Subject: Multilevel analysis
Posted by Ugonna on Fri, 08 Oct 2021 03:51:26 GMT
View Forum Message <> Reply to Message

Hello everyone,

I am doing a multilevel analysis in stata and I have some challenges I would like to be cleared on.

To find out the proportion of women in the community with at least secondary education, I did this:
gen sec_edu=0
replace sec_edu=1 if mat_edu>=4 & mat_edu<=5

So, to obtain the proportion at the cluster level, please what is the most appropriate option amongst these...

egen sec_edu_prop = pc(sec_edu), prop by(v021)
OR
egen sec_edu_prop = mean(sec_edu), by(v021)
OR
egen sec_edu_prop = rowmean(sec_edu), by(v021)

Then while running the analysis, do I need to apply a different kind of weight other than this?
svyset[pw=wt],psu(v021)strata(v022) singleunit(center)

Thank you for your anticipated response.

Subject: Re: Multilevel analysis
Posted by Bridgette-DHS on Mon, 11 Oct 2021 10:35:24 GMT
View Forum Message <> Reply to Message

Following is a response from DHS Research & Data Analysis Director, Tom Pullum:

The usual variable for education is v106, with codes 0, 1, 2, 3. The recode would be

gen sec_edu=0
replace sec_edu=1 if v106>=2 & v106<=3
The cluster-level proportion would come from

egen sec_edu_prop = mean(sec_edu), by(v021)

The weights (v005) are the same for all the women in the same cluster. You can do the analysis

with svyset as you give it (I would insert a space after "svyset"). However, because sec_edu_prop is the same for every woman in the same cluster, you could consider a multi-level model with women (or children) as level 1 and clusters as level 2. Methodological Report 27 (https://www.dhsprogram.com/pubs/pdf/MR27/MR27.pdf) will help if you go in that direction.

Subject: Re: Multilevel analysis
Posted by Ugonna on Tue, 12 Oct 2021 07:29:18 GMT
View Forum Message <> Reply to Message

Hello Bridgette,

Thank you for your response.
I am going through the material sent and I saw IR file was used to get the level-weights at the individual level.

Being that I'm working with the child KR file, please I want to ask if the variables in the kr file can be used to for it.

Thank you

Subject: Re: Multilevel analysis
Posted by Bridgette-DHS on Tue, 12 Oct 2021 09:55:17 GMT
View Forum Message <> Reply to Message

These are the different weights for different sample selections/units of analysis:

Households: hv005
Household members: hv005
Women or children: v005
Men: mv005
Domestic Violence: d005
HIV test results: hiv05

You need to divide the sampling weight you are using by 1,000,000.

Subject: Re: Multilevel analysis
Posted by Ugonna on Sun, 07 Nov 2021 07:10:50 GMT
View Forum Message <> Reply to Message

Thank you Bridgette,

I'm going through the MR27 booklet on multilevel modelling and I'm lost on getting the total number of households in the country and households selected per stratum.

Please how do I get those information?

Thank you.

Subject: Re: Multilevel analysis
Posted by Bridgette-DHS on Tue, 09 Nov 2021 13:51:56 GMT
View Forum Message <> Reply to Message

Following is a response from DHS Senior Sampling Specialist, Mahmoud Elkasabi:

Typically, you should find these numbers in appendix B, or in some reports in appendix C, of the final report, unless it is a very old report with these numbers not documented.

Which survey are you referring to?

Subject: Re: Multilevel analysis
Posted by Ugonna on Thu, 11 Nov 2021 14:52:07 GMT
View Forum Message <> Reply to Message

Hello Bridgette,

I'm using the 2018 Nigeria DHS. Haven't seen the figures in the documentation.

Subject: Re: Multilevel analysis
Posted by Ugonna on Fri, 12 Nov 2021 14:46:38 GMT
View Forum Message <> Reply to Message

Appendix A of 2018 Nigeria DHS has population and EA information gotten from the 2006 Census EA frame, but nothing on the total number of households in the country.

Subject: Re: Multilevel analysis
Posted by Bridgette-DHS on Thu, 18 Nov 2021 15:31:40 GMT
View Forum Message <> Reply to Message

See post 23732