Subject: Re: DHS weights and random effects in a GLMM
Posted by Bridgette-DHS on Tue, 08 Oct 2024 14:07:02 GMT
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Following is a response from Senior DHS staff member, Tom Pullum:

This question goes beyond the range of forum questions, but I will make some suggestions.

In general, DHS weights should be included in every analysis. Otherwise, the results are weighted toward the over-sampled subpopulations, which, with the usual DHS sampling design, are the strata with small populations. The estimates will be biased if you omit weights.

Sometimes, with all software, you come up to the edge of what the current version allows. Certain components of a model, such as weights or random effects, may not be available in the current version. You have to make a judgment call about whether to proceed. The write-up should acknowledge the difference between what you wanted to do and what was feasible.

I suggest doing three separate analyses before deciding whether to pool the three countries. If you pool, the effects for just three countries would have to be fixed rather than random. And if you pool you have to decide whether to weight the countries equally or weight them proportional to size. There have been many postings on this issue.