe whilst 16 and 17 year olds are legally capable of consenting to sex, they are not permitted to use services and information regarding contraception and STI prevention. Such ambiguities can provide a foundation for service providers to use their discretion and restrict access to some groups of people based on personal prejudices (Esplen, 2007).

The outcome of the study provides relevant information for policy decisions that will enhance access to and the patronage of reproductive health services and products in the Municipality to improve general health. The findings however may not be limited to the municipality and hence can be utilized by other districts of the country. The findings may also add up to existing literature for the purpose of referencing in the event of further studies on reproductive healthcare in the region.

3. Research Methods

The research observes the demand for RHSs in the Wa municipality. Hence to ascertain the viability of the study, both quantitative and qualitative methods were used to assess knowledge, perception, access and utilization of the reproductive health services. The study was being carried out among respondents within 15-49 years of age. Questionnaires and interview guides was instituted by the researchers to collect data on RHS.

This design studies in natural setting, and explains phenomena from the person being studied and produces descriptive data from the respondent own written or spoken words. From a philosophical view point, the study of human is deeply rooted in descriptive modes of science, which is concerned with describing the fundamental pattern of human thought and behavior (Streubert & Carpenter, 1999).

Observations from the field with respect to individual choices and factors affecting these choices of RHSs were recorded.

Primary Data: Data was collected from men and women of reproductive age and selected health centers on their socio-demographic characteristics and responses relating to the use and availability of SRHS respectively.

Secondary Data: Information on the target population and profile of the study area was accessed at the Regional Coordinating Council or the municipal assembly. The available RHSs were derived from the selected HS providers. Published academic journals, conference proceedings, government reports, handbooks, manuals, and other books on RHSs will also be tapped and cited depending on their relevance to the study.

3.1 Sampling Techniques

Both probability and non-probability sampling techniques were used to obtain information from respondents.

Purposive Sampling: with this, individuals within the age bracket of 15 and 49 years as well as the health departments that provide reproductive health services were considered.

Simple Random Sampling: All individuals within the reproductive age bracket have equal opportunity of being selected as part of the sample size of 384 respondents for the study.

In order to achieve precision subject to time and resource constraint, the researchers selected confidence level of 95%, tolerate an error of 5% and $\pi = 50\%$.

Formula: $n = \frac{Z^2 \pi(1-\pi)}{(P-\pi)^2}$, Where, n= sample size to be chosen,

z = the standard normal distribution chosen from the z-table with a confidence level of 95%, $(P - \pi) =$ tolerable error and

$\pi = 50\%$ probability of setting the tolerable error $(P - \pi)$ at 5%.

Therefore, $n = \frac{(1.96)^2(0.5)(1-0.5)}{0.05^2} = \frac{0.960}{0.0025}$ n = 384

Therefore, a sample size of 384 respondents was selected for the study. However, due to time constraints, the figure was reduced to 200.

3.2 Model of Data Analysis

The demand behavior for RHS is a qualitative variable, hence analyzed within the framework of choice models. The sample population is the reproductive age bracket, and the use of sexual reproductive health services (URHS) is limited to a yes or no response.

$U = 1$, thus yes if an individual uses the RHS and $U = 0$, individual does not use the service. The response variable or regressand is a binary or dichotomous variable, which makes discrete choice models the most suitable for application in this study (Gujarati, 2009).

Demand for RHS suggests that the URHS of an individual, n is a function of the listed variables:

Price of the service (P_i), Income of the individual (Y), Educational level (E),

Number of children (C), Age (A), Information (I), Gender (G) etc.

In which case the variable, Age (A) falls within the restrictive bracket of 15 – 49 years as defined by the study.

Therefore, $URHS_i = U(P_i, Y, E, A, I, G, u_i)$

Where $u_i =$ random term

The Random Utility Model uses the specification (for a decision maker n, using alternative i, from a choice set i alternatives);

$U_{in} = X_{in}\beta + u_{in}$ Given that X_{in} are observable variables that relate to alternative i and decision maker n, β is a vector of coefficients of the variables and u_{in} is a zero-mean, random term.

