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Subject: how to set svyset with three-stage sampling data (Nigeria 2013)

Posted by [machiya](#) on Tue, 04 Jul 2017 16:50:53 GMT

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Dear DHS Forum,

I started using the 2013 Nigeria DHS and have a question.

According to the description in the final report (see below), it looks the samples in the 2013 Nigeria DHS were selected in 3 stage, unlike the other DHSs.

I wonder if we could still use the same svyset command.

```
egen strata=group(ssstate v025)
gen weight=v005/1000000
svyset v021 [pweight=weight], strata(strata)
```

How should we set svyset for this data?

Any advice will be appreciated.

Thank you, in advance.

Best regards,

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FYI- Here is description of the sampling in the final report.

Page 378 in the final report. <https://dhsprogram.com/pubs/pdf/FR293/FR293.pdf>

"The sample for the 2013 NDHS was a stratified sample, selected independently in three stages from the sampling frame. Stratification was achieved by separating each state into urban and rural areas. In

the first stage, 893 localities were selected with probability proportional to size and with independent selection in each sampling stratum.

In the second stage, one EA was randomly selected from most of the selected localities with an equal probability selection. In a few larger localities, more than one EA was selected. In total, 904 EAs

were selected. After the selection of the EAs and before the main survey, a household listing operation was

carried out in all of the selected EAs. The household listing consisted of visiting each of the 904 selected

EAs, drawing a location map and a detailed sketch map, and recording on the household listing forms all

occupied residential households found in the EA with the address and the name of the head of the household. If a selected EA included less than 80 households, a neighbouring EA from the selected locality

was added to the cluster and listed completely. The resulting list of households served as the sampling

frame for the selection of households in the third stage"

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Subject: Re: how to set svyset with three-stage sampling data (Nigeria 2013)  
Posted by [Bridgette-DHS](#) on Thu, 06 Jul 2017 13:48:26 GMT  
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Following is a response from Senior DHS Stata Specialist, Tom Pullum:

A more complex version of svyset would be desirable but we do not have enough information to construct it. The usual version is the best that is possible.

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Subject: Re: how to set svyset with three-stage sampling data (Nigeria 2013)  
Posted by [machiyaama](#) on Thu, 06 Jul 2017 21:27:54 GMT  
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Dear Bridgett and Tom,

Thank you very much for your reply. This is very helpful.

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Subject: Re: how to set svyset with three-stage sampling data (Nigeria 2013)  
Posted by [claurti](#) on Tue, 07 Nov 2017 20:14:49 GMT  
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Following up on the thread below ...

Isn't it possible to adjust for the last stage of selection (the selection of household within EA)? The Household Member Recode file has an identifier for Household.

Thank you,  
Charles

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Subject: Re: how to set svyset with three-stage sampling data (Nigeria 2013)  
Posted by [Bridgette-DHS](#) on Wed, 08 Nov 2017 13:24:52 GMT  
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Following is another response from Senior DHS Stata Specialist, Tom Pullum:

The missing piece of information is the number of households in the EA (cluster) found during the

household listing. We do not have that, and we do not have the number of households in the EA given in the sampling frame. (The probability of selection for the EA is proportional to that number.) This information is destroyed after the weights have been calculated, as part of DHS efforts to prevent identification of the EAS in the sample.

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