Kenya - COVID-19 Rapid Response Phone Survey, 2020

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Overview

Identification

ID NUMBER
KEN_2020_CRRPS_v01_EN_M_v01_A_OCS

Overview

ABSTRACT
The World Bank in collaboration with the Kenya National Bureau of Statistics and the University of California Berkeley are conducting the Kenya COVID-19 Rapid Response Phone Survey to track the socioeconomic impacts of the COVID-19 pandemic and provide timely data to inform a targeted response. This dataset contains information from the first and second waves of the COVID-19 RRPS Household Survey which is part of a three-wave bi-monthly panel survey that targets Kenyan nationals. The same households are interviewed every two months, between May and October 2020 and it is conducted using Computer Assisted Telephone Interviewing (CATI) techniques. Households that were not reached in wave 1 were also contacted along with households that were interviewed in wave 1. The wave 1 status of these households can be checked from the variable "surveystatus_rd1".

The dataset contains information from two samples of Kenyan households. The first sample is a randomly drawn subset of all households that were part of the 2015/16 Kenya Integrated Household Budget Survey (KIHBS) Computer-Assisted Personal Interviewing (CAPI) pilot. It covers urban and rural areas and is designed to be representative of the population of Kenya using cell phones. The second is made up of households whose members were randomly dialled from a list of active numbers created from the 2020 Numbering Frame produced by the Kenya Communications Authority. The Random Digit Dialling method was used for this sample. The households previously reached by RDD were all reached again, and additional households were added to the sample as well. It includes information on household background, service access, employment, food security, income loss, transfers, health, and COVID-19 knowledge for 4,457 households, of which 3156 were also interviewed in round 1 and 1301 are new.

KIND OF DATA
Sample survey data [ssd]

UNITS OF ANALYSIS
Households

Scope

NOTES
The Kenya COVID-19 RRPS survey 2020 covered topics in covid-19, food security, health and employment.

TOPICS

Topic	Vocabulary	URI
Food (production, crisis)	FAO	
Health	FAO	
Access to Finance	FAO	

Coverage

GEOGRAPHIC COVERAGE
National coverage

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
Utz J. Pape	The World Bank

OTHER PRODUCER(S)

Name	Affiliation	Role
University of California Berkeley		Collaborator
Kenya National Bureau of Statistics		Collaborator

FUNDING

Name	Abbreviation	Role
International Bank for Reconstruction and Development	IBRD	Funding

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Office of Chief Statistician	OCS	Food and Agriculture Organization	Adoption of metadata for FAM
Development Data Group	DECDG	The World Bank	Documentation of the DDI

DDI DOCUMENT VERSION
KEN_2020_CRRPS_v01_EN_M_v01_A_OCS_v01

DDI DOCUMENT ID
DDI_KEN_2020_CRRPS_v01_EN_M_v01_A_OCS_FAO

Sampling

Sampling Procedure

SAMPLING PROCEDURE
The COVID-19 RRPS Household survey has two samples. The first is a randomly drawn subset of all households that were part of the 2015/16 Kenya Integrated Household Budget Survey (KIHBS) CAPI pilot and only includes individuals with a registered phone number. The 2015/16 KIHBS is representative at the national level stratified by county and place of residence (urban and rural areas). At least one valid phone number was obtained for 9,007 households with the target respondent as the primary male or female from the 2015/16 KIHBS. The target sample size was 4,000 households stratified by county and by place of residence (urban/rural). There were 3,631 completed interviews for this sample in the second wave of the RRPS on COVID-19.
The second sample consists of households selected using the Random Digit Dialling method. A list of random mobile phone numbers was created using a random number generator from the 2020 Numbering Frame produced by the Kenya Communications Authority. The Initial sampling frame therefore consisted of 92,999,970 randomly ordered phone numbers assigned to three networks: Safaricom, Airtel and Telkom. An introductory text message was sent to 5000 randomly selected numbers to determine if numbers were in operation. Out of these, 4,075 were found to be active and formed the final sampling frame. There was no stratification and individuals that were called were asked about the households they live in. The target sample size was 750. There were 826 completed interviews for this sample in the second wave of the RRPS on COVID-19 RRPS.

Weighting

For the KNBS and RDD samples, to make the sample nationally representative of the current population of households with mobile phone access, we create weights in two steps.

(a) Step 1: Construct raw weights combining the two national samples

The current population consists of
(I) households that existed in 2015/16, and did not change phone numbers,
(II) households that existed in 2015/16, but changed phone number,
(III) households that did not exist in 2015/16.