$U = H(F_p, S_d, P_p, S, I, N)$ Where; Family planning (F_p), Safe Delivery Services (S_d), Prenatal and Postnatal Care (P_p), Information and Counselling on Sexuality (S) Immunization (I) Reproductive Health Nutritional Supplements (N)

From $P_i = \frac{e^{z_i}}{1+e^{z_i}}$, where $z_i = X_{in} \beta + u_i$

The ratio of the probability that one will use the RHSs to the probability that he/she will not.

Taking the natural log to obtain the logit model implies;

$$L_i = \ln\left(\frac{P_i}{1-P_i}\right) = Z_i = X_{in} \beta + u_i$$

L_i is therefore linear in both X and β (parameters), hence the logit model.

The preferences and reasons for the preference of certain RHS to others are established by the levels of correlation between the variables influencing the preferences, such as age, gender or education on patronage. For valid conclusions to be drawn on the levels of correlation based on the information collected, a number of statistical tools are used to analyze the data; for instance, multiple correlation analysis of income, gender and age on the use of family planning services (F_p) among others.

4. Results and Discussions

It is widely believed that the validity and reliability of the conclusion of a research largely depends on the quality of data collected and analyzed. For this reason, the data collected are objectively presented below using statistical tools. From the sample size determination, a total of 384 respondents were to be selected for the study. However, due to time constraints, the figure was reduced to 200.

Table 2. Demographics Characteristics of Respondents

Age	Frequency	Percentage	Gender	Frequency	Percentage
15-19yrs	18	9.0	Male	71	35.5
20-29yrs	97	48.5	Female	129	64.5
30-39yrs	53	26.5			
40-49yrs	32	16.0			
Total	200	100.0		200	100.0

Source: Field Survey 2015

From the table above, out of the 200 respondents interviewed, majority fall within the ages of 20-29 representing 48.5% of the total respondents followed by those within 30-39 who also take up 26.5%. These groups constitute the economic active group within the Municipality. Respondents within the age group of 15-19 were the least respondents (9%) after the 16% within the ages 40-49. Also, out of 200 respondents, 35.5% were males while 64.5% were females. The respondents were randomly picked within the Wa Municipality.

