WOMEN'S HEALTH STUDY OF ACCRA WAVE II (WHSA-II)



TECHNICAL PUBLICATION NO. 91

THE WHSA-II WRITING TEAM



WOMEN'S HEALTH STUDY OF ACCRA WAVE II (2008-2009)

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Abbreviations

AMA Accra Metropolitan Area

BMI Body Mass Index
CBI Current Body Image
CDs Compact disks

DHS Demographic and Health Survey

DS Dissatisfaction Score

EA Enumeration Area – as defined in the 2000 Census of Population

FGDs Focus Group Discussions

FIRH Focused Investigations in Reproductive Health

FRS Figure Rating Scale

GDHS Ghana Demographic and Health Survey

GHø New Ghana cedi

HAWS The Housing and Welfare Study

HBI Healthiest Body Image

HTI Health Transformation Image

IBI Ideal Body Image
IDIs In-depth Interviews

ISSER Institute of Statistical, Social and Economic Research

IUD Intra-uterine Device
JSS Junior Secondary School
LHBI Least Healthy Body Image

NIHS National Health Insurance Scheme
NGOs Non-governmental Organizations
PCA Principle Component Analysis

sd Standard deviation
SES Socio-economic Status

SF36 Short Form 36

SSS Senior Secondary School

TFR Total Fertility Rate

TUHS Time Use and Health Survey

WHSA-I The Women's Health Survey Wave I
WHSA-II The Women's Health Survey Wave II

Preface

From its beginnings, ISSER has been concerned to generate new theory and empirical information on human development in Ghana and beyond. ISSER's participation in both Wave I and Wave II of the Women's Health Study of Accra (WHSA) made sense since health is major component of well-being and human development more broadly. In addition, very little prior work had been completed on adult health in Ghana and in urban places in particular.

The first wave of the WHSA was conducted in 2003 and included a household survey of 3182 women and a clinical examination of 1328 women, drawn from the same cohort. The study involved the collection of information on both reproductive and general health from household interview surveys, comprehensive clinical history and physical examinations, as well as screening for heart disease, obesity, cervical cancer, breast cancer, hypercholesterolemia, diabetes, anaemia and HIV. The study was designed to serve as a baseline for a subsequent series of more specific research and the evaluation of the impact of intervention projects on selected high priority health topics.

The follow-up study, Wave II (WHSA-II) reported on here, builds on the detailed survey work from Wave I and was designed to obtain new empirical information on the links between health and wealth on the household level. New sub-studies were added on reproductive health; on time use and health; on health and well-being in slum areas; and on causes of death in the city. Novel features of the work included the integration of census, survey and routinely reported facility-based health data as well as information from the interpretation of satellite imagery.

The studies have already produced a large collection of published papers and reports which are detailed in the bibliography. More detailed analyses of particular health issues are available in a Special Supplement published by the *Ghana Medical Journal*.

In publishing this Report, ISSER is eager for as many people as possible to appreciate the clear importance of health for human development. Health has many connections to household productivity and welfare and improving adult health is one of the principal routes to poverty reduction in Ghana.

ISSER encourages others to take this study further by the addition of new work and analyses.

Professor Ernest Aryeetey, Former Director of ISSER, now Vice-Chancellor of the University of Ghana Professor Clement Ahiadeke, Acting Director of ISSER, now Director Dr. Isaac Osei-Akoto, Principal Investigator, ISSER

1 Introduction

In 2003, a team of researchers from the Institute of Statistical, Social and Economic Research (ISSER), University of Ghana, and Harvard University conducted detailed health and household interviews amongst a representative sample of just under 3200 women aged 18 and over – the Women's Health Study of Accra, Wave I (WHSA-I). Summary findings of this study have been published elsewhere¹. The original sample was stratified by the socio-economic status of their Enumeration Area (EA) of residence, and older women were over-sampled in order to assure sufficient statistical power for the analysis of health patterns among this relatively under-researched age group. Just over 1300 of the women interviewed were given full medical examinations at Korle-Bu Teaching Hospital, which included measurement of blood pressure, height, weight, cholesterol level and tests for diabetes and HIV status. Results are summarized in a series of papers and a final report referenced in the bibliography at the end of this Report.

The follow-up study – Women's Health Study, Wave II (WHSA-II) conducted in 2008-9 – built on the detailed survey work from Wave I and was designed to obtain new empirical information on the links between health and wealth at the household level. Both waves were intended to expand our understanding of the impact of health on poverty and development by focusing on the longitudinal observations at the household rather than the individual level. The studies have produced a great deal of new empirical information on the epidemiology and demography of health and mortality in adults and children in a major African city.

The primary objective of the study was to quantify the burden of disease attributable to communicable and non-communicable diseases amongst a representative sample of Ghanaian women aged 18 years and older normally resident in the Accra Metropolitan Area (AMA). Linked with this general goal was the interest in identifying risk factors and exposure variables for the salient conditions identified in the study.

The specific objectives can be summarized as follows:

- To collect self-reported data on general health and specific health domains using the Medical Outcomes Study Short Form 36 (SF-36)²;
- To provide the first description of morbidity amongst the elderly in an African city;
- To estimate the prevalence of disease from a comprehensive medical history and physical examination by the combing of disease-specific constellation of symptoms, physical examination findings and the results of laboratory testing;
- To create a baseline for a longer-term cohort study of women's health in Accra.

The main research questions included the attempt to quantify the nature and strength of the two-way connections between health and household prosperity. In addition to this broad aim, the studies estimated the following effects and factors:

• The effect of family size and child health on women's productive time;

¹ Hill AG, Darko R, Seffah J, Adanu RMK, Anarfi JK, Duda RB. (2007) Health of urban Ghanaian women as identified by the Women's Health Study of Accra. *Int J Gynaecol Obstet*, 99(2):150-156. Epub 2007 Jul 12.

² Ware JE, Sherbourne CD, Ware JE Jr. (1992) The MOS 36 item short-form health survey (SF-36). I. Conceptual framework and item selection. *Med Care*, 30(6):473-483.

- Total direct (medical treatment, drugs) and indirect (work days lost due to sickness in household) cost due to ill health;
- Health seeking behaviour as a function of health insurance, distance to clinic, and household income;
- Reproductive morbidity as a fraction of all-cause morbidity.

With these studies as a base, two additional studies were added within the framework of the WHSA-II. The first component of the data collection was a relatively large household survey labelled the "Time-Use and Health Study" (TUHS). Using the original sampling frame for the WHSA, we selected 1200 women for a more detailed household level interview. The TUHS collected detailed information about all household members' current schooling and employment status, as well as regular sources of income, including remittances and transfers from relatives and friends in a baseline survey. Since the focus of this project was to understand the burden of ill health for the average household in the modern, urban sub-Saharan environment of Accra with different health problems in the wet and dry seasons, a rollingsample design was used that involved following sub-sets of households over 12 weeks. During the observation period, households were visited once per week and detailed health modules were completed if any of the household members suffered from a health problem. Since the TUHS directly draws from the WHSA-I sample, households are stratified by socio-economic status and age of the main respondents. The rolling sample design allowed us to provide a complete picture of ill health, morbidity and mortality across seasons and socio-demographic groups. The field work for the TUHS, directed by Günther Fink (Harvard) and Isaac Osei-Akoto (University of Ghana), was conducted under a separate sub-contract with ISSER, University of Ghana.

The second sub-component of WHSA-II is a mixed-methods quantitative and qualitative study of reproductive health, directed by Kelly Blanchard and Naomi Lince of Ibis Reproductive Health. The overall aim of the Focused Investigations on Reproductive Health (FIRH) sub-study was to generate data on women's reproductive health including cultural norms and beliefs about sexual behaviour, contraceptive use, abortion, labour and delivery; women's practices for maintaining good reproductive health; experiences of reproductive ill health; the costs associated with reproductive health; and the impact of recent changes in insurance/coverage on access, utilization, and cost. The study included four components - one quantitative and three qualitative. The first, a survey of 400 women who participated both in the WHSA waves I and II as well as the TUHS, collected data on the cost to manage a range of reproductive health issues (contraception, menses management, reproductive tract and sexually transmitted infections, etc.) as well as the costs associated with the woman's most recent labour and delivery experience. In the second component, focus group discussions (FGDs) were conducted with women to document community norms and knowledge regarding contraception and abortion. The third component comprised in-depth interviews (IDIs) exploring experiences of abortion among women who reported having had an abortion in the WHSA-II survey. Finally, the fourth component included another set of IDIs with women who reported giving birth in the last five years to explore experiences of labour and delivery.

2 Survey organization and administration

2.1 Sample

2.1.1 WHSA-II

The WHSA-II sample builds on the WHSA-I sample. In Wave I, the 2000 census frame was used to identify a representative sample of 3200 Ghanaian women aged 18 and over and usually resident in Accra. The women interviewed in 2003 who consented to be re-visited in the future were approached for Wave II between October 2008 and March 2009. In WHSA-I, the 2000 census frame was used to identify a representative sample of Ghanaian women aged 18 and over and usually resident in Accra. The sample was stratified by the socio-economic status of their Enumeration Area of residence and older women were over-sampled to provide enough cases for meaningful analysis of health issues among older women. The women interviewed in 2003 were asked for consent to be re-visited in the future, and the panel of women who consented were approached for re-interview between October 2008 and March 2009 for Wave II. In Wave II, women who were not able to be contacted or who had moved outside of the Accra Metropolitan Area were replaced with new participants following the profile for age and socioeconomic status (SES) used in Wave I.

In Wave II there were no blood tests or medical examinations but height, weight, blood pressure and visual acuity were measured at home at the end of the household interview. Tracking women using information collected during interviews in 2003 led to several different kinds of problems of identification and different approaches were adopted depending on circumstances.

- Women who were found and matched the profile of the woman interviewed in 2003: interview conducted:
- Women who had moved within the Accra Metropolitan Area (AMA): the team made every attempt to locate them in their new residence and interview them as part of the study;
- Women who had moved outside AMA: replacements matched by age and EA of residence from the original listing from 2003 were identified and asked to join the study;
- Women who had died: a later study was carried out in which a verbal autopsy was conducted to ascertain probable cause of death.

The tables below summarize the two samples based on socio-economic level of the area of residence and age group at the time the sample was drawn in 2003.

Table 2.1 WHSA-I sample distribution by socio-economic group and age group

	Age group							
	18-24 25-34 35-54							
Socio-economic group								
Low class	259	299	219	199				
Low middle class	207	169	203	164				
Upper middle class	189	182	187	184				
High class	189	189 167 176						

Table 2.2 WHSA-II sample distribution by socio-economic group and age group³

	Age group					
	18-24	25-34	35-54	55+		
Socio-economic group						
Low class	211	187	180	207		
Low middle class	202	127	178	134		
Upper middle class	197	153	185	182		
High class	174	148	174	175		

2.1.2 TUHS

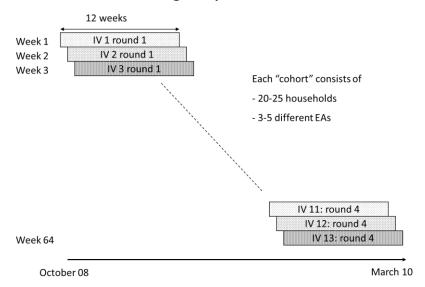
The Time Use and Health Study (TUHS) was designed to measure the magnitude of the burden of communicable and non-communicable disease amongst a sample of approximately 1200 households within the Accra Metropolitan Area (AMA). Building on the sample framework used in the Women's Health Surveys 2003 and 2009, the study targeted 1200 households randomly selected as part of the WHSA-I. The study focused on answering the following three questions: First, how often are people living in Accra households ill in an average year; second, what are the main health problems; third, how do individuals cope with acute health problems in their household.

Because previous research has highlighted pronounced regional and seasonal health disparities within the city of Accra, the study extended over a period of 15 months; in each month of the year, a randomly selected group of households within each of the six districts (sub-metros) of Accra was monitored as illustrated in Figure 2.1.

Women who were interviewed as part of the WHSA-II and volunteered to participate in an additional follow-up study were re-contacted by the TUHS staff and, together with everyone else living in their household, closely monitored over a three-month period. Since the TUHS survey structure was contingent on prior completion of the WHSA-II, field work was phased in slowly after the beginning of the WHSA-II survey in October 2008. As summarized in the following chart, a relatively small set of households were first enrolled in the last quarter of 2008; the number of study participants enrolled peaked in the second and third quarter of 2009, before the study was slowly phased out at the end of 2009 and early 2010. The last group of households was enrolled in January 2010, and completed their final interview at the end of March of 2010 (Figure 2.2).

³ Numbers in the above table above are smaller than the number of women interviewed. The work of one interviewer proved unreliable and all interviews conducted by her have been discarded.

Rolling Sample Time Line



Note: IV = Interview cycle.

Figure 2.1 Rolling Sample Design for TUHS

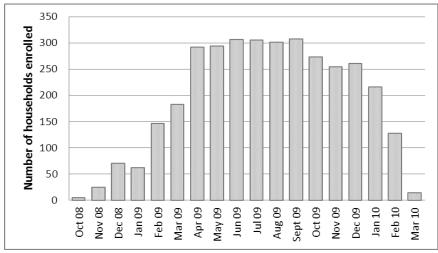


Figure 2.2 TUHS Temporal Sampling Distribution

Given that one of the questions of interest of this study was the seasonal variations in the cost of ill health, approximately one quarter of the targeted sample population was enrolled in each quarter of the year as illustrated in the following table. Field work was completed in March 2010, with a total sample size of 1254 households, and 5484 individuals surveyed.

Table 2.3 TUHS households and respondents by month of recruitment

	Households	Respondents
Month		
January – March	280	1237
April – June	321	1449
July – September	316	1393
October – December	337	1405
Total	1254	5484

While in the stratified sampling design of the original WHSA-I study households were evenly distributed across socio-economic areas (SES), voluntary enrolment into the TUHS sample as well as basic sample attrition skewed the TUHS sample slightly towards the lower class neighbourhoods, with 366 households (1632 individuals) living in areas classified as "low class" versus 275 households (1171 individuals) living in areas classified as "high class".

2.1.3 FIRH

Women who participated in the FIRH study were selected from the sample of women who participated in WHSA-II and the TUHS, and their demographic characteristics, sexual behaviour and pregnancy history were collected as part of the WHSA survey.

As noted above, the FIRH sub-study consisted of four activities: a survey, focus group discussions, and in-depth interviews with two categories of participants. Figure 2.3 shows the different WHSA, TUHS and FIRH sample groups.

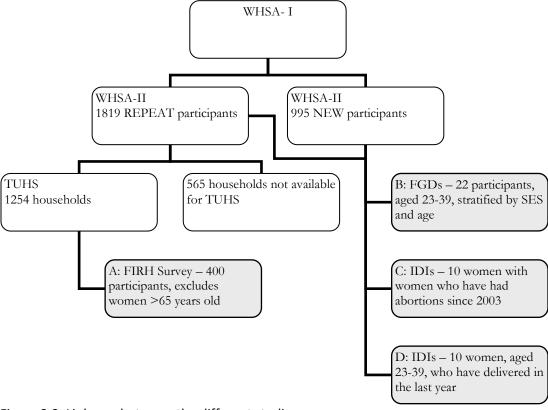


Figure 2.3. Linkages between the different studies

For the FIRH survey we drew a representative sample of 626 women from the pool of women who participated in the WHSA-I, WHSA-II and TUHS. The sample was drawn in 2009 when some WHSA-II interviews were still on-going, and only women with completed interviews were eligible at that time. Women who were over 65 years of age at the time of recruitment or who did not speak at least one of three local languages (Ga, Twi or Ewe) were not eligible for the FIRH survey.

Women were selected for participation in FIRH qualitative data collection activities from the broad group of 3,200 women who completed the WHSA-II. These women were selected using purposive methods based on either age, socio-economic status or geographic location. For the FGDs, women were eligible if they were between 23-39 years of age in 2008. Then the women were recruited in such a way as to allow for four groups stratified by age and socioeconomic status (*i.e.* younger and lower SES, younger and higher SES, older and lower SES, older and higher SES). For the IDIs focusing on abortion, women were selected if they reported having an abortion in either WHSA-I or WHSA-II. Finally, for the IDIs on prior labour and delivery, women were selected if they reported a delivery within the year prior to their WHSA-II interview.

2.2 Replacements for the original sample women

The replacement sample was drawn on January 10, 2009 using the results from the search process of locating women from the 2003 WHSA-I sample. As of that date (midway into the fieldwork) 87 EAs had been visited and thoroughly searched and the status of 1396 women was known (Table 2.4).

Table 2.4 Success rates for re-interviews with WHSA-I women in WHSA-II

	Number	Percentage
Women deceased or not found	473	34.55
Women interviewed or scheduled for interviews	896	65.45
Total	1369	100.00

Out of the 1369 women in the 87 EAs, 8 had missing information so they were excluded from the data set for sample selection, which left us with 1361 women in the working sample. The decision steps and checks during the selection process are described below.

The original 2003 sample (WHSA-I) was stratified into income groups at the EA level (SES) and age groups at the individual level and was designed to have equal number of women in each age-SES group. Elderly women were over-represented in the original sample population to fulfil the aim of equal distribution of participants across the age-SES groups. Table 2.5 shows the relative distribution by socioeconomic status (SES) and age group in the 87 completed EAs, and we can see that the 1361 women were also distributed fairly evenly among age-SES groups. The smallest cell (aged 25-34, low middle class) represents 4.5% of the sample, the largest, (25-34, upper middle) about 7.5%. Consistent with the original design, table 2.5 shows that elderly women are over-represented in the working sample.

Table 2.5 Completed sample distribution by socio-economic status and age groups, WHSA-II

	Age group				
	18-24	25-34	35-54	55+	Total
Socio-economic group					
Low class	75	107	85	93	360
Low middle class	83	59	74	83	299
Upper middle class	90	102	89	96	377
High class	89	76	66	94	325

Attrition rates show no clear association with age or socio-economic status of residence area (Table 2.6). Attrition in our sample happened for four main reasons: first, respondents moved outside of the Accra Metropolitan Area; second, respondents (mostly out of the older sample) had died or were no longer physically able to participate in the study; third, respondents refused to participate in the second round of the survey; and fourth, respondents had moved without making their new addresses available.

Attrition rates were highest in the youngest age groups (moving to new jobs or forming their own households) and the oldest age groups (due to mortality). There was no clear pattern in the distribution between SES of the EA. Attrition rates were generally lowest in the lowest ranked EAs, and roughly the same for the three remaining groups.

Table 2.6 Distribution of replacement rates by socio-economic status of residence and age group

	Age group				
	18-24	25-34	35-54	55+	Mean
Socio-economic group					
Low class	37.3%	26.2%	20.0%	37.6%	30.2%
Low middle class	44.6%	37.3%	29.7%	37.3%	37.5%
Upper middle class	38.9%	39.2%	29.2%	33.3%	35.4%
High class	37.1%	31.6%	34.8%	36.2%	35.1%
Mean	39.5%	33.1%	28.0%	36.1%	34.6%

Assuming that the replacement rates at the time of selection were representative of the full sample, the total number of replacement women by SES and age group determined to be needed is shown in Table 2.7 below.

Table 2.7 Estimated number of replacement women by age groups and SES status at time of selection

	Age group				
	18-24	25-34	35-54	55+	Total
Socio-economic group					
Low class	65	65	39	81	250
Low middle class	86	51	51	72	260
Upper middle class	81	93	60	74	308
High class	76	56	53	79	264
Total	308	265	203	306	1082

Taking into consideration the results in Table 2.6 and the experience of locating women from the 2003 sample, a replacement pool 2.5 times the needed number of women was drawn using the original listing file from 2003. As a result, a list of 2735 women was used to recruit the needed number of women for the replacement sample. A team of 8 additional fieldworkers familiar with Accra Metropolitan Area (AMA) EAs and fieldwork was hired to help interviewers and supervisors locate the women drawn for the replacement sample. Teams were instructed to look for the selected women only in the original area (EA) or selection and not attempt to locate them if they had moved to a different area. Close to half of the drawn women were found (1274) and by the end of the field work 995 were interviewed. The profile of the interviewed replacement women based on socio-economic status of the EA and age group can be found in Table 2.8.

Table 2.8 Actual number of replacement women by socio-economic group and age group

	Age group						
	18-24	18-24 25-34 35-54					
Socio-economic group							
Low class	89	40	41	99			
Low middle class	96	29	53	43			
Upper middle class	89	58	60	68			
High class	65	50	54	61			

2.3 Questionnaires

2.3.1 WHSA-II

The initial development of the WHSA-II questionnaire was carried out in Cambridge, Massachusetts using sections of the WHSA Wave I individual and medical questionnaires, the Ghana Demographic Health Survey (GDHS) questionnaire and with consultations from specialists in different topic areas – nutrition, mental health, and body image. Upon arrival in Ghana and with the help of ISSER, University of Ghana, a supervisory team of four supervisors and one field co-ordinator was recruited. During the following 2 weeks, while the rest of the fieldworkers were selected, the supervisors and the field co-ordinator pre-tested and fine-tuned the questionnaire.

The WHSA-II household questionnaire consisted of 25 sections in addition to a household roster and details of the dwelling's characteristics (Appendix B). The sections were women's characteristics and migration, general health, self-care, pain and discomfort, community role, energy and sleep, mental health, routine health maintenance, use of health services, health insurance, malaria, heart-blood-vessels-lungs, specific health conditions and symptoms, medication history, family history, reproductive health and family planning, pregnancy history, pregnancy and malaria, breastfeeding, smoking and drinking, physical activity, nutrition, changes made to improve health, body image assessment and medical measurements. The sections were chosen to address major health issues identified in Wave I (hypertension, obesity, "malaria", depression and mental illness) as well as new topics of interest to policy makers and programs (participation in the national and district mutual health insurance schemes, malaria protection and treatment and the use of induced abortion).

2.3.2 TUHS

Given that standard household characteristics (such as assets and household rosters) were already collected as part of the WHSA-II, the TUHS could rely on a relatively simple set of modules to collect more detailed information on a smaller set of issues of interest. Upon selection into the study, TUHS supervisors arranged a visit with the woman interviewed as part of WHSA-II, and introduced TUHS enumerators to the household after obtaining formal consent. TUHS enumerators were instructed to visit the household once every week, and to fill out detailed health modules for any person reporting a health problem over the preceding 7 day period. These modules capture basic health seeking behaviour (location and type of facility), duration of health problem, as well as the cost associated with treatment.

In addition to the health modules, which were collected on a weekly basis, interviewers asked respondents to fill out a series of household modules as described in the following:

- Week 1: verification of household roster from WHSA-I, basic household arrangements: responsibility for food and other purchases, transfers to and from other households, chronic health issues.
- Week 5: school modules: detailed information on schooling modalities for all household members attending primary, secondary or tertiary education, including time spent at school for each day of the week, transport time and cost, and school location and schooling fees.
- Week 9: job modules: detailed information on the main activity of each household member as well as the monthly income from labour and other sources.

In order to gain additional insights into the coping mechanisms of households with ill health, all members living in households enrolled in the TUHS were invited to fill out daily diaries describing the principal activity for every 30 minute block of the day.

2.3.3 FIRH

The ultimate objective for the FIRH survey were to determine, for those women who were currently or recently experiencing certain reproductive health issues or conditions, their approaches for managing the condition, how much time and money were spent managing the condition, and to what extent the condition interfered with work and daily activities. The FIRH survey consisted of eight parts covering menstruation, menopause, contraception, reproductive and sexually transmitted infections, preventative care, fertility treatment, current pregnancy and most recent labour and delivery experience. In each section, there were questions asking if the respondent was currently or had recently experienced the condition. Those who reported currently or recently experiencing the various reproductive health conditions were then asked whether they had obtained any products or sought care or services to manage the symptoms or issue. The survey allowed for up to four products or types of service. If they had sought products or services, they were asked where they obtained the product/service, to provide the cost of the product/service, time spent obtaining the care/service, and any related travel costs. Finally, they were asked to indicate, depending on the question, whether experiencing the condition or attempting to obtain products or care to manage it interfered with their work and daily activities.

The qualitative interviews were included in the FIRH sub-component in order to provide more in-depth information regarding women's experiences of managing their reproductive health and to elicit the socio-cultural norms, beliefs and behaviours serving as context for the FIRH quantitative results.

A discussion guide, containing a series of open-ended questions, was developed for the FGDs and two IDI types. The FGD guide included questions concerning fertility, contraception, abortion, and general maintenance of reproductive health. In the abortion IDIs, the main topics were preferences for family size and number of children, unwanted pregnancy and experiences with managing unwanted pregnancy, and knowledge and experience with abortion services (how the woman identified a provider, facility type and abortion method (i.e. surgical, medical, self-induced, etc.), including costs. The labour and delivery IDI guide covered attitudes regarding the planning (or lack of planning) for her most recent pregnancy, experiences with her most recent pregnancy, labour and delivery (including her use of public health services), decision making around use of public services during pregnancy and delivery (including the role that the national health insurance plays in decision making), and the costs associated with delivery.

All of the FIRH qualitative interviews were tape recorded using a hand-held recording device.

2.4 Pre-test and training

2.4.1 WHSA-II

The work was carried out under a sub-contract with ISSER, University of Ghana. A project office was established in Adabraka Official Town and the area was chosen because of its central location to all study EAs. The office was staffed with an Office Coordinator in charge of all financial and administrative matters and an Office Assistant. A researcher from Harvard moved to Accra for the duration of the study to coordinate the survey and work closely with the local partners.

At the end of August 2008 ISSER advertised positions for field supervisors and field workers. After a week of interviews, a team of 1 field co-ordinator, 4 supervisors and 20 interviewers was selected to participate in intensive 1-week training. The training focused on reviewing each topical issue in the questionnaire and practicing interviewing skills. Special medical training sessions were led by Richard Adanu and Rosemary Duda. In addition, interviewers and supervisors had the opportunity to practice sections of the interview, as well as the full interview, while being observed by the training team and they received feed-back and suggestions on how to approach difficult situations and questions. At the end of the training, each interviewer was independently supervised by 2 supervisory team members during 2 practice interviews and an assessment was conducted. After the final selection process, sixmonth contracts were offered to 12 interviewers, 4 supervisors and 1 field co-ordinator and additional 2-day training and practice interviews were scheduled. The first formal interviews were carried out in early October.

The final composition of the fieldwork team was 4 supervisors and 12 interviewers. As a result the city was divided in 4 sections and each supervisor worked with 3 interviewers in their assigned areas. The estimated duration of an interview was between 1.5 and 2.5 hours depending on the characteristics of the woman interviewed – age, size of household, pregnancy history, etc. As a result, a quota of 3 interviews per day (15 interviews per week) was established for each interviewer.

As the fieldwork advanced the main challenge of the study became re-locating the women interviewed in 2003 at a pace that would produce enough appointments per week for all the 12 interviewers. The factors contributing to this challenge included poor quality of the addresses collected in 2003, lack of detailed maps of study areas, names recorded at the 2003 interview that did not reflect local names used in the community. All these obstacles added to the challenge of scheduling timely appointments and various actions were taken to address the issues. In the first instance the field work was stopped and interviewers, supervisors and other office staff joined efforts to advance the search for women interviewed in 2003. Unfortunately those efforts proved somewhat ineffective because interviewers had insufficient knowledge of the study areas and spent a lot of time locating the areas instead of searching for the women. As a result, a team of 8 Finders with local knowledge of the city neighbourhoods were recruited to help the Supervisors and the Interviewers with the search. Interviewing was paused so that enough women could be located to ensure uninterrupted work for the interviewers. As a result, the field work could not be completed as planned by the end of March 2009 and continued through June.

2.4.2 TUHS

In parallel to the recruitment for the WHSA-II, ISSER advertised positions for TUHS supervisors and enumerators. Relative to the recruitment for WHSA-II, lower priority was given to prior experience in medicine or nursing, so that selection was mostly based on graduate education and prior field work experience. After a series of interviews, 2 supervisors and 15 interviewers were selected to participate in

an intensive 1-week training, which was organized and conducted by Günther Fink with the support of the whole WHSA team. After multiple rounds of field interviews, 12 interviewers were selected for the main study, 2 of which were later replaced by enumerators recruited and trained directly by the field work supervisors.

2.4.3 FIRH

For the FIRH sub-component, a small interviewing team was assembled in early 2009. This included one more senior staff person from the WHSA-II team and two more junior staff. These three individuals were selected and hired based on recommendations from the WHSA-II and TUHS teams. The senior staff person served as the FIRH supervisor for the quantitative data collection and conducted all of the qualitative interviews. She had experience in both quantitative and qualitative data collection and qualitative data analysis. The other two individuals had worked as interviewers for the WHSA-II and served as interviewers for the FIRH survey. One interviewer also assisted with the FIRH FGDs.

Two technical advisors were also invited to contribute to the FIRH sub-component – a clinician currently providing a broad range of reproductive health services in Accra and a social scientist based at the University of Legon. Both had considerable experience working on research related to reproductive health in Accra, and both contributed to the design of the FIRH instruments.

Training was conducted for the FIRH data collection team in July 2009. It consisted of an overview of reproductive health and Ghana's reproductive health profile (provided by the team clinician), an overview of quantitative and qualitative research techniques and objectives, and extensive training on the FIRH consent and data collection forms. The supervisor and interviews worked together to review all of the data collection instruments and translated the survey into the three local languages used for the FIRH sub-component – Ga, Ewe, and Twi. After the training, all of the guides were pre-tested with non-WHSA participants prior to implementation.

2.5 Sample re-tracking

The available household information (household schedule) and pregnancy history from the 2003 interview were used in the process of tracking women. Since the address information collected during the listing in 2003 was not very detailed, the details on the household composition and children in the household helped the interviewers, the supervisor and the finders obtain some information about a significant number of the women interviewed in 2003 (91.47%). Structures in 2 EAs were destroyed or removed and thus no information could be found about the women from those areas. Table 2.9 summarizes the finding results using the following 10 tracking categories – found, found but travelled, not found, moved within AMA, moved out of AMA, moved don't know, deceased, refused, unable, and structures in EA removed/destroyed.

2.6 Data processing

All data entry of completed and edited questionnaires was done by trained data entry personnel who were hired to work in the Adabraka office. Two designated data entry stations were set up to carry out all the data entry on site. All data entry modules for WHSA-II, TUHS and FIRH surveys were written in CSPro (v4.0, U.S. Census Bureau, Washington DC), and they closely followed the layout and the format of the questionnaires. Data was double entered for the WHSA-II and TUHS questionnaires. FIRH data entry was done once, and after completion an audit of the data entry process was conducted by

reviewing data entry for all variables in a selection of 10% of the completed surveys. An error rate of 0.02% was found, and this was deemed acceptable to finalize the database.

Table 2.9 Results from the tracking exercise – Wave II

	Number of
Result	Women
Found	1905
Found, Travelled	5
Not Found	103
Moved AMA	116
Moved out of AMA	309
Moved DK	369
Deceased	167
Refused	44
Unable	3
Structures in EA removed/destroyed	169

For the FIRH qualitative interviews, voice files were downloaded to password protected computers in the Adabraka office. These were then copied onto CDs and provided to the transcription team, based in Accra. The team comprised the FIRH supervisor and two new former WHSA-II interviewers (i.e. different from the two FIRH survey interviewers). After transcription, a preliminary round of coding was completed using Atlas-ti (v5.2 Scientific Software Developments, Berlin, Germany). A basic codebook was established prior to coding. It contained broad themes covered in the interview guide. Analysis and further additions to the codebook are on-going and follow a grounded theory approach. For this analysis we summarize cross-cutting themes and select illustrative quotes/stories that provide context or explanation for common behaviours or attitudes related to health care seeking behaviour and decision-making regarding reproductive health care.

3 WHSA-II result highlights

3.1 Household population and housing characteristics

This section of the report reviews the housing characteristics and the composition of the households, important determinants of living conditions which could be linked to health outcomes.

3.1.1 Household composition

The survey sample is designed to represent households with women thus it is not necessarily representative of the general population of the city. Two thousand eight hundred and fourteen (2814) women were interviewed and overall results show that 54.02% of their households were headed by women, while 45.98% were headed by men (Table 3.1). The mean size of the surveyed households was 4.57. Results for the six sub-Metros of the city show that Osu Klottey has the highest percentage of single-person households (8.8% compared to 4.69% for the whole city), while Asiedu Keteke and Osu Klottey have the highest percentage of households headed by women, 77.7% and 67.2% compared to the overall percentage of 54.02% for the city.

