Subject: malawi
Posted by mmbah on Fri, 05 Apr 2019 19:32:26 GMT
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Dear All,

I want to run a logistic regression on stillbirth using the MALawi Data. However, my regression model fails if I do the survey set. I kindly look forward for your kind help

svyset v021 [pweight=wt], strata(v023) vce(linearized) singleunit(missing)

```
    pweight: wt
        VCE: linearized
  Single unit: missing
     Strata 1: v023
        SU 1: v021
       FPC 1: <zero>
```

. svy: logistic stillbirths i.v190
(running logistic on estimation sample)
an error occurred when svy executed logistic
r(2000);

Thanks for your kind help in advance

Kind regard
Mamadou

Subject: Re: malawi
Posted by Bridgette-DHS on Mon, 15 Apr 2019 13:02:00 GMT
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Following is a response from Senior DHS Stata Specialist, Tom Pullum:

I suggest two changes--replace "missing" with "centered" and remove "vce(linearized)". However, it still may not work. Your outcome is very rare, so you will have many combinations of predictors in which there are no stillbirths at all. You may not be able to include more than a couple of covariates at a time.

Subject: Re: malawi
Posted by mmbah on Mon, 15 Apr 2019 17:06:43 GMT

Dear Tom Pullum,

Thank you very much for your kind response. I have used the codes below and the logistic regression worked without error. However, the number of stillbirth has reduced from 236 (DHS final report) to 232 and early neonatal deaths as decrease from 378 (DHS final report) to 338 see below codes and cross tabulations. Thus, I am concern if my calculations are correct. My primary outcome interest is perinatal mortality. Secondly, I generated party by recoding the total births entries (v224) to parity 0,1,2,3,4,5+. However, when I cross tabulated early neonatal deaths and parity, parity 0 had zero early neonatal deaths. This looks weird to me and was concern perhaps something is wrong with my analysis. see below and cross tabulations. I look forward hearing from you soon. Your kind response is very highly solicited.

```
gen stillbirths = 0
label variable stillbirths "Stillbirths"
gen births = 0
label variable births "Births in calendar"
gen births2 = 0
label variable births2 "Births in birth history"

gen earlyneo = 0
label variable earlyneo "Early neonatal deaths"
gen infant_deaths=0
label variable "infant deaths"
gen child_deaths=0
label variable "child deaths"
gen beg = v018
gen end = v018+59
local vcal_len = strlen(vcal_1[1])
forvalues i = 1/`vcal_len' {
  replace births = births+1 if inrange(`i',beg,end) & substr(vcal_1,`i',1) == "B"
  replace stillbirths = stillbirths+1 if inrange(`i',beg,end) & substr(vcal_1,`i',7) == "TPPPPPP"
}

replace end = v008
replace beg = v008-59

rename b3_0* b3_*
rename b6_0* b6_*
forvalues i = 1/20 {
  replace births2 = births2+1 if inrange(b3_`i',beg,end)
  replace earlyneo = earlyneo+1 if inrange(b3_`i',beg,end) & inrange(b6_`i',100,106)
  replace infant_deaths = infant_deaths+ 1 if inrange(b3_`i',beg,end) & inrange(b6_`i',100,211)
  replace child_deaths = child_deaths+ 1 if inrange(b3_`i',beg,end) & inrange(b6_`i',212,304)
}
gen totpreg7m = births2+stillbirths
label variable totpreg7m "Number of pregnancies of 7+ months duration"
gen perinatal = earlyneo+stillbirths
```

```
label variable perinatal "Perinatal mortality"
gen wt = v005/1000000
svyset v021 [pw = wt], strata(v023) singleunit(centered)

 svy: tab parity earlyneo, count cellwidth(12) format(%12.2g)
(running tabulate on estimation sample)
```

Number of strata =   56   Number of obs   =   24,562
Number of PSUs   =   850   Population size =   24,562
                         Design df   =   794


```
---------------------------------------------------
          |        Early neonatal deaths
paritylab |        0          1       Total
----------+----------------------------------------
       0 |     5532          0       5532
       1 |     3747         51       3798
       2 |     3428         91       3519
       3 |     3095         47       3141
       4 |     2635         46       2682
      5+ |     5787        103       5890
         |
   Total |    24224        338      24562
---------------------------------------------------
  Key:  weighted count

  Pearson:
    Uncorrected   chi2(5)      = 124.1167
    Design-based  F(4.84, 3845.21)=  15.1343    P = 0.0000
```

