Guinea

EquityTool: Released June 1, 2018

Source data: Guinea DHS 2012

# of survey questions in original wealth index: 37
# of variables in original index: 113

# of survey questions in EquityTool: 10
# of variables in EquityTool: 15

Questions:

	Question	Option 1	Option 2	Option 3	Option 4
Q1	Does your household have… electricity?	Yes	No		
Q2	A television?	Yes	No		
Q3	A refrigerator?	Yes	No		
Q4	A cupboard/bookcase?	Yes	No		
Q5	Does any member of your household have a bank account?	Yes	No		
Q6	What is the main source of drinking water used by members of your household?	Piped into dwelling	Other		
Q7	What type of toilet do members of your household typically use?	Flush toilet to septic tank	Pit latrine with slab	Traditional pit latrine (no slab)	Other
Q8	What is main material of the floor of your dwelling?	Ceramic/ mosaic	Earth/ sand/ gravel	Other	

Q9	What is the main material of the exterior walls of your dwelling?	Cane/palm/ trunks/dirt	Stone walls with lime /cement	Cement	Other
Q10	What type of fuel does your household mainly use for cooking?	Wood	Other		

Technical notes:

To create the EquityTool, we simplify the original, full wealth index that is found in the relevant DHS dataset. In the case of Guinea DHS 2012, we noticed an error in the original wealth index used in the DHS dataset. The full wealth index was recreated without this error in a process similar to that used originally in the DHS survey, using 113 variables from 37 questions. This recreated wealth index was then simplified to create the EquityTool.

The standard simplification process was applied to achieve high agreement with the full wealth index. Kappa was greater than 0.75 for the national and urban indices. Details on the standard process can be found in this article. The data used to identify important variables comes from the factor weights from the analysis described above.

Level of agreement:

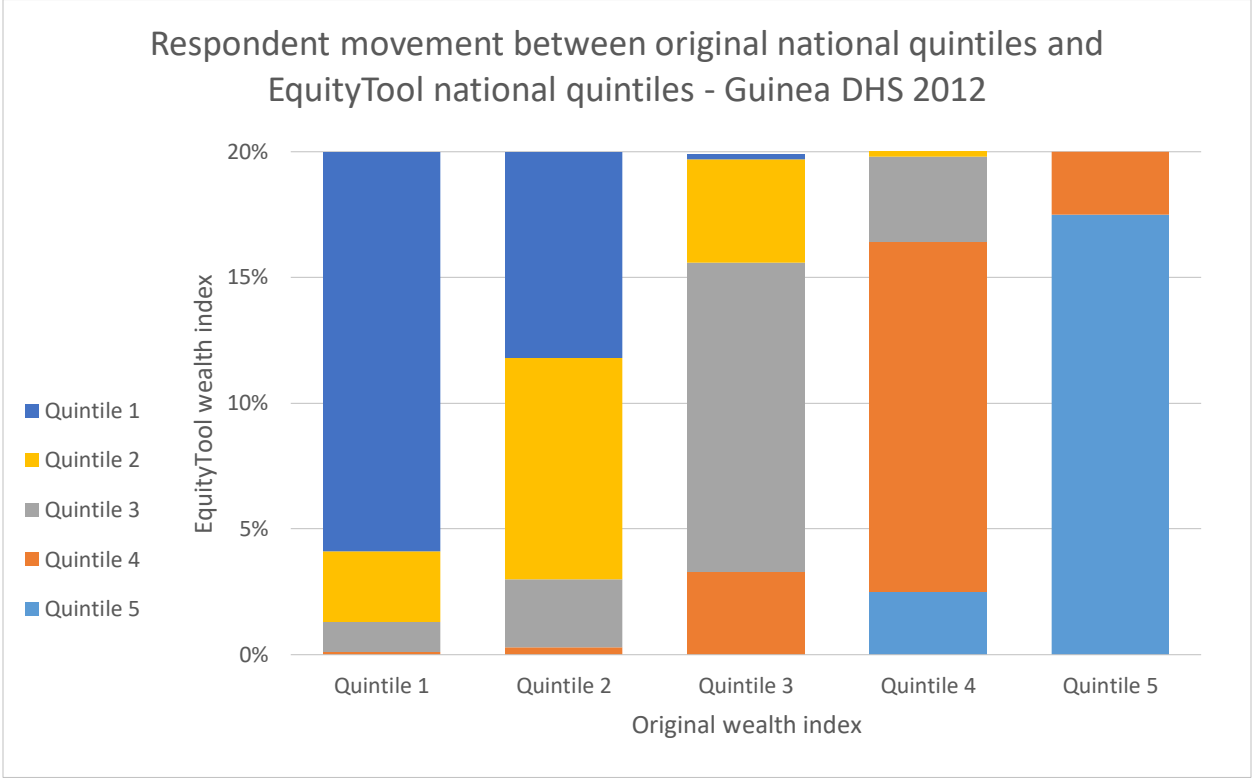
	National Population (n=7,109)	Urban only population (n=2,503)
% agreement	84%	84.2%
Kappa statistic	0.75	0.753

