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Subject: DHS weights and random effects in a GLMM  
Posted by [Mark\\_H\\_22](#) on Mon, 07 Oct 2024 17:06:03 GMT  
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I am part of a group working with DHS data from Senegal, Mauritania and Gambia to investigate the influence of household and women's characteristics (e.g. wealth, women's education) on food consumption and child stunting and wasting.

We have some questions regarding how to model this in R:

- 1) Is it appropriate to use DHS weights and random effects in the same GLMM? Both appear to be important, however the "survey" package in R does not allow random effects could we use another package that allows weights and random effects? For instance, we can specify weights in "glmmTMB" and "brms", but is it appropriate to use DHS weights in this way?
- 2) Alternatively, would it be correct to use a mixed effects model without DHS weights to assess these relationships?
- 3) In a hierarchical model structure (e.g. with a level for country in the hierarchy), can weights from multiple countries can be included in the same model?

Thank you.

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