. svy: tab wealth stillbirths, count cellwidth(12) format(%12.2g)
(running tabulate on estimation sample)

Number of strata =   56   Number of obs   =   24,562
Number of PSUs   =   850   Population size =   24,562
                         Design df   =   794


```
---------------------------------------------------
wealth   |
index    |        Stillbirths
combined |        0          1       Total
----------+----------------------------------------
 poorest |     4699         46       4745
  poorer |     4641         51       4692
  middle |     4584         50       4635
  richer |     4653         27       4680
 richest |     5752         58       5810
         |
```

```
   Total |     24330         232        24562
-----------------------------------------------------
 Key:  weighted count

 Pearson:
   Uncorrected   chi2(4)        =    8.8778
   Design-based  F(3.85, 3059.99)=   1.2668    P = 0.2814
```

Subject: Re: malawi
Posted by Bridgette-DHS on Fri, 26 Apr 2019 14:22:36 GMT
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Following is another response from Senior DHS Stata Specialist, Tom Pullum:

Sorry for the delay with this response. Perhaps you have already answered the question yourself.

Your Stata code is well written and correct. I have made some modifications and will paste my revised version below. The 232 and 338 are not a problem. The units of analysis in the IR file are women, and the units of analysis for table 8.4 are stillbirths (in column 1) and early neonatal deaths (in column 2). Four women who had two neonatal deaths, and 228 had one. Thus 232 women experienced at least one neonatal death, but the total number of neonatal deaths was 236. You can convert from a file of women to a file of neonatal deaths with the "expand" command, as shown. Similarly for early neonatal deaths.

As you will see, I generally save a working file in a "scratch" folder--you would do something else--in order to move easily from column 1 to column 2 of table 8.4.

Regarding your second question--women with parity 0 have had no live births. That's why they have no early neonatal deaths, even if they may have had stillbirths.

Open MWIR7HFL.dta

gen stillbirths = 0
label variable stillbirths "Stillbirths"
gen births = 0
label variable births "Births in calendar"
gen births2 = 0
label variable births2 "Births in birth history"

gen earlyneo = 0
label variable earlyneo "Early neonatal deaths"
gen infant_deaths=0

```
label variable infant_deaths "infant deaths"
gen child_deaths=0
label variable child_deaths "child deaths"
gen beg = v018
gen end = v018+59
local vcal_len = strlen(vcal_1[1])
quietly forvalues i = 1/`vcal_len' {
replace births = births+1 if inrange(`i',beg,end) & substr(vcal_1,`i',1) == "B"
replace stillbirths = stillbirths+1 if inrange(`i',beg,end) & substr(vcal_1,`i',7) == "TPPPPPP"
}

replace end = v008
replace beg = v008-59

rename b3_0* b3_*
rename b6_0* b6_*
quietly forvalues i = 1/20 {
replace births2 = births2+1 if inrange(b3_`i',beg,end)
replace earlyneo = earlyneo+1 if inrange(b3_`i',beg,end) & inrange(b6_`i',100,106)
replace infant_deaths = infant_deaths+ 1 if inrange(b3_`i',beg,end) & inrange(b6_`i',100,211)
replace child_deaths = child_deaths+ 1 if inrange(b3_`i',beg,end) & inrange(b6_`i',212,304)
}
gen totpreg7m = births2+stillbirths
label variable totpreg7m "Number of pregnancies of 7+ months duration"
gen perinatal = earlyneo+stillbirths
label variable perinatal "Perinatal mortality"
gen wt = v005/1000000

gen parity=v224
replace parity=5 if parity>5
label variable parity "Parity"
label define parity 5 "5+"
label values parity parity


svyset v021 [pw = wt], strata(v023) singleunit(centered)

svy: tab parity earlyneo, count cellwidth(12) format(%12.2g)

save e:\DHS\DHS_data\scratch\temp.dta, replace
tab stillbirths if stillbirths>0 [iweight=v005/1000000]
expand stillbirths
tab stillbirths if stillbirths>0 [iweight=v005/1000000]
* get column 1 of table 8.4 from this file

use e:\DHS\DHS_data\scratch\temp.dta, clear
tab earlyneo if earlyneo>0 [iweight=v005/1000000]
expand earlyneo
```

tab earlyneo if earlyneo if earlyneo>0 [iweight=v005/1000000]
* get column 2 of table 8.4 from this file

Subject: Re: malawi
Posted by mmbah on Fri, 26 Apr 2019 19:31:04 GMT
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Dear Tom,

Thank you very much for that invaluable response. It has really help a lots.

Regards
mamadou