Subject: Re: Multilevel - Indonesian DHS

Posted by Bridgette-DHS on Mon, 11 Nov 2019 14:07:50 GMT

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

We apologize for the delay in this reply. I agree completely that a 3-level analysis would be ideal. However, there are a couple of problems with 3 levels. The first is that there is usually only an average of about one woman per household. You only get information about household-level clustering when you have more than one woman in the household. The estimation procedure would have difficulty with such a low density of level 1 units within level 2 units. The same thing is an issue when level 1 is mothers and level 2 is children born in the past 5 (say) years for whom we have health data. The density is higher for children per mother than for women per household but it's still hard to get leverage on maternal clustering.

A second problem is with weights. We are not able to separate household-level weights from cluster-level weights. All we have is the product, v005. We hope to move ahead with separating these weights in 2020 but at this time we cannot (with any confidence) give advice on how to allocate v005 into household-level and cluster-level components.

I'll add that I have some doubts about whether you would learn more from a 3-level analysis than from a 2-level analysis. Conceptually, there are 3 levels, but as a practical matter, 2 levels may be sufficient. Go ahead and try it but you may have to simplify.