Subject: Maternal age at birth

Posted by RASimmons on Tue, 25 Oct 2016 17:15:51 GMT

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I am looking at several DHS datasets (from Kenya, Malawi, Namibia, Rwanda, Senegal, Tanzania, and Uganda, specifically). As part of my analysis I want to look at maternal age at birth for any given child. I calculate this as:

Maternal age at birth = (B3 - V011) / 12

Where B3 and V011 are the CMC encoded variables for child date of birth and mother date of birth, respectively.

However, after calculating this across my datasets and looking at the distribution, I see a large number of highly implausible values. To choose an arbitrary cut-off of 13, I find 2,084 cases where maternal age at birth is less than that cut-off. About 200 of these have a maternal age at birth of less than 11! The youngest maternal age at birth thus calculated is 6. These cases are disproportionately centered in Kenya, Malawi, and Senegal, but each of the countries has at least double digit numbers of <13 births. Half of the under 11 births are from Senegal.

In any case, in terms of my overall study population these numbers are relatively small (there are 670,845 in the dataset in total, so less than 1% have weird maternal ages at birth). However, I wanted to post here and see if other people had noticed this issue and how they treated these individuals in an analysis using maternal age at birth. Did you simply use the numbers as is, censor/truncate the derived age variable with a lower bound, or use a different variable as a proxy, etc?

Subject: Re: Maternal age at birth

Posted by Trevor-DHS on Tue, 25 Oct 2016 19:06:00 GMT

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Yes, this is a known issue, and we certainly do get some implausible maternal ages at birth. Typically we use the numbers as is, but often grouping younger ages into, say, a group for maternal age < 15. We generally recommend that the researcher make a decision for their analysis about what is the most appropriate way to treat these cases. The issues are probably age reporting issues, and the respondent was probably not as young as reported, but are still likely to be quite young. There are also a number of cases of births that truly did occur before the age of 13 (although not as young as 6), although many of these cases (as you suspect) are probably reporting errors. We don't correct these cases, though, unless we have a clear evidence of how to correct it.

Subject: Re: Maternal age at birth

Posted by RASimmons on Thu, 01 Dec 2016 15:04:40 GMT

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