



***Basic Information Document***

***Malawi  
High-Frequency Phone Survey on COVID-19  
(HFPS COVID-19)  
Baseline***

**June 15, 2020**

## **ACRONYMS**

CATI	Computer Assisted Telephone Interview
HFPS	High Frequency Phone Survey
IHPS	Integrated Household Panel Survey
LSMS-ISA	Living Standards Measurement Study – Integrated Surveys on Agriculture
NSO	National Statistical Office
WB	World Bank

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## 1.0 Introduction

The purpose of this document is to provide detailed information on the Malawi High-Frequency Phone Survey on COVID-19 (HFPS-COVID-19) implemented by the Malawi National Statistical Office (NSO) in May-June 2020. This survey is the first wave of a high-frequency phone survey of households. The ability to follow the same households over time makes the HFPS-COVID-19 a powerful tool for studying and understanding socio-economic impact of the COVID-19 pandemic in Malawi.

The World Bank is providing support to countries to help mitigate the spread and impact of the new coronavirus disease (COVID-19). One area of support is for data collection to inform evidence-based policies that may help mitigate the effects of this disease. Towards this end, the World Bank is leveraging the Living Standards Measurement Study - Integrated Survey on Agriculture (LSMS-ISA) program to implement high-frequency phone surveys on COVID-19 in 5 African countries – **Malawi**, Ethiopia, Uganda, Tanzania, and Nigeria. This effort is part of a broader first wave of World Bank-supported High Frequency Phone Surveys that can be used to help assess the economic and social implications of the COVID-19 pandemic on households and individuals. As part of this initiative, a World Bank team from the Development Data Group and the Poverty and Equity Global Practice provided technical support to NSO on implementation of the HFPS COVID-19.

Malawi identified the first case of COVID-19 in mid-March. Reported cases and fatalities have been increasing since it was first identified. The government implemented some strict measures to contain the spread of this virus (such as cancelling commercial flights, school closures, decongesting public transport and advising home-based work), a total lockdown of the country was challenged in court by Civil Society Organizations seeking court review of the implications of a lockdown. While the Government is implementing some containment measures, it is important to understand how households in the country are affected and responding to the evolving crises, so that policy responses can be designed well and targeted effectively to reduce the negative impacts on household welfare.

The objective of HFPS COVID-19 is to monitor the socio-economic effects of this evolving COVID-19 pandemic in real time. These data will contribute to filling critical gaps in information that could be used by the Malawian government and stakeholders to help design policies to mitigate the negative impacts on its population. The HFPS COVID-19 in Malawi is designed to accommodate the evolving nature of the crises, including revision of the questionnaire on a monthly basis.

The households were drawn from the sample of households interviewed in 2019 as part of the Integrated Household Panel Survey (IHPS 2019). The IHPS 2019 households were interviewed in 2010, 2013, 2016, and the extensive information collected in the IHPS 2019 just over a year prior to the pandemic provides a rich set of background information on the HFPS COVID-19 households which can be leveraged to assess the differential impacts of the pandemic in the country.

Each month, the households will be asked a set of core questions on the key channels through which individuals and households are expected to be affected by the COVID-19-related restrictions. Food security, employment, access to basic services, coping strategies, and non-labour sources of income are channels likely to be impacted. The core questionnaire is complemented by questions on selected topics that rotate each month. This provides data to the government and development partners in near real-time, supporting an evidence-based response to the crisis.

The present document is designed to provide an overview of the first wave (baseline) of the HFPS COVID-19 from May 26<sup>th</sup> – June 14<sup>th</sup>, 2020

## 2.0 The Survey Instruments

The HFPS COVID-19 Baseline consists of one questionnaire. The *Household Questionnaire* was administered to all households in the sample.

**Household Questionnaire:** The Household Questionnaire provides information on demographics; knowledge regarding the spread of COVID-19; behaviour and social distancing; access to basic services; employment; income loss; food security; concerns; social safety nets and agriculture.

The contents of questionnaire are outlined below.

