Posted by RebeccadeVlieg on Thu, 10 Dec 2020 11:52:18 GMT
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Dear DHS experts,

I am trying to match the South Africa DHS 2016 with the report table 16.7.1 and 16.7.2 (Blood pressure status of men and women). However, I am unable to match total number of women and the systolic and diastolic mean pressure with the report. I end up with more women compared to the numbers in the report. I have attached my results and the DHS report results to this message.

I used the following coding in SPSS to calculate the blood pressure of Women:
Use file ZAPR71FL.SAV (*householdfile)

RENAME VARIABLES HVIDX= HIVLINE HV001= HIVCLUST HV002= HIVNUMB HV105= Age SH221A = SysBP1_W SH228A = SysBP2_W SH232A= SysBP3_W SH221B= DiasBP1_w SH228B= DiasBP2_W SH232B = DiasBP3_W

RECODE Age (15 thru 24=1) (25 thru 34=2) (35 thru 44=3) (45 thru 54=4) (55 thru 64=5) (65 thru Highest=6) INTO Age_Groups_BP.
VARIABLE LABELS Age_Groups_BP 'age groups'.
EXECUTE.
RECODE DiasBP1_W (994=SYSMIS) (995=SYSMIS) (996=SYSMIS).
EXECUTE.

RECODE DiasBP2_W (994=SYSMIS) (995=SYSMIS) (996=SYSMIS).
EXECUTE.

RECODE DiasBP3_W (994=SYSMIS) (995=SYSMIS) (996=SYSMIS).
EXECUTE.

RECODE SysBP1_W (994=SYSMIS) (995=SYSMIS) (996=SYSMIS).
EXECUTE.

RECODE SysBP2_W (994=SYSMIS) (995=SYSMIS) (996=SYSMIS).
EXECUTE.

RECODE SysBP3_W (994=SYSMIS) (995=SYSMIS) (996=SYSMIS).
EXECUTE.

I cleaned for implausible values as follows:
RECODE SysBP1_W SysBP2_W SysBP3_W SysBP1_M SysBP2_M SysBP3_M (240 thru Highest=SYSMIS) (Lowest thru
   70=SYSMIS).
EXECUTE.
RECODE DiasBP1_W DiasBP2_W DiasBP3_W DiasBP1_M DiasBP2_M DiasBP3_M (130 thru Highest=SYSMIS)
   (Lowest thru 40=SYSMIS).

EXECUTE.

To obtain all numbers in the average I had to make the sysmis zero

RECODE SysBP1_W SysBP2_W SysBP3_W (SYSMIS=0).
EXECUTE.

RECODE DiasBP1_W DiasBP2_W DiasBP3_W (SYSMIS=0).
EXECUTE.

Calculating the average of BP

COMPUTE SysBP_W_average = (SysBP2_W + SysBP3_W)/2 .
Execute.
IF (SysBP3_W = 0) SysBP_W_average = SysBP2_W.
IF (SysBP2_W = 0) SysBP_W_average = SysBP3_W.
IF (SysBP2_W= 0 AND SysBP3_W=0) SysBP_W_average=SysBP1_W.
EXECUTE.

RECODE SysBP_W_average (0=SYSMIS).

COMPUTE DiasBP_W_average = (DiasBP2_W + DiasBP3_W)/2 .
Execute.
IF (DiasBP3_W = 0) DiasBP_W_average = DiasBP2_W.
IF (DiasBP2_W = 0) DiasBP_W_average = DiasBP3_W.
IF (DiasBP2_W= 0 AND DiasBP3_W=0) DiasBP_W_average=DiasBP1_W.
EXECUTE.

RECODE DiasBP_W_average (0=SYSMIS).

EXECUTE.
Putting the weight on

Compute WGT = HV005/1000000.
Weight by WGT.

Could you please help me to resolve this matching problem?

Many thanks!

File Attachments
1) Results_DHS_South Africa.docx, downloaded 297 times

Subject: Re: Matching blood pressure results

Posted by Bridgette-DHS on Fri, 11 Dec 2020 13:03:49 GMT
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Following is a response from DHS Research & Data Analysis Director, Tom Pullum:

The table titles for chapter 16 of the main report do not say that the results have been restricted to de facto household members, but it would be normal to have such a restriction. Can you try again using just cases with hv103=1?

Please let us know if that does not give a match.

Subject: Re: Matching blood pressure results
Posted by RebeccadeVlieg on Mon, 14 Dec 2020 07:56:19 GMT
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Thank you for the quick response! I did give this a try, but I did not have a match. I ended up with lower numbers compared to the DHS report (I attached the results).