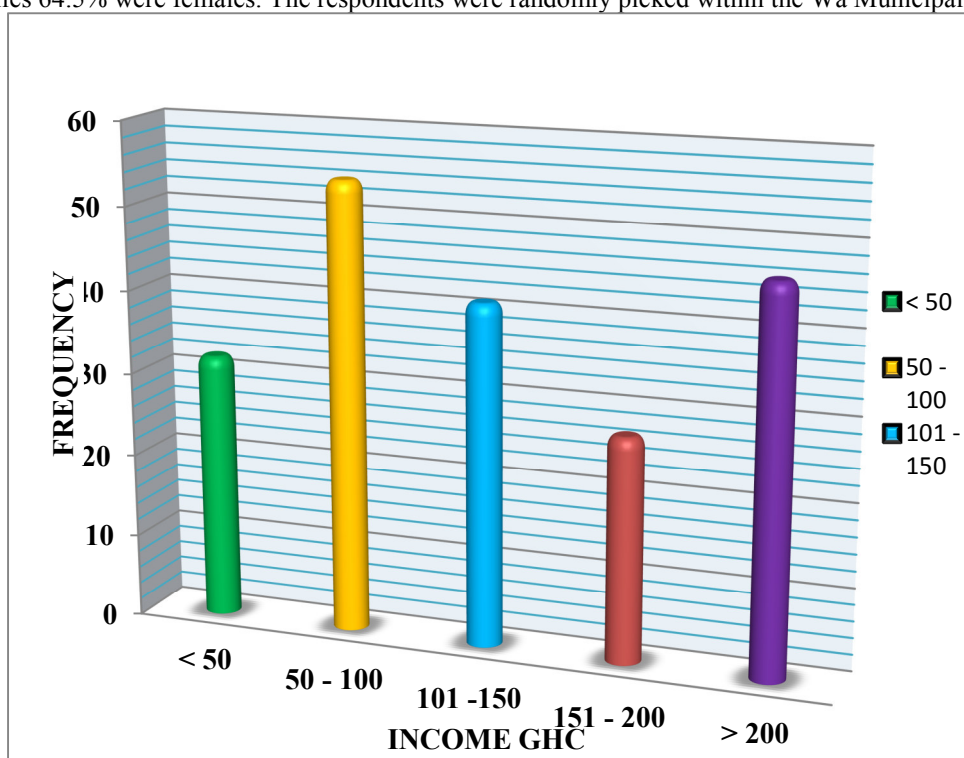


Figure 2. Average monthly income of the Respondents

From the above, 16% of respondents (34 people) earn below GHC50 as average monthly income; 27% (i.e.54) between GHC50 and GHC100; 20.5% (41) between GHC101 and GHC150; 13.5% (27) also between GHC151 and GHC200; and 23% (46) earn above GHC200. Due to respondents who are students and not earning any form of income from any occupation, the average monthly income has been defined to cover remittances received as well.

Table 3. Contraception/Family Planning Products

Contraception Method	Number of Respondents	Percentage (%)
Male/ Female Condom	114	65.1
Intra Uterine Device	0	0
Injectable	6	3.4
Spermicides/ Diaphragms	0	0
Contraceptive Pills	55	31.4
Implants	0	0
Female Sterilization	0	0
Vasectomy	0	0
Total	175	100

Source: Field Survey 2015

Among the contraception/family planning products and services provided in the municipality, out of 175 responses 65.1% used male/female condoms; 31.4% used contraception pills and 3.4% used injectable. It is

pertinent to note that apart from these three, the rest of the afore-mentioned contraception products and services are not used by any of the respondents interviewed. The outcome of this research invariably reflects the results in the Ghana Statistical Service; Health Research Unit et al, (2004) that the highest usage rates for all women according to the 2003 DHS are for the pill (4.1%), injectable (3.7%) and male condom (4.3%). Among the lowest usage rates were the diaphragm (0.0%), spermicidal foam/jelly (0.2%) and female condom (0.2%). Male sterilization (vasectomy) is virtually non-existent, as the DHS reports 0% of all men ever having undergone sterilization.

The 2015 Ghana Service Provision Assessment confirmed the Demographic and Health Survey data and reports that the methods that were most commonly reported as patronized were the injectable, combined oral pill and the male condom (Ghana Statistical Service; Health Research Unit et al, 2015).

Table 4. Reproductive Health Services Used

Reproductive Health Services	Number of responses	Percentage (%)
Nutritional Supplements	33	16.5
Information and Counseling on Sexuality	30	15.0
Prenatal and Postnatal Care	35	17.5
Safe Delivery Services	36	18
Treatment of Placenta Malaria	32	16
Antenatal and Neonatal Immunization	34	17
Total	200	100

Source: Field Survey 2015

From the above diagrams, out of the 200 responses collected on the reproductive health services and products that have been used by respondents the following were evident; 16.5% for nutritional supplements during pregnancy, 15% for information and counseling on sexuality, 17.5% for prenatal and postnatal care, 18% for safe delivery services, 16% for treatment of placenta malaria and 17% antenatal and neonatal immunization services.

According to Ajakaiye and Mwabu (2007), information can also be transmitted during routine immunizations sessions.

Table 5. Uses of Information and Counseling on Sexuality by Gender

Gender	Information and Counseling on Sexuality	
	Frequency	Percentage (%)
Male	12	24
Female	38	76
Total	50	100

Source: Field Survey 2012

Out of the 50 respondents who used information and counseling on sexuality, 24% were male and 76% were female.

Usually, apart from the contraception/family planning products and services and the information and counseling on sexuality, any respondent (female) who has ever been pregnant, given birth and attended any of the health facilities in such condition has had access to the rest of these services and products. This indicates that pregnancy and maternal related reproductive health services were highly patronized by female respondents who had children.

Table 6. Respondent's Reasons for Preference Based on Gender

Reasons for Preference	Gender		Total	Percentage (%)
	Male	Female		
Affordable prices	41	43	84	33.5
Efficacy of product or service	32	69	101	40.2
Nearness to facility	8	11	19	7.5
Easy access to information	11	36	47	18.7
Total	92	159	251	100

Source: Field Survey 2015

It was evident from the study that women are/ were passive when it comes to Sexual Reproductive Right and the use of the products and services. From the affordability of Reproductive Health products and services, women dominated with 77% in easy access to information and 51% in affordable prices of the product. Majority of the women here were those who have given birth or have been pregnant before.