Table 3.1 Number of household members by sub-metro district

	Ashiedu	Osu				
Ablekum	a Keteke	Klottey	Kpeshie	Ayawaso	Okaikoi	All
Number household membe	rs					
1 3.2	8 5.76	8.80	4.76	5.40	5.02	4.69
2 12.3	8 15.83	13.60	17.18	9.66	12.68	12.79
3 20.4	2 15.83	20.00	15.11	18.18	17.70	18.30
4 18.2	27.34	20.80	18.43	17.47	15.55	18.23
5 16.5	13.67	14.40	15.53	17.90	18.18	16.70
6 12.7	0 10.79	15.20	12.22	12.78	13.40	12.76
7 6.5	6 4.32	4.00	7.25	9.52	6.94	7.25
8 4.0	3.60	0.80	3.52	4.40	3.83	3.84
9+ 5.9	3 2.88	2.40	6.01	4.68	6.71	5.44
Household headship						
Male 46.5	6 22.3	32.8	46.58	46.73	54.55	45.98
Female 53.4	4 77.7	67.2	53.42	53.27	45.45	54.02
Mean size of household						
4.6	2 4.17	4.00	4.57	4.64	4.66	4.57

Table 3.2 presents the distribution by age and sex of the household population in the surveyed households. For the younger age groups (0-20) the sex distribution was nearly equal while the percentage of women was double that of men for the other Age groups.

Table 3.2 Household population by age and sex

		, ,	
Age group	Male	Female	Total
<5	4.10	3.87	7.96
5-9	4.59	4.37	8.95
10-14	3.91	5.04	8.95
15-19	4.34	5.39	9.73
20-24	3.68	6.33	10.01
25-29	2.76	7.88	10.64
30-34	2.29	5.24	7.53
35-39	2.09	4.30	6.39
40-44	2.02	3.20	5.22
45-49	1.45	2.91	4.36
50-54	1.42	2.75	4.17
55-59	1.11	2.35	3.46
60-64	0.94	2.20	3.14
65-69	0.69	2.21	2.90
70-74	0.54	1.64	2.17
75-79	0.54	1.17	1.71
80+	0.79	1.92	2.71
n	4785	8059	12844

3.1.2 Educational attainment for household members

Table 3.3 shows the highest level of education attained by age group, sub-metro and sex. Sixteen percent of all household members have never been to school, 21.52% completed primary level, 31.47% completed junior secondary school (JSS), 19.75% completed senior secondary school (SSS) and 8.99% have higher education. It is important to point out that the percentage of people with no education is higher in older age groups (50+) and in Kpeshie and Ayawaso. Looking at the educational attainment by sex, a higher number of women (18.15%) compared to men (12.33%) have never been to school, and for every other level of education the percentage of men who have completed that level is higher than that for women, except for JSS.

Table 3.3 Household population by highest educational level achieved

		, 0	Middle/	Secondary/				Missing
	None	Primary	JSS	SSS	Higher	Qur'anic	Other	+ DK
Age group								
<5	65.37	18.04	5.14	2.72	0.78	0.10	4.66	3.20
5-9	21.88	74.48	1.48	0.35	0.00	0.00	1.04	0.78
10-14	4.42	62.22	31.11	1.47	0.17	0.17	0.09	0.35
15-19	2.23	17.30	43.38	34.13	2.63	0.00	0.00	0.32
20-24	3.81	6.45	35.15	38.49	15.47	0.00	0.08	0.54
25-29	4.61	8.13	33.31	33.60	19.33	0.15	0.29	0.59
30-34	6.20	9.62	38.16	28.75	16.13	0.10	0.21	0.83
35-39	6.46	12.55	45.19	21.68	13.40	0.00	0.12	0.61
40-44	6.56	11.77	45.45	22.35	12.22	0.15	0.15	1.34
45-49	8.04	9.64	45.36	23.75	8.93	0.89	0.00	3.39
50-54	13.27	10.84	40.37	24.67	7.85	0.00	0.37	2.62
55-59	18.20	9.89	37.75	17.08	12.13	0.45	0.22	4.27
60-64	16.13	9.68	38.21	18.11	13.90	0.25	0.00	3.72
65+	43.07	10.25	27.15	7.38	8.29	0.16	0.41	3.28
Sub-Metro								
Ablekuma	13.58	22.44	30.11	21.31	10.39	0.05	1.14	0.99
Ashiedu Keteke	17.62	22.63	36.10	17.10	4.15	0.00	0.86	1.56
Osu Klottey	11.80	18.80	36.20	20.20	11.00	0.00	0.80	1.20
Kpeshie	19.82	21.41	32.38	17.64	7.12	0.00	0.05	1.59
Ayawaso	19.47	18.89	31.17	19.41	8.08	0.34	0.46	2.17
Okaikoi	12.02	24.36	31.40	19.89	10.43	0.21	0.15	1.55
Sex								
Male	12.33	22.68	28.59	22.19	11.39	0.10	0.84	1.88
Female	18.15	20.78	33.25	18.33	7.59	0.15	0.47	1.27
Total	16.02	21.52	31.47	19.75	8.99	0.13	0.61	1.51

3.1.3 Housing characteristics

Table 3.4 shows that the majority (67.41%) of surveyed households lived in a compound house while 17.91% were in separate houses. The trend and split between compound houses and separate houses was very similar across all the sub-Metros. The tenure of housing was overall quite evenly split between owning, renting and rent-free with the highest percentage of ownership in Ablekuma, the highest percent of renting in Ayawaso and the highest percentage of rent-free in Kpeshie. The survey results also showed that the most common roofing material was slate/asbestos, followed by metal sheet/zinc while the main source of lighting across all areas of the city was electricity (95.42%).

Table 3.4 Housing characteristics by sub-metro

Table 3.4 Housing cha	i deteristies b	Ashiedu	Osu				
	Ablekuma	Keteke	Klottey	Kpeshie	Ayawaso	Okaikoi	Total
Type of dwelling							
Separate house	26.98	6.47	19.20	12.22	8.52	23.21	17.91
Semi-detached	7.62	7.91	8.00	12.42	5.26	7.18	7.82
Flat	3.70	0.72	4.00	3.52	13.07	2.15	5.65
Compound house	60.00	84.17	67.20	70.81	72.02	66.99	67.41
Other	1.27	0.72	1.60	1.04	1.14	0.48	1.07
Missing	0.42	0.00	0.00	0.00	0.00	0.00	0.14
Tenure							
Owning	45.50	29.50	24.80	31.26	30.82	36.60	36.35
Renting	31.32	27.34	29.60	21.95	45.03	38.76	33.97
Rent-free	21.59	40.29	44.00	46.38	22.87	24.16	28.46
Perching	1.16	2.16	0.80	0.00	0.85	0.00	0.75
Missing	0.42	0.72	0.80	0.41	0.43	0.48	0.46
Roofing material							
Metal sheet/zinc	19.58	38.85	32.80	25.88	38.64	42.82	30.42
Slate/asbestos	77.35	60.43	60.80	69.57	56.68	53.35	65.71
Concrete/cement	1.48	0.00	5.60	3.93	3.69	2.15	2.67
Other	0.96	0.72	0.80	0.63	0.98	1.68	0.99
Missing	0.63	0.00	0.00	0.00	0.00	0.00	0.21
Rooms used for sleep	ing						
None	0.21	0.72	0.80	0.00	0.14	0.24	0.21
One	46.24	67.63	49.60	57.97	34.52	32.30	44.46
Two	28.15	19.42	27.20	22.98	42.33	40.43	32.16
Three or more	25.41	12.23	22.40	19.05	23.00	27.05	23.17
Electricity							
Electricity	96.51	94.96	98.40	91.30	95.88	96.17	95.42
Kerosene lamp	2.33	3.60	1.60	6.21	2.41	2.15	3.02
Gas lamp	0.11	0.00	0.00	0.62	0.57	0.00	0.28
None	0.42	0.72	0.00	0.41	0.00	0.48	0.32
Other	0.42	0.00	0.00	1.45	1.14	1.20	0.85
Missing	0.21	0.72	0.00	0.00	0.00	0.00	0.11

3.1.4 Water and sanitation

The results from the survey show that close to 90% of surveyed households used piped water for drinking with 52.31% using a pipe inside, and 37.35% used a pipe outside. The highest percentage with access to pipe inside was in Osu Klottey (62.40%) while for a pipe outside it was Ahiedu Keteke. Sachet water was the third most common source of drinking water with the highest percentage of use in Ayawaso (16.05%). Overall, 53.92% of surveyed households used improved, not shared sanitation facilities (flush toilet and KVIP) with the highest percentage (72.49%) of use reported in Okaikoi and the lowest (22.46%) in Ashiedu Keteke where the use of public toilets was the highest (71.74%).

Table 3.5 Water and sanitation by sub-metro

		Ashiedu	Osu				
	Ablekuma	Keteke	Klottey	Kpeshie	Ayawaso	Okaikoi	Total
Main source of dri	nking water						
Pipe inside	61.38	43.17	62.40	43.89	40.20	61.96	52.31
Pipe outside	34.81	56.83	32.00	37.06	41.76	31.10	37.35
Tanker	0.85	0.00	1.60	12.01	1.14	0.72	2.81
Sachets	2.33	0.00	2.40	6.42	16.05	5.02	6.75
Other	0.32	0.00	0.80	0.62	0.70	1.20	0.62
Missing	0.32	0.00	0.80	0.00	0.14	0.00	0.18
Toilet/latrine facili	ities						
None	0.00	0.00	0.00	0.21	0.14	0.00	0.07
WC flushing	42.57	17.39	45.60	31.06	34.62	42.11	37.43
Pit latrine	5.52	0.00	4.00	2.07	3.99	4.78	4.10
KVIP	19.21	5.07	0.80	14.08	11.25	30.38	16.49
Bucket/pan	2.65	4.35	15.20	9.94	21.08	0.72	8.87
Another house	0.21	1.45	0.00	0.00	0.85	0.00	0.36
Public toilet	29.83	71.74	34.40	37.68	28.06	21.77	31.80
Other	0.00	0.00	0.00	4.97	0.00	0.24	0.89

3.1.5 Cooking facilities

Overall, the majority of surveyed households (47.70%) did not have cooking facilities in their home and instead cooked outside. That trend was most predominant in Ashiedu Keteke with 67.63% of households without cooking facility in the homes. Ashiedu Keteke also had the highest use of charcoal as a cooking fuel (81.29%), compared to 59.01% for the city overall. The predominant cooking fuels were charcoal (59.01%) and gas (35.75%).

Table 3.6 Cooking facilities and fuel by sub-metro

		Ashiedu	Osu				
	Ablekuma	Keteke	Klottey	Kpeshie	Ayawaso	Okaikoi	All
Place for cooking							
None/outside/in front	43.21	67.63	51.61	54.45	54.64	30.62	47.70
Separate room in house Shared with other	42.78	18.71	41.94	36.44	34.81	47.85	39.22
households	1.27	0.72	0.00	1.24	2.57	5.50	2.14
Enclosed without roof	7.54	10.79	0.81	3.31	4.71	9.81	6.31
Structure roof, no walls	4.78	2.16	1.61	3.11	2.57	5.02	3.71
Bedroom/hall	0.42	0.00	4.03	1.45	0.71	1.20	0.93
Cooking fuel							
None	0.00	0.00	0.00	0.83	0.14	0.00	0.18
Wood	3.61	2.16	4.80	2.90	1.42	0.48	2.46
Coconut husk	0.00	0.00	0.00	0.21	0.00	0.48	0.11
Gas	41.83	15.83	34.40	30.91	31.77	41.39	35.75
Electricity	0.11	0.00	0.80	3.11	0.71	1.91	1.07
Kerosene	0.53	0.00	1.60	0.83	2.14	0.48	1.00
Charcoal	53.40	81.29	58.40	61.20	63.82	53.83	59.01
Other	0.53	0.72	0.00	0.00	0.00	1.44	0.43

3.1.6 Household durable goods

Table 3.7 shows the possession of various household durable goods by sub-Metro. Households in Ashiedu Keteke reported the lowest rate of ownership of household durable goods while Okaikoi had the highest. Over 90% of all households reported that they owned a mobile phone, 86.03% owned a radio, and 82.87% owned a television.

Using the list of durable goods and a principle component analysis, a wealth index was created. Based on the results, Ahiedu Keteke has the highest percentage of households in the lowest wealth quintile, while Ablekuma has the highest percentage of households in the highest wealth quintile.

Table 3.7 Household durable goods by sub-metro

		Ashiedu	Osu				
	Ablekuma	Keteke	Klottey	Kpeshie	Ayawaso	Okaikoi	All
Sewing machine	52.07	42.34	53.60	43.66	47.50	56.22	49.70
Mobile telephone	91.18	78.99	93.60	86.13	94.17	92.82	90.81
House phone	12.73	5.80	12.00	6.86	10.71	9.69	10.39
Refrigerator	76.61	62.59	76.00	64.18	72.87	81.77	73.59
Radio	90.26	72.66	88.00	80.12	81.96	94.02	86.03
Television	83.81	69.78	87.20	73.08	87.07	88.01	82.87
Electric iron	84.02	66.19	87.20	69.98	78.55	86.84	79.92
Private car	16.53	4.35	14.40	14.70	15.48	18.90	15.61
Washing machine	3.07	2.17	2.40	1.66	1.99	2.64	2.42
Computer	15.77	7.25	8.80	10.37	15.65	16.55	14.20

3.1.7 Wealth index

The construction of the wealth index included all household assets and utility services rather than a section of items. This broad criterion, with its greater number of indicator variables, improved the distribution of households with fewer households being concentrated on certain index scores⁴. All variables included in the index were dichotomized and the breakdown of multiple category variables is shown in Table 3.8.

Table 3.8 Variables used in the construction of the wealth index

Survey Variable	Index Variables
H01_TYPE_OF_DWELLING	PCA01_separate, PCA01_semi, PCA01_flat, PCA01_compound, PCA01_other
H02_MAIN_ROOFING	PCA02_metal, PCA02_slate, PCA02_other
H03_TENURE	PCA03_own, PCA03_rent, PCA03_free, PCA03_perch
H07_WATER_SUPPLY	PCA07_inside, PCA07_outside, PCA07_tanker, PCA07_sachet, PCA07_other
H08_TOILET	PCA08_WC, PCA08_latrine, PCA08_KVIP, PCA08_bucket, PCA08_public, PCA08_other
H09_COOKING	PCA09_gas, PCA09_charcoal, PCA09_other
H10_KITCHEN	PCA10_none, PCA10_separate, PCA10_enclosed, PCA10_withroof, PCA10_other
H11_BATHING	PCA11_own, PCA11_shared, PCA11_other
H13_LIQUID_WASTE	PCA13_sewage, PCA13_street, PCA13_gutter, PCA13_compound, PCA13_other
H14_NETS	H14_NETS
H15_SEWING_MACHINE	H15_SEWING_MACHINE
H16_MOBILE_TELEPHONE	H16_MOBILE_TELEPHONE
H17_HOUSE_PHONE	H17_HOUSE_PHONE
H18_REFRIGERATOR	H18_REFRIGERATOR
H20_TELEVISION	H20_TELEVISION
H22_PRIVATE_CAR	H22_PRIVATE_CAR
H23_WASHING_MACHINE	H23_WASHING_MACHINE
H24_COMPUTER	H24_COMPUTER
H19_RADIO	H19_RADIO
H21_ELECTRIC_IRON	H21_ELECTRIC_IRON

The next step in the index construction used Principle Component Analysis (PCA) to calculate an index score. Using this method, the indicator variables were standardized (calculating z-scores); then the factor coefficient scores (factor loadings) were calculated; and finally, for each household, the indicator values were multiplied by the loadings and summed to produce the household's index value. In this process, only the first of the factors produced was used to represent the wealth index. The resulting sum is itself a standardized score with a mean of zero and a standard deviation of one⁵.

Using the index score, the wealth quintiles in Table 3.9 were created. The results show that the Ashiedu Keteke had the highest percentage of households in the lowest wealth quintile (39.57%) as well as the smallest percentage of households in the highest wealth quintile (5.76%). For the other sub-Metros the distribution between the quintiles was relatively equal.

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⁴ Rutstein SO, Johnson K (2004) The DHS Wealth Index, DHS Comparative Reports No.6, ORC Macro, Calverton, MD

⁵ Ibid

Table 3.9 Wealth quintiles by sub-metro

		Ashiedu	Osu				
	Ablekuma	Keteke	Klottey	Kpeshie	Ayawaso	Okaikoi	All
Wealth quintile							
Lowest	17.04	39.57	12.00	28.36	20.17	12.44	19.97
Second	17.46	25.18	20.80	15.94	24.86	20.33	20.01
Middle	20.11	15.11	20.00	18.01	21.16	21.77	20.01
Fourth	20.74	14.39	28.00	20.29	17.47	21.77	20.01
Highest	24.66	5.76	19.20	17.39	16.34	23.68	20.01

3.2 Characteristics of survey respondents

3.2.1 Background characteristics

Table 3.10 summarizes the background characteristics of the survey respondents by sub-Metro including age, marital status, usual residence until 12, region of birth and education. Since the initial sample selection included women 18+, at the second wave, those same women were 23+ which explains the quite small percentages in the 20-24 age groups.

The results indicate that close to half of the women in the study (48.9%) and in all sub-Metros were living with a man, while the percentage of those currently married was very small. Surprisingly, for a large number of the women in the study marital status was missing which could indicate an oversight in the training for the completion of the household schedule.

Data collected showed that the majority of women in the study lived in an urban setting during their childhood until 12 years of age. In addition, more than half of the respondents (58.74%) were born in the Greater Accra region, while the second largest group were native to the Eastern Region (13.48%).

Table 3.10 Background characteristics of the study population

		Ashiedu	Osu				
	Ablekuma	Keteke	Klottey	Kpeshie	Ayawaso	Okaikoi	Total
Age group							
20-24	5.82	3.60	4.00	5.19	8.10	5.02	5.97
25-29	16.51	15.11	17.60	14.32	17.19	16.75	16.32
30-34	13.02	7.91	12.00	13.07	12.93	12.20	12.58
35-39	12.80	9.35	7.20	10.79	9.38	9.81	10.74
40-44	8.25	5.76	8.80	8.09	10.23	9.81	8.85
45-49	7.09	6.47	3.20	9.54	6.25	7.89	7.22
50-54	5.40	5.76	6.40	7.26	5.11	5.50	5.72
55-59	4.87	9.35	4.80	2.90	4.55	6.46	4.91
60-64	6.77	7.91	6.40	7.05	7.24	5.50	6.79
65+	19.26	27.34	29.60	21.58	18.32	20.33	20.44
DK/Missing	0.21	1.44	0.00	0.21	0.71	0.72	0.46

Table 3.10 Background characteristics of the study population (continued)

		Ashiedu	Osu				
	Ablekuma	Keteke	Klottey	Kpeshie	Ayawaso	Okaikoi	Total
Marital status							
Currently married	0.53	1.44	0.00	0.00	0.57	0.72	0.50
Living with a man	50.05	43.88	32.80	51.97	48.44	50.00	48.90
Widowed	1.48	2.16	2.40	0.83	0.85	1.67	1.31
Divorced	17.14	28.78	24.80	16.98	19.03	16.27	18.37
Separated	10.05	9.35	10.40	6.42	7.53	5.98	8.17
Single/never marrie	d 2.75	2.88	11.20	9.11	0.99	6.22	4.30
Missing	17.99	11.51	18.4	14.7	22.59	19.14	18.44
Residence							
Urban	87.22	92.59	98.37	92.45	85.80	83.70	88.01
Rural	12.78	7.41	1.63	7.55	14.20	16.30	11.99
Region of birth							
Western	3.20	1.44	1.61	2.29	2.14	4.08	2.75
Central	9.39	4.32	2.42	5.00	6.29	9.35	7.29
Greater Accra	58.91	77.70	75.81	69.58	47.00	54.20	58.74
Volta	5.23	1.44	2.42	5.00	10.43	6.95	6.44
Eastern	12.70	8.63	10.48	10.63	19.29	11.27	13.48
Ashanti	5.76	2.16	5.65	3.96	8.14	8.39	6.26
Brong Ahafo	0.96	0.00	0.81	0.83	0.71	2.40	1.04
Northern	1.28	2.16	0.81	2.08	1.86	1.92	1.68
Upper West	0.21	0.00	0.00	0.21	1.29	0.24	0.46
Upper East	0.11	0.00	0.00	0.21	1.86	0.48	0.61
Other/abroad	2.24	2.16	0.00	0.21	1.00	0.72	1.25

Table 3.11 shows that the majority of the respondents in the survey were Christian (82.78%) and 12.63% were Muslim. On a sub-Metro level the distribution by religion was slightly different only in Awayaso where approximately two-thirds of respondents were Christian and 28.27% was Muslim.

 ${\sf Table~3.11~Background~characteristics~of~the~study~population-religion,~ethnicity~and~language}$

Table 5.11 Background cha		Ashiedu	Osu		o., o	aa	.00
	Ablekuma	Keteke	Klottey	Kpeshie	Ayawaso	Okaikoi	Total
Religion							
Catholic	5.20	5.04	1.60	3.73	6.96	6.70	5.44
Anglican	6.15	13.67	9.60	3.94	1.56	4.55	4.91
Methodist	14.21	17.27	4.80	5.60	6.96	10.77	10.14
Presbyterian	8.80	10.07	32.80	20.54	14.35	12.20	13.84
Spiritualist	3.61	3.60	2.40	2.70	3.13	1.20	2.92
Charismatic	25.77	18.71	26.40	23.65	15.48	22.73	22.06
Pentecostal/Apostolic	19.30	12.95	11.20	21.99	16.34	21.53	18.68
Other Christian	6.57	2.16	1.60	5.81	3.55	3.59	4.80
Moslem	6.36	8.63	7.20	4.15	28.27	13.16	12.63
Traditional	0.11	1.44	0.00	1.45	0.14	0.00	0.39
No religion	2.23	4.32	0.80	3.32	1.70	0.72	2.10
Other	1.70	2.16	1.60	3.11	1.56	2.87	2.10
Ethnicity							
Asante	7.30	1.44	2.40	4.15	5.97	8.61	6.11
Akwapim	5.29	3.60	5.60	3.73	5.97	8.13	5.55
Fante	16.61	5.04	7.20	7.26	8.52	18.42	12.26
Other Akan	9.63	7.19	7.20	5.39	11.79	5.50	8.60
Ga/Dangbe	42.86	72.66	61.60	67.01	15.63	29.19	40.46
Ewe	11.96	4.32	7.20	8.09	23.30	14.35	13.90
Guan	0.21	0.00	0.80	0.21	1.14	0.72	0.53
Mole-Dagbani	0.21	0.00	0.00	1.24	1.42	0.24	0.68
Grussi	0.00	0.00	0.00	0.41	0.99	0.48	0.39
Gruma	0.00	0.00	0.80	0.00	0.14	0.00	0.07
Hausa	2.43	0.72	3.20	1.04	5.54	10.29	4.09
Other	3.49	5.04	4.00	1.45	19.60	4.07	7.36
Language							
Ga	51.11	82.73	67.20	65.56	18.61	36.36	45.54
Ewe	8.68	2.16	4.80	6.64	15.48	11.24	9.92
Hausa	2.96	0.72	4.80	1.66	19.32	11.24	8.03
Dagbani	0.21	0.00	0.00	0.83	0.85	0.24	0.46
Twi/Fante	34.81	12.23	20.80	22.82	39.49	37.32	32.56
English	0.11	0.00	1.60	0.83	1.56	0.24	0.68
Nzema	0.21	0.00	0.00	0.21	0.00	0.48	0.18
Other	1.90	2.16	0.80	1.45	4.69	2.87	2.63

The largest ethnic group represented in the survey was the Ga (40.46%), closely followed by the Akan (32.53%). The largest percentage of Gas was found in Ashiedu Keteke (72.66%), Akans in Okaikoi (40.67%), Ewes in Ayawaso (23.30%) and Hausa in Okaikoi (10.29%). The distribution of the primary language of the respondents corresponded closely to the ethnic distribution within the sample, with Ga being the overall most predominant language (45.54%), followed by Twi/Fante (32.56%). Similarly, the majority of women in Ahiedu Keteke (82.73%) spoke Ga, in Okaikoi the split between Ga and Twi/Fante was almost equal (36.36% and 37.32% respectively), and the highest percentage of Ewe and Hausa speaking respondents was in Ayawaso (15.48% Ewe and 19.32% Hausa).

Table 3.11 Background characteristics of the study population (continued)

		Ashiedu	Osu				
	Ablekuma	Keteke	Klottey	Kpeshie	Ayawaso	Okaikoi	Total
Education							
None	18.98	27.01	13.82	22.64	24.96	18.55	21.21
Primary	12.73	12.41	10.57	12.37	10.70	12.29	11.98
Middle/JSS	36.90	43.07	47.97	41.72	38.23	40.24	39.34
Secondary/SSS	19.41	12.41	11.38	15.51	15.83	17.35	16.85
Higher	11.45	4.38	16.26	7.55	9.42	10.36	9.98
Qur'anic/Religious	0.11	0.00	0.00	0.00	0.43	0.48	0.21
Other	0.32	0.00	0.00	0.00	0.14	0.48	0.21
DK	0.11	0.73	0.00	0.21	0.29	0.24	0.21

The distribution of educational attainment in the study revealed that 78.58% of respondents had some kind of education, while 21.21% had no education. On the sub-Metro level, the percentage of women with no education was highest in Ashiedu Keteke (27.01%) and lowest in Osu Klottey (13.82%)

3.2.2 Employment and occupation

Table 3.12 shows the work status of the women in the survey by age, sub-Metro and wealth quintile. Twenty-seven percent of the respondents indicated that they were unemployed and a large proportion of those in productive age reported that they were able to work. The predominant work status was self-employed, accounting for 51.53% because of the large number of jobs in the informal sector – street vendors, food preparers and sellers, seamstresses and handymen. The largest percentage of government employees was in the 50-54 age group and among the respondents from the fourth and highest wealth quintile. Table 3.13 shows the top 10 occupations reported by the women in survey, comprising more than 85% of all reported jobs.

Table 3.12 Work status, by age groups, sub-metro and wealth quintile

	Government	Private	Self-	Non-	Student/	House-	5 .: 1	Unemployed	Unemployed
-	Employee	business	employed	paid	Apprentice	wife	Retired	able	unable
Age group									
20-24	6.55	19.64	25.00	2.38	26.79	0.00	0.00	19.64	0.00
25-29	8.06	18.30	44.66	1.09	10.68	0.65	0.00	16.56	0.00
30-34	2.54	12.99	66.38	0.28	0.85	0.56	0.00	15.82	0.56
35-39	4.30	8.28	70.53	0.00	0.66	0.99	0.00	14.90	0.33
40-44	6.02	6.02	75.10	0.00	0.00	1.61	0.00	10.04	1.20
45-49	5.42	2.46	80.79	0.00	0.00	1.48	0.00	9.36	0.49
50-54	13.04	4.35	65.84	0.00	0.00	0.00	0.00	13.66	3.11
55-59	7.97	5.80	55.07	0.00	0.00	0.72	3.62	13.77	13.04
60-64	3.14	3.66	43.46	0.52	0.00	0.52	15.71	12.57	20.42
65+	0.52	0.52	23.83	0.17	0.00	0.70	10.26	5.39	58.61
DK/Missing	0.00	7.69	15.38	0.00	0.00	0.00	0.00	23.08	53.85
Sub-Metro									
Ablekuma	5.50	7.20	51.43	0.74	3.17	0.63	4.23	12.91	14.18
Ashiedu Ketek	e 5.76	2.88	57.55	0.00	1.44	0.00	3.60	12.23	16.55
Osu Klottey	8.80	10.40	44.80	0.00	2.40	0.80	4.80	6.40	21.60
Kpeshie	4.76	6.21	54.24	0.00	3.93	1.45	2.07	12.84	14.49
Ayawaso	3.98	9.66	49.72	0.00	4.55	0.71	3.69	13.49	14.20
Okaikoi	3.59	12.20	51.67	1.20	3.11	0.48	1.67	11.96	14.11
Wealth quintile									
Lowest	1.60	3.74	58.01	0.36	1.60	0.00	2.31	14.95	17.44
Second	2.49	9.41	58.26	0.36	3.55	0.18	1.78	11.72	12.26
Middle	3.02	9.24	51.51	0.89	3.20	0.18	3.37	15.10	13.50
Fourth	6.75	10.66	52.22	0.36	3.02	0.89	1.78	12.08	12.26
Highest	10.48	8.53	37.66	0.18	6.22	2.49	7.46	9.06	17.94
Total	4.87	8.32	51.53	0.43	3.52	0.75	3.34	12.58	14.68

Table 3.13 The 10 most common occupations among working women (n=1675) *Occupation*

Street vendors and related workers	39.99
Stall and market salespersons	12.24
Fashion and other models	9.83
Food processing and related trades workers	5.07
Personal care and related workers	4.81
Apprentice	3.48
Housekeeping and restaurant services workers	3.07
Shop salespersons and demonstrators	2.97
Secretaries and keyboard-operating clerks	2.30
Primary and pre-primary education teaching professionals	2.00

3.2.3 Rand SF-36 indices of self-reported health

The SF-36 questions are used to construct composite norm-based measures of self-reported health and quality of life, emphasizing eight different domains of health – physical functioning, bodily pain, role limitations due to physical health, role limitations due to emotional problems, emotional well-being, social functioning, energy/fatigue, and general health perceptions. The scheme also includes a single item that provides an indication of perceived changes in health. The age-standardized scales range from scores of 100 (perfect health) to closer to 0 (extremely poor health). The tables 3.14 – 3.18 display the percentage distribution of the women by score categories.

Generally, the summary tables below show a very strong effect of age on all eight domains of health measured by the SF-36 instruments. Self-reported health – physical, mental and functioning – all were very much worse beyond age 50 in the study women. The effects of wealth on health, however, were much less clear and certainly the gradients were much less steep for all the scores on the wealth index than by age group. Multiple factors bear on health and further analysis using multiple regression methods will be required to ascertain the net effect of social class / SES on self-reported health.

