Subject: Discrepancy in stunting, wasting, underweight prevalence for Nepal DHS 2001
Posted by dgodha on Thu, 23 Nov 2017 11:32:44 GMT
View Forum Message <> Reply to Message

Hello,

I have gone through the posts on nutrition indicators but I could not find the answer to my issue. I am using Nepal DHS 2001 PR file which I merged with the WHO height-weight file. My prevalence estimates just don't match with those in the Nepal DHS 2001 report. Here's the code I have used in Stata 13.1

```
*Declaring Survey data
gen wt=hv005/1000000
svyset hv001 [pweight=wt], strata(hv022) vce(linearized) singleunit(missing) || hv002

gen info=0
replace info=1 if hc33~=.

*Stunting
gen stunting=0 if hv103==1
replace stunting=. if hc70>=9996
replace stunting=1 if hc70<-200 & hv103==1
*Check with DHS report
svy:tab stunting if info==1

*Underweight
gen underwt=0 if hv103==1
replace underwt=. if hc71>=9996
replace underwt=1 if hc71<-200 & hv103==1
*Check with DHS report
svy:tab underwt if info==1

*Wasting
gen wasting=0 if hv103==1
replace wasting=. if hc72>=9996
replace wasting=1 if hc72<-200 & hv103==1
*Check with DHS report
svy:tab wasting if info==1
```

The weighted rates as well as frequencies do not match. Restricting categories of variable hc33 is not working. I cannot figure out how to rectify this. Any hints will be greatly appreciated.

Thanks
Deepali

Subject: Re: Discrepancy in stunting, wasting, underweight prevalence for Nepal DHS 2001
Posted by dgodha on Fri, 24 Nov 2017 08:51:38 GMT
View Forum Message <> Reply to Message

Hello,

I decided to try the Stata command 'zscore06' to get the aforementioned estimates. But here again, my estimates are not matching those in the DHS reports.

I understand that some discrepancy may be observed in case of DHS 2001 because the standards used would have been different but the same does not apply to the others. In case of Nepal 2016, the proportions are matching but not the frequencies while for the rest of the years (2011, 2006, and 2001) even the proportions are off by decimals or even the last digit. My commands are shown below:

```
* Calculate measurement date in days
gen mdate = mdy(hc18, hc17, hc19)
* Calculate birth date in days
gen bdate = mdy(hc30, hc16, hc31) if hc16 <= 31
replace bdate = mdy(hc30, 15, hc31) if hc16 > 31
* Calculate age in months with days expressed as decimals.
gen age = (mdate-bdate)/30.4375

//hw3 is height, clean DHS code and converts to cm
gen newh=hc3/10 if hc3!=9999
//hw3 is height in kg to one decimal w/o the decimal; convert to kg w/decimal; clean DHS code and
gen neww=hc2/10 if hc2!=999
* Compute Z-scores (In case of Nepal 2011 DHS, replace hc15=. if hc15==0)
zscore06, a(age) s(hc27) h(newh) w(neww) measure(hc15) male(1) female(2)

*Declaring Survey data
gen wt=hv005/1000000
svyset hv001 [pweight=wt], strata(hv022) vce(linearized) singleunit(missing) || hv002

*Completeness of information
gen info=0
replace info=1 if hc33~=.

*Stunting
gen stunting=0 if hv103==1
replace stunting=. if haz06>=6
replace stunting=1 if haz06<-2 & hv103==1
*Check with DHS report
svy:tab stunting if info==1

*Underweight
```

```
gen underwt=0 if hv103==1
replace underwt=. if waz06>=6
replace underwt=1 if waz06<-2 & hv103==1
*Check with DHS report
svy:tab underwt if info==1

*Wasting
gen wasting=0 if hv103==1
replace wasting=. if whz06>=6
replace wasting=1 if whz06<-2 & hv103==1
*Check with DHS report
svy:tab wasting if info==1
```

I will appreciate advice on where I am going wrong or why the estimates do not match.
Thanks
Deepali

Subject: Re: Discrepancy in stunting, wasting, underweight prevalence for Nepal DHS 2001
Posted by Trevor-DHS on Fri, 08 Dec 2017 16:21:10 GMT
View Forum Message <> Reply to Message

There are a number of small differences in the approach that DHS has used for the calculation of the z-scores compared with the approach WHO has used. These include:
1) DHS flagged all 3 anthropometric indicators (Ht/Age, Wt/Age, Wt/Ht) whenever any of the 3 were flagged, whereas WHO flagged only individual indicators.
2) DHS suppressed the Z-scores for flagged cases whereas WHO leaves the z-scores in the data even when they are flagged. In your code whenever you set stunting, wasting or underwt, you need to check the flag values.
3) DHS only includes children for whom both month and year of birth were reported, whereas WHO was including cases in which the month and year were imputed.
4) DHS selects the de facto children, whereas the WHO code does not specifically select either de facto or de jure. In some analyses, de jure have been used instead.

More recently DHS and WHO and UNICEF have harmonized approaches more. In recent surveys, DHS no longer suppresses all 3 indicators if just one is flagged (point 1 above). WHO/UNICEF now exclude children with month or year of birth in their analyses, and select de facto children when matching DHS results.

These are the main differences between the results you will get with the zscore06 code and the DHS computed z-scores.

Subject: Re: Discrepancy in stunting, wasting, underweight prevalence for Nepal DHS 2001

Posted by dgodha on Sat, 09 Dec 2017 16:15:40 GMT
View Forum Message <> Reply to Message

Hello Trevor,

Many thanks for your explanation.

Deepali

Subject: Re: Discrepancy in stunting, wasting, underweight prevalence for Nepal DHS 2001
Posted by Hassen on Sun, 27 May 2018 02:08:30 GMT
View Forum Message <> Reply to Message

Thank you all!!