Table 7. Reasons for Preferences on the Reproductive Health Service Used

RHS Used	Number of Responses				Total
	Affordable Prices	Efficacy	Proximity	Easy access	
Male/Female Condom	69	75	13	28	185
Injectable	1	3	0	1	5
Contraceptive Pills	27	40	6	18	91
Nutritional supplements during pregnancy	27	41	9	25	102
Information and Counseling on Sexuality	36	33	4	19	92
Prenatal and Postnatal care	27	44	9	26	106
Safe Delivery Services	28	43	8	22	101
Treatment of Placenta Malaria	24	41	7	24	96
Antenatal and Neonatal Immunization	25	42	8	25	100
Total	264	362	64	188	878
Percentage	30.10	41.2	7.3	21.4	100

Source: Field Survey 2015

Out of 878 responses, 41.2% of the responses recorded efficacy of product or service as the reason which informed their preference for particular services and products; 30.1% for affordable prices; 21.4% for ease of access to information pertaining to the products and services; and only 7.3% recorded nearness to facility as a reason for their preferences. This implies that preference for reproductive health services and products among respondents is highly dependent on their perceived efficacy of product and services; followed by affordable prices and ease access to information with nearness to facility having less effect on their choices. There is evidence in India that user fees discourage women from giving birth in formal institutions, accessing antenatal care and seeking treatment for reproductive tract infections (ICW, 2006).

Table 8. Variables in the Logistic Equation

Variables	B	Wald	Sig.
Age	0.217	0.413	0.520
Sex	-0.036	0.007	0.933
Religion	-1.196	10.313	0.001
Marital Status	0.427	0.978	0.323
Educational Background	0.335	1.889	0.169
Income	0.243	2.046	0.153
Number of Children	0.968	4.635	0.031
Price	-0.300	3.952	0.047
Constant	0.124	0.007	0.933

Note: Coefficients are significant at 0.01 or 1%

$$L_i = \ln\left(\frac{P_i}{1-P_i}\right) = Z_i = U_{in} = X_{in} \beta + \mu_i$$

Therefore; $U_{in} = 0.124 + 0.217\text{Age} - 0.036\text{Sex} - 1.196\text{Religion} + 0.427\text{M.Status} + 0.335\text{E.Background} + 0.243\text{Income} + 0.968\text{Children} - 0.300\text{Price}$

From the above diagram, usage of reproductive health service and products will increase by 0.124 units when all the variables affecting demand; age, sex, religion, marital status, educational level, income, price, location etc. are held constant (i.e. $U_{in} = 0.124$). Since the coefficient; 0.124 is significant at 0.933 it implies that the value is statistically significant.

The model indicates that a unit change in the age of the respondent will result in a corresponding increase in the usage of reproductive health services and products by 0.217 units. The table below supports the above analysis that as age increases, the likelihood of usage increases; 38.9% of the respondents between the ages of 15 to 19; 76.3% of those between 20 to 29 years; 88.7% of those between 30 to 39 years; and 84.4% of the respondents between 40 to 49 years use reproductive health products and services, depicting an increasing trend.

A coefficient of -0.036 indicates that an addition of a respondent will result in women being less likely to use reproductive health services and products. From the field survey carried out, it was recorded that male respondents used particular products while certain products and services could only be used by female respondents.

Religion as a determinant of the usage of reproductive health services and products has a coefficient of -1.196 significant at 0.001%, which falls below the acceptable significance level of 0.01 or 1%, making it statistically insignificant to this study.

A change in ones' marital status, from unmarried to married or divorced is likely to cause usage of reproductive health services and products to increase by 0.427 units.

Hence, respondents who are married or have ever been married have higher likelihood of using RHS

compared to those who are not married as shown in the diagram below.

Table 9.

Income level of Respondents who used RHS

Income	Number of Respondents	Respondents who used RHS	Percentage %
<GHC 50	32	19	59.4
GHC50-100	54	37	68.5
GHC101-150	41	33	80.5
GHC151-200	27	24	88.9
>GHC200	46	42	91.3

Source: Field Survey 2015

Table 10.