Table 3.14 SF 36 Scores – Physical functioning and Bodily pain

	SF 36 Physical functioning			SF 36 Boo	SF 36 Bodily pain			
	0-25	26-50	51-75	76-100	0-25	26-50	51-75	76-100
Age group								
20-24	0.60	2.98	4.17	92.26	0.00	6.55	25.60	67.86
25-29	0.22	0.65	4.36	94.77	2.18	7.84	26.58	63.40
30-34	0.56	1.69	6.78	90.96	1.41	9.32	29.38	59.89
35-39	1.32	2.32	8.28	88.08	2.66	10.63	31.89	54.82
40-44	0.00	1.61	12.85	85.54	1.22	10.20	36.33	52.24
45-49	0.49	2.46	16.75	80.30	1.99	13.93	33.33	50.75
50-54	1.86	8.07	31.68	58.39	1.86	18.63	32.30	47.20
55-59	1.45	13.04	30.43	55.07	5.07	12.32	30.43	52.17
60-64	7.33	16.23	26.18	50.26	5.26	21.05	31.05	42.63
65+	23.48	28.87	27.13	20.52	11.34	27.23	31.24	30.19
DK/Missing	23.08	15.38	23.08	38.46	23.08	30.77	15.38	30.77

Table 3.14 SF 36 scores – Physical functioning and Bodily pain (continued)

	SF 36 Physical functioning			SF 36 Bod	SF 36 Bodily pain			
	0-25	26-50	51-75	76-100	0-25	26-50	51-75	76-100
Sub-Metro								
Ablekuma	4.23	11.43	17.35	66.98	4.25	15.94	37.51	42.30
Ashiedu Keteke	13.67	11.51	25.90	48.92	8.63	18.71	34.53	38.13
Osu Klottey	10.40	8.80	19.20	61.60	6.40	13.60	19.20	60.80
Kpeshie	6.42	7.04	19.05	67.49	2.28	9.75	22.82	65.15
Ayawaso	5.97	8.10	10.23	75.71	3.27	12.52	24.75	59.46
Okaikoi	5.02	8.13	13.40	73.44	5.80	20.29	35.27	38.65
Wealth quintile								
Lowest	8.36	8.72	20.11	62.81	5.54	16.43	30.36	47.68
Second	4.26	9.06	14.39	72.29	3.04	16.07	32.14	48.75
Middle	4.80	9.24	14.74	71.23	4.63	13.88	30.07	51.42
Fourth	6.22	8.53	13.85	71.40	3.92	14.44	30.30	51.34
Highest	5.86	10.66	15.81	67.67	3.92	12.66	29.59	53.83
Total	5.90	9.24	15.78	69.08	4.21	14.69	30.49	50.61

Table 3.15 SF 36 Scores – Physical and emotional role limitations

	SF 36 R	ole limita	itions phy	sical	SF 36 Role limitations emotion		ional	
	0-25	26-50	51-75	76-100	0-25	26-50	51-75	76-100
Age group								
20-24	9.76	3.05	3.05	84.15	11.52	1.82	4.85	81.82
25-29	12.33	3.08	4.19	80.40	10.31	2.63	2.41	84.65
30-34	13.22	2.87	6.32	77.59	12.97	3.17	6.05	77.81
35-39	13.42	1.68	5.70	79.19	13.67	3.67	5.67	77.00
40-44	17.07	4.07	6.50	72.36	14.75	4.51	5.74	75.00
45-49	16.42	3.48	5.47	74.63	14.93	4.48	4.48	76.12
50-54	23.42	3.80	6.96	65.82	13.84	3.14	3.77	79.25
55-59	27.94	3.68	3.68	64.71	16.30	2.22	2.22	79.26
60-64	32.80	4.23	7.41	55.56	15.79	4.74	6.84	72.63
65+	44.93	3.67	3.67	47.73	20.46	2.29	3.70	73.54
DK/Missing	30.77	7.69	7.69	53.85	0.00	7.69	0.00	92.31
Sub-Metro								
Ablekuma	25.77	1.38	2.34	70.50	18.52	1.50	1.71	78.27
Ashiedu Keteke	26.09	3.62	4.35	65.94	26.81	2.90	4.35	65.94
Osu Klottey	22.69	5.04	1.68	70.59	9.68	3.23	2.42	84.68
Kpeshie	18.66	4.40	7.55	69.39	10.08	5.67	9.24	75.00
Ayawaso	16.40	6.33	9.93	67.34	10.37	3.75	6.05	79.83
Okaikoi	29.85	0.73	1.70	67.72	16.02	3.16	2.91	77.91

Table 3.15 SF 36 Scores – Physical and emotional role limitations (continued)

	SF 36 Physical functioning			SF 36 Bod	SF 36 Bodily pain			
	0-25	26-50	51-75	76-100	0-25	26-50	51-75	76-100
Wealth quintile								
Lowest	25.00	3.96	5.22	65.83	18.35	4.14	4.86	72.66
Second	22.02	4.15	5.96	67.87	14.93	3.96	5.76	75.36
Middle	21.79	2.86	5.00	70.36	15.98	2.33	4.31	77.38
Fourth	21.64	2.91	4.00	71.45	12.50	2.90	2.72	81.88
Highest	23.04	2.68	5.36	68.93	11.67	2.51	4.49	81.33
Total	22.70	3.31	5.11	68.88	14.69	3.17	4.43	77.72

Table 3.16 SF 36 Scores – Emotional well-being and social functioning

	SF 36 E	SF 36 Emotional well-being			SF 36 Social functioning			
	0-25	26-50	51-75	76-100	0-25	26-50	51-75	76-100
Age group								·
20-24	0.00	5.95	25.00	69.05	0.00	2.38	13.69	83.93
25-29	0.22	3.08	27.03	69.67	0.44	5.09	18.14	76.33
30-34	0.57	4.57	31.71	63.14	1.71	7.43	18.29	72.57
35-39	0.00	4.64	31.79	63.58	1.67	8.33	17.67	72.33
40-44	0.00	2.85	35.37	61.79	0.81	8.94	17.07	73.17
45-49	0.00	3.47	34.16	62.38	0.50	7.00	20.50	72.00
50-54	0.63	2.52	30.82	66.04	1.88	11.25	18.13	68.75
55-59	0.00	7.97	34.78	57.25	2.21	9.56	18.38	69.85
60-64	0.52	5.24	34.03	60.21	3.14	12.04	19.37	65.45
65+	0.52	5.77	34.79	58.92	11.82	20.63	22.40	45.15
DK/Missing	7.69	7.69	23.08	61.54	15.38	7.69	0.00	76.92
Sub-Metro								
Ablekuma	0.11	5.44	36.39	58.06	4.09	11.31	20.47	64.12
Ashiedu Keteke	2.16	12.23	41.01	44.60	6.52	18.12	22.46	52.90
Osu Klottey	0.00	0.80	21.60	77.60	4.03	12.90	7.26	75.81
Kpeshie	0.62	3.53	23.08	72.77	4.39	10.88	17.15	67.57
Ayawaso	0.28	3.56	30.16	66.00	2.00	6.70	17.12	74.18
Okaikoi	0.00	3.88	34.95	61.17	2.41	9.88	21.93	65.78
Wealth quintile								
Lowest	0.36	5.90	41.68	52.06	3.95	13.82	19.39	62.84
Second	0.36	4.99	36.19	58.47	2.33	9.16	21.18	67.32
Middle	0.36	4.49	33.21	61.94	4.30	8.96	20.61	66.13
Fourth	0.18	3.76	25.04	71.02	2.72	9.24	15.76	72.28
Highest	0.36	3.57	23.35	72.73	4.11	10.18	16.96	68.75
Total	0.32	4.54	31.89	63.25	3.48	10.27	18.79	67.46

Table 3.17 SF 36 Scores – Energy-Fatigue/General health perception

	SF 36 Energy/Fatigue			SF36 General health perception				
	0-25	26-50	51-75	76-100	0-25	26-50	51-75	76-100
Age group								_
20-24	0.60	6.55	38.10	54.76	0.60	7.23	39.16	53.01
25-29	0.00	5.26	43.86	50.88	0.88	7.68	37.28	54.17
30-34	0.29	7.47	50.86	41.38	0.57	10.83	42.17	46.44
35-39	1.66	7.62	50.66	40.07	1.69	13.85	42.23	42.23
40-44	0.81	7.69	59.51	31.98	0.00	15.92	48.57	35.51
45-49	0.00	12.44	50.75	36.82	1.99	17.91	43.78	36.32
50-54	0.00	17.09	53.16	29.75	1.26	19.50	43.40	35.85
55-59	0.72	18.84	54.35	26.09	2.90	29.71	41.30	26.09
60-64	1.57	20.42	51.83	26.18	6.35	20.63	38.62	34.39
65+	3.68	30.47	47.99	17.86	9.20	44.42	30.80	15.58
DK/Missing	0.00	30.77	53.85	15.38	15.38	38.46	7.69	38.46
Sub-Metro								
Ablekuma	0.75	15.94	53.58	29.73	2.99	17.33	41.50	38.18
Ashiedu Keteke	3.62	23.91	53.62	18.84	5.15	26.47	34.56	33.82
Osu Klottey	0.80	12.80	38.40	48.00	4.07	30.08	36.59	29.27
Kpeshie	1.87	8.11	37.01	53.01	3.76	27.35	46.35	22.55
Ayawaso	1.28	9.40	48.72	40.60	2.71	16.71	32.43	48.14
Okaikoi	0.73	23.00	57.87	18.40	2.70	20.88	39.31	37.10
Wealth quintile								
Lowest	2.14	19.46	49.46	28.93	4.88	28.21	38.34	28.57
Second	1.62	14.36	51.17	32.85	2.88	21.40	41.55	34.17
Middle	0.54	11.61	54.29	33.57	3.40	17.71	40.25	38.64
Fourth	0.90	10.79	46.76	41.55	2.71	16.43	40.07	40.79
Highest	0.89	14.97	45.63	38.50	1.97	18.46	35.66	43.91
Total	1.22	14.24	49.46	35.08	3.17	20.43	39.17	37.23

Table 3.18 SF 36 – Health transformation

SF 36 Health transformation

	0-25	26-50	51-75	76-100
Age group				
20-24	19.64	47.62	20.83	11.90
25-29	16.41	52.52	16.19	14.88
30-34	17.38	51.00	20.51	11.11
35-39	22.90	49.83	16.84	10.44
40-44	21.95	47.97	19.11	10.98
45-49	27.36	50.25	15.92	6.47
50-54	23.90	48.43	14.47	13.21
55-59	30.15	42.65	18.38	8.82
60-64	35.26	36.84	18.42	9.47
65+	38.49	41.65	14.94	4.92
DK/Missing	46.15	46.15	7.69	0.00
Sub-Metro				
Ablekuma	28.14	46.91	17.70	7.25
Ashiedu Keteke	29.71	44.20	18.12	7.97
Osu Klottey	20.16	51.61	9.68	18.55
Kpeshie	21.13	52.72	12.76	13.39
Ayawaso	24.96	41.80	22.82	10.41
Okaikoi	27.14	50.12	13.45	9.29
Wealth quintile				
Lowest	29.24	48.01	15.70	7.04
Second	24.51	45.97	18.78	10.73
Middle	25.22	47.76	16.46	10.55
Fourth	27.78	42.83	17.38	12.01
Highest	21.86	51.25	17.56	9.32
Total	25.72	47.17	17.18	9.94

3.2.4 Smoking and alcohol consumption

Table 3.19 shows the distribution of smoking and drinking among interviewed women. The presented levels of smoking were extremely low and did not differ much based on age, sub-Metro or wealth quintile. Drinking on the other hand was more prevalent with about half of the respondents in the survey (53.11%) reporting that they had consumed a drink that contains alcohol. We observed slight differences in the percentages with Ayawaso being the sub-Metro with the lowest percent (38.78%) and Osu Klottey the highest (71.20%).

Table 3.19 Smoking and drinking habits

Ü	Smo	oking	Drinking
	Yes	No	Yes No
Age group			
20-24	1.20	98.80	43.71 56.29
25-29	0.87	99.13	51.42 48.58
30-34	0.00	100.00	55.08 44.92
35-39	0.00	100.00	58.61 41.39
40-44	2.02	97.98	59.44 40.56
45-49	1.97	98.03	60.59 39.41
50-54	0.62	99.38	58.39 41.61
55-59	1.46	98.54	55.47 44.53
60-64	1.05	98.95	54.21 45.79
65+	0.52	99.48	45.55 54.45
DK/Missing	0.00	100.00	46.15 53.85
Sub-Metro			
Ablekuma	0.85	99.15	52.81 47.19
Ashiedu Keteke	0.72	99.28	67.63 32.37
Osu Klottey	0.80	99.20	71.20 28.80
Kpeshie	0.42	99.58	69.23 30.77
Ayawaso	0.85	99.15	38.78 61.22
Okaikoi	1.20	98.80	49.16 50.84
Wealth quintile			
Lowest	0.53	99.47	55.87 44.13
Second	0.36	99.64	52.93 47.07
Middle	1.07	98.93	52.04 47.96
Fourth	1.07	98.93	53.49 46.51
Highest	1.07	98.93	51.25 48.75
Total	0.82	99.18	53.11 46.89

3.2.5 Health insurance coverage

There are three main categories of health insurance in Ghana. First is the public/non-commercial scheme and anyone resident in Ghana can register under this scheme. The second category of health insurance comprises the private commercial health insurance schemes, operated by approved companies. The third category of health insurance is known as the private mutual health insurance scheme. The public scheme was introduced from 2003 onwards. In the WHSA-II, we asked about membership of the national public scheme in particular. Generally, membership is lower in Greater Accra than elsewhere in the country⁶.

⁶ National Health Insurance Authority (2010) Annual Report 2009.

Table 3.20 Currently enrolled in the NHIS

,	Yes	No
Age group		
20-24	22.62	77.38
25-29	23.31	76.69
30-34	33.43	66.57
35-39	30.46	69.54
40-44	35.08	64.92
45-49	29.35	70.65
50-54	36.02	63.98
55-59	40.58	59.42
60-64	46.07	53.93
65+	46.52	53.48
DK/Missing	23.08	76.92
Sub-Metro		
Ablekuma	34.64	65.36
Ashiedu Keteke	35.25	64.75
Osu Klottey	25.81	74.19
Kpeshie	28.84	71.16
Ayawaso	34.62	65.38
Okaikoi	44.02	55.98
Wealth quintile		
Lowest	23.31	76.69
Second	28.77	71.23
Middle	39.57	60.43
Fourth	38.93	61.07
Highest	42.81	57.19
Total	34.67	65.33

3.3 Use of health facilities

The questions on use of health facilities asked both about place of usual consultation about use over the year before the interview. There were 12 options for places where women went when sick or where they sought health advice and Table 3.21 groups those into 3 different categories. The modern health care includes clinic/health centre, doctor's office, hospital emergency room, maternity home, and pharmacist. Traditional health care includes chemical shop, self-medication, church/pastor and spiritualist. The vast majority of women use the clinics, health centres and hospital out-patient departments which shows high use of modern health care facilities when sick (Table 3.21). There is only a slight differential in use by wealth quintile, perhaps an indication of the impact of the national health insurance scheme in improving access. When asked about the source of advice when sick, the vast majority indicated that they do not go anywhere to seek advice, indicating a considerable independence and presumably prior knowledge of services available (Table 3.22).

Table 3.21 Usual source of care when sick

	Modern	Traditional	Nowhere
Age group			
20-24	87.88	3.03	9.09
25-29	84.51	7.52	7.96
30-34	88.83	4.87	6.30
35-39	84.35	5.44	10.20
40-44	87.76	5.31	6.94
45-49	86.63	6.93	6.44
50-54	89.31	6.29	4.40
55-59	91.97	4.38	3.65
60-64	88.36	5.82	5.82
65+	89.34	6.75	3.91
Sub-Metro			
Ablekuma	90.25	1.29	8.47
Ashiedu Keteke	94.81	1.48	3.70
Osu Klottey	85.48	8.87	5.65
Kpeshie	74.52	22.51	2.97
Ayawaso	90.56	2.15	7.30
Okaikoi	89.93	4.42	5.65
Wealth quintile			
Lowest	79.50	11.51	8.99
Second	87.61	5.57	6.82
Middle	89.61	5.02	5.38
Fourth	90.02	4.54	5.44
Highest	91.41	2.93	5.67
Total	87.61	5.92	6.46

Table 3.22 Usual source of advice when sick

	Modern	Traditional	Nowhere
Age group			
20-24	10.69	9.43	79.87
25-29	14.81	5.79	79.40
30-34	11.57	4.75	83.68
35-39	12.76	3.79	83.45
40-44	17.15	5.02	77.82
45-49	15.10	3.13	81.25
50-54	19.62	5.70	74.68
55-59	17.42	3.79	78.79
60-64	20.88	4.40	74.73
65+	20.22	4.12	75.47

Table 3.22 Usual source of advice when sick (continued)

	Modern	Traditional	Nowhere
Sub metro			
Ablekuma	21.05	4.66	74.29
Ashiedu Keteke	21.32	5.15	73.53
Osu Klottey	7.44	4.96	87.60
Kpeshie	6.67	4.95	87.96
Ayawaso	10.57	4.17	85.27
Okaikoi	25.89	6.09	68.02
Wealth quintile			
Lowest	11.07	4.13	84.80
Second	14.63	3.94	81.43
Middle	15.98	4.32	79.51
Fourth	16.08	4.44	79.48
Highest	22.35	7.39	70.08
Total	16.01	4.84	79.08

3.4 Health conditions and symptoms

In an extended set of questions, women were asked about conditions and symptoms experienced in the year before the interview. The respondents may not have known the medical name for many of the conditions so the easier to report symptoms tend to predominate (Table 3.23). Most striking is the salience of conditions related to obesity. As we see in Table 3.24, many women were taking medicine for hypertension and diabetes, malaria or malaria-like symptoms being the other main reasons for medication.

Table 3.23 Self-reported symptoms within the last month

		Have	Saw
	n	condition	doctor/nurse
Chest pain or discomfort at rest	247	8.78	32.23
Chest pain or discomfort with exertion	346	12.30	24.32
Palpitations	618	21.96	31.10
Shortness of breath with exertion	343	12.19	19.15
Shortness of breath lying flat	45	1.60	40.91
Bloody sputum	13	0.46	35.71
Productive cough	130	4.62	49.60
Wheezing with exertion	44	1.56	50.00
Wheezing at rest	38	1.35	52.78
Tightness in chest	55	1.95	25.93
Chronic cough, dry	110	3.91	40.19
Pain in legs	746	26.51	36.59
Swollen legs	165	5.86	48.73
Dizzy spells	617	21.93	28.57

Table 3.24 Health conditions and symptoms in the last year Told about condition/

	n	Self-diagnosed
High blood pressure	637	22.64
Diabetes	126	4.48
Heart attack	14	0.50
Stroke	39	1.39
Pneumonia	4	0.14
Asthma/bronchitis	74	2.63
Cancer	5	0.18
Hepatitis	3	0.11
TB	4	0.14
Sickle cell anaemia	23	0.82
Urinary tract/kidney	5	0.18
Broken bone	5	0.18
Thyroid disease/goitre	11	0.39
Stomach ulcer	45	1.60
Epilepsy/seizure	2	0.07
Cataracts	51	1.81
Anaemia	61	2.17
High cholesterol	40	1.42
Infertility	6	0.21
Concussion	4	0.14
Malaria	1218	43.28
STDs	12	0.43
Prolapse	7	0.25
Fistula	3	0.11
Arthritis	231	8.21
Gastro reflux disease	168	5.97

3.5 Fertility

The women in the study span a very wide range of ages so we are able to report on fertility trends for a very much longer period than that typically covered by WFS/DHS surveys which focus only on fertility amongst women of reproductive age (15-40). Of course, the reliability of the data in terms of accuracy and completeness does fall off amongst some of the very old respondents but the data nonetheless do provide an important source for the study of fertility trends in Accra over two generations. From WFS, DHS and other sources (Garenne 2008), we know that urban fertility in Africa diverged from levels and trends in rural areas many years ago. Amongst all the African cases studied in Garenne's analysis, the decline in urban fertility in Ghana was the very earliest. As early as 1950, urban fertility in Ghana had begun to fall, with a sharp difference between urban and rural levels emerging around the late 1970s (Garenne, 2008: figure B.13.1). By chaining together the birth histories from the WHS and all subsequent DHS surveys, we obtain a clear picture of the steady decline in urban fertility going back to the 1950s with rural fertility lagging behind and still falling at a slower rate (Figure 3.1).

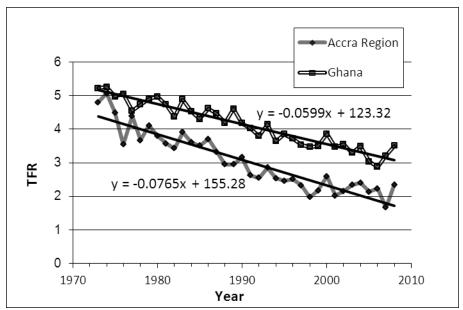


Figure 3.1 Period total fertility rates for urban and rural Ghana 1970-2008

Source: Unpublished WFS and DHS data for Ghana Graph provided by Jocelyn Finlay

From the full pregnancy and birth histories collected in 2008-9 in WHSA-II, covering just the Accra Metropolitan Area and not the larger Accra region for which data are shown in Figure 3.1, we see a similar long term trend in fertility in the 40 years before interview. The number of pregnancies and live births before 1970 are affected by truncation effects but for the last 40 years, we can see that fertility was falling, albeit in a somewhat irregular way due to the combined effects of age and date misreporting as well as fluctuations due to small numbers.

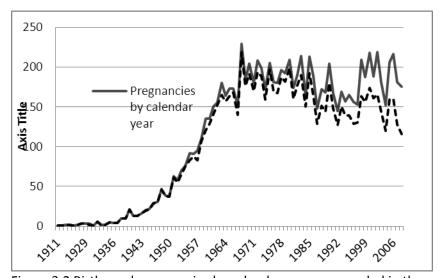


Figure 3.2 Births and pregnancies by calendar year as recorded in the pregnancy histories

One feature of Figure 3.2 is the increasing divergence between the number of pregnancies and the number of live births. This is related to two factors – one is the better reporting of pregnancies that did not end with a live birth in the more recent period but another factor is the increasing use of abortion in recent years. Variations in the willingness to report abortions may also be a factor.

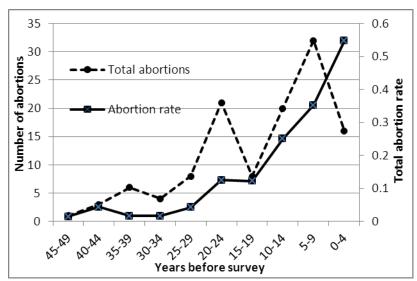


Figure 3.3 Number of induced abortions and total abortion rates for the period before the survey

The break with the past in terms of fertility levels is very clear from Table 3.25 which shows the average number of children ever-borne to cohorts of women and the proportions dead by their ages at survey. The survey is able to document the very high fertility of older women, even those living in Accra, a regime which has now been replaced by very low levels of fertility.

To examine current period levels of fertility rather than the experience of cohorts, we have constructed age-specific fertility rates and period total fertility for the 40 or so years before the survey. Being able to describe fertility over such a long period is unusual because only rarely are birth histories collected from women aged 50 and over. The data show a steady decline over the last 30 years (the period for which the reporting is quite complete) from total fertility rates of close to 3 births per woman to levels which just before the survey hovered around 2 – close or below replacement levels of fertility. The 2003 and 2008 DHS surveys confirm this very low level of urban fertility which is one of the most remarkable findings of the study.

Table 3.25 Age-specific fertility rates for the period before the survey by age at survey

Years before interview

		6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 – 40
	< 5 years	years	years	years	years	years	years	years
Age grou	р							
20-24	0.065	0.061	0.063	0.092	0.106	0.126	0.165	0.113
25-29	0.110	0.124	0.135	0.151	0.199	0.206	0.146	0.235
30-34	0.141	0.142	0.138	0.177	0.198	0.214	0.227	0.241
35-39	0.122	0.117	0.115	0.118	0.162	0.181	0.242	0.227
40-44	0.056	0.066	0.052	0.090	0.107	0.113	0.173	0.172
45-49	0.020	0.016	0.026	0.026	0.045	0.097	0.084	0.127
TFR	2.57	2.63	2.65	3.27	4.09	4.69	5.19	5.57

The data in Table 3.25 are easier to interpret in the form of a graph (Figure 3.4). There we can see the fall in the fertility of the younger women through time but overall, a picture of well-established fertility decline stemming from many years before the survey.

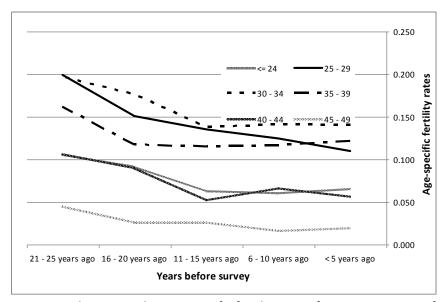


Figure 3.4 Changes in the age-specific fertility rates for six age groups of women in the years before interview

The achievement of near-replacement fertility in this population is all the more remarkable given the very low rates of use of modern contraception. This remains one of the central puzzles of the study since the reported levels of contraceptive use are much too low to sustain such low fertility. Induced abortion does not make up the shortfall between measured and expected levels of fertility (Oliveras et al 2005 & 2008). The explanation, dealt with in subsequent papers, is to be found in new forms of living arrangements and organization of married life.

3.6 Reproductive health and family planning

Tables 3.26 and 3.27 explore further the contraceptive use by method. Only women who reported they were not menopausal were asked about contraceptive use. The use of modern methods of contraception was relatively low and fails to explain the fertility levels of the sample.

Table 3.25 Contraceptive use for non-menopausal women (n=1686)

	Ever used method			Currently using I	nethod
	Yes	No	DK	Yes N	o DK
Age group					
20-24	52.24	47.01	0.75	39.29 60.7	1 0.00
25-29	48.10	51.67	0.24	34.90 64.7	7 0.34
30-34	44.94	54.76	0.30	30.60 69.4	0.00
35-39	54.14	45.52	0.34	29.47 70.0	5 0.48
40-44	47.69	51.85	0.46	24.65 73.9	4 1.41
45-49	44.44	55.56	0.00	16.00 84.0	0.00
50-54	40.00	60.00	0.00	10.00 90.0	0.00
55-59	33.33	66.67	0.00	0.00 100.0	0.00

Table 3.25 Contraceptive use for non-menopausal women (n=1686) (continued)

	Ever used method			Currently using method
	Yes	No	DK	Yes No DK
Sub-Metro				
Ablekuma	50.56	49.44	0.00	28.37 71.35 0.28
Ashiedu Keteke	45.90	54.10	0.00	30.00 70.00 0.00
Osu Klottey	50.00	50.00	0.00	31.11 68.89 0.00
Kpeshie	45.28	53.54	1.18	25.00 73.89 1.11
Ayawaso	50.12	49.38	0.50	37.30 62.30 0.40
Okaikoi	44.16	55.84	0.00	28.92 71.08 0.00
Wealth quintile				
Lowest	44.36	55.64	0.00	30.56 69.44 0.00
Second	50.29	49.43	0.29	31.71 67.89 0.41
Middle	45.40	54.60	0.00	22.22 76.89 0.89
Fourth	49.39	50.30	0.30	33.19 66.81 0.00
Highest	52.67	46.18	1.15	34.36 65.03 0.61
Total	48.41	51.26	0.32	30.22 69.40 0.38

More than a third of the women reported having used abstinence as a method of contraception (Table 3.26), while a quarter of the women used it as a current method of contraception. Among the modern methods ever used, the most popular one was the male condom, followed by the injectable and the pill (19.41%, 14.03% and 12.96% respectively). The same methods were the most prevalent for current use but the level of use was much lower (14.05%, 6.07% and 3.26% respectively), especially for the pill. Male sterilisation was not mentioned as ever-used or current method and no woman reported female sterilisation or diaphragm as a current method.

Table 3.26 Contraceptive methods – Ever used (n=1597)

						Modern						Traditiona	al
			In-	lm-	Dia-	Spermi-	Male	Female	Female		Absti-	With-	Breast-
	Pill	IUD	jection	plant	phragm	cide	Condom	Condom	Sterilisation	RU486	nence	drawal	feeding
Age group													
20-24	10.22	0.00	4.38	0.00	0.00	0.73	30.66	4.38	0.00	2.92	37.23	27.01	5.84
25-29	9.43	1.42	10.38	1.42	0.24	0.71	27.12	2.12	0.24	0.71	39.62	27.36	5.19
30-34	12.94	2.65	14.41	1.47	0.00	0.59	20.00	0.88	0.00	0.88	31.47	18.82	6.76
35-39	16.04	6.48	24.57	2.73	0.00	1.02	14.68	0.68	0.00	0.00	33.11	16.04	8.53
40-44	17.81	9.59	17.35	2.74	0.46	0.46	11.87	1.37	0.00	0.00	28.31	15.07	9.59
45-49	15.00	7.50	10.00	0.83	0.00	0.83	10.83	1.67	1.67	0.00	26.67	10.83	10.00
50-54	11.11	11.11	8.33	0.00	0.00	2.78	8.33	0.00	0.00	0.00	19.44	8.33	11.11
55-59	0.00	6.67	0.00	0.00	6.67	6.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60-64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
65+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sub metro													
Ablekuma	12.97	4.86	13.69	1.62	0.36	0.90	20.18	0.54	0.00	0.54	36.22	23.06	9.91
Ashiedu Keteke	9.09	6.06	15.15	3.03	0.00	1.52	12.12	4.55	0.00	0.00	31.82	16.67	12.12
Osu Klottey	9.84	0.00	21.31	0.00	0.00	0.00	26.23	0.00	0.00	1.64	31.15	11.48	4.92
Kpeshie	10.31	3.44	19.08	1.91	0.00	0.76	16.79	0.76	0.00	0.00	20.99	8.78	4.96
Ayawaso	15.35	5.04	11.03	0.96	0.00	0.24	21.58	4.08	0.48	0.48	37.17	20.62	5.76
Okaikoi	13.56	3.39	12.29	2.54	0.42	1.69	16.95	0.00	0.42	1.69	30.93	24.58	5.08
Wealth quintile													
Lowest	15.41	4.11	13.70	1.37	0.00	0.00	13.36	1.03	0.00	0.00	26.37	13.36	9.25
Second	14.09	3.87	17.13	2.21	0.28	0.55	17.13	2.21	0.00	0.83	28.73	19.06	8.56
Middle	11.08	3.59	11.98	2.40	0.00	0.90	20.36	1.20	0.00	1.20	32.63	21.86	6.59
Fourth	15.20	5.56	14.91	1.46	0.00	0.58	19.88	1.46	0.29	0.58	36.55	22.22	5.85
Highest	8.24	4.49	11.61	0.37	0.75	2.25	27.34	1.87	0.75	0.37	40.82	20.97	5.62
Total	12.96	4.32	14.03	1.63	0.19	0.81	19.41	1.57	0.19	0.63	32.81	19.6	7.2

Table 3.27 Contraceptive methods – Currently using (n=1103)

	•		, 0	,	Modern					Traditiona	l
						Male	Female		Absti-	With-	Breast-
	Pill	IUD	Injection	Implant	Spermicide	Condom	Condom	RU486	nence	drawal	feeding
Age group											
20-24	2.30	0.00	4.60	0.00	0.00	26.44	1.15	1.15	29.89	17.24	2.30
25-29	1.64	0.66	5.92	1.32	0.33	22.70	0.66	0.33	29.61	20.07	1.97
30-34	4.70	2.99	7.69	2.56	0.00	12.82	1.28	0.00	20.51	10.68	2.99
35-39	5.26	3.83	7.66	1.44	0.00	9.57	0.00	0.00	21.05	9.57	0.96
40-44	4.83	4.14	6.21	1.38	0.00	5.52	0.00	0.00	16.55	7.59	0.00
45-49	0.00	2.53	2.53	0.00	0.00	5.06	0.00	0.00	13.92	6.33	0.00
50-54	0.00	0.00	0.00	0.00	0.00	4.76	0.00	0.00	23.81	4.76	0.00
55-59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60-64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
65+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sub metro											
Ablekuma	2.92	3.45	4.77	1.06	0.00	14.85	0.00	0.00	24.67	15.38	2.65
Ashiedu Keteke	1.82	0.00	10.91	3.64	0.00	9.09	0.00	0.00	21.82	5.45	3.64
Osu Klottey	2.17	0.00	15.22	0.00	0.00	13.04	0.00	0.00	19.57	4.35	0.00
Kpeshie	1.59	2.12	10.05	1.59	0.00	6.88	0.53	0.00	14.29	2.65	0.53
Ayawaso	6.42	2.26	3.77	1.89	0.00	16.60	1.51	0.38	28.30	14.72	1.13
Okaikoi	1.75	1.17	4.09	0.58	0.58	18.13	0.58	0.58	18.71	18.13	0.58
Wealth quintile											
Lowest	5.58	1.52	7.11	1.02	0.00	11.68	0.51	0.00	21.32	8.12	2.03
Second	3.86	1.93	8.11	2.32	0.39	11.58	0.39	0.00	20.08	15.06	0.77
Middle	1.28	0.85	4.70	1.71	0.00	12.82	0.00	0.43	23.50	14.53	2.99
Fourth	2.45	3.27	5.71	1.22	0.00	17.14	0.82	0.41	20.82	12.24	1.22
Highest	3.57	4.17	4.17	0.00	0.00	17.86	1.19	0.00	28.57	11.31	0.60
Total	3.26	2.27	6.07	1.36	0.09	14.05	0.54	0.18	22.48	12.51	1.54

3.7 Infant and child mortality

Data in Table 3.28 incidentally allow us to estimate longer term trends in child survival using standard indirect methods. Using the South model life table, we obtain the trend in infant mortality shown in Figure 3.5. The improvement is steady, indicating an urban infant mortality rate for the pre-survey period of between 40 and 50 per 1000. The apparent worsening of child survival in the immediate pre-survey period is likely due to the well-known selection effects associated with the increased risk of younger mothers losing proportionately more of their children. This can be verified by further analysis of the birth histories using direct rather than indirect methods of estimation.

