



2017

The Kabwe Household Socioeconomic Survey (KHSS) Report



Economics Team of
KAMPAI Project

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The questionnaire of the KHSS 2017 attached at the end of the report.

Abbreviations

BLL: Blood lead level

CSO: Central Statistical Office of Zambia

JICA: Japan International Cooperation Agency

JST: Japan Science and Technology Agency

LCMS: Living Condition Monitoring Survey

K: Kwacha

KAMPAI: Kabwe Mine Pollution Amelioration Initiative

KHSS: Kabwe Household Socioeconomic Survey

SAR: School attendance ratio

SEA: Standard Enumeration Areas

Executive Summary

The Kabwe Household Socioeconomic Survey (KHSS) 2017 is a household survey conducted from August to September in 2017 in Kabwe district, Zambia. The objectives of the survey were to assess the socioeconomic and living conditions of residents of the district and to provide information that could be used to examine the socioeconomic causes and consequences of lead exposure in Kabwe. The KHSS 2017 is a component of the “Kabwe Mine Pollution Amelioration Initiative (KAMPAI),” formally referred to as the “Project for Visualization of Impact of Chronic/Latent Chemical Hazard and Geo-Ecological Remediation in Zambia,” which is an interdisciplinary research project carried out by Hokkaido University, Japan, the University of Zambia, and other partners and funded by the Japan International Cooperation Agency (JICA) and the Japan Science and Technology Agency (JST). The KHSS is an interview survey with a similar (i.e., comparable) design to that of the Zambia Living Conditions Monitoring Survey (LCMS), and collects data on 895 households (4,900 individuals) in Kabwe district, randomly chosen as a representative sample of the district.

The total population of Kabwe district is estimated at 270,389, an increase of 33.6 % from the 2010 national census figure, 202,360. The survey data shows that the population of Kabwe district is concentrated among young individuals aged 25 years or below, which closely mirrors the national picture during 2015. The 5-9 year age group accounted for the largest population share (15%) among all age groups.

The KHSS collected data on residents’ educational status and schooling conditions. The number of students in any grade is estimated to be 92,699, 34.3% of the total population. The proportion of students is higher than the national average of 30.4%. Despite being largely urban, the school attendance ratio (SAR) in Kabwe is almost the same as the Zambian average, although the SAR for male children in senior secondary and tertiary school ages is slightly higher than the Zambian average. On average, households in Kabwe pay 1,365.6 Kwacha (henceforth abbreviated as K) per year (i.e., K113.8 per month) for each student in the family, and school fees constitute 87.4% of this amount.

The KHSS also collected data on health status, types of illnesses and medical costs. Regarding health status, 19.1% of the population in Kabwe reported being ill or injured in the two weeks preceding the survey. This amount is higher than the national average of 14.2% and the urban average of 9.1% in 2015 identified by the LCMS. In line with the national data, women are more likely to be ill or injured (20.3%) than men (17.8%).

A number of questions regarding the economic activities of household members, such as their jobs, wages and labour time were also included. The proportions of the economically active population and those in paid employment in Kabwe district are estimated to be 57.7% and 39.6% respectively. These proportions are similar to the urban averages across all of Zambia (58.6% and 40.0%). Trade (20.2%), agriculture (19.8%), and construction (10.2%) constitute the top three sectors of employed persons. Regarding working status, Kabwe district exhibits intermediate characteristics of total and urban Zambia. Among those who have jobs in Kabwe, including unpaid ones, the proportion of those who actually worked in the last seven days was 77.1%, and their average working hours were 44.4 hours.

The KHSS also gathered data on agricultural activities relating to the 2016–2017 farming season. The percentage of households engaged in agricultural activities in Kabwe (41.7%) is lower than the national average (58.7%) but higher than the average for the urban areas in the whole of Zambia (17.9%), as collected by the LCMS 2015. About half of all agricultural households are engaged in hybrid maize production, which is the same as the national average recorded by the LCMS 2015. The survey also finds that the average farm size in the Kabwe district is 33.4 acres (13.2 hectares), and the average size of a home garden is 2.6 acres.

The survey asked about monthly wage income and income from non-agricultural business in the last month. The average total monthly household income is K3,492.7, translating to K764.9 per capita. Compared to national averages as captured by the LCMS 2015, these figures are similar to those of urban areas of Zambia. As for ownership of household assets and durables, the items owned by more than 80% of households are beds, mattresses, cellular phones, and braziers (*mbaula*). Ownership rates are lower for electronic durables, such as televisions, electric stoves and refrigerators. Proportions of ownership of these items are close to the urban average in the LCMS 2015 data.

As the most commonly used measure for assessing living standards or poverty of households in developing countries, household expenditure plays a vital role for household welfare. The average monthly household total expenditure is estimated at K3,532 in the Kabwe district, translating to K773 per capita. These values are considerably higher than the averages at the national level, as estimated by the LCMS 2015. It is suggested that the residents of Kabwe enjoy relatively higher living standard in Zambia, despite substantial differences in average household expenditure across areas (wards) within Kabwe, with the richest wards having over K5,000 of average expenditure while the poorest have less than K2,000. The share of food expenditure to the total expenditure in Kabwe accounts for 36%, which is not different from the urban average of Zambia (35%).

The KHSS 2017 also surveyed the housing conditions of people in Kabwe district, namely, the type of housing unit, the tenancy status, the main source of drinking water, and the electricity connection. The findings show that the most common type of housing unit in Kabwe is a detached house (53.9%), that most households in Kabwe occupied their own housing units (64.4%) or rented them from private individuals (25.7%). The survey also found that the proportion of households with a safe/improved water source in Kabwe (88.9%) reflects the average for that of urban areas in Zambia (89.1%).

The KHSS 2017 is a joint survey with the health assessment sub-group of the KAMPAI project. The health assessment sub-group invited individuals—up to two children and their parents from each household—for blood sampling and measured the blood lead level (BLL) using the testing kit LeadCare II. **(Note: We excluded BLL data in ORIGINAL REPORT because of publishing regulations. The data will be published in other publications.)**

Chapter 1

Survey Background and Sample Design

1.1. Introduction

Zambia is a land-locked Sub-Saharan African country sharing boundaries with Malawi and Mozambique to the east; Zimbabwe, Botswana and Namibia to the south; Angola to the west, and the Democratic Republic of Congo and Tanzania to the north. According to the Human Development Report (UNDP 2016), Zambia is a middle-human-developed country, and its Human Development Index ranks 139th in the world and 8th amongst Sub-Saharan African countries. However, the country's economy depends on primary commodities. Copper and Cobalt exports are the main source of foreign currency revenue. 58.2 per cent of the population lives in rural areas and are dependent on agriculture for their livelihood (CSO 2016). Inequality is an important issue for the country with its GINI coefficient reaching 55.6, fifth-highest amongst Sub-Saharan African countries after South Africa, Namibia, Botswana, and Central African Republic in 2010-2015 (UNDP 2016).

Kabwe is the administrative capital of the Central Province, one of ten provinces of Zambia. Despite being a medium-sized municipality (the population was slightly above 200,000 according to 2010 Census), the socioeconomic conditions and living standards in Kabwe demonstrate great diversity; ranging from relatively wealthy areas on the eastern side of the centre to the

relatively poor Makululu Compound—one of the largest compounds in Africa—on the western side, and from the commercial areas in the centre to the farming areas in the outskirts. Kabwe was also once one of the main mining sites in Zambia producing lead and zinc. The closure of the mine in 1994 made the city less dependent on mining. However, lead pollution and human exposure to lead remain critical problems. Lead-containing mining wastes are left abandoned in the dumping site located at the centre of Kabwe, which is the main source of lead pollution.

Lead poisoning leads to various health and human developmental problems, such as neuronal, circulatory and reproductive disorders, lack of concentration, fatigue and loss of IQ (Meyer et al. 2008). These problems may further lead to poverty and other socioeconomic problems by limiting their labour activities, productivity, and physical and human capital accumulation (Zivin and Neidell 2013). At the same time, poverty and other socioeconomic problems can be the risk factors of lead exposure (Sargent et al. 1995). In a deprived circumstance that lacks a mean of education, adequate shelter from lead-containing dust, and access to less-contaminated food and water, one may be subject to a relatively high risk of lead exposure and poisoning. The direct health problems of lead poisoning may create a

vicious cycle of the abovementioned interlocking problems that could put the economy into a poverty trap and undermine the development potential of Kabwe and Zambia.

The Kabwe Household Socioeconomic Survey (KHSS) 2017 is a household survey aiming to illustrate the socioeconomic and living conditions of residents of the Kabwe district and to provide information that could be used to examine the socioeconomic causes and consequences of lead exposure in further research. The KHSS 2017 forms a component of the “Kabwe Mine Pollution Amelioration Initiative (KAMPAI),” formally referred to as the “Project for Visualization of Impact of Chronic/Latent Chemical Hazard and Geo-Ecological Remediation in Zambia,” and is conducted in collaboration with the health assessment sub-group of the KAMPAI project.

In this report, from Chapter 2 onwards, we present an overview of the KHSS 2017 and data of key indicators to characterise the socioeconomic and living conditions of residents in Kabwe. The remainder of this chapter provides basic information on the KAMPAI project and the framework designs and fieldwork results of the KHSS 2017.

1.2. Overview of the KAMPAI Project

The “Kabwe Mine Pollution Amelioration Initiative (KAMPAI),” formally referred to as the “Project for Visualization of Impact of Chronic/Latent Chemical Hazard and Geo-Ecological Remediation in Zambia,” has begun to tackle those multi-dimensional

issues of lead pollution and human exposure to lead. The KAMPAI project is an interdisciplinary research project that involves a wide range of researchers from different academic fields. The project aims to examine multifaceted issues related to lead pollution and exposure in Kabwe, including the geographical, biomedical and socioeconomic causes and consequences of lead exposure and the potential remediation strategies. The project is financed by the Japan International Cooperation Agency (JICA) and the Japan Science and Technology Agency (JST). It also shares information with a project of the World Bank, “Zambia – Mining and Environmental Remediation and Improvement Project.”

1.3. Objectives of KHSS 2017

The aim of the KHSS 2017 was to collect detailed information on the socioeconomic conditions of individuals and households in Kabwe district that would allow us to:

1. Assess the socioeconomic conditions of the whole Kabwe district;
2. Examine the socioeconomic causes and consequences of lead exposure.

The questionnaire design of the KHSS 2017 largely followed that of the Living Conditions Monitoring Surveys (LCMSs), the nationwide surveys conducted by Central Statistical Office (CSO) of Zambia every 2-5 years since 1996. Although we modified the structure of the questionnaire and added various questions, the KHSS 2017 provides data that allows us to measure the socioeconomic conditions of individuals and households in Kabwe district in a way that is comparable to the results of the

LCMSs. The structure of the questionnaire is as follows:

- Section 1. Household roster
- Section 2. Biological relationships of household members
- Section 3. Health
- Section 4. Education
- Section 5. Economic activities and income at the individual levels
- Section 6. Agriculture
- Section 7. Other income
- Section 8. Household assets
- Section 9. Household amenities and housing conditions
- Section 10. Household expenditure
- Section 11. Child health and nutrition
- Section 12. Deaths in household

To accomplish its second objective, the KHSS 2017 was designed to be complementary with the parallel surveys conducted by the health assessment team of the KAMPAI project. The health assessment team measured the blood lead levels (BLLs)—a frequently used biomarker for lead exposure and poisoning—to investigate health status of individuals from the biomedical aspect and conducted questionnaire surveys on behavioural aspects of lead exposure, the quality of life, etc. The surveys of the health assessment sub-group were conducted separately from the KHSS 2017. However, the sample was designed so that the data of each research component can be used in the other analyses. This enables us to examine the socioeconomic causes and consequences of lead exposure although this report only describes the BLLs of the sample individuals and leaves detailed analysis of these issues to further research.

1.4. Sample Design and Coverage

The KHSS 2017 was designed to select 1,000 households from the whole Kabwe district, including both its centre and outskirts, so that the sample represents the population of the entire Kabwe district. It is also desirable that the sample is drawn from areas diverse in the levels of lead contamination.

The KHSS 2017 employed two-stage random sampling to find the sample households using the sampling frame of CSO. The sample frame divides the whole Kabwe district into 384 Standard Enumeration Areas (SEAs). In the first stage, 40 SEAs are randomly selected. The second stage randomly selected 25 households from each SEA. To ensure the representativeness of the sample, sampling weights were calculated (for details on sampling weights, see Chapter 1.6). One limitation is that we could not conduct a survey in areas near military basements. Thus, households in these areas were excluded in the second stage of the random sampling. Apart from this issue, our strategy provides a reasonable sample representative of the whole Kabwe district.

1.4.1. Selecting SEAs

Table 1.1 shows the coverage of the chosen SEAs at the ward level. A ward is the smallest administrative unit and Kabwe district is divided into 27 wards. As a natural consequence of random selection of SEAs, the chosen SEAs do not cover all 27 wards, especially wards comprising a relatively small number of SEAs. However, this would not be a serious problem for making the sample

representative of the whole Kabwe district. Figure 1.1 shows the maps of the whole Kabwe district and its centre, where the chosen SEAs are coloured in green. They are widely distributed across the whole Kabwe district, including its centre and outskirts. Also, the chosen SEAs cover diverse areas in terms of lead pollution. Areas far from the centre are thought to be least contaminated since the slag dumping site is located close to the centre. The level of lead pollution is also thought to vary within the centre (Tembo, Sichilongo and Cernak 2006): The Western side, containing wards such as Makululu, Moomba and David Ramushu, is considered to be the most severely contaminated whereas the Eastern side, such as Waya, Chirwa and Highridge, to be less.

1.4.2. Selecting Households

In each SEA chosen in the previous step, the KHSS 2017 randomly located 25 households plus a few replacement households. To do this, we conducted a household listing in July/August 2017 in collaboration with the health assessment sub-group of the KAMPAI project.

A standard method for the listing and household selection, which was also followed by the LCMSs, is to visit all households in each selected SEA, make a list of households, and select 25 households randomly. However, this method turned out to be difficult for most SEAs in the KHSS 2017 due to the logistical, financial and time constraints. The household lists obtained in this way were used only for a few SEAs.

Table 1.1: Coverage of the Chosen SEAs

Ward name	Total SEAs	Chosen SEAs
Ben Kapufi	12	0
Bwacha	16	2
Chililalila	14	1
Chimanimani	7	0
Chinyanja	8	1
Chirwa	51	6
David Ramushu	17	5
Highridge	16	1
Justine Kabwe	10	0
Kalonga	19	2
Kangomba	11	2
Kaputula	19	3
Kawama	21	0
Luangwa	27	0
Luansase	6	0
Makululu	7	2
Moomba	21	6
Mpima	11	1
Munga	6	0
Munyama	7	2
Muwowo	8	0
Muwowo East	12	3
Nakoli	14	0
Ngungu	11	0
Njanji	8	0
Waya	10	1
Zambezi	15	2

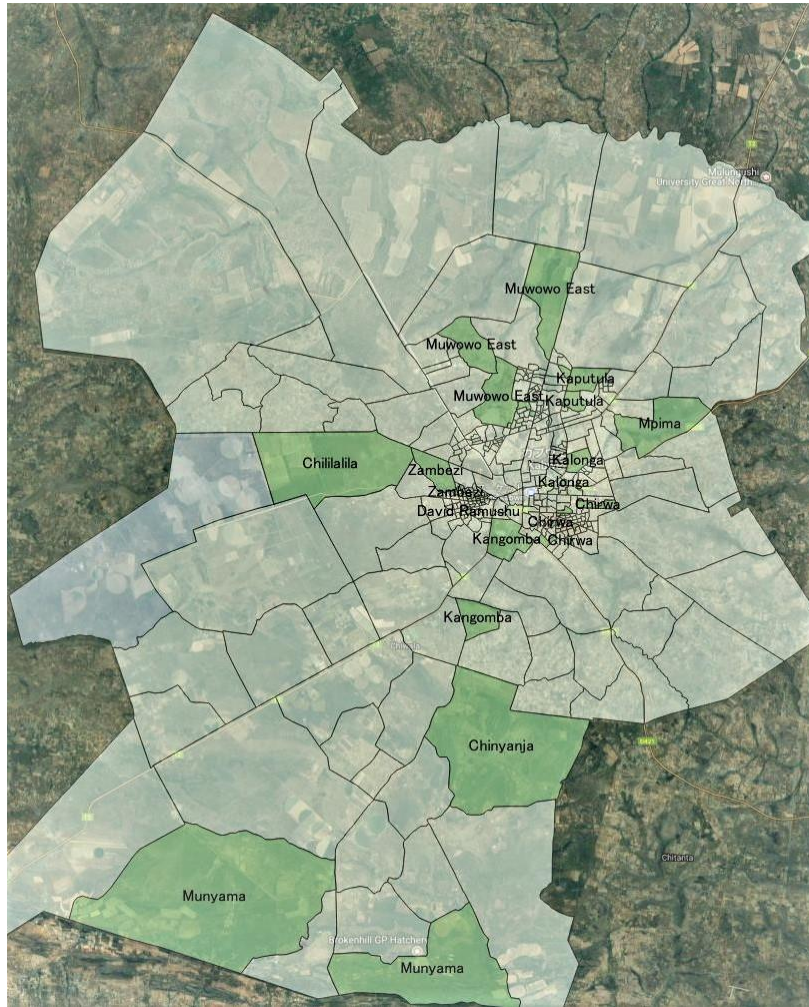


Figure 1.1: The map of Kabwe (chosen SEAs in deep green)

Instead, we sampled households in the following alternative way utilising the satellite maps of Google Earth, in cooperation with the health assessment sub-group of the KAMPAI project. We first counted the number of residential buildings or structures recognisable on the satellite maps (let us call them *houses*). Then, we listed the houses in a random order using the random numbers. Ideally, if houses and households have one-to-one correspondences, then we can obtain the set of randomly selected sample households by selecting the 25 houses in the top of the list. However, the list of houses could include empty houses, detached rooms or non-residential buildings (we made effort to avoid counting these buildings, but it may not perfectly eliminate these cases). Therefore, we visited the houses in the list in a descending order to make the list of sample households. If a house was inhabited by a household, then we included it in the list of sample households.¹ In cases where multiple households share the same building, we chose one of them randomly. In cases where some houses seemed inhabited but no individual was present, we asked neighbours whether the houses were inhabited. We continued visiting houses until at least 25 households were listed as sample households. In SEAs where we could list more than 25 households, we reserved households in the 26th or higher orders as replacement households.

It turned out that our house counts from the satellite maps were relatively accurate. In most cases, the visited houses were inhabited

by single households and used as the main residential buildings. This allowed us to use the house counts to calculate the sampling weights, the details of which are explained in Chapter 1.6.

1.5. The Main Survey

1.5.1 General Description of Interviews

The fieldwork for the main survey of the KHSS 2017 was conducted during three weeks from late August to early September 2017, in the form of Computer Assisted Personal Interviewing (CAPI) using the application Survey Solutions (version 5.22.20, the latest version at the time of the survey), developed by the World Bank. The fieldwork involved five supervisors/trainers and 21 enumerators, including three Economics Team members from the University of Zambia and four CSO personnel.

Interviews were conducted mostly at the houses of the sampled households, each lasting two to three hours on average. In cases where the knowledgeable persons were absent, the enumerators stopped interviewing and revisited these households when the knowledgeable persons were available.

Although the questionnaire is prepared in English, interviews were also conducted in local languages, such as Bemba, Nyanja and Tonga. Enumerators were required to speak at least two local languages as well as English and to be able to translate the questionnaire

provided in Appendix of this chapter.

¹ The details of the definition of a household is

into these languages. The ability to conduct interviews in local languages was also examined in the pre-survey training session.

1.5.2. The Response Rate and the Final Sample Size

The main survey visited 1,015 households (996 originally sampled households and 19

replacement households). The number of originally sampled households is four households fewer than 1,000 because it turned out when conducting the main survey that four groups of individuals listed as independent households in the sampling procedure were members of other households according to our definition.

Table 1.2: The Description of the Samples for Each Ward

Ward	Chosen SEAs	The number of households						Response rate
		Original sample	Replacement used	Total visited households	Not available	Refusal	Final sample	
Bwacha	2	50	2	52	4	1	47	90.4%
Chililalila	1	25	0	25	0	0	25	100.0%
Chinyanja	1	25	0	25	0	4	21	84.0%
Chirwa	6	149	0	149	17	7	117	78.5%
David Ramushu	5	125	2	127	12	0	115	90.6%
Highridge	1	24	0	24	3	0	21	87.5%
Kalonga	2	50	8	58	7	2	44	75.9%
Kangomba	2	50	0	50	2	1	47	94.0%
Kaputula	3	75	1	76	3	0	72	94.7%
Makululu	2	50	0	50	5	1	44	88.0%
Moomba	6	150	0	150	19	0	131	87.3%
Mpima	1	23	0	23	2	0	21	91.3%
Munyama	2	50	1	51	1	0	50	98.0%
Muwowo East	3	75	4	79	6	2	71	89.9%
Waya	1	25	1	26	4	0	22	84.6%
Zambezi	2	50	0	50	3	0	47	94.0%
Total	40	996	19	1,015	102	18	895	88.2%

“Not available” includes the cases where the households turned out to be shifted and where we could not have any contact.

Among the visited households, the overall response rate was 88.2% and we could not conduct interviews with 11.8% of households (i.e. 120 households). For 17.5% of the 120 failed cases, we learnt, by asking neighbours or making phone calls, that the sample households had shifted during the period between the listing and the main survey. These cases include single student households who were listed in the listing procedure but were absent at the time of the survey because of summer vacations. For 67.5% of the failed cases, we could not make any contact even after repeated attempts to revisit them, perhaps because either the households had shifted or were temporarily absent. The explicit refusal of interviews was rare, constituting 15% of the failed cases and 1.8% of the total cases.

The final sample size in the main survey is 895 households (4,900 individuals). Table 1.2 summarises the sample sizes, the breakdown of the failed cases, and the response rate for each ward, excluding wards from which no SEA was chosen.

1.5.3. The Final Sample for the Surveys by the Health Assessment Team

The sample of the KHSS 2017 was designed to be shared with the parallel surveys by the health assessment team of the KAMPAI project, which, as earlier mentioned, conducted blood sampling and questionnaire surveys on aspects such as lead exposure and avoidance behaviours and the qualities of lives. These data could be merged with the KHSS 2017 data at the individual and household levels. This subsection briefly describes their survey procedure.

The surveys of the health assessment team were conducted over six weeks from July to August in 2017. Unlike the KHSS 2017, where the enumerators visited sample households, the health assessment team invited sample individuals to communal clinics and conducted blood sampling and the other surveys there due to hygiene and ethical reasons. Eleven clinics were chosen as the venues for their surveys.

For each household, up to four persons—two parents and two children—were invited to the nearest one of the chosen clinics. In SEAs with no nearby clinic, the health assessment team provided means of transportation. The dates of blood sampling and interviews were pre-assigned since it was not feasible to allocate the health assessment team members to all 11 clinics at once. Instead, the members formed four groups, visited the clinics sequentially, and requested the sample individuals to attend the clinics while they were staying there. The assigned dates had one-week windows so that invited individuals could attend when they were available during the week.

Regarding the final sample of the health assessment team, there are two points to be noted. First, in addition to the sample shared with the KHSS 2017, the health assessment team invited additional households to partake in their surveys. However, the information on these samples cannot be merged with the KHSS 2017 data as no information is available for these samples in the KHSS 2017 data.

Second, and unfortunately, the attendance rate at the clinics was quite low. Some individuals might not have been able to find time to visit

the clinics despite one-week windows. Some explicitly refused to visit the clinics because the idea of blood sampling was not religiously or ethically acceptable for them. Among the final sample of the KHSS 2017, blood sampling was conducted for 827 out of 4,900 individuals (16.9%), or 372 out of 895 households (41.6%).

1.6. Sample Weights

To find estimates representative of the population of the whole Kabwe district, the use of sampling weights is essential. Since the sample size per SEA is fixed, mostly at 20-25 households, but each SEA differs in its population size, differences in representation of the samples need to be corrected by sampling weights. The weights also correct the differences in the response rates across the SEAs.

Since we did not adopt stratified sampling, the weights of the sample are equal to the inverse of the product of the two selection probabilities employed at each stage of selection. The sample weight for a household in the i th SEA, W_i , is calculated as follows:

$$W_i = \frac{1}{P_{1i}P_{2i}}$$

where:

P_{1i} : the probability of selecting the i th SEA in the first-stage selection, and

P_{2i} : the probability of selecting a household in the i th SEA in the second-stage selection.

