Nigeria - National Longitudinal Phone Survey (COVID-19), 2020

National Bureau of Statistics (NBS)

Report generated on: October 26, 2020

Visit our data catalog at: https://microdata.fao.org/index.php

Overview

Identification

ID NUMBER
NGA_2020_NLPS_v01_EN_M_v01_A_OCS

Overview

ABSTRACT
Nigeria was among the first few countries in Sub-Saharan Africa to identify cases of COVID-19. Reported cases and fatalities have been increasing since it was first identified. The government implemented strict measures to contain the spread of this virus (such as travel restrictions, school closures and home-based work). While the Government is implementing these 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 Nigeria COVID-19 NLPS 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 Nigerian government and stakeholders to help design policies to mitigate the negative impacts on its population. The Nigeria COVID-19 NLPS 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 2018/2019 for Wave 4 of the General Household Survey-Panel (GHS-Panel). The extensive information collected in the GHS-Panel just over a year prior to the pandemic provides a rich set of background information on the Nigeria COVID-19 NLPS 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.

KIND OF DATA
Sample survey data [ssd]

UNITS OF ANALYSIS
Households

Scope

NOTES
The Nigeria COVID-19 National Longitudinal Phone Survey 2020 covered the following topics:

- Household Roster (Rounds 1, 2, 3, 4)

- Knowledge Regarding the Spread of COVID-19 (Round 1)

- Behaviour and Social Distancing (Round 1)

- Access to Basic Services (Rounds 1, 2, 3, 4)

- Housing (Round 3)

- Credit (Round 4)

- Employment (Rounds 1, 2, 3, 4)

- Income Loss (Round 1)

- Other Income (Rounds 2, 3)

- Income Changes (Round 4)

- Food Security (Rounds 1, 2, 4)

- Concerns (Rounds 1, 4)

- Coping/Shocks (Rounds 1, 3)

- Social Safety Nets (Rounds 1, 2, 3, 4)

TOPICS

Topic	Vocabulary	URI
Financial Sector	FAO	
Access to Finance	FAO	
Food (production, crisis)	FAO	
Aid effectiveness	FAO	
Impact evaluation	FAO	
Disaster Risk Management	FAO	

Coverage

GEOGRAPHIC COVERAGE
National

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
National Bureau of Statistics (NBS)	Federal Government of Nigeria

OTHER PRODUCER(S)

Name	Affiliation	Role
The World Bank		Collaborated in the implementation of the survey

FUNDING

Name	Abbreviation	Role
Bill and Melinda Gates Foundation	BMGF	Funded the study
Federal Government of Nigeria	FGN	Funded the study
United States Agency for International Development	USAID	Funded the study

Metadata Production

METADATA PRODUCED BY

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

DDI DOCUMENT VERSION
NGA_2020_NLPS_v01_EN_M_v01_A_OCS_v01

DDI DOCUMENT ID
DDI_NGA_2020_NLPS_v01_EN_M_v01_A_OCS_FAO

Sampling

Sampling Procedure

Wave 4 of the GHS-Panel conducted in 2018/19 served as the frame for the Nigeria COVID-19 NLPS survey. The GHS-Panel sample includes 4,976 households that were interviewed in the post-harvest visit of the fourth wave in January/February 2019. This sample of households is representative nationally as well as across the 6 geopolitical Zones that divide up the country. In every visit of the GHS-Panel, phone numbers are collected from interviewed households for up to 4 household members and 2 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 NBS and the GHS-Panel households made this an ideal frame from which to conduct the COVID-19 monitoring survey in Nigeria. Among the 4,976 households interviewed in the post-harvest visit of the GHS-Panel in 2019, 4,934 (99.2%) provided at least one phone number. Around 90 percent of these households provided a phone number for at least one household member while the remaining 10 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 Nigeria COVID-19 NLPS.

