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Subject: Change in sexual violence calculation and measurement in ZDHS

Posted by [ftakavarasha](#) on Wed, 09 Aug 2017 06:31:22 GMT

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The most recent Zimbabwe DHS shows that the new prevalence for sexual violence is 13.5%, which is a marked decline from the 2010 ZDHS which had a sexual violence prevalence of about 27%. On recreating the tables in the 2010 and 2015 ZDHS I noted that d123 was used in the calculation of sexual violence prevalence in 2010 whilst in 2015 this was subsequently replaced by d130b. My question is due to this change in measurement and calculation are the prevalence in 2010 and 2015 comparable. Attached is the code I used for both analysis Please advice if this is correct and how to read the difference in the two prevalence .

### File Attachments

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1) [sexualViolence.do](#), downloaded 572 times

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Subject: Re: Change in sexual violence calculation and measurement in ZDHS

Posted by [Kerry](#) on Thu, 10 Aug 2017 20:31:56 GMT

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You are correct that the items comprising the composite measure of "sexual violence" have changed between the 2010-11 and 2015 Zimbabwe DHS (ZDHS surveys). This change is likely a combination of in-country stakeholders' decisions during the survey design stage and changes to the core DHS questionnaire and modules, which undergoes revision in each phase of The DHS Program. [For an archive of external stakeholders' contributions to that process, please peruse the DHS-7 Questionnaire Review section of this forum (now closed for comment).] I strongly encourage examining the questionnaire that is in the appendix of each Final Report to examine changes between surveys in item wording and the omission/addition of items.

The variables/items that comprise "sexual violence" in the 2010-11 ZDHS, as constructed by The DHS Program for the Final Report, are:

d108--ever experienced any sexual violence by partner/husband

d123--first sex was wanted or forced

d124--ever forced to have sex by anyone other than husband/partner in last 12 months

d125--ever forced to perform unwanted sexual acts

The variables/items that comprise "sexual violence" in the 2015 ZDHS are:

d108--ever experienced any sexual violence by partner/husband

d124--ever forced to have sex by anyone other than husband/partner in last 12 months

d125--ever forced to perform unwanted sexual acts

d130b--previous husband: physically forced respondent to have sex or to perform sexual acts

I do not know of any systematic review of the comparability of the two sexual violence measures in DHS surveys or what the omission of d123 means for interpreting change/differences in prevalence estimates. I do know that the variable d123 is not included in many surveys since 2010. So let's look at ZDHS specifically.

Differences in the prevalence estimates of sexual violence by these two measures in 2010-11 and

2015 may or may not reflect real change in the experience of sexual violence and apparent difference may be due to either sampling variation and/or measurement issues. A quick look at the prevalence estimates (27.2% in 2010-11 and 13.5% in 2015) suggests that the differences are both sizable and statistically significant. I did not do a formal test of statistical significance as that would have required merging the two datasets, but the confidence intervals for the two estimates are mutually exclusive: 25.76-28.71% and 12.53-14.62%.

The next thing I did was I looked at the components of the two composite measures. Of all the component items, d108 has the second highest prevalence in 2010-11 (15.53% of ever-married women) and the highest prevalence in 2015 (12.69%). Furthermore, the change (decrease) is statistically significant (14.3-16.86% versus 11.58-13.89%). d108 also contributes the most unique cases (617 cases) to the composite measure in 2015 (meaning women who report yes to d108 but no other items) and the second most cases in 2010-11 (462 cases). Spousal sexual violence contributes substantially to the composite measures at both time points.

The new item added to the composite measure in 2015, d130b, has very low prevalence and only contributes 39 unique cases to the composite measure. Its effect on the composite measure is negligible.

However, d123--forced first sex contributes more to the composite measure in 2010-11 than does d108. 21.61% of all women report their first sexual intercourse was forced. This variable contributes the most unique cases (834) to the composite measure, outpacing d108 in 2010-11. Therefore, the two measures are not comparable when analyzing trends and a large portion of the observed "decrease" in sexual violence between the two surveys can be attributed to the omission of this item in 2015.

It is also worth noting that d108--spousal sexual violence--is a composite measure and its items differ survey to survey. The 3 items comprising d108 are d105h, d105i, d105k:  
d105h--ever been physically forced into unwanted sex by husband/partner  
d105i--ever been forced into other unwanted sexual acts by husband/partner  
d105k--ever been physically forced to perform sexual acts respondent didn't want to

Across multiple sub-Saharan African DHS surveys, d105h contributes the most to d108, with neither d105i nor d105k contributing much to d108. Frequently, one of these two latter items are dropped from a survey--another reason to consult the questionnaire in the Final Report. All 3 items are collected in the 2015 ZDHS, but in the 2010-1 ZDHS, only d105h and d105i are collected. In 2015, d105k contributed more unique cases than d105i did (but far less than d105h). Nonetheless, the absence of d105k in 2010-11 is unlikely to have had much influence on the overall composite measure, of sexual violence.