In our sampling design, P_{1i} is equal to 40/384 for any i , since we conducted random

selections of 40 SEAs from 384 SEAs that cover the entire Kabwe district at the first stage. P_{2i} is calculated by dividing the final sample size in the i th SEA by the total number of households in the i th SEA. In SEAs where the standard method of listing was feasible, the total number of households is available. In the other SEAs, we could reasonably use the number of houses counted from the satellite maps as the estimated number of households since it roughly matches the actual number of households.

Because this report aims to describe the information representative of the whole residents in the Kabwe district, we use the sampling weights for most of the calculation. Whenever we present a figure calculated without using the sampling weights, we clearly state so.

Appendix: Definition of a Household

The KHSS 2017 uses the same concept and definition of a household member as the LCMSs. A household member is defined so that it includes an individual who was temporarily absent at the time of the survey, but excludes an individual who usually lives in other places but happened to stay in the household.

A more precise definition of a household member is as follows: A household member is basically defined as one who (i) has continuously lived with the household for at least six months, (ii) lives together with other household members in one house or closely related premises and takes his/her meals from

the same kitchen, and (iii) regards the person who is regarded as head by other household members as head. He/she may or may not be related to the other household members by blood or marriage. A house helper or labourer (maid, nanny or house servant) is also a household member as long as he/she meets the criteria above. Conversely, there are situations where people eat together and even sleep under one roof, but have different persons whom they regard as head. These persons are

considered as belonging to separate households. The exceptional cases where persons not meeting the criteria are regarded as household members are newly married couples, newly born babies, those who are away for temporary basis and those attending boarding schools, colleges and universities within Zambia.

Chapter 2

Demographic Characteristics

2.1. Introduction

The KHSS 2017 collected information on the representative sample of the population of the whole Kabwe district. Over seven years after the census, the demography in Kabwe has seemingly changed. New houses were built in suburban areas. New households may have moved in from outside of the Kabwe district while some households may have split into several new households as children became adults.

Under such circumstances, the demographic characteristics would be interesting for their own sake. They are also important in understanding the living conditions of the people because they would affect the socioeconomic behaviour of individuals and households, and *vice versa*. In addition, the demographic characteristics would also be important factors regarding lead exposure.

2.2. Population Size and Distribution

Table 2.1 shows the population distribution by sex and age group. The population weights are used so that the distribution reflects that of the whole Kabwe district. The first four columns of the table refer to the population distribution of Kabwe as found in the KHSS 2017 while the last two columns are the national population distribution according to the

LCMS 2015. The population is concentrated among those below the age of 25 years, which closely mirrors the national picture during 2015. The age group with the largest population is 5-9 years, accounting for 15.5% of the total population of Kabwe in 2017. This percentage compares well with the national population distribution in 2015 where that age group accounted for 18.8%. There is no marked difference in the population distribution within a particular sex. Finally, the total population of Kabwe district is estimated at 270,389 based on the KHSS data, an increase of 33.6% from the 2010 national census figure of 202,360.

2.3. Migration and Lengths of Residence in Kabwe

Migration has implications on population changes and has a close relationship with living conditions. It would also be related to the duration of individuals' exposed to lead, which is one of the main focuses of the KAMPAI project.

The term migration in the KHSS 2017 refers to any change in residence, including relocation within a township, a district, a province or a nation and international immigration. Considering the objective of the whole project, the KHSS 2017 modified and added various questions about migration to the questionnaire in the LCMS 2015.

Table 2.1: Population Estimates and Percentage Distribution by Age Group and Sex

Age group	Population estimates for Kabwe (from the KHSS 2017)				Population estimates for Zambia (from the LCMS 2015)	
	Population distribution			Estimated population	Population distribution	Estimated population
	Male	Female	Both sexes			
Total	100.0	100.0	100.0	270,389	100.0	15,473,905
0-4	15.2	12.1	13.6	36,893	9.9	1,536,048
5-9	17.0	14.0	15.5	41,888	18.8	2,902,927
10-14	11.8	13.2	12.5	33,800	14.2	2,201,329
15-19	13.0	12.3	12.6	34,180	12.6	1,951,215
20-24	8.6	10.7	9.7	26,140	9.6	1,483,666
25-29	6.8	8.3	7.5	20,407	7.5	1,163,404
30-34	5.4	7.5	6.5	17,457	6.2	960,741
35-39	5.6	5.7	5.7	15,357	5.6	868,372
40-44	4.9	3.5	4.2	11,270	4.2	647,030
45-49	3.3	3.5	3.4	9,221	3.0	466,454
50-54	2.6	2.9	2.7	7,391	2.3	362,640
55-59	1.8	1.7	1.7	4,725	1.9	287,784
60-64	1.7	1.4	1.6	4,229	1.3	198,116
65+	2.4	3.1	2.7	7,433	2.9	444,177

Sample weights used.

A notable change from the LCMS 2015 is that migration here is not restricted to the events of residential changes within one year. The LCMS 2015 asked each household member whether he/she had changed his/her residence within one year prior to the survey. Meanwhile, the KHSS 2017 asked whether he/she had ever changed his/her residence.

Table 2.2 shows the percentage distribution of persons by area of the previous residence. Of the total population of Kabwe, 71.8% had ever moved in their life. However, the previous residence of 52.5% of the population was located within the Kabwe district. Immigrants from outside of the Kabwe district, including other districts in Central Province, other provinces, or foreign countries, accounted for 19.2% of the population.

Table 2.2: Proportions of Individuals by Type of Migration (Past Residence); %

	Has never moved	Different dwelling/ same township	Different township	Different district/ the same province	Different province	Different country	Don't know/ refusal	Total
Total Kabwe	28.2	33.4	19.1	3.2	15.7	0.3	0.1	100.0
Bwacha	30.3	20.9	17.9	3.5	27.0	0.0	0.3	100.0
Chililalila	28.1	21.5	26.4	4.1	13.2	6.6	0.0	100.0
Chinyanja	24.0	23.0	27.0	12.0	14.0	0.0	0.0	100.0
Chirwa	28.3	26.0	22.6	5.4	16.9	0.7	0.1	100.0
David Ramushu	35.4	28.3	16.1	5.2	15.1	0.0	0.0	100.0
Highridge	36.4	23.4	15.0	2.8	21.5	0.0	0.9	100.0
Kalonga	22.2	35.7	15.5	1.1	25.4	0.0	0.0	100.0
Kangomba	38.5	21.4	24.6	3.5	12.3	0.0	0.0	100.0
Kaputula	30.6	38.8	15.0	2.1	13.2	0.2	0.0	100.0
Makululu	25.5	26.0	24.5	2.5	21.5	0.0	0.0	100.0
Moomba	39.4	31.4	12.2	4.1	12.9	0.0	0.0	100.0
Mpima	27.0	25.2	14.4	0.9	32.4	0.0	0.0	100.0
Munyama	33.7	25.0	15.4	5.1	19.8	1.0	0.0	100.0
Muwowo East	19.6	38.0	25.3	3.1	14.0	0.0	0.0	100.0
Waya	26.2	50.8	6.9	1.5	13.8	0.8	0.0	100.0
Zambezi	19.7	48.5	25.8	1.5	4.6	0.0	0.0	100.0

Sample weights used.

The survey also asked about the number of years each individual had stayed continuously in the Kabwe district. Figure 2.1 shows the lengths of stay in the Kabwe district expressed in years. The chart shows that 23.8% had lived in Kabwe for less than 5 years and 20.4% for 5-9 years, including young children and those who had recently moved in to the Kabwe district. However, more than 55% of individuals had lived in Kabwe for more than a decade.

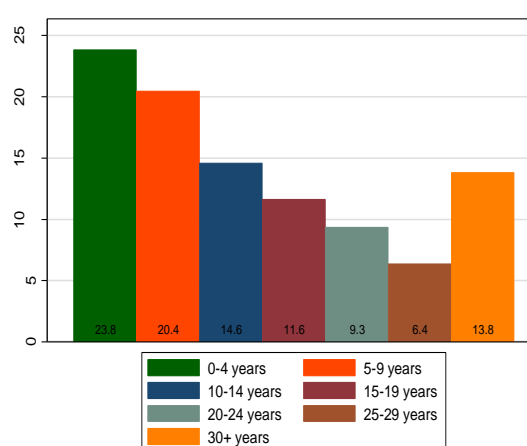


Figure 2.1: Distribution of the Length of Stay in Kabwe District

The reasons for migration are diverse. Table 2.3 shows the distribution of reasons for migrating. The most frequently reported reason is the transfer of the household head (36.7%). Schooling is a quite common reason for young children, accounting for 8.9% of the cases. Among those aged 15 years or above, ‘decided to resettle’ and ‘acquired new/different accommodation’ are commonly observed. Marriage and ‘new household’ are also common among adults.

Considering the possibility that some people may migrate to avoid environmental pollution, the KHSS 2017 added this answer as an option. However, only 0.1% of the population chose this as the main reason for migration. Either people do not care about pollution or are not fully informed of pollution or its danger, or those who care about pollution do not live in polluted areas in the first place and do not need to migrate to avoid environmental pollution.

Table 2.3: Reasons of Migration (Proportions Among Those Who Have Ever Migrated)

	Total			Aged 0-14 years			Aged 15 years or older		
	Both sex	Male	Fem	Both sex	Male	Fem	Both sex	Male	Fem
For school	5.8	5.6	6.0	8.9	5.6	10.4	4.9	5.6	4.2
Back from school/studies	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1
To seek work/ business	2.0	3.0	1.1	0.0	0.0	0.0	2.9	4.5	1.6
To start work/ business	2.2	3.1	1.3	0.0	0.0	0.1	3.1	4.7	1.7
Transfer of head of household	36.7	35.0	38.2	57.3	63.7	50.1	27.8	20.1	33.7
Previous household could not afford to keep him/her	2.8	2.9	2.7	4.0	3.3	4.7	2.3	2.7	2.0
Death of parent/guardian	3.7	3.2	4.1	3.7	2.1	5.5	3.7	3.8	3.5
Got married	5.6	1.6	9.5	0.0	0.0	0.0	8.1	2.4	13.1
New household	8.8	9.6	8.0	8.4	8.9	7.9	8.9	9.9	8.0
Retirement	0.5	0.7	0.4	0.0	0.0	0.0	0.8	1.0	0.5
Retrenchment	0.2	0.2	0.1	0.0	0.0	0.0	0.2	0.3	0.2
Decided to resettle	12.9	15.6	10.4	5.6	6.2	5.0	16.1	20.2	12.5
Acquired own/different accommodation	11.6	13.3	9.9	2.8	3.2	2.4	15.3	18.3	12.7
Found new agricultural land	0.3	0.5	0.2	0.0	0.0	0.0	0.5	0.7	0.3
Environmental pollution	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.2
Other	6.6	5.5	7.6	10.2	6.8	13.9	5.0	4.8	5.2
Don't know	0.2	0.1	0.4	0.1	0.1	0.0	0.3	0.1	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sample weights used

2.4. Death

The KHSS 2017 collected information on the deaths of household members during the period 12 months prior to the survey. Information collected included sex, age and the main cause of death of the deceased.

Unlike the other sections of Chapter 2, throughout this section, we do not intend to provide a generalised, representative picture of deaths in Kabwe mainly because the number of reported deaths is small—58 persons deceased within 12 months. Instead, we focus on describing the details of the reported deaths. This figure itself is not disproportionately low. We do not use the sampling weights, either.

The crude death rate per thousand persons is of 11.7%, slightly lower than the rate in urban Zambia in the LCMS 2015. Among 55 deceased persons whose ages at the time they deceased are reported, 22.2% were 0-4 years old, 9.3% were 5-14 years old, and 68.5% were 15 years old or above.

The most frequent causes of deaths were ‘Other including natural deaths’ and ‘hypertension.’ Deaths owing to malaria (‘Fever/malaria’ and ‘Cerebral malaria’) are reported, but their proportion is smaller than the national average in the LCMS 2015. Non-health-related deaths (suicide, murderer and accident) are also reported.

Table 2.4: The Crude Death Rate (CDR) Per Thousand Persons, and the Breakdowns of Deaths

		CDR, %	
Kabwe		11.7	
Total Zambia*		15.8	
Urban Zambia*		12.5	
Rural Zambia*		18.1	
Distribution of the ages at the time the persons deceased (N= 55), %			
0-4 years	5 – 14 years	15 years or older	
22.2	9.3	68.5	
Causes of deaths		Cases (proportion)	
Fever/malaria	4	(6.9%)	
Cerebral malaria	2	(3.4%)	
Cough/cold/chest infection	5	(8.6%)	
Tuberculosis	1	(1.7%)	
Pneumonia chest pain	3	(5.2%)	
Diarrhoea without blood	2	(3.4%)	
Vomiting	2	(3.4%)	
Liver infection / side pain	1	(1.7%)	
Lack of blood / anaemia	1	(1.7%)	
Suicide	1	(1.7%)	
Murdered	2	(3.4%)	
Accident	1	(1.7%)	
Hypertension	6	(10.3%)	
Diabetes / sugar disease	1	(1.7%)	
Headache	2	(3.4%)	
Cancer	1	(1.7%)	
Still birth	2	(3.4%)	
Other (incl. Natural death)	15	(25.9%)	
Don't know / Refusal	6	(10.3%)	

Sample weights not used. * Data from the LCMS 2015.

Chapter 3

Education

3.1. Introduction

Education is an important determinant of people's living conditions because it may affect a household's welfare through employment and health. Information collected during the survey includes questions seeking to establish whether an individual was attending school at the time of the survey. If attending school, the individual was asked about the grades they were attending and absenteeism at school, based on how often one missed school in the last term. Information about education expenditure made in the last 12 months (2nd term, 1st term, and 3rd term in the previous school year) was also collected.

The survey also asked for the highest grade of education an individual had attained. Data collected on education is based on the current formal education system. For those educated under the different education standards and forms in the past (Zambia has made three major changes to its education system in 1956, 1966 and 1980), their information on the highest educational attainment is converted to the current equivalent.

The current education system of Zambia comprises pre-primary/nursery school, lower and upper primary school, junior and senior secondary school, and tertiary school. The official ages for these education levels, which are the ages of students who start schooling at the standard age and do not skip or repeat any

grade, are as follows:

- Pre-primary/nursery level corresponds to persons aged 5-6 years
- Lower primary grades 1-4 correspond to persons aged 7-10 years
- Upper primary grades 5-7 correspond to persons aged 11-13 years
- Junior secondary grades 8-9 correspond to persons aged 14-15 years
- Senior secondary grades 10-12 correspond to persons aged 16-18 years
- Tertiary education level corresponds to persons aged 19-22 years

Note that the age information of the KHSS 2017 does not allow us to construct a complete set of children whose ages correspond to the official school ages. To see this, let us take children aged 10 years as an example. Based on their age, we treat them as children in the official lower primary school age group. However, children aged 10 years at the time of the survey include children who became 10 years old in the 2017 school year (and were thus in the lower primary school ages) and those who would have their birthday after the survey and become 11 years old by the end of the 2017 school year (and were indeed in the upper primary school ages). This occurs because the survey took place in August/September, between the 2nd and 3rd terms, and

the ages were asked as of the time of the survey. Considering the timing of the survey, roughly two-thirds of the children aged 10 years would fall into the former case and one-third into the latter.

This is not a critical problem for analysing the determinants of education in further research because whether a person becomes 10 years old before or after the survey is basically exogenous to households. However, it would be problematic for calculating some frequently used measurements of school attendance, such as the gross and net attendance (enrolment) ratios, whose estimation requires a complete and accurate set of children in each official school age group. Therefore, we avoid presenting these measurements.

3.2. School Attendance and Education Expenditure

The school attendance ratio (SAR) is the percentage of children attending any school grade among all children in a given age group. Notably, the SAR is higher among children in upper primary education ages than among those in lower primary education ages, and the same tendency is also observed in the LCMS 2017 data. This suggests the possibility that some children start attending school at the age of 8 years old or above. Despite being urban, the SAR in Kabwe district is almost the same as the Zambian average although the SAR for male children in senior secondary and tertiary school ages are slightly higher than the Zambian average for male.

Table 3.1: School Attendance Rate (SAR) and Estimated Number of Students

Age group		Kabwe district			Total Zambia *		
		Total	Male	Female	Total	Male	Female
Pre-school	5-6 years	40.9	37.7	44.5	29.8	28.2	31.4
Lower primary	7-10 years	79.1	76.4	82.2	77.2	75.5	78.9
Upper primary	11-13 years	89.4	89.4	89.4	90.9	88.9	92.8
Junior Secondary	14-15 years	82.5	79.1	85.9	85.7	86.1	85.3
Senior Secondary	16-18 years	70.0	78.7	61.3	65.3	70.9	60.9
All primary	7-13 years	83.1	81.0	85.2	83.1	81.3	84.8
All secondary	14-18 years	74.4	78.8	70.1	75.7	78.4	73.4
Higher education	19-22 years	30.8	40.1	22.2	29.4	36.3	22.5
Estimated number of students		92,699	47,081	45,619	4,697,435	2,327,154	2,370,281

Sample weights used. * From LCMS 2015.

Table 3.2: Education Expenditure (Kwacha)

	Total in the last three terms	2nd term, 2017 school year	1st term, 2017 school year	3rd term, 2016 school year
Total expenditure	1365.6	417.2	601.6	346.8
School fees	1193.8	362.0	508.9	322.9
Private tuitions	36.7	19.6	10.4	6.7
Textbooks	44.0	16.4	19.0	8.6
School uniforms	91.1	19.2	63.3	8.6

Sample weights used.

Table 3.2 shows education expenditure for each school-attending child. The KHSS asked about expenditure on school fees, private tuitions, textbooks and school uniforms for each school-attending child—these items of expenditure were asked separately from the general household expenditure. Total education expenditure is K1,365.6 per year

(K113.8 per month), and school fees constitute 87.4% of this expenditure. The remaining columns show the breakdown of education expenditure by school terms. Expenditure is the largest in the first term of a school year, possibly because that is when the household prepares school uniforms or when some parents pay the yearly education expenditure.

Table 3.3: The Frequency of Missing Classes; %

	Never	A little (once or twice a month)	Often (3 to 10 times a month)	Very often (more than 10 times a month)
Total Kabwe	53.2	34.5	9.8	2.5
Male	52.1	33.7	11.1	3.0
Female	54.3	35.3	8.5	1.9
Primary	49.8	35.6	11.4	2.9
Primary and junior secondary	49.9	36.4	10.7	3.0
Secondary	54.1	35.5	8.4	1.9

Sample weights used.

3.3. Absenteeism

The quality of education is partly affected by the rate at which pupils attend school. The KHSS 2017 asked how often children enrolled in school had, on average, missed attending classes in the last term preceding the survey (i.e. the second term of the 2017 school year). Table 3.3 presents the absence rate of students by sex and age group. In any grade, approximately half of the students attend all classes, and 85-90% of students missed once or twice a month at most. Male children miss school more frequently than female children did. The incidents of missing classes are less frequent among secondary school students than among students in other grades, perhaps because children having difficulty attending classes fail to advance to secondary school in the first place.

3.4. Education Levels of population

In this section, we describe education levels individuals have attained. Following the LCMS 2015 report, which presents the percentage distribution of the population five years or older who were not attending school at the time of the survey, we present the same distribution for the Kabwe population in Panel A of Table 3.5. In Kabwe, the proportion of individuals having completed primary

education or lower is smaller but the proportion above primary education is larger than the Zambia's average. Male education is higher than female education. Note that the proportion of those without any education, 14.6% for the Kabwe total, includes children at pre-school ages. Note also that exclusion of children currently attending school would also underestimate the education levels of the Kabwe residents.

Then, Panel B presents the distribution including children attending school. For children attending school, the grades they were attending at the time of the survey is treated as their highest level of education. In addition, since inclusion of very young children would complicate the interpretation, all calculations in Panel B focus on those aged 10 years or above. With this change, the proportion of individuals without education decreased. For those aged 16-29 years, the largest proportion has attained senior secondary education. For those aged 40-59 years, the proportion peaks at upper primary education. For those aged 10-15 years, 82.2% of them have completed upper primary education or lower—the majority of those having not completed were attending primary school at the time of the survey, rather than having left school without completing primary education.

Table 3.4: Education Levels of Population

	No education	Primary education		Secondary education		Grade 12 A-level/ Certificate/ Diploma/ Under-graduate	Post-graduate and above
		Grades 1-4	Grades 5-7	Grades 8-9	Grades 10-12 (O-level)		
Panel A: 5 years or above who were not in education							
Total Kabwe	14.6	7.3	20.7	19.5	24.9	12.2	0.8
Male	15.5	6.3	15.9	17.2	28.9	15.3	0.9
Female	13.8	8.3	24.9	21.6	21.4	9.4	0.6
Total Zambia*	27.0	10.8	24.0	16.3	15.7	4.7	1.4
Male*	25.2	9.0	21.8	16.6	19.5	5.9	2.0
Female*	28.7	12.5	26.1	16.1	12.1	3.7	0.8
Panel B: 10 years or above, including children in education							
Total Kabwe	4.6	9.9	25.1	21.5	26.2	12.1	0.6
Male	3.5	9.4	21.9	20.3	30.1	14.1	0.7
Female	5.6	10.3	28.0	22.5	22.8	10.3	0.5
10-15	5.4	29.2	47.6	14.9	2.9	n/a	n/a
16-18	2.3	1.7	14.1	38.0	42.5	1.4	n/a
19-22	2.8	1.7	15.2	17.5	52.5	10.3	n/a
23-29	1.0	3.4	14.1	20.9	40.0	20.4	0.2
30-39	4.2	5.5	21.6	22.6	22.0	23.0	1.1
40-49	5.3	4.4	28.1	26.5	18.2	16.8	0.7
50-59	5.6	6.1	31.1	17.8	21.7	15.8	1.9
60+	18.3	18.1	16.5	12.9	18.8	12.7	2.7

Sample weights used. * Data from LCMS 2015.

Chapter 4

Health

4.1. Introduction

The KHSS 2017 collected data on the health status of all persons. Health is directly related to welfare for its own sake. It may also have implications for economic activities, such as labour activity, consumption and productivity, which would ultimately affect welfare. In addition, the health status could be a useful measurement for assessing the causes and consequences of lead exposure.

In Chapter 4.2 to 4.4, we focus on the health status of all individuals and summarise self-reported illness and injury and medical expenditure. The reference period is the last two weeks preceding the survey. Chapter 4.5 focuses on child health and presents the breastfeeding status and history and other

feeding status for children younger than 5 years old.

4.2. Prevalence of Illness or Injury

Table 4.1 shows the proportion of persons who were ill or injured in the two weeks preceding the survey by sex and ward. At the district level, 19.1% of the population in Kabwe reported being ill or injured in the two weeks preceding the survey. This is higher than the national average of 14.2% and the urban average of 9.1% in the LCMS 2015. While this result could be a consequence of lead poisoning, it could also be a consequence of the socioeconomic characteristics of Kabwe residents. In line with the tendency in the national data, women are more likely to be ill or injured (20.3%) than men (17.8%).

Table 4.1: The Proportion of the Ill or Injured Persons, %

The KHSS 2017	Total Kabwe		Male	Female	
	19.1		17.8	20.3	
The LCMS 2015	Total Zambia	Male	Female	Urban	Rural
	14.2	13.4	15.0	9.1	17.9
Proportion reporting illness or injury for each ward					
Bwacha	19.9	Highridge	21.5	Moomba	16.9
Chililalila	26.4	Kalonga	24.1	Mpima	11.7
Chinyanja	7.0	Kangomba	29.2	Munyama	17.7
Chirwa	21.2	Kaputula	11.5	Muwowo East	7.0
David Ramushu	21.9	Makululu	22.0	Waya	15.4
				Zambezi	31.6

Sample weights used.