To obtain a nationally representative sample for the Nigeria COVID-19 NLPS, a sample size of approximately 1,800 successfully interviewed households was targeted. However, to reach that target, a larger pool of households needed to be selected from the frame due to non-contact and non-response common for telephone surveys. Drawing from prior telephone surveys in Nigeria, a final contact plus response rate of 60% was assumed, implying that the required sample households to contact in order to reach the target is 3,000. 3,000 households were selected from the frame of 4,934 households with contact details. Given the large amount of auxiliary information available in the GHS-Panel for these households, a balanced sampling approach (using the cube method) was adopted. The balanced sampling approach enables selection of a random sample that still retains the properties of the frame across selected covariates. Balancing on these variables results in a reduction of the variance of the resulting estimates, assuming that the chosen covariates are correlated with the target variable. Calibration to the balancing variables after the data collection further reduces this variance (Tille, 2006). The sample was balanced across several important dimensions: state, sector (urban/rural), household size, per capita consumption expenditure, household head sex and education, and household ownership of a mobile phone.

Response Rate

ROUND 1 (BASELINE): All 3,000 households were contacted in the baseline round of the phone survey. 69 percent of sampled households were successfully contacted. Of those contacted, 94 percent or 1,950 households were fully interviewed. These 1,950 households constitute the final successful sample and will be contacted in subsequent rounds of the survey.

ROUND 2: Interviewers attempted to contact and interview all 1,950 households that were successfully interviewed in the baseline of the COVID-19 NLPS. 1,852 households (95% of the 1,950 attempted) were contacted and 1,820 (93.3%) were successfully interviewed in the second round. Of those contacted, 22 households refused outright to be interviewed and 10 were partially interviewed.

ROUND 3: Interviewers attempted to contact and interview all 1,925 households that were successfully interviewed in the Baseline of the COVID-19 NLPS, excluding 25 households that had refused in Round 2. Thus, the sample included households that were not successfully interviewed in Round 2, in an effort to maintain the sample size. 1,837 households (95.4% of the 1,925 attempted) were contacted and 1,790 (93%) were successfully interviewed in the third round. Of those contacted, 28 households refused outright to be interviewed and 18 were partially interviewed. Of the 1,790 successfully interviewed households, 1,737 were households that have been successfully interviewed in all three rounds of the survey so far. These are the households that form a complete panel across the three rounds.

ROUND 4: Interviewers attempted to contact and interview all 1,881 households that were successfully interviewed in the Baseline of the COVID-19 NLPS, excluding 69 households that had refused in Round 2 or Round 3. Thus, the sample included households that were not successfully interviewed subsequent to the baseline in an effort to maintain the sample size. As shown in 7-11, 1,819 households (96.7% of the 1,881 attempted) were contacted and 1,789 (95.1%) were successfully interviewed in the fourth round. Of those contacted, 19 households refused outright to be interviewed and 9 were partially interviewed. Of the 1,789 successfully interviewed households, 1,691 were households that have been successfully interviewed in all four rounds of the survey so far. These are the households that form a complete panel across the four rounds.

Weighting

(a) WEIGHTS

ROUND 1 (BASELINE):
The weights can be found in the household-level data file (r1_sect_a_3_4_5_6_8_9_12). The variable name is "wt_baseline". In subsequent rounds of the survey, steps 4, 5, and 6 will be applied to the final baseline weights.

ROUND 2:
The baseline weights were adjusted for noncontact and nonresponse as well as calibrated following the same procedures outlined above (steps 4, 5 and 6). The round 2 weights can be found in the household-level data file (r2_sect_a_2_5_6_8_12). The variable name is "wt_round2".

ROUND 3:
In Round 3, two different weights are provided: cross section and panel weights. The cross section weights are applicable to the entire round 3 sample while the panel weights are only applicable to round 3 sample households that have been successfully interviewed in all three rounds of the survey so far. For both of these weights, the baseline weights were adjusted for noncontact and nonresponse as well as calibrated following the same procedures outlined above (steps 4, 5 and 6). The round 3 weights can be found in the household-level data file (r3_sect_a_2_5_6_12). The cross section weight is contained in the variable named wt_round3 while the panel weight is contained in the variable named "wt_r3pane"l.

ROUND 4:
In Round 4, two different weights are provided: cross section and panel weights. The cross section weights are applicable to the entire round 4 sample while the panel weights are only applicable to round 4 sample households that have been successfully interviewed in all four rounds of the survey so far. For both of these weights, the baseline weights were adjusted for noncontact and nonresponse as well as calibrated following the same procedures outlined in section 2.2 (steps 4, 5 and 6). The round 4 weights can be found in the household-level data file (r4_sect_a_2_5_5b_6_8_9_12). The cross section weight is contained in the variable named wt_round4 while the panel weight is contained in the variable named wt_r4panel.