**Table 2-1: HFPS COVID-19 Baseline Questionnaire**

Section	Topic	Description
Cover	Cover	Household identifiers and enumerator identifiers
1	Interview Information and Phone Number Roster	Roster of call attempts, result and respondent of call attempt, interview consent, date and time of call back, roster of phone numbers, the information of the person that the listed phone number belongs to
2	Household Roster Update	Roster of members of the household, relationship to the household head, gender, age, marital status, reason for joining the household if new, and reason for leaving the household if left
3	Knowledge Regarding the Spread of COVID-19	Knowledge of coronavirus, measures to reduce the risk of contracting coronavirus, steps taken by the federal/state government to curb the spread of coronavirus, satisfaction at steps taken by the federal/state government and reason for not being satisfied
4	Behaviour and Social Distancing	Behaviour of adopting prevention measures (handwashing and social distancing)
5	Access to Basic Services	Household's access to medicine, soap, cleaning supplies, staple food (Maize, Rice, cassava, Millet, Sesame and sorghum), water for washing hands, medical treatment and financial services (the bank, money agent and the ATM), reason for not being able to access the services, education or

Section	Topic	Description
		learning activities of children at home including contact with children's teachers
6	Employment	Status and information of income-generating activities (wage work, family business and farming), reason for stopped working, reason for not able to perform activities as usual, and reason for reduced revenue from family business
7	Income Loss	Household's sources of livelihood and their status since mid-March
8	Food Security	Household's food security status during the last 30 days
9	Concerns	Concerns over immediate family becoming seriously ill from COVID-19 and household's financial status
11	Social Safety Nets	Type, value and source of assistances that household received from social safety net programs since mid-March
13	Agriculture	Measures taken to ensure safety during Post Harvest activities and disruptions due to COVID-19.
12	Interview Results	Result of interview including observation notes by enumerator regarding the interview, respondent and language of interview

## 3.0 Baseline Sample and Weights

### 3.1 Survey Sample

The IHPS conducted in 2019 served as the frame for the HFPS COVID-19. This sample of households is representative nationally as well as by the urban/rural divide. In every visit of the IHPS, phone numbers are collected from interviewed households for all household members and 3 reference persons who are in close contact with the household in order to assist in locating and interviewing households who may have moved in subsequent waves of the survey. This comprehensive set of phone numbers as well as the already well-established relationship between NSO and the IHPS households made this an ideal frame from which to conduct the COVID-19 monitoring survey in Malawi.

Among the 3,181 households interviewed in the during IHPS in 2019, 2,337 (73%) provided at least one phone number. Around 85 percent of these households provided a phone number for at least one household member while the remaining 15 percent only provided a phone number for a reference person. Households with only the phone number of a reference person were expected to be more difficult to reach but were nonetheless included in the frame and deemed eligible for selection for the HFPS COVID-19.

To obtain a nationally representative sample for the HFPS COVID-19, the survey aimed to recontact the entire sample of households that had been interviewed during the Integrated Household Panel Survey (IHPS) 2019 round and that had phone numbers for at least one household member or a reference individual.

All 2,337 households that had either a contact for a household member or reference person were contacted in the baseline round of the phone survey. Table 3-1 presents the interview result for the baseline sample. Of the 2,337 households, 74 percent or 1,729 households were fully interviewed. These 1,729 households constitute the final successful sample and will be contacted in subsequent rounds of the survey.

<b>Table 3-1: Result of Interview</b>		
	<b># of households</b>	<b>% of overall sample</b>
<b><i>Reached</i></b>	<b>2337</b>	<b>100</b>
Complete	1729.0	74.0
Partially Complete	4.0	0.2
Refused	10.0	0.4
Language barrier		
<b>Not Reached</b>		
Nobody answering	21.0	0.9
Number does not exist	54.0	2.3
Phone turned off	467.0	20.0
Wrong number (don't know the household)	29.0	1.2
Reference person can't connect to household	23.0	1.0

## 3.2 Survey Weights

To obtain unbiased estimates from the sample, the information reported by households needs to be adjusted by a sampling weight (or raising factor)  $w_h$ . To construct the sampling weights, we follow the steps outlined in Himelein, K. (2014), which outlines eight steps, of which we follow six, to construct the sampling weights for the HFPS-HH:

1. Begin with base weights from the Malawi Integrated Household Panel Survey (IHPS) 2019 for each household
2. Incorporate probability of sub-selection of round 1 unit for each of the phone survey households.
3. Pool the weights in Steps 1 and 2.
4. Derive attrition-adjusted weights for all individuals by running a logistic response propensity model based on characteristics of the household head (i.e. gender, primary language spoken, education, labor force status) and characteristics of the household (household size, food consumption score, assets, financial characteristics).
5. Trim weights by replacing the top three percent of observations with the 98th percentile cut-off point; and
6. Post-stratify weights to known population totals to correct for the imbalances across our sample. In doing so, we ensure that the distribution in the survey matches the distribution in the IHPS.