Table 4.2: Breakdown of Sickness, %

	Total	Male	Female	Age group (years)			
				0-9	10-19	20-49	50+
Fever / malaria	17.6	16.7	18.5	19.0	18.2	17.2	16.2
Cough / cold / chest infection	50.9	55.3	47.3	65.0	52.9	46.2	38.0
Tuberculosis	0.1	0.1	0.1	n/a	n/a	0.3	n/a
Asthma	1.2	1.2	1.3	0.8	n/a	1.9	1.6
Bronchitis	0.8	1.0	0.6	2.3	0.4	0.2	0.3
Pneumonia / chest pain	1.7	1.9	1.5	0.2	1.4	1.9	4.0
Diarrhoea without blood	4.4	5.1	3.7	7.0	6.3	3.4	0.5
Diarrhoea with blood	0.7	1.1	0.3	2.0	n/a	0.3	n/a
Diarrhoea and vomiting	1.8	2.6	1.2	4.6	n/a	1.5	n/a
Vomiting	0.6	0.5	0.8	0.9	1.3	0.4	n/a
Abdominal pains	7.4	5.7	8.8	3.3	6.7	8.4	11.9
Constipations	1.2	1.0	1.3	1.3	2.0	1.2	0.3
Anaemia	0.3	n/a	0.5	n/a	0.3	0.2	0.8
Boils	0.4	0.8	n/a	1.3	n/a	n/a	n/a
Skin rash / skin infection	2.2	1.4	3.0	4.8	2.6	0.4	2.1
Shingles / herpes zoster	0.1	n/a	0.1	n/a	n/a	0.2	n/a
Paralysis	0.7	0.5	0.9	0.2	0.8	0.8	1.5
Stroke	0.1	0.1	1.4	n/a	n/a	n/a	0.8
Hypertension	4.6	3.3	5.7	n/a	n/a	4.2	17.3
Diabetes / sugar disease	0.7	0.7	0.7	n/a	n/a	n/a	4.0
Eye infection	3.0	3.1	2.9	2.7	1.9	4.1	2.0
Ear infection	0.1	n/a	0.1	0.2	n/a	n/a	n/a
Toothache / mouth infection	2.9	1.2	4.4	1.3	2.1	4.8	2.0
Headache	17.7	17.6	17.7	6.0	25.1	22.0	18.6
Measles	0.1	n/a	0.1	n/a	n/a	n/a	0.5
Backache	3.1	1.3	4.7	n/a	0.9	3.5	9.3
Cancer	0.4	n/a	0.8	0.3	n/a	n/a	1.9
Other	8.4	7.2	9.4	6.2	2.6	10.2	13.2
Total	133.2	129.4	137.8	129.4	125.5	133.3	146.8

Total percentage exceeds 100 since some persons report multiple sicknesses. Sample weights used.

At the ward level, Zambezi ward had the highest proportion of population ill or injured at 31.6%, followed by Kangomba (29.2%), Chililalila (26.4%) and Kalonga (24.1%).

Wards with the lowest proportion of the population ill or injured were Muwowo East and Chinyanja (7.0%), followed by Kaputula (11.5%) and Mpima (11.7%).

4.3. Main illness

Table 4.2 shows the distribution of self-reported illnesses by cause over the last two weeks prior to the survey. Overall, regardless of sex and age, the most common cause was cough/cold/chest infection, followed by headache and fever/ malaria. Some illnesses are more common among young children than among adults, such as cough/ cold/chest infection, and diarrhoea of any kind.

4.4. Consultation for illness/ Injury and Medical Costs

All persons who reported illnesses or injuries were asked to give the amount paid for medical consultation or medication. Table 4.3 gives the proportions of those consulting medical doctors, clinical officers, nurses or midwives and community health workers, and the average amount spent on consultations

and/or medication by persons consulted. The average amount spent on consultation and/or medication was K161.2 for persons who consulted medical doctors, K9.3 for persons who consulted clinical officers, and K6.5 for persons who consulted nurses/midwives. If we restrict our focus to patients making any payment, the average expenses become K319.8, K49.4, and K38.5 for those consulting medical doctors, clinical officers, and nurses/midwives, respectively. One person consulted a community health worker but did not pay at all.

The bottom rows of Table 4.3 show the payment methods. The majority did not pay at all. Excluding them, the majority covered the medical expenses by themselves. The use of pre-payment schemes and payments by employers or insurance were also reported, especially for patients who consulted medical doctors.

Table 4.3: Medical Expenditure and Methods of Payment

	Medical doctors	Clinical officers	Nurses / midwives	Community health workers
Proportion of those consulting, %	23.4	53.7	22.6	0.2
Average expenses (Kwacha)	161.2	9.3	6.5	0
Among those who paid	319.8	49.4	38.5	n/a
Method for payment, %				
Pre-payment scheme (low cost)	3.2	0.8	n/a	n/a
Pre-payment scheme (high cost)	5.9	1.8	n/a	n/a
Paid by employer	8.6	0.4	0.7	n/a
paid by insurance	2.3	n/a	n/a	n/a
Paid directly	39.9	14.8	8.8	n/a
Paid by others	n/a	1.8	1.5	n/a
Did not pay	38.2	83.2	86.1	100
No information	6.3	3.7	2.9	n/a

Sample weights used.

4.5. Child Health (Age under 5 years)

In addition to the health measurements described so far, the KHSS 2017 measured breastfeeding and other dietary statuses and histories for children younger than 5 years old. Breastfeeding is closely related to infants' nutritional statuses and plays a significant role in child development. However, it can also be related to lead exposure if mothers are exposed to high levels of lead.

Table 4.4 shows the proportion of children under 5 years old who were being breastfed by

sex and age group. Overall, the proportion of infants aged 0-11 months who were breastfed is similar to the national average in the LCMS 2015. Among young children aged 13-24 months, the proportion is higher in Kabwe than the national average. The proportion is higher for male than for female among those aged 0 years (0-11 months old), but higher for female than for male among those aged 1 years (12-23 months old). Note that the sample size becomes small if we split the sample by age and sex. Therefore, these figures do not necessarily point out a gender difference in breastfeeding statuses.

Table 4.4: Proportion of Infants Who Were Breastfed at the Time of the Survey

Age	Total	Male	Female	Total Zambia*
0 year	94.4	97	90.8	95.6
1 year	71.5	67.1	76	50.5
2 years	3.2	4.4	1.3	6.9
3 years	3.8	3.6	4.1	2.8**
4 years	5.2	6.2	3.8	

Sample weights used. * Data from the LCMS 2015. ** The proportion among children aged 3 or 4 years.

Table 4.5: History on Breastfeeding and Other Foods

	Never breastfed, %	Lengths of breastfeeding, months	Age in months when given any food other than breastmilk
Total	1.3	15.8	5.5
Male	0.9	15.4	5.5
Female	1.7	16.4	5.5

Sample weights used.

In Table 4.5, we focus on children who were not being breastfed at the time of the survey. Among them, 1.3% had never breastfed. Children are breastfed for 15.8 months on average and this is consistent with the figures in Table 4.4 where almost all children stop being breastfed by the time they reach 2 years of age. Children start consuming any food other than breastmilk at the age of 5.5 months on average. No significant gender difference is found.

Finally, Table 4.6 shows how frequently children were given solid food. For all sexes and age groups, 45.2% of the children were given solid food thrice a day. Females were given solid foods less frequently than males, with the proportion of children given solid food twice a day being higher for females and the proportion of children given solid food thrice a day being higher for males. Regarding the age groups, the dietary characteristics of children aged 1, 2 and 3 years old are similar.

Table 4.6: The Distribution of the Numbers of Times Given Solid Food Per Day

	Once	Twice	Thrice	Four times	Five times	More than five times	Not yet started on solids
Kabwe total	3.8	22.3	45.2	15.2	4.6	2.1	6.8
Male	3.4	19.3	48.4	15.3	4.2	2.1	7.1
Female	4.2	25.9	41.2	15.2	5.0	2.0	6.4
Aged 0 year	4.4	31.1	20.0	6.2	1.9	3.5	33.1
Aged 1 year	4.7	23.8	46.6	18.1	3.4	2.5	0.8
Aged 2 years	3.7	22.7	48.3	18.0	5.7	0.7	0.8
Aged 3 years	4.5	23.6	48.0	15.1	5.6	2.7	0.5
Aged 4 years	1.6	10.8	60.9	18.3	6.4	0.7	1.2
Zambia*	3.4	23.9	44.0	12.4	3.0	2.5	10.7

Sample weights used. * Data from the LCMS 2015.

Chapter 5

Economic Activity

5.1. Introduction

The KHSS 2017 collected detailed information regarding the economic activities of household members. The economic participation of the population in various economic activities can directly influence households' well-being. The topics covered by the survey are as follows:

- Economic activity status including labour force participation, type of job and sector of employment for the main economic activity, second job, and other income-generating activities.
- Wage income, which includes regular monthly wages or salary, allowances, other income in-cash/in-kind.
- Labour time, which includes actual working hours in the last seven days, usual working hours, missed working days due to illness in the last 12 months.

With regards to economic activity status and wage, the KHSS 2017 adopted a similar format to that used by the LCMS 2015. The topic of labour time was new.

5.2. Economic Activity Status

Table 5.1 shows the percentage distribution of the main economic activity status for the population aged 12 years or older in Kabwe district. The percentage distributions

aggregated at ward levels are also presented. The sample weights are applied in calculations. The categorical classification follows the definition adopted by the LCMS 2015. "Economically active population (labour force)" consists of "paid employment (including self-employed)", "un-paid family worker," and "not working". The category of "not working" is constructed from two types of status: "looking for work/means to do business but available for work/business" and "not looking for work but available for work/means to do business." The percentages for all Zambia and urban Zambia based on the results of the LCMS 2015 are also listed for reference.

The share/proportion of economically active population and that of paid employment in Kabwe are estimated at 57.7% and 39.6%, respectively. These shares are similar to those of the urban averages in all Zambia (58.6% and 40.0%, respectively). However, the breakdown of the economically inactive population in Kabwe district shows some different features. The proportion of full-time students, accounting for 21.4%, is lower than that of Zambia or urban Zambia. Additionally, the proportion of the population that is retired, too old or too young to work in the Kabwe district is 10.6%, which is more than two times the averages for all Zambia and urban Zambia.

The regional variation of economic activity

within Kabwe district is recognizable in Table 5.1. The ratios of “not working” are relatively low, less than 10%, in wards located in the peripheral regions of the district such as Chililalila, Chinyanja, Mpima, and Munyama

where a large proportion of households engage in agricultural activities. Nevertheless, the worst ratio of “not working” is observed in Makululu ward and reaches 25.5%.

Table 5.1: Percentage Distribution of the Population Aged 12 Years or Older by Main Economic Activity, and Ward

	Economically active population (Labour Force)				Economically inactive population					Total
	Paid Employment	Unpaid Family Worker	Not Working	Total (active)	Full Time Student	Home- Maker	Retired/ Too Old/ Too Young	Other	Total (inactive)	Total
Kabwe district	39.6	0.6	17.5	57.7	21.4	9.1	10.6	1.1	42.2	100
Zambia*	43.0	6.3	9.2	58.5	27	10.3	3.8	0.4	41.5	100
Urban*	40.0	1.2	14.2	55.4	27.8	12.3	4.3	0.2	44.6	100
WARD										
Bwacha	37.1	0.6	20.4	58.1	19.9	6.1	14.0	1.9	41.9	100
Chililalila	40.3	0.0	4.2	44.5	20.8	19.4	15.3	0.0	55.6	100
Chinyanja	50.0	1.6	4.8	56.5	21.0	14.5	8.1	0.0	43.6	100
Chirwa	39.8	0.3	20.7	60.7	23.4	8.4	7.1	0.4	39.3	100
David Ramushu	36.2	0.0	21.2	57.4	28.1	7.6	5.7	1.2	42.6	100
Highridge	34.2	0.0	21.5	55.7	26.6	7.6	8.9	1.3	44.3	100
Kalonga	39.4	0.0	16.6	56.0	25.8	5.3	10.1	2.8	44.0	100
Kangomba	48.0	2.9	11.4	62.3	20.8	5.3	9.1	2.5	37.7	100
Kaputula	33.0	0.0	19.2	52.2	15.9	12.9	18.1	0.9	47.8	100
Makululu	38.8	0.0	25.5	64.2	20.4	8.8	6.6	0.0	35.8	100
Moomba	39.1	1.0	15.8	56.0	22.8	9.7	11.3	0.2	44.0	100
Mpima	60.6	0.0	6.1	66.7	7.6	12.1	12.1	1.5	33.3	100
Munyama	40.2	3.8	8.7	52.7	24.6	15.2	7.0	0.5	47.3	100
Muwowo East	40.2	0.0	16.8	56.9	22.8	10.9	8.4	1.0	43.1	100
Waya	33.3	1.1	17.8	52.2	16.7	6.7	21.1	3.3	47.8	100
Zambezi	46.2	1.3	17.0	64.5	15.7	9.0	10.3	0.4	35.5	100

Sample weights used. * Data from the LCMS 2015.

Figures 5.1 and 5.2 show distributions of labour force participation rates by age group among persons aged 12 years or older. Here, the labour force participation rate is the ratio of the “economically active population” as defined above to the total population for each age group. Figure 5.1 compares labour force

participation across age groups in Kabwe district to those of Zambia total and urban Zambia. The distribution for Kabwe shows a similar tendency to that of urban Zambia, and the participation rate starts declining rapidly after age 50. Figure 5.2 shows the gender difference of the distributions within Kabwe.

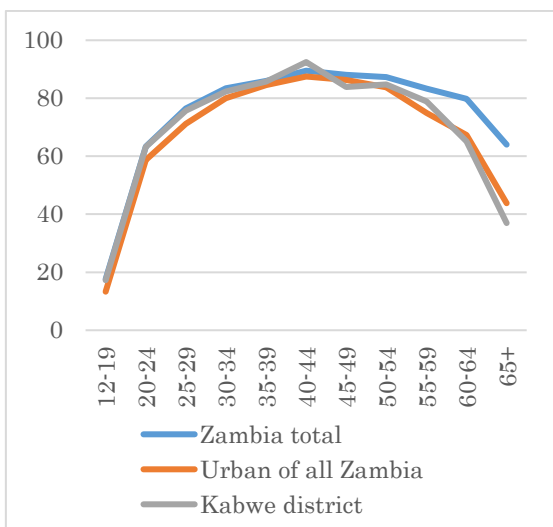


Figure 5.1: Labour Force Participation Rates among Persons Aged 12 Years or Older by Age Group

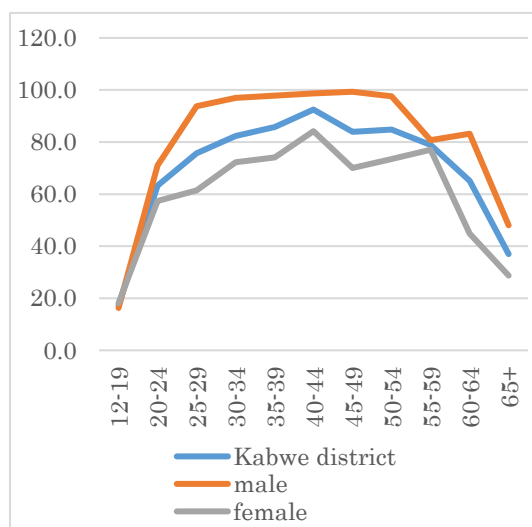


Figure 5.2: Labour Force Participation Rates among Persons Aged 12 Years or Older by Age Group and Gender.

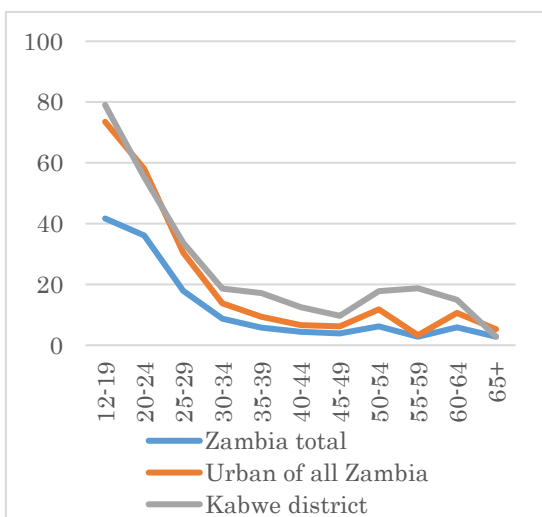


Figure 5.3: Unemployment Rates among Persons Aged 12 Years or older by Age Group

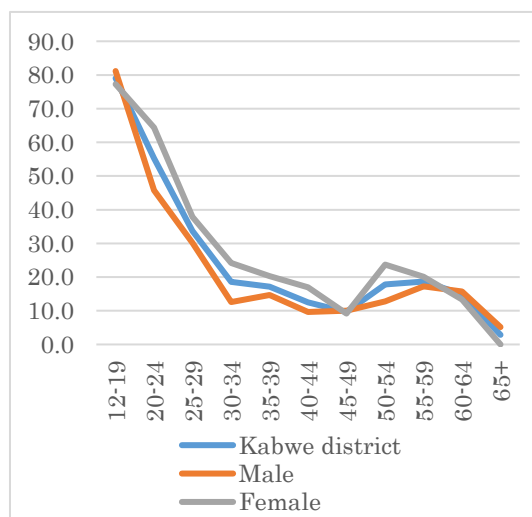


Figure 5.4: Unemployment Rates among Persons Aged 12 Years or older by Age Group and Sex

Figures 5.3 and 5.4 present distributions of unemployment rates by age group among persons aged 12 years or older. Here, the unemployment rate is estimated as the ratio of “not working” to the “economically active population”. The pattern of the distribution in Kabwe district resembles that of the urban average of Zambia more closely than that of all Zambia, but the unemployment ratio in Kabwe becomes slightly higher after age 30

than the Zambian urban average. In particular, a high ratio of unemployment is observed in the 55–59 age group in Kabwe, at 17.3%. This appears to be a peculiar feature of employment status. Figure 5.4 confirms that the high ratios of unemployment in the 50–54 and 55–59 age groups in Kabwe are more distinct in the female population, accounting for 23.7% and 20.1%, respectively.

Table 5.2: Percentage Distribution of Employed Persons Aged 12 Years or Older by Industry

	<i>Zambia total*</i>	<i>Urban of all Zambia*</i>	Kabwe district		
			Both sexes	male	female
Agriculture, forestry and fisheries	58.7	11.2	19.8	21.4	17.7
Mining and quarrying	1.7	4.0	1.7	2.8	0.2
Manufacturing	4.2	8.2	1.9	2.8	0.8
Electricity, gas, steam and air condition	0.4	1.1	1.2	2.2	0.0
Water supply sewerage, waste management	0.1	0.2	0.3	0.2	0.3
Construction	3.7	8.1	10.2	17.5	0.7
Trade, wholesale and retail distribution	14.9	31.1	20.2	12.3	30.5
Transportation and storage	2.5	5.8	5.6	9.6	0.3
Accommodation and food service activities	1.0	2.3	4.5	1.4	8.6
Information and communication	0.4	1.1	0.3	0.3	0.3
Financial and insurance activities	0.8	2.0	1.1	1.3	0.9
Real estate activities	0.1	0.3	0.2	0.3	0.0
Professional, scientific and technical	0.3	0.8	0.9	1.0	0.7
Administrative and support services	1.1	2.4	0.6	0.3	1.1
Public administration and defense, comp	1.7	4.2	2.6	2.9	2.2
Education	3.3	6.4	6.5	5.1	8.4
Human health and social work	1.4	2.9	2.4	2.3	2.5
Arts, entertainment and recreation	0.1	0.3	1.3	1.2	1.3
Other service activities	1.5	3.5	7.7	7.3	8.3
Activities of household as employers	1.8	4.0	1.3	0.0	3.0
Activities of extraterritorial organization	0.0	0.0	0.7	0.8	0.6
Other / not stated	0.0	0.0	9.0	7.0	11.6
Total	100.0	100.0	100.0	100.0	100.0

Sample weights used. * Data from the LCMS 2015.

Table 5.3 shows the proportion of employed persons by occupation type. In Kabwe, occupation types such as service and sales workers (24.5%), skilled agricultural (16.4%) or craft and related trades workers (11.7%) are the most common. When compared with those of averages in all Zambia and urban Zambia,

the proportions of these occupation types in Kabwe fall in the middle. It is also found that more females in Kabwe are employed as service and sales workers (33.1%), and more males are employed as craft and related trades workers (18.2%) in Kabwe.

Table5.3: Percentage Distribution of Employed Persons Aged 12 Years or Older by Occupation and Sex

	<i>Zambia total*</i>	<i>Urban of all Zambia*</i>	Kabwe District		
			Both sexes	Male	Female
Managers	1.8	3.6	2.1	1.8	2.4
Professionals	5.2	9.9	10.8	9.4	12.6
Technicians and associate professionals	1.7	4.1	2.1	3.1	0.7
Clerical support workers	0.9	2.3	2.3	1.8	2.8
Service and sales workers	16.9	36.9	24.5	18.0	33.1
Skilled agricultural, forestry and fishery	51.8	9.6	16.4	17.8	14.7
Craft and related trades workers	6.4	13.0	11.7	18.2	3.2
Plant and machine operators, and assembly	3.4	7.5	1.2	2.1	0.0
Collecting minerals from black mountain	-	-	0.3	0.5	0.0
Other elementary occupations	11.6	12.6	10.9	11.5	10.1
Armed forces	0.2	0.5	2.7	3.5	1.7
Other / Not stated	0.0	0.0	15.1	12.3	18.8
Total	100.0	100.0	100.0	100.0	100.0

Sample weights used. * Data from the LCMS 2015.

5.4. Labour Time

Table 5.4 summarises the results of labour time data. Among those in Kabwe who have jobs (paid or unpaid), the proportion of those who actually worked in the last seven days was 77.1%, and their average working time

was 44.4 hours. However, 14.3% of those who worked claimed that they worked shorter hours than usual. Regarding the last 12 months, 18.2% of those who had jobs reported missing more than five days owing to illness or injury. Table 5.4 also illustrates the regional differences of those data.

Table 5.4: Labour Time (Aged 12 Years or Older)

For those who have jobs (paid or unpaid) aged 12 years or older				
	Last 7 days			Last 12 months
	% who actually worked	Average working hours	% who worked shorter than usual	% who missed more than 5 days due to illness and injuries
Kabwe district	77.1	44.4	14.3	18.2
Bwacha	78.9	44.4	24.6	16.9
Chililalila	79.3	47.1	17.4	6.9
Chinyanja	56.3	40.1	44.4	12.5
Chirwa	82.8	44.9	11.4	13.2
David Ramushu	85.2	44.8	5.2	15.9
Highridge	74.1	39.4	10.0	7.4
Kalonga	66.8	42.7	9.2	34.0
Kangomba	54.3	42.7	17.4	28.9
Kaputula	68.9	41.6	17.1	22.5
Makululu	83.0	53.7	9.1	18.9
Moomba	83.9	45.7	6.3	21.1
Mpima	72.5	30.1	51.7	12.5
Munyama	81.5	45.2	19.9	16.2
Muwowo East	86.7	44.2	24.7	19.1
Waya	61.3	46.5	5.3	25.8
Zambezi	81.4	46.7	7.2	3.7

Sample weights used.

Chapter 6

Household Crop and Livestock Production

6.1. Introduction

The KHSS 2017 collected information on agricultural activities relating to the 2016/2017 farming season. The collected data include the following:

- Household participation in agricultural activities
- Production of crops such as maize, sweet potatoes, potatoes, and soya beans among agricultural households
- Livestock and poultry ownership
- Use and cost of various crop and livestock inputs
- Size of farms and home gardens

6.2. Agricultural Households

The percentage of households engaged in agricultural activities in Kabwe (41.7%) was lower than the national average (58.7%), as reported in the LCMS 2015 (Table 6.1). However, the percentage was higher than the average of the urban areas in the whole country (17.9%).

Rates of participation showed a heterogeneous picture by ward (Figure 6.1). Wards with the highest participation in agriculture were Chinyanja (95%), Munyama (88%), Mpima (81%), Kangomba (75.5%), and Chililalila (68%). The remaining wards had lower than average (41.7%) participation rates with Moomba (11.7%), Makululu (20.4%), and David Ramushu (20.6%) showing the lowest participation rates.

6.3. Crop Production

About half of all agricultural households were engaged in hybrid maize production, which is the same as the national average recorded by the LCMS 2015 (Figure 6.2). However, the share of agricultural households growing local maize in Kabwe was higher (44.1%) than the national average (35.9%) but close to the average for the urban areas in Zambia (46.4%). A higher share of households in Kabwe grew sweet potatoes and soya beans than in the whole country (22.8% vs. 8.2% and

Table 6.1: Proportion of Households Engaged in Agricultural Activities

	All households	Agricultural households	
		Number	Per cent
Whole Kabwe district	49,056	20,456	41.7
Zambia total*	30,15,000	1,769,805	58.7
Urban area of all Zambia*	12,97,000	232,163	17.9

Sample weights used. * Data from the LCMS 2015.

