Subject: BMI of males
Posted by Ishanka on Fri, 05 Oct 2018 17:11:00 GMT
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We find it difficult to find the height and weight data of males to calculate the BMI for males. If it available in the Household data set, how do we know which one is the respondent of the men's questionnaire? Please respond

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Subject: Re: BMI of males
Posted by Liz-DHS on Fri, 05 Oct 2018 18:39:40 GMT
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Dear User,
The standard recode variables for Height and Weight in men are:
HB0, HB1, HB2, HB3, HB4, HB5, HB6, HB11, HB12, HB12A, HB12B, HB13, HB32, HB33, HB35, HB40, HB41, HB50, HB51, HB52, HB53, HB55, HB56, HB57, HB58, HB60, HB61, HB62, HB63, HB64, HB65, HB66, HB67, HB68, HB69, HB70
Thank you!

Subject: Re: BMI of males
Posted by archanapkar on Tue, 09 Apr 2024 07:10:17 GMT
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I am looking at the hwmhtasdrm IPUMS variable for adult men from the household recode for India for NFHS 3 and 4 and the corresponding DHS variable HB5 for NFHS 5. The means for this variable acorss the three rounds look very different and although for IPUMS the instruction is to divide the raw variable by 100, no such instruction exists for DHS from the recode manual. Please explain how to use this variable.

The corresponding variables for women looks fine (hwfhtasdrm and ha5) and if we divide it by 100, we would get plausible values.

. tabstat hwmhtasdrm if hwmhtasdrm<600,by(year)
tabstat hwmhtasdrm if hwmhtasdrm<600,by(year)

Summary for variables: hwmhtasdrm
    by categories of: year (Year of sample)

year	mean
2005	-182.7139
2015	-1.86
2020	-14.82283
Total	-52.37074

. tabstat hwfhtasdrm if hwfhtasdrm<600,by(year)
tabstat hwfhtasdrm if hwfhtasdrm<600,by(year)

Summary for variables: hwfhtasdrm
    by categories of: year (Year of sample)

```
  year |     mean
-------+----------
  2005 | -190.0461
  2015 | -192.1819
  2020 |  -191.351
-------+----------
 Total | -191.6272
```

Subject: Re: BMI of males
Posted by Janet-DHS on Wed, 10 Apr 2024 13:07:36 GMT
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Following is a response from DHS staff member, Tom Pullum:

DHS staff are not familiar with the IPUMS files, and questions about them should be directed to IPUMS staff.

All the anthropometry Z scores in all DHS survey include a multiplier of 100. I'm pretty sure this is stated in the Guide to DHS Statistics https://www.dhsprogram.com/publications/publication-dhsg1-dhs-questi onnaires-and-manuals.cfm.

The means of hb5 are indeed different. A couple of years ago, another user pointed out that the heights of men in specific birth cohorts are inconsistent across the surveys. There appears to be a systematic measurement error in men's heights, probably most seriously affecting the NFHS-4. We have been unable to uncover the problem, which would have occurred during fieldwork.

This will not affect the discrepancy, but you should include sample weights in your estimates. When using tabstat in Stata, the only type of weight that will work is fweight, as in "[fweight=hv005]".

Subject: Re: BMI of males
Posted by archanapkar on Thu, 11 Apr 2024 07:51:16 GMT
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Thank you for your response!

I understand that there may be survey errors in men's heights across NFHS rounds. Are you saying that these errors in heights are causing the haz for men to be off by an order of magnitude across the rounds?

I tried to generate the haz for adult men using zanthro and the same assumptions as DHS and they look a lot more meaningful (they are not off by a lot across the years). However, women's haz values using zanthro do not match their IPUMS/DHS values. As explained in other posts this might be due to how DHS flags cases and/or treats missing values.

What should be my approach to hb5/heights now if I want the closest correct value of haz for adult men?