Respondents in the original dataset were divided into three groups for analysis – those in the 1st and 2nd quintiles (poorest 40%), those in the 3rd quintile, and those in the 4th and 5th quintiles (richest 40%). After calculating their wealth using the simplified index, they were again divided into the same three groups for analysis against the original data in the full DHS. Agreement between the original data and our simplified index is presented above.

What does this mean?

When shortening and simplifying the index to make it easier for programs to use to assess equity, it no longer matches the original index with 100% accuracy. At an aggregate level, this error is minimal, and this methodology was deemed acceptable for programmatic use by an expert panel. However, for any given individual, especially those already at a boundary between two quintiles, the quintile the EquityTool assigns them to may differ to their quintile according to the original DHS wealth index.

The graph below illustrates the difference between the EquityTool generated index and the full DHS wealth index. Among all of those people (20% of the population) originally identified as being in the poorest quintile, approximately 80% are still identified as being in the poorest quintile when we use the simplified index. However, approximately 20% of people are now classified as being in Quintiles 2 or 3. From a practical standpoint, all of these people are relatively poor. Yet, it is worthwhile to understand that the simplified index of 10 questions produces results that are not identical to using all 37 questions in the original survey.

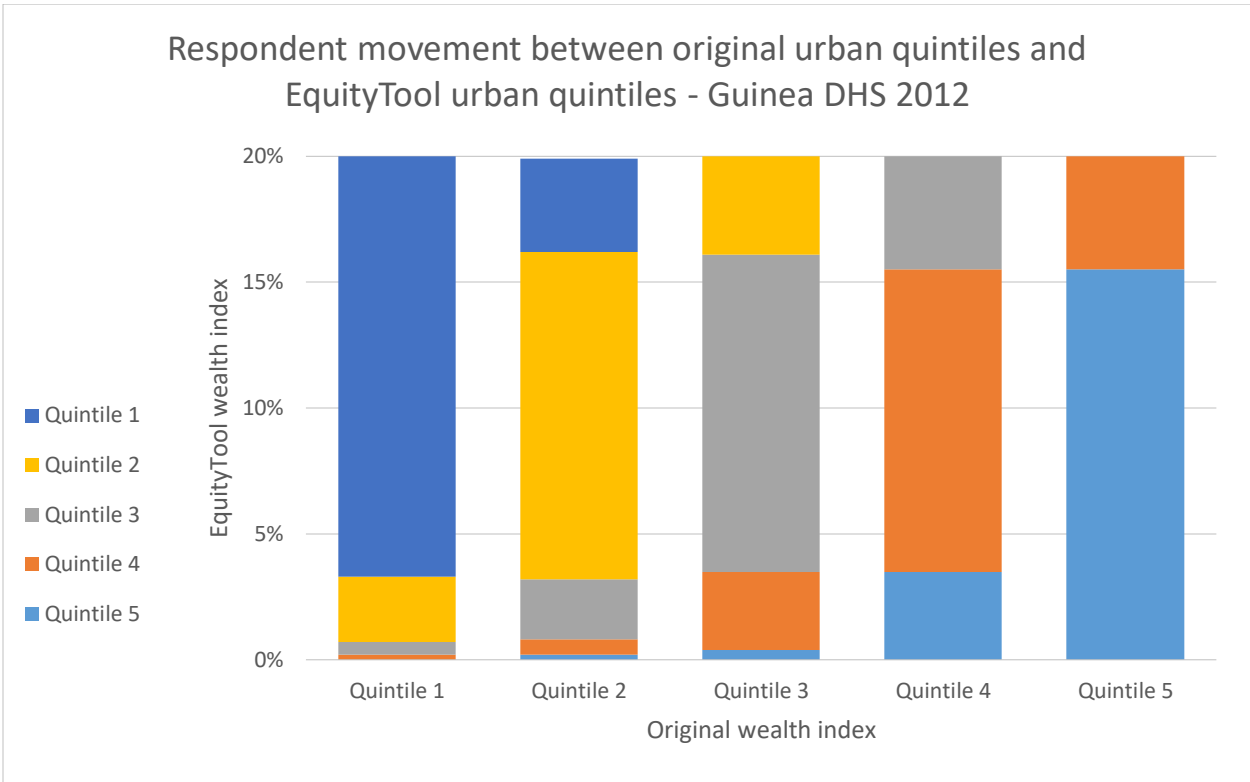


The following table provides the same information on the movement between national quintiles when using the EquityTool versus the original DHS wealth index:

		EquityTool National Quintiles					
		Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	Total
Original DHS National Quintiles	Quintile 1	15.90%	2.80%	1.20%	0.10%	0.00%	20.00%
	Quintile 2	8.20%	8.80%	2.70%	0.30%	0.00%	20.00%
	Quintile 3	0.20%	4.10%	12.30%	3.30%	0.00%	20.00%
	Quintile 4	0.00%	0.30%	3.40%	13.90%	2.50%	20.00%
	Quintile 5	0.00%	0.00%	0.00%	2.50%	17.50%	20.00%

	Total	24.40%	16.00%	19.60%	20.00%	20.00%	100.00%

The following graph provides information on the movement between urban quintiles when using the EquityTool versus the original DHS wealth index:



The following table provides the same information on the movement between urban quintiles when using the EquityTool versus the original DHS wealth index:

		EquityTool Urban Quintiles					
		Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	Total
Original DHS Urban Quintiles	Quintile 1	16.70%	2.60%	0.50%	0.20%	0.00%	20.00%
	Quintile 2	3.70%	13.00%	2.40%	0.60%	0.20%	20.00%
	Quintile 3	0.00%	3.90%	12.60%	3.10%	0.40%	20.00%
	Quintile 4	0.00%	0.00%	4.50%	12.00%	3.50%	20.00%
	Quintile 5	0.00%	0.00%	0.00%	4.50%	15.50%	20.00%
	Total	20.50%	19.50%	20.00%	20.40%	19.60%	100.00%

Data interpretation considerations:

1. This tool provides information on relative wealth – 'ranking' respondents within the national or urban population. The most recent available data from the WorldBank indicates that 35.3% of people in Guinea live below $1.90/day[1]. This information can be used to put relative wealth into context.
2. People who live in urban areas are more likely to be wealthy. In Guinea, 60.8% of people living in urban areas are in the richest national quintile, compared to only 0.3% of those living in rural areas[2].
    a. If your population of interest is predominantly urban, we recommend you look at the urban results to understand how relatively wealthy or poor they are, in comparison to other urban dwellers.
    b. If the people you interviewed using the EquityTool live in rural areas, or a mix of urban and rural areas, we recommend using the national results to understand how relatively wealthy or poor they are, in comparison to the whole country.
3. Some prefectures in Guinea are wealthier than others. It is important to understand the country context when interpreting your results.
4. In most cases, your population of interest is not expected to be equally distributed across the five wealth quintiles. For example, if your survey interviewed people exiting a shopping mall, you would probably expect most of them to be relatively wealthy.

Metrics for Management provides technical assistance services to those using the EquityTool, or wanting to collect data on the wealth of their program beneficiaries. Please contact equitytool@m4mgmt.org and we will assist you.

[1] From povertydata.worldbank.org, reporting Poverty headcount ratio at $1.90/day at 2011 international prices.

[2] From the Guinea DHS 2012 dataset household recode, available at http://dhsprogram.com/