Cross Tabulation of number of children of respondents and RHS used

Children	Ever used RHS		
	No	Yes	Total
None	32	51	83
1-3	9	80	89
4-6	2	22	24
More than 6	2	2	4
Total	45	155	200

Source: Field Survey 2015

From the above diagram, respondents who have children tend to use more RHS compared to those without children.

Respondents who have children are likely to increase the usage of reproductive health services and products by 0.968.

A unit addition to price will reduce the use of reproductive health products and services in Wa municipality by 0.300 units. The Wald test, described by Polit (1996) and Agresti (1990), is one of number of ways of testing whether the parameters associated with a group of explanatory variables are zero. An interpretation of the Wald test indicates that religion (11.713) is statistically insignificant and its parameter in the model is zero and could be omitted.

From these analyses, the logistic model can be transformed to;

$$U_{in} = 0.124 + 0.217Age - 0.036Sex + 0.427M.Status + 0.335E.Background + 0.243Income + 0.968Children - 0.300Price$$

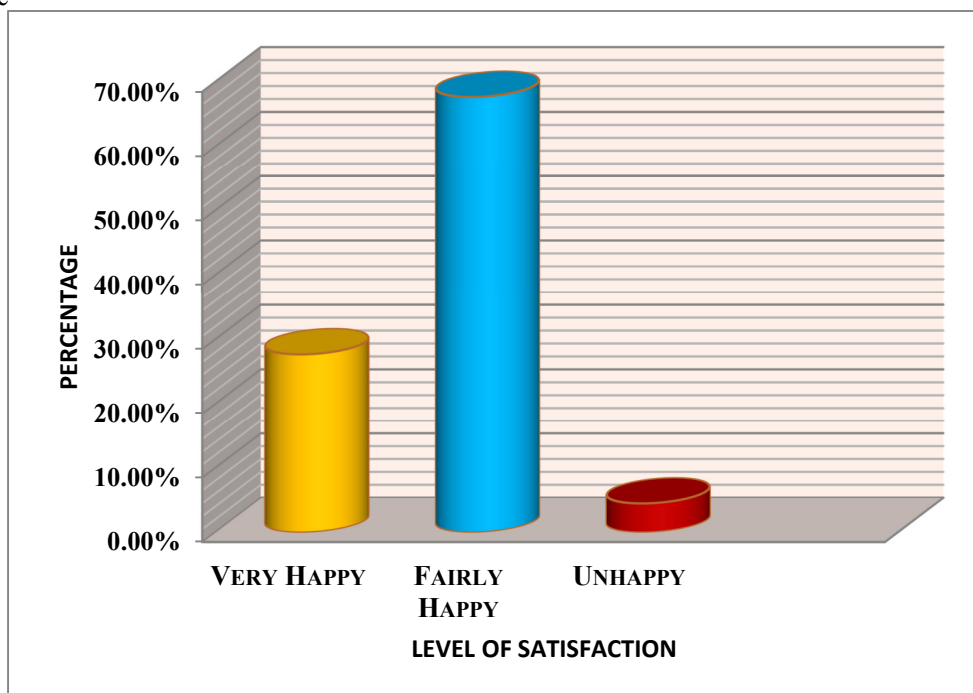


Figure 2. Respondents level of satisfaction

Source: Field Survey 2015

Out of the 155 respondents who have used the services and products, 27.7% of them are very happy when it

comes to their satisfaction with the service delivery; 67.7% are fairly happy; 4.6% are unhappy

Conclusion

The demand for RHS and products are principally determined by; age, sex, marital status, education, number of children and income.

Majority of the people in Wa Municipality receive their RHS and products from chemists. It was revealed that efficacy of the products and services are the major determinants of the usage of a particular RHS or products. Some of these reproductive health services and products are either used to prevent sexually transmitted diseases or unintended pregnancy.

Prices were also revealed to be the second major determinant of usage apart from the efficacy of the RHS and products. Affordable prices for RHS are likely to increase utilization of RHS and products among low income earners in the municipality.