Table 3.28 Average number of children ever-borne alive, died and surviving by age of women

Age group	Children ever- borne alive	Children dead	Children still living	% of live born children dead
20-24	1.3965	0.0833	1.3131	0.0597
25-29	1.9271	0.1037	1.8234	0.0538
30-34	2.5860	0.2236	2.3625	0.0864
35-39	3.1254	0.2212	2.9043	0.0708
40-44	3.6338	0.3303	3.3035	0.0909
45-49	4.3067	0.5162	3.7905	0.1199
50-54	4.8061	0.8802	3.9259	0.1831
55-59	5.4306	0.9452	4.4854	0.1740
60-64	5.9784	1.2081	4.7703	0.2021
65-69	6.2571	1.3151	4.9420	0.2102
70-74	7.4711	1.7054	5.7657	0.2283
75-79	7.0860	1.9108	5.1753	0.2697
80-84	7.0958	2.1081	4.9877	0.2971
85-89	7.1269	2.0317	5.0952	0.2851
90-95	7.6508	3.4286	4.2222	0.4481
95+	7.2893	2.8187	4.4706	0.3867
Total	4.5206	0.8306	3.6900	0.1837

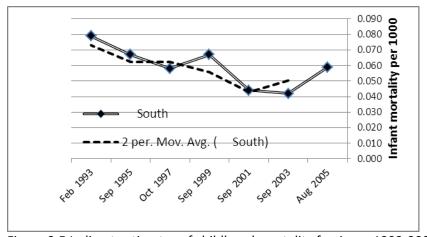


Figure 3.5 Indirect estimates of childhood mortality for Accra 1993-2000

3.8 Nutrition and food security

The data on food intake and diet are complex to analyse so here we present the data on food availability. The proportion of households reporting that they often did not have enough to eat was very small (Table 3.29) but larger proportions stated that they would have liked to have different types of food, suggesting that these households were choosing food types for budgetary reasons. The data on women's anthropometry (see below) bear out the finding that very few adults were under-weight and hence seriously under-nourished.

Table 3.29 Food security

	Enough to eat/	Enough to eat/	Sometimes		
	types of foods	not types of	not enough	Often not	Don't
	wanted	foods wanted	to eat	enough	know
Age group					
20-24	50.00	43.45	6.55	0.00	0.00
25-29	57.86	36.46	5.24	0.22	0.22
30-34	51.69	41.81	6.21	0.28	0.00
35-39	51.32	41.39	6.29	0.99	0.00
40-44	52.21	41.37	5.22	1.20	0.00
45-49	55.17	38.42	5.91	0.49	0.00
50-54	55.90	37.27	6.21	0.62	0.00
55-59	50.72	37.68	10.87	0.72	0.00
60-64	54.45	40.84	4.71	0.00	0.00
65+	54.01	39.20	5.92	0.87	0.00
DK/Missing	46.15	46.15	7.69	0.00	0.00
Sub-Metro					
Ablekuma	62.54	29.84	6.88	0.63	0.11
Ashiedu Keteke	50.36	36.69	10.07	2.88	0.00
Osu Klottey	50.40	44.00	5.60	0.00	0.00
Kpeshie	37.27	53.21	8.90	0.62	0.00
Ayawaso	41.96	55.90	2.13	0.00	0.00
Okaikoi	74.34	18.71	6.24	0.72	0.00
Wealth quintile					
Lowest	27.94	54.98	14.95	2.14	0.00
Second	46.09	47.86	5.69	0.36	0.00
Middle	55.77	38.90	5.15	0.18	0.00
Fourth	66.55	29.89	3.56	0.00	0.00
Highest	71.94	26.82	0.89	0.18	0.18
Total	53.66	39.69	6.05	0.57	0.04

3.9 Malaria

Three quarters of the respondents in the survey (75.16%) reported knowledge about malaria transmission (Table 3.30). In addition, younger women were more aware of the fact that malaria is caused by mosquito bites (84.52% of the 20-24 group, compared to 60.52% for the 65+ group) and so

are women in the highest wealth quintile compared to the women in the lowest wealth quintile (85.61% compared to 59.96%).

Table 3.31 shows that 77.96% of interviewed women reported that they have had malaria. However, a large percentage reported self-diagnosis (38.36%) compared to 54.61% of doctor/clinic diagnosis. Self-diagnosis is the highest among the lowest wealth quintile (48.45%) and in Ablekuma (44.95%), while doctor/clinic diagnosis is highest in the highest wealth quintile (61.38%) and in Ayawaso (71.32%). Furthermore, 50.42% of women in the highest wealth quintile reported that they had a blood test to confirm diagnosis compared to 29.31% in the lowest wealth quintile (Table 3.32).

Net ownership was not common with 70.68% of respondents reporting they did not have mosquito nets in their households, with a range of 82.73% in Ashiedu Keteke to 65.20% in Ayawaso (Table 3.33).

Table 3.30 Knowledge of source of malaria transmission

	Mosquito	Blood	Dirty water	Environment	Other/DK
Age group					
20-24	84.52	0.00	5.36	4.76	5.36
25-29	81.26	0.87	5.45	4.36	8.06
30-34	74.01	1.13	6.50	5.93	12.43
35-39	82.78	0.99	4.30	5.96	5.96
40-44	76.71	0.40	6.02	4.82	12.05
45-49	76.85	0.00	4.43	4.43	14.29
50-54	77.64	0.00	4.35	3.73	14.29
55-59	78.99	0.00	0.72	4.35	15.94
60-64	79.58	0.52	2.62	4.19	13.09
65+	60.52	0.70	2.78	4.35	31.65
DK/Missing	53.85	0.00	0.00	7.69	38.46
Sub-Metro					
Ablekuma	79.47	0.32	2.86	4.23	13.12
Ashiedu Keteke	64.03	0.00	3.60	10.79	21.58
Osu Klottey	75.20	0.80	4.00	6.40	13.60
Kpeshie	61.70	1.45	6.42	4.97	25.47
Ayawaso	75.14	0.43	7.24	3.41	13.78
Okaikoi	84.69	0.72	0.96	5.50	8.13
Wealth quintile					
Lowest	59.96	1.42	5.52	5.52	27.58
Second	72.47	0.53	5.33	5.15	16.52
Middle	77.26	0.71	4.09	4.26	13.68
Fourth	80.46	0.36	3.37	4.44	11.37
Highest	85.61	0.00	3.55	4.44	6.39
Total	75.16	0.60	4.37	4.76	15.10

Table 3.31 Ever had malaria

	Yes	No	DK
Age group			
20-24	76.19	23.21	0.60
25-29	78.82	20.09	1.09
30-34	79.89	19.26	0.85
35-39	78.81	19.54	1.66
40-44	81.45	17.34	1.21
45-49	78.71	19.80	1.49
50-54	79.50	16.15	4.35
55-59	75.36	23.19	1.45
60-64	79.06	16.75	4.19
65+	74.78	21.04	4.17
DK/Missing	58.33	25.00	16.67
Sub-Metro			
Ablekuma	77.62	20.25	2.12
Ashiedu Keteke	72.46	23.19	4.35
Osu Klottey	80.80	15.20	4.00
Kpeshie	82.40	15.32	2.28
Ayawaso	74.64	22.36	2.99
Okaikoi	80.14	19.86	0.00
Wealth quintile			
Lowest	69.46	27.14	3.39
Second	75.62	22.78	1.60
Middle	79.86	17.29	2.85
Fourth	79.75	17.94	2.31
Highest	85.08	13.85	1.07
Total	77.96	19.79	2.24

Table 3.32 Who diagnosed malaria amongst women reporting a recent bout of malaria (n=2190) Self-

	Seii-					
	diagnosis	Relative	Friend	Clinic/hospital	Pharmacist	Herbalist
Age group						
20-24	31.01	0.78	0.78	57.36	9.30	0.78
25-29	35.46	1.94	0.28	55.40	6.09	0.83
30-34	40.43	0.00	0.71	52.13	6.38	0.35
35-39	37.82	1.26	0.42	53.78	6.30	0.42
40-44	37.93	1.48	0.00	57.64	2.46	0.49
45-49	45.91	0.63	0.63	47.80	5.03	0.00
50-54	42.19	0.00	0.00	46.88	10.16	0.78
55-59	39.42	0.00	0.00	56.73	2.88	0.96
60-64	42.67	0.00	0.00	54.67	2.00	0.67
65+	36.36	0.23	0.47	58.28	3.96	0.70
DK/Missing	42.86	0.00	0.00	42.86	14.29	0.00
Sub-Metro						
Ablekuma	44.95	0.41	0.27	49.86	4.10	0.41
Ashiedu Keteke	33.00	1.00	1.00	60.00	4.00	1.00
Osu Klottey	31.68	1.98	0.99	61.39	3.96	0.00
Kpeshie	43.72	1.01	0.75	48.74	5.28	0.50
Ayawaso	18.36	0.96	0.19	71.32	8.41	0.76
Okaikoi	52.38	0.30	0.00	42.26	4.17	0.89
Wealth quintile						
Lowest	48.45	0.77	0.77	41.24	8.25	0.52
Second	39.44	1.17	0.00	53.76	5.63	0.00
Middle	39.96	1.12	0.89	52.23	4.69	1.12
Fourth	33.18	0.45	0.00	62.14	3.79	0.45
Highest	32.57	0.21	0.21	61.38	4.80	0.84
Total	38.36	0.73	0.37	54.61	5.34	0.59

Table 3.33 Had blood test to confirm diagnosis (n=2190)

	Yes	No	DK
Age group			
20-24	38.76	60.47	0.78
25-29	41.27	58.17	0.55
30-34	41.84	57.09	1.06
35-39	37.82	60.92	1.26
40-44	41.58	58.42	0.00
45-49	40.88	59.12	0.00
50-54	40.63	57.03	2.34
55-59	38.46	60.58	0.96
60-64	49.67	50.33	0.00
65+	43.26	56.28	0.47
DK/Missing	42.86	57.14	0.00
Sub-Metro			
Ablekuma	43.44	56.28	0.27
Ashiedu Keteke	39.00	58.00	3.00
Osu Klottey	43.56	56.44	0.00
Kpeshie	37.19	62.06	0.75
Ayawaso	46.18	52.86	0.95
Okaikoi	36.01	63.39	0.60
Wealth quintile			
Lowest	29.31	70.44	0.26
Second	37.32	62.68	0.00
Middle	38.03	60.85	1.12
Fourth	50.56	48.11	1.34
Highest	50.42	48.96	0.63
Total	41.62	57.69	0.68

Table 3.34 Number of nets in the house

	0 nets	1 nets	2 nets	3+ nets
Age group				
20-24	66.07	23.21	6.55	4.17
25-29	61.00	26.36	8.28	4.36
30-34	59.89	22.32	12.43	5.37
35-39	64.57	18.54	10.93	5.96
40-44	76.31	12.85	6.02	4.82
45-49	75.86	15.76	4.43	3.94
50-54	84.47	7.45	4.97	3.11
55-59	84.78	10.14	3.62	1.45
60-64	77.49	13.09	5.24	4.19
65+	75.65	16.35	4.35	3.65
DK/Missing	76.92	7.69	7.69	7.69
Sub-Metro				
Ablekuma	70.26	18.84	7.20	3.70
Ashiedu Keteke	82.73	10.79	3.60	2.88
Osu Klottey	74.40	12.80	8.00	4.80
Kpeshie	70.19	17.60	5.80	6.42
Ayawaso	65.20	20.45	9.38	4.97
Okaikoi	76.32	16.03	5.26	2.39
Wealth quintile				
Lowest	77.05	15.84	3.74	3.38
Second	67.85	18.83	9.06	4.26
Middle	66.07	21.67	8.17	4.09
Fourth	70.34	16.52	8.70	4.44
Highest	72.11	16.87	5.68	5.33
Total	70.68	17.95	7.07	4.30

3.10 BMI

The Body Mass Index (BMI) is a measure of height and weight associated with body fat and health risk. Height and weight measures for women in the survey were recorded as part of the medical measurements at the end of the survey and BMI for Age group, sub-Metro and wealth quintile were calculated. Anthropometric measurements were obtained on the participants wearing lightweight street clothes without shoes. Weight was measured on a calibrated portable Salter scale to the nearest 0.1 kg. Height was measured with a metal tape measure to the nearest 0.5 cm with the participants standing upright with the head in the Frankfurt position. Body mass index (BMI) was defined as BMI \leq 18.5 kg/m² underweight; 18.5 – 24.9 kg/m² normal weight; 25.0 – 29.9 kg/m² overweight; and \geq 30.0 kg/m² obese.

The results in table 3.35 show that more than half of the interviewed women over 30 years old were overweight and obese with the highest percentage in the 50-54 age group where 83.33% of women were overweight and obese. There were no great differences of distribution on a sub-Metro level, while the wealth quintile distribution shows that the highest percentage of overweight and obese women was in the highest quintile (71.38%), while the lowest was in the lowest quintile (56.64%).

Malnutrition did not seem to be a big problem among the women interviewed with only 3.65% reported as underweight overall.

Table 3.35 BMI categories

	Underweight	Normal	Overweight	Obese
Age group				
20-24	8.02	56.79	22.22	12.96
25-29	3.76	47.79	28.54	19.91
30-34	3.46	36.31	28.53	31.70
35-39	1.35	28.96	25.93	43.77
40-44	2.05	23.36	27.46	47.13
45-49	2.53	17.68	37.88	41.92
50-54	1.92	14.74	26.28	57.05
55-59	2.27	19.70	26.52	51.52
60-64	3.80	22.83	29.89	43.48
65+	5.63	24.77	26.64	42.96
DK/Missing	0.00	44.44	33.33	22.22
Sub-Metro				
Ablekuma	3.40	30.81	27.19	38.60
Ashiedu Keteke	3.85	27.69	28.46	40.00
Osu Klottey	0.83	34.17	30.00	35.00
Kpeshie	4.51	29.61	27.90	37.98
Ayawaso	3.07	29.72	28.84	38.36
Okaikoi	4.95	34.65	27.72	32.67
Wealth quintile				
Lowest	4.98	38.38	26.20	30.44
Second	4.39	33.46	26.33	35.83
Middle	2.77	31.05	29.02	37.15
Fourth	2.96	26.11	29.63	41.30
Highest	3.12	25.50	28.81	42.57
Total	3.65	30.90	27.99	37.46

3.11 Body image

Figural stimuli silhouettes

At the end of the household interview, women were shown the Stunkard Figure Rating Scale (FRS – Figure 3.6) images ^{23,24,} and were asked to select one figure that most closely resembled their own current body image (CBI), the ideal body image for a Ghanaian woman (IBI), the healthiest body image (HBI), and the least healthy image (LHBI). They were also asked if they were willing to change the CBI to improve health and to select a new health transformation image (HTI). No time limit was placed on the decision process.

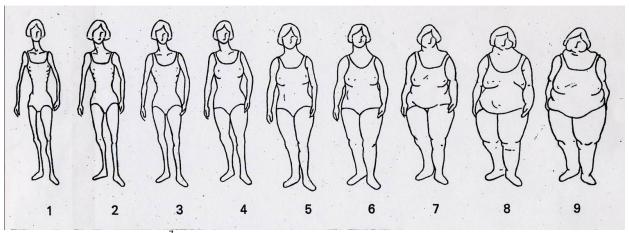


Figure 3.6 Body image scale

Ideal Body Image (IBI)

The most common image selected as the ideal body image for a Ghanaian women was image number 5 (32.2%), with image number 4 as a close second (30.0%), as shown in Table 3 and Figure 5. The smallest and largest figures were the least likely to be selected as IBI. There is no significant correlation between IBI and either BMI or age of the participant.

Dissatisfaction score (DS)

A dissatisfaction score is defined as the CBI minus the IBI and was available for 2755 women. A negative score indicates that the IBI is larger than the CBI. Only 25.8% women were satisfied with their CBI, whose mean BMI was 27.5 ± 5.8 (overweight range). An additional 41.9% indicated that the IBI was smaller than her CBI (range 1 to 6 figure difference), and 32.6% selected an IBI larger than her CBI (range 1 to 7 figure difference).

Table 3.36 Body image – self-assessment

	1	2	3	4	5	6	7	8	9
ВМІ									
Underweight	6.25	20.83	42.71	20.83	7.29	1.04	0.00	1.04	0.00
Normal	0.97	7.52	21.60	42.48	20.39	6.19	0.61	0.12	0.12
Overweight	0.26	0.79	3.71	21.85	43.84	24.11	4.64	0.79	0.00
Obese	0.00	0.10	0.59	4.34	19.53	41.91	25.15	6.51	1.87

⁷ Reprinted from Stunkard AJ, Sorenson T, Schulsinger F. Use of the Danish Adoption Register for the study of obesity and thinness. IN: SS Kety, LP Rowland, RL Sidman, SW Mattysee (Eds.) The Genetics of Neurological and Psychiatric Disorders. New York: Raven Press, 1983, pp. 115-120

Table 3.36 Body image – self-assessment (continued)

Table 5.50 body imag		2556551110	-	macaj					
	1	2	3	4	5	6	7	8	9
Age group									
20-24	1.20	5.42	16.87	36.14	23.49	12.65	3.01	1.20	0.00
25-29	0.00	2.83	15.47	30.50	27.23	19.39	3.70	0.65	0.22
30-34	0.00	4.25	9.63	26.91	28.05	22.66	6.80	1.13	0.57
35-39	0.00	2.98	9.27	15.56	29.47	30.79	7.28	3.64	0.99
40-44	0.00	2.42	5.65	18.55	25.40	31.85	12.10	3.63	0.40
45-49	0.99	3.45	3.45	19.21	28.08	26.60	14.78	2.46	0.99
50-54	0.63	1.25	8.75	11.25	24.38	30.00	20.00	2.50	1.25
55-59	0.73	1.46	8.03	14.60	27.01	27.74	16.06	2.92	1.46
60-64	0.00	4.21	7.37	20.53	24.21	28.42	12.11	1.58	1.58
65+	1.99	4.17	7.25	16.49	22.46	22.28	17.93	6.34	1.09
DK/Missing	0.00	9.09	18.18	27.27	9.09	27.27	9.09	0.00	0.00
Sub-Metro									
Ablekuma	0.64	3.95	9.39	21.66	24.97	26.57	8.86	3.20	0.75
Ashiedu Keteke	0.00	3.65	9.49	17.52	22.63	25.55	17.52	2.92	0.73
Osu Klottey	0.00	1.63	11.38	26.02	32.52	13.82	9.76	2.44	2.44
Kpeshie	1.25	3.97	7.93	18.16	30.69	22.34	11.06	3.55	1.04
Ayawaso	0.58	2.45	10.39	23.52	23.67	25.69	11.54	1.88	0.29
Okaikoi	0.24	3.63	9.20	21.55	25.18	23.24	12.83	3.15	0.97
Wealth quintile									
Lowest	1.45	3.80	10.31	22.78	23.51	22.60	12.12	2.71	0.72
Second	0.18	3.78	8.81	24.46	24.10	24.64	9.53	4.14	0.36
Middle	1.08	4.69	10.47	19.31	27.44	23.65	11.01	1.99	0.36
Fourth	0.18	1.79	9.64	18.04	28.93	25.00	11.25	2.86	2.32
Highest	0.18	3.04	8.05	22.90	25.40	26.65	10.91	2.68	0.18
Total	0.61	3.41	9.45	21.50	25.88	24.51	10.96	2.88	0.79

	1	2	3	4	5	6	7	8	9
ВМІ									
underweight	5.21	2.08	15.63	26.04	25.00	10.42	8.33	2.08	5.21
normal	3.94	4.92	13.78	33.58	27.55	11.32	1.97	0.98	1.97
overweight	5.36	8.04	17.02	29.62	26.14	9.92	2.14	0.54	1.21
obese	7.09	5.69	15.68	29.97	27.17	10.49	2.60	0.40	0.90
Age group									
20-24	2.44	4.88	15.24	30.49	31.10	10.37	1.83	0.61	3.05
25-29	3.52	4.63	16.52	39.21	23.79	9.03	1.32	0.66	1.32
30-34	3.13	6.84	16.52	36.47	24.22	8.83	1.71	0.00	2.28
35-39	6.16	6.16	16.44	32.53	26.03	9.25	1.37	1.03	1.03
40-44	4.86	6.48	15.79	28.74	28.74	10.12	4.05	0.00	1.21

13.43 23.88

24.05

15.82

22.39

27.22

13.43

8.86

5.97

1.90

0.00

1.27

0.50

1.90

45-49

50-54

Highest

Total

9.45

10.76

4.51

5.46

5.42

5.90

19.13

15.48

10.95

8.23

55-59	5.93	5.19	21.48	21.48	26.67	12.59	5.19	0.74	0.74
60-64	9.47	4.74	17.89	30.00	22.63	10.53	1.05	2.11	1.58
65+	4.99	4.44	11.65	29.02	32.16	12.38	2.96	1.11	1.29
DK/Missing	0.00	0.00	9.09	9.09	36.36	36.36	0.00	9.09	0.00
Sub-Metro									
Ablekuma	6.23	6.66	17.19	30.18	25.46	9.67	1.93	0.64	2.04
Ashiedu Keteke	8.09	6.62	19.12	22.79	22.79	15.44	2.21	1.47	1.47
Osu Klottey	8.94	7.32	13.01	34.15	22.76	8.94	4.07	0.00	0.81
Kpeshie	4.22	3.59	12.03	29.75	28.48	14.14	4.22	1.27	2.32
Ayawaso	4.61	5.80	16.96	32.29	27.68	9.38	2.83	0.30	0.15
Okaikoi	4.65	6.36	12.71	34.23	29.10	9.29	0.98	1.22	1.47
Wealth quintile									
Lowest	5.67	3.11	12.61	21.39	29.07	17.73	5.30	1.65	3.47
Second	6.41	7.14	14.65	30.22	26.56	10.26	2.20	1.10	1.47
Middle	4.24	5.89	16.76	33.89	27.26	8.29	1.66	0.55	1.47
Fourth	6.49	7.93	14.23	32.61	25.59	10.63	1.98	0.00	0.54

37.00

31.04

25.63

26.81

5.96

10.56

1.44

2.51

0.54

0.77

0.36

1.46

Table 3.38 Body image – least healthy										
	1	2	3	4	5	6	7	8	9	
BMI										
Underweight	51.04	2.08	0.00	0.00	0.00	0.00	0.00	1.04	45.83	
Normal	44.88	0.37	0.37	0.24	0.24	0.24	0.00	0.61	53.05	
Overweight	38.93	0.40	0.53	0.40	0.27	0.27	0.53	0.80	57.87	
Obese	37.25	0.40	0.10	0.40	0.10	0.30	0.20	1.59	59.66	

Table 3.38 Body image – least healthy (continued)

Table 3.36 body iiila	ige leasi	Linearting	(COIICIIIa	euj					
	1	2	3	4	5	6	7	8	9
Age group									
20-24	44.85	0.61	0.61	0.00	0.00	0.00	0.00	2.42	51.52
25-29	43.23	0.66	0.66	0.22	0.00	0.00	0.22	0.87	54.15
30-34	41.76	0.28	0.28	0.57	0.57	0.00	0.28	0.28	55.97
35-39	41.14	0.00	0.00	0.33	0.33	0.67	0.00	1.34	56.19
40-44	46.56	0.81	0.40	0.40	0.00	0.00	0.00	0.40	51.42
45-49	32.18	0.00	0.99	0.00	0.50	0.50	0.50	1.98	63.37
50-54	30.82	0.00	0.00	1.26	0.00	0.00	0.00	1.26	66.67
55-59	38.52	0.74	0.00	0.74	0.00	0.00	0.74	2.22	57.04
60-64	37.70	0.00	0.00	0.00	0.52	2.09	0.52	0.52	58.64
65+	40.41	0.74	0.37	0.18	0.00	0.00	0.37	1.11	56.83
DK/Missing	63.64	0.00	0.00	0.00	0.00	9.09	0.00	0.00	27.27
Sub-Metro									
Ablekuma	36.86	0.32	0.64	0.32	0.11	0.21	0.00	1.39	60.15
Ashiedu Keteke	41.61	0.73	0.00	0.00	0.00	0.73	0.00	2.19	54.74
Osu Klottey	33.33	0.00	0.00	0.81	0.00	0.00	0.00	0.00	65.85
Kpeshie	41.60	0.21	0.21	0.42	0.21	0.21	0.42	0.63	56.09
Ayawaso	44.84	0.88	0.44	0.44	0.29	0.29	0.15	1.03	51.62
Okaikoi	42.72	0.24	0.00	0.00	0.24	0.49	0.97	0.97	54.37
Wealth quintile									
Lowest	46.99	0.36	0.55	0.36	0.36	0.73	0.73	1.64	48.27
Second	41.42	0.55	0.36	0.00	0.36	0.00	0.55	0.73	56.02
Middle	39.24	0.36	0.72	0.18	0.18	0.54	0.00	1.08	57.69
Fourth	38.74	0.00	0.18	0.90	0.00	0.00	0.00	0.54	59.64
Highest	36.62	0.90	0.00	0.18	0.00	0.18	0.00	1.44	60.68

Consistent with the report from the first Women's Health Study of Accra that found 62.2% of women overweight or obese, the prevalence of overweight and obese women in the current study (WHSA-II) is 66.6%, with a mean BMI \pm sd of 28.5 \pm 6.9. Pregnant and lactating women were excluded from the analysis and only women who completed the body image section of the household survey were included in this report.

There was a significant correlation between BMI and CBI selected using the standardized Stunkard FRS to predict BMI. The most frequent image selected as the CBI was the middle image, number 5. The mean BMI of those who selected image 5 for the CBI was 28.3 ± 5.1 . The most frequent image selected as the IBI was also image number 5.

The healthiest body image (HBI) was one size smaller than the CBI, corresponding to a BMI = 24.9 ± 4.0 . The least healthy body image (LHBI) was perhaps the most difficult to identify, with the extremes of the images being the most frequent images selected. This supports the concept that being too thin or too heavy is not healthy.

The Dissatisfaction Score (DS = CBI-IBI) revealed that 74.2% of women were dissatisfied with their CBI. There was a significant correlation between DS and increasing age and BMI. This is an expected finding since the BMI tends to increase with maturity.

4 TUHS result highlights

As explained previously, the TUHS is part of the larger Women's Health Study of Accra (WHSA) project, which aims at quantifying the burden of disease in the modern urban Sub-Saharan African setting of Accra. While the main focus of the original WHSA was adult women, the TUHS was explicitly designed to capture health and income dynamics at the household rather than the individual (woman) level. Summary of some of the results and findings, describing the household structure, dynamics and response to health issues are presented in the following sections.

4.1 Characteristics of survey respondents

Table 4.1 Characteristics of TUHS respondents

	Males	Females	Total
0-4	10.40	5.82	7.54
5-9	14.34	7.71	10.20
10-14	11.52	8.71	9.76
15-19	13.32	9.38	10.86
20-24	10.11	10.08	10.09
25-29	6.51	11.75	9.78
30-34	4.81	7.51	6.50
35-39	5.69	6.46	6.17
40-44	4.91	5.32	5.17
45-49	3.60	5.41	4.73
50-54	3.94	4.70	4.42
55-59	3.21	3.71	3.52
60-64	2.09	3.68	3.08
65-69	1.56	3.21	2.59
70-74	1.22	2.40	1.95
75-79	1.85	1.81	1.83
80+	0.88	2.22	1.72
Missing	0.05	0.12	0.09
n	2057	3422	5479

Table 4.2 Socio-economic status of residential area

	Households	Age < 18	Age 18-59	Age 60+	Respondent total
Socio-economic status					_
Low class	366	567	893	172	1632
Low middle class	309	508	715	152	1375
Upper middle class	304	418	739	149	1306
High class	275	355	676	140	1171
Total	1254	1848	3023	613	5484

Each of the 1254 households were followed over a period of 13 weeks, with a supervisor-assisted initial visit, and 12 weeks of follow-up visits during which detailed information on acute health problems as

well as daily activities and jobs were collected. On average, each household reported about one health problem over the surveillance period, which translates in about 750 health problems per year and 1000 population. As the following table shows, there are substantial seasonal fluctuations which appear to be largely driven by differences in malaria and other fever incidence rates.

4.2 Household composition and living arrangements

Table 4.3 TUHS Household composition and living arrangements

		Children Adult	
	No	Males and	Children Adult
	children	Female	Females Only
Sub-Metro			
Ablekuma	29.68	22.87	46.72
Ashiedu Keteke	33.33	29.17	34.72
Osu Klottey	52.17	23.19	24.64
Kpeshie	28.03	21.11	50.87
Ayawaso	30.16	23.81	46.03
Okaikoi	28.57	17.39	54.04
Total	30.70	22.33	46.57

4.3 Household finances

The data provided by the households are clearly subject to reporting errors but are thought to be of higher quality than in the simple retrospective enquiries. The tables below highlight some key features, including the significant amount of inter-household transfers (Table 4.4); and the large expenditures on food (Table 4.5).

Table 4.4 Transfers from and to friends, family and neighbours over the last two weeks

		Average		Average
	Receiving	amount	Giving	amount
	money	received	money	given
Sub-Metro				
Ablekuma	23.36	21.20	36.01	13.05
Ashiedu Keteke	33.33	20.90	33.33	6.42
Osu Klottey	28.99	22.25	17.39	4.59
Kpeshie	19.38	13.85	31.14	9.63
Ayawaso	20.24	19.62	27.78	11.13
Okaikoi	18.01	15.51	24.84	11.71
Total	22.01	18.50	30.62	10.86

Table 4.5 Household Food Expenditure Last 7 Days

		25-49	50-74	75-99	> 100	Mean food
	< 25 GH¢	GHø	GHø	GHø	GHø	expenditure
Sub-Metro						
Ablekuma	17.65	33.82	31.62	5.39	11.52	59.2
Ashiedu Keteke	29.58	26.76	29.58	2.82	11.27	65.3
Osu Klottey	46.27	26.87	20.90	4.48	1.49	36.1
Kpeshie	10.80	36.24	34.84	4.53	13.59	62.3
Ayawaso	11.16	33.86	37.05	7.17	10.76	64.1
Okaikoi	15.79	31.58	28.29	6.58	17.76	69.3

4.4 Health

A key part of the TUHS enquiry is to relate health to productivity and hence income. The percentage of households with a sick member (adults and children) at first interview is quite high (Table 4.6). Fevers and malaria-like illnesses predominate (Table 4.7) although we know from studies which have tested for malaria parasites that there is a large amount of over-reporting of "malaria".

Table 4.6 Health conditions at first Interview

	Percent of households with	Percent of households with chronic health
	somebody sick	condition
Sub-Metro		
Ablekuma	13.87	0.40
Ashiedu Keteke	12.50	0.46
Osu Klottey	11.59	0.41
Kpeshie	18.69	0.45
Ayawaso	16.27	0.37
Okaikoi	13.66	0.45
Total	15.23	0.42

Table 4.7 Main acute conditions

				Diarrhoea /	
	Body	Acute Fever &	Cough/	stomach	
	pains	Malaria	cold	ache	Other
Sub-Metro					
Ablekuma	21.15	32.97	17.20	14.34	14.34
Ashiedu Keteke	16.67	30.56	11.11	25.00	16.67
Osu Klottey	22.22	25.93	18.52	22.22	11.11
Kpeshie	25.75	49.79	6.01	3.00	15.45
Ayawaso	33.81	35.71	9.52	8.10	12.86
Okaikoi	26.80	23.71	15.46	12.37	21.65
Total	25.85	36.73	12.02	10.32	15.08

A surprisingly high fraction of respondents reported high blood pressure – probably this is well known thanks to the common procedure of taking blood pressure at most medical consultations and certainly at ante-natal visits for women. Some other reported chronic conditions are also quite high.

Table 4.8 Main chronic conditions

	Asthma	Blood pressure	Diabetes	Other
Sub-Metro				
Ablekuma	11.80	40.19	10.56	37.45
Ashiedu Keteke	12.80	33.60	10.40	43.20
Osu Klottey	14.77	52.27	12.50	20.45
Kpeshie	7.80	20.21	5.50	66.49
Ayawaso	9.86	30.05	6.65	53.44
Okaikoi	17.01	29.33	7.04	46.63
Total	11.39	31.80	8.10	48.71

In terms of the seasonal effects (and we see strong seasonal trends in the number of out-patient visits in clinics and hospitals in the city), the trends are stronger for malaria and other fevers than for other health conditions (Table 4.9).

Table 4.9 Seasonal distribution of burden of disease

	Any Health Issue	Malaria or other Fever
January	2.54	1.25
February	2.04	0.80
March	2.43	0.91
April	1.93	0.62
May	1.97	0.72
June	1.82	0.83
July	2.66	1.26
August	2.42	1.11
September	2.10	0.84
October	2.08	1.11
November	1.88	0.69
December	1.88	0.72
Average number per year		
and 1000 population	773.15	325.45

While an estimated 11% of reported cases got treatment for free through health insurance, the average economic cost of ill health are high, with an median treatment cost of 5 new Ghana Cedis⁸ (GH¢), and a mean treatment cost of GH¢20 (US\$3.5 and 15, respectively). Given average daily wages of GH¢5, the average treatment costs thus correspond to 4 daily wages. Also quite remarkable is the degree of self-medication. Out of 1150 health problems reported, only 39% of sick individuals went to see professional medical help, with self-treatment by drugs acquired at the pharmacy as the most common (53%) treatment option chosen.