\* Additional technical details and explanations on each of the steps briefly outlined above can be found in Himelein, K. (2014).

The weights can be found in the cover page data files (*secta\_Cover\_Page*). The variable name is *wt\_baseline*.

Table 3-2 below presents the full set of weighted and unweighted estimates across the different samples.

Table 3-2: Sample Composition*				
Characteristic	IHPS		Phone sample	
	Unweighted	Weighted	Unweighted	Weighted
Sample size (successful interviews)	2337		1729	
Average household size	4.71	5.06	4.79	4.97
<b><i>Household head characteristics</i></b>				
Female head (%)	24.0	27.1	22.2	29.5
Age	41.4	44.9	41.8	45.6
Literate (%)	86.1	81.9	88.4	76.7
<b><i>Asset ownership</i></b>				
Mobile phone	83.7	81.8	88.5	79.2
Television	24.2	21.5	27.5	17.0



Refrigerator	12.9	11.6	14.7	8.6
Car	4.7	3.6	5.6	3.1
Generator	1.9	1.6	2.0	1.2
<b><i>IHPS PCA Index Based Wealth Quintiles</i></b>				
Q1	10.8	9.3	7.9	14.9
Q2	15.8	16.2	13.7	18.1
Q3	21.7	23.8	20.8	25.0
Q4	24.8	26.9	26.7	22.8
Q5	26.9	23.8	30.9	19.2

\* Based on information from the IHPS only.

## 4.0 Training of Interviewers for the Survey

Personnel were selected from the pool of NSO interviewers that have experience with the Survey Solutions platform and have previously conducted IHPS surveys. A total of 16 interviewers plus 4 replacements and 2 supervisors were trained at the NSO premises to conduct the survey. The training lasted 2 days and focused on providing participants with detailed understanding of the survey and the Computer Assisted Telephone Interview (CATI) techniques, elucidation of important concepts and questions in the questionnaire. The training was led by the World Bank team with additional inputs provided by the NSO coordinators. Following the training, the interviewers carried out mock interviews in order to become more familiar with the questionnaire and interviewing techniques before interviewing respondents. After the mock interviews, a 1-day pilot was conducted with households from the Integrated Household Survey sample. Each interviewer conducted around 4 interviews during the pilot.

## **5.0 Field Work**

### **5.1 Organization of Fieldwork**

The HFPS COVID-19 Baseline was administered between May 26 and June 14, 2020. Data were collected by trained NSO interviewers who individually made phone calls from the call centre at the NSO. Since the country was not fully on lockdown during the preparation and data collection exercise, interviewers were allowed to be in the office after seeking permission from the local authorities and also taking measures to protect themselves like ensuring 2 meters space between individuals. Most interviews were conducted from the call center, some interviews that required call backs conducted from the enumerators' homes.

### **5.2 Gift to Households**

As a show of appreciation for the households' participation, all households that gave consent to be interviewed, were transferred 1000 Malawi Kwacha credit to their phones (even if their interviews are only partially completed).

### **5.3 Pre-loaded Information**

Basic information on every household was pre-loaded in the CATI assignments for each interviewer. The information was pre-loaded to (1) assist interviewers in calling and identifying the household and (2) ensure that each pre-loaded person is properly addressed and easily matched to the most recent face-to-face visits. Basic household information (location, household head name, phone numbers of adult members and reference persons, etc.) was pre-loaded. The list of individuals from IHPS 2019 and their basic characteristics were uploaded.

### **5.4 Respondents**

The HFPS COVID-19 had ONE RESPONDENT per household. The respondent was the household knowledgeable adult household member or head of the household. The respondent must be a member of the household. Unlike many other household surveys, interviewers were not expected to seek out other household members to provide their own information. The respondent may still consult with other household members as needed to respond to the questions, including to provide all the necessary information on each household member.

