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Subject: High ASFR using DHS method compared to DHS reports

Posted by [mllind89](#) on Fri, 23 Jan 2015 19:35:06 GMT

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Hello,

I am having problems recreating the ASFR estimates provided in DHS reports while using the DHS 3-year ASFR method from the "Guide to DHS Statistics." I consistently get a high TFR and the ASFRs for age groups between 15 and 34 are high while the age groups from 34-49 match the DHS report decently well. For this reason I expect that I am including births I should not or I am excluding women-years I should be including. Below are the steps I take to calculate the ASFR (the calculation is run in STATA). I have also attached my estimates from the IDN 2012 survey and MDA 2005 survey. The "raw\_" variables are the ASFR and TFR without survey weights applied and the ASFR and TRF variables have survey weights applied. Does anyone know why this could be happening?

#### DHS ASFR Method

Step 1: Calculate the number of children born within the exposure period by 5 year women age groups

1. Calculated the age of the child at the time of the survey
2. Dropped all children who were not born 1-36 months before the survey
3. Generated the mothers age at birth of each remaining child
4. Dropped all children whose mother's age were outside of the standard reproduction period (15-49)
5. Counted the number of children by 5 year age groups (15-24, 25-29, ..., 45-49) and survey design variables

Step 2: Calculated the number of women-years by age group during the exposure period

1. Refreshed the data (brought back in all women)
2. Dropped women's duplicated lines (so that each line represented a different woman)
3. Calculated the age (and corresponding age group) of each woman at the end of the exposure period (one month before the survey date)
4. Calculated the number of months each woman spent in the end of exposure end group (high age group)
  - a. Months in high age group =  $\text{svdate} - 1 - \text{mothers birth date}$  (all dates in CMC)
  - b. Set the maximum number of months to 36
5. Calculated the number of months spent in the lower age group (if any)
  - a. Months in the lower age group =  $36 - \text{months in higher}$
6. Dropped all women outside of the reproductive period (15-49)
7. Calculated the total number of months per age group by survey design variables

Step 3: Calculated the ASFR and TFR (weighted and un-weighted)

1. Using the psu weight and age group, the number of children were matched with the number of women-months
2. Calculated the raw or un-weighted ASFR estimates
  - a. Counted the number of months by age group and divided by 12 to get women-years
  - b. Counted the number of children by age group
  - c. Divided the number of children by the number of women-years
3. Calculated the weighted estimates
  - a. Using STATA svy estimates, the ratio of the number of children to the number of women-months was calculated and then multiplied by 12 to bring the estimated up to

children/women-years

4. Calculated the TFR from both the raw and weighted ASFR
  - a. Summed the ASFR and multiplied by 5

Thank you  
Maggie

### File Attachments

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- 1) [MDA\\_2005\\_DHS.xlsx](#), downloaded 757 times
  - 2) [IDN\\_2012\\_DHS.xlsx](#), downloaded 703 times
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Subject: Re: High ASFR using DHS method compared to DHS reports  
Posted by [Trevor-DHS](#) on Sun, 01 Mar 2015 19:42:50 GMT

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I think the problem is in step 2 where you say that you refreshed the data, and then dropped the duplicate women. It sounds like you are doing this with the Births Recode (BR) file, but this is a problem as this file only includes women who have had a birth. Women who have never had a birth are not included anywhere in the file. You can see the problem in the first row of your spreadsheet where raw\_numyears for the first age group is much too small because all of the women who are age 15-19 and have no children have not been included. You have to use the Individual Recode (IR) file for step 2, and then you can ignore the issue of duplicates as that file has one record per woman.

Also, remember that if you are analyzing an ever married woman sample, you will also have to use the all women inflation factors for the number of years of exposure.

If you want to post your code once you have made the change above, I will take a look and be able to give you better feedback.

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