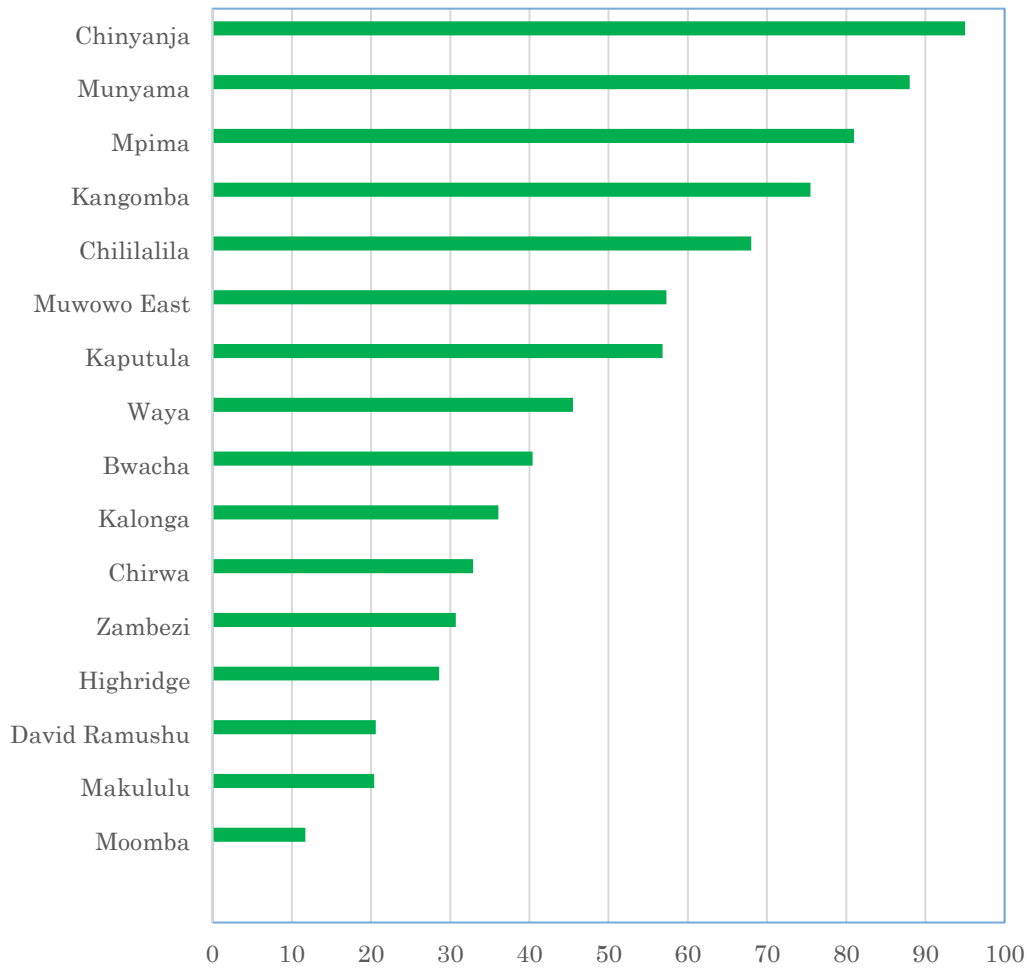


Figure 6.1: Percentage of Households Engaged in Agricultural Activities by Ward

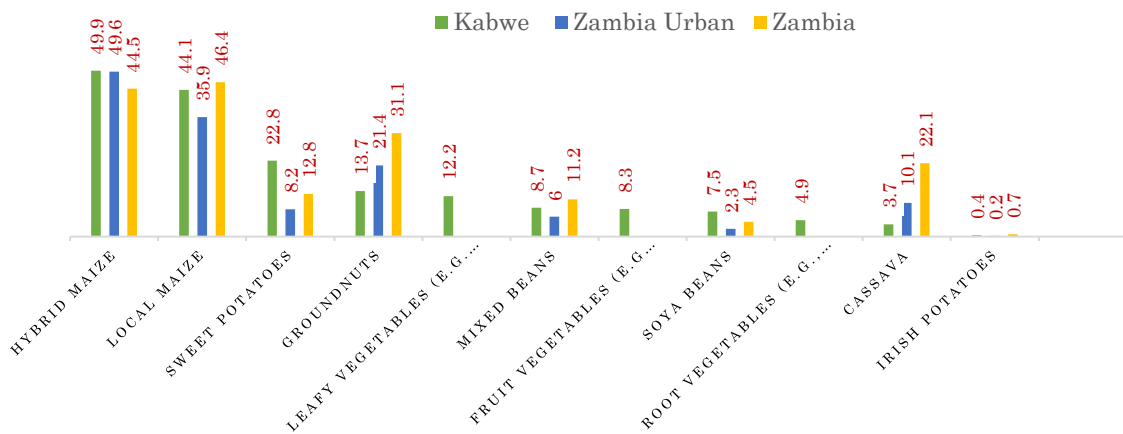


Figure 6.2: Proportion of Agricultural Households Producing Each Crop in Kabwe, Urban Areas of Zambia, and the whole Zambia

7.5% vs. 2.3%, respectively). Nonetheless, the proportion of households growing groundnuts and cassava was lower in Kabwe than the national or urban averages.

On average, each household produced 57 bags of hybrid maize (Table 6.2). The average production of soya beans was 31 bags (90 kg per bag) per household. A typical agricultural household in Kabwe produced about 11 bags (25 kg per bag) of sweet potatoes. The quantity produced for fruit vegetables (e.g., tomatoes) was 106 bags (25 kg per bag) per household.

6.4. Livestock and Poultry Production

At the time of the survey, most households in Kabwe district owned chickens (86.7%) and each household owned an average of 66 birds. Goats were the second most owned type of livestock (25.1%), followed by cattle (23%). Each household kept an average of 13 goats and 26 cows.

Table 6.2: Agricultural Households Producing Each Crop and Quantity Produced

Crop	Proportion of agricultural households growing the crop, %	Average household production	
		Units	Quantity
Maize (all types)	88.4	50kg Bag	57.0
Hybrid Maize	50.0	50kg Bag	77.0
Local Maize	44.1	50kg Bag	25.0
groundnuts	13.7	90kg Bag	4.4
Mixed Beans	8.7	90kg Bag	0.4
Soya Beans	7.5	90kg Bag	31.0
leaf vegetables (e.g. cabbage)	12.2	50kg Bag	17.5
Root vegetables (e.g carrots)	4.9	10kg Bag	2.8
fruit vegetables (e.g. tomatoes)	8.3	25 kg Bag	106.0
cassava	3.7	90kg Bag	0.2
Irish potatoes	0.4	10kg Bag	10.0
Sweet Potatoes	22.7	25 kg Bag	11.0
Sunflower	1.4	90kg Bag	2.4

Sample weights used.

Table 6.3: Livestock and Poultry Owned by Agricultural Households

Livestock or poultry	Percentage of households owning livestock and poultry	Average numbers owned per household
Cattle	23.0	26
Chicken	86.7	66
Ducks and Geese	14.4	6
Goats	25.1	13
Guinea fowls	6.0	17
Pigs	9.1	18
Quails	1.7	19
Rabbits	1.8	9
Sheep	1.2	7
Turkeys	3.1	7
Pigeons	1.0	12

Sample weights used.

6.5. Crop and Livestock Inputs

Among the crop inputs used by more than 40% of households, the costliest were inorganic fertilizer (K1,834), hired labour (K1,437), and seeds/seedlings (K810) (Table 6.4). In general, regardless of how many

farmers used the input, the costliest crop inputs were fuel (K5,888), irrigation equipment (K4,518), repair and maintenance of agricultural equipment (K1,458), insecticides (K1,369), and transport (K723). Hand tools were the cheapest crop input.

Table 6.4: Percentage Using Different Crop and Livestock Inputs and Average Cost

	Percentage of agricultural households using input by type	Average cost of input (ZMW)
Crop Inputs		
Transport	23.3	722.6
Sack or bags/containers	50.1	245
Fertilizer (Inorganic)	60.8	1,834
Fertilizer (organic)	24.0	1,857
Herbicides	9.8	1,773.6
Hired animals	13.0	402
Hired equipment	6.9	602
Hired labour	48.9	1,437
Imported hand tools	1.6	109.3
Storage facility	14.0	196.2
Local hand tools	41.6	104.4
Insecticides	28.0	1,369
Irrigation Equipment	2.5	4,518
Fuel	5.3	5,888
Seed, seedling, etc.,	64.6	810
Repair/maintenance of agricultural equipment	6.6	1,458
Livestock Inputs		
Transport	14.3	1,004
Animal Feed	48.3	4,784
Hired labour	11.9	2,926
Maintenance of pens/stables	15.5	321
Veterinary services	41.4	667
Penalties for damage caused by animals	6.7	323
Animal sales agents	4.1	357
Other livestock related inputs	7.0	3,157

Sample weights used.

For livestock inputs, animal feed was the most expensive (K4,784) and most commonly used input (48.3% of all agricultural households). About 11.9% of households used hired labour, costing them an average of K2,926. Agricultural households that used transport services for their livestock (14.3%) spent K1,004 on average. Veterinary services were used by about 41.4% of households and it cost K667 on average.

6.6. Size of Farm and Home Gardens

The average farm size in Kabwe district was 33.4 acres (13.2 hectares), and home gardens were 2.6 acres on average.

Households in Munyama had the largest farm sizes (134 acres), followed by Moomba (96 acres), Chinyanja (48.1 acres), and Zambezi (47 acres). Households in Highridge had no farms while those in the Makululu area had tiny farms.

Households in Kangomba had the biggest home gardens (11.9 acres) followed by those from Zambezi (4.2 acres), Mpima (2.1 acres), Munyama (1.8 acres), Chinyanja (1.5 acres), and Chililalila (1.1 acres). The remaining wards had gardens smaller than one acre.

Table 6.5: Average Size of Farm Land and Home Garden by Ward (Acres)

Region	Farm	Home garden
Whole Kabwe district	33.4	2.6
Wards		
Bwacha	11	0.3
Chililalila	10	1.1
Chinyanja	48.1	1.5
Chirwa	44	0.35
David		
Ramushu	5	0.62
Highridge	0	0
Kalonga	8	0.39
Kangomba	14	11.88
Kaputula	6	0.242
Makululu	3	0.46
Moomba	96	0.62
Mpima	8.98	2.11
Munyama	134	1.88
Muwowo East	16	0.397
Waya	4	0.453
Zambezi	47	4.19

Sample weights used.

Chapter 7

Household Income and Assets

7.1. Introduction

The KHSS 2017 collected data on income for persons aged five years or older. The calculation of household income includes the following income sources:

- Wage income of all household members, including both cash and in-kind payments
- Income from non-agricultural business of all household members
- Profit from agricultural production, including the foregone profit of domestic consumption
- Rental income from properties owned
- Income from interest or dividends on shares, bonds, securities, etc.
- Income from pensions and grants
- Income from remittances, gifts, and other external sources

While income captures monetary flow, ownership of assets and durable goods is also useful for measuring the cumulative wealth levels of households. Asset ownership also provides information on the ability of households to produce further income and buffer against income shocks. The survey asked whether a household owns each of 63 items. Borrowed or permanently broken items were not counted.

7.2. Household Income

The survey asked about monthly wage income

and income from non-agricultural business in the last month prior to the survey. Income from the other sources listed above was asked in the yearly basis in the survey but is rescaled to a monthly equivalent here. Throughout this section, we focus on 860 households that reported positive household incomes — 35 households (3.9% of the total sample households) are dropped from calculation. All the monetary terms are expressed in Kwacha, the national currency of Zambia abbreviated to K. All the calculations here use sampling weights.

Table 7.1 first shows the monthly household income and per capita household income. The means of total monthly household income and its per capita variation are K3,492.7 and K764.9, respectively. These figures are larger than the Zambian average but are similar to the average of urban Zambia in the LCMS 2015 data.

The remainder of Table 7.1 shows the breakdown of the mean household income. The two largest income sources are wage income and non-farm business income, constituting 53.6% and 25.5% of the total income, respectively. The share of agricultural profit is small, constituting only 4.6% of the total income, partly because Kabwe district is basically an urban area. Although 41.7% of households engage in farming (see Chapter 6), most of them do their farming in home

gardens and small-scale farms. The shares of pension, rental income and remittances receipt are not very large, either, although these sources of income would be crucial for households that do not have labour income.

Figure 7.1 shows the distributions of total and per capita household incomes. For both total and per capita household incomes, a large proportion of households are concentrated at the tail end. This uneven distribution would be

partly because incomes of temporarily unemployed persons and persons whose businesses were in off season were recorded as zero. However, quite a large proportion of households had total household income larger than K10,000 and per capita household income larger than K2,000 (both are roughly three times larger than the means and six times larger than the medians). Thus, income inequality seems severe within Kabwe district.

Table 7.1: Average Monthly Household Income and its Breakdown (In Kwacha)

	Total Household Income		Per Capita Household Income	
Total Kabwe	3,492.7		764.9	
Zambia total*	1,801.3		444.2	
Urban area of all Zambia*	3,152.4		796.4	
Breakdown of Total Household Income in Kabwe				
Labour income	2,998.0	Pension	50.7	
Wage income	1,871.3	Grants	12.7	
Irregular allowances	188.4	Rental income	100.3	
Non-farm business income	889.0	Interests	13.9	
In-kind labour income	49.2	Dividends of shares, bonds, securities, etc.	17.9	
Agricultural profit	160.4	Remittances receipt	92.0	
Sales	283.9	Gifts receipt	13.6	
Domestic consumption	36.1	Income from any other source	33.2	
Costs	159.6			

Sample weights used. * Data from the LCMS 2015.

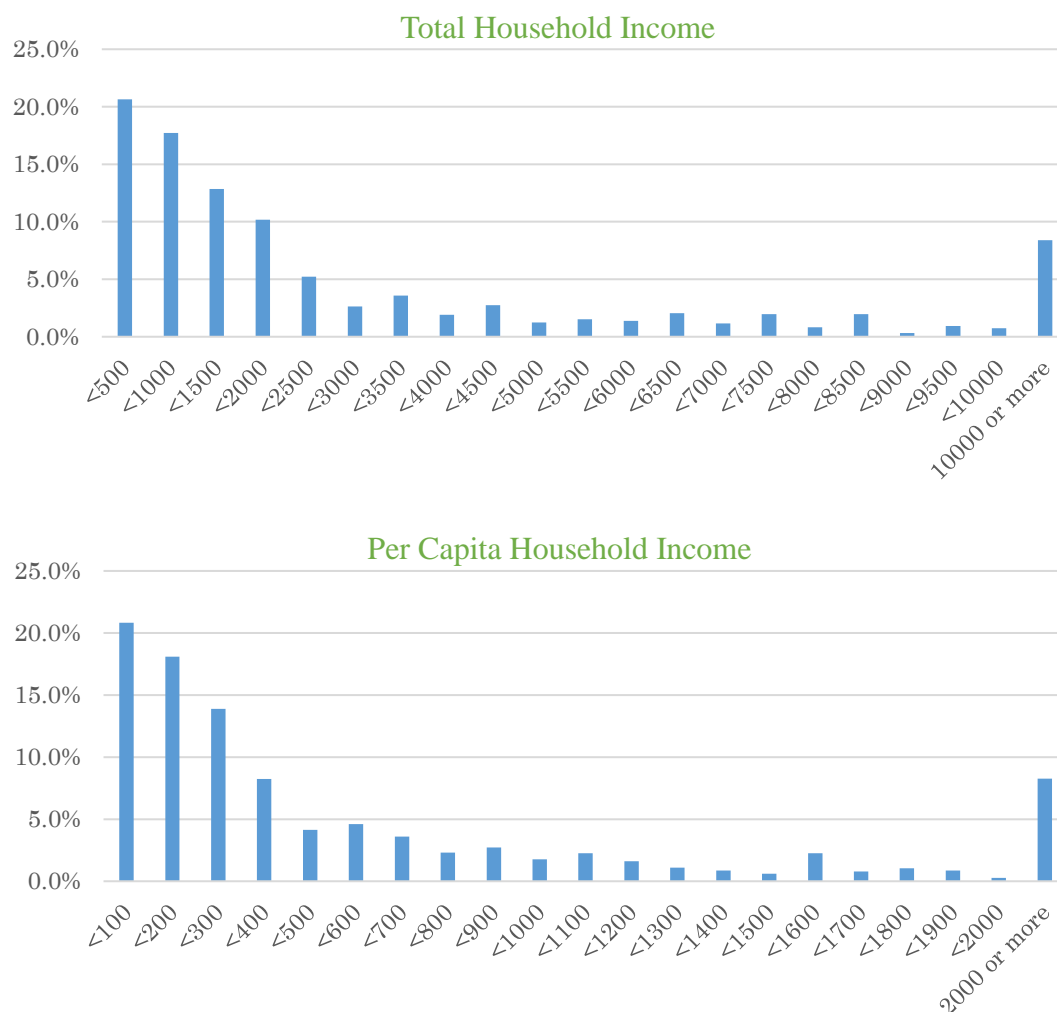


Figure 7.1: Distributions of Monthly Total and Per Capita Household Income (Weights Used)

Table 7.2 shows heterogeneity in household income and per capita household income with respect to gender of the household head and ward. As it may be expected, both total and per capita household incomes are larger in male-headed households than in female-headed households. Total and per capita household incomes also show substantial variation across wards. The wards with the highest mean incomes are located east and within a short kilometre distance from Kabwe town centre. Meanwhile, in wards located in Makululu compound, west of the city centre, which

include Makululu, Moomba and Zambezi wards, household income is less than half of the entire Kabwe mean.

7.3. Ownership of Household Assets and Durables

Table 7.3 shows the proportion of households owning each of 63 items of assets and durable goods, where the sampling weights are used. Items owned by more than 80% of households include beds, mattresses, cellular phones, and braziers (*mbaula*). Electronic

Table 7.2: Total and Per Capita Monthly Average Household Income by Gender of Head of Household and Ward

	Total household income			Per capita household income		
	All households	Male headed	Female headed	All households	Male headed	Female headed
Total Kabwe	3,492.7	3,901.9	2,179.1	764.9	827.6	563.5
Bwacha	5,513.3	6,159.2	4,245.8	1,174.2	1,090.3	1,338.9
Chililalila	1,452.5	1,552.3	355.4	506.3	538.7	150.1
Chinyanja	1,071.1	1,174.1	710.5	291.7	334.9	140.5
Chirwa	6,343.1	7,235.4	3,247.0	1,577.3	1,784.6	857.8
David Ramushu	3,888.5	4,142.2	3,157.5	835.3	745.8	1,093.3
Highridge	11,449.2	11,649.6	10,313.9	3,376.5	3,682.6	1,641.7
Kalonga	3,903.6	4,218.2	3,124.2	815.1	805.4	839.1
Kangomba	2,171.0	2,379.6	1,307.6	441.3	495.4	217.2
Kaputula	3,022.5	3,287.4	1,779.4	596.3	604.0	559.7
Makululu	1,500.6	1,655.6	1,167.3	342.3	372.7	276.9
Moomba	1,556.7	1,912.5	832.0	282.5	337.4	170.8
Mpima	581.7	636.4	344.6	124.7	139.8	59.6
Munyama	2,648.4	2,657.2	2,575.1	557.6	574.5	415.7
Muwowo East	2,914.8	3,640.9	648.7	473.8	583.0	132.7
Zambezi	1,237.7	1,422.2	481.3	218.7	242.0	122.9
Waya	6,241.1	6,548.3	5,319.6	1,319.8	1,417.4	1,027.0

Sample weights used.

durables, such as televisions, electric stoves and refrigerators were owned less. Proportions of ownership of these items are close to the urban averages in the LCMS 2015 data. Ownership of cars is limited, and its ownership rate is lower than the urban average in the LCMS 2015 data. Meanwhile, bicycle ownership is almost twice the urban average

in the LCMS 2015 data. Ownership of agricultural production instruments is limited basically because few households engage in middle to large-scale farming. Among all items, no households own boats and donkeys (indicated as n/a in table).

Table 7.3: The Ownership Rates of Various Assets and Durables

Assets / durables	The rate (%)	Assets / durables	The rate (%)	Assets / durables	The rate (%)
Bed	87.9	Electric stove	34.4	Fishing net	2.7
Mattress	91.8	Refrigerator	24.0	Hunting gun	1.2
Mosquito net	68.1	Deep freezer	33.4	Plough	6.0
Table (dinning)	53.6	Washing machine	1.5	Crop sprayer	7.6
Lounge suit / sofa	63.6	Dish washer	4.8	Knitting machine	0.9
Radio / Stereo	62.4	Air conditioner / ventilator	2.2	Lawn mowers	0.7
Television	58.9			Generator	3.0
Satellite dish / decoder (free to air)	21.9	Electric iron	38.8	Small / hand-driven tractor	0.5
		Non-electric iron	28.0		
Satellite dish / decoder (DSTV)	31.6	Private water pump	4.0	4-wheel tractor	0.9
		Sewing machine	3.9	Wheel barrow	18.0
Other pay TV	20.0	Hand hammer mill	2.9	Scotch cart	2.2
DVD / VCR	37.6	Grinding / hammer mill (powered)	1.3	Bicycle	39.5
Home theater	25.9			Motor cycle	1.9
Land phone	1.9	Sheller	1.2	Large truck	0.7
Cellular phone	84.5	Ramp presses / oil expellers	0.5	Small / pick-up truck	1.4
Computer	14.1				
Watch	26.6	Hand saw	4.5	Van / minibus	1.8
Clock	33.8	Carpentry plane	3.7	Car	10.1
Residential building	48.8	Axe	50.7	Canoe	0.7
Non-residential building	8.5	Pick	45.2	Boat	n/a
		Hoe	77.6	Oxen	3.0
Brazier / Mbaula	92.8	Hammer	37.3	Donkey	n/a
Gas stove	1.9	Shovel / spade	48.2		

Sample weights used.

Chapter 8

Expenditure

8.1. Introduction

Household expenditure, which plays a vital role in household welfare, is the most commonly used measure for assessing living standards or poverty of households in developing countries. The KHSS 2017 collected data on the following household consumption expenditures:

- Expenditure on food, which includes expenses for cereals, crop products, meats, dairy, fish, and domestic consumption on self-produced foods.
- Educational expenditure, which includes expenses on fees, tuition, textbooks and uniforms.
- Medical expenses, which include expenses for medicine, fees for doctors, and fees for hospital stays.
- Expenditure on housing and utility, which includes expenses on rents of dwelling, electricity, water.
- Remittances, which include cash and in-kind remittances sent to inside and outside Zambia.
- Other expenditure, which includes expenses for consumer goods, transport, mobile phones, etc.

Food expenditure consists of food purchased

in the marketplace, self-produced food, food items received as gifts, relief food or food-for-work, and food taken or eaten outside the home. These items were asked for two recall periods: the last two weeks and the last four weeks prior to the survey, depending on whether the items were frequently or infrequently purchased. In this section, all items were converted into monthly values.

The estimated expenditure on housing services was based on the data for the rental value of the dwelling. Even if the household occupies their own dwelling, we asked them to estimate how much it would earn per month if they were to rent out that house. Their estimate was imputed to be the rental value of their dwelling.

8.2. Average Monthly Expenditure

Table 8.1 shows means of monthly household expenditures, food and non-food expenditures, and per capita expenditure. We calculated mean values for the entire Kabwe district and for each ward investigated by the KHSS 2017 using the sample weights. The values for all Zambia and urban Zambia derive from the results of the LCMS 2015.

Table 8.1: Average Monthly Household Expenditure

	Household Expenditure				Per capita expenditure
	Total	Food	% of Food/Total	Non-Food	
Whole Kabwe district	3,532	1,264	36	2,268	773
Zambia total*	1,588	645	41	943	388
Urban area of all Zambia*	2,680	930	35	1,750	675
WARD					
Bwacha	4,284	1,291	30	2,993	918
Chililalila	1,389	566	41	823	329
Chinyanja	2,214	840	38	1,374	673
Chirwa	5,413	1,649	30	3,763	1,313
David Ramushu	3,052	1,043	34	2,010	658
Highridge	9,995	2,207	22	7,788	2,688
Kalonga	3,653	1,194	33	2,459	817
Kangomba	3,670	2,024	55	1,646	849
Kaputula	4,138	2,015	49	2,122	719
Makululu	1,793	921	51	872	424
Moomba	1,559	694	44	865	294
Mpima	866	499	58	367	177
Munyama	3,719	860	23	2,859	798
Muwowo East	3,673	1,291	35	2,383	761
Waya	5,495	1,768	32	3,727	1,106
Zambezi	1,447	596	41	851	286

Sample weights used. * Data from the LCMS 2015.