Among the RHS and products listed, as identified in the study; condom, injectable and contraceptives pills are mostly used by the people. Condom constituted 65.1%, 3.4% for injectable and 31.4% for contraceptive pills out of the total 175(100%) of the responses.

Again, from the study it was revealed that prenatal and postnatal care services are used more than the other RHS, this draws from the fact that most of the RHS and products identified in the municipality are peculiar to women. The rest of the services mentioned carry almost the same percentage with marginal differences as observed from our study. Females receive and use more of RHS than males. 24% of the respondents used information on counseling and sexuality as against 76% who are females.

It was also evident that the higher the level of education attained by the people in Wa municipality, the greater the usage of RHS and products. Improved sexual and reproductive health would result in higher productivity of labor, better economic growth, and enable the people of Ghana lead generally, more productive lives.

Ghana is progressing towards attainment of the Millennium Development Goals (MDGs), concerning commitment to achieving higher levels of child-survival and maternal health. Education on sexuality and reproductive health may also eliminate cultural factors affecting usage, such as religious and social beliefs, health workers must operate door-to-door service provision, giving them a good understanding of reproductive health issues of the communities, and versatility in languages found within such communities. The relationship between the health workers and community members can be used as an avenue to correct misconceptions about reproductive and maternal health.

Approaches for expanding access to services in achieving the necessary human development can take the following forms;

Firstly, integrating requires that, health care workers should be able to provide an appropriate comprehensive package of services under one roof.

Whiles Strengthening the participation, accountability and Improving quality of care requires that patients' perspectives and levels of satisfaction are taken into account when evaluating services and products. Male involvement programs should be also designed as part of larger overall SRH strategies. Constructive male involvement should be viewed as a paradigm that needs to be integrated into the planning and development stage of any SRH programme. However, peer education and counselling vary on the use of SRH which helps in the constructive criticism serving the needs of the people.

