Subject: Timeliness of measles vaccination
Posted by nkanagat on Mon, 11 Jul 2016 14:26:01 GMT
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Hello,

I am trying to calculate the timeliness of the measles vaccination in Tanzania from the DHS 2010 dataset, KR file. I need to calculate whether the measles vaccine was given early (before 9 months) on time (9 months) or late (after 9 months).

I have set up the following code:

```
**Healthcard
gen healthcard=.
replace healthcard = 1 if h1 == 1
replace healthcard = 0 if inlist(h1, 0, 2, 3)
replace healthcard = . if h1 == 9

*generate age of each child in months
g age=v008-b3
g wgt=v005/1000000

ta age if age>=12 & age<=23 & b5==1 [iw=wgt]

**Measles
recode h9 (0 2 3 8 9=0 "no") (1=1 "yes"), g(measles)
ta measles if age>=12 & age<=23 & b5==1 [iw=wgt]

**Timeliness by month
recode h9m ( 1 2 3 4 5 6 7=0 "early") (9=1 "timely") (10 11 12=2 "late"), g (timely)
ta measles timely
```

In order to examine the timeliness of measles, is this the best way to set up my variables in stata?

Thank you,
Natasha

Subject: Re: Timeliness of measles vaccination
Posted by Liz-DHS on Tue, 12 Jul 2016 17:38:09 GMT
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Dear User,
A response from Dr. Tom Pullum:

Quote:
Your approach was mostly correct but it did not take into account censoring, i.e. the fact that some children have not yet reached the ages you are interested in. I would do it as given below.

```
set more off
use .... TZKR62FL.dta, clear

gen current_age=.
replace current_age=1 if v008-b3<9
replace current_age=2 if v008-b3==9
replace current_age=3 if v008-b3>9 & v008-b3<=23
replace current_age=4 if v008-b3>23

* calculate cmc of immunization
gen cmc_when_immunized=h9m+12*(h9y-1900)

gen age_at_immunization=cmc_when_immunized-b3
tab age_at_immunization

gen timeliness=.
replace timeliness=1 if age_at_immunization<9
replace timeliness=2 if age_at_immunization==9
replace timeliness=3 if age_at_immunization>9 & age_at_immunization<=23
replace timeliness=4 if age_at_immunization>23 & age_at_immunization<.
replace timeliness=5 if age_at_immunization==.
replace timeliness=6 if h9==0 | h9>3
replace timeliness=7 if h9==.

label define time 1 "Before 9 months" 2 "At 9 months" 3 "10-23 months" 4 "24-59 months" 5 "Received, no date" 6 "Not received" 7 "NA"
label values timeliness time
label values current_age time

tab timeliness current_age
tab timeliness current_age [iweight=v005/1000000]
```

Subject: Re: Timeliness of measles vaccination
Posted by nkanagat on Tue, 12 Jul 2016 20:46:20 GMT
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Thank you very much!

Subject: Re: Timeliness of measles vaccination
Posted by nkanagat on Fri, 21 Oct 2016 14:31:28 GMT

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Hi again,

I want to replicate Table 10.4 Vaccinations in the first year of life. Percentage of children age 12-59 months at the time of the survey who received specific vaccines by age 12 months, Zambia 2013-14 Link to table: https://www.dhsprogram.com/pubs/pdf/FR304/FR304.pdf

I am using the KR file.

I have the code below.

*calculating age at measles immunization, in months, for those children with non-missing date;
dob defined above in dpt3 code
set more off
tab1 h9*

gen h9d_rev=h9d
replace h9d_rev=. if h9d>31

gen h9m_rev=h9m
replace h9m_rev=. if h9m>12

gen h9y_rev=h9y
replace h9y_rev=. if h9y>v007

gen h9_mdy=mdy(h9m_rev,h9d_rev,h9y_rev)

gen dob_mdy=mdy(b1,hw16,b2)

* "exact" age in months; the average days in a month is 365.25.12 = 30.4375
gen h9_age_in_months=(h9_mdy-dob_mdy)/30.4375
summarize h9_age_in_months

tab h9_age_in_months

* completed age in months
gen h9_completed_age_in_months =int(h9_age_in_months)

summarize h9_age_in_months

tab h9_completed_age_in_months

gen timely=.
replace timely =1 if h9_completed_age_in_months <12
replace timely = 0 if h9_completed_age_in_months >=12
tab timely h9_completed_age_in_months

tab timely if age2>=12 & age2<=23 & b5==1 [iw=wgt]

tab timely if age2>=12 & age2<=59 & b5==1 [iw=wgt]

I compared my output for children between the ages of 12-23 at the time of survey who received measles by age 12 months to table 10.4.
I got 56.34 to 72.5 in the table.

Not sure why there is a difference.

Thanks,
Natasha

Subject: Re: Timeliness of measles vaccination | Table 10.4 Zambia DHS
Posted by nkanagat on Fri, 21 Oct 2016 16:59:43 GMT
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I know what I am missing.

I need to add mothers report bec in the Zambia table the footnote says "For children whose information is based on the mother's report, the proportion of vaccinations given during the first year of life is assumed to be the same as for children with a written record of vaccinations."

Let me work on this and I will let you know if I run into any challenges.