The means of monthly household expenditure and per capita expenditure in the Kabwe district are estimated as K3,532 and K773, respectively. These values are considerably higher than the averages of all Zambia, which suggests that the residents in Kabwe enjoy a relatively higher living standard compared to other locations in Zambia. The share of food expenditure to the total expenditure in Kabwe accounts for 36% and shows a similar ratio to that of the urban average in Zambia (35%).

However, the regional gap of expenditure

levels across wards within Kabwe are large. Overall, wards with highest expenditure levels are concentrated in the city centre, located northeast from the mining site, including wards such as Highridge, Chirwa, or Waya. The average monthly household expenditures in these wards exceeds K5,000. Conversely, most of the wards with lowest expenditure levels spread toward the northwest from the mining site, such as Moomba, Makululu, Zambezi, and Chililalila. Their average monthly household expenditure does not reach K2,000. In the outer southern rural areas,

such as Munyama, the expenditure level equals the average level of Kabwe.

Figures 8.1 and 8.2 show the distributions of monthly household expenditure and monthly per capita household expenditure, respectively.

Compared to the income distributions (Figures 7.1 and 7.2), the expenditure distributions show slightly more moderate variation. Nevertheless, substantial inequality is confirmed in terms of expenditure levels in Kabwe.

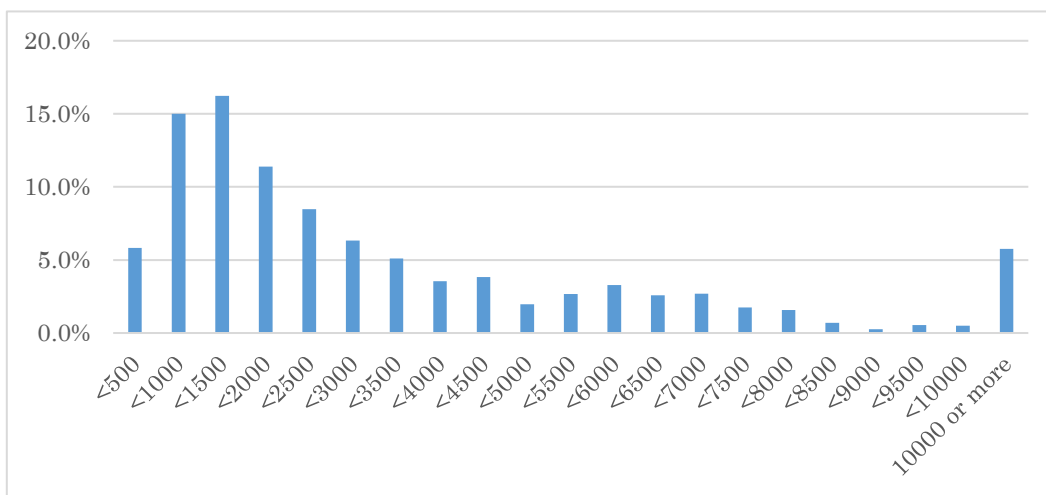


Figure 8.1: Distribution of Monthly Household Expenditure (total household)

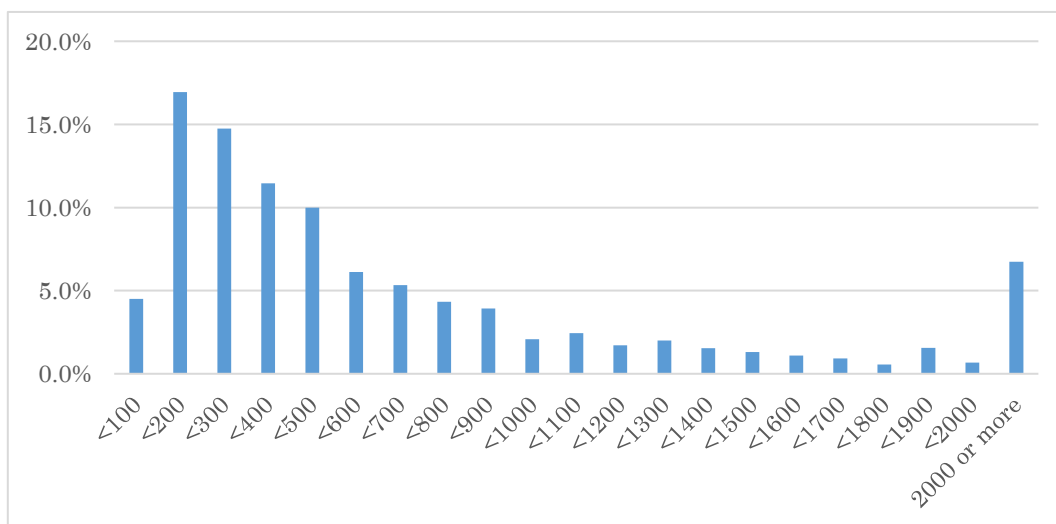


Figure 8.2: Distribution of Monthly Household Expenditure (per capita)

8.3. Percentage Share of Household Expenditure by Expenditure Type

Table 8.2 shows the expenditure pattern of households in Kabwe. The values in all Zambia and urban Zambia derive from the results of the LCMS 2015. The average shares of food and non-food expenditures in Kabwe

are similar to those of the urban average in Zambia. However, the breakdown of non-food expenditure indicates some peculiar features. In Kabwe, the expenditure share for housing, which includes expenses on rental of dwellings and fees for electricity or water, is relatively low, while the share for health expenditure is relatively high compared with the averages in all Zambia and urban Zambia.

Table 8.2: Percentage Expenditure Share by Expenditure Type

Expenditure Share	<i>Zambia*</i>	<i>Urban*</i>	Kabwe District
Total	100	100	100.0
Food	40.3	34.2	35.8
Non-food	59.7	65.8	64.2
Education	6.3	6.7	6.1
Housing	26.9	30.4	20.3
Health	0.3	0.3	0.8
Other	26.2	28.4	36.7

Sample weights used. * Data from the LCMS 2015.

Chapter 9

Household Housing Condition

9.1. Introduction

The KHSS 2017 collected information on the housing conditions of people in the Kabwe district. Housing conditions have a direct bearing on well-being. For example, poor housing conditions such as lack of access to clean drinking water or undeveloped housing units may increase exposure to environmental aspects that could be harmful to health. The KHSS 2017 collected the following information:

- Type of housing unit: This was as defined in the LCMS 2015, broken down into traditional huts, improved traditional huts, detached houses, flat/apartment/multi-units, semi-detached houses, and other. A traditional hut referred to a housing structure usually made of mud walls with a thatched roof. If some material used for either the wall or roof is improved (e.g., burnt bricks for walls or iron sheets for roofing), then the housing unit is said to be an improved traditional hut. Detached house refers to a housing unit that stands on its own, unconnected to another house. A flat/apartment/multi-unit is defined as “a housing unit that had a set of rooms and its accessories in a permanent building”. A semi-detached house is referred to as a housing structure or building that is split into two or more housing units, which do not stand

independently but are separated by a wall. The “other” category refers to a housing unit not captured in the above definitions.

- Tenancy Status: this was determined by asking the head of household the basis on which the household occupied the housing unit in which they lived.
- Main source of drinking water: the main source of drinking water was categorized as safe (improved) and unsafe (unimproved), consistent with the 2015 LCMS.
- Electricity connection: this was determined by whether a housing unit was connected to electricity via the grid.

9.2. Type of Housing Unit

The most common type of housing unit in Kabwe is a detached house (53.9%) (Table 9.1), which reflects the results for all urban areas of Zambia, as captured in the LCMS 2015. However, Kabwe district has a much higher share of households with improved traditional huts (22.7%) compared to the average of all urban areas in Zambia (10.2%). The third most common housing type in the district is a flat/apartment/multi-unit (14.6%).

By ward, Highridge, Bwacha, and Waya were the most urbanized with most households (90-100%) living in either detached houses or flats, and with few or no households living in traditional or improved traditional huts (0-

4.5%). Kalonga, Chirwa, and Kaputula were next in terms of households living in either detached houses or flats (70-80%). These wards also had a good share of households living in improved traditional huts (9-23%). Although located close to Kabwe town centre, a substantial share of households living in Makululu area, namely, Moomba, Makululu, and David Ramushu wards, lived in improved traditional huts (24%-46%). Although this could also be said of wards like Mpima, Chililalila, Chinyanja, Kangomba, Munyama,

and Zambezi, these wards are mainly agricultural and located a little further, on average, from the town centre.

9.3. Tenancy Status of Housing Unit

Most households in Kabwe occupied their own housing units (64.4%) or rented them from private individuals (25.7%), reflecting the national picture obtained in the LCMS 2015 (Table 9.2). Ownership levels were

Table 9.1: Percentage Distribution of Households by Type of Housing Unit by Ward

Region	Traditional hut	Improved traditional hut	Detached house	Flat/apartment/multi-unit	Semi-detached house	Other
Whole Kabwe district	5.8	22.7	53.9	14.6	2.0	0.0
Zambia total*	32.0	21.5	28.5	10.4	5.5	0.8
Urban area of all Zambia*	4.3	10.2	47.4	22.5	11.4	1.4
Wards						
Bwacha	0	2.4	62.1	29.5	6.0	0
Chililalila	4	28	52.0	16	0.0	0
Chinyanja	9.5	38.09	47.6	4.76	0.0	0
Chirwa	1	23.3	52.2	18.54	4.1	1.2
David Ramushu	0	45.67	38.1	15.5	0.7	0
Highridge	0	0	80.9	19.05	0.0	0
Kalonga	0	12.97	53.8	26.71	3.2	3.24
Kangomba	4	27.45	46.4	13.07	6.9	2.29
Kaputula	1	9.56	72.1	14.23	3.4	0
Makululu	9	22.68	49.9	18.26	0.0	0
Moomba	2	34.49	43.8	17.95	1.8	0
Mpima	14.28	38.09	14.3	33.3	0.0	0
Munyama	18	23.95	46.4	9.875	2.0	0
Muwowo East	6	16.5	77.0	0.44	0.0	0
Waya	0	4.5	63.6	22.7	0.0	9.09
Zambezi	29	35.03	34.93	1.41	0	0

Sample weights used. * Data from the LCMS 2015.

generally higher than the average rates for urban Zambia, which may be explained by the fact that Kabwe district has a higher than national urban average of traditional and improved traditional huts; these are the predominant housing units in rural areas that tend to have higher ownership rates.

Ownership rates are highest (more than 70%) in wards with more traditional or improved traditional housing, e.g., Kangomba, Moomba,

Mpima, Munyama, Muwowo East, and Zambezi. In general, households in more urban wards, e.g., Bwacha, Chirwa, Kalonga, and Waya, occupy housing units on a rental basis (more than 35%) from either individuals or institutions. However, some wards, such as Chinyanja and Makululu, have a substantial share of households occupying either traditional or improved traditional huts on a rental basis, which might indicate the depth of poverty in these areas.

Table 9.2: Percentage Distribution of Households by Tenancy Status by Ward

Region	Owner	Rented from Institution	Rented from Private Person	Free Housing	Other
Whole Kabwe district	64.4	1.7	25.7	8.2	0.0
Zambia total*	69.5	1.8	22.2	5.9	0.5
Urban area of all Zambia*	41.4	2.8	49.0	6.1	0.8
Wards					
Bwacha	51	7.25	27.7	14.5	0.0
Chililalila	40	0	0.0	60	0.0
Chinyanja	52.38	0	47.6	0	0.0
Chirwa	54	2.67	36.88	6.05	0.0
David Ramushu	63	0	30.7	6.42	0.0
Highridge	62	9.52	23.8	4.76	0.0
Kalonga	49	0	41.7	9.73	0.0
Kangomba	78	0	16.0	6.21	0.0
Kaputula	57	0	34.5	8.01	0.0
Makululu	55	2.26	38.7	4.52	0.0
Moomba	71	0.84	27.0	1.26	0.0
Mpima	76.19	0	0.0	23.81	0.0
Munyama	74	1.98	2.0	21.87	0.0
Muwowo East	80	3.4	8.0	8.43	0.0
Waya	63	0	36.4	0	0.0
Zambezi	75	0.71	22.3	2.12	0.0

Sample weights used. * Data from the LCMS 2015.

9.4. Main Source of Drinking Water

The proportion of households with a safe/improved water source in Kabwe (88.9%) is the same as the average for urban Zambia (89.1%), which is much higher than the national average (67.7%). Nevertheless, the sources of water between these areas differ somewhat. For example, fewer people use their own faucets in Kabwe (28.8%) compared to urban areas of Zambia (37.5%), with more people in Kabwe depending on protected wells (17.8% vs 10.3%) and rain water (2.5% vs. 1.1%).

By ward, all households in Highridge, David Ramushu, Moomba, and Zambezi have access to an improved water source. However, unlike Highridge, where the source of water for all households was their own faucet, the source for Moomba and Zambezi was a public spigot or water kiosk, and most households in David Ramushu depended on public facilities and their own faucets. Other wards with a high proportion of households depending on their own faucets are Bwacha (83.7%), Chirwa (58.6%), Waya (59%), and Kalonga (34.3%).

Wards with a large share of households using protected wells were Mpima (71.42%), Muwowo East (56.6%), Kaputula (47.7%), and Kangomba (32%). More than 12% of households did not have access to safe water, mostly depending on unprotected wells in Chinyanja (14.2%), Kangomba (13.7%), and Kalonga (12.9%).

9.5. Connection to Electricity

The proportion of households connected to electricity in Kabwe (52.3%) was higher than that in the rest of Zambia as captured in the LCMS 2015 (31.4%), although lower than the urban areas in the whole of Zambia (67.3%).

By ward, more than 95 per cent of households in Bwacha, Highridge, and Waya were connected to electricity. The proportion connected to electricity was also high in David Ramushu (72.1%), Chirwa (70.1%), and Kalonga (67.6%). Electricity connection in Chililalila, Chinyanja, Mpima, Kangomba, Munyama, Moomba, Makululu, and Zambezi was below the Kabwe average (52.3%).

Table 9.3: Percentage Distribution of Households by Main Source of Drinking Water by Ward

Region	Safe-Improved										Unsafe					Total
	Rain Water	Protect well	Borehole	Protected spring	Public tap	Own tap	Other tap (e.g., from nearby building)	Water Kiosk	Bottled Water	Total safe-Improved	Directly from river/lake/stream/dam	Unprotected well	Unprotected spring	Other	Total unsafe	
Whole Kabwe district	2.5	17.8	4.8	0.2	18.8	28.8	7.92	7.97	0.23	88.9	0.18	10.8	0	0	10.98	
Zambia total*	0.5	10.4	23.5	0.4	9.8	16.9	3.5	2.6	0.1	67.7	10.7	19.6	1.2	0.7	32.2	
Urban area of all Zambia*	1.1	10.3	8.0	0.2	18.5	37.5	7.5	5.8	0.2	89.1	0.7	8.6	0.3	1.2	10.8	
Wards																
Bwacha	0	7.19	0.0	0	2.4	83.75	4.22	0	0	97.6	0	2.42	0	0	2.42	
Chililila	0	0	40.0	0	44.0	0	12	0	0	96.0	0	4	0	0	4	
Chinyanja	0	19.04	52.4	0	0.0	9.52	4.76	0	0	85.7	0	14.28	0	0	14.28	
Chirwa	0	3.58	4.83	0	17.8	58.59	5.38	0	1.2	91.4	0.7	7.86	0	0	8.56	
David Ramushu	2	1.77	2.0	0	35.3	42.35	11.62	4.95	0	100.0	0	0	0	0	0	
Highridge	0	0	0.0	0	0.0	100	0	0	0	100.0	0	0	0	0	0	
Kalonga	7	9.7	0.0	0	3.2	34.35	29.19	3.24	0	87.0	0	12.97	0	0	12.97	
Kangomba	0	32.02	2.0	1.96	9.2	34.31	6.86	0	0	86.3	0	13.73	0	0	13.73	
Kaputula	0	47.77	3.9	0.73	2.7	32.27	3.42	0	0	90.7	0	9.26	0	0	9.26	
Makuliti	0	2.28	0.0	0	47.7	0	9.04	38.7	0	97.7	2.26	0	0	0	2.26	
Moomba	14	0	2.7	0	24.8	1.43	5.82	51.31	0	100.0	0	0	0	0	0	
Mpima	0	71.42	0.0	0	0.0		0	0	0	71.4	0	28.57	0	0	0	
Munyama	0	8.1	28.1	0	5.9	11.85	1.975	0	1.975	57.9	0	40.05	0	2.02	0	
Muwowo East	0	56.63	1.9	0	0.0	6.8	0	0	0	65.3	0	34.66	0	0	0	
Waya		9	13.6	0	4.5	59.09	4.54	0	0	90.8	0	9.09	0	0	0	
Zambezi	0	0	8.39	0	69.21	0	14.66	7.733	0	100.0	0	0	0	0	0	

Sample weights used. * Data from the LCMS 2015.

Table 9.4: Percentage Distribution of Households by Electricity Connection by Ward

Region	Proportion connected to electricity	Proportion not connected to electricity	Total	Total number of households
Whole Kabwe district	52.3	47.7	100	49,056
<i>Zambia total*</i>	31.4	68.6	100	30,14,965
<i>Urban area of all Zambia*</i>	67.3	32.7	100	12,97,000
Wards			100	
Bwacha	95.8	4.2	100	2,256
Chililalila	20.0	80.0	100	710
Chinyanja	14.3	85.7	100	624
Chirwa	70.1	29.9	100	6,490
David Ramushu	72.1	27.9	100	3,677
Highridge	95.2	4.8	100	1,209
Kalonga	67.6	32.4	100	4,234
Kangomba	43.5	56.5	100	2,448
Kaputula	57.6	42.4	100	4,483
Makululu	43.2	56.8	100	1,920
Moomba	44.5	55.5	100	4,762
Mpima	0	100	100	998
Munyama	31.9	68.2	100	1,536
Muwowo East	52.4	47.6	100	6,442
Waya	95.5	4.6	100	2,016
Zambezi	2.8	97.2	100	5,252

Sample weights used. * Data from the LCMS 2015.

Chapter 10

Blood Lead Levels

10.1. Introduction

The KHSS 2017 is a joint survey with the surveys by the health assessment sub-group of the KAMPAI project. The health assessment sub-group invited individuals—up to two children and their parents from each household—for blood sampling and measured the blood lead level (BLL) using the testing kit LeadCare II.

BLL is a useful biomarker for measuring the extent of lead exposure, which is frequently used to examine lead poisoning around the world. Generally, $10\mu\text{g}/\text{dL}$ has been regarded as the level of concern: BLL higher than this level is associated with significant health risks, such as metabolic, neuronal, reproductive and circulatory disorders and death (The Centers for Disease Control and Prevention, CDC, 2002). However, recent researches show that individuals, especially children, with a BLL less than $10\mu\text{g}/\text{dL}$ still face certain risks of lead poisoning, such as decreased IQ levels (Canfield et al. 2003). Some experts began setting the level of concern at $5\mu\text{g}/\text{dL}$, while the very concept of the level of *concern* has been recently questioned because no measurable level of blood lead is known to be safe (CDC 2012). For convenience, this chapter treats $10\mu\text{g}/\text{dL}$ BLL as the *reference* level, rather than as the level of *concern*, to describe the current situation in Kabwe, although the possibility of health risks for

BLL below that level must not be overlooked. Figure 10.1 summarises the major health risks associated with BLL.

Previously, three major sets of surveys have examined the BLL of Kabwe residents: the Copperbelt Environment Project, the Pure Earth Projects, and the projects conducted by the University of Zambia in collaboration with Hokkaido University. These surveys primarily focused on children living in highly contaminated areas and illustrated severe lead exposure among these children (results are summarised by Bose-O'Reilly et al., forthcoming). Meanwhile, the BLL data of the KAMPAI project aims to describe a general picture of lead exposure in the entire Kabwe district. The sample includes children from lowly contaminated areas and adults from any area. Regarding the use of BLL, note the following two cautions. First, as discussed in Chapter 1, BLLs are not available for all the sampled individuals in the KHSS 2017. Therefore, this chapter focuses on the subsample of the KHSS 2017 main sample for whom the BLL data are available. Since the sample set here differs from the main samples of the KHSS 2017, we do not use the sample weights throughout Chapter 10. Secondly, because the detection limit of the LeadCare II is $3.3\mu\text{g}/\text{dL}$, the precise values of BLLs cannot be determined for individuals with true BLLs below this detection limit. We conventionally treat the BLLs of such individuals as $1.65\mu\text{g}/\text{dL}$, a mean of 0 and 3.3.

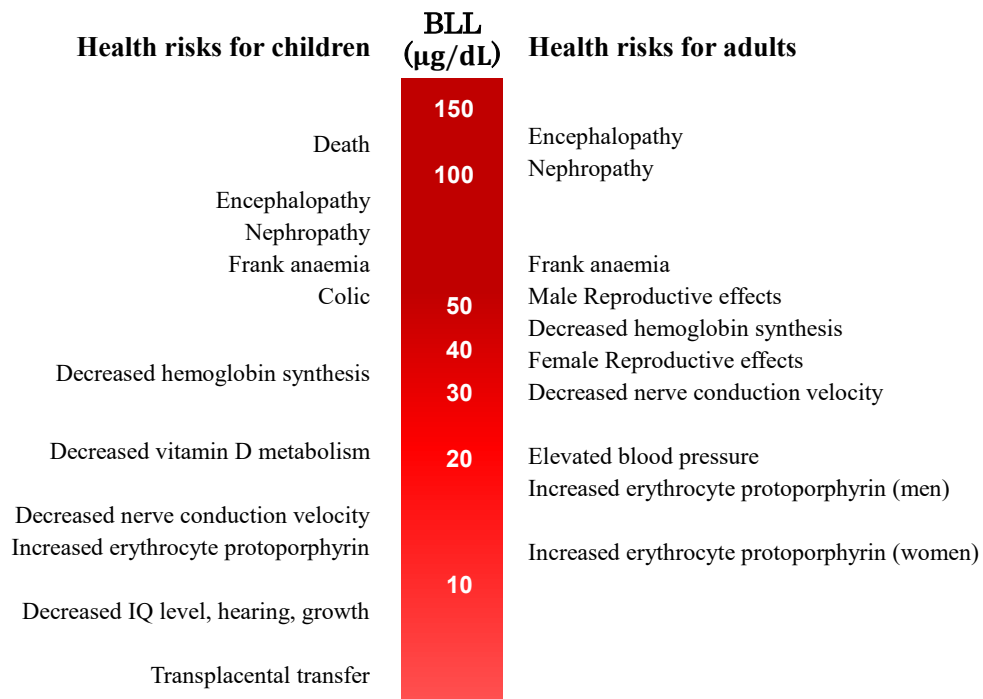


Figure 10.1: The BLL and Associated Health Risk (Authors' Creation Following Meyer Et Al. (2008)).

NOTE:

We excluded BLL data (pp 53-56 in ORIGINAL REPORT) in this report because of publishing regulations. The data will be published in other publications.

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Kabwe Household Socioeconomic Survey 2017 Questionnaire

Notes

This is the printable version of the questionnaire. The interviews were conducted in the form of Computer Assisted Personal Interviewing (CAPI) using the application Survey Solutions (version 5.22.20) developed by the World Bank.

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Household identification

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Concluding remarks

HOUSEHOLD IDENTIFICATION

HHID	HHID	PROVIDED BY SUPERVISOR
SEA	SEA CODE	
HEAD_NAME	THE NAME OF THE HOUSEHOLD HEAD	
TEL	Telephone number (if available)	
DATE_B	DATE OF THE BEGINNING OF THE INTERVIEW	
GPS	GPS coordinate	

For all persons. Answer cells omitted.

