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Subject: Household weights after merging AR (HIV) and HR (household) files

Posted by [ruland](#) on Mon, 17 Jun 2019 15:36:21 GMT

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Hi all,

I'm planning to compute the proportion of households with at least one member tested positive for HIV (for India 2015-16 DHS, for example). I'm not sure how to get the weight for this.

I would want:

Population base: households, at least one person was tested for HIV (HR file, AR file).

Numerator: Number of households where at least one person was tested positive for HIV (for each HIVNUMB in AR, calculate whether at least one person tested positive for HIV using hiv03 in 1:3. Then merge to HR)

Denominator: Number of households where at least one person was tested for HIV (for each HIVNUMB in AR that contains hiv03 in 0:7, 9, merge to HR)

My question is how should I get the weight?

My attempt: maybe I should not use the HIV weight at all (HIV05), but rather multiply the household weight (HV005) by a factor that's inversely proportional to the probability of being in the population base (as defined above). This factor is thus calculated for each DHS cluster as:  $1 / (\text{the number of households with at least one person tested for HIV} / \text{total number of households in the DHS cluster})$ .

So my final weight would be:  $HV005 / (\text{the number of households with at least one person tested for HIV} / \text{total number of households in the DHS cluster})$ .

Does any of this make sense? Is this weight calculation correct? Any idea appreciated, thank you!!

As a reference: I found this link, which describes how to compute the HIV prevalence among couples:

[https://dhsprogram.com/Data/Guide-to-DHS-Statistics/index.htm#t=HIV\\_Prevalence\\_among\\_Couples.htm](https://dhsprogram.com/Data/Guide-to-DHS-Statistics/index.htm#t=HIV_Prevalence_among_Couples.htm)

I don't understand why the HIV weight for the men is used as the weight for couples here...

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