
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)	Men (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 measurement granted	sex of household member	Total	
	male	female	Total
no	19	19	38
	0.88	0.74	0.80
yes	1,530	2,085	3,615
	70.74	80.69	76.15
.	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

read consent statement (blood glucose)	sex of household member	Total	
	male	female	Total
granted	1,379	1,937	3,316
	63.75	74.96	69.85
refused	9	10	19
	0.42	0.39	0.40
respondent not present	46	21	67
	2.13	0.81	1.41

.		729	616		1,345
		33.70	23.84		28.33

-----+-----+-----					
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 & sh335aa >= 30 & sh335aa <= 300 & sh335ab >= 0 & sh335ab <= 160 [iw=hv005/1000000], m
```

sex of household member	Freq.	Percent	Cum.
-----+-----			
male	1,405.9812	40.71	40.71
female	2,047.6235	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	39.47	39.47
female	1,873.0363	60.53	100.00
-----+-----			
Total	3,094.3808	100.00	

I hope this helps explain the differences that you see.