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Subject: Re: weights for ttest  
Posted by [Liz-DHS](#) on Thu, 27 Mar 2014 18:56:20 GMT  
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Dear User,

Here is another response from one of our experts, Dr. Shea Rutstein:

The following have sampling errors estimated in the 2005 Ethiopia DHS:  
Has heard of HIV/AIDS Proportion All women 15-49  
Knows about condoms Proportion All women 15-49  
Knows about limiting partners Proportion All women 15-49  
Had 2+ sex partners in past 12 months Proportion All women 15-49  
High-risk sex Proportion All women 15-49 with sexual intercourse in past 12 months  
Condom use at high-risk sex Proportion All women 15-49 with high-risk intercourse in past 12 months  
Abstinence among youth Proportion Women 15-24  
Sexually active in past 12 months among youth Proportion Women 15-24  
Had an injection in past 12 months Proportion Women 15-24  
Had HIV test and received results in past 12 months Proportion All women 15-49  
Accepting attitudes towards people with HIV Proportion All women 15-49 who have heard of HIV/AIDS  
HIV prevalence among tested for HIV 15-49 Proportion All women 15-49 with blood sample tested at lab

In the 2011 survey sampling errors were calculated for

Had 2+ sex partners in past 12 months Proportion All women 15-49  
Abstinence among youth (never had sex) Proportion All never married women 15-24  
Sexually active in past 12 months among never-married youth Proportion All never married women 15-24  
Had an injection in past 12 months Proportion All women 15-49  
Had an HIV test and received results in past 12 months Proportion All women 15-49  
Accepting attitudes towards people with HIV Proportion All women 15-49 who have heard of HIV/AIDS  
Knows about condoms Proportion All women 15-49  
Knows about limiting partners Proportion All women 15-49  
HIV prevalence among all women 15-49 Proportion All interviewed women with Dried Blood Sample (DBS) tested at the lab

Since the samples are independent to estimate the sampling error for the trend between the two surveys, the formula  $\text{var}(\text{diff}) = \text{var}(\text{2005 survey}) + \text{var}(\text{2011 survey})$ ,

Where var is the variance or square of the sampling error of the indicator of interest, and diff is the difference of the indicators. The square root of  $\text{var}(\text{diff})$  would be the sampling error of the difference between the two surveys,  $\text{se}(\text{diff})$ . The 95% confidence interval would then be calculated as  $\text{diff} - 1.96 * \text{se}(\text{diff})$  to  $\text{diff} + 1.96 * \text{se}(\text{diff})$ . If the confidence interval includes the value zero, the difference is not significant.

For variables not covered by the report tables, you need to calculate the sampling errors using the appropriate STATA or SPSS (or SAS) commands. In SPSS, first use CSPLAN to describe the sampling plan of the data, then use CSTABULATE to tabulate the indicators and their sampling errors. Alternatively, means with bootstrap can be used (with proper definition of the strata). In STATA, use SVYSET to describe the sampling plan and SVY: MEAN to tabulate the indicators. Remember to use the sampling weights.

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