(b) METHODOLOGY

In order to produce national estimates from the successfully interviewed sample, weights must be applied to the information provided by sampled households. Weights for the GHS-Panel serve as the basis for the Nigeria COVID-19 NLPS, but the weights must be adjusted to reflect the selection and interviewing process. The weights for the Nigeria COVID-19 NLPS were calculated in several stages.
i. Begin with the GHS-Panel full sample household weights.
ii. Apply an adjustment factor for the selection into the frame (GHS-Panel households that have contact details). A ratio adjustment was applied at the Zone-level (the strata for the GHS-Panel) to preserve the sum of household weights within each Zone between the full GHS-Panel sample and the NLPS frame.
iii. Apply an adjustment for selection into the NLPS sample. The adjustment is a simple expansion factor that is the inverse of the selection probability from the frame for each sampled unit.
iv. Apply an adjustment factor for non-contact of sampled households. This was again performed with a ratio adjustment at the Zone-level.
v. Apply an adjustment factor for non-response of contacted households through a ratio adjustment at the Zone-level.
vi. Calibrate the weights (following adjustments 2-5) according to the properties of the full weighted GHS-Panel sample. This calibration step adjusts the weights such that the estimates obtained from the final NLPS sample will match the weighted means of the full GHS-Panel sample for specified characteristics. The calibration was performed using only information obtained from the GHS-Panel interview and thus will only reflect changes in the sample composition and not changes over time. The calibration applied here aims to correct for selection bias that is introduced at any point between identification of the frame and the final successfully interviewed sample. Selection bias is of particular concern in phone surveys since some segment of the population does not have access to a phone and there are more difficult barriers to successfully reach and interview households over the phone. The calibration was applied using the ReGenesees package in R. The characteristics that were considered in the calibration were the same factors included in the balanced sample selection described in 3.1 above. The weights were also applied to the total number of households in the population given by the GHS-Panel weights.
vii. Trim the weights. Outlier weights were trimmed using the ReGenesees package in R which adjusts the weights to given bounds while minimizing the deviation from the estimates obtained from the calibration in step 6.

Questionnaires

No content available

Data Collection

Data Collection Dates

Start	End	Cycle
2020-04-20	2020-05-11	Round 1 (Baseline)
2020-06-02	2020-06-16	Round 2
2020-07-06	2020-07-20	Round 3
2020-08-09	2020-08-24	Round 4

Data Collection Mode

Face-to-face [f2f]

Data Processing

Data Editing

COMPUTER ASSISTED TELEPHONE INTERVIEW (CATI): The Nigeria COVID-19 NLPS 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 two tablets, 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.

DATA COMMUNICATION SYSTEM: The data communication system used in the Nigeria COVID-19 NLPS was highly automated. Each interviewer was given a mobile modem allowing for internet connectivity and daily synchronization of their tablet. This ensured that head office in Abuja has access to the data in real-time. Once the interview is completed and uploaded to the server, the data is first reviewed by the Supervisors, and then routed for call back or audio audit if selected. A feedback questionnaire was also designed in Survey Solutions where interviewers receive respective feedback on their tablet from the various monitoring stages. This activity is done on a daily basis throughout the duration of the data collection.

DATA CLEANING: The data cleaning process was done in three 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 cleaning involved the use of Supervisors in Survey Solutions. As indicated above, once the interview is completed and uploaded to the server, the Supervisors reviewed completed interviews for inconsistencies and extreme values. Depending on the outcome, they can either approve or reject the case. If rejected, the case goes back to the respective interviewer's tablet upon synchronization. The supervisor will provide general and question-specific comments when rejecting a particular completed interview. These errors were then corrected based on another call to the household on the instruction of the supervisor. The data that had gone through this first stage of cleaning and has no issues is then approved by the Supervisor. The third stage of cleaning involved a comprehensive review of the final raw data following the first and second stage cleaning. Every variable was examined individually for (1) consistency with other sections and variables, (2) out of range responses, and (3) formatting. Some minor errors remain in the data where the diagnosis and/or solution were unclear to the data cleaning team.

Other Processing

CONFIDENTIAL INFORMATION: For purposes of maintaining the confidentiality of the data, all names, phone numbers, and addresses have been removed from the datasets.

Data Appraisal

No content available