Subject: Senegal continuous DHS - combine 2014 and 2015 for regional representability?
Posted by fcavallaro on Thu, 15 Jun 2017 12:03:53 GMT
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Hello,

I am working with the Senegal DHS and would like to produce recent regionally representative estimates. I am aware the 2012-13 and 2014 surveys are individually representative at the zonal level, and combined are additionally representative at the regional level. When combining these, can the wealth quintiles be used as they are, or would they need to be recalculate on the combined sample?

Second, is it at all possible to combine 2014 and 2015 surveys to obtain regionally representative estimates? Or can the 2015 survey only be grouped with the 2016 survey?

Many thanks,
Francesca

Subject: Re: Senegal continuous DHS - combine 2014 and 2015 for regional representability?
Posted by Bridgette-DHS on Thu, 15 Jun 2017 21:40:03 GMT
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Following is a response from Senior DHS Stata Specialist, Tom Pullum:

Normally the wealth quintiles are only calculated at a national level, by selecting cut points on the continuous wealth index in such a way that the weighted number of de jure (hv102=1) residents in the household survey is the same in each quintile. (But everyone in the same household must be in the same quintile.) If you wanted to apply the same procedure at lower levels of aggregation, to get at relative wealth within a geographic area, you could certainly do that.

You can pool successive rounds of the continuous survey, but if one of the surveys is restricted to certain zones or regions, then you should adjust the weights of the pooled data so that the weighted distribution matches the population distribution. Otherwise the estimates will be biased toward the over-represented areas.

Subject: Re: Senegal continuous DHS - combine 2014 and 2015 for regional representability?
Posted by fcavallaro on Mon, 03 Jul 2017 12:35:12 GMT
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Dear Bridgette and Tom,

Many thanks for your reply, and apologies for not seeing it until now.

Regarding the wealth quintiles, sorry my question was unclear - I was wondering if we pool the 2014 and 2015 surveys, we now have two sets of wealth indices that were calculated separately on the national sample. I just wanted to confirm that, if we wanted to perform an analysis by wealth quintile with these pooled surveys, we would need to re-calculate the wealth index and corresponding quintiles using the combined 2014 and 2015 households? (i.e. we could not use the quintiles calculated separately in 2014 and 2015 as provided in the respective datasets)

Many thanks for clarifying,
Francesca

Subject: Re: Senegal continuous DHS - combine 2014 and 2015 for regional representability?
Posted by Bridgette-DHS on Thu, 06 Jul 2017 14:36:30 GMT
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Following is a response from Senior DHS Specialists, Tom Pullum and Shea Rutstein:

There are a couple of ways to approach this: 1) use the 2014 mean and distribution for each of the wealth index component variables to calculate z-scores for the 2015 variables, multiply each by the 2014 factor score (PCA) coefficients and sum to get each 2015 household's wealth score. This should be done for the total, the urban and the rural wealth scores. Use the regression equations from 2014 to then calculate the combined wealth score for 2015. Then pool the data together and determine the quintiles for the pooled data set. Of course, this procedure requires the same set of variables in each survey. 2) pool the data and then recalculate the wealth index, also with the same variables of the wealth index. The first is easier since it is basically a couple of recode statements (albeit long ones) with no rerunning of PCAs and combining regressions.