
Subject: Newborn birthweight calculation for Ethiopian 2000, 2005, 2011 and 2016 DHS

Posted by [id709nvz](#) on Tue, 22 Sep 2020 12:44:01 GMT

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Dear All,

I am considering the Ethiopian DHS collected in 2000, 2005, 2011 and 2016.

How do I can create a variable measuring newborn birthweight in each survey round in stata?

It would be good if the variable is categorized as stunting, normal, wasting etc

I then would like to combine them to study intergenerational effects of better healthcare services by the mothers.

.....

Thank you in advance!

Subject: Re: Newborn birthweight calculation for Ethiopian 2000, 2005, 2011 and 2016 DHS

Posted by [Bridgette-DHS](#) on Wed, 23 Sep 2020 11:28:29 GMT

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

Stunting and wasting are not based on birthweight. They are calculated from the height and weight measurements (and age). Also we do not have birthweight in the surveys--just a subjective and qualitative recollection by the mother. Have you looked at the chapters on the nutritional status of children in the survey reports? The reports describe what is available in the data files.

Subject: Re: Newborn birthweight calculation for Ethiopian 2000, 2005, 2011 and 2016 DHS

Posted by [id709nvz](#) on Wed, 23 Sep 2020 17:24:34 GMT

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Thank you for your reply and suggestion.

I just looked at the survey reports in each round. Basically, those (stunting, wasting, underweight and overweigh)are the indicators I would like to have in my analysis.

How can I create (in stata) Stunting, based on a child's height and age, Wasting,

based on a child's weight and height, Underweight, based on weight and age for each Ethiopian DHS round?

Kind regards

Subject: Re: Newborn birthweight calculation for Ethiopian 2000, 2005, 2011 and 2016 DHS

Posted by [Shireen-DHS](#) on Fri, 25 Sep 2020 15:03:08 GMT

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Hello,

For calculating these indicators you can use code from our code share library posted on GitHub. These indicators are part of Chapter 11 on Nutrition and can be found in the NT_CH_NUT.do file. However, before using this code please read the readme file and the main file for each chapter. This is the link: <https://github.com/DHSProgram/DHS-Indicators-Stata>

For the surveys in the year 2000 and 2005, there are variables you will need to merge from another file because these older surveys used a different reference standard. We now use the 2006 WHO Child Growth Standards for these indicators. Please read about these changes in the "Changes over time" section for these indicators that is described in our Guide to DHS statistics: https://www.dhsprogram.com/Data/Guide-to-DHS-Statistics/index.htm#t=Nutritional_Status.htm

Therefore for the 2000 survey (ETPR41FL.dta) and 2005 survey (ETPR51FL.dta) please run the following merge code first to get the hc70-72 variables you need.

```
*merge code to merge HW and PR files. Please do the same for the ETHW51FL.dta merge with
ETPR51FL.dta
use ethw41fl.dta, clear
rename hwhhid hhid
rename hwline hvidx
merge 1:1 hhid hvidx using etpr41fl.dta
```

Then using the PR files for all the surveys you can calculate stunting, underweight, and wasting as follows. This code was copied from the NT_CH_NUT.do on the GitHub site.

```
bel var nt_ch_sev_stunt "Severely stunted child under 5 years"
```

```
//Stunted
gen nt_ch_stunt= 0 if hv103==1
replace nt_ch_stunt=. if hc70>=9996
replace nt_ch_stunt=1 if hc70<-200 & hv103==1
label values nt_ch_stunt yesno
label var nt_ch_stunt "Stunted child under 5 years"
```

```
//Wasted
gen nt_ch_wast= 0 if hv103==1
replace nt_ch_wast=. if hc72>=9996
replace nt_ch_wast=1 if hc72<-200 & hv103==1
label values nt_ch_wast yesno
label var nt_ch_wast "Wasted child under 5 years"
```

```
//Underweight
gen nt_ch_underwt= 0 if hv103==1
replace nt_ch_underwt=. if hc71>=9996
replace nt_ch_underwt=1 if hc71<-200 & hv103==1
label values nt_ch_underwt yesno
label var nt_ch_underwt "Underweight child under 5 years"
```

```
gen wt=hv005/1000000
```

```
*to check the indicators with the final report
tab1 nt_ch_stunt nt_ch_wast nt_ch_underwt [iw=wt]
```

Hope this help. Please also refer to the links I provided for this and other inquires.

