## Subject: analyzing blood pressure and blood glucose

Posted by DHS user on Tue, 14 Jun 2016 16:33:04 GMT
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I am trying to reconcile how to identify the appropriate sample to analyze for the blood pressure and blood glucose sample (which is half of the households selected for the male survey, see section 1.6.1 and 1.6.4 in final DHS report) in the 2013 Namibia DHS.

Table 17.1 (pg 237 in the DHS report) shows that 2,584 women and 2,163 men age 35-64 were eligible for these tests. Among these individuals, $80.7 \%$ of women and $70.7 \%$ of men had their blood pressure measured, and $75 \%$ of women and $63.8 \%$ of men had their blood glucose measured.
This would equal the following sample sizes which I can more or less match exactly in the datasets I downloaded based on identifying the eligible participants who consented and had no reported issues with the blood sample.

Women ( n ) $\quad \operatorname{Men}(\mathrm{n})$

| Blood Pressure | 2093 | 1536 |
| :--- | :--- | :--- |
| Blood Glucose | 1938 | 1384 |

Our question is why are the following numbers reported in measured blood pressure tables "17.4.1 Blood pressure status: Women" "17.4.2 Blood pressure status: Men" and "17.7.1 Prevalence of diabetes by background characteristics: Women" and "17.7.2 Prevalence of diabetes by background characteristics: Men".

|  | Women (n) | Men (n) |
| :--- | :---: | ---: |
| Blood Pressure | 2048 | 1406 |
| Blood Glucose | 1873 | 1,221 |

It is not clear how using the dataset to identify eligible males and females in households selected for the male interview and consented and had biologically plausible values changes from the sample listed in Table 17.1 to the sample size in the final prevalence tables: 17.4.1 and 17.4.2 for blood pressure and 17.7.1 and 17.7.2 for blood glucose.

Would someone be able to help me reconcile this?

> Subject: Re: analyzing blood pressure and blood glucose Posted by Trevor-DHS on Tue, 14 Jun 2016 22:56:47 GMT
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I reviewed the information you provided and the data in the datasets, and I'm giving some summaries based on the Stata data below:

1) The sample is all men and women age $35-64$ in the half of households that were selected for the men's questionnaire.
. tab hv104 if hv027==1 \& hv105>=35 \& hv105<= 64,m
sex of | household |
member | Freq. Percent Cum.

| male | 2,163 | 45.57 | 45.57 |
| :---: | :---: | :---: | :---: |
| female \| | 2,584 | 54.43 | 100.00 |
| Total | 4,747 | 100.00 |  |

From this you can see that 2,584 women and 2,163 men were eligible for these tests. These numbers are unweighted as they are the actual numbers tested in the survey.
2) From these cases, a total of 3,634 (2,085 women and 1,530 men) granted consent for blood pressure testing, and 3,316 ( 1,937 women and 1,379 men) granted consent for blood glucose testing (unweighted again). These numbers translated into the percentages as shown below. . tab sh333 hv104 if hv027==1 \& hv105>=35 \& hv105<= 64, col m
blood
pressure | sex of household
measuremen | member
t granted | male female | Total

| no\| | $\begin{array}{r} 19 \\ 0.88 \end{array}$ | $\begin{array}{r} 19 \\ 0.74 \end{array}$ | $\begin{gathered} 38 \\ 0.80 \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| yes \| | 1,530 | 2,085 \| | 3,615 |
|  | 70.74 | 80.69 \| | 76.15 |
| . 1 | 614 | 480 | 1,094 |
| \| | 28.39 | 18.58 \| | 23.05 |
| Total | 2,163 | 2,584 \| | 4,747 |
|  | 100.00 | 100.00 \| | 100.00 |

. tab sh336e hv104 if hv027==1 \& hv105>=35 \& hv105<= 64, col m


| $1$ | $\begin{gathered} 729 \\ 33.70 \end{gathered}$ | $\begin{gathered} 616 \mid \\ 23.84 \mid \end{gathered}$ | $\begin{gathered} 1,345 \\ 28.33 \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Total \| | 2,163 | 2,584 | 4,747 |
| \| | 100.00 | 100.00 | 100.00 |

3) The numbers presented in the coverage of testing are unweighted numbers as they related to the testing in the survey, and not to estimates for the population. The numbers in table 17.4.1 and 17.4.2, and in 17.7. 1 and 17.7.2 are weighted as the percentage estimates are for the population. These tables also include slightly less cases than above as some cases had out of range values and are excluded from the tables see the extra conditions used below.
. tab hv104 if sh333 == $1 \& \operatorname{sh} 335 \mathrm{aa}>=30 \& \operatorname{sh} 335 \mathrm{aa}<=300 \& \operatorname{sh335ab}>=0 \& \operatorname{sh} 335 \mathrm{ab}<=160$ [iw=hv005/1000000], m
sex of
household |

| member | Freq. | Percent | Cum. |
| :---: | :---: | :---: | :---: |
| male \| 1 , | 5.9812 | 40.71 | 40.71 |
| female ${ }^{\text {2 }}$ | 47.6235 | 59.29 | 100.00 |

Total|3,453.6047 100.00
. tab hv104 if sh336e == $1 \&$ sh336k >= 0 \& sh336k <= 222 [iw=hv005/1000000], m
sex of
household |
member Freq. Percent Cum.
male | $1,221.3445 \quad 39.47 \quad 39.47$
female| $1,873.0363 \quad 60.53 \quad 100.00$
Total| 3,094.3808 100.00
I hope this helps explain the differences that you see.

