
Subject: Adult Anemia

Posted by [shivani](#) on Wed, 30 Jun 2021 16:47:34 GMT

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hi
I am trying to calculate anemia among adult men and women. I am using NFHS dataset (India) for 2015-16 and 1998-99. In doing so (for 2015-16), I used household member file and tried to calculate the statistic separately for men and women. It's ironic that my results match with the report for women, but not for men.
I used the variable HB57 and HA57 from the household member file and have used weights too. I even tried with both, household weights and men's sub-sample weights but none worked.
Data on men's anemia level isn't given in any other file, not even in men's file. I couldn't figure what I am doing wrong.
Can you please help.

Subject: Re: Adult Anemia

Posted by [Bridgette-DHS](#) on Wed, 30 Jun 2021 18:37:39 GMT

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

The cutoffs for anemia categories are different for men, compared with women. Are you taking that into account?

Subject: Re: Adult Anemia

Posted by [shivani](#) on Thu, 01 Jul 2021 04:46:40 GMT

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The variables are already quoted as categorical variables, having 4 codes; mild anemia, moderate, severe and no. So, in that sense, the cut offs (codes) of the variables for men and women are the same. there is no separate variable giving any such information (on anemia levels or haemoglobin levels).

Please look into it.

Subject: Re: Adult Anemia

Posted by [Bridgette-DHS](#) on Mon, 12 Jul 2021 15:34:18 GMT

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

Sorry for the delay with this reply. In the main report on the NFHS-4, I have checked tables 10.21.1 (for women) and 10.21.2 (for men) against the data files, using ha56 and hb56,

respectively. Those variables give the Hb concentrations for women and men, adjusted for altitude and smoking. I get matches for both women and men.

The problem you encountered with 10.21.2 is due to an incorrect construction of hb57. That variable, and ha57, are constructed from ha56 and hb56, using specified ranges. For women, the threshold for mild anemia is Hb<12, for moderate is Hb<10, and for severe is <7. For men, those thresholds are supposed to be 13, 12, and 9. However, I see that we (DHS) incorrectly used the same thresholds for men as for women when constructing hb57. The minimum and maximum values from the Stata lines given below will confirm that.

Fortunately, however, as I said, table 10.21.2 was constructed using hb56, and correctly, rather than using hb57. The numbers in the report are correct. To match table 10.21.2, you will have to work from hb56, or else reconstruct hb57 using the correct thresholds for men and then use hb57.

Thanks for bringing this to our attention.

```
summarize ha56 if ha57==1
```

```
summarize ha56 if ha57==2
```

```
summarize ha56 if ha57==3
```

```
summarize ha56 if ha57==4
```

* For women, the ranges of ha56 within categories of ha57 are correct

* The lower ends for categories 2, 3, 4 are 70, 100, and 120, as they should be

```
summarize hb56 if hb57==1
```

```
summarize hb56 if hb57==2
```

```
summarize hb56 if hb57==3
```

```
summarize hb56 if hb57==4
```

* For men, the ranges of ha56 within categories of ha57 are NOT correct

* The lower ends for categories 2, 3, 4 are 70, 100, and 120, but should be 90, 120, and 130

* The Hb ranges for women were used in the recode for men, as well as for women

Subject: Re: Adult Anemia

Posted by [shivani](#) on Mon, 12 Jul 2021 19:47:29 GMT

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Thanks for the reply. It was really helpful. Along the same lines, for 1998-99 round (NFHS 2), using the IR file (for calculating the anemia prevalence among women), I tried the following commands:

```
gen hg=s902/10
```

```
gen anemia= 1 if hg<11.0
```

```
replace anemia=0 if hg>=11.0
```

```
replace anemia=. if hg==.
```

```
tab anemia [aw=weight] **weight is calculated by dividing the women's weight variable by 1000000***
```

I used the same command with the variable s907 from the KR file to calculate the anemia prevalence among children and got the exact same results as given in the report. However, Once again, for anemia among women, my calculations do not match. Unfortunately, there isn't any other variable giving information on anemia or hemoglobin levels of the candidate.

Can you please look into the same.

Subject: Re: Adult Anemia

Posted by [Bridgette-DHS](#) on Mon, 12 Jul 2021 20:19:37 GMT

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

I know you would like to look at trends, but I can't help much with a survey that's so old.

Your code looks ok to me, except that the threshold for "any anemia" for women is currently 12, and the next threshold down is 10. You have 11. Is that a typo? Or was 11 the threshold then? It's possible that you are not getting a match because of some adjustment related to smoking or altitude or pregnancy. In the latest survey, residency is de facto. Maybe it was de jure in that old table (as well as de facto, since the woman has to be present to give the blood sample).

These are the kinds of things I would check for if I had the time.

Subject: Re: Adult Anemia

Posted by [shivani](#) on Tue, 13 Jul 2021 05:45:02 GMT

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Hi, yes the survey's threshold for marking 'any anemia' at that time is reported to be 11 (as per the official report). I did consider the adjustments for smoking or altitude, however, the kind of difference I am getting cannot be as regard to these adjustments. While the official figures claim around 50-60% of the women to be anemic, my calculation gives a mere 30%, which is quite low and definitely not due to de facto/de jure.

Is there anything else that I am missing???

Subject: Re: Adult Anemia

Posted by [shivani](#) on Tue, 13 Jul 2021 11:50:43 GMT

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hey, thanks for the help. My issue with NFHS 2 is also resolved. I would like to close this thread. Thanks again for the help.

Subject: Re: Adult Anemia

Posted by [Bridgette-DHS](#) on Tue, 13 Jul 2021 13:00:53 GMT

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

Just in case this helps.

I took a quick look at the data. The woman's Hb measurement is v902 in the IR file. (Before about 2000, biomarkers were part of the individual interview rather than the household interview.) I see that about 31% of the readings are below 11.0 (110) and about 53% are below 12.0 (120). So it looks like your estimate would be consistent with a cutoff of 11 for "any anemia" and the estimate in the report would be consistent with a cutoff of 12. It appears to me that the report used a cutoff of 12, which is the current cutoff, not 11.

In that survey I see a few very high readings and a few very low readings. They are probably data entry errors and may have been dropped. There is no way at this point in time to find out how they were handled. Good luck with the detective work. There's really nothing more we can do to help with it.