Abstracting from differential attrition, the weights from the 2015/16 KIHBS CAPI pilot make the KIHBS sample representative of type (I) households.
For RDD households, we ask whether they existed in 2015/16, when they had acquired their phone number, and where they lived in 2015/16, allowing us to classify them into type (I), (II) and (III) households and assign them to KIHBS strata. We adjust weights of each RDD household to be inversely proportional to the number of mobile phone numbers used by adult members of the household, and scale them relative to the average number of mobile phone numbers used in the KIHBS within each stratum. RDD therefore gives us a representative sample of type (II) and (III) households. We then combine RDD and KIHBS type (I) households by ex-post adding RDD households into the 2015/16 sampling frame and adjusting weights accordingly. Last, we combine our representative samples of type (I), type (II) and type (III), using the share of each type within each stratum from RDD (inversely weighted by number of mobile phone numbers). Variable: weight_raw

(b) Step 2: Scale the weights to population proportions in each county and urban/rural stratum
We use post stratification to adjust for differential attrition and response rates across counties and rural/urban strata. We scale the raw weights from step 1 to reflect the population size in each county and rural/urban stratum as recorded in the 2019 Kenya Population and Housing Census conducted by the KNBS (2019 Kenya Population and Housing Census, Volume II: Distribution of Population by Administrative Units, December 2019, Kenya National Bureau of Statistics, https://www.knbs.or.ke/?wpdmpro=2019-kenyapopulation-and-housing-census-volume-ii-distribution-of-population-by-administrative-units).
Variable: weight

To construct panel weights, we follow the approach outlined in Himelein (2014): “Weight Calculations for Panel Surveys with Subsampling and Split-off Tracking”. In each household we follow one target respondent. Wherever households split, only the current household of the target respondent was interviewed. The weights for the wave 1 and 2 balanced panel a constructed by applying the following steps separately for the national sample, (KNBS and RDD combined), and each of the UNHCR samples:
0. Wave 1 cross-sectional weights after post-stratification adjustment are used as a base. W_1 = W_wave1

1. Attrition adjustment through propensity score-based method: The predicted probability that a sample household was successfully re-interviewed in the second survey wave is estimated through a propensity score estimation. The propensity score (PS) is modeled with a linear logistic model at the level of the household. The dependent variable is a dummy indicating whether a household that has completed the survey in wave 1 has also done so in wave 2. The following covariates were used in the linear logistic model: Urban/rural dummy, County dummies, Household head gender, Household head age, Household size, Dependency ratio, Dummy: Is anyone in the household working, Asset ownership: Radio, Asset ownership: Mattress, Asset ownership: Charcoal Jiko, Asset ownership: Fridge, Wall material: 3 dummies, Floor materials: 3 dummies, Connection to electricity grid, Number of mobile phones numbers household uses, Number of phone numbers recorded for follow-up, Sample dummy for estimation with national samples
2. Rank households by PS and split into 10 equal groups
3. Calculate attrition adjustment factor: ac (attrition correction) = the reciprocal of the mean empirical response rate for the propensity score decile
4. Adjust base weights for attrition: W_2 = W_1 * ac
5. Trim top 1 percent of the weights distribution (), by replacing the weights among the top 1 percent of the distribution with the highest value of a weight below the cutoff. W_3 = trim(W_2)
6. Apply post-stratification in the same way as for cross-sectional weights (step 2) Variable: weight_panel_w1_2.

Questionnaires

Overview

English versions of the Wave 1 and 2 questionnaires are provided under the Documentation tab covering:

• Household Roster
• Travel Patterns & Interactions
• Employment
• Food security
• Income Loss
• Transfers
• Subjective welfare (50% of sample)
• Health
• COVID-19 Knowledge
• Household and Social Relations (50% of sample)

Data Collection

Data Collection Dates

Start	End	Cycle
2020-05-14	2020-06-08	Wave 1
2020-07-16	2020-09-18	Wave 2

Data Collection Mode

Computer Assisted Telephone Interview [cati]

Data Collection Notes

PRE-LOADED INFORMATION: Basic household information was pre-loaded in the CATI assignments for each enumerator. The information, for example the household’s location, household head name, phone numbers et cetera, was used to help enumerators call and identify the target households. The list of individuals from the KIHBS CAPI pilot and their basic characteristics were uploaded which helped maintain the panel of individuals and ensured the status of each individual in the wave 1 and 2 surveys.

RESPONDENTS: The COVID-19 RRPS had ONE RESPONDENT per household. The target respondent was defined as the primary male or female from 2015/16 KIHBS CAPI Pilot. They were randomly chosen where both existed to maintain gender balance. If the target respondent was not available for a call, the field team spoke to any adult currently living in the household of the target respondent. If the target respondent was deceased, the field team spoke to any adults that lived with the target respondent in 2015/16. Finally, if the household from 2015/16 split up, we targeted anyone in the household of the target respondent but did not survey a household member that no longer lives with the target respondent.

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Data Processing

Data Editing

The following universal codes were applied for the survey options:

98 Refused to Answer
99 Don't know
77 Other/Any child member

Data Appraisal

Other forms of Data Appraisal

Section 4b, which contains information on enterprises, has been excluded from this data set and will be made available after the completion of wave 3 interviews.