Code and output here:

```
/* haz scores for men 18+ using the same assumption as IPUMS */
gen men_age_haz = 17.9167 if (hhage > 18 & !mi(hhage) & sex == 1 & hhage<95)
gen men_height = (hwmheight/10) if hwmheight < 9000
egen men_haz_zanthro = zanthro(men_height, ha ,WHO) if !mi(men_age_haz) & sex != 3,
ageunit(year) xvar(men_age_haz) gender(ind_female) gencode(male=0, female=1) nocutoff
replace men_haz_zanthro = . if men_haz > 600

/* haz scores for women 18+ using the same assumption as IPUMS */
gen women_age_haz = 17.9167 if (hhage > 18 & !mi(hhage) & sex == 2 & hhage<95)
gen women_height = (hwfheight/10) if hwfheight < 9000
egen women_haz_zanthro = zanthro(women_height, ha ,WHO) if !mi(women_age_haz) & sex !=
3, ageunit(year) xvar(women_age_haz) gender(ind_female) gencode(male=0, female=1) nocutoff
replace women_haz_zanthro = . if women_haz > 600
```

 -- --

Ouput:

```
. tabstat men_haz_zanthro [aw=sample_weight_denorm],by(year)
tabstat men_haz_zanthro [aw=sample_weight_denorm],by(year)

Summary for variables: men_haz_zanthro
    by categories of: year (Year of sample)

  year |     mean
-------+----------
  2005 | -1.523549
  2015 | -1.639422
```

```
 2020 |  -1.73249
-------+----------
 Total | -1.640272
-----------------

. tabstat women_haz_ipums [aw=sample_weight_denorm],by(year)
tabstat women_haz_ipums [aw=sample_weight_denorm],by(year)

Summary for variables: women_haz_ipums
    by categories of: year (Year of sample)

 year |    mean
-------+----------
 2005 | -1.943618
 2015 | -1.937207
 2020 | -1.930234
-------+----------
 Total | -1.936554
-----------------

. tabstat women_haz_zanthro [aw=sample_weight_denorm],by(year)
tabstat women_haz_zanthro [aw=sample_weight_denorm],by(year)

Summary for variables: women_haz_zanthro
    by categories of: year (Year of sample)

 year |    mean
-------+----------
 2005 | -1.683147
 2015 | -1.667163
 2020 | -1.658341
-------+----------
 Total | -1.668515
-----------------
```

Subject: Re: BMI of males
Posted by Janet-DHS on Fri, 19 Apr 2024 20:55:13 GMT
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Following is a response from DHS staff member, Tom Pullum:

I meant to say that there seem to have been some inconsistencies in the measurement of men's heights across the NFHS surveys but certainly not by an order of magnitude.

Powers of 10 are used consistently across DHS surveys for the same variables, but are different for different variables. Powers of 10 are used simply to move the decimal point to the right, often enough for it to be ignored. The most familiar example is the sampling weight, which is multiplied by 10^6, so the decimal point can be ignored. The same sore of thing is done for height weight, z scores, etc.

I am unfamiliar with the IPUMS files, variable names, recodes, etc. It looks like you are using the zanthro construction for adults by setting age at 17 years and 11 months. You can do that, but I believe nutrition experts would question whether the standards for that age should be applied to all adult ages. DHS staff cannot help with these kinds of analysis issues.

Subject: Re: BMI of males
Posted by archanapkar on Wed, 24 Apr 2024 03:36:37 GMT
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Thank you Mr. Pullum, I will post on the IPUMS forum for further clarification.

Even in the raw DHS files, the means for this variable are very different across recodes (after dividing each by 100). I don't think these are fully explained by measurement error in the height variable.

Summary for variables: hwmhtasdrm
by categories of: year (Year of sample)

year	mean
2005	-182.7139
2015	-1.86
2020	-14.82283
Total	-52.37074

gen haz_men = hwmhtasdrm/100

. tabstat haz_men if haz_men < 90, by(year)
tabstat haz_men if haz_men < 90, by(year)

Summary for variables: haz_men
    by categories of: year (Year of sample)

year	mean
2005	-1.827139
2015	-.0186
2020	-.1482283

Total | -.5237074

Subject: Re: BMI of males
Posted by sjkirabo on Wed, 24 Apr 2024 06:08:29 GMT
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Liz-DHS wrote on Fri, 05 October 2018 14:39Dear User,
The standard recode variables for Height and Weight in men are:
HB0, HB1, HB2, HB3, HB4, HB5, HB6, HB11, HB12, HB12A, HB12B, HB13, HB32, HB33, HB35,
HB40, HB41, HB50, HB51, HB52, HB53, HB55, HB56, HB57, HB58, HB60, HB61, HB62, HB63,
HB64, HB65, HB66, HB67, HB68, HB69, HB70
Thank you!
I am trying to use data for Tanzania(2022), Lesotho(2014), Gabon(2019-21), and Benin(2017-18)
and cannot find these variables for height and weight of males, I couldn't find the BMI too in any of
the datasets.