SECTION 1: HOUSEHOLD ROSTER

INTRODUCTION: I would like to start the interview by asking you questions about yourself and other usual members of the household

SERIAL NUMBER OF HOUSEHOLD MEMBERS (personID)	Please give me the names of all persons who usually live with this household (START WITH THE HEAD OF THE HOUSEHOLD). [Preferred order: HEAD, SPOUSE of head, CHILDREN of head (elder to younger), OTHER MEMBERS. Include visitors who have lived with the household for sixmonths or more. Include usual members, who are away visiting, in hospital, at boarding schools or college or university, etc.]	1A	1B	For children aged 5-9 years, ask about their birthdays and check whether they were born BEFORE AUGUST 2011. This note appears if Q1A=5,6,7,8,9.	2A	2B	2C	3A
		How old is [NAME] now? [RECORD AGE IN COMPLETED YEARS. RECORD 0 FOR THOSE 0-11 MONTHS OLD.]	Record exact age in completed months for those 0-59 months old (0-4 years old). [USE UNDER FIVE CLINIC CARD IF AVAILABLE. RECORD 99 IF DON'T KNOW] Asked if Q1A<5		The date of birth for children aged 0-4 years old Asked if Q1A<5	Is [NAME] a Zambian national? 1: YES 2: NO	DAY	MON TH

SECTION 1: HOUSEHOLD ROSTER (Continued)

3B	4	5	6A	6B
What is [NAME]'s ethnicity? 1: BEMBA 2: TONGA 3: CHEWA 4: LOZI 5: NSENGA 6: TUMBUKA 7: NGONI 8: LENJE 9: LAMBA 10: WHITE 11: OTHER ETHNICITY Asked if Q3A=1	What is the relationship of [NAME] to the head of the household? 1: HEAD 2: SPOUSE 3: OWN CHILD 4: STEP CHILD 5: ADOPTED CHILD 6: GRAND CHILD 7: BROTHER/SISTER 8: COUSIN 9: NIECE/NEPHEW 10: BROTHER/SISTER-IN LAW 11: PARENT 12: PARENT-IN-LAW 13: OTHER RELATIVE 14: MAID / NANNY / HOUSE-SERVANT 15: OTHER	Is [NAME] Male or Female? 1: MALE 2: FEMALE	What is [NAME]'s primary language? 1: BEMBA 2: NYANJA 3: TONGA 4: LOZI 5: KAONDE 6: LUVALE 7: LUNDA 8: LENJE 9: LAMBA 10: ENGLISH 11: OTHER [THE LANGUAGE MAINLY USED AT HOME.]	Please state [NAME]'s level of English proficiency. 1: EXCELLENT (he/she speaks English like his/her primary language) 2: GOOD (he/she speaks English without any problem in most cases) 3: FAIR (he/she speaks English without any problem in daily conversation) 4: POOR (he/she understands simple conversation) 5: DOES NOT SPEAK AT ALL Asked if Q6A is not English AND Q1A≥5.

SECTION 1: HOUSEHOLD ROSTER (Continued)

7	8A	8B	9	10A	10B
Is [NAME] an albino 1: YES 2: NO	Does [NAME] have any disability? 1: YES 2: NO	Is [NAME] blind, partially sighted, deaf, dumb, crippled, mentally retarded, mentally ill, ex-mental? 1: BLIND 2: PARTIALLY SIGHTED 3: DEAF 4: DUMB 5: PHYSICALLY DISABLED 6: MENTALLY RETARDED 7: MENTALLY ILL 8: EX-MENTAL [RECORD UP TO THREE DISABILITIES] Asked if Q8A=1.	Where was [NAME] born? 1: KABWE DIST 2: CENTRAL PROV. OTHER THAN KABWE 3: COPPERBELT PROVINCE 4: EASTERN PROV 5: LUAPULA PROV 6: LUSAKA PROV 7: MUCHINGA PROV 8: NORTHERN PROV 9: NORTH WESTERN PROV 10: SOUTHERN PROV 11: WESTERN PROV 12: OTHER COUNTRIES	How many years has [NAME] been living in Kabwe district? [GIVE TOTAL YEARS IN LIFE]	How many years has [NAME] been living in this dwelling? [GIVE LENGTH YEAR]

SECTION 1: HOUSEHOLD ROSTER (Continued)			
11A	11B	12	13
Where was [NAME] residing before? 1: HAS NEVER MOVED 2: DIFFERENT DWELLING/ SAME WARD 3: DIFFERENT WARD/KABWE DIST 4: DIFFERENT DISTRICT/ CENTRAL PROVINCE 5: DIFFERENT PROVINCE 6: DIFFERENT COUNTRY 7: DON'T KNOW/ REFUSED	Was the previous residence rural or urban? 1: RURAL 2: URBAN 3: DIFFICULT TO SAY / DON'T KNOW Asked if Q11A=3,4,5,6.	Why did [NAME] move from his/her previous residence? 1: FOR SCHOOL 2: BACK FROM SCHOOL/STUDIES 3: TO SEEK WORK/ BUSINESS 4: TO START WORK/ BUSINESS 5: TRANSFER OF HEAD OF HOUSEHOLD 6: PREVIOUS HOUSEHOLD COULD NOT AFFORD TO KEEP HIM/HER 7: DEATH OF PARENT/GUARDIAN 8: GOT MARRIED 9: NEW HOUSEHOLD 10: RETIREMENT 11: RETRENCHMENT 12: DECIDED TO RESETTLE 13: ACQUIRED OWN/DIFFERENT ACCOMODATION 14: FOUND NEW AGRICULTURAL LAND 15: REFUGEE/ASYLUM SEEKER 16: ENVIRONMENTAL POLLUTION 17: OTHER 18: DON'T KNOW [CHOOSE THE MAIN OR THE MOST IMPORTANT REASON.] Asked only if Q11A==2,3,4,5,6.	What is the marital status of [NAME]? 1: NEVER MARRIED 2: MARRIED 3: SEPARATED 4: DIVORCED 5: WIDOWED 6: CO-HABITING ASKED IF Q1A>=12

For all persons aged 0-20 years. Answer cells omitted.

SECTION 2: BIOLOGICAL RELATIONSHIP					
1	2	3	4	5	6
Is the biological mother of [NAME] in this household? 1: YES 2: NO	Who is the biological mother of [NAME]? LIST OF HOUSEHOLD MEMBERS TO BE AUTOMATICALLY MADE. Asked if Q1=1	Is the biological mother of [NAME] still alive? 1: YES 2: NO 3: DON'T KNOW Asked if Q1=2	Is the biological father of [NAME] in this household? 1: YES 2: NO	Who is the biological father of [NAME]? LIST OF HOUSEHOLD MEMBERS TO BE AUTOMATICALLY MADE. Asked if Q4=1	Is the biological father of [NAME] still alive? 1: YES 2: NO 3: DON'T KNOW Asked if Q4=2

For all persons. Answer cells omitted.

SECTION 3: HEALTH - FOR ALL PERSONS

INTRODUCTION: I am now going to ask about the health status of each member of your household.

1	2	3
<p>Has [NAME] been sick or injured during the last two weeks?</p> <p>1: YES SICK 2: YES INJURED 3: YES BOTH 4: NO 5: DON'T KNOW</p>	<p>What was [NAME] mainly suffering from? [MULTIPLE ANSWERS ALLOWED. RECORD UP TO THREE ILLNESSES.] Asked if Q1=1 or 3</p> <p>1: FEVER/MALARIA 2: COUGH/COLD/CHEST INFECTION 3: TUBERCULOSIS (TB) 4: ASTHMA 5: BRONCHITIS 6: PNEUMONIA/CHEST PAIN 7: DIARRHOEA WITHOUT BLOOD 8: DIARRHOEA WITH BLOOD 9: DIARRHOEA AND VOMITTING 10: VOMITING 11: ABDOMINAL PAINS 12: CONSTIPATION/STOMACH UPSET 13: LIVER INFECTION/SIDE PAIN 14: LACK OF BLOOD/ANEAMIA 15 : BOILS 16 : SKIN RASH/SKIN INFECTION</p> <p>17: PILES/HAEMOROIDES 18: SHINGLES/HERPES ZOSTER 19: PARALYSIS OF ANY KIND 20: STROKE 21: HYPERTENSION 22: DIABETES/SUGAR DISEASE 23: EYE INFECTION 24: EAR INFECTION 25: TOOTHACHE/MOUTH INFECTION 26: HEADACHE 27: MEASLES 28: JAUNDICE/YELLOWNESS 29: BACKACHE 30: CANCER OF ANY KIND 31: MENINGITIS 32: OTHER</p>	<p>Did [NAME] consult any health or other institution/personnel for this illness/injury or did he/she only use self-administered medicine?</p> <p>1: CONSULTED 2: USED SELF ADMINISTERED MEDICINE ONLY 3: NONE OF THE ABOVE</p> <p>ASKED IF Q1=1, 2, 3</p>

SECTION 3: HEALTH (CONT'D)

4	5	6	7	8
<p>How much in total was spent on [NAME]'s medication/consultation in the last two weeks?</p> <p>[GIVE AMOUNT IN KWACHA]</p> <p>Asked if Q3=1,2.</p>	<p>Where did [NAME] get the medicine from?</p> <p>1: GOVT INSTITUTION 2: MISSION INSTITUTION 3: INDUSTRIAL INST. 4: PRIVATE INSTITUTION 5: PHARMACY/ CHEMIST 6: RELATIVES 7: NEIGHBOURS 8: FRIENDS 9: TRADITIONAL HEALERS 10: OTHER</p> <p>Asked if Q3=1,2.</p>	<p>Which health or other institution/personnel did [NAME] visit first for this illness/injury?</p> <p>1: GOVT HOSPITAL 2: GOVT HEALTH CENTRE/CLINIC 3: GOVT HEALTH POST 4: MISSION INST 5: INDUSTRIAL INST 6: PRIVATE INST 7: INSTITUTION OUTSIDE ZAMBIA 8: MEDICAL PERSONNEL 9: TRADITIONAL HEALER 10: FAITH / SPIRITUAL / CHURCH HEALER 11: OTHER</p> <p>Asked if Q3=1.</p>	<p>Who attended to [NAME] during this visit?</p> <p>1: MEDICAL DOCTOR 2: CLINICAL OFFICER 3: NURSE/MIDWIFE 4: COMMUNITY HEALTH WORKER 5: TRADITIONAL HEALER 6: FAITH HEALER 7: SPIRITUAL HEALER 8: CHURCH HEALER 9: OTHER</p> <p>Asked if Q3=1.</p>	<p>What was the method used for paying for the services of the facility on this visit?</p> <p>1: PRE-PAYMENT SCHEME (LOW COST) 2: PRE-PAYMENT SCHEME (HIGH COST) 3: PAID FOR BY EMPLOYER 4: PAID BY INSURANCE 5: PAID PART AND THE OTHER PART BY OTHER; (e.g. EMPLOYER, FRIENDS, INSURANCE) 6: PAID DIRECTLY 7: PAID FOR BY OTHER 8: DIDN'T PAY 9: NOT APPLICABLE</p> <p>[Multiple answers allowed]</p> <p>Asked if Q3=1.</p>

SECTION 3: HEALTH (CONT'D)

9	10	11
<p>Has [NAME] been continuously ill, for at least 3 months in the last 12 months?</p> <p>1: YES 2: NO</p>	<p>What was [NAME] mainly suffering from? [MULTIPLE ANSWERS ALLOWED. RECORD UP TO THREE ILLNESSES.] Asked if Q9=1</p> <p>1: FEVER/MALARIA 2: COUGH/COLD/CHEST INFECTION 3: TUBERCULOSIS (TB) 4: ASTHMA 5: BRONCHITIS 6: PNEUMONIA/CHEST PAIN 7: DIARRHOEA WITHOUT BLOOD 8: DIARRHOEA WITH BLOOD 9: DIARRHOEA AND VOMITTING 10: VOMITING 11: ABDOMINAL PAINS 12: CONSTIPATION/STOMACH UPSET 13: LIVER INFECTION/SIDE PAIN 14: LACK OF BLOOD/ANEAMIA 15 : BOILS 16 : SKIN RASH/SKIN INFECTION</p> <p>17: PILES/HAEMOROIDES 18: SHINGLES/HERPES ZOSTER 19: PARALYSIS OF ANY KIND 20: STROKE 21: HYPERTENSION 22: DIABETES/SUGAR DISEASE 23: EYE INFECTION 24: EAR INFECTION 25: TOOTHACHE/MOUTH INFECTION 26: HEADACHE 27: MEASLES 28: JAUNDICE/YELLOWNESS 29: BACKACHE 30: CANCER OF ANY KIND 31: MENINGITIS 32: OTHER</p>	<p>Has [NAME] been able to carry out his/her normal activities during the period of the illness?</p> <p>1: YES 2: NO</p> <p>Asked if Q9=1</p>

For all persons. Answer cells omitted.

SECTION 4: EDUCATION – FOR ALL PERSONS

INTRODUCTION: I am now going to ask about the educational status of each member of your household

1	2	3A	3B
<p>Is [NAME] currently attending school?</p> <p>1: YES, NURSERY/ PRE-SCHOOL 2: YES, OTHER GRADES FULL TIME 3: YES, OTHER GRADES PART TIME 4: YES, COMM. SCHOOL FULL TIME 5: YES, CORRESPONDENCE 6: YES, ADULT LITERACY CLASS 7: YES, TERTIARY SCHOOL 8: OTHER 9: NO</p> <p>[INCLUDING THOSE IN COLLEGES AND UNIVERSITIES. ASK ABOUT THE PREVIOUS SCHOOL TERM (OR THE PREVIOUS SCHOOL YEAR) IF IT IS TIME FOR VACATIONS.]</p>	<p>What grade / level of education is [NAME] currently attending?</p> <p>1 to 11: Grade 1 to 11 12: Grade 12 GCE (O-level) 13: Grade 12 GCE(A-level) 14: College students 15: Undergraduate University students 16: Post-graduate Certificate / Diploma students 17: Master Degree students 18: Doctoral level and above students</p> <p>Asked if Q1=2,3,4,5,7,8</p>	<p>Is the school [NAME] is currently attending, a Central Government, Local Government (council), Mission/Religious, Industrial or private school?</p> <p>1: CENTRAL GOVT 2: LOCAL GOVT (council) 3: MISSION/RELIGIOUS 4: INDUSTRIAL 5: PRIVATE 6: OTHER</p> <p>Asked if Q1=1,2,3,4,5,7,8</p>	<p>Please give the name of the school</p> <p>Asked if Q1=1,2,3,4,5,7,8</p>

SECTION 4: EDUCATION (CONT'D)

4	5	6
<p>How often did [NAME] miss classes (on average in the last term)?</p> <p>1: NEVER 2: A LITTLE (ONE DAY OR TWO PER MONTH) 3: OFTEN (THREE TO TEN DAYS PER MONTH) 4: VERY OFTEN (MORE THAN TEN DAYS PER MONTH)</p> <p>In case of part time students: A LITTLE: ONE DAY OR TWO OUT OF 20 SCHOOL DAYS. OFTEN: THREE TO TEN DAYS OUT OF 20 SCHOOL DAYS. VERY OFTEN: MORE THAN TEN DAYS OUT OF 20 SCHOOL DAYS.</p> <p>Asked if Q1=1,2,3,4,5,7,8</p>	<p>Has [NAME] ever attended school?</p> <p>1: YES 2: NO</p> <p>Asked if Q1=6,9</p>	<p>What is the highest grade [NAME] attained?</p> <p>1 to 11: Grade 1 to 11 12: Grade 12 GCE (O-level) 13: Grade 12 GCE (A-level) 14: CERTIFICATE 15: DIPLOMA 16: DEGREE 17: MASTER DEGREE 18: DOCTORAL DEGREE 19: NONE (went to school but did not complete any grade)</p> <p>Asked if Q5=1</p>

SECTION 4: EDUCATION (CONT'D)

7	8
<p>What was the main reason for [NAME] leaving school at the time?</p> <p>Asked if Q5=1</p> <p>1: STARTED WORKING / BUSINESS 2: EXPENSIVE 3: TOO FAR 4: NOT SELECTED/FAILED 5: PREGNANCY 6: MADE GIRL PREGNANT 7: COMPLETED STUDIES / SCHOOL 8: GOT MARRIED 9: NO NEED TO CONTINUE SCHOOL</p> <p>10: SCHOOL NOT IMPORTANT 11: UNSAFE TO TRAVEL TO SCHOOL 12: EXPELLED 13: LACK OF FINANCIAL SUPPORT 14: NEEDED TO HELP OUT AT HOME 15: ILLNESS/INJURY/DISABLED 16: OTHER 17: DON'T KNOW</p>	<p>Why has [NAME] never attended school?</p> <p>1: UNDER-AGE 2: COULDN'T GET A PLACE 3: EXPENSIVE 4: NO FINANCIAL SUPPORT 5: NO SCHOOL / SCHOOL TOO FAR 6: ILLNESS/INJURY 7: SCHOOL NOT IMPORTANT 8: UNSAFE TO TRAVEL TO SCHOOL 9: OTHER 10: DON'T KNOW</p> <p>Asked if Q5=2</p>

SECTION 4: EDUCATION (CONT'D)

From now on I would like to ask about the expenditure to various school items in the LAST 12 MONTHS.

9A	9B	9C	10A	10B	10C	11A	11B	11C	12A	12B	12C
<p>How much did your household spend on SCHOOL FEES for [NAME] during...</p> <p>[INCLUDE EXAMINATION FEES AND BOARDING FEES. ENTER 0 IF NOT SPENDING ANY MONEY]</p> <p>Asked if Q1=1,2,3,4,5,6,7,8</p>			<p>How much did your household spend on PRIVATE TUTORIALS for [NAME] during...</p> <p>[ENTER 0 IF NOT SPENDING ANY MONEY]</p> <p>Asked if Q1=1,2,3,4,5,6,7,8</p>			<p>How much did your household spend on TEXTBOOKS for [NAME] during...</p> <p>[ENTER 0 IF NOT SPENDING ANY MONEY]</p> <p>Asked if Q1=1,2,3,4,5,6,7,8</p>			<p>How much did your household spend on SCHOOL UNIFORMS for [NAME] during...</p> <p>[INCLUDE SOCKS, TIES, MATERIALS, TAILORING CHARGES. ENTER 0 IF NOT SPENDING ANY MONEY]</p> <p>Asked if Q1=1,2,3,4,5,6,7,8</p>		
2 nd term this year	1 st term this year	3 rd term the last year	2 nd term this year	1 st term this year	3 rd term the last year	2 nd term this year	1 st term this year	3 rd term the last year	2 nd term this year	1 st term this year	3 rd term the last year

For all persons aged 5 years or above. Answer cells omitted.

SECTION 5: ECONOMIC ACTIVITY AND NON-FARM INCOME

INTRODUCTION: I am now going to ask about the economic activity status of each member aged 5 or above of your household.

<p>1</p> <p>What is [NAME]'s main current economic activity status?</p> <p>[FOR THOSE ENGAGING IN FARMING, FISHING and FORESTRY: If he/she works for non-household members and receives wages, choose IN WAGE EMPLOYMENT. IF HE/SHE IS MAID/NANNY/HOUSE-SERVANT IN THIS HOUSEHOLD: Record OTHER even if he/she receives wages.]</p> <p>1: IN WAGE EMPLOYMENT 2: RUNNING A BUSINESS/ SELF EMPLOYED BUT NON FARM 3: FARMING 4: FISHING 5: FORESTRY 6: PIECEWORK 7: UNPAID FAMILY WORKER / ASSISTING NON-FARM FAMILY BUSINESS WITHOUT WAGE 8: NOT WORKING BUT LOOKING FOR WORK/MEANS TO DO BUSINESS</p> <p>9: NOT WORKING AND NOT LOOKING FOR WORK/MEANS TO DO BUSINESS (BUT AVAILABLE TO DO SO) 10: FULL TIME STUDENT 11: HOME MAKER / HOUSEWIFE 12: RETIRED / TOO OLD TO WORK 13: TOO YOUNG TO WORK 14: OTHER</p>	<p>2</p> <p>What type of job/business is [NAME] doing?</p> <p>Asked if Q1=1,2,6,7</p> <p>1: MANAGERS 2: PROFESSIONALS 3: TECHNICIANS AND ASSOCIATE PROFESSIONALS 4: CLERICAL SUPPORT WORKERS 5: SERVICE AND SALES WORKERS 6: SKILLED AGRICULTURAL, FORESTRY AND FISHERY WORKERS</p> <p>7: CRAFT AND RELATED TRADES WORKERS 8: PLANT AND MACHINE OPERATORS, AND ASSEMBLERS 9: COLLECTING MINERALS FROM BLACK MOUNTAIN 10: OTHER ELEMENTARY OCCUPATIONS 11: ARMED FORCES 12: OTHER/ NOT STATED</p>
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SECTION 5: ECONOMIC ACTIVITY AND NON-FARM INCOME (CONT'D)

INTRODUCTION: I am now going to ask about the economic activity status of each member aged 5 or above of your household.

<p>3</p> <p>What sort of business/service is carried out by [NAME]'s employer / establishment / business?</p> <p>Asked if Q1=1,2,6,7</p> <p>1: AGRICULTURE, FORESTRY & FISHERIES 2: MINING AND QUARRYING 3: MANUFACTURING 4: ELECTRICITY, GAS, STREAM AND AIR CONDITIONING SUPPLY 5: WATER SUPPLY, SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES 6: CONSTRUCTION 7: TRADE, WHOLESALE, AND RETAIL DISTRIBUTION 8: TRANSPORTATION AND STORAGE 9: ACCOMMODATION AND FOOD SERVICE ACTIVITIES 10: INFORMATION AND COMMUNICATION 11: FINANCIAL AND INSURANCE ACTIVITIES</p> <p>12: REAL ESTATE ACTIVITIES 13: PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES 14: ADMINISTRATIVE AND SUPPORT SERVICES 15: PUBLIC ADMINISTRATION AND DEFENSE, COMPULSORY SOCIAL SECURITY 16: EDUCATION 17: HUMAN HEALTH AND SOCIAL WORK 18: ARTS, ENTERTAINMENT AND RECREATION 19: OTHER SERVICE ACTIVITIES 20: ACTIVITIES OF HOUSEHOLD AS EMPLOYERS 21: ACTIVITIES OF EXTRATERRITORIAL ORGANIZATION AND BODIES 22: OTHER / NOT STATED</p>	<p>4</p> <p>What is [NAME]'s employment status?</p> <p>1: CENTRAL GOVT EMPLOYEE 2: LOCAL GOVT/COUNCIL EMPLOYEE 3: PARASTATAL/ QUASI-GOVT EMPLOYEE 4: PRIVATE SECTOR EMPLOYEE 5: NGO EMPLOYEE 6: INT'L ORGANISATION/ EMBASSY EMPLOYEE 7: HOUSEHOLD EMPLOYEE 8: OTHER</p> <p>Asked if Q1=1</p>	<p>5</p> <p>How much is [NAME]'s regular gross monthly salary/wage from this job?</p> <p>[INCLUDE REGULAR ALLOWANCES (HOUSING, TRANSPORT, ETC) AND REGULAR OVERTIME RETENTION ALLOWANCE.]</p> <p>Asked if Q1=1</p>
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SECTION 5: ECONOMIC ACTIVITY AND NON-FARM INCOME (CONT'D)

<p>6</p> <p>How much non regular allowances did [NAME] receive last month from this job?</p> <p>[E.g. OVERTIME PAYMENTS, SUBSISTENCE ALLOWANCES, BONUSES, ETC.]</p> <p>Asked if Q1=1</p>	<p>7</p> <p>How much income did [NAME] receive from this business in the last one month?</p> <p>Asked if Q1=2, 6</p>	<p>8</p> <p>How much income in-kind do [NAME] receive per month (e.g. bags of mealie meal, charcoal) from this job / business?</p> <p>[CONVERT TO KWACHA EQUIVALENT]</p> <p>Asked if Q1=1, 2, 6</p>	<p>9</p> <p>In this job/business, is [NAME] entitled to pension, gratuity or social security?</p> <p>1: YES 2: NO</p> <p>Asked if Q1=1,2,3,4,5,6</p>	<p>10</p> <p>Is [NAME] entitled to paid leave in this job / business?</p> <p>1: YES 2: NO</p> <p>Asked if Q1=1,2,3,4,5,6</p>
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SECTION 5: ECONOMIC ACTIVITY AND NON-FARM INCOME (CONT'D)

