Subject: Re: Dropping mothers' records without dropping the child's Posted by Bridgette-DHS on Thu, 10 Mar 2016 14:17:36 GMT

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Additional comments from Tom Pullum:

If you are using the KR file and looking at the relationship between characteristics of the mother and characteristics of the child, such as anemia, underweight, etc., you have two options for defining mother-child pairs. One is to use all the children and repeat the mothers. From the child's point of view--if, say, you believe the mother's status is a determinant of the child's status--I think that option is preferable. The direction of causation is ambiguous, but that direction may dominate. You could then be multi-level, with the child as the level 1 unit, the mother as level 2, and the cluster as level 3. The repeats of the mothers does not have to be a reason for throwing out a high percentage of the observations.

The second option is the one you are taking, matching the mother with only one of her children. If you do that, you need to give a good reason for doing so. And if you do that, it is not a good idea to just match the woman with the youngest child. That will introduce a bias (see https://www.dhsprogram.com/pubs/pdf/MR14/MR14.pdf) because the youngest child born in the past five years tends to be the ONLY child born in the past five years, and therefore tends to be healthier than other children born in the past five years. It would be better to select the matched child at random--although that means no one will be able to match your results exactly.

I suppose a third option would be to use all mother child pairs but to re-weight, for example dividing v005 by 2 if the woman has two children in the KR file, dividing by 3 if she has three, etc.

These are just suggestions, but I hope you will consider them.