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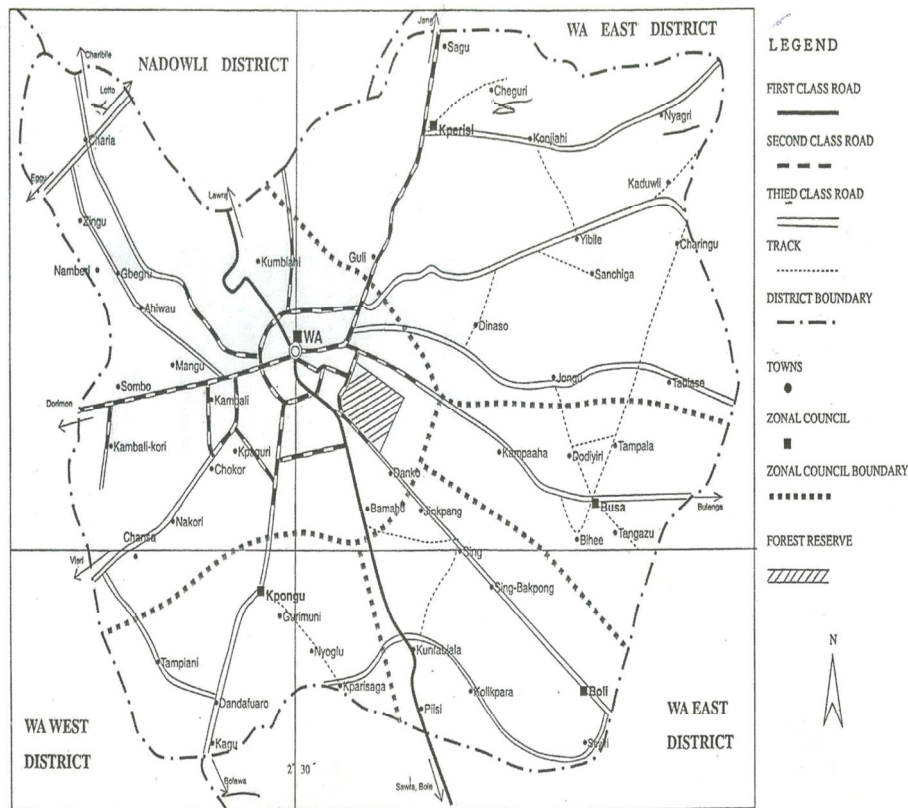
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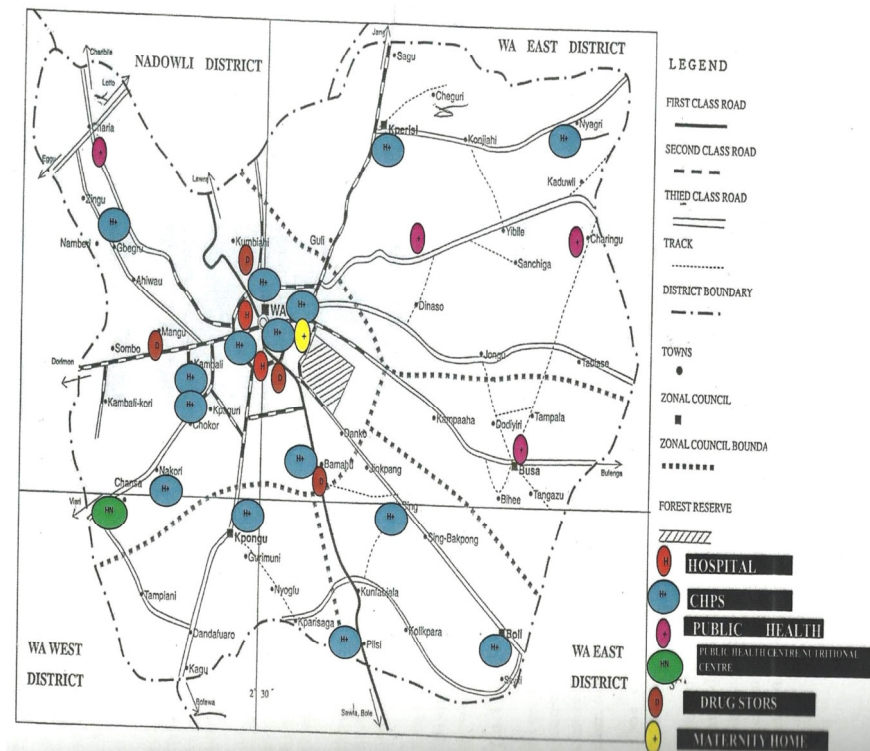
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MAP OF WA MUNICIPAL



Appendix 2:

HEALTH FACILITIES



LIST OF ACRONYMS

5YPOW	-	5-Year Programed of Work
AIDS	-	Acquire Immune Deficiency Syndrome
ATR	-	African traditional religion
CAC	-	Comprehensive Abortion Care
DHS	-	Demographic and Health Survey
FGM	-	Female Genital Mutilation
GHC	-	Ghana Health Committee
GHS	-	Ghana Health Survey
HIV	-	Human Immune Virus
HS	-	Health Service
ICPD	-	International Conference on Population and Development
ICW	-	International Community of Women
IEC	-	Information, Education, Communication
IUD	-	Intra Uterine Device
LAPM	-	Long-Acting and Permanent Method
MDGs	-	Millennium Development Goals
MHS	-	Municipal Health System
MTDP	-	Medium Term Development Plan
NGOs	-	Non-Governmental Organizations
PMTCT	-	Prevention of Mother to Child Transmission
PoA	-	Program of Action
PRSPs	-	Poverty Reduction Strategy Papers
QHP	-	Quality Health Partners
RCHU	-	Ghana Ministry of Health Reproductive and Child Health Unit
RTIs	-	Reproductive Tract Infections
SRH	-	Sexual and Reproductive Health
SRH R&S	-	Sexual and Reproductive Health, Rights and Services
SRHR	-	Sexual and Reproductive Health and Rights
STIs	-	Sexually Transmitted Infections
TB	-	Tuberculosis
UN	-	United Nations
UNFPA	-	United Nations Population Fund
UNICEF	-	United Nations International Children Education Fund
URHS	-	Use of Sexual Reproductive Health Services
USAID	-	United States Agency for International Development
UWR	-	Upper West Region
WHO	-	World Health Organization
WMA	-	Wa Municipal Assembly