11A	11B	12	13	14	15
Does [NAME] employ any worker in this business? 1: YES 2: NO [DO NOT COUNT FAMILY MEMBERS ASSISTING THE BUSINESS WITHOUT PAYMENT.] Asked if Q1=2	Are there five (5) or more people working in this company/business including the owner? 1: YES 2: NO [INCLUDING ALL WORKERS IN ALL BRANCHES OF THE SAME COMPANY/BUSINESS] Asked if Q1=1,6 OR Q11A=1	Does [NAME] have another job/business? 1: YES 2: NO Asked if Q1=1-7	In this job/business, is [NAME] ...? 1: IN WAGE EMPLOYMENT 2: RUNNING A BUSINESS/ SELF EMPLOYED BUT NON FARM 3: FARMING 4: FISHING 5: FORESTRY 6: PIECEWORK 7: UNPAID FAMILY WORKER / ASSISTING NON-FARM FAMILY BUSINESS WITHOUT WAGE 14: OTHER Asked if Q12=1	What type of job/business is this? The same answer options as in Q2 Asked if Q13=1,2,6,7	What sort of business/service is carried out by [NAME]'s employer/ establishment/ business in this job/ business? The same answer options as in Q3 Asked if Q13=1,2,6,7

SECTION 5: ECONOMIC ACTIVITY AND NON-FARM INCOME (CONT'D)

16	17	18	19	20	21
What is [NAME]'s employment status in this job? The same answer options as in Q4. Asked if Q13=1	How much is [NAME]'s regular gross monthly salary/wage from this job? [INCLUDE REGULAR ALLOWANCES (HOUSING, TRANSPORT, ETC) AND REGULAR OVERTIME RETENTION ALLOWANCE.] Asked if Q13=1	How much non regular allowances did [NAME] receive last month from this job? [E.g. OVERTIME PAYMENTS, SUBSISTENCE ALLOWANCES, BONUSSES, ETC.] Asked if Q13=1	How much income did [NAME] receive from this business in the last one month? Asked if Q13=2, 6	How much income in-kind do you receive per month (e.g. bags of mealie meal, charcoal, etc) from this job / business? Asked if Q13=1, 2, 6	In this job/business, is [NAME] entitled to pension, gratuity or social security? 1: YES 2: NO Asked if Q13=1,2,3,4,5,6

SECTION 5: ECONOMIC ACTIVITY AND NON-FARM INCOME (CONT'D)

22	23A	23B	24	25
Is [NAME] entitled to paid leave in this job/business? 1: YES 2: NO Asked if Q13=1,2,3,4,5,6	Does [NAME] employ any worker in this business? 1: YES 2: NO [DO NOT COUNT FAMILY MEMBERS ASSISTING THE BUSINESS WITHOUT PAYMENT.] Asked if Q13=2	Are there five (5) or more people working in this company/business including the owner? 1: YES 2: NO [INCLUDING ALL WORKERS IN ALL BRANCHES OF THE SAME COMPANY/BUSINESS] Asked if Q13=1,6 OR Q23A=1	Is [NAME] currently engaged in any other income generating activities or farming? 1: YES 2: NO Asked if Q12=1	What type of job/business is [NAME] doing as the other income generating activities or farming? 1: IN WAGE EMPLOYMENT 2: RUNNING A BUSINESS/ SELF EMPLOYED BUT NON FARM 3: FARMING 4: FISHING 5: FORESTRY 6: PIECEWORK 7: UNPAID FAMILY WORKER / ASSISTING NON-FARM FAMILY BUSINESS WITHOUT WAGE 14: OTHER Asked if Q24=1

SECTION 5: ECONOMIC ACTIVITY AND NON-FARM INCOME (CONT'D)					
26	27	28	29	30	31
<p>During the last 7 days, did [NAME] engage in any of the following economic activities? -WAGE LABOUR -A BUSINESS/SELF EMPLOYED WORK -FARMING -FISHING -FORESTRY -PIECEWORK -UNPAID FAMILY WORK</p> <p>1: YES 2: NO</p> <p>[INCLUDE THE MAIN, SECOND AND THIRD JOBS / BUSINESSES (IF ANY).]</p> <p>Asked if Q1=1-7.</p>	<p>How many hours did [NAME] work for those economic activities during the last 7 days?</p> <p>[RECORD THE NUMBER OF HOURS IN TOTAL]</p> <p>Asked if Q26=1</p>	<p>Are the hours worked during the last 7 days ...?</p> <p>1: LONGER THAN USUAL 2: THE SAME AS USUAL 3: SHORTER THAN USUAL 4: NOT APPLICABLE / DON'T KNOW</p> <p>Asked if Q26=1</p>	<p>(FOR THOSE NOT WORKING OR WORKING LESS THAN USUAL DURING THE LAST 7 DAYS) How many hours per week would [NAME] usually work?</p> <p>[[RECORD THE NUMBER OF HOURS IN TOTAL.]</p> <p>Asked if Q26=2 OR Q28A=3</p>	<p>What was the main reason that [NAME] did fewer hours than usual/away from the economic activities in the last 7 days?</p> <p>1: NUMBER OF HOURS WORKED VARIES BY THE NATURE OF THE WORK 2: STUDY, TRAINING 3: HOUSEWORK 4: PREGNANCY 5: OWN ILLNESS (PHYSICALLY/MENTALLY) 6: FATIGUE, EXHAUSTION, LACK OF CONCENTRATION 7: INJURY, DISABILITY 8: CARING FOR (PHYSICALLY / MENTALLY) ILL MEMBERS 9: CARING FOR INJURED OR DISABLED MEMBERS 10: CARING FOR OTHER ELDERLY / CHILDREN 11: OFF-SEASON 12: OTHER REASONS 13: DON'T KNOW</p> <p>Asked if Q26=2 OR Q28A=3</p>	<p>In the last 12 months, how many days of the economic activities did [NAME] miss owing to his/her own or family members' illness and injuries?</p> <p>1: 0 days 2: 1-2 days 3: 3-5 days 4: 6-10 days 5: 11-15 days 6: 16+ days</p> <p>Asked if Q1=01-07.</p>

SECTION 5: ECONOMIC ACTIVITY AND NON-FARM INCOME (CONT'D)					
32	33	34	35	36	37
<p>During the last 12 months, did [NAME] change employment/businesses?</p> <p>1: YES 2: NO</p> <p>Asked if Q1=1-7.</p>	<p>What was the main reason for leaving that job/business?</p> <p>1: LOW WAGE./SALARY 2: FIRED/DISMISSED 3: ENTERPRISE CLOSED 4: ENTERPRISE PRIVATISED 5: ENTERPRISE LIQUIDATED 6: RETRENCHED/DECLARED REDUNDANT 7: GOT ANOTHER JOB 8: BANKRUPTCY 9: LACK OF PROFIT 10: WAS A TEMPORARY JOB 11: RETIRED 12: CONTRACT EXPIRED 13: POOR WORKING CONDITIONS 14: ILNESS/ DISABILITY 15: PREGNANCY 16: OTHER</p> <p>Asked if Q32=1</p>	<p>Did you have a job or business in the last 12 months?</p> <p>1: YES 2: NO</p> <p>Asked if Q1=8-14.</p>	<p>What was the main reason for leaving that job/business?</p> <p>1: LOW WAGE./SALARY 2: FIRED/DISMISSED 3: ENTERPRISE CLOSED 4: ENTERPRISE PRIVATISED 5: ENTERPRISE LIQUIDATED 6: RETRENCHED/DECLARED REDUNDANT 7: GOT ANOTHER JOB 8: BANKRUPTCY 9: LACK OF PROFIT 10: WAS A TEMPORARY JOB 11: RETIRED 12: CONTRACT EXPIRED 13: POOR WORKING CONDITIONS 14: ILNESS/ DISABILITY 15: PREGNANCY 16: BECAME A STUDENT 17: OTHER</p> <p>Asked if Q34=1</p>	<p>How much did you receive as pension payment per month?</p> <p>[TYPE 0 IF NOT RECEIVING ANY PENSION.]</p>	<p>How much income in form of grants do you receive per month (both cash and in-kind)?</p> <p>[CONVERT IN-KIND TO CASH. TYPE 0 IF NOT RECEIVING ANY GRANT.]</p>

SECTION 6: AGRICULTURAL PRODUCTION

Q1A	Did any member of this household grow or anybody grow on their behalf any food crops in the last twelve (12) months?	1: YES / 2: NO
Q1B	Did any member of this household own any livestock or poultry in the last twelve (12) months?	1: YES / 2: NO
Q1C	Did any member of this household engage in fish farming, forestry, or any other income generating activity related to agriculture in the last twelve (12) months?	1: YES / 2: NO

SUB-SECTION 6A: FOOD CROP PRODUCTION (asked if Q1A==1)

CROPS	AQ1	AQ2	AQ3A	AQ3B	AQ4A	AQ4B	AQ5A	AQ5B	AQ6	AQ7	AQ8	
	Did any member of this household or anybody grow on their behalf any [ITEM] in the last twelve months? 1: YES 2: NO	Is [ITEM] planted in 1: Home garden 2: Farm land Asked if AQ1=1	What was the area planted under [ITEM]? UNIT 1: LIMA 2: ACRE 3: HECTARE Asked if AQ1=1	From what you planted, what quantity of [ITEM] did all the members of the household harvest? [Unit codes from the list below] Asked if AQ1=1	What quantity of [ITEM] did all the members of the household sell in the last twelve (12) months? [Unit codes from the list below] Asked if AQ1=1	How much was realised from the sale of [ITEM]? [Total value in KWACHA] Asked if AQ1=1	Did your household consume own-produced [ITEM] in the last twelve months? 1: YES 2: NO Asked if AQ1=1	How much would you receive for own-consumed [ITEM] if you were to sell them? [Total value in KWACHA] Asked if AQ7=1	AREA	UNIT	Amount	Unit
1 Local Maize												
2 Hybrid Maize												
3 Cassava												
4 Millet												
5 Sorghum												
6 Rice												
7 Mixed beans												
8 Soya beans												
9 Sweet potatoes												
10 Irish Potatoes												
11 Groundnuts												
12 Root vegetable (e.g. carrot)												
13 Fruit Vegetable (e.g. tomato)												
14 Leaf vegetable (e.g. cabbage)												
15 Cotton												
16 Tobacco												
17 Sunflower												
18 Paprika												
19 Flowers												
20 Other crops												

[UNIT CODES]	KG...1	20 Ltr Tin...2	25KG Bag...3	50KG Bag...4	90KG Bag...5
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SUBSECTION 6B: LIVESTOCK AND POULTRY (asked if Q1B==1)

	BQ 1	BQ 2	BQ 3	BQ 4	BQ 5	BQ 6	BQ 7
Livestock and poultry	Did any member of your household own / produce [ITEM] in the last twelve months? 1: YES 2: NO	How many [ITEM] does your household own NOW? Asked if BQ1=1	Did your household sell any [ITEM] in the last twelve months? 1: YES 2: NO Asked if BQ1=1	How many [ITEM] did your household sell in the last twelve months? Asked if BQ3=1	How much income did your household receive from the sale of [ITEM] in the last twelve (12) months [VALUE IN KWACHA] Asked if BQ3=1	Did your household consume own-produced [ITEM] in the last twelve (12) months? 1: YES 2: NO Asked if BQ1=1	Hou much would you receive for own- consumed [ITEM] if you were to sell them? [VALUE IN KWACHA] Asked if BQ6=1
1 Cattle							
2 Goats							
3 Sheep							
4 Pigs							
5 Chickens							
6 Guinea fowls							
7 Ducks and geese							
8 Turkeys							
9 Rabbits							
10 Pigeons							
11 quails							
12 Other livestock and poultry							
13 Eggs							
14 Other livestock products (e.g. milk, yoghurt, fat, cheese, hides)							

SUBSECTION 6C: FISH FARMING, FORESTRY, AND OTHER FARMING PRODUCTION (asked if Q1C==1)

CQ 1	Did your household harvest or collect in FISH FARMING in the last twelve months?	1: YES / 2: NO
CQ 2	How much did your household harvest or collect in FISH FARMING in the last twelve months? [in KG] [VALUE IN KWACHA] Asked if CQ1=1	
CQ 3	How many fish did your household sell in the last twelve months? [in KG] Asked if CQ1=1	
CQ 4	How much did your household receive from the sale of FISH? [VALUE IN KWACHA] Asked if CQ1=1	
CQ 5	Did your household consume own-harvested (collected) FISH in the last twelve months? Asked if CQ1=1	1: YES / 2: NO
CQ 6	How much would you pay for own-consumed FISH if you were to buy them? [VALUE IN KWACHA] Asked if CQ5=1	
CQ 7	Did your household harvest or collect in FORESTRY in the last twelve months?	1: YES / 2: NO
CQ 8	How much did your household receive from the sale of FORESTRY PRODUCT? [VALUE IN KWACHA] Asked if CQ7=1	
CQ 9	Did your household consume own-harvested (collected) FORESTRY PRODUCTS in the last twelve months? Asked if CQ7=1	1: YES / 2: NO
CQ 10	How much would you pay for own-consumed FORESTRY PRODUCTS if you were to buy them? [VALUE IN KWACHA] Asked if CQ9=1	
CQ 11	In the last twelve months, did your household receive any other source of farming income (lease of tractor, agricultural land, scotch cart, lease of transport for produce, hiring out of draught animals, etc.)	1: YES / 2: NO
CQ 12	How much income did your household receive from those activities? [VALUE IN KWACHA] Asked if CQ11=1	

SUBSECTION 6D: FARMING COSTS & EXPENSES [ASKED IF Q1A=1]

	DQ 1	DQ 2	DQ 3	DQ 4	DQ 5
ITEMS	Did you use /incur [ITEM] during the last twelve months? 1: YES 2: NO	How much was spent in cash and in kind on [ITEM] in the last twelve months? [VALUE IN KWACHA. CONVERT IN KIND TO CASH EQUIVALENT] Asked if DQ1=1	What was the source of the [ITEM]? 1: PRIVATE SECTOR 2: COOPERATIVES 3: MIN OF AGRICULTURE 4: MIN COMMUNITY DEVT 5: NGOs 6: OTHER Asked if DQ1=1	Was/were the [ITEM] obtainable / available during the last twelve months when needed? 1: YES SOMETIMES 2: YES ALL THE TIME 3: NO 4: NOT APPLICABLE / DON'T KNOW	Why was the [ITEM] unobtainable? 1: INPUT MARKET TOO FAR 2: INPUTS WERE NOT ENOUGH 3: LATE DELIVERY OF INPUTS 4: TOO EXPENSIVE 5: OTHER Asked if DQ4=1, 3
1. Fertilizer (Inorganic)					
2. Organic Fertilizer					
3. Insecticides					
4. Herbicides					
5. Any crop storage facility					
6. Purchased seed, seedlings etc					
7. Irrigation equipment					
8. Bags, containers, strings					
9. Petrol/ diesel/ oil					
10. Repairs/ maintenance of agricultural equipment including purchase of spare parts					
11. Hired labour					
12. Any transport costs					
13. Hired animals					
14. Hired equipment					
15. Local hand tools					
16. Imported hand tools					
17. Any other crop production related costs					

SUBSECTION 6E: LIVESTOCK & POULTRY COSTS [ASKED IF Q1B=1]

	EQ 1	EQ 2	EQ 3	EQ 4	EQ 5
ITEMS	Did you use /incur [ITEM] during the last twelve months? 1: YES 2: NO	How much was spent in cash and in kind on [ITEM] during the last twelve months? [CONVERT IN KIND TO CASH EQUIVALENT] Asked if EQ1=1	What was the source of the [ITEM]? 1: PRIVATE SECTOR 2: COOPERATIVES 3: MIN OF AGRICULTURE 4: MIN COMMUNITY DEVT 5: NGOs 6: OTHER Asked if EQ1=1	Was/were the [ITEM] obtainable/available during the last twelve months when needed? 1: YES SOMETIMES 2: YES ALL THE TIME 3: NO 4: NOT APPLICABLE / DON'T KNOW	Why was the [ITEM] unobtainable? 1: INPUT MARKET TOO FAR 2: INPUTS WERE NOT ENOUGH 3: LATE DELIVERY OF INPUTS 4: TOO EXPENSIVE 5: OTHER Asked if EQ4=1,3
1. Animal Feed including salt					
2. Veterinary services (incl vaccination & medicine)					
3. Any hired labour					
4. Maintenance of pens, stables					
5. Transport costs					
6. Commission on sale of animals					
7. Compensation for damage caused by animals					
8. Any other livestock production related costs					

SUBSECTION 6F: FISH FARMING & FORESTRY COSTS [ASKED IF Q1C=1]

	FQ 1	FQ 2	FQ 3	FQ 4	FQ 5
ITEMS	Did you use /incur [ITEM] during the last twelve months? 1: YES 2: NO	How much was spent in cash and in kind on [ITEM] during the last twelve months? [CONVERT IN KIND TO CASH EQUIVALENT] Asked if FQ1=1	What was the source of the [ITEM]? 1: PRIVATE SECTOR 2: COOPERATIVES 3: MIN OF AGRICULTURE 4: MIN COMMUNITY DEVT 5: NGOs 6: OTHER Asked if FQ1=1	Was/were the [ITEM] obtainable/available during the last twelve months when needed? 1: YES SOMETIMES 2: YES ALL THE TIME 3: NO 4: NOT APPLICABLE / DON'T KNOW	Why was the [ITEM] unobtainable? 1: INPUT MARKET TOO FAR 2: INPUTS WERE NOT ENOUGH 3: LATE DELIVERY OF INPUTS 4: TOO EXPENSIVE 5: OTHER Asked if FQ4=1,3
1. Purchase of fingerlings					
2. Feed					
3. Hired labour					
4. Repairs & Maintenance of fish ponds					
5. Repairs & Maintenance of fish pond related equipment					
6. Medicines for fish					
7. Transport costs					
8. Hand tools					
9. Other fish farming production related costs					
10. Forestry costs					

SECTION 7: OTHER INCOME

INTRODUCTION: I would like to ask about income from other sources in the last twelve months.

1	RENT: What was the value of rent your household received in the twelve months? [Rent for houses, other buildings, non-agricultural equipment and non-agricultural land you own] [VALUE IN KWACHA. ENTER 0 IF NO INCOME FROM THIS SOURCE]
2	SAVING INTEREST: What was the value of interest on savings your household received in the last twelve months? [VALUE IN KWACHA. ENTER 0 IF NO INCOME FROM THIS SOURCE]
3	SHARES, SECURITIES, BONDS: What was the value of interest or dividends on shares, securities, bonds, treasury bills, etc your household received in the last twelve months? [VALUE IN KWACHA. ENTER 0 IF NO INCOME FROM THIS SOURCE]
4	REMITTANCES: What was the value of remittances your household received in the last twelve months? [VALUE IN KWACHA. ENTER 0 IF NO INCOME FROM THIS SOURCE]
5	GIFT: What was the value of gifts your household received in the last twelve months? (E.g. Ceremony gifts, small food gifts from neighbors, relief food. DO NOT include in-kind payment from jobs) [VALUE IN KWACHA. CONVERT IN-KIND GIFTS INTO KWACHA EQUIVALENT. ENTER 0 IF NOT RECEIVE THIS SOURCE OF INCOME]
6	Does your household receive income from any other source? If so, how much was it in the last twelve months? [VALUE IN KWACHA. ENTER 0 IF NOT RECEIVE THIS SOURCE OF INCOME]
7	(CHANGE IN REFERENCE PERIOD) Did you borrow in cash or in kind in the LAST MONTH? If so, how much did your household borrow, including both CASH and IN-KIND? [VALUE IN KWACHA. CONVERT IN-KIND BORROWING TO KWACHA EQUIVALENT. INCLUDE BORROWING THAT WAS ALREADY REPAYED. TYPE 0 IF NOT BORROWING.]

Section 8: HOUSEHOLD ASSETS & DURABLES

I would like to ask you about whether your household owns the following assets or durable goods. Does your household own ...?
 [DO NOT COUNT PERMANENTLY BROKEN ITEMS OR ITEMS BORROWED FROM SOMEONE]
 1: YES
 2: NO

GENERAL ITEMS	
1	Bed
2	Mattress
3	Mosquito net
4	Table (dinning)
5	Lounge suit / sofa
6	Radio / Stereo
7	Television
8	Satellite dish / decoder (free to air)
9	Satellite dish / decoder (DSTV)
10	Other pay TV
11	DVD / VCR
12	Home theater
13	Land phone
14	Cellular phone
15	Computer
16	Watch
17	Clock

KITCHEN / HOUSEHOLD	
18	Residential building
19	Non-residential building
20	Brazier / Mbaula
21	Gas stove
22	Electric stove
23	Refrigerator
24	Deep freezer
25	Washing machine
26	Dish washer
27	Air conditioner / ventilator
28	Electric iron
29	Non-electric iron
30	Private water pump

TOOLS & MACHINES	
31	Sewing machine
32	Hand hammer mill
33	Grinding / hammer mill (powered)
34	Sheller
35	Ramp presses / oil expellers
36	Hand saw
37	Carpentry plane
38	Axe
39	Pick
40	Hoe
41	Hammer
42	Shovel / spade
43	Fishing net
44	Hunting gun
45	Plough
46	Crop sprayer
47	Knitting machine
48	Lawn mowers
49	Generator

TRANSPORT	
50	Small / hand-driven tractor
51	4 wheel tractor
52	Wheel barrow
53	Scotch cart
54	Bicycle
55	Motor cycle
56	Large truck
57	Small / pick-up truck
58	Van / minibus
59	Car
60	Canoe
61	Boat

ANIMALS	
62	Oxen
63	donkey

SECTION 9: HOUSEHOLD AMENITIES AND HOUSING CONDITIONS

INTRODUCTION: I am now going to ask you about various amenities and housing conditions

No.	QUESTION	CATEGORY AND CODE	ANSWER
1	What kind of dwelling does your household live in?	1: TRADITIONAL HUT 2: IMPROVED TRADITIONAL HOUSE 3: DETACHED HOUSE 4: FLAT/APARTMENT/MULTI-UNIT 5: SEMI-DETACHED HOUSE 6: SERVANTS QUARTERS 7: GUEST WING 8: COTTAGE	9: HOUSE ATTACHED TO/ ON TOP OF SHOP ETC 10: HOSTEL 11: NON-RESIDENTIAL BUILDING (EG SCHOOL CLASSROOM, ETC) 12: UNCONVENTIONAL (EG KANTEMBA, STORAGE CONTAINER, ETC) 13: OTHER
2	How many rooms are occupied by this household excluding bathrooms and toilets? (For rural areas count the number of rooms in each hut belonging to the household collectively)		
3	On what basis does your household occupy the dwelling you live in? Is it [...]?	1: Owner-occupied 2: Rented from local Government (District council) 3: Rented from Central Government 4: Rented from Private Company	5: Rented from Parastatal (e.g. ZSIC, NAPSA, NHA, ZIMCO, etc) 6: Rented from private persons (landlord) 7: House owned and provided free by employer 8: Other free housing 9: Other
4	How is the rent paid? Is it [...]? Asked if Q3=2-6	1: Deducted from salary but paid in full 2: Deducted from salary and subsidized by employer 3: Paid directly by the household	4: Paid by employer 5: Other 6: Not applicable 7: Don't know
5A	In what installments or period do you pay your rent? Asked if Q4=1-3	Monthly Every two (2) months Every three (3) months	Every six (6) months Other Not applicable
5B	How much rent do you pay per month? Asked if Q4=1-3		AMOUNT IN KWACHA
5C	Does this rent include charges for electricity? 1: YES / 2: NO Asked if Q4=1-3		
5D	Does this rent include charges for water? 1: YES / 2: NO Asked if Q4=1-3		
6	If you were to rent out this house, how much would it fetch per month (excl water and electricity)?		AMOUNT IN KWACHA
7A	How much do you pay for ground rates per year? Asked if Q3=1		AMOUNT IN KWACHA
7B	How much do you pay for property rates per six months? Asked if Q3=1		AMOUNT IN KWACHA
7C	Do you pay mortgage for your dwelling? 1: YES / 2: NO Asked if Q3=1		
7D	How much do you pay for mortgage per month? Asked if Q3=1		AMOUNT IN KWACHA
8A	What kind of building materials is the ROOF of this dwelling made of?	1: ASBESTOS SHEETS 2: ASBESTOS TILES 3: OTHER/ NON-ASBESTOS TILES 4: IRON SHEETS 5: GRASS/STRAW/THATCH	6: CONCRETE 7: OTHER 8: NOT APPLICABLE 9: DON'T KNOW
8B	What kind of building materials is/are the WALLS of this dwelling made of?	1: PAN BRICK 2: CONCRETE BRICK 3: MUD BRICK 4: BURNT BRICK 5: POLE 6: POLE & DAGGA 7: MUD 8: GRASS/STRAW	9: IRON SHEETS 10: STEEL 11: HARDBOARD 12: A MIXTURE OF HARDBOARD, TIN SHEET, PLASTIC, ETC 13: OTHER 14: NOT APPLICABLE 15: DON'T KNOW
8C	What kind of building materials is the FLOOR of this dwelling made of?	1: CONCRETE ONLY 2: COVERED CONCRETE 3: MUD 4: WOOD ONLY	5: OTHER 6: NOT APPLICABLE 7: DON'T KNOW
9	What is the main source of water supply for this household? [ASK ABOUT NON-DRINKING WATER.]	1: DIRECTLY FROM RIVER/ LAKE/ STREAM/DAM 2: RAINWATER 3: UNPROTECTED WELL 4: PROTECTED WELL 5: BOREHOLE 6: UNPROTECTED SPRING	7: PROTECTED SPRING 8: PUBLIC TAP 9: OWN TAP 10: OTHER TAP (EG FROM NEARBY BUILDING) 11: WATER KIOSK 12: BOUGHT FROM OTHER VENDORS 13: OTHER
10	How far is this source of water from this house? [RECORD 'LESS THAN 1 KM' IF OWN TAP]	1: LESS THAN 1 KM (LESS THAN 15-MINUTE WALK) 2: ABOUT 1 KM (15-MINUTE WALK) 3: ABOUT 2 KM (30-MINUTE WALK)	4: ABOUT 3 KM (45-MINUTE WALK) 5: ABOUT 4 KM (1-HOUR WALK) 6: GREATER THAN 4 KM (GREATER THAN 1-HOUR WALK) 7: NOT APPLICABLE / DON'T KNOW

