Subject: Re: Query on Cluster-Level Modeling with DHS Data and Sampling Weights
Posted by Bridgette-DHS on Fri, 20 Sep 2024 10:41:46 GMT
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Following is a response from Senior DHS staff member, Tom Pullum:

You are using R. Below I will paste a simple example in Stata, showing what I would do. The example shows how the weights and number of cases come into play with a binary outcome and a glm model. Substantively, this would not be a good analysis of the data, but it is just intended as an example of the setup. Hope you can convert to R and hope this is helpful.

```
* Example of individual-level and cluster-level analysis with the same variables
* Kenya 2014 DHS survey

use "...KEIR81FL.DTA" , clear

* construct a binary outcome variable for 4+ children
gen     nch4plus=0
replace nch4plus=1 if v201>=4

* construct dummies for wealth quintiles
xi i.v190
rename _I* *

* Individual-level analysis
svyset v001 [pweight=v005], strata(v023) singleunit(centered)
glm nch4plus v190_* , family(binomial) link(logit) eform


* Cluster-level analysis; first switch to clusters as units
gen cases=1
collapse (first) v005 v023 (sum) nch4plus cases (mean) v190_*, by(v001)

svyset [pweight=v005], strata(v023) singleunit(centered)
glm nch4plus v190_* , family(binomial cases) link(logit) eform
```