⁸ In mid-2010, \$1.0 = GHg1.43

4.5 School attendance

Table 4.10 Percentage of children in pre-school or school by age group

	0-4	5-9	10-14	15-19	20-24
Sub-Metro					
Ablekuma	60.98	94.50	96.95	73.30	23.12
Ashiedu Keteke	56.52	96.43	92.86	59.26	13.79
Osu Klottey	46.67	92.00	86.67	81.25	20.00
Kpeshie	46.00	96.30	97.67	72.79	22.48
Ayawaso	63.37	95.92	94.31	65.25	30.65
Okaikoi	60.78	94.52	98.68	70.37	35.38
Total	57.14	95.17	96.26	70.76	25.50

As to the economic situation of households, three features are worth highlighting: the economic independence of women, the long working hours, and the importance of remittances. The first result was already highlighted in the previous section – large fractions of women live without their husbands, with over 50% of households not hosting any adult male contributing to the household's income. The second finding highlights the challenges faced by families in modern Sub-Saharan Africa. On average, adult respondents report to work 55 hours per week, often divided between multiple jobs.

One in five households reported to receive remittances from abroad; the amounts received are substantial, with a median of GHg70 (US\$ 42), and a mean of GHg100 (US\$ 60) per month.

5 FIRH result highlights

Although more detailed data analysis continues, we highlight here a few preliminary findings from our research.

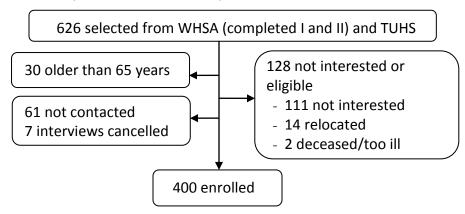
5.1 FIRH survey

Note that fertility treatment and labour and delivery data gathered through the FIRH survey is presented separately from the following. See section 5.9 for more information.

5.1.1 Participant characteristics

Four hundred women completed the FIRH survey. Figure 5.1 shows the final composition of the 626 cases drawn from the TUHS/WHSA sample. Thirty were excluded for being over 65 years of age, and 128 were not interested or eligible to participate (111 were not interested in participating or not able to be contacted after several attempts; 14 relocated outside of the Accra area, two were deceased or too sick to participate, and one spoke Hausa). Sixty-one women were never contacted as the sample of 400 was reached before the team could attempt to contact them, and 7 women had a scheduled interview which was later cancelled, also because the final sample had been reached.

Figure 5.1 Composition of the FIRH sample



Basic demographic data for the 400 women who completed the FIRH survey are provided in Table 5.1. The median age for the FIRH participants was 39.0, and the median household income was GHg67.50. Most (60.2%) were married and lived in a compound dwelling (73.9%). Almost half of the women (49.9%) reported that middle school was the highest level of education completed and that they could read and write easily (46.3%). The majority (64.8%) indicated that they were self-employed. In Ghana, this usually means informal employment such as trading or selling goods in local markets or on the street.

Table 5.1 FIRH demographic characteristics (n=400)

	Median	IQ Range
Age*	39.0	30-51
Years of residence in Accra [†]	33.0	25-45
Median monthly income (GHg)		
(for non-retired, employed individuals only) [‡]	67.50	40.00-123.70
	n	%
Marital status ∫		
Currently married	227	60.2
Living with man/woman	3	0.8
Widowed	26	6.9
Divorced	30	8.0
Separated	26	6.9
Never married	65	17.2
Type of dwelling**		
Separate house	53	14.1
Semi-detached	30	8.0
Flat	14	3.7
Compound house	278	73.9
Tent	1	0.3
Highest level of education completed ^{††}		
None	49	13.1
Primary	42	11.3
Middle/JSS	186	49.9
Secondary/SSS	68	18.2
Higher	28	7.5
Literacy (ability to read/write) **		
Not at all	91	24.2
With difficulty	111	29.5
Easily	174	46.3
Language best spoken*		
Ga	219	57.9
Ewe	27	7.1
Hausa	20	5.3
Dagbani	2	0.5
Twi/Fante	94	24.9
English	1	0.3
Nzema	2	0.5
Other	13	3.4
Main work status*		
Government employee	15	4.0
Private business	26	6.9
Self-employed	245	64.8
Non-paid (volunteer, subsistence)	2	0.5
Student/apprentice	16	4.2
Housewife	2	0.5
Retired	4	1.1
Unemployed (able to work)	55	14.6
Unemployed (unable to work)	13	3.4

*Valid percent, missing 22 cases; [†] Valid percent, missing 30 cases; [‡] Missing 37 cases; [∫] Valid percent, missing 23 cases; ** Valid percent, missing 24 cases; ^{††} Valid percent, missing 27 cases

Tables 5.2 provides the distribution of socio-economic status (SES) and age for the FIRH participants. The distribution is similar to the WHSA-II distribution except when considering age; there is a slight overrepresentation of the 35-54 age category as a result of attrition between WHSA-I and WHSA-II. (NB: the FIRH respondents were derived from the group in WHSA-II who had also completed WHSA-I.)

Table 5.2 FIRH socio-economic status by age group (n=400)

	18-24	25-34	35-54	55+	Total
Socio-economic group					
Low class	29	46	43	12	130
Low middle class	25	23	31	8	87
Upper middle class	18	24	30	11	83
High class	16	21	31	10	78
Total	88	114	135	41	

5.2 Reproductive health outcomes

The majority of the FIRH survey respondents were currently menstruating. As shown in Table 5.3, almost 60% had had a menstrual period in the last month, and an additional 5.8% had their last period between one and six months ago. Just six respondents had a current, confirmed pregnancy (another three were unsure), and most (76%) delivered their last child over two years prior to the interview. One third indicated that they were currently menopausal.

Table 5.3 Menstruation and pregnancy (n=400)

	n	%
Last menstrual period		
In the last month (includes today)	236	59.0
1-2 months ago	10	2.5
3-6 months ago	13	3.3
7 months to 1 year ago	11	2.8
> 1 year ago	129	32.3
Don't know/refused	1	0.3
Currently pregnant		
Yes	6	1.5
Don't know	3	0.8
Timing of last delivery		
Up to 2 years ago	38	9.6
More than 2 years ago	305	76.3
Not applicable (no prior deliveries)	57	14.3
Currently menopausal		
Yes	121	30.3
Don't know	12	3.0

Table 5.4 provides information regarding contraceptive use and non-use for non-menopausal FIRH respondents. Just 28% of all respondents reported current use of a contraceptive method or "doing anything else" to prevent pregnancy. Of those women reporting current use, periodic abstinence, or the

"rhythm method", was the most common method at 39%. Injectable and oral pill contraceptive methods were the next most popular methods at roughly 19% and 13% respectively. Of the 201 non-menopausal women who reported not currently using a contraceptive method, 42% indicated that this was because they did not currently have a partner or were not sexually active, and nearly 20% said that they currently desired pregnancy. Roughly one in ten (11.4%) indicated that they were not doing anything to prevent pregnancy because of fear or dislike of contraceptive side effects. Religious reasons were not a factor in determining non-use.

Table 5.4 FIRH contraceptive use/non-use among non-menopausal women (n=279)

	n	%
Currently using a method or "doing anything else" to prevent pregnancy: (Mark all that apply)	78	28.0
Pill	10	12.8
IUD/Loop	4	5.1
Injection	15	19.2
Implant	4	5.1
Spermicide	1	1.3
Condom (male)	6	7.7
Condom (female)	2	2.6
Tubal ligation	2	2.6
Herbs/tea/prayer	2	2.6
Periodic abstinence/rhythm method/calendar method	30	38.5
Withdrawal	5	6.4

Table 5.4 FIRH contraceptive use/non-use among non-menopausal women (n=279) (continued)

	n	%
Reason for not currently using a method or "doing anything else" to prevent pregnancy: (Mark all that apply)	201	72.0
Not sexually active/no partner	85	42.3
In or post menopause*	5	2.5
Hysterectomy	6	3.0
Desire for pregnancy	40	19.9
Currently pregnant or breastfeeding	8	4.0
High cost/lack of household income	1	0.5
Lack of time	2	1.0
Religion prohibits/religious reasons	1	0.5
Dislike/fear of side effects	23	11.4
Other	14	7.0
Don't know/refused	27	13.4

^{*}These women indicated that they were not in menopause when asked the question directly; however they later offered menopause as reason for not taking contraceptives.

Table 5.5 provides information regarding the prevalence of a specific set of reproductive ill health indicators in the FIRH survey population. One in ten women reported current menstrual irregularity, and nearly one quarter (23%) reported experiencing symptoms of either a reproductive tract infection (RTI), sexually transmitted infection (STI) or urinary tract infection (UTI) in the past six months.

Table 5.5 Reproductive ill health (n=400)

	n	%
Reported currently having menstrual irregularity	47	11.8
Reported any RTI/STI/UTI symptom in the past 6 months	91	22.8
Abnormal discharge in the past 6 months	72	18.0
Abnormal smell [*]	43	60.6
Abnormal colour [*]	65	91.5
Abnormal volume [*]	35	49.3
Pain on intercourse in the past 6 months	21	5.3
Pain on urination in the past 6 months	13	3.3

^{*} Missing one case

5.3 Health seeking behaviours and related time and cost expenditure

After determining the number of women experiencing certain reproductive health conditions (e.g. menstruation, contraception, etc.) the proportion who obtained products or services to manage those conditions was determined. As noted above, women could list up to four products or services for each reproductive health topic. The median cost (in GHZ) and time (expressed here as hh:mm) required to obtain those products or services was calculated. This includes time and cost related to the product/service itself and related travel if required.

As shown in Table 5.6, considering menstruation, menopause, contraceptive use and symptoms of RTI, UTI, or STI, more women reported experiencing the condition than reported trying to obtain products or services to manage the condition. For example, 259 women reported menstruation in the past six months, and 238 (92%) of those reported purchasing supplies for menstrual management. In general the women reported using methods such as pads (83.6%), cotton/rags (12.9%), and toilet roll (11.7%) (data not shown) which may or may not need to be purchased in a market place. Nearly 60% of menopausal women reported having symptoms in the past six months, but only 58% of women with symptoms reported seeking products or services to manage their symptoms. More than three quarters (n=33, 77%) of women using contraceptive methods that require supplies (see list below Table 5.6 for those that do not require supplies) obtained their method in the past six months. Finally, less than half (47%) of women who reported an RTI, STI, or UTI symptom in the past six months indicated that they obtained products or services to manage their problem.

Table 5.6 also provides information on preventative care and fertility treatments in the past six months. Just 7% (n=28) of respondents reported obtaining any kind of preventative reproductive health care in the past six months. Of those who did obtain this kind of care, breast exams (46%), nutrition education (29%) and HIV tests (25%) were the most commonly obtained. Six women also obtained fertility treatments in the past six months.

Finally, Table 5.6 indicates the median time and financial expenditure required for obtaining the products and services noted above. Median costs were highest for fertility treatment (GHg16.25) and treatment/care for RTI, UTI, STI symptoms (GHg7.77) and lowest for menstrual supplies (GHg1.60) and contraceptives (GHg1.00). Median time requirements were lowest for menstrual supplies at 5 minutes and highest for fertility treatments at 2 hours 37 minutes. Where the minimum of the interquartile range is zero minutes, it is likely that the respondents obtained the supplies/services through a home visit made by a friend or relative or from a street vendor close to their home or workplace.

Table 5.6 Health seeking behaviour, associated costs (GHg) and time (hh:mm) (n=400)

	n	%
	or	or
	median	IQ
Menstruated in the past 6 months	259	64.8
Proportion who bought menstrual supplies	238	91.9
Median expenditure on supplies for average month*	1.60	1.40-2.46
Median time spent obtaining supplies for average purchase	0:05	0:00-0:06
Currently in menopause	121	30.3
Proportion with symptoms in the last 6 months	72	59.5
Of those with symptoms, proportion who sought products/care	42	58.3
Median expenditure for all care in last 6 months	2.50	0.00-35.00
Currently using contraceptive method which requires supplies†	45	11.3
Proportion who obtained a method in last 6 months‡	33	76.7
Median expenditure for the last time method obtained	1.0	0.15-1.75
Median time spent the last time method was obtained	0:30	0:00-1:07
Experienced any STI, RTI, UTI symptoms in the past 6 months	91	0.0
Proportion who sought care for symptoms ∫	36	46.75
Median expenditure for last time care obtained f	7.77	2.13-28.70
Median time spent obtaining care the last time ^f	0:47	0:10-2:56
Obtained any preventative care in the last 6 months	28.0	7.0
Type of preventative care obtained: (Mark all that apply)		
Pap smear	5	17.9
Breast exam	13	46.4
Breastfeeding/child spacing counselling	6	21.4
STI/RTI test	1	3.6
HIV test	7	25.0
Nutrition education	8	28.6
Other/specify	2	7.1
Median expenditure for care	2.50	0.00-8.00
Median time spent obtaining care	1:52	1:00-5:00
Obtained any fertility treatment in the last 6 months	6	1.5
Median expenditure of services	16.25	4.82-137.87
Median time spent obtaining services	2:37	0:30-5:41

^{*}Missing 4 cases; † Rhythm method/periodic abstinence, prayer, and withdrawal are not included. This proportion is calculated using the full group of 400 respondents to allow for comparability across reproductive health issues. For contraceptive prevalence among non-menopausal women, see Table 5.4.; [‡] Valid percent, missing 2 cases; ^JValid percent, missing 14 cases

5.4 Impact on daily activities

The following table provides data on women's assessments of the impact of reproductive ill health or the need to obtain preventative care or services on their daily activities or income generating activities. Half of the women (n=6) who obtained fertility treatment and over half (59%) of women who sought preventative care (n=28) missed work as a result of obtaining these services. Two-thirds of the women who sought fertility services and one-third of the women who sought preventative care were also unable to complete their daily tasks as a result of obtaining the services. Twelve percent of women who menstruated in the past six months (n=259) missed work and 8% were unable to perform their daily activities as a result of needing to manage the condition or time spent obtaining products or services.

Table 5.7 also provides an indication of the reproductive health issues most often leading to missed work or inability to complete daily tasks. Of the 91 women who missed work in the past six months due to a reproductive health-related condition, most (34%) missed work due to menstrual issues. Similarly, of the 58 women who reported being unable to complete daily tasks in the past six months, most (38%) reported that this was due to menstrual issues.

Table 5.7 Impact of reproductive ill health on economic or quality of life outcomes

		% within	% of
	n	issue	total
Missed work in last 6 months	91	n/a	22.75
Missed work due to (multiple responses allowed):			
Menstrual problems (n=259)*	31	12.1	34.1
Menopause symptoms (n=110) [†]	18	17.0	19.8
Obtaining contraception (n=45)	13	28.9	14.3
STI, RTI, UTI symptoms (n=91) [‡]	10	13.5	11.0
Obtaining preventive care (n=28)∫	16	59.3	17.6
Obtaining fertility treatment (n=6)	3	50.0	3.3
Unable to complete daily tasks in last 6 months	58	n/a	14.5
Unable to complete daily tasks due to (multiple responses			
allowed):			
Menstrual problems (n=259)*	22	8.6	37.9
Menopause symptoms (n=110) [†]	13	12.3	22.4
Obtaining contraception (n=45)	5	11.1	8.6
STI, RTI, UTI symptoms (n=91) [‡]	5	6.8	8.6
Obtaining preventive care (n=28) ^f	9	33.3	15.5
Obtaining fertility treatment (n=6)	4	66.7	6.9

^{*}Valid percent, missing 2 cases; [†]Valid percent, missing 4 cases; [‡]Valid percent, missing 17 cases; [∫]Valid percent, missing 1 case

5.5 FIRH FGDs

Nineteen women participated in three FIRH FGDs. As noted above, the aim had been to recruit women for four FGDs; however, it proved very difficult to recruit women for the "older and higher SES" group as there were less of these women to sample from and most were formally employed and could not spare time for the interview, despite offering to conduct this on a Saturday. The final participation rate per FGD was as follows: younger and lower SES (n=6), younger and higher SES (n=3), older and lower SES (n=10), older and higher SES (n=not completed).

The FGD respondents were knowledgeable regarding 'modern' methods of contraception, and expressed that information about these is generally available from advertisements on TV and radio and from friends and clinic staff. However, similar to the survey respondents, the FGD respondents also expressed several misconceptions about the side effects from using 'modern' methods and that this results in many women turning to 'traditional' methods of contraception. The most common traditional methods referred to were periodic abstinence, withdrawal, and the calendar method. Abortion was also mentioned in the context of 'traditional' methods of contraception as a way to prevent pregnancy.

'Modern' contraceptives were mentioned by the FGD respondents as methods to allow for child spacing. Child spacing is a practice that women are determined to pursue because of the costs of childbearing. Also, child spacing gives women time to take "proper" care of their current child/children and to ensure their health. Cost did not seem to be a significant issue preventing use of modern methods. The respondents indicated that contraception is easily accessible and affordable due to a new national health insurance plan in Ghana.

The low number of women obtaining preventative care in the FIRH survey is perhaps explained by the FGD results. When women in the FIRH FGDs were asked about activities required to maintain or enhance one's reproductive health, they indicated that costs were a barrier to obtaining these services. The respondents indicated that they try to avoid costly visits to clinics and hospitals by keeping themselves healthy. Still, the respondents acknowledged the importance of regular reproductive health checks. They indicated that information about reproductive health in general is widely available and that they are knowledgeable about these issues, even if they might not make use of all the resources available to them due to costs, misconceptions or because some may go against their beliefs.

5.6 FIRH Abortion IDIs

5.6.1 Respondent characteristics

Respondent ages varied from 30 to 67 years. Excluding the woman who reported her age as 67 years, the average age of the remaining seven respondents was 33 years. Seven of the respondents were currently married (n=6) or reported having a current partner (n=1), and of those only three were currently living with their husband/partner. One woman reported that she had no children currently, and the remaining respondents reported each having between two and four children (average = 2.3 children).

Although all of the respondents had previously reported having had an abortion in the WHSA survey where pregnancy history was meticulously recorded and checked at different time points, just half (n=4) of the respondents admitted to a prior abortion during their in-depth interview. Two of these reported having had more than one. A couple of the women who said that they had never had an abortion reported having had a miscarriage. All of the respondents, regardless of whether they admitted to having had an abortion themselves, reported knowing other women, often family members, who had had abortions, and all knew about methods for abortion, places where it could be done, and risks associated with various methods and settings.

5.6.2 Desired family size and child spacing

Five of the eight respondents reported that they did not want any more children. When asked about the number of children that they desired to have, responses ranged from two to four. The average for the group was 2.8 – just slightly higher than the present number of children. Almost all of these women reported discussing desired family size with their partner(s), and they unanimously stated that having a small family is critical to ensuring that one can adequately care for one's children. Financial constraints were foremost in determining when and how many children a couple might have, and concerns about not being able to provide for sufficient education for each child seemed to be a critical concern for everyone, as illustrated in the following quotes:

"The way things are in the system, if you give birth to plenty children, you can't give them proper education..." \sim Woman, aged 33

"... school fees has risen, and if you don't space them, you will not be able to take proper/good care of them. If you don't space them, it will be a problem for you." ~ Woman, aged 32

Social norms also contributed to child spacing and small families. Several of the respondents commented on how some people with less education or social standing did not think about how many children to have or when to have them. One participant noted that when she had a "miscarriage" shortly after giving birth to her first child, it had not been a planned pregnancy because, "people would have talked/lamented because then I had just given birth to a baby."

5.6.3 Abortion law and reasons for abortion

There were conflicting responses regarding current abortion law and policy in Ghana. Several respondents said that there is no law concerning abortion. However, all respondents noted that abortion can be done for certain circumstances such as rape, incest, and to save the life of the mother. When asked whether abortion should be legalized completely, there were again conflicting responses. Some felt that this would promote abortion; others felt that women should have the right to decide to continue or abort any pregnancy. Despite some feeling that abortion should not be legalized, all the respondents felt it was important to protect access to the service for the conditions noted above, and a few also felt that it should be allowed for socioeconomic reasons.

In fact, socioeconomic reasons were at the fore when asked why women have abortions. It was often noted that a woman may not have sufficient means to care for the child or that she might not have a man "to take responsibility for it." A few respondents also noted that it is often difficult for a woman to work during pregnancy, especially if she is a street trader, or "hawker", and that this can also lead to abortion. All of the respondents repeatedly stated that if a woman or couple is not "ready yet", most often implying that they did not have sufficient means to properly care for the child, then the pregnancy must be terminated.

"At times, they are not ready and also a person may not have daily provisions, so they worry. Everybody is thinking about himself, so you can add your burden to someone else, so people really worry about unwanted pregnancy. All these contribute to abortion." ~ Woman, aged 31

5.6.4 Decision making around abortion, abortion safety and procedures

Surprisingly, many of the respondents reported discussing their decision to abort or indicated that other women discuss their decision to abortion with their partner. A few of the women reported that it was their partner who knew where to go or what she must do (e.g. what medicines to take at home) to bring about an abortion. Many of the woman said that the man often contributes towards or pays for the abortion. One woman reported that it was in fact her husband's decision to abort, and although she was not happy with it, she respected his decision.

"My husband is happy with the children I had for him. When the second child was 3-years-old, I got pregnant again, but my husband asked me, 'Is this the time for another pregnancy?' And that we cannot afford to. We needed to abort it. I have never done that before, but I had to succumb to his idea." ~ Woman, aged 40

All of the respondents reported that in Accra one can either go to a hospital like Korle Bu for an abortion or have an abortion at home using various methods such as taking chloroquine, using certain herbs, *etc.* They unanimously stated that the hospital is safer and that this is well known. However, often the cost

of obtaining an abortion in a hospital prohibits women from going there to undergo the procedure. Women knowingly accept the risk of doing the abortion at home using advice from friends or going to a "traditional healer" or "doctor" working outside of a medical facility because they cannot afford to go to the hospital for the procedure.

Interviewer: "Is it safe to do it [abortion] in the hospital?"

Respondent: "Yes, that is safer, unlike those done at home that you will have to use force and at

the end it might even kill you, so the hospital is safer."

Interviewer: "Why do some women perform it in the house?" Respondent: "It is due to money problems." ~ Woman, aged 39

The preliminary results from the abortion IDIs will be further refined and expanded in subsequent stages of the analysis. However, it appears thus far that the woman who contributed to this data are well versed on the subject of abortion, seeming to know much about the experiences that people in their families and communities have had with abortion, how to access an abortion in their community, the methods available, *etc*. The reasons for having an abortion seem to be clearly linked to financial constraints and concerns about the future welfare of the child and family, and this is often a decision taken by both the woman and her partner.

5.7 FIRH Labour and delivery IDIs

The following is derived from the FIRH surveys only; labour and delivery information from the IDI's will be combined with this information as the analysis of the IDI data proceeds.

According to the FIRH survey, 38 women had a delivery in the last two years, and all received prenatal care. Of those, several received additional services around the time of the labour and delivery. Thirty-six (94.7%) obtained postnatal care/infant immunization/prophylaxis. Nineteen women (50.0%) obtained maternal HIV counselling. Seven (18.4%) obtained services for morning sickness. In addition, six (15.8%) women obtained complicated pregnancy or delivery services that included premature/early delivery. Of the four women who specified the type of complication, all women had complicated deliveries: one woman had a breach delivery, one woman had a complicated delivery service (premature), one woman had a complicated delivery service (late delivery), and one woman specified a complicated delivery. These results are summarized in the following table.

Table 5.8 Summary of services obtained by women with deliveries in the past 6 months

Service	Number of
Service	women (%)
Antenatal care	38 (100%)
Labour and delivery services	36 (97.4%)
Postnatal care/infant	36 (97.4%)
immunization/prophylaxis	
Maternal HIV counselling	19 (50.0%)
Services for morning sickness	7 (18.4%)
Complicated pregnancy/delivery services	6 (15.8%)

According to data obtained through the WHSA-II, 36.8% of the 38 women belonged to the National Health Insurance Scheme (NHIS). Only two delivered outside of health facilities. Though this sample comes from the Accra Metropolitan Area, some women still reported high travel times to health facilities and significant transportation-related costs. One quarter of women travelled more than 30

minutes to a facility with one woman travelling two hours. Travel costs increased with travel time, time being a likely indicator of distance to a health facility. Transportation costs ranged from GHgO to GHg25 with 85% of women paying GHg3 or less. NHIS membership reduced hospital fees by 55%. While hospital fees for delivery should theoretically be zero if a woman is enrolled in the NHIS, only two women had no delivery-related costs. Women with health insurance paid an average of GHg24.39 (range GHgO to GHg60.50), and women without health insurance paid an average of GHg53.80 (range GHgO to GHg500). These data suggest that while the costs associated with delivery may not prevent most women in the Accra Metropolitan Area from utilizing health facilities for childbirth, they have the potential to influence the decisions of women in the middle, poor, and poorest wealth quintiles. Additionally, women with NHIS membership still experience considerable delivery costs.

5.8 FIRH Summary

Ghana's commitment to reproductive health is supported by several of its policies, laws, and guidelines as well as its participation in international dialogue and action on sexual and reproductive rights. In 1994, Ghana endorsed the Programme of Action at the International Conference on Population Development (ICPD) in Cairo and adopted the ICPD definition of reproductive health. The Ghana Health Service (GHS) was established as a public service body under Act 525 of 1996 as required by the 1992 constitution. It is an autonomous executive agency responsible for implementation of national policies under the control of the Minister for Health through its governing Council – the Ghana Health Service Council.⁹ Also in 1996, the Ghanaian Reproductive Health Service Policy and Standards were developed. The second edition of the Policy and Standards were developed in August 2003 to include other issues such as sexual health and gender based violence.¹⁰

This framework provides an enabling environment but still places much of the emphasis of reproductive health policies and services on dealing with fatal outcomes and major chronic and acute conditions. In the reproductive health field, we are faced by a series of more subtle conditions, often accumulating as co-morbidities in selected individuals that collectively create a heavy economic burden for poor women in particular. Certainly, the wider provision of reliable contraception with associated assurances about safety and side-effects should be one element of the policy response. More difficult is the task of improving access to information and products for girls and older women for management of menstruation including potentially subsidizing modern hygienic products and addressing means of disposal.

The data collected via the quantitative FIRH survey provide insights on the reproductive health management needs and health seeking behaviours of women in Accra, Ghana. These data are limited in scope in that they do not reflect all reproductive health issues. For example, we did not cover issues which might specifically affect older women such as prolapsed uterus. However, we feel that the data presented here represent most of reproductive health issues that women face on a regular basis in a developing country setting. Menstruation, menopause, contraception, infections of the reproductive or urinary tracts, sexually transmitted infections, preventative care, such as screenings, counselling and education, and fertility-related challenges are all typical reproductive health concerns. We acknowledge that pregnancy and labour and delivery are also significant reproductive health issues, but we have intentionally limited presentation of these data here as they will be presented separately in combination with qualitative findings from in-depth interviews conducted on these topics.

⁹ Ghana Health Service. http://www.ghanahealthservice.org/index.php

¹⁰ Odoi-Agyarko H. Profile of Reproductive Health Situation in Ghana. Prepared for the World Health Organization. November 2003. Available at: http://www.who.int/countries/gha/publications/Reproductive_Health_Profile.pdf

As noted above, reproductive health and activities pertaining to reproductive health can prove challenging to describe in that this may encompass both well and ill health and routine and less routine behaviours. Women may be seen to "manage" a condition like menstruation or unwanted fertility via use of menstrual supplies or contraceptives, "treat" a problem such as an infection with medicines, or to "preserve" their health via seeking preventative care and services. However, the boundaries between behavioural intentions – e.g. "manage", "treat", "preserve" – are not firm, nor is this list comprehensive. In this paper we have used the phrase "reproductive health management" to address the multiplicity of activities, intentions, etc. that a woman may encounter throughout her life span. This requires further refinement and consideration.

Reproductive ill health and its impact on day-to-day activities

A significant proportion of the FIRH respondents are currently burdened with reproductive ill health (defined here as menstrual irregularity or RTI, UTI, STI symptoms). When exploring linkages between ill health and wealth, we noted that SES does not seem to play a role in determining reproductive ill health. Rather, certain biological and lifestyle factors such as age and marital status (which is potentially an indicator of sexual activity) seem to be more strongly associated. This finding is similar to the preliminary results from the WHSA study which show that ill health is not associated with SES or poverty.

Contraception

Preliminary analysis of WHSA-II data demonstrates low rates of contraceptive use among sexually active women. Approximately half of non-menopausal women had "never used anything or tried in any way to delay or avoid getting pregnant", and just one third (30.2%) (data not shown) were "currently doing anything or using any method to delay or avoid getting pregnant". Contraceptive usage was similar for the FIRH respondents. Roughly one third of non-menopausal FIRH respondents reported current use of a contraceptive method or "doing anything else" to prevent pregnancy. There were differences between the WHSA-II and FIRH when one considers the types of methods that respondents were using. In the WHSA-II study, the most commonly reported contraceptive methods were male condoms and withdrawal, with 14.8% and 13.3% reporting current use, respectively. In addition, twenty-four percent of non-menopausal women reported currently practicing periodic abstinence, indicating this was another common strategy to prevent or postpone pregnancy. For the FIRH respondents, the most common modern methods were the injection (19.2%) and oral contraceptive pills (12.8%), and 39% reported periodic abstinence, or the "rhythm method", a much higher figure than that reported in the WHSA-II. This might have been due to special training of the FIRH interviewers to probe for "nonmethod" types of contraception. The difference in the ranking of the modern methods requires further investigation.

Interestingly, 42% of the 201 non-menopausal FIRH women who reported not currently using a contraceptive method indicated that this was because they did not currently have a partner or were not sexually active. This may speak to the discrepancy between the Contraceptive Prevalence Rate and the Total Fertility Rate. As noted in the results of the qualitative interviews above, abortion was noted to be a method for controlling family size, but it seems that limited sexual activity may also play a significant role. An important issue to note is that another 11% of non-menopausal women who reported not currently using a method indicated that this was due to fear or dislike of contraceptive side effects. This is cause for concern and could be addressed through education and awareness regarding the various methods available in Accra. The Ghanaian DHS (1998) showed that there are a number of factors associated with contraceptive use. Higher levels of education, increasing numbers of children, and

wealth were positively related to current contraception.¹¹ Thus an education campaign should likely target low-income, younger women early in their education.

Impact of SES and poverty on health-seeking behaviour and expenditure

One aim of this study was to assess variations in time and out-of-pocket costs faced by women as well as the impact of socio-economic status (SES) and poverty on their health care seeking behaviour. Considering health seeking behaviour among women in need of products or services, education seems to play the greatest role in determining whether women sought those products or services. SES was not associated with health seeking behaviour. Similarly when wealth quintile and expenditures on reproductive health-related products and services are considered, wealth does not seem to affect total expenditure (except for among menopausal, symptomatic women). This would suggest that the costs of reproductive health products and services are regressive in that poor women pay a higher proportion of their income to obtain them. As noted above, the median monthly income noted by women in the WHSA-II study was GHg67.50. The median expenditure by FIRH respondents on reproductive health-related conditions was less than GHg2.0 over six months; however some women spent as much as spent GHg137.50.

¹¹ Measure DHS. Ghana Demographic and Health Survey. September 2009.

6 Conclusions and recommendations

The series of studies reported on here have demonstrated the importance of adult health for the well-being of households in Accra. The socio-economic disparities and patterns by age serve as a reminder of the unmet need for services and care across the city, especially amongst poor households. The results presented above bring out the direct costs (costs of products and the time spent seeking such goods and services) of health and reproductive health management and the importance of both for work and labour force participation. In a separate analysis of the WHSA population, Fink and Hill have shown that women continue to participate in the labour force both during pregnancy and the immediate post-partum period¹². Women from poor households tended to work longer hours for lower wages. We also see matching evidence of the disproportionate burden of health management on lower income women in that women from all wealth indices spend roughly the same amounts on these activities. In general, this is a relatively healthy population with low levels of fertility and reasonable access to a range of health services. Despite these advantages, we see low uptake of many services, perhaps attributable to the cost of access.