SECTION 9: HOUSEHOLD AMENITIES AND HOUSING CONDITIONS (cont'd)			
No.	QUESTION	CATEGORY AND CODE	ANSWER
11	What is the main source of drinking water for this household?	1: DIRECTLY FROM RIVER/ LAKE/ STREAM/DAM 2: RAINWATER 3: UNPROTECTED WELL 4: PROTECTED WELL 5: BOREHOLE 6: UNPROTECTED SPRING 7: PROTECTED SPRING	8: PUBLIC TAP 9: OWN TAP 10: OTHER TAP (EG FROM NEARBY BUILDING) 11: WATER KIOSK 12: BOUGHT FROM OTHER VENDORS 13: BOTTLED WATER 14: OTHER
12	Do you treat your drinking water? 1: YES / 2: NO [YES ONLY IF TREATMENT IS DONE BY HOUSEHOLD.]		
13	How do you treat your drinking water? 1: BOIL / 2: ADD CHLORINE / 3: OTHER Asked if Q12=1		
14	How much on average are you charged for water per month? [ENTER "0" IF HOUSEHOLD IS PROVIDED WITH WATER FOR FREE] Asked if Q5D is not YES	AMOUNT IN KWACHA	
15	What is the main type of energy used for lighting in your household?	1: Kerosine/Paraffin 2: Electricity 3: Solar Panel	4: CANDLE 5: DIESEL 6: OPEN FIRE 7: TORCH 8: NONE 9: OTHER
16	What is the main type of energy that your household uses for cooking?	1: COLLECTED FIREWOOD 2: PURCHASED FIREWOOD 3: CHARCOAL OWN PRODUCED 4: CHARCOAL PURCHASED	5: COAL 6: Kerosine/Paraffin 7: GAS 8: ELECTRICITY 9: SOLAR 10: CROP/LIVESTOCK RESIDUES 11: OTHER
17	What is the main type of cooking device used by your household?	1: STOVE/COOKER...1 2: BRAZIER (MBAULA) 3: CLAY STOVE (MBAULA)	4: BRICK/STONE STAND ON OPEN FIRE 5: METAL STAND ON OPEN FIRE 6: VEHICLE TYRE RIM 7: HOT PLATE WITHOUT STAND 8: HOT PLATE ON WELDED STAND 9: OTHER
18	Is your house connected to electricity? 1: YES / 2: NO		
19	How much on average are you charged for electricity per month? [ENTER "0" IF HOUSEHOLD IS PROVIDED WITH ELECTRICITY FOR FREE] Asked if Q18 is YES but Q5D is not YES	AMOUNT IN KWACHA	
20	What is the main type of toilet facility used by this household?	1: OWN FLUSH TOILET INSIDE THE HOUSEHOLD 2: OWN FLUSH TOILET OUTSIDE THE HOUSEHOLD 3: OWN PIT LATRINE WITH SLAB 4: COMMUNAL PIT LATRINE WITH SLAB 5: NEIGHBOUR'S/ ANOTHER HOUSEHOLD'S PIT LATRINE WITH SLAB 6: OWN PIT LATRINE WITHOUT SLAB	7: COMMUNAL PIT LATRINE WITHOUT SLAB 8: NEIGHBOUR'S/ ANOTHER HOUSEHOLD'S PIT LATRINE WITHOUT SLAB 9: BUCKET/ OTHER CONTAINER 10: AQUA PRIVY 11: NONE 12: OTHER
21	If flush/ pour flush: Where is the sewerage piped into? Asked if Q20=1,2	1: PIPED SEWER SYSTEM 2: SEPTIC TANK 3: PIT LATRINE	4: OTHER 5: DON'T KNOW
22	What is the main method of garbage disposal that this household uses?	1: REFUSE COLLECTED 2: PIT 3: DUMPING	4: BURNING 5: OTHER
23	Is there a farm land where any member of this household can cultivate any food crops on their behalf? 1: YES / 2: NO		
24A	What is the total size of the farm land?	[AREA]	
24B	Asked if Q23=1	[UNIT] 1: LIMA / 2: ACRE / 3: HECTARE	
25	Is there a home garden where any member of this household can cultivate any food crops on their behalf? 1: YES / 2: NO		
26A	What is the total size of home garden?	[AREA]	
26B	Asked if Q25=1	[UNIT] 1: LIMA / 2: ACRE / 3: HECTARE	

SECTION 10 HOUSEHOLD EXPENDITURE

Cereals DURING LAST 4 WEEKS

ITEMS	Q1	Q2A	Q2B	Q3	Q4
	Did your household purchase / consume [ITEM] during the last 4 weeks? 1: YES 2: NO	How many (much) [ITEM] did your household purchase? Asked if Q1=1		How much did your household spend on [ITEM]? (IN TOTAL) Asked if Q1=1	When purchasing, was [ITEM] shelled or unshelled? 1: SHELLED 2: UNSHELLED 3: BOTH 4: DON'T KNOW
		QUANTITY	UNIT CODE	VALUE IN KWACHA	Asked if Q1=1
1	Maize grain				
2	breakfast mealie meal				
3	Roller meal				
4	Hammer mealie meal				
5	Pounded maize meal				
6	Cost of milling				

SECTION 10 HOUSEHOLD EXPENDITURE (Cont.)

Crops & Crop Products DURING LAST 2 WEEKS

ITEMS	Q5	Q6A	Q6B	Q7	Q8
	Did your household purchase / consume [ITEM] during the last 2 weeks? 1: YES 2: NO	How many (much) [ITEM] did your household purchase? Asked if Q5=1		How much did your household spend on [ITEM]? (IN TOTAL) Asked if Q5=1	When purchasing, was [ITEM] shelled or unshelled (unpeeled or peeled)? 1: SHELLED/UNPEELED 2: UNSHELLED/PEELED 3: BOTH 4: DON'T KNOW Asked if Q5=1
		QUANTITY	UNIT CODE	VALUE IN KWACHA	
7	Millet				
8	Sorghum				
9	Rice				
10	Wheat / Flour				
11	Bread / Breadrolls				
12	Buns / scones				
13	Fritters				
14	Other cereal / bread items				
15	Sweet potatoes				
16	Potatoes				
17	Cassava (tubers)				
18	Cassava (flour)				
19	Other roots / tubers				
20	Fresh beans (excl green beans)				
21	Sunflower				
22	Soya beans				
23	Dried beans				
24	Groundnuts				
25	Bambara				
26	Cowpeas				
27	Peas				
28	Other pulses, legumes				
29	Onions				
30	Tomatoes				
31	Cabbages				
32	Rape				
33	Okra				
34	Pumpkin leaves (chibwabwa)				
35	Cassava leaves				
36	Kalem bula				
37	Bondwe				

SECTION 10 HOUSEHOLD EXPENDITURE (cont.)

Crops & Crop Products DURING LAST 2 WEEKS (cont.)

ITEMS	Q5 Did your household purchase / consume [ITEM] during the last 2 weeks? 1: YES 2: NO	Q6A	Q6B	Q7	Q8 When purchasing, was [ITEM] shelled or unshelled (unpeeled or peeled)? 1: SHELLED/UNPEELED 2: UNSHELLED/PEELED 3: BOTH 4: DON'T KNOW Asked if Q5=1
		How many (much) [ITEM] did your household purchase for these amounts? Asked if Q5=1	QUANTITY	UNIT CODE	
38	Impwa				
39	Cucumber				
40	Green beans				
41	Carrot				
42	Pumpkin				
43	Green maize				
44	Other vegetables				
45	Oranges				
46	Apples				
47	Mangoes				
48	Bananas				
49	Pawpaws				
50	Water melons				
51	Lemons				
52	Pinapples				
53	Pears				
54	Guavas				
55	Avocados				
56	Other fruits				

SECTION 10 HOUSEHOLD EXPENDITURE (cont.)

Meat, Dairy & Fish DURING LAST 2 WEEKS

ITEMS	Q9 Did your household purchase / consume [ITEM] during the last 2 weeks? 1: YES 2: NO	Q10A	Q10B	Q11	Q12 When purchasing, was [ITEM] fresh, frozen, dried or smoked? 1: FRESH 2: FROZEN 3: DRIED / SMOKED 4: DON'T KNOW Asked if Q9=1
		How many [UNITS] of [ITEM] did your household purchase for these amounts? Asked if Q9=1	QUANTITY	UNIT CODE	
57	Kapenta				
58	Bream				
59	Buka Buka				
60	Other fish				
61	Fish products				
62	Chicken				
63	Other Poultry				
64	Beef				
65	Pork				
66	Goat meat				
67	Sheep meat				
68	Game meat				
69	Other meat				
70	Fresh milk				
71	Powdered milk (excl baby milk)				
72	Eggs				
73	Cheese				
74	Other dairy products				

SECTION 10 HOUSEHOLD EXPENDITURE (cont.)				
MICELLANEOUS DURING LAST 2 WEEKS				
ITEMS	Q13	Q14A	Q14B	Q15
	Did your household purchase / consume [ITEM] during the last 2 weeks? 1: YES 2: NO	How many [UNITS] of [ITEM] did your household purchase for these amounts? Asked if Q13=1		How much did your household spend on [ITEM]? (IN TOTAL) Asked if Q13=1
		QUANTITY	UNIT CODE	VALUE IN KWACHA
75	Butter			
76	Margarine			
77	Peanut butter			
78	Other fats (excl cooking oil)			
79	Sugar			
80	Honey			
81	Jam			
82	Cocoa and chocolate			
83	Cremora			
84	Other sweets			
85	Tea leaves / tea bags			
86	Coffee (fresh, blend or instant)			
87	Drinking chocolate / Milo / cocoa			
88	Juice			
89	Soft drinks			
90	Mineral water			
91	Munkoyo			
92	Maheu			
93	Other non-alcoholic beverages			
94	Spirits			
95	Wines			
96	Ciders			
97	Clear beer			
98	Opaque beer			
99	Traditional brews			
100	Other alcoholic beverages			
101	Baby foods (e.g. Cerelac, vitaso, baby milk)			
102	Food from kiosks, cafes, restaurants			
103	Other foods & beverages			
104	Cigarettes			
105	Tobacco			

UNIT CODES	UNITS	UNIT CODES	UNITS
B90	90 KG BAG	BOT500	BOTTLE 500 ML
B50	50 KG BAG	BOT750	BOTTLE 750 ML
B25	25 KG BAG	BOT2.5	BOTTLE 2.5 LT
B10	10 KG BAG	BP	BP
T20	20 LITRE TIN	HP	HEAP
T10	10 LITRE TIN	PL	PLATE
T5	5 LITRE TIN	CU	CUP
P	PIECE/NUMBER	GAL	GALLON
KG	KILOGRAMS	BK	BUCKET
GR	GRAM	BD	BUNDLE
LT	LITRE	MD	MEDA
ML	MILLILITER	OT	OTHER

SECTION 10 HOUSEHOLD EXPENDITURE (cont.)		
MICELLANEOUS DURING LAST 4 WEEKS		
ITEMS	Q16	Q17
	Did your household purchase / consume [ITEM] during the last 4 weeks? 1: YES 2: NO	How much did your household spend on [ITEM]? (IN TOTAL) VALUE IN KWACHA Asked if Q16=1
106	Salt	
107	Spices	
108	Cooking Oil	
109	Charcoal	
110	Firewood	
111	Paraffin	
112	Diesel (for lighting and cooking only)	
113	Home repairs (plumbing, painting, stove repairs etc)	
114	Cable/pay TV (DSTV, My TV, SATELITE, ZNBC, etc)	
115	Garbage collection (solid waste)	
116	Gas	
117	Kerosene / fuel for cooking / lighting	
118	Coal, excl charcoal	
119	Batteries, lightbulbs, lighters, matches, candles	
120	Other housing expenses	
121	Bath / hand-washing soap	
122	Laundry detergent	
123	Toothpaste & toothbrushes	
124	Sanitary towels	
125	Toilet paper and other tissues	
126	Cosmetics (eg. lotion, creams, glycerin, make-up, petroleum jellies etc)	
127	Hair care (eg perming, braiding hair, conditioning, shampooing, haircuts, etc)	
128	Laundry service (eg dry cleaning, washing at the laundry, etc)	
129	Baby diapers	
130	Cleaning agents, excl soap and laundry detergents (eg ajax, dish washing liquids or pastes, toilet cleansers, handy andy, air freshners, cobra/polish, etc)	

SECTION 10 HOUSEHOLD EXPENDITURE (cont.)		
MICELLANEOUS DURING LAST 4 WEEKS (cont.)		
ITEMS	Q16	Q17
	Did your household purchase / consume [ITEM] during the last 4 weeks? 1: YES 2: NO	How much did your household spend on [ITEM]? (IN TOTAL) VALUE IN KWACHA Asked if Q16=1
131	Insecticides	
132	Other hygiene expenses	
133	Public transport to/from work	
134	Public transport to/from school incl boarding school and abroad	
135	Other public transport	
136	Petrol / diesel / oil	
137	Vehicle maintenance & repairs	
138	Motorbike repairs (tyres, tubes, oil, etc)	
139	Bicycle repairs (tyres, tubes, oil, etc)	
140	Boat / canoe repairs	
141	Other private transport	
142	Mobile phones (connection fees. air time excluding cost of phone)	
143	Landline phones (connection fees, prepaid & postpaid)	
144	Internet (connection and subscription fees)	
145	Postal expenses	
146	Other communication expenses	
147	Entertainment excl alcohol (eg cinema, disco, watching soccer/boxing, video hire, visits to entertainment centres)	
148	Domestic servants	
149	Stationary (eg copies, printing paper, envelopes. excl stationary for education)	
150	Typing services, filling in official forms	

SECTION 10 HOUSEHOLD EXPENDITURE (cont.)		
MICELLANEOUS LAST TWELVE MONTHS		
ITEMS	Q18	Q19
	During the last twelve months, did your household purchase / pay for [ITEM]? 1: YES 2: NO	How much did your household spend on [ITEM]? (IN TOTAL) VALUE IN KWACHA Asked if Q18=1
151	Purchase of medicines	
152	Fees for doctors	
153	Fees for nurses, midwives	
154	Fees for dentists	
155	Fees for hospital stays	
156	Fees for health assistant	
157	Fees for traditional healers	
158	Payment to hospital / health centre / surgery	
159	Pre-payment scheme	
160	Other health expenses	
161	Water Treatment tablets, chemical etc	
162	Other water treatment	
163	Chitenges	
164	Children's clothing	
165	Men's clothing	
166	Women's clothing (excl chitenges)	
167	Fabric / material	
168	Tailoring chitenges	
169	Footwear (eg shoes, sandals, pata pata, sofias)	
170	Loan payments	
171	Contributions to church, mosques, etc	
172	Insurance (car, life, health)	
173	Funerals, gifts, dowries	
174	Contribution to school / PTA	
175	School stationary (exercise books, pens, pencils, rulers, rubbers, math sets, paper)	
176	Purchase of other school requisites (for boarders snacks, mazoe, biscuits, tinned foods)	
177	Other education expenses (graduation ceremonies, tuck shop money, pocket money for students, boarding and lodging for students, remittances to students outside of house)	

SECTION 10 HOUSEHOLD EXPENDITURE (cont.)	
REMITTANCES LAST TWELVE MONTHS	
Q20A	During the last twelve months, did your household send remittances in cash or in kind to person in rural area of Zambia (excluding any member of your household)? 1: YES / 2: NO
Q20B	What is the value of CASH REMITTANCES to person in rural area of Zambia? [VALUE IN KWACHA. ENTER 0 IF NO CASH REMITTANCES] Asked if Q22A=1
Q20C	What is the value of IN-KIND REMITTANCES to person in rural area of Zambia? [VALUE IN KWACHA. CONVERT TO KWACHA EQUIVALENT. ENTER 0 IF NO IN-KIND REMITTANCES] Asked if Q22A=1
Q21A	During the last twelve months, did your household send remittances in cash or in kind to person in urban area of Zambia (excluding any member of your household)? 1: YES / 2: NO
Q21B	What is the value of CASH REMITTANCES to person in urban area of Zambia? [VALUE IN KWACHA. ENTER 0 IF NO CASH REMITTANCES] Asked if Q23A=1
Q21C	What is the value of IN-KIND REMITTANCES to person in urban area of Zambia? [VALUE IN KWACHA. CONVERT TO KWACHA EQUIVALENT. ENTER 0 IF NO IN-KIND REMITTANCES] Asked if Q23A=1
Q22A	During the last twelve months, did your household send remittances in cash or in kind to person outside of Zambia (excluding any member of your household)? 1: YES / 2: NO
Q22B	What is the value of CASH REMITTANCES to person outside of Zambia? [VALUE IN KWACHA. ENTER 0 IF NO CASH REMITTANCES] Asked if Q24A=1
Q22C	What is the value of IN-KIND REMITTANCES to person outside of Zambia? [VALUE IN KWACHA. CONVERT TO KWACHA EQUIVALENT. ENTER 0 IF NO IN-KIND REMITTANCES] Asked if Q24A=1

For children aged 0-59 months only. Answer cells omitted.

SECTION 11: CHILD HEALTH AND NUTRITION [FOR CHILDREN AGED 0 - 59 MONTHS ONLY]						
1	2A	2B	3A	3B	3C	3D
Is [NAME] being breastfed now? 1: YES 2: NO	How long after birth did you put [NAME] to the breast? (IN DAYS) [IF LESS THAN 24 HOURS, RECORD 0. IF DON'T KNOW, RECORD 99.] Asked if Q1=1	(IF LESS THAN 24 HOURS TO THE PREVIOUS QUESTION) How long IN HOURS? [IF LESS THAN 24 HOURS, RECORD 0.] Asked if Q2A=0	In addition to breast milk is [NAME] fed on any of the following? Asked if Q1=1 Any other milk other than breast milk [e.g. S26, lactogen, promil or other baby formula, Fresh milk, Soya milk, Goat milk] 1: YES 2: NO	Water 1: YES 2: NO	Other fluids 1: YES 2: NO	Solids [e.g. custard, cerelac or other cereal, vitaso, porridge, nshima] 1: YES 2: NO

SECTION 13: CHILD HEALTH AND NUTRITION [Cont'd]			
4	5	6	7
Has [NAME] ever been breastfed? 1: YES 2: NO 3: DON'T KNOW Asked if Q1=2	For how many months did you breastfeed [NAME]? Asked if Q6=1	At what age did you first give [NAME] water or other fluids or food? (IN MONTHS) ENTER 0 IF LESS THAN ONE MONTH. ENTER 88 IF NOT STARTED ON WATER, OTHER FLUIDS OR FOOD. ENTER 99 IF DON'T KNOW.	How many times is [NAME] currently given solids foods in a day (nshima, rice, potatoes, porridge, cerelac, other cereals, vitaso, custard, etc)? 1: ONCE 2: TWICE 3: THRICE 4: FOUR TIMES 5: FIVE TIMES 6: MORE THAN FIVE TIMES 7: NOT YET STARTED ON SOLIDS

SECTION 12: DEATHS in HOUSEHOLD

1	Have there been any deaths in the household (OF USUAL MEMBERS) in the last 12 months? 1: YES / 2: NO / 3: REFUSED	
2	How many people died in the last 12 months?	
I am going to ask about the first deceased person. Asked if Q2≥1		
3	How old was he/she? [RECORD AGE IN COMPLETED YEARS. RECORD 0 IF LESS THAN 1 YEAR. RECORD 888 IF NO RESPONSE]	
4	Wat was his/her sex? 1: MALE / 2: FEMALE / 8: REFUSED	
5	What was the main cause of death? [CHOOSE FROM THE LIST BELOW]	
I am going to ask about the second deceased person. Asked if Q2≥2		
6	How old was he/she? [RECORD AGE IN COMPLETED YEARS. RECORD 0 IF LESS THAN 1 YEAR. RECORD 888 IF NO RESPONSE]	
7	Wat was his/her sex? 1: MALE / 2: FEMALE / 8: REFUSED	
8	What was the main cause of death? [CHOOSE FROM THE LIST BELOW]	
I am going to ask about the third deceased person. Asked if Q2≥3		
9	How old was he/she? [RECORD AGE IN COMPLETED YEARS. RECORD 0 IF LESS THAN 1 YEAR. RECORD 888 IF NO RESPONSE]	
10	Wat was his/her sex? 1: MALE / 2: FEMALE / 8: REFUSED	
11	What was the main cause of death? [CHOOSE FROM THE LIST BELOW]	
I am going to ask about the fourth deceased person. Asked if Q2≥4		
12	How old was he/she? [RECORD AGE IN COMPLETED YEARS. RECORD 0 IF LESS THAN 1 YEAR. RECORD 888 IF NO RESPONSE]	
13	Wat was his/her sex? 1: MALE / 2: FEMALE / 8: REFUSED	
14	What was the main cause of death? [CHOOSE FROM THE LIST BELOW]	
I am going to ask about the fifth deceased person. Asked if Q2≥5		
15	How old was he/she? [RECORD AGE IN COMPLETED YEARS. RECORD 0 IF LESS THAN 1 YEAR. RECORD 888 IF NO RESPONSE]	
16	Wat was his/her sex? 1: MALE / 2: FEMALE / 8: REFUSED	
17	What was the main cause of death? [CHOOSE FROM THE LIST BELOW]	
I am going to ask about the sixth deceased person. Asked if Q2≥6		
18	How old was he/she? [RECORD AGE IN COMPLETED YEARS. RECORD 0 IF LESS THAN 1 YEAR. RECORD 888 IF NO RESPONSE]	
19	Wat was his/her sex? 1: MALE / 2: FEMALE / 8: REFUSED	
20	What was the main cause of death? [CHOOSE FROM THE LIST BELOW]	

THE LIST OF THE CAUSES OF DEATH

1	FEVER/MALARIA	13	CONSTIPATION/STOMACH UPSET	24	STROKE
2	CEREBRAL MALARIA	14	LIVER INFECTION/SIDE PAIN	25	HYPERTENSION
3	COUGH/COLD/CHEST INFECTION	15	LACK OF BLOOD/ANEAMIA	26	DIABETES/SUGAR DISEASE
4	TUBERCULOSIS	16	BOILS	27	HEADACHE
5	ASTHMA	17	SKIN RASH/SKIN INFECTION	28	MEASLES
6	BRONCHITIS	18	PILES/HAEMOROIDES	29	JAUNDICE/YELLOWNESS
7	PNEUMONIA/CHEST PAIN	19	SHINGLES/HERPES ZOSTER	30	CANCER OF ANY KIND
8	DIARRHOEA WITHOUT BLOOD	20	PARALYSIS OF ANY KIND	31	MENINGITIS
9	DIARRHOEA WITH BLOOD	21	SUICIDE	32	STILL BIRTH
10	DIARRHOEA AND VOMITTING	22	MURDERED	33	OTHER (INCL NATURAL DEATH)
11	VOMITTING	23	ACCIDENT	34	DON'T KNOW / REFUSED
12	ABDOMINAL PAINS				

CONCLUDING REMARK

DATE_E	DATE OF THE END OF THE INTERVIEW	
INTERVIEWER	NAME OF THE INTERVIEWER	