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Subject: Re: Trend Analysis using DHS data

Posted by [Bridgette-DHS](#) on Wed, 20 May 2020 13:01:01 GMT

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Following is a response from DHS Research & Data Analysis Director, Tom Pullum:

This question is similar to another recent question about using the Nigeria 2008 and 2018 surveys for a difference-in-differences analysis. Please look at my response to that question regarding svyset. In your situation, you want to describe change in an outcome across three successive surveys. I suggest that you use v008 (century month of the interview) as a "time" variable, or construct "survey" to have the values 1, 2, 3 in the successive surveys. You would define Y=unmet need for modern contraception among sexually active adolescents. It would take the values 1, 0, or NA ("."). You test whether there was a difference between surveys 1 and 2 with a command such as "logit Y i.survey". (You would use svyset and svy and probably include covariates.) Under the default coding, survey 1 would be the reference category of "survey". The p-values for the coefficients for survey=2 and survey=3 would tell you whether the change from 1 to 2, or from 1 to 3, respectively, was significant. You would have to change the setup slightly to get at the significance of the change from 2 to 3. You could also get an annualized rate of change between surveys and 2 with "logit Y v008 if survey==1 | survey==2", and compare that with the annualized rate between 2 and 3. The significance of the coefficient for v008 would be almost exactly the same as the significance of the coefficient for survey 2 vs survey 1 in the other logit regression. Let us know if you have other questions.