Using Longitudinal Household Surveys to Understand Aging in LMICs

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Development Economics • Data

The Living Standard Measurement Study Program (LSMS)

The (LSMS) is the World Bank's flagship household survey program focused on

- strengthening household **survey systems** in client countries
- improving the **quality of microdata** to better inform development policies.

It was created in 1980 in response to a perceived need for policy relevant data

- Initial focus was on poverty
- Move beyond poverty, unemployment, health
 - To allow policy makers to understand the determinants these outcomes



What does LSMS do?

The Living Standards Measurement Study (LSMS) is the World Bank's flagship household survey program focused on strengthening household survey systems in client countries and on improving the quality of microdata to better inform development policies.



How does the LSMS Program work?

Supporting countries in understanding the **living standards** of their citizens by:



offering technical assistance and advisory services on all stages of the survey life cycle

Creating capacity

We engage in the **study** of **measurement** by:

Conducting research on survey methods



producing guidelines on best practices



Types of LSMS-supported surveys



LSMS Led Surveys (LSMS-ISA and LSMS+) and LSMS Advised Surveys (2019-2020)



Living Standards Measurement Study - Integrated Surveys on Agriculture (LSMS-ISA) is a unique system of longitudinal surveys designed to improve the understanding of household and individual welfare, livelihoods and smallholder agriculture in Africa



Work Streams



DATA PRODUCTION Supporting the design, implementation and dissemination of countryowned, multi-topic, national panel household surveys METHODS AND TOOLS Improving methods and tools for survey data collection and analysis through field experiments and rigorous R&D



POLICY RESEARCH Conducting and promoting research to inform evidencebased development policies



Partners and Survey Features

8 Partner National Statistical Offices



Burkina Faso Ethiopia Malawi Mali Niger Nigeria Tanzania Uganda 45% of SSA



Integrated into the **NSSs**, implemented by NSOs



Individual- & plot-level data collection



Representative at the national & regional-levels



Georeferencing of household & plots, GPSbased plot area measures



Tracking of households & individuals



Integrating agricultural data collection into a multi-topic framework



Computer-assisted personal and telephone interviewing (Survey Solutions)



Open access survey & derived geospatial data policy



LSMS-ISA Impacts in Numbers



LSMS-ISA Impacts in Numbers



LSMS Guidebooks

20+

Total Guidebooks

Developed guides for multiple survey products

1400+

Guidebook Downloads

Number of downloads the guidebooks were downloaded from the LSMS website





LSMS-ISA surveys description

Country	Survey	Year
Burkina Faso	Burkina Faso Enquête Harmonisée sur le Conditions de Vie des Ménages (EHCVM)	2018/19, 2022
Ethiopia	Ethiopia Socioeconomic Survey (ERSS)	2011/2012, 2013/2014, 2015/2016, 2018/2019, 2021/2022
Malawi	Integrated Household Panel Survey (IHPS)	2013, 2016/2017, 2019/2020
Mali	Enquête Agricole de Conjoncture Intégrée (EAC-I)	2014/2017
Niger	National Survey on Household Living Conditions and Agriculture (ECVM/A)	2011/2014
Nigeria	General Household Survey- Panel (GHS-Panel)	2010/2011, 2012/2013, 2015/2016, 2018/2019, 2023/2024
Tanzania	Tanzania National Panel Survey (TZNPS)	2008/2009, 2010/2011, 2012/2013, 2014/2015, 2020/2021
Uganda	Uganda National Panel Survey (UNPS)	2009/2010, 2010/2011, 2011/2012, 2013/2014, 2015/2016, 2018/2019, 2017/2018, 2019/2020



Examining life-course trajectories of aging in Nigeria and Tanzania

Using the first wave of Nigeria and Tanzania's LSMS-ISA surveys, we have identified 4 cohorts of individuals in wave 1 and we follow their results for wave 2 and wave 3.

The cohorts are the following:

- Cohort 1: individuals 40-49 years of age reported in Wave 1
- Cohort 2: individuals 50-59 years of age reported in Wave 1
- Cohort 3: individuals 60-69 years of age reported in Wave 1
- Cohort 4: individuals 70 years of age or older reported in Wave 1





Limitations of the data

1. Sampling: the data may not be representative of the older population

- The cohorts included only the individuals that were present in the three waves. That means that in order to keep the cohort fixed we may lose representativeness at the national level.
- Attrition of these individuals is not random, older cohorts are most likely to face a higher attrition because some members died. To overcome this issue, surveys can think of an strategy to oversample these populations.
- 2. Topics: the data collected may not be cover all the relevant information for the aging population

Employment Status

In Nigeria about 60% individuals older than 70 are employed in wave 1, in Tanzania this number is about 55%, however in wave 3 (about 5 years later) 30% of the individuals in Nigeria and 55% of the individuals in Tanzania are employed.



Source: Own elaboration using Nigeria GHS-Panel Survey Wave 1-3 and Tanzania National Panel Survey Wave 1-3

Notes: Age cohorts are created by identifying individuals included in the three waves and reported to be in the age group during Wave 1. The same individuals are kept in the upcoming waves in their original cohort.



Male and female respondents in age cohorts, by 7-day labor status (%) Nigeria, Waves 1-3







68%

Inactive

Unemployed

Employed

In Nigeria about 60% of men and 50% of women in the older cohort were employed in wave 1, however in wave 3 (about 5 years later) still 30% of both men and women are still employed





In Tanzania about 75% of men and 60% of women in the older cohort were employed in wave 1, however in wave 3 (about 5 years later) still 60% of men and 50% of women are still employed



Male and female respondents in age cohorts, by 7-day labor status (%)

40-49 50-59 60-69 70+

Wave 2

100%

90% 80%

70% 60% 50%

40%

30%

20%

10% 0%

40-49 50-59 60-69 70+

Wave 1

Employed

40-49 50-59 60-69 70+

Wave 3

Type of work by age cohorts (% of employed population) Nigeria, Waves 1-3



40%

20%

0%

49%

W3

60%

W1

60%

W2

■ Agriculture ■ NFE ■ Wage work

W3

The oldest cohort shows a higher share of workers in agriculture



W2

40%

20%

0%

47%

W1



Health indicators

Proportion who **consulted** a health care provider in past 4 weeks, by age cohort (%) *Nigeria, Waves 1-3*



Proportion who *suffered from injury or illness* in past 4 weeks, by age cohort (%) *Nigeria, Waves 1-3* 35% 36% 37%



Proportion who **visited** a health care provider in past 4 weeks, by age cohort (%) *Tanzania, Waves 1-3*



Source: Own elaboration using Nigeria GHS-Panel Survey Wave 1-3 and Tanzania National Panel Survey Wave 1-3

40%

Notes: Age cohorts are created by identifying individuals included in the three waves and reported to be in the age group during Wave 1. The same individuals are kept in the upcoming waves in their original cohort.



Health indicators

Proportion of respondents reporting functional limitations, by age cohort (%)



Source: Own elaboration using Nigeria GHS-Panel Survey Wave 1.

Notes: Age cohorts are created by identifying individuals included in the three waves and reported to be in the age group during Wave 1. The same individuals are kept in the upcoming waves in their original cohort.



Conclusion

- Longitudinal studies allow for the study of cohorts across time,
 - Providing information on the evolution of different indicators
 - Supporting the design of policies that target the aging population
- The LSMS panel data provide a good example of longitudinal surveys with rich information on socio-demographic indicators
- Way forward:
 - Openness to work with partners in ensuring the sample is representative of the older populations (oversampling)
 - Also on adding modules relevant to the research on aging populations in low and middle income countries













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