Best,
Shireen Assaf
The DHS Program

Subject: Re: Newborn birthweight calculation for Ethiopian 2000, 2005, 2011 and 2016 DHS

Posted by [id709nvz](#) on Fri, 25 Sep 2020 22:51:38 GMT

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Dear,

Thanks very much. this is really helpful.

My intention is to combine such information's with their mother since my analysis is related to impact of healthcare access of the mother on children's health.

Is it correct if I first append all the PR files (2000, 2005, 2011 and 2016), after adjusting for the new WHO standard for the old survey, and then to use merge command to combined (pooled IR files again across survey with that of pooled PR files)?

Many thanks for your clarification in advance.

Subject: Re: Newborn birthweight calculation for Ethiopian 2000, 2005, 2011 and 2016 DHS

Posted by [Shireen-DHS](#) on Mon, 28 Sep 2020 14:15:59 GMT

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Hello,

In this case you should use KR file instead of PR file and no need to merge PR and IR. The stunting, wasting, underweight variables in the KR are hw70, hw71, hw73 and can be coded the same way I showed you for the PR file but without the hv103 condition. The KR file is the file for children under five that are the children of interviewed defacto women. So the characteristics of their mothers are in the file, for example her education v106 or her body mass index (bmi) v445. Please check the Guide to DHS Statistics on the description of women's bmi :

https://www.dhsprogram.com/Data/Guide-to-DHS-Statistics/index.htm#t=Nutritional_Status.htm%23Percentage_of_women_bybc-2&rhsearch=v444&rhtocid=_14_9_1

If you use the KR file the unit of analysis is the child not the women, which I believe is your research interest.

Best,
Shireen
The DHS Program

Subject: Re: Newborn birthweight calculation for Ethiopian 2000, 2005, 2011 and 2016 DHS

Posted by [id709nvz](#) on Mon, 28 Sep 2020 14:45:29 GMT

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Dear Shireen

Thank you very much for your reply.

I was somehow not clear with what I want (in my earlier questions). I have thought of the same thing.

let me be precise, my causal variable of interest is asked to women and not of anyone. Thus, I use combined IR files across survey (2000, 2005, 2011 and 2016).

Initially, I studied the effect of my causal variable on some characteristics of mother's for instance BMI using combined IR files only. Now I like to extend the analysis to see intergenerational effects of the variable on child growth measures (stunting, wasting and so on). In my view, to get my causal variable of interest in the KR files it must be merged with combined IR files isn't it?

So, I should first link the mothers in IR with children's in KR files. (again I am using all Ethiopian DHS survey, because my causal policy wasn't in place before 2011, I am using a sort of Diff in Diff analysis where post intervention is 2011 and 2016)

Could you please kindly suggest how to do that in stata linking mothers in IR with that of children

with BMI measures?
Thanks for sharing your knowledge.

Subject: Re: Newborn birthweight calculation for Ethiopian 2000, 2005, 2011 and 2016 DHS

Posted by [Shireen-DHS](#) on Mon, 28 Sep 2020 14:53:29 GMT

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Hello,

If your unit of analysis is the women, you can use the IR file and have the information of the child's stunting, wasting, and underweight in hw70_1, hw71_1, and hw72_1. This would be for the most recent birth. So need to merge. The information about the children is in the IR file but with underscore to indicate which child. I advise that you read more about file structure in the Guide to DHS statistics Chapter 1 but especially this section (https://www.dhsprogram.com/Data/Guide-to-DHS-Statistics/index.htm#t=Organization_of_DHS_Data.htm)

Good luck.

