Subject: Multilevel modeling
Posted by gebretsh@gmail.com on Wed, 09 Nov 2022 18:53:48 GMT
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Dear DHS experts,

I would like to create a cluster variable using individual level factors (education*wealth*residence) and use it as a sampling unit
in my multilevel modeling. The PSU (enumeration area) and SSU (households) are already available in the data.

1) could I use PSU, SSU and this newly created cluster as the third sampling stage in three level multilevel model?

2) could I use PSU and this newly created cluster as the second stage in a two level multilevel model?

3) could I use HH as PSU and this newly created cluster as the SSU in a two level multilevel model?

My aim is to study inequality/variation (via ML model) in health care use across the new cluster variable.

I appreciate in advance for the technical support
Regards,

Subject: Re: Multilevel modeling
Posted by Bridgette-DHS on Thu, 10 Nov 2022 12:51:53 GMT
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Following is a response from DHS staff member, Tom Pullum:

This question goes beyond the usual scope of forum questions. Briefly, the main purpose of multilevel models is to correct the standard errors for design effects in multi-stage sampling. Are you trying to impose on the data a design that is different from the one that was actually used? It's my guess that either (a) the model you describe would not run, because the units are not hierarchical, or (b) the results (effects) would be almost the same with the model as without the model. Perhaps other users can suggest something.