Thanks,

Rebecca

File Attachments
1) DHS results blood pressure.docx, downloaded 296 times

Subject: Re: Matching blood pressure results
Posted by Bridgette-DHS on Tue, 15 Dec 2020 14:19:05 GMT
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Following is a response from DHS Research & Data Analysis Director, Tom Pullum:

The attachment "CHAPTADULT.txt" contains the CSPro code that was used to construct the table. Two Stata do files are also attached. They should include the Stata code to combine the multiple measurements of blood pressure. Hope you can figure this out. It's one of our most complex algorithms.

File Attachments
1) CHAPTADULT.txt, downloaded 322 times
2) ncd_m.do, downloaded 371 times
3) ncd_w.do, downloaded 353 times

Subject: Re: Matching blood pressure results
Posted by RebeccadeVlieg on Fri, 18 Dec 2020 14:23:20 GMT
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Dear DHS experts,

Thank you for sharing the codes, it was really helpful! I compared it to my coding, and it seems really similar. I am doing a multi-country study and continued with other countries to see if I end up with the same problem as in South Africa DHS (2016). However, in these countries (Lesotho, Ghana and Namibia) I end up with the correct numbers and blood pressures. I am using the same coding as I used for the South Africa database.

For example, in Namibia the blood pressure results are given in de the Household database, thus similar to the South Africa database. I am using the same codes (as described above for South Africa) for Namibia and I end up with the correct number of people, whereas in South Africa I end up with too many people (n=445).

Therefore, could you maybe have another look at what could be the problem for the blood pressure measurements in the South Africa 2016 DHS?

Thank you in advance!

Best,

Rebecca

Subject: Re: Matching blood pressure results
Posted by Bridgette-DHS on Mon, 28 Dec 2020 13:43:56 GMT
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Following is a response from DHS Research & Data Analysis Director, Tom Pullum:

I have already asked the data processing expert who worked on this survey. The survey manager believes that a very small number of cases with extreme values were excluded on the basis that they were implausible. We will try to get that information to you. You could probably re-engineer the exclusions by trial and error. I have done that sort of thing before.

Subject: Re: Matching blood pressure results
Posted by RebeccadeVlieg on Mon, 28 Dec 2020 14:14:28 GMT
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Thank you for your response! Would be great to receive that information, thank you! I excluded implausible values with the following coding, so I do not think this will be the problem:

RECODE SysBP1_W SysBP2_W SysBP3_W SysBP1_M SysBP2_M SysBP3_M (240 thru Highest=SYSMIS) (Lowest thru
70=SYSMIS).
EXECUTE.
RECODE DiasBP1_W DiasBP2_W DiasBP3_W DiasBP1_M DiasBP2_M DiasBP3_M (130 thru Highest=SYSMIS)
(Lowest thru 40=SYSMIS).
EXECUTE.

I already tried several exclusion criteria, but unfortunately did not end up with the correct numbers yet. Moreover, in other countries I end up with the correct numbers, should the coding not be similar in South Africa?

Thanks again for thinking along!

Best,

Rebecca

Subject: Re: Matching blood pressure results
Posted by Bridgette-DHS on Wed, 30 Dec 2020 00:54:14 GMT
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Following is a response from DHS Research & Data Analysis Director, Tom Pullum:

We won't be able to provide further assistance with this discrepancy. If you plan to do further analysis with the blood pressure data in this South Africa survey, I recommend that you use the standard code (which apparently matches for the other surveys). You can say in a note that there is a small discrepancy for the South Africa survey. I honestly have no idea why there is a discrepancy.

Subject: Re: Matching blood pressure results
Posted by RebeccadeVlieg on Tue, 12 Jan 2021 12:11:09 GMT
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Dear DHS experts,

Thank you again for thinking along. I figured out how to end up with the numbers of the South Africa report and have some questions along with it:

1. You need to merge the Adult Health dataset of men and women. And merge it with the PR file.

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2. Select the people that completed the questions regarding blood pressure in the adult Health dataset. So not all people with blood pressure data will be included.

3. Use the Weight of the Health dataset, instead of the Household weight (which is different from other countries where the blood pressure data is available in the PR file, such as Namibia 2013)

4. The ages of the participants differ from each other in the PR file compared to the Adult Health file (same people, but the ages can differ by 1-2 years!). So you need to use the age variable given in the Adult Health file, and not in the PR file!
My question is how did this happen? Did the Adult health questionnaire took place at a different moment; but 2 year difference is then quite big? And would it not be better to use the age variable that is compatible with the blood pressure variable (hv105 in the PR file)?

With these steps you will be able to match the numbers of the South Africa DHS report.

Best,

Rebecca