The studies also demonstrate the value of some of the new field methods adopted to enable all the data collection to take place in the household without the need to transfer respondents to a clinic. The follow-up design worked surprisingly well with over three-quarters of the surviving Wave I respondents successfully re-interviewed. Despite migration, the tracking process worked well and is made easier with the widespread ownership of mobile telephones. Respondents were co-operative and interested in the findings. The physical measurements taken in the home proved accurate and reliable with very few refusals or complaints. In the TUHS and FIRH studies, we see the value of the nested sampling design, allowing the broader generalization of findings from smaller, more intensive enquiries to the larger population. The repeat visits to the households for completion of the diaries built up a rapport with the sample households, producing reliable information as confidence grew in the work.

The most striking findings include the relatively good health of most women below age 55; the very heavy burden of the non-communicable diseases linked to obesity in particular; the salience of mental health conditions, mostly untreated; the low fertility; and the high proportion of women with children living without a man or a husband in the same dwelling. The TUHS showed what long hours women work, both inside and outside the home, and the relatively short period of time off for pregnancy and care of the new-born. Self-medication is very common, often at considerable cost, a problem not fully addressed by the new national health insurance scheme. The FIRH work is summarized at length above but it is clear that women in Accra are firmly convinced of the value of a small family size and have found ways to achieve this low fertility despite the low rate of use of modern family planning methods and only modest resort to induced abortion to avert unwanted births.

None of these issues are simple to address through the existing configuration of public, private and NGO health services. Very few existing services, with the exception of those services designed for mothers and small children, are truly preventative rather than curative. In the West, the cost of the obesity epidemic and associated non-communicable diseases is just being assessed and the figures are very high. Whilst aware of the value of modern contraception to avoid unwanted pregnancies or changes in sexual behaviour to avoid sexual and reproductive tract infections including HIV/AIDS, there is much less awareness of the value of preventative behaviour in other health domains. Although it may be difficult

¹² Fink G, Hill AG. Fertility and Female Economic Activity – Evidence from the Women's Health Study of Accra. Paper for POPPOV Research Conference on Population, Reproductive Health and Development, 19-21 January, 2011 in Marseille.

to induce changes in the elderly and those already afflicted with hypertension and diabetes, for example, it is worth considering new "healthy living" programmes for younger women (and men). Given the government's commitment to increased health spending using the newly arriving oil revenues, these data may serve as a strong basis for arguing the case for a renewed attention to preventative care and a re-configuration of the provision of services to include common conditions or co-morbidities which occur together and for the moment are treated by different services. Certainly, the national health insurance scheme offers some notable opportunities to provide incentives encouraging healthier behaviour and to reduce the costs, here identified as substantial, for women to access and use both routine services for "health maintenance" as well as to treat chronic conditions.

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Appendix A Persons involved in the WHSA-II

Administrative Support Staff

Sylvia Darko Osei Office Co-ordinator Rebecca Efua Antwi Office Assistant

WHSA-II

Maame Oduraa Odum Field Co-ordinator Grace Esmeralda Nyante Supervisor John Kennedy Cobbah Supervisor Mawusime Yaa Osei-Asare Supervisor Delali A. Dovie Supervisor Catherine Deynu Interviewer Charity Adjoe Interviewer Christiana Okantey Interviewer Dorcas Doefe Amedzake Interviewer Durowaa Amponsah-Mensah Interviewer Efua Oduraa Ohene-Adu Interviewer Hannah Akua Oparebea Acquah Interviewer Janet Azaglo Interviewer Joyce Jumpah Interviewer Priscilla Amuah Interviewer Roseline Esi Ahene Interviewer Twumwa Sakyi-Danso Interviewer **Emmanuel Kojo Nartey** Finder James Allotey-Annan Finder Reuben Amoah Finder Manasseh Anderson Finder Laud Budu Ani Finder Joshua Agah Finder Emmanuel Offei Larbi Finder

TUHS

Godfred N. A. Okai

Comfort Bonney Arku Supervisor Richard Attibu Supervisor Prince Dodoo Interviewer Simon Amwami Interviewer Nana Agyemang Prempeh Interviewer Clement Adamba Interviewer Nana Bayin Ahine Interviewer Michael Kusi Appiah Interviewer Abraham Nii Ankrah Interviewer Daniel Kwaku Asiamah Yeboah Interviewer Isaac Kojo Nti Interviewer Charles Kofi Ansah Interviewer

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WOMEN'S HEALTH STUDY OF ACCRA: WAVE II 2008-9

INTERVIEWER CODE	
DATE OF INTERVIEW	
DAY MONTH YEAR	
TIME STARTED TIME ENDED	
SUPERVISOR CODE	
FIELD CHECK	
OFFICE CHECK	
DATA ENTERED 1 NONTH WEAR	
DAY MONTH YEAR 2 DAY MONTH YEAR DAY MONTH YEAR	

HOUSEHOLD SCHEDULE

NOW WE WOULD LIKE TO ASK YOU SOME INFORMATION ABOUT THE PEOPLE WHO USUALLY LIVE IN YOUR HOUSEHOLD OR WHO ARE STAYING WITH YOU NOW

0	WE WOULD LIKE TO ASK YOU SOME INFORMATION ABOUT TE	IL I LOI LL WIIO	OSOALLI LIVE III	11001(110		WIIO AILE STATING	3 111111 100 1101	•
NO	NAME	SLEPT HERE LAST NIGHT	RELATION- SHIP TO HH	SEX	AGE IN YEARS	MARITAL STATUS	ETHNICITY	EDUCATION - HIGHEST LEVEL
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
01			0 1					
02								
03		一		Ħ		一		\Box
04		H		Ħ		H		Ħ
05		H		H		H		H
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09				Ш				
10								
11								
12								
	CODES FOR SLEPT HERE (3) CODES FOR RELATIONSHIP TO 1 YES 01 HEAD	O HH (4) CODI	ES FOR SEX (5)			CODES FOR ETHNIO	CITY (8) CODE 0 NO	S FOR EDUCATION (9)
	2 NO 02 WIFE OR HUSBAND 03 SON OR DAUGHTER 04 SON/DAUGHTER-IN-LAW 05 GRANDCHILD 06 PARENT		MALE			02 AKWAPIM 03 FANTE 04 OTHER AKAN 05 GA/DANGBE 06 EWE	1 PRI 2 MIE 3 SEC 4 HIG 5 QU	MARY DDLE/JSS CONDARY/SSS GHER RANIC/RELIGIOUS
	07 PARENT-IN-LAW 08 BROTHER/SISTER 09 NIECE/NEPHEW 10 CO-WIFE 11 COUSIN/OTHER RELATIVE 12 ADOPTED/FOSTER/STEP C	1 CL 2 LIV 3 WI CHILD 4 DI	ES FOR MARITAL S JRRENTLY MARRIE /ING WITH A MAN/ DOWED VORCED	D		07 GUAN 08 MOLE-DAGBANI 09 GRUSSI 10 GRUMA 11 HAUSA 12 OTHER	8 OTI 9 DO	HER N'T KNOW
	13 NOT RELATED 99 DON'T KNOW		PARATED NGLE/NEVER MARI	RIED/LIVED	TOGETHER			

17	16	15		14	13	12	<u> </u>	10	9	8	7	o	51	4	ω	2	_	NO.
House phone (fixed line)	Mobile telephone	Sewing machine	DOES A MEMBER OF YOUR HOUSEHOLD OWN	Do you have nets on your bedroom windows?	How does the house dispose of liquid waste?	How does the house dispose of rubbish?	What type of bathing facility is used?	Kitchen space (type of cooking space)	What do you use for cooking?	Type of toilet used	Water supply (main source of drinking water)	Lighting (main source)	Number of rooms primarily for sleeping	Number of rooms excluding bathrooms and kitche	Tenure/holding	Main Roofing Material	Type of dwelling	QUESTIONS
1 YES 2 NO	1 YES 2 NO	1 YES 2 NO	VN A:	1 YES 2 NO	1 SEWAGE SYST 2 THROWN ON S 3 THROWN IN GL 4 THROWN IN CC 5 OTHER	1 COLLECTED 2 BURNT 3 PUBLIC DUMP	1 OWN BATHROO 2 SHARED WITH 3 PRIVATE OPEN 4 SHARED CUBIG 5 OTHER HOUSE 6 OPEN SPACE 7 RIVER 8 POND 9 OTHER	0 NONE/OUTSIDE 1 SEPARATE RO 2 SHARED WITH 3 ENCLOSED WI' 4 STRUCTURE W 5 BEDROOM/HAL	0 NONE 1 WOOD 2 COCONUT HUSK 3 GAS	0 NONE 1 WC (FLUSHING) 2 PIT LATRINE 3 KVIP	01 PIPE INSIDE 02 PIPE OUTSIDE 03 TANKER 04 WELL 05 BOREHOLE	1 ELECTRICITY 2 KEROSENE LAMP 3 GAS LAMP		ien	1 OWNING 2 RENTING	1 THATCH/PALM 2 BAMBOO 3 MUD/MUD BRICK 4 WOOD 5 METAL SHEET/ZINC	1 SEPARATE HOUSE 2 SEMI-DETACHED 3 FLAT 4 COMPOUND HOUSE 5 HUT	CODING CATEGORIE
9 DON'T KNOW	9 DON'T KNOW	9 DON'T KNOW			E SYSTEM VON STREET VIN GUTTER VIN COMPOUND	4 DUMPED ELSEWHERE 5 BURIED 6 OTHER	1 OWN BATHROOM 2 SHARED WITH OTHER HOUSEHOLDS 3 PRIVATE OPEN CUBICLE 4 SHARED CUBICLE 5 OTHER HOUSE 6 OPEN SPACE 7 RIVER 8 POND 9 OTHER	0 NONE/OUTSIDE/IN FRONT OF HOUSE 1 SEPARATE ROOM, IN HOUSE 2 SHARED WITH OTHER HOUSEHOLDS 3 ENCLOSED WITHOUT ROOF 4 STRUCTURE WITH ROOF, NO WALLS 5 BEDROOM/HALL (LIVING ROOM)	4 ELECTRICITY 5 KEROSENE 6 CHARCOAL 7 OTHER	4 BUCKET/PAN 5 ANOTHER HOUSE 6 PUBLIC TOILET 7 OTHER	06 SPRING/RAIN 07 RIVER 08 DUGOUT 09 SACHETS 10 OTHER/SPECIFY	4 SOLAR MP 5 NONE 6 OTHER			3 RENT-FREE 4 PERCHING	6 SLATE/ASBESTOS 7 CEMENT/CONCRETE SK 8 ROOFING TILES 9 OTHER	USE 6 TENT 7 KIOSK/CONTAINER 8 PART OF BUSINESS OUSE 9 OTHER	ORIES
											H							CODE

	1 YES 2 NO 9 DON'T KNOW	2 NO	1 YES	Computer	24	N
	1 YES 2 NO 9 DON'T KNOW	2 NO	1 YES	Washing machine	23	N
	1 YES 2 NO 9 DON'T KNOW	2 NO	1 YES	Private car	22	N
	1 YES 2 NO 9 DON'T KNOW	2 NO	1 YES	Electric iron	21	N
	1 YES 2 NO 9 DON'T KNOW	2 NO	1 YES	Television	20	N
	1 YES 2 NO 9 DON'T KNOW	2 NO	1 YES	Radio	19	_
	1 YES 2 NO 9 DON'T KNOW	2 NO	1 YES	Refrigerator	18	_
CODE	ORIES	CODING CATEGORIES	CODING	QUESTIONS	NO.	7

1. WOMAN'S CHARACTERISTICS AND MIGRATION
FIRST I WOULD LIKE TO ASK SOME QUESTIONS ABOUT YOU AND YOUR HOUSEHOLD

		0 NOT AT ALL 1 ALMOST EVERY DAY 2 AT LEAST ONCE A WEEK 3 LESS THAN ONCE A WEEK	How often do you listen to the radio?	114
		0 NOT AT ALL 1 EASILY 2 WITH DIFFICULTY 9 DON'T KNOW	Can you easily read and understand a letter or a newspaper?	113
		YEARS '00' IF LESS THAN 1 YEAR	How long have you been living here, in this house?	112
		1 SEPARATE HOUSE 2 SEMI-DETACHED 3 FLAT 4 COMPOUND HOUSE 5 HUT 6 TENT 7 KIOSK/CONTAINER 8 PART OF BUSINESS 9 OTHER	When you first came to Accra, what kind of house did you live in?	111
			When you first came to Accra, where did you live (area)?	110
		1 ALONE 2 PARRINTS/FAMILY 2 PARRINTS/FAMILY 3 SPOUSE 4 CHILDREN 5 IN-LAWS 6 OTHER RELATIVES 7 FRIEND 8 OTHER/SPECIFY	When you first came to Accra, who came with you?	109
		1 TO LIVE 2 FOR WORK 3 MARRIAGE 4 FAMILY 5 TO STUDY 8 OTHER/SPECIFY	Why did you come to Accra?	108
		MONTHS	*IF BORN IN ACCRA WRITE AGE	
'BORN IN ACCRA'► Q112		YEARS	How long have you lived in Accra? *IF LESS THAN 1 YEAR, SPECIFY IN	107
		1 CITY/TOWN (URBAN) 2 VILLAGE (RURAL)	For most of the time until you were 12 years old, did you live in a city, in a town, or in a village?	106
		YEARS 98 STILL IN SCHOOL/COLLEGE 99 NEVER WENT TO SCHOOL	At what age did you leave school?	105
		01 WESTERN 02 CENTRAL 03 GREATER ACCRA 04 VOLTA 05 EASTERN 06 ASHANTI 07 BRONG AHAFO 08 NORTHERN 09 UPPER WEST 10 UPPER AGST 11 OTHER/ABROAD	Where were you born (region)?	104
		MONTH YEAR	In what month and year were you born?	103
		YEARS	How old were you at your last birthday? *AGE IN COMPLETED YEARS	102
			What do you call the area in which you currently live?	101
SKIP TO	CODE	CODING CATEGORIES	QUESTIONS	NO.

		98 REFUSED	*ENTER MONTHLY	
		GH¢ MONTHLY	What is your own monthly or weekly income?	124
		HOURS ENTER '0' OF NO OUTSIDE WORK	How many hours a day do you spend at work (paid work)?	123
		1 FACTORY OR WORKSHOP 2 MARKET 3 IN FRONT OF MY HOUSE 3 IN FRONT OF MY HOUSE 5 ALONG THE ROADSIDE/STREET 6 LORRY STATION 7 CONTAINER OR KIOSK 8 SOMEONE ELSE'S HOME 9 AT HOME	Where do you spend most of your working hours?	122
			Where do you work (area)?	121
			What kind of work do you do? *DESCRIBE	120
'7' OR '8' OR '9' ▼ Q125		1 GOVERNMENT EMPLOYEE 2 PRIVATE BUSINESS 3 SELF-EMPLOYED 4 NON-PAID (VOLUNITEER, SUBSISTENCE, ETC) 5 STUDENTAPPRENTICE 6 HOUSEWIFE 7 RETIRED 7 RETIRED 8 UNEMPLOYED (ABLE TO WORK) 9 UNEMPLOYED (UNABLE TO WORK)	Which of the following best describes your main work status over the last 12 months?	119
		1 GA 5 TWI/FANTE 2 EWE 6 ENGLISH 3 HAUSA 7 NZEMA 4 DAGBANI 8 OTHER	Which language do you speak best?	118
		01 ASANTE 02 AKVVAPIM 03 FANTE 04 OTHER AKAN/AKYEM 05 GA/ADANGBE 06 EWE 07 GUAN 07 GUAN 08 MOLE-DAGBANI 09 GRUSSI 10 GRUMA 11 HAUSA 98 OTHER	What ethnic group do you belong to?	117
		01 CATHOLIC 02 ANGLICAN 03 METHODIST 04 PRESBYTERIAN 05 SPIRITUALIST 06 CHARISMATIC 07 PENTECOSTAL/APOSTOLIC 07 OTHER CHRISTIAN 09 MOSLEM 10 TRADITIONAL 11 NO RELIGION 98 OTHER	What is your religion?	116
		0 NOT ATALL 1 ALMOST EVERY DAY 2 AT LEAST ONCE A WEEK 3 LESS THAN ONCE A WEEK	How often do you sit down to watch television?	115
SKIP TO	CODE	CODING CATEGORIES	QUESTIONS	NO.

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131	130	129	128	127	126	125	NO.
Are you first, second, wife?	Including yourself, in total, how many wives or partners does your husband live with now as if married?	Does your husband/partner have other wives or live with other women as if married?	Is your husband/partner living with you now or is he staying elsewhere?	What is your marital status now?	Have you ever been married or lived together with a man as if married?	Are you currently married or living together with a man as if married?	QUESTIONS
RANK	NUMBER OF WIVES '99' DON'T KNOW	1 YES 2 NO 9 DON'T KNOW	1 LIVING WITH YOU 2 STAYING ELSEWHERE	1 WIDOWED 2 DIVORCED 3 SEPARATED	1 YES 2 NO 9 DON'T KNOW	1 YES 2 NO	CODING CATEGORIES
							CODE
		2' OR '9' ▼ Q201		GO TO► Q201	NO▶Q201	YES▶Q128	SKIP TO

*INTERVIEWER: TAKE FIRST BLOOD PRESSURE MEASUREMENT HERE AND RECORD IN
--

2. GENERAL HEALTH

202	201
2	3
In your opinion, what is the greatest health concern for your neighbourhood?	In your opinion, what is the greatest health concern for yourself?

	r example, it took extra time)	d. Had difficulty performing your work or other activities (for example, it took extra time)	
	vities?	c. Were limited in or changed the kind of work or other activities?	
		b. Accomplished less than you would like?	
	r activities?	a. Cut down the amount of time you spent on work or other activities?	
		1 YES 2 NO	ad.
activities as	problems with your work or other daily ac	During the past 4 weeks, have you had any of the following a result of your physical health ?	206
		j. Bathing or dressing yourself	
		i. Walking more than 2 kilometres, about 30 minutes	
	bus or tro-tro stop, about 10 minutes)	h. Walking a medium distance (e.g. 500 meters, to the bu	
	corner, less than 5 minutes)	g. Walking a short distance (e.g. 100 meters, to the street corner, less than	
		f. Bending, kneeling, or stooping	
		e. Climbing several flight of steps or stairs	
		d. Climbing one flight of steps or stairs	
		c. Lifting or carrying shopping or groceries	
	heavy objects, carrying heavy loads a long	 b. Vigorous activities such as running, lifting heavy object distance 	
	carrying children, sweeping, laundry	 a. Moderate activities such as moving tables, carrying chi 	
		0 NO, NOT LIMITED AT ALL 1 YES, LIMITED A LOT 2 YES, LIMITED A LITTLE	а <u>÷</u> .
it you in	a typical day. Does your health now limit you	The following items are about activities you might do during these activities? If so, by how much?	205
	1 MUCH BETTER 2 SOMEWHAT BETTER 3 ABOUT THE SAME 4 SOMEWHAT WORSE 5 MUCH WORSE	Compared to one year ago , how would you rate your health in general now?	204
	1 EXCELLENT 4 FAIR 2 VERY GOOD 5 POOR 3 GOOD	In general, would you say your health is:	203
CODE	CODING CATEGORIES	QUESTIONS	NO.
		NOW I WANT TO ASK YOU SOME QUESTIONS ABOUT YOUR HEALTH	WOW

212 D										<u>a</u> .	211 T	210 D y a	209 H	208 D				ac.	207 D	NO. Q
During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities like visiting friends, relatives?	i. Did you feel tired?	h. Have you been a happy person?	g. Did you feel wom out?	f. Have you felt downhearted and letdown?	e. Did you have a lot of energy?	d. Have you felt calm and peaceful?	c. Have you felt so unhappy and not yourself that nothing o	b. Have you been a very nervous person?	a. Did you feel full of life and bounce?	0 NONE OF THE TIME 3 A GOOD BIT OF THE TIME 1 ALL THE TIME 4 SOME OF THE TIME 5 A LITTLE OF THE TIME	These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the past 4 weeks	During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?	How much bodliy pain have you had during the past 4 weeks?	During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbours, or groups?	c. Didn't do work or other activities as carefully as usual?	b. Accomplished less than you would like?	 a. Cut down on the amount of time you spent on work or other activities? 	1 YES 2 NO	During the past 4 weeks, have you had any of the following problems with your work or other daily activities as a result of any emotional problems such as feeling depressed or anxious?	QUESTIONS
0 NONE OF THE TIME 1 ALL THE TIME 2 MOST OF THE TIME 3 A GOOD BIT OF THE TIME 4 SOMF OF THE TIME							could cheer you up?			HE TIME 1E TIME	ve been with you during the past 4 weeks st to the way you have been feeling. How	0 NOT AT ALL 1 A LITTLE BIT 2 MODERATELY 3 QUITE A BIT 4 EXTREMELY	0 NONE 1 VERY MILD 2 MILD 3 MODERATE 4 SEVERE 5 VERY SEVERE	0 NOT AT ALL 1 A LITTLE BIT 2 MODERATELY 3 QUITE A BIT 4 EXTREMELY			ther activities?		oroblems with your work or other daily act ed or anxious?	CODING CATEGORIES
											s. For v much of								ivities as	CODE

				ad.	213	NO.	
d. My health is excellent.	c. I expect my health to get worse.	b. I am as healthy as anybody I know	a. I seem to get sick a little easier than other people do	1 DEFINITELY TRUE 2 MOSTLY TRUE	How true or false is each of the following statements for you?	QUESTIONS	
	orse.	y I know.	asier than other people do.	3 MOSTLY FALSE 4 DEFINITELY FALSE 9 DON'T KNOW	following statements for you?		
						CODING CATEGORIES	
						CODE	

3. SELF-CARE: NOW I WANT TO ASK ABOUT HOW YOU LOOK AFTER YOURSELF

	301	NO.	
In the last month (30 days), how much difficulty have you had in taking care of and maintaining your general	Overall in the last month (30 days), how much difficulty did you have with self-care, such as washing or dressing yourself?	QUESTIONS	
0 NONE 1 MILD 2 MODERATE 3 SEVERE	0 NONE 1 MILD 2 MODERATE 3 SEVERE 4 EXTREME/CANNOT DO	CODING CATEGORIES	
		CODE	

4. PAIN AND DISCOMFORT: NOW I WANT TO ASK ABOUT PAIN

409	408	407	406	405	404	403	402		401	NO.
Anywhere else?	Muscle	Neck	Chest	Stomach or abdomen pain	Head/headache	Back and/or waist	Joints (fingers, hands, wrists, elbows, hips, knees, ankles, feet, etc.)	Did you have pain or discomfort in the?	Overall, in the last month (30 days), how much pain or discomfort did you have?	QUESTIONS
1 YES, SPECIFY 2 NO	0 NONE 3 SEVERE 1 MILD 4 EXTREME 2 MODERATE	0 NONE 3 SEVERE 1 MILD 4 EXTREME 2 MODERATE	0 NONE 3 SEVERE 1 MILD 4 EXTREME 2 MODERATE	0 NONE 3 SEVERE 1 MILD 4 EXTREME 2 MODERATE	0 NONE 3 SEVERE 1 MILD 4 EXTREME 2 MODERATE	0 NONE 3 SEVERE 1 MILD 4 EXTREME 2 MODERATE	0 NONE 3 SEVERE 1 MILD 4 EXTREME 2 MODERATE		0 NONE 3 SEVERE 1 MILD 4 EXTREME 2 MODERATE	CODING CATEGORIES
										CODE

5. COMMUNITY: NOW I WANT TO ASK YOU ABOUT YOUR ROLE IN THE COMMUNITY

502	501	NO.
In the last month (30 days), how much difficulty did you have in dealing with conflicts and tensions with others?	Overall, in the last month (30 days), how much difficulty did you have with personal relationships or participation in the community (getting along with others)?	QUESTIONS
0 NONE 1 MILD 2 MODERATE 3 SEVERE 4 EXTREME/CANNOT DO	0 NONE 1 MILD 2 MODERATE 3 SEVERE 4 EXTREME/CANNOT DO	CODING CATEGORIES
		CODE

6. ENERGY AND SLEEP: NOW I WANT TO ASK ABOUT SLEEPING

NO.	QUESTIONS	CODING CATEGORIES	CODE
601	How much of a problem did you have with sleeping, such as falling asleep, waking up frequently during the night, or waking too early in the morning?	0 NONE 1 MILD 2 MODERATE 3 SEVERE 4 EXTREME	
602	In the last month (30 days), how much of a problem did you have due to not feeling rested and refreshed during the day (e.g. feeling tired, not having energy)?	0 NONE 1 MILD 2 MODERATE 3 SEVERE 4 EXTREME	

7. MENTAL HEALTH

NO.	QUESTIONS	CODING CATEGORIES	\neg
	In the last month (4 weeks), about how often did you feel		
701	nervous?	0 NONE OF THE TIME 1 ALL THE TIME 2 MOST OF THE TIME 3 SOME OF THE TIME 4 A LITTLE OF THE TIME	
702	hopeless?	0 NONE OF THE TIME 1 ALL THE TIME 2 MOST OF THE TIME 3 SOME OF THE TIME 4 A LITTLE OF THE TIME	
703	restless or fidgety?	0 NONE OF THE TIME 1 ALL THE TIME 2 MOST OF THE TIME 3 SOME OF THE TIME 4 A LITTLE OF THE TIME	
704	so depressed that nothing could cheer you up?	0 NONE OF THE TIME 1 ALL THE TIME 2 MOST OF THE TIME 3 SOME OF THE TIME 4 A LITTLE OF THE TIME	
705	that everything was an effort?	0 NONE OF THE TIME 1 ALL THE TIME 2 MOST OF THE TIME 3 SOME OF THE TIME 4 A LITTLE OF THE TIME	
706	worthless?	0 NONE OF THE TIME 1 ALL THE TIME 2 MOST OF THE TIME 3 SOME OF THE TIME 4 A LITTLE OF THE TIME	
707	In the last month (4 weeks), have you experienced a feeling that something strange and unexplainable was happening that other people would find hard to believe?	1 YES 2 NO	
708	In the last month (4 weeks), have you experienced a feeling that people were overly interested in you or there was a plot to harm you?	1 YES 2 NO	
709	In the last month (4 weeks), have you experienced a feeling that your thoughts were being directly interfered or controlled by another person or your mind was being taken over by strange forces?	1 YES 2 NO	ì
710	In the last month (4 weeks), have you been seeing or hearing voices that others could not see or hear when you were half asleep, dreaming, or under the influence of alcohol and drugs?	1 YES 2 NO	i e

8. ROUTINE HEALTH MAINTENANCE

NC.	QUESTIONS	CODING CATEGORIES	CODE	SKIPTO
801	Do you wear glasses for reading?	1 YES 2 NO, BUT I KNOW I NEED THEM 3 NO		
802	Do you wear glasses to see far distances?	1 YES 2 NO, BUT I KNOW I NEED THEM 3 NO		
803	Do you wear a hearing aid?	1 YES 2 NO, BUT I KNOW I NEED IT 3 NO		
804	When was the last time you had an examination by a doctor for general health care?	0 NEVER HAD A GENERAL EXAM 1 LESS THAN 1 MONTH AGO 2 BETWEEN 1 AND 6 MONTHS AGO 3 BETWEEN 6 AND 12 MONTHS AGO 4 MORE THAN 12 MONTHS AGO		
805	Have you ever consulted a doctor or nurse for a breast-related problem?	1 YES 2 NO		
806	When was the last time a doctor or a nurse performed an examination of your breast?	0 NEVER HAD A BREAST EXAM 1 LESS THAN 1 MONTH AGO 2 BETWEEN 1 AND 6 MONTHS AGO 3 BETWEEN 6 AND 12 MONTHS AGO 4 MORE THAN 12 MONTHS AGO		
807	How often do you perform self breast examination?	0 NEVER 1 ONCE A MONTH 2 MORE THAN ONCE A MONTH 3 LESS THAN ONCE A MONTH		
808	Have you ever had a mammogram?	1 YES 2 NO		NO▼ Q810
809	What was the result of the mammogram?	1 NORMAL 2 ABNORMAL, NOT CANCER 3 REVEALED CANCER 9 DON'T KNOW THE RESULT		
810	Have you ever had an ultrasound scan of the breast?	1 YES 2 NO		NO▼ Q812
811	What was the result of the ultrasound?	1 NORMAL 2 ABNORMAL, NOT CANCER 3 REVEALED CANCER 9 DON'T KNOW THE RESULT		
812	Have you ever had a breast biopsy? (with a needle or an open surgical biopsy)	1 YES 2 NO		NO▼ Q814
813	What was the result of the biopsy?	1 NORMAL 2 ABNORMAL, NOT CANCER 3 REVEALED CANCER 9 DON'T KNOW THE RESULT		
814	Have you ever had a pelvic examination while pregnant?	1 YES 2 NO 3 NEVER BEEN PREGNANT		
815	Have you had a pelvic examination as part of a routine healthcare/non-urgent/non antinatal visit?	1 YES 2 NO		
816	Have you ever had a PAP smear performed by a doctor or a nurse (describe)?	1 YES 2 NO		NO▼ Q818
817	What was the result?	1 NORMAL 2 ABNORMAL, NOT CANCER 3 REVEALED CANCER 9 DON'T KNOW THE RESULT		
818	Have you ever had an examination to check for cancer of the cervix (slide, not swab in a test tube)?	1 YES 2 NO 3 DONT KNOW		
819	Have you ever had a blood transfusion?	1 YES 2 NO		

9. USE OF HEALTH SERVICES

NO.	QUESTIONS	L	CODING CATEGORIES	SKIP TO
901	Where do you usually go when you are sick?		01 CLINIC/HEALTH CENTRE 02 DOCTOR'S OFFICE 03 HOSPITAL EMERGENCY ROOM 04 HOSPITAL BUTPATIENT DEPT 05 MATERNITY HOME 06 PHARNACIST 07 CHEMICAL SHOP 08 SELF-MEDICATIE 09 CHURCHPASTOR 10 SPIRITUALIST 11 SOME OTHER PLACE/PERSON 12 NOWHERE 99 DON'T KNOW/REFUSED	√12' OR '99' ▼ Q903
902	Can you give me the name and the location of this place/person?		Name Location	Code
903	Where do you usually go or whom do you contact for advice about your health?		01 CLINIC/HEALTH CENTRE 02 DOCTOR'S OFFICE 03 HOSBITAL EMERGENCY ROOM 04 HOSPITAL OUTPATIENT DEPT 06 MATERNITY HOME 06 PHARMACIST 07 CHEMICAL SHOP 08 SELF-MEDICATE 09 CHURCHPASTOR 11 SOME OTHER PLACE/PERSON 12 NOWHERE 99 DON'T KNOW/REFUSED	F '12' OR '99' ▼ Q905
904	Can you give me the name and the location of this place/person?		Name Location	Code
In the la	ast year, have you visited ASK FOR NAME AND LOCATION. IF	THAN C	MORE THAN ONE ASK FOR MORE RECENT.	
	1 YES C0	CODE	LOCATION	
905	a health centre, clinic or hospital?	Ш	Name Location	Code
906	a pharmacy?		Name Location	Code
907	a herbalist?		Name Location	Code
908	a mental health professional such as a psychologist, psychiatric nurse, clinical social worker or counsellor?		Name Location	Code
909	In the last year, were you a patient in a hospital overnight?		1 YES 2 NO 3 DON'T KNOW/REFUSED	NO▼ Q1001
910	Can you give me the name and the location of this facility?			
911	What was the reason for which you were	ë	1 DELIVERING A BABY 2 POST-DELIVERY COMPLICATIONS	
	hospitalized?		3 PRE-DELIVERY PRECAUTIONS 4 EMERGENCY SURGERY 5 ELECTIVE SURGERY 6 MEDICAL CONDITION 7 ACCIDENT (MOTOR VEHICLE)	

