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Subject: Trend Analysis using DHS data

Posted by [sophyadam90](#) on Sun, 17 May 2020 19:57:58 GMT

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Hello,

I have grouped 3 Tanzania DHS datasets from TDHS 2004/05, TDHS 2010 and TDHS 2015/16. I want to analyze the trends of unmet need for modern contraception among sexually active adolescents across the 3 survey periods and check for linearity of trends. At first I only did a cross tabulation and obtained the proportions of trends in each survey year and by different background characteristics, later computed their changes over time. But this method did not seem proper in terms of actually checking for the significance of the trends of unmet need for modern contraception (where there was a significant change).

Kindly advise how I can properly go about this using Stata.

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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.

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Subject: Re: Trend Analysis using DHS data

Posted by [sophyadam90](#) on Wed, 20 May 2020 13:32:43 GMT

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Thank you very much for the response. This was very useful.

Sophia

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Subject: Re: Trend Analysis using DHS data

Posted by [kuwawenaruwa](#) on Mon, 29 Jan 2024 05:16:44 GMT

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sophyadam90 wrote on Sun, 17 May 2020 15:57Hello,

I have grouped 3 Tanzania DHS datasets from TDHS 2004/05, TDHS 2010 and TDHS 2015/16. I want to analyze the trends of unmet need for modern contraception among sexually active adolescents across the 3 survey periods and check for linearity of trends. At first I only did a cross tabulation and obtained the proportions of trends in each survey year and by different background characteristics, later computed their changes over time. But this method did not seem proper in terms of actually checking for the significance of the trends of unmet need for modern contraception (where there was a significant change).

Kindly advise how I can properly go about this using Stata.

Dear Sophy, greetings

I am doing some analysis of DHS data, and would like to check for the significance of the trends.

Is it possible for you to share the do file?

regards

K

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