Best,

Shireen

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Subject: Re: Newborn birthweight calculation for Ethiopian 2000, 2005, 2011 and 2016 DHS

Posted by [id709nvz](#) on Mon, 28 Sep 2020 16:22:13 GMT

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Dear Shireen,
Thanks once again.

I just looked at hw70_1, and hw72_1 in the combined file. but these variables were collected based on the new WHO growth standard thus are representative of 2011 and 2016. So I guess, to get the new measure for the earlier version THAT IS FOR DHS 2000 and 2005, I have to combine ETHW41DT with ETIR41DT and ETHW41DT with ETIR51DT before I pool all survey is that the correct way?

But the document provided in the height/weight measure suggests a merge with PR first then to IR since The Height and Weight data were collected for children at the household level instead of to the interviewed women.

I took note of your suggested code. I am asking if possible to merge NEW WHO height/weight measure with IR directly or if there is any other way to get the new height/weight measure for the earlier dhs version in IR files.

Much thanks for your kind cooperation.
Kind regards

Subject: Re: Newborn birthweight calculation for Ethiopian 2000, 2005, 2011 and 2016 DHS

Posted by [Shireen-DHS](#) on Mon, 28 Sep 2020 16:53:55 GMT

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Hello,

The merge for this would be a bit complex. The IR file has several children for one women (the unit of analysis is the woman). The unit of analysis in the KR file is the child. I suggest you change your unit of analysis to the child (i.e. KR file), the information about the mother is still there so you can still answer your research question. That way you can merge the HW file which is for each child with the older surveys to get the WHO reference. Note in DHS we report anthropometry measures from the PR file but since you want mother's characteristics you need to use the KR.

Another alternative is to use the IR file but for the two most recent surveys and the most recent child hw70_1.

In any case, if you want to try to merge any files, you should do this before you pool any data.

Hope this helps with your exploration, sorry I cannot assist further on this.

Best,
Shireen
The DHS Program

Subject: Re: Newborn birthweight calculation for Ethiopian 2000, 2005, 2011 and 2016 DHS

Posted by [id709nvz](#) on Mon, 28 Sep 2020 17:25:55 GMT

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Dear Shireen,

Thanks this is already too much.

Yes, I found out that my variable of interest exist in KR file. It is just that height/weight is collected at a household level and suggested to merge it with PR. So I am a bit confused if it is also possible to merge it directly with KR file to get the new WHO reference for the earlier dhs version.

Thank you for your help thus far another expert may clarify possibilities of merging HW with KR directly.

Subject: Re: Newborn birthweight calculation for Ethiopian 2000, 2005, 2011 and 2016 DHS

Posted by [Shireen-DHS](#) on Mon, 28 Sep 2020 17:35:55 GMT

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Hello,

Yes you can definitely merge the HW and KR files directly, you just need to know our identifies variables.

I suggest you check this on merging: <https://dhsprogram.com/data/Merging-Datasets.cfm>

Also the guide in Chapter 1 had a detailed section on merging with examples using Stata and SPSS code. Search for the section "Matching and Merging Datasets" in Chapter 1 of the Guide:

https://www.dhsprogram.com/Data/Guide-to-DHS-Statistics/index.htm#t=Analyzing_DHS_Data.htm&rhsearch=merging&rhhl

[term=merge&rhsyns=%20&ux=search](https://www.dhsprogram.com/Data/Guide-to-DHS-Statistics/index.htm#t=Analyzing_DHS_Data.htm&rhsearch=merging&rhhl)

Best,
Shireen

Subject: Re: Newborn birthweight calculation for Ethiopian 2000, 2005, 2011 and 2016 DHS

Posted by [id709nvz](#) on Mon, 28 Sep 2020 17:38:44 GMT

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Dear Shireen,

Very well. I will have a look at it. thanks very much.

Kind regards