10. HEALTH INSURANCE

11. MALARIA

NO.	QUESTIONS	CODING CATEGORIES	CODE	SKIP TO
1101	How does one get malaria? *DO NOT PROMPT	1 FROM MOSQUITO BITES 2 BLOOD TRANSFUSION 3 DIRTY WATER 4 ENVIRONMENT 9 OTHER/DON'T KNOW		
1102	Have you ever had malaria?	1 YES 2 NO 9 DON'T KNOW		NO▼ Q1109
1103	When you had malaria the last time, who made the diagnosis for you?	1 SELF-DIAGNOSIS 2 RELATIVE 3 FRIEND 4 CLINIC/HOSPITAL/DOCTOR/NURSE 5 PHARIMACIST 6 HERRALIST 7 TRADITIONAL HEALER		
1104	The last time you had malaria, was a blood smear or a blood test performed?	1 YES 2 NO 9 DON'T KNOW		
1105	The last time you had malaria, did you take prescription medicines from the doctor, pharmacist or clinic/hospital?	1 YES, UNTIL THE FEVER WENT AWAY 2 YES, THE FULL COURSE OF MEDICINES 3 NO		NO▼ Q1107
1106	Name the medicine you took the last time you had malaria			
1107	The last time you had malaria, did you take herbal medicines or teas?	1 YES 2 NO		
1108	The last time you had malaria, did you take time off from your work (paid or unpaid)	1 YES, FOR LESS THAN A WEEK 2 YES, FOR A WEEK OR LONGER 3 NO		
1109	How many mosquito nets does your household have?	NUMBER OF NETS		IF '0'▼ Q1111
1110	How many of the mosquito nets in your household are treated with insecticide?	NUMBER OF NETS		
11111	Are there any puddles or places of open water right next to your house - by the doors, walls, windows, walkways, in pots, etc.?	1 YES 2 NO 9 DON'T KNOW		
1112	Do you avoid going outside at dusk (just as it is getting dark) because of malaria/mosquito bites?	1 YES 2 NO		
1113	Do you avoid going outside at dawn (just as it is getting light) because of malaria/mosquito bites?	1 YES 2 NO		
1114	Do you take any personal precautions (other than using a bed net) to protect yourself from malaria/mosquito bites (spraying with repellent, wearing protective clothes, mosquito coil)?	1 YES 2 NO		
1115	Has your neighbourhood ever been sprayed to protect you from malaria?	1 YES 2 NO 9 DON'T KNOW		

12. HEART, BLOOD, VESSELS AND LUNGS

1214	1213	1212	1211	1210	1209	1208	1207	1206	1205	1204	1203	1202	1201			
Dizzy spells or light-headedness	Swollen legs	Pain in legs when walking	Chronic cough, dry	Tightness in your chest	Wheezing at rest	Wheezing after exercise or exertion	Productive cough - yellow or green sputum	Bloody sputum	Shortness of breath when lying flat	Shortness of breath with exertion	Palpitations - rapid heart beat at rest	Chest pain or discomfort with exertion (such as walking up a hill or a flight of stairs)	Chest pain or discomfort at rest	CONDITION		Within the last month (4 weeks), have you experienced any of the following symptoms? *IF 'YES' FILL IN BOX 2 AND BOX 3, OTHERWISE LEAVE EMPTY
														1 YES 2 NO	1. Have?	d any of the
														1 ALWAYS 2 MOST OF THE TIME 3 SOME OF THE TIME 4 LITTLE OF THE TIME	2. How often?	following symptoms?
														1 YES 2 NO	pharmacist?	4. Did you see a doctor, nurse or

16

13. SPECIFIC HEALTH CONDITIONS AND SYMPTOMS

1325 Arth		1324 Rec	1323 Prol	1322 STDs	1321 Malaria	COI	1320 Con	1319 Infe	1318 High	1317 Ana	1316 Cata	1315 Epil	1314 Stor	1313 Thy	1312 Brol	1311 Urin	1310 Sick	1309 Tub	1308 Hep	1307 Can	1306 Ast	1305 Pne	1304 Stroke	1303 Hea	1302 Diat	1301 High	COI	1 H 1 H 1 a H 2 D 2 D 4 W
	Arthritis/joint pain	Rectal-vaginal fistula or urinary-vaginal fistula	Prolapse of the uterus, rectum or bladder)s	aria	CONDITION	Concussion/head injury	Infertility	High cholesterol	Anaemia	Cataracts	Epilepsy/seizure or fit	Stomach ulcer	Thyroid disease/goitre	Broken bone	Urinary tract/kidney infection	Sickle cell anaemia	Tuberculosis	Hepatitis	Cancer (Specify site)	Asthma or bronchitis	Pneumonia	ke	Heart attack	Diabetes	High blood pressure (hypertension)	CONDITION	In the last year, for each of the following conditions, please tell me if I have you been told by a doctor or a health professional that you have the condition; a have you been told by a doctor or a health professional or have you self-diagnosed the Did you seek medical care for the condition? A twe you taking any medications for the condition? Were you taking any medications for the condition?
						1a. Told/Self- Diagnosed																					1. Told	ions, please tell ssional that you h ssional or have y ssional or or have y
						2. Consultation																					2. Consultation	me if have the condition ou self-diagnosed on?
						3. Medication																					Med	the condition: 1 YES 2 NO
						4. Restriction																					4. Restriction	

14. MEDICATION HISTORY

	1410	1409	1408	1407	1406	1405	1404	1403	1402	1401		N 0.
1411 Other/Specify	0 Cold and/or cough remedies	9 Parasites/de-worming pills	8 Weight loss or weight gain supplements	7 Vitamins	6 Estrogen hormone replacement therapy	5 Birth control items	4 Pain	3 Malaria	2 Antibiotics	1 Cholesterol	Are you currently taking medicines prescribed/recommended by 1 YES 2 NO	QUESTIONS
											a. DOCTOR	
											b. PHARMACIST	
											c. HERBALIST	
											d. TRADITIONAL HEALER	

15. FAMILY HISTORY NOW LET ME ASK YOU A FEW QUESTIONS ABOUT YOUR FAMILY HISTORY OF MEDICAL ILLNESS.

				m. Cancer, other. Specify site
				I. Cancer, cervix
				k. Cancer, breast
				j. Cancer, prostate
				i. Diabetes
				h. Depression
				g. Epilepsy, seizure or fit
				f. Arthritis or joint or back pain
				e. Thyroid disease/goitre
				d. Asthma or bronchitis
				c. Stroke
				b. High blood pressure
				a. Heart attack
1508 CLOSEST SISTER	1507 CLOSEST BROTHER	1506 MOTHER	1505 FATHER	CONDITION
	, ,	edical conditions	of the following ma	Has anyone in your family been diagnosed with any of the following medical conditions? *IF NO BROTHERS, LEAVE 1507 BLANK 1 YES 2 NO

16. REPRODUCTIVE HEALTH AND FAMILY PLANNING

		01 PILL 01 PILL 01 PILL 02 IUDI/LOOP 03 INJECTION 04 NORPLANT/OTHER IMPLANT 05 DIAPHRAGM 06 SPERMICIDE (FOAM/JELLY) 07 CONDOM/S (MALE) 08 CONDOM/S (MALE) 08 GEMALE STERILISATION 11 RUJASM/MORTINING AFTER PILL 11 RUJASM/MORTINING AFTER PILL 11 RUJASM/MORTINING AFTER PILL	What have you used or done (ever)? *DO NOT PROMPT	1616
NO► Q1617		1 YES 2 NO 9 DON'T KNOW/REFUSED	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	1615
		NUMBER	How many male sexual partners have you had in your life?	1614
'99' ▼ Q1630		YEARS '99' IF NEVER HAD SEXUAL INTERCOURSE	How old were you when you had your first sexual intercourse?	1613
		1 MORE FREQUENTLY 2 LESS FREQUENTLY 3 KEEP IT THE SAME 9 DON'T KNOW	If you could change how often you have your period, would you have it more frequently, less frequently or keep it the same?	1612
		1 TAMPONS 2 SANITARY PADS 3 RAGS/CLOTH 4 COTTON WOOL 5 TOILET ROLL 6 OTHER/SPECIFY	What do you use to manage your period?	1611
		1 YES 2 NO	Have you ever missed work or been unable to complete daily tasks because of your period?	1610
		1 LIGHT 2 MODERATE 3 HEAVY	Would you describe the bleeding during your last period as light, moderate or heavy?	1609
		1 MILD 2 MODERATE 3 SEVERE	Would you describe the pain during your period as mild, moderate or severe?	1608
6091Ö ▲ON		1 YES 2 NO	Do you usually have pain during your period?	1607
YES▼ Q1607		1 YES 2 NO	Are you currently breastfeeding?	1606
YES▼ Q1607		1 YES 2 NO 9 DON'T KNOW/REFUSED	Are you currently pregnant?	1605
YES▼ Q1607		1 YES 2 NO 9 DON'T KNOW/REFUSED	Are you currently seeing your periods?	1604
G0 T0▶		YEARS	For how long have you been in menopause?	1603
NO▼ Q1604		1 YES 2 NO 9 DON'T KNOW/REFUSED	Are you in menopause?	1602
		99 DON'T KNOW	How old were you when you had your first period?	1601
SKIP TO	CODE	CODING CATEGORIES	QUESTIONS	NO.

20

1701

9 10 11

		1 AGREE 2 DISAGREE 9 DON'T KNOW	Would you agree or disagree that it is safe to buy the oral contraceptive pill from a drug seller or chemist without visiting a doctor or clinic?	1633
		1 VERY SAFE 2 SAFE 3 NOT SAFE 9 DON'T KNOW	Based on what you know about contraception, would you say the oral contraceptive pill is	1632
		1 YES 2 NO 9 DON'T KNOW/REFUSED	Sometimes women have a genital sore or ulcer. In the last year, have you had a genital sore or ulcer?	1631
		1 YES 2 NO 9 DON'T KNOW/REFUSED	Sometimes women experience a bad smelling abnormal genital discharge. In the last year have you had a bad smelling abnormal genital discharge?	1630
		1 MAINLY RESPONDENT 2 MAINLY HUSBAND/PARTNER 3 JOINT DECISION 4 IN-LAWS 5 OTHER	Would you say that using contraception is mainly your decisions, mainly your husband/partner's decision or did you both decide together?	1629
		NUMBER OF TIMES	In the past month (30 days), how many times have you slept with a man without using a condom?	1628
		1 YES 2 NO 9 DON'T KNOW/REFUSED	The last time you had sexual intercourse, did you or your partner use a condom?	1627
		1 YES 2 NO 9 DON'T KNOW/REFUSED	Are you currently breastfeeding to avoid pregnancy?	1626
		1 YES 2 NO 9 DON'T KNOW/REFUSED	Are you currently using withdrawal to avoid pregnancy?	1625
		1 YES 2 NO 9 DON'T KNOW/REFUSED	Are you currently using periodic abstinence/timing/calendar method to avoid pregnancy?	1624
		01 PILL 02 IUDICOP 03 IUDICOP 03 INJECTION 04 NORPLANT/OTHER IMPLANT 05 DIAPHAGM 06 SPERMICIDE (FOAMJELLY) 07 CONDOMS (MALE) 08 CONDOM (FEMALE) 08 GONDOM (FEMALE) 09 FEMALE STERLISATION 11 RU486/MORNING AFTER PILL	Which methods are you currently using? *DO NOT PROMPT	1623
NO▼ Q1624		1 YES 2 NO 9 DON'T KNOW/REFUSED	Are you or your husband/partner currently doing something or using any method to delay or avoid getting pregnant?	1622
NO▼ Q1630		1 YES 2 NO	Are you currently sexually active?	1621
		1 YES 2 NO 9 DON'T KNOW/REFUSED	Have you ever used breastfeeding to avoid pregnancy?	1620
		1 YES 2 NO 9 DON'T KNOW/REFUSED	Have you ever used withdrawal to avoid pregnancy?	1618
		1 YES 2 NO 9 DON'T KNOW/REFUSED	Have you ever used periodic abstinence/timing/calendar method to avoid pregnancy?	1617
SKIP TO	CODE	CODING CATEGORIES	QUESTIONS	NO.

1703 Total number of Children Died: BOYS GIRLS 1710 1708 1711 1712 1706 1707 1709 IF LIVE BIRTH: Did you or someone else put a hand to this If DEAD: What month In what month and year Outcome Type of delivery Is NAME What name was given Is NAME a did the pregnancy end? and year did s/he die? to the baby? boy or a girl? still alive? pregnancy? 1 LIVE BORN 2 STILL BIRTH 3 LOST 1 YES 2 NO 1 VAGINAL 2 CAESAREAN 3 DON'T KNOW 1 MALE 2 FEMALE 1 YES 2 NO *Write 'baby' if died GO TO▶ Next pregnancy before given a name If 'YES'►Next pregnancy 1704 MM IF '1'▶Q1708 GO TO▶Q1709 MM 1 2 3 4 5 6 7

NUMBER OF TIMES

IF '0'▶ Q2001

17. PREGNANCY HISTORY: I NOW WANT TO ASK ABOUT ALL OF YOUR PAST PREGNANCIES, WHETHER THEY ENDED IN LIVE BIRTH OR NOT

INTERVIEWER: CHECK THE TOTAL NUMBER OF CHILDREN LIVING AND DEAD AGAINST THE DETAILS IN THE PREGNANCY HISTORY.

GIRLS

How many times have you been pregnant, even for a short time?

Total number of Living Children:

18. PREGNANCY AND MALARIA (ONLY FOR WOMEN WHO HAVE BEEN PREGNANT)

	1802 What drugs did you take?	1801 During your last pregnancy, did you take any drugs to keep you from getting malaria?	NO. QUESTIONS	
2 CHLOROQUINE 8 OTHER/SPECIFY 9 DON'T KNOW	1 SP/FANSIDAR	ake 1 YES nalaria? 9 DON'T KNOW	CODING CATEGORIES	
			CODE	
		'2' OR '3' ▼Q1901	SKIP TO	

19. BREASTFEEDING (ONLY FOR WOMEN WHO HAVE BEEN PREGNANT)

20. SMOKING AND DRINKING

NO.	QUESTIONS	CODING CATEGORIES	CODE
2001	Do you currently smoke cigarettes?	1 YES 2 NO	
2002	In the past, have you ever smoked cigarettes?	1 YES 2 NO	
2003	Have you ever consumed a drink that contains alcohol (such as beer, wine, gin, bitters, palm wine, or schnapps)?	1 YES 2 NO	

21. PHYSICAL ACTIVITY: THINK OF A TYPICAL WEEK OVER THE LAST MONTH

	1 YES 2 NO	Do you do moderate intensity activities, like brisk walking, gentle swimming, or exercising in your free time?	2105
	1 YES 2 NO	Do you do vigorous activities like playing basketball, running, competitive swimming, or playing ball in your free time?	2104
	1 YES 2 NO	Does your work involve vigorous activity, like heavy lifting, digging, or heavy manual work?	2103
	1 YES 2 NO	Does your work involve moderately intense activities, like brisk walking or carrying light loads?	2102
	1 YES 2 NO	Does your work involve mostly sitting or standing?	2101
CODE	CODING CATEGORIES	QUESTIONS	NO.

22. NUTRITION

	What type of fat do you use or is usually used at home to cook food? 4 SHEA BUTTER 5 BUTTER/MARGARINE 6 OTHER/SPECIFY	2222
	Did you eat fast food snacks?	2221
	Did you eat ground nuts, cashews, seeds, or other nuts?	2220
	Did you use butter or margarine on bread or on foods?	2219
	Did you eat fried chicken, fish or vegetables? * INCLUDE FRIED PLANTAINS, YAMS, POTATOES, AND CASSAVA	2218
	FAT	
	Did you eat ground nuts?	2217
	Did you eat agushie?	2216
	Did you eat eggs?	2215
	Did you eat fish?	2214
	Did you eat chicken?	2213
	Did you eat red meat such as beef, pork, goat, grasscutter or bush meat?	2212
	Did you eat yoghurt?	2211
	PROTEINS	
	Did you eat rice?	2210
	Did you eat bread?	2209
	Did you drink other sweetened beverages such as regular soda, tea with sugar, or fruit flavoured drinks?	2208
	Did you drink 100% fruit juice such as orange and grapefruit juice?	2207
	Did you have fruit such as pawpaw, apple, mango, orange or pineapple?	2206
	Did you have any dark leafy vegetables such as kontomire, aleefu, ayoyo, kale and cassava leaves?	2205
	Did you have other fresh/salad vegetables such as lettuce, carrots, and tomatoes?	2204
	Did you eat cooked beans such as black-eyed peas, beans and koose?	2203
	Did you have starchy vegetables such as maize, yams, potatoes, cassava, and plantains?	2202
	Did you eat hot cereal, koko or porridge?	2201
	CARBOHYDRATES	
	1 YES 2 NO	
CODE	Please indicate whether in the past 24 hours you ate or drank the following	Ž.
CODE	QUESTIONS	S C

NO.	QUESTIONS			CODE
	FOOD SECURITY			
2223	Which of these statements best describes the food	1 WE ALWAYS HAVE E	1 WE ALWAYS HAVE ENOUGH TO EAT AND THE KINDS OF FOODS WE WANT]
	eaten in your household in the last 12 months?	2 WE HAVE ENOUGH T WE WANT	2 WE HAVE ENOUGH TO EAT BUT NOT ALWAYS THE KINDS OF FOOD WE WANT	
		3 SOMETIMES WE DO!	3 SOMETIMES WE DON'T HAVE ENOUGH/ANYTHING TO EAT	
		4 OFTEN WE DON'T HAVE 9 DON'T KNOW/REFUSED	4 OFTEN WE DON'T HAVE ENOUGH/ANYTHING TO EAT 9 DON'T KNOW/REFUSED	
2224	In the last 12 months, did you or other adults in your household ever cut the size of your meals or skip meals because there wasn't enough money		1 YES 2 NO 9 DON'T KNOW/REFUSED	NO▼ Q2301
2225	How often did this happen?		1 ALMOST EVERY MONTH 2 SOME MONTHS BUT NOT EVERY MONTH 3 ONLY 1 OR 2 MONTHS 9 DON'T KNOW/REFUSED	

23. CHANGES MADE TO IMPROVE HEALTH

2308	2307	2306	2305	2304	2303	2302	2301
What will that be? "MARK ALL THAT APPLY	Is there anything you intend to do to improve your physical health in the next year?	What is that? *DO NOT PROMPT *MARK ALL THAT APPLY	Is there anything stopping you from making this improvement?	What is the most important thing? *DO NOT PROMPT *MARK ALL THAT APPLY	Do you think there is anything/anything else you should do to improve your physical health?	What did you do? *DO NOT PROMPT *MARK ALL THAT APPLY	QUESTIONS In the past 3 months, did you do anything to improve your health (e.g. quit smoking, increased exercise, prayer)?
01 Increase exercise, sport or physical activity 02 Change diet or eating habits 03 Quit smoking 04 Reduce smoking 05 Drink less alcohol 06 Receive medical treatment 07 Learn to manage stress 08 Reduce stress level 09 Take vitamins 10 Religion/praying 11 Increase drinking water 12 Herbs 13 Other/Specify	1 YES 2 NO 9 DONT KNOW/REFUSED	1 LACK OF WILL POWER/SELF-DISCIPLINE 2 LACK OF TIME 3 TOO TIRED 4 TOO DIFFICULT 5 TOO STRESSED 6 DISABILITY/HEALTH PROBLEM 7 TOO COSTLY 8 OTHER/SPECIFY	1 YES 2 NO 9 DON'T KNOW/REFUSED	01 Increase exercise, sport or physical activity 02 Change diet or eating habits 03 Quit smoking 04 Reduce smoking 05 Drink less alconbol 06 Receive medical treatment 07 Learn to manage stress 08 Reduce stress level 09 Take vitamins 10 Religion/praving 11 ncrease drinking water 12 Herbs 13 Other/Specify	1 YES 2 NO 9 DON'T KNOW/REFUSED	01 Increase exercise, sport or physical activity 02 Change diet or eating habits 03 Quit smoking 04 Reduce smoking 05 Drink less alcohol 06 Receive medical treatment 07 Learn to manage stress 08 Reduce stress level 19 Take vitamins 10 Religion/praying 11 Increase drinking water 12 Herbs 13 Other/Specify	1 YES 2 NO 9 DON'T KNOW/REFUSED
							CODE
	'2' OR '9' ▼ Q2401		NO▼ Q2307		NO▼ Q2307		SKIP TO NO▼ Q2303

24. BODY IMAGE ASSESSMENT FOR WOMEN

:) 	
Z C	COESTIONS	CODING CATEGORIES	CODE	SKIT I
2401	Which image do you think most closely resembles the way you look at this time?	ou look at this time?		
2402	Which image do you think looks like the healthiest woman?			
2403	Which image do you think looks like the least healthy woman?	in?		
2404	Which image represents the way you think Ghanaian women should look?	n should look?		
2405	Would you change <u>your own body size</u> if you were told that you would be healthier if you did?	1 YES 2 NO		NO▼ Q2407
2406	What body image would you choose?			
2407	When you were a child growing up, did anyone tell you to gain weight?	1 YES 2 NO		
2408	When you were a child growing up, did anyone tell you to lose weight?	1 YES 2 NO		
2409	As an adult, has anyone told you to gain weight?	1 YES 2 NO		
2410	As an adult, has anyone told you to lose weight?	1 YES 2 NO		
2411	Over the last year, has your weight (NB. 5kg is equivalent to one dress size)	1 REMAINED THE SAME 2 INCREASED BY 5KG 3 DECREASED BY 5KG 9 DON'T KNOW		
2412	Have you ever tried to increase your weight by eating more food or eating food with more calories?	1 YES 2 NO		
2413	Have you ever tried to <u>decrease</u> your weight by eating less food or eating food with fewer calories?	1 YES 2 NO		
2414	Have you ever tried to <u>decrease</u> your weight by exercising?	1 YES 2 NO		
2415	Have you ever tried to <u>decrease</u> your weight by taking diet pills or any other types of weight loss pills?	1 YES 2 NO 9 DON'T KNOW		
2416	Are you aware that there are health risks with being overweight or obese?	1 YES 2 NO		
2417	INTERVIEWER: Please select the body image that most closely resembles the study subject.	sely resembles the study		

*INTERVIEWER: TAKE SECOND AND THIRD BLOOD PRESSURE AND OTHER MEASUREMENTS HERE AND RECORD IN SECTION 25

*IF MORE THAN 20 POINT DIFFERENCE, TAKE FOURTH BLOOD PRESSURE MEASUREMENT

25. MEDICAL MEASUREMENTS

26. INTERVIEWER'S OBSERVATIONS TO BE FILLED IN AFTER COMPLETING THE INTERVIEW

2601	RESPONDENT'S CHARACTERISTICS Overall, how friendly/cooperative was the respondent?	1 VERY 4 S 2 MOSTLY 5 N	4 SOMEWHAT 5 NOT AT ALL	
2602	Was there any specific section the respondent struggled to answer or did not like? *IF 'YES' INDICATE SECTION NUMBER	1 YES 2 NO		
2603	Overall, how would you rate the quality/reliability of the answers given?	1 VERY GOOD 2 GOOD 3 AVERAGE	4 FAIR 5 BAD	
2604	Is there anything special you did notice about the respondent's health? *SPECIFY			
2605	How would you rate the overall health of the respondent?	1 VERY GOOD 2 GOOD 3 AVERAGE	4 FAIR 5 BAD	
SUPE	SUPERVISOR'S OBSERVATIONS:			
SUPE	SUPERVISOR SIGNATURE	DATE:		
STUD	STUDY COORDINATOR OBSERVATIONS:			
SIGNA	SIGNATURE STUDY: COORDINATOR	DATE:		

27. PARTICIPATION IN TIME USE AND HEALTH STUDY

		Detailed description of house location:
		Alternative phone number:
		Phone number:
		Name:
OVIDE DESCRIPTION OF HOUSE	R BELOW AND PR	IF YES, PLEASE FILL IN NAME AND PHONE NUMBER BELOW AND PROVIDE DESCRIPTION OF HOUSE LOCATION
]YES	Q.	Are you interested in participating in Part 2 of this study:
tudy. The interview we have just st of being sick. We will visit out how household members spend	t this is a two-part si e the household cos eekly information at	In the beginning of this interview, I mentioned to you that this is a two-part study. The interview we have just finished is the first part. In Part 2, we shall try to measure the household costs of being sick. We will visit households over a period of three months, and collect weekly information about how household members spend their days and about how often they are sick.

30

Accra Time Use and Health Study Women's Health Study of Accra II

	Respondent Identification
Name of respondent:	(First and family name)
Location and ID WHS II	
Contact phone	0 — —
	Processing Information
Interviewer code	
Supervisor code	
Quality checks	Field Office
Data entry I	Day Month Year
Data entry II	Day Month Year

Household Arrangements

Now we would like to ask you a few question about the way your household works and who takes which decisions.

		Ith Issue	Disability/Health Issue		Name ID	3 Z	
		lth Issue _	Disability/Health Issue		NameID	N N	
		lth Issue	Disability/Health Issue		NameID	ı Z	
				ability:	List all members with chronic disease or disability:	List	315
	next section	yes no → ne		bility o	Is anybody suffering from a permanent disability or chronic disease?	ls ar	314
		Health problem	Health		NameID	3 N	
		Health problem	Health		NameID	2 Z	
		Health problem	Health		Name ID	ı Z	
			y suffer from:	hat they	List all members who are currently ill and what they suffer from:	List	313
314	-	S	yes no		ls anybody in your household currently ill ?	ls ar	312
		usehold:	ealth of your ho	rrent he	Now I would like to ask you a few questions about the current health of your household	ould like	Now I wo
		(NUMBER)	ĝ	ntly	How many members of your household currently have an account with a non-bank financial institution?	How have insti	311
		(NUMBER)	ĝ	intly	How many members of your household currently have a bank account?	How have	310
	How much?	→ How	yes no		Did the household give any money to friends family, or neighbors over the last 2 weeks?	Did fami	309
	How much? (New Ghana Cedis)	—► How (New Gh	yes no	ends,	Did the household obtain any money from friends family, or neighbors over the last 2 weeks?	Did fami	308
	New Ghana Cedis)	ınt - New Gh	(Total amount -	ing	How much did the household spend on buying food over the last week (7 days)?	How	307
			Name:		Who generally prepares the meals in your household?	Who hou	306
			Name:		Who generally pays for the food you buy?	Who	305
			Name:	IT	Who generally does the food shopping in your household?	hou	304
8	3	2	1		c. deciding how many children to have	c.	
ω ω	ωω	N N		eds	 a. Making major purchases b. Making purchases for daily household needs 	b a	
DK	n/wife Both	d Woman/wife	Man/Husband	the	In a couple, who do you think should have the greater say in each of the following decisions: the husband, the wife or both equally?	In a grea hust	303
ĪD			Name 2:		and to boy annual go mad to made by the doc.		
ō			Name 1:	es	Who makes major financial decisions - decides	Who	302
			Name:		Who is head of the household?	Who	301

Health Module

Н15	H 14	H13	H H H	H10	H09		H08	H07	H06	H05	H04	H03	H02	H01
Did somebody outside of the household pay for the treatment? STATE RELATION TO SICK PERSON	Did somebody in the household pay for the treatment?	PUT '0' IF DRUGS WERE FREE, '99' IF DK Overall, how much was the total cost of treatment (doctors, hospital, medicines etc)?	Did (Name) get any medicine/drugs? LIST UP TO THREE DRUGS/MEDICINES. IF NAME NOT KNOWN, STATE TYPE (E.G. ANTI-MALARIAL, ANTIBIOTIC ETC.) In total, how much did the drugs/medicines cost?	What is the name of the hospital/clinic?	Did (Name) have to stay at a hospital/clinic (was (Name) admitted overnight)?	Category Codes: 1 Doctor 2 Clinic 3 Pharmacy 4 Healer 5 Other	Which persons or places did (Name) go see?	Did (Name) go see a doctor, nurse or healer, or go to a hospital/clinic/pharmacy?	Did anybody in the household call a doctor, nurse or other person for advise?	Which day did the sickness end? END IF STILL SICK - COMPLETE FOLLOWING WEEK	Which day did the health problem start?	What health problem did (Name) have?	Who provides the information (respondent)?	Who was sick?
Yes: Name Relation 1	Name ID 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ADD UP ALL THE GHC RELEVANT COSTS · INCLUDE H12	2 2 3 3 No + Go to H13 GHc		Yes → How long? No → H11 (number of days)		Name Category Area	Ves → Go to H11	☐ Yes	Day Month Year	Day Month Year		Respondent ID	Name ID

Health Module

New GHc	Overall, how much more do you think you would have paid without the insurance throughout the health problem?	H26
☐ NHIS ☐ Other: Name of insurance	What is the name of insurance?	H25
☐ Yes ☐ No → end	Did the NHIS or any other insurance allow you to get cheaper access to health care or medication/drugs during the health problem?	H24
1 regularly, at least once a month 2 a few times per year 3 less than once per year, > 5 times total 4 2-5 times overall 5 only once	How often does the health problem occur?	H23
☐ Yes ☐ No → H24	Has (Name) suffered from the same health problem before?	H22
New GHc	How much did the person(s) coming to take care of (Name) get paid? PUT '0' IF DID NOT HAVE TO PAY ANYTHING	H21
Yes No → H22	Did anybody from outside the HH come to take care of (Name) during the health problem?	H20
Name Days Hours 1 2 3	How many days or hours did the HH members skip work or school to take care of (Name)? USE NAME LISTING FROM H18	Н19
Yes — 1 2 2 No → H20	Did anybody in the household take care of (Name) during the health problem? IF YES, LIST ALL HOUSEHOLD MEMBERS WHO TOOK CARE OF (NAME) DURING HEALTH PROBLEM	H18
(NUMBER OF DAYS)	How many days did (Name) skip school/work because he/she was sick?	H17
Yes → Goto H18	Did (Name) go to school/work while sick?	H16

Health Module

<u>Job Module</u>

JI/	J16	J15	J14	J13	J12	J11	J10	900	J08	J07	J06	J05	J04	J03	J02	JUI
How much income does (Name) roughly get each month from these business activities? (DK = 88, refused = 99)	Does (Name) have any other income from business/activities that do not require (Name)'s presence?	How many other jobs does (Name) have?	Does (Name) have any other job?	How much does one earn in Job 3 per day? (IF MONTHLY OR WEEKLY SALARY, DIVIDE BY NUMBER OF WORKDAYS)	How many hours does (Name) work each day on Job 3? (PUT '0" IF NOT WORKING ON GIVEN DAY)	What is (Name)'s third job? (Job 3)	Does (Name) have any other job?	How much does one earn in Job 2 per day? (IF MONTHLY OR WEEKLY SALARY, DIVIDE BY NUMBER OF WORKDAYS)	How many hours does (Name) work each day on Job 2? (PUT '0" IF NOT WORKING ON GIVEN DAY)	What is (Name)'s second job? (Job 2)	Does (Name) have any other job?	How much does one eam in Job 1 per day? (IF MONTHLY OR WEEKLY SALARY, DIVIDE BY NUMBER OF WORKDAYS)	How many hours does (Name) work each day on Job 1? (PUT '0" IF NOT WORKING ON GIVEN DAY; WORK TIME ONLY, DO NOT INCLUDE COMMUTING TIME)	What is (Name)'s main job? (Job 1)	Name of respondent	name of nousehold member
New GHC per (day/month)	→ end	Number	☐ yes ☐ no → J16	New GHc per day (DK = 88, refused = 99)	Mon Tue Wed Thu Fri Sat Sun	Job 3 Code	☐ yes ☐ no → J16	New GHc per day (DK = 88, refused = 99)	Mon Tue Wed Thu Fri Sat Sun	Job 2 Code	☐ yes ☐ no → J16	New GHc per day (DK = 88, refused = 99)	Mon Tue Wed Thu Fri Sat Sun	Job 1 Code		

Job Module

School Module

Grandparents		
Mother	(CHECK ALL THAT APPLY)	
Father Other - specify:	Who pays for school?	S13
New Ghana Cedis per term	All together, how much do you pay for (Name)'s school per term? (EXCLUDE TRANSPORT COST TO SCHOOL)	S12
☐ yes ☐ no → end	Do you have to pay for (Name)'s school?	S11
1 Walking 4 Car 6 Taxi 2 Trotro 5 School bus 3 Bike 7 Other	How does (Name) get to school?	S10
Minutes	How long does it take (Name) to get to the school?	S09
Mon Tue Wed Thu Fri Sat Sun	How many hours per day does (Name) spend in school? (PUT 99 IF IN BOARDING SCHOOL)	S08
1 From home 3 Other 2 Boarding school	Does (Name) go to school from home or stay at the school (boarding school)?	S07
1 Mo-Fri 3 Every day 2 Mo-Sat 4 Other	Which days of the week does (Name) go to school?	S06
Grade	What grade is (Name) currently enrolled in? (COUNT ALL GRADES COMPLETED; e.g. 2nd Grade JSS = Grade 8)	S05
1 Primary 5 Professional 2 JSS 6 Tertiary 3 SSS 7 Other 4 Vocational/technical	What school level is (Name) currently enrolled in?	S04
1 Private 3 Religious 2 Public 4 Other	What kind of school is it?	S03
	(WRITE DOWN FULL NAME AND LOCATION (AREA) OF SCHOOL)	
Code	What is the name of the school?	S02
Respondent:	Name of person providing information	S02
Name:	Name of household member	S01

School Module

Final Questionnaire

Thank you very much for your cooperation - we really appreciate your support!	Thank you v
Now just think about your family's economic and financial situation: would you say that the last 3 months were better or worse than the months before? 5 a lot better 4 a little bit better 3 the same 2 a little bit worse 1 a lot worse	FQ08 Now the li
Now just think about your own and your family's health: would you say that the last 3 months were better or worse than the months before? 5 a lot better 4 a little bit better 3 the same 2 a little bit worse 1 a lot worse	FQ07 Now mon 5 a l
Now think about all the other members in the household and all the things that have happened to them, would you say that the last 3 months were 5 very good 4 good 3 average 2 not so good 1 bad	FQ06 Now happ 5 ve
II. Hetrospective Subjective Evaluation FQ05 When you think about yourself and all the things that have happened to you, would you say that the last 3 months were 5 very good 4 good 3 average 2 not so good 1 bad	II. Hetrospective FQ05 Whe say to 5 ve
Did anybody change status (change schools, start new jobs, quit jobs) over the last 3 months? ■ No Name Roster ID Describe change ■ Yes → list:	FQ04 Did a
Did anybody move into the household over the last 3 months? (children born, adopted, other) No Relation to Respondent Main occupation Yes list:	FQ03 Did a
No Name Roster ID Reason why left (if applicable) Yes → list:	
I. Change in Household Structure and Occupation FQ02 Did anybody permanently leave the household over the last 3 months? (Died or moved out)	I. Change in H
Name of respondent ID	FQ01 Nam
-	-

Day 1 _____. 2 0 0 ____. Month

Filled out by:	3:30 - 04:00 pm	3:00 - 03:30 pm	2:30 - 03:00 pm	2:00 - 02:30 pm	1:30 - 02:00 pm	1:00 - 01:30 pm	2:30 - 01 :00 pm	2:00 - 12:30 pm	1:30 - 12:00 pm	1:00 - 11:30 am	0:30 - 11:00 am	0:00 - 10:30 am	9:30 - 10:00 am	9:00 - 09:30 am	8:30 - 09:00 am	8:00 - 08:30 am	7:30 - 08:00 am	7:00 - 07:30 am	6:30 - 07:00 am	6:00 - 06:30 am	5:30 - 06:00 am	5:00 - 05:30 am	4:30 - 05:00 am	4:00 - 04:30 am	Time Period	How was
(Name of person completing form)																									Activity Code	feeling on this day?
sling form)	03:30 - 04:00 am	03:00 - 03:30 am	02:30 - 03:00 am	02:00 - 02:30 am	01:30 - 02:00 am	01:00 - 01:30 am	12:30 - 01:00 am	12:00 - 12:30 am	11:30 - 12:00 am	11:00 - 11:30 pm	10:30 - 11:00 pm	10:00 - 10:30 pm	09:30 - 10:00 pm	09:00 - 09:30 pm	08:30 - 09:00 pm	08:00 - 08:30 pm	07:30 - 08:00 pm	07:00 - 07:30 pm	06:30 - 07:00 pm	06:00 - 06:30 pm	05:30 - 06:00 pm	05:00 - 05:30 pm	04:30 - 05:00 pm	04:00 - 04:30 pm	de Time Period Activity	5 excellent 4 good 3 average
																									Code	2 a bit sick 1 very sick

,	Day 2
Day of the Week	
Day	
Month	. 200

How was

(Name)

feeling on this day?

