Subject: Mortality rates and binary variable
Posted by Chery87 on Tue, 18 Aug 2020 14:39:56 GMT
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I have been working on U5M by assigning value 1 for children who are alive and 0 otherwise. The stata commands I am using are as follows.

I am using Ethiopia DHS of 2016: ETKR71DT
gen wt= v005/10^6
svyset psu[pweight=wt], strata(strata)
gen ch_alive=b5
label var ch_alive "child is alive"
gen ch_died=1-b5
tab ch_alive ch_died
gen ch_age=hw1
replace ch_age=b7 if hw1==.
gen ch_59=0
recode ch_59 0=1 if ch_age<60
replace ch_59= ch_age if ch_age==.
svy: regress ch_died (this gives the mean of the variable, which I am considering it as the rate)

However, the coefficient is not even comparable to the u5mr calculated in the DHS report. It does work for the malnutrition indicators but not for my estimation of u5mr.

Any technical support to deal with this, the soonest reply the best will be.

Thank you very much in advance.

Chery

Subject: Re: Mortality rates and binary variable
Posted by schoumaker on Wed, 19 Aug 2020 09:07:00 GMT
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Hello,
Computing child mortality indicators can be tricky. You should check the Stata do files available on github.
https://github.com/DHSProgram/DHS-Indicators-Stata/blob/mast er/Chap08_CM/CM_CHILD.do
Best,
Bruno

Subject: Re: Mortality rates and binary variable
Posted by Chery87 on Wed, 19 Aug 2020 11:32:48 GMT
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Dear Bruno,

Thank you for the reply but I am looking for the stata do file to generate the variable usmr into a categorical binary variable.
1) which dhs file to use?
2) any correction on the commands I posted earlier and be able to generate a ratio which is closer to the dhs report

regards,

Chery

Subject: Re: Mortality rates and binary variable
Posted by Bridgette-DHS on Thu, 20 Aug 2020 17:56:12 GMT
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Following is a response from DHS Research & Data Analysis Director, Tom Pullum:

U5M and the other child mortality rates are calculated in a very complex way. The code is available on our GitHub site (see the new landing page for the DHS forum). What you are doing would only be a rough estimate, perhaps for individual-level analysis.

You are doing a linear probability model. You should use logit regression, especially for probabilities outside the range .3 to .7. If you just replace "regress" with "logit" you will get an intercept, b0, which is the log odds that your outcome is 1. U5MR would be analogous to 1000*[exp(b0)/(1+exp(b0))]. However, this estimate is affected by censoring. Children born in the past 5 years have not had full exposure to the risk of dying before age 5. There are various ways to deal with this. The coarsest approach would be to reduce the sample to children born more than 5 years ago (i.e. children with v008-b3>60), even if their death occurred in the past 5 years.

You could look at publications on the topic and at methods such as hazard models. You only need to go down this path if you want to do multivariate analysis of under-five mortality.