## **6.0 Data Management and Description of Datasets**

### **6.1 Data Management**

#### **6.1.1 CATI**

The HFPS COVID-19 Baseline exercise was conducted using Computer Assisted Telephone Interview (CATI) techniques. The household questionnaire was implemented using the CATI software, Survey Solutions. The Survey Solutions software was developed and maintained by the Data Analytics and Tools Unit within the Development Economics Data Group (DECDG) at the World Bank. Each interviewer was given one tablet, which they used to conduct the interviews. Overall, implementation of survey using Survey Solutions CATI was highly successful, as it allowed for timely availability of the data from completed interviews.

#### **6.1.2 Data Communication System**

The data communication system used in the HFPS COVID-19 Baseline was highly automated. Since enumerators were working from the call center, the NSO provided routers for them to connect to whenever they wanted to sync data. This ensured access to the data in real-time.

#### **6.1.3 Data Cleaning**

The data cleaning process was done in two main stages. The first stage was to ensure proper quality control during the fieldwork. This was achieved in part by incorporating validation and consistency checks into the Survey Solutions application used for the data collection and designed to highlight many of the errors that occurred during the fieldwork.

The second stage of cleaning involved a comprehensive review of the final raw data following the first stage of cleaning. Every variable was examined individually for (1) consistency with other sections and variables, (2) out of range responses, and (3) formatting.

### **6.2 Description of Datasets**

These modules were administered in the HFPS COVID-19 Baseline survey.

- Household Roster
- Knowledge Regarding the Spread of COVID-19
- Behaviour and Social Distancing
- Access to Basic Services
- Employment
- Income Loss
- Food Security
- Concerns
- Social Safety Nets
- Agriculture

Table 6-1 show the sections of the Questionnaire and their corresponding datasets.

**Table 6-1: Datasets**

<b>Section</b>	<b>Section Name</b>	<b>Dataset Filename</b>
Cover	Cover	secta_Cover_Page
1	Interview Information	sect1_Interview_Info
		sect1b_phone_number_rosters
2	Household Roster Update	sect2_Household_Rosterss
3	Knowledge Regarding the Spread of COVID-19	sect3_Knowledgess
4	Behaviour and Social Distancing	sect4_Behavior
5	Access to Basic Services	sect5_Access
6	Employment	sect6_Employment
7	Income Loss	sect7_Income_Loss
8	Food Security	sect8_food_security
9	Concerns	sect9_Concerns
11	Social Safety Nets	sect11_Safety_Netss
12	Interview Results	sect12_Interview_Result
13	Agriculture	sect13_Agriculture

### **6.2.1 Confidential information**

Note that, for purposes of maintaining the confidentiality of the data, all names, phone numbers, and addresses have been removed from the datasets.

## 7.0 Using the Data

### 7.1 File Structure

The data should always be used in conjunction with the questionnaire and the interviewer's instruction manual. Where there are no issues of confidentiality, all the variables from the questionnaire have been included in the data sets. In some cases, there is an additional variable which contains the "other specify" information that was written in the questionnaire. So, for example, the other specify variable will be indicated with an "\_os" attached to the variable name such as q5\_os containing the "other specify" information for a variable q5.

### 7.2 Merging Datasets

All datasets contain a variable (**y4\_hhid**), which is a unique identifier for the household. This variable is used as the unique key variable in the merging of all household type datasets. In some of the other types of datasets, additional key variables may be required in the merging process. In the case of individual type files, the variable that uniquely identifies the individual in the household is **PID**. In order to merge any two individual type files, both the variables **y4\_hhid** and **PID** would be used.

Since the IHPS 2019 served as the frame for the HFPS COVID-19 survey, the HFPS COVID-19 Baseline datasets can be merged with the IHPS datasets. The household's unique key variable (**y4\_hhidS**) is used to merge the household type datasets and the individual's unique key variables (**y4\_hhid** and **PID**) are used to merge any individual type files. New individuals added in the HFPS COVID-19 baseline will be identified with an variable **new\_member**. It will not be possible to merge these newly added individuals with the IHPS data.