5 excellent 4 good 3 average

> 2 a bit sick 1 very sick

	eting form)	(Name of person completing form)	Filled out by:
03:30 - 04:00 am	03:30		03:30 - 04:00 pm
03:00 - 03:30 am	03:00		03:00 - 03:30 pm
02:30 - 03:00 am	02:30		02:30 - 03:00 pm
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06:00 - 06:30 pm	06:00		06:00 - 06:30 am
05:30 - 06:00 pm	05:30		05:30 - 06:00 am
05:00 - 05:30 pm	05:00		05:00 - 05:30 am
04:30 - 05:00 pm	04:30		04:30 - 05:00 am
04:00 - 04:30 pm	04:00		04:00 - 04:30 am
Time Period Activity Code		Activity Code	Time Period

Women's Health Study of Accra (WHSA) Focused Investigations on Reproductive Health (FIRH)

AFFIXSTIC	KER WITH ID AND OTHER I	NFO HERE		
Interviewer Code:				
Date of Interview:	Day	Month	Year	
Time started:		Time er	nded:	
Supervisor code:				
Field check:		Office chec	ck:	
Date entered:				
Date verified:	Day	Month	Year	Initials
	Day	Month	Year	Initials

NB: IF AT ANY TIME MORE SPACE IS REQUIRED TO DOCUMENT SERVICES, PRODUCTS, SYMPTOMS, ETC., USE THE LAST PAGE

MENSTRU. 1 When was the	e last time you saw your period/menstruation?	
	FIRST DAY OF LAST PERIOD: 1 IN THE LAST MONTH (INCLUDES TODAY) 2 1-2 MONTHS AGO 3 3-6 MONTHS AGO 4 7 MONTHS TO 1 YEAR AGO DAY MONTH YEAR 5 > 1 YEAR AGO INSTRUCTIONS*	F 4, 5, OI 7, ▶ Q10
2 What do you	use to manage your period/menstruation?	
DO NOT PROMPT	01 TAMPONS 02 SANITARY PADS 03 PANTY LINERS *NB: CIRCLE ALL THAT ARE MENTIONED. THEN ENTER FOUR MOST COMMON RESPONSES AT RIGHT.* 04 RAGS/ CLOTH 05 COTTON WOOL 06 TOILET ROLL 07 PAIN MEDICINE 08 HERBAL/ NATURAL REMEDY 09 VITAMINS 10 OTHER/SPECIFY: 77 DON'T KNOW /REFUSED	

Appendix 7 - FiRH Survey v2.1 11Aug09 FiNAL rev 12Aug.xls 2 of 20

M	ENSTRUATION CONTINUED)				
	*WRITE IN RESPONSES	PRODUCT #1:	PRODUCT #2:	PRODUCT #3:	PRODUCT #4:	
	FROM Q2.*					
3	For each product that you mentioned, I'd NAME)?	like to ask some questions about	where you got them and how much t	hey cost. How much do you spend c	on average each month for (INSERT P	PRODUCT
	###.## GH¢					
	777.77 DON'T KNOW/ REFUSED					
	888.88 NOT APPLICABLE					
4	When was the last time you bought (INSE	ERT PRODUCT NAME) to help mana	age your period/menstruation?			
	1 IN THE LAST 4 WKS / 1 MONTH					
	2 5-8 WKS / 2 MONTHS AGO					
	3 9-12 WKS/ 3 MONTHS AGO					
	4 >9 WKS / 3 MONTHS AGO					
	7 DON'T KNOW					
	8 NOT APPLICABLE					
5	The last time you bought (INSERT PRODU	ICT NAME), where did you get it/th	nem?			
	01 CLINIC / HOSPITAL					
	02 PHARMACY/ CHEMIST/ DRUG STORE					
	03 FAMILY/ RELATIVE/ FRIEND					
	04 PARTNER					
	05 HOME VISIT (E.G. SOMEONE CAME TO YOUR HOUSE)					
	06 TRADITIONAL HEALER					
	07 MARKET/ STALL/ STREET					
	08 OTHER/ SPECIFY:	OTHER:	OTHER:	OTHER:	OTHER:	
	77 DON'T KNOW/REFUSED					
	88 NOT APPLICABLE					

Appendix 7 - FiRH Survey v2.1 11Aug09 FINAL rev 12Aug.uls

M	ENSTRUATION	l continued								
	WRITE IN RESPONSES FROM Q2.	PRODUCT #1: PRODUCT #2:	PRODUCT #3: PRODUCT #4:							
6	The last time you bou	ight (INSERT PRODUCT NAME), how long did you spend traveling	he place where you bought it/them?							
	HOURS : MINUTES 77:77 DON'T KNOW/REFUSED 88:88 NOT APPLICABLE			IF N/A FOR ANY PRODUCT SKIP Q7 FOR THAT PRODUCT ONLY.						
7	The last time you bou	ight (INSERT PRODUCT NAME), how much did it cost to travel to	place where you bought it/them?							
	###.## GHC 777.77 DON'T KNOW/ REFUSED 888.88 NOT APPLICABLE	··	·	_·						
8	8 Did you have to miss work in the last six months because of your period/menstruation, including time spent getting items to manage your period/menstruation?									
		1 YES 2 NO 7 DON'T KNOW /REFUSED 8 NOT APPLICABLE								
9	Were you unable to o	complete daily tasks in the last six months because of your period	enstruation, including time spent getting items to manage yo	ur period/menstruation?						
		1 YES 2 NO 7 DON'T KNOW / REFUSED								
10	Does your period/me	enstruation come at regular times, is it irregular or unpredictable,	nas it stopped altogether?							
		1 REGULAR 2 IRREGULAR 3 STOPPED COMING 7 DON'T KNOW / REFUSED								

Appendix 7 - FiRth Survey v2.1 11Aug/09 FiNAL rev 12Aug.x/s 4 of 20

MENOPAUSE			
11 Do you think that you are in menopa	use currently?		
12 As women get older they stop menst	1 YES 2 NO 7 DON'T KNOW /REFUSED	ave you experienced any of these symptoms in the pa	IF NO, ▶ Q19
READ ALL RESPONSES	01 Menstrual irregularities 02 Decreased fertitlity 03 Hot flashes/sweating 04 Vaginal dryness, discomfort or itching 05 Problems sleeping 06 Frequent urination or urinary infection 07 Mood changes 08 Joint pain 09 Changes in skin or hair 10 Weight gain, especially in the abdomen 11 Headaches 77 DON'T KNOW / REFUSED	*NB: CIRCLE ALL THAT ARE MENTIONED. THEN ENTER THE FOUR MOST COMMON RESPONSES AT RIGHT. *	IF NO SYMPTOMS ▶ Q19
*WRITE IN RESPONSES FROM Q12 *	SYMPTOM #1: SYMPTOM.	#2: SYMPTOM #3:	SYMPTOM #4:
13 When was the last time you had/exp	erienced [INSERT SYMPTOM]?		
1 <1 MONTH AGO 2 1 TO <3 MONTHS AGO 3 3 TO <6 MONTHS AGO 4 26 MONTHS AGO 7 DON'T KNOW			
14 The last time you had/experienced [II	NSERT SYMPTOM], did you seek help or products to mana	ge that/them?	
1 YES 2 NO 7 DON'T KNOW / REFUSED			IF NO, ▶ Q17

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Appendix 7 - FIRH Survey v2.1 11Aug09 FINAL rev 12Aug.xls

ME	NOPAUSE CONTINUED					
	VRITE IN RESPONSES IOM Q12 *	SYMPTOM #1:	SYMPTOM #2:	SYMPTOM #3:	SYMPTOM #4:	
15	Where is the last place you went	to get help or products to manage the	se symptoms?	•		
	01 CLINIC / HOSPITAL					
(D2 PHARMACY/ CHEMIST/ DRUG STORE					
	03 FAMILY/ RELATIVE/ FRIEND					
	04 PARTNER					
(D5 HOME VISIT (E.G. SOMEONE CAME TO YOUR HOUSE)					
(06 TRADITIONAL HEALER					
(7 MARKET/ STALL/ STREET					
(08 OTHER/ SPECIFY:	OTHER:	OTHER:	OTHER:	OTHER:	
1 7	77 DON'T KNOW/REFUSED					
-	88 NOT APPLICABLE					
16	How much did you spend in the p	past six months on managing all of you	r menopause symptoms?			
##	##.## GH¢					
77	77.77 DON'T KNOW/ REFUSED	·	·	·	·	
88	88.88 N/A					
17	Did you have to miss work at any	time in the last six months because of	your menopause symptoms?			
		1 YES				
		2 NO				
ш		7 DON'T KNOW /REFUSED				
18	Were you unable to complete dai	ily tasks at any time in the last six mon	ths because of your menopause sym	ptoms?		
		1 YES 2 NO 7 DON'T KNOW /REFUSED				

Appendix 7 - FIRH Survey v2.111Aug09 FINAL rev 12Aug xis 6 of 20

CO	DNTRACEPTION							
			y using a method of contraception?					
		1 2 7	YES NO DON'T KNOW / REFUSED					IF NO ▶Q31
20	What meth	od o	contraception are you using?					
	DO NOT PROMPT	01 02 03 04 05 06 07 08 09 10 11 12 13	PILL (E.G. SECURE) IUD/LOOP INJECTION (E.G. DEPO) IMPLANT (E.G. NORPLANT, JADELLE, IMPLANON) DIAPHRAGM SPERMICIDE (FOAM/JELLY) CONDOM (MALE) CONDOM (FEMALE) FEMALE STERILIZATION MALE STERILIZATION EMERGENCY CONTRACEPTION (E.G. POSTINOR) HERBS / TEA SPECIAL FOODS FERTILITY AWARENESS (AWARENESS OF CYCLE AND USE ORONDONS/ABSTINENCE DURING FERTILE TIMES)	OF		PERIODIC ABSTINENCE / RHYTHM METHOD / CALENDAR METHOD (Sex only during non-fertile times) LACTATIONAL AMENORRHEA PRAYER WASHING / DOUCHING / WIPING VALSALVA / BEARING DOWN / SQUEEZING WITHDRAWAL OTHER/SPECIFY: DON'T KNOW /REFUSED CIRCLE ALL THAT ARE MENTIONED. THEN ENTER THE FOUR ST COMMON AT THE RIGHT.*		IF 14-20 ▶ Q32
21A	Are you	doin	g anything else to prevent pregnancy?					
		1 2 7	YES NO DON'T KNOW /REFUSED					IF NO, ▶ Q22
	21B If yes		at are you doing: NSE:				SEE RESPONSE	

Appendix 7 - FIRH Survey v2.1 11Aug09 FINAL rev 12Aug.xls 7 of 20

WRITE IN METHOD NUMBERS FROM Q2D. *WRITE IN METHOD NUMBERS FROM Q2D.* METHOD #1: METHOD #2: METHOD #2: METHOD #3: METHOD #4: METHOD #4: METHOD #3: METHOD #4: METHOD #4: METHOD #3: METHOD #4: METHOD #3: METHOD #4: METHOD #4: METHOD #3: METHOD #3: METHOD #4: METHOD #4: METHOD #4: METHOD #3: METHOD #4: METH	*IF THE LAST TIME SHE GOT THE METHOD WAS MORE THAN ONE YEAR AGO,
22 Now I'd like to ask you some questions about your contraceptive method(s). When was the last time you got the method? *ENTER TWO DIGITS PER BOX.* DAY MONTH YEAR DAY MONTH YEAR DAY MONTH YEAR 23 The last time you got your contraceptive method, where did you get it?	SHE GOT THE METHOD WAS MORE THAN ONE YEAR AGO,
22 Now I'd like to ask you some questions about your contraceptive method(s). When was the last time you got the method? *ENTER TWO DIGITS PER BOX.* DAY MONTH VEAR DAY MONTH MONTH VEAR DAY MONTH MONT	SHE GOT THE METHOD WAS MORE THAN ONE YEAR AGO,
*ENTER TWO DIGITS DAY MONTH YEAR DAY MONTH WORLD MONTH W	SHE GOT THE METHOD WAS MORE THAN ONE YEAR AGO,
*ENTER TWO DIGITS DAY MONTH YEAR DAY MONTH WORLD MONTH W	SHE GOT THE METHOD WAS MORE THAN ONE YEAR AGO,
PER BOX.* DAY MONTH YEAR YEAR THE last time you got your contraceptive method, where did you get it?	METHOD WAS MORE THAN ONE YEAR AGO,
	► Q32 FOR THAT METHOD.*
OI CINIC/HOSPITAL	1
02 PHARMACY/CHEMIST/DRUG STORE	
03 FAMILY/ RELATIVE/ FRIEND	
04 PARTNER	
05 HOME VISIT (E.G. SOMEONE CAME TO YOUR HOUSE)	
06 TRADITIONAL HEALER	
07 MARKET/ STALL/ STREET	
08 OTHER/SPECIFY: OTHER: OTHER: OTHER: OTHER:	
77 DON'T KNOW/REFUSED	
88 NOT APPLICABLE	
24 The last time you got your contraceptive method, how long did it take to travel to the place where you got it? HOURS: MINUTES	
77:77 DON'T KNOW/REFUSED	IF N/A ▶ Q26 FOR
88:88 NOT APPLICABLE	THAT METHOD ONLY.
25 The last time you got your contraceptive method, how much did it cost to travel to the place where you got it?	
###.## GHC 777.77 DON'T KNOW/ REFUSED	
888.88 N/A	1

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CONTRACEPTION CONTINUED					
WRITE IN METHOD NUMBERS METHOD #1: METHOD #2: METHOD #3: FROM Q20.	METHOD #4:				
26 The last time you got your contraceptive method, how long did you wait at the place where you got it?					
HOURS: MINUTES 77:77 DON'T KNOW / REFUSED 88:88 NOT APPLICABLE					
27A The last time you got your contraceptive method, how much did you pay for the method of contraception?					
###.## GHC 777.77 DON'T KNOW / REFUSED 888.88 N/A	·				
27B INDICATE '1' HERE IF METHOD COST WAS INCLUDED IN VISIT COST:					
28 The last time you got your contraceptive method, how much did you pay for the visit?					
###.## GHC 777.77 DON'T KNOW/ REFUSED	· ·				
29 The last time you got your contraceptive method, did you have to miss work because you had to get it?					
1 YES 2 NO 7 DON'T KNOW / REFUSED 8 NOT APPLICABLE					
30 The last time you got your contraceptive method, were you unable to complete daily tasks because you had to get it?					
1 YES 2 NO 7 DON'T KNOW / REFUSED 8 NOT APPLICABLE					
REMEMBER TO COMPLETE ALL QUESTIONS FOR EACH METHOD!					

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N	OT USING CONT	RACEPTION				
31	Can you tell me why yo	ou are currently not us	ing a method of contraception?			
	*MARK ALL THAT APPLY. DO NOT	01	NOT SEXUALLY ACTIVE			
	PROMPT*	02	DESIRE FOR PREGNANCY			
		03	CURRENTLY PREGNANT	*NB: CIRCLE ALL THAT ARE		
		04	HIGH COST/ LACK OF HOUSEHOLD INCOME	MENTIONED. THEN ENTER THE FOUR MOST		
		05	LACK OF TIME	COMMON/IMPORTANT RESPONSES AT RIGHT. *		
		06	PARTNER DISAPPROVAL			
		07	FAMILY/ FRIEND DISAPPROVAL			
		08	RELIGION PROHIBITS / RELIGIOUS REASONS			
		09	IN OR POST MENOPAUSE			
		10	OTHER/SPECIFY:		_	
		77	DON'T KNOW /REFUSED			
		88	NOT APPLICABLE / USING CONTRACEPTION			

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STI	s/RTIs/UTIs			
32		an abnormal genital discharge, pain de enced any of the following symptoms:	luring sexual intercourse or pain during urination. In the lastsix	
	32 A1. Abnormal genital dischar			IF NO, ▶32B
	32 A2. IF YES, Was it abnormal in *ASK EACH QUESTION 1-3.*	32 A2.1 smell? 32 A2.2 color? 32 A2.3 volume?	*FOR EACH INDICATE:* 1 YES 2 NO 7 DON'T KNOW/REFUSED	
	32 B. Pain during sexual interc	ourse? 1 YES 2 NO 7 DON'T KNOW/REFUSED 8 NOT APPLICABLE		
	32 C. Burning/pain during urin	ation? 1 YES 2 NO 7 DON'T KNOW/REFUSED		IF NO FOR 32 A, B AND C, ▶ Q43
33	Did you seek help or prod	lucts to manage any of these sympton	ns?	
		1 YES 2 NO 7 DON'T KNOW /REFUSED		IF NO▶ Q41

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STIs/RTIs/UTIs	STIs/RTIs/UTIs CONTINUED					
-	(perienced (INSERT SYMPTOM),	where did you get help or produ	icts to manage that?			
		, , , .	9			
01 CLINIC / HOSPITA	L					
02 PHARMACY/ CHE	MIST/ DRUG STORE	ABNORMAL DISCHARGE	PAIN DURING INTERCOURSE	BURING/PAIN ON URINATION		
03 FAMILY/ RELATIV	E/ FRIEND					
04 PARTNER						
05 HOME VISIT (E.G.	SOMEONE CAME TO YOUR HOUSE)					
06 TRADITIONAL HE	ALER					
07 MARKET/STALL/	STREET					
08 OTHER/SPECIFY:		OTHER:	OTHER:	OTHER:		
77 DON'T KNOW/RE	FUSED					
88 NOT APPLICABLE						
35 When was the last	time you got help to manage tha	it symptom?				
1 <1 MONTH AGO		ABNORMAL DISCHARGE	PAIN DURING INTERCOURSE	BURING/PAIN ON URINATION		
2 1 TO <3 MONTHS	WEEKS AGO					
3 3 TO <6 MONTHS	AGO					
4 ≥6 MONTHS AGO						
36 The last time you ex	rperienced (INSERT SYMPTOM),	how long did you spend travelin	g to the place where you got help/pi	roducts to manage your symptoms?		
HOURS : MINUTES		ABNORMAL DISCHARGE	PAIN DURING INTERCOURSE	BURING/PAIN ON URINATION	IF N/A FOR ANY	
77:77 DON'T KNOW/R	EFUSED				SYMPTOM ►Q40 FOR THAT	
88:88 NOT APPLICABLE	: <u>L</u>				SYMTPOM ONLY.	
37 The last time you ex	perienced (INSERT SYMPTOM),	how much did it cost to travel th	nere?	'		
		ABNORMAL DISCHARGE	PAIN DURING INTERCOURSE	BURING/PAIN ON URINATION		
###.## GH¢						
777.77 DON'T KNOW/	-	·	·	·		
888.88 NOT APPLICABI	.E					

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STI	STIS/RTIS/UTIS CONTINUED						
38	The last time you experienced (INSE	RT SYMPTOM), how long did you v	vait at the place where you got he	lp/products to manage your symptoms?			
	HOURS : MINUTES 77:77 DON'T KNOW / REFUSED 88:88 NOT APPLICABLE	ABNORMAL DISCHARGE	PAIN DURING INTERCOURSE	BURING/PAIN ON URINATION .			
39	The last time you experienced (INSE		pay for the visit?				
	###.## GH¢ 777.77 DON'T KNOW / REFUSED 888.88 NOT APPLICABLE	ABNORMAL DISCHARGE	·	·			
40	The last time you experienced (INSERT SYMPTOM), how much did you pay for the products to manage your symptoms?						
	###.## GH¢ 777.77 DON'T KNOW/REFUSED 888.88 NOT APPLICABLE	ABNORMAL DISCHARGE	PAIN DURING INTERCOURSE	BURING/PAIN ON URINATION			
41	Did you have to miss work in the las	t six months because of your symp	otoms?				
		1 YES 2 NO 7 DON'T KNOW /REFUSED					
42	Were you unable to complete daily	tasks in the last six months because	e of your symptoms?				
		1 YES 2 NO 7 DON'T KNOW /REFUSED					

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	EVENTATIVE CARE				
43	In the last six months, did you obtain an	y of the following preventative care for re	eproductive health issues?		
	READ ALL ALOUD	01 Pap smear 02 Breast exam 03 Breastfeeding / child spacing cou 04 STI / RTI test 05 HIV test 06 Nutrition education 07 Other / specify: 08 NONE 77 DON'T KNOW / REFUSED	unseling	*NB:CIRCLE ALL THAT ARE MENTIONED. THEN ENTER THE FOUR MOST COMMON AT THE RIGHT.*	IF NO SERVICES OBTAINED ▶ Q52A
	WRITE IN NUMBERS FROM Q43	SERVICE # 1:	SERVICE #2:	SERVICE #3:	SERVICE #4:
44	The last time you got the service, where	did you get it?			
	01 CLINIC / HOSPITAL 02 PHARMACY/ CHEMIST/ DRUG STORE 03 FAMILY/ RELATIVE/ FRIEND 04 PARTNER 05 HOME VISIT (E.G. SOMEONE CAME TO YOUR HOUSE)				
	06 TRADITIONAL HEALER 07 MARKET/ STALL/ STREET 08 OTHER/SPECIFY: 77 DON'T KNOW/REFUSED 88 NOT APPLICABLE	OTHER:	OTHER:	OTHER:	OTHER:

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	EVENTATIVE CARE CONTI	NUED			
45	When did you last get the service?				
	1 <1 MONTH AGO 2 1 TO <3 MONTHS WEEKS AGO 3 3 TO <6 MONTHS AGO				
	4 ≥6 MONTHS AGO				
46	The last time you got the service, how	v long did you spend traveling to the p	place where you got the service?		
	HOURS : MINUTES 77:77 DON'T KNOW/ REFUSED 88:88 NOT APPLICABLE	<u>:</u>	:	:	
47	7 The last time you got the service, how	v much did it cost to travel there?			
	###.## GHC 777.77 DON'T KNOW/REFUSED 888.88 NOT APPLICABLE	·	·	·	·
48	The last time you got the service, how	v long did you wait at the place where	you got the service?		
	HOURS : MINUTES 77:77 DON'T KNOW/ REFUSED 88:88 NOT APPLICABLE		: .		
49	The last time you got the service, how	v much did you pay for the service?			
	###.## GH¢ 777.77 DON'T KNOW/REFUSED 888.88 NOT APPLICABLE	·	·	·	·
50	Did you have to miss work in the last	six months because you obtained this	/these service/s?		
		1 YES 2 NO 7 DON'T KNOW /REFUSED			
51	Were you unable to complete daily to	asks in the last six months because you	u obtained this/these service/s?		
		1 YES 2 NO 7 DON'T KNOW /REFUSED			
					•

FERTILITY TREATMENT 52A In the past six months, have you obtained any fertility treatments? IF NO OR 1 YES DON'T KNOW 2 NO ▶Q61 7 DON'T KNOW /REFUSED 52B IF YES, What treatment(s) did you obtain: OPEN RESPONSE: 53 Where did you get the most recent fertility treatment? 01 CLINIC / HOSPITAL 02 PHARMACY/ CHEMIST/ DRUG STORE 03 FAMILY/ RELATIVE/ FRIEND 04 PARTNER 05 HOME VISIT (E.G. SOMEONE CAME TO YOUR HOUSE) 06 TRADITIONAL HEALER 07 MARKET/ STALL/ STREET 08 OTHER/SPECIFY: OTHER: 77 DON'T KNOW/REFUSED 88 NOT APPLICABLE 54 When did you get the most recent fertility treatment? 1 <1 MONTH AGO 2 1 TO <3 MONTHS WEEKS AGO 3 3 TO <6 MONTHS AGO 4 ≥6 MONTHS AGO 55 How long did you spend traveling to the place where you got the most recent fertility treatment? IF N/A ▶ Q58 HOURS : MINUTES 77:77 DON'T KNOW/REFUSED 88:88 N/A

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FER	FERTILITY TREATMENT CONTINUED				
56	How much did it cost to travel there?				
	###.## GH¢				
	777.77 DON'T KNOW/REFUSED				
	888.88 N/A	·			
57	How long did you wait at the place where yo	ou got the most recent fertility treatment?			
	HOURS : MINUTES				
	77:77 DON'T KNOW/REFUSED				
	88:88 N/A				
58	How much did you pay for the most recent	fertility treatment?			
	####.## GH¢				
	7777.77 DON'T KNOW				
	8888.88 N/A	·			
59	Did you have to miss work in the last six mo	nths because you obtained fertility treatments?			
	1 YES				
	² NO				
	7 DON'T KNOW /REFUSED				
	DON'T KITOW/KET GSES				
60	Were you unable to complete daily tasks in the la	st six months because you obtained fertility treatments?			
	1 YES				
	² NO				
	7 DON'T KNOW /REFUSED				

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CURRENT PR	EGNANCY		
61 Are you currently	pregnant?		
	1 YES 2 NO 7 DON'T KNOW /REFUSED		IF NO ▶ Q64
62 How many wee	ss pregnant are you?		
	1 1-12 WEEKS 2 13-24 WEEKS 3 ≥ 24 WEEKS 7 DON'T KNOW / REFUSED		
63 Have you been	o a clinic/hospital for an ante-natal care visit?		
	1 YES 2 NO 7 DON'T KNOW /REFUSED		
LAST DELIVE	RY	*	
64 When was your	last delivery ?		+
	1 0-6 MONTHS AGO 2 7-12 MONTHS AGO 3 12-24 MONTHS AGO 3 12-24 MONTHS AGO 4 > 24 MONTHS AGO 8 NOT APPLICABLE (NO PRIOR DELIVERIES)		IF NO PREV. DELIVERIES, OR LAST DELIVERY >2 YRS, ▶END.
65 Did you obtain	iny of the following pregnancy related services before/during/after your last pregnancy?		
READ ALL OUT LOUD	Pertility treatment *NB: CIRCLE ALL THAT ARE MENTIONED. Ante-natal care THEN LIST THE FOUR MOST COMMONLY OBTAINED SERVICES AT THE RIGHT.* Labor and delivery services Complicated pregnancy / delivery services (INCLUDES PREMATURE/EARLY DELIVERY) SPECIFY: Maternal HIV counseling THEN LIST THE FOUR MOST COMMONLY OBTAINED SERVICES AT THE RIGHT.*		IF NO SERVICES OBTAINED, ▶ END.

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LAST DELIVERY CONTINUED									
WRITE IN NUMBERS FROM QSS.	SERVICE#1:	SERVICE #2:	SERVICE #3:	SERVICE #4:					
66 How many times did you receive the service?									
1 ONE TIME 2 TWO TIMES 3 THREE TIMES 4 FOUR TIMES 5 FIVE TIMES 6 > FIVE TIMES 7 DON'T KNOW									
67 The last time you got the service, where did you get it?									
01 CLINIC / HOSPITAL 02 PHARMACY/ CHEMIST/ DRUG STORE 03 FAMILY/ RELATIVE/ FRIEND 04 PARTNER 05 HOME VISIT (E.G. SOMEONE CAME TO YOUR HOUSE) 06 TRADITIONAL HEALER 07 MARKET/ STALL/ STREET 08 OTHER/SPECIFY: 77 DON'T KNOW/REFUSED 88 NOT APPLICABLE	OTHER:	OTHER:	OTHER:	OTHER:					
68 The last time you got the service, how long did you sp	end traveling to the place where you got the	service?							
HOURS : MINUTES 77:77 DON'T KNOW / REFUSED 88:88 N/A			;	<u>:</u>	IF N/A FOR ANY SERVICE ▶ Q71 FOR THAT SERVIC ONLY				
69 The last time you got the service, how much did it cos	t to travel there?	-		-	1				
###.## GHC 777.77 DON'T KNOW/ REFUSED 888.88 NOT APPLICABLE	·	·	:	·					

Appendix 7 - FIRM Survey V2.11/Aug09 FIRM4 rev 12/Aug.ds 19 of 20

LAST DELIVERY CONTINUED								
	*WRITE IN NUMBERS FROM Q65. *	SERVICE #1:	SERVICE #2:	SERVICE #3:	SERVICE #4:			
70	70 The last time you got the service, how long did you wait at the place where you got the service?							
	HOURS: MINUTES 77:77 DON'T KNOW / REFUSED 88:88 N/A	:	<u>:</u>		:			
71	The last time you got the service, how much did you pay for the service?							
	###.## GHC 777.77 DON'T KNOW/ REFUSED 888.88 NOT APPLICABLE	·	·					
72 Did you have to miss work because you obtained this/these service/s?								
		1 YES 2 NO 7 DON'T KNOW /REFUSED						
73	73 Were you unable to complete daily tasks because you obtained this/these service/s?							
		1 YES 2 NO 7 DON'T KNOW /REFUSED						
END. THANK THE PARTICIPANT FOR HER TIME AND LET HER KNOW THAT SOMEONE MAY CONTACT HER AGAIN IN THE FUTURE.								

Appendix 7-FBH Survey v2.114aug99 FBM4 rev 124ug.vls