Subject: Calculating Under 5 Mortality Rate
Posted by gemma1224 on Fri, 11 Mar 2016 16:46:56 GMT
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I'm trying to estimate U5 mortality rates in India (98,06) and Kenya (98,08).

I'm using this code in Stata and am getting close, within 1-2 people, of the published DHS rate, but not exact matches. Can anyone help me see what I am missing?

Very appreciative of any suggestions.

I've created this code for the BR DHS file following
http://siteresources.worldbank.org/INTPAH/Resources/Publicat
ions/459843-1195594469249/HealthEquityCh3.pdf and
http://legacy.measuredhs.com/help/datasets/

```
gen hypage=(v008-b3)
gen survivelength=.
replace survivelength=hypage
replace survivelength=b7 if b5==0
gen dead=(b5==0)

ltable survivelength dead [fw=v005] if hypage <60 , int(0,1,3,6,12,24,36,48,60) failure
```

Subject: Re: Calculating Under 5 Mortality Rate
Posted by Bridgette-DHS on Tue, 22 Mar 2016 18:41:37 GMT
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A response was sent directly to your email address by Senior DHS Stata Specialist, Tom Pullum.

Subject: Re: Calculating Under 5 Mortality Rate
Posted by peterliberia on Fri, 25 Mar 2016 09:19:33 GMT
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Hi,

I had been looking for the same code as gemma1224 for a Liberia analysis. Would it be possible to post it here or email it to me directly? It would be a terrific help.

Thanks!!!

Subject: Re: Calculating Under 5 Mortality Rate
Posted by Liz-DHS on Tue, 29 Mar 2016 18:55:38 GMT

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Dear User,
You may want to read some of the other posts regarding under 5 mortality for some insight. Start with http:// userforum.dhsprogram.com/index.php?t=msg&th=142&star t=0&S=8019308c0b1fe335aae675a1ce57d3bb. There is also good information in the "Guide to DHS Statistics" http:// dhsprogram.com/publications/publication-dhsg1-dhs-questionna ires-and-manuals.cfm. If you still have questions, please feel free to post again.

Subject: Re: Calculating Under 5 Mortality Rate
Posted by dhs_bee on Thu, 02 Jun 2016 01:31:41 GMT

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I have a similar code as gemma1224 for KDHS and my U5 estimates a 1-2 people away from the DHS report.

gen hypage=(v008-b3)
gen timonths=.
replace timonths=hypage
replace timonths=b7 if b5==0
gen dead=(b5==0)
ltable timonths dead [fw=v005] if hypage <60 , int(0,1,3,6,12,24,36,48,59) failure

Is there a fix for it?

I'm using stata13

Thanks!

Subject: Re: Calculating Under 5 Mortality Rate
Posted by Liz-DHS on Thu, 02 Jun 2016 03:15:44 GMT

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Dear User,
Please refer to post #9708 by Trevor Croft: http:// userforum.dhsprogram.com/index.php?t=msg&th=5071&got o=9708&S=b21c971b84d4aad3c02954b4954b8441#msg_9708 for some guidance. There are other posts in the same section to guide you in your analysis. After reviewing, if you still have questions, please feel free to post again.

Subject: Re: Calculating Under 5 Mortality Rate

Posted by lonrwo1 on Mon, 26 Sep 2016 19:50:39 GMT

Dear Sir or Madam,

For MSc Epi dissertation; I'm running a poisson regression (including lexis expansion/stsplit for agegroup) analysis of Kenya DHS 2009 for U5 mortality. ltable U5 rate, then using the follow-up time variable (survive length) in stset before moving onto lexis expansion (stsplit) etc.

When using the following code for synthetic l table U5 rate calculation method,

```
gen hypage=(v008-b3)
gen survivelength=.
replace survivelength=hypage
replace survivelength=b7 if b5==0
gen dead(b5==)
ltable survivelength dead if hypage <60, int(0,1,3,6,12,24,36,48,69)
```

The overall U5 mortality rate as per the DHS report is calculated (74/1,000). However when I add by(province) option the stratum specific rates for province are completely different from province specific rates reported in the DHS report (page 106). I attach dofile and dhs report for reference.

Could you shed any light on this?

Thanks,

Rob

File Attachments
1) ltabledhsforum.do, downloaded 906 times

Subject: Re: Calculating Under 5 Mortality Rate
Posted by lonrwo1 on Mon, 26 Sep 2016 19:54:57 GMT

*unable to attach KDHS 2009 report due to large file size

Subject: Re: Calculating Under 5 Mortality Rate
Posted by Liz-DHS on Tue, 27 Sep 2016 14:08:07 GMT

Dear Rob,
There's no need for us to download this report Kenya DHS 2008-09 since it already exists on our website. We will post as soon as we have a response to your query.
Thanks!

Subject: Re: Calculating Under 5 Mortality Rate
Posted by Liz-DHS on Tue, 27 Sep 2016 16:16:26 GMT
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A response from Dr. Tom Pullum:
Quote:
The calculation of the under-five rates is vastly more complex. DHS uses a synthetic (or life table) approach. Deaths and risk are assessed within an interval of time, such as the five years before the survey, and within eight sub-intervals of age. The method is described in the Guide to DHS Statistics https:// www.dhsprogram.com/pubs/pdf/DHSG1/Guide_to_DHS_Statistics_29 Oct2012_DHSG1.pdf.

It happens that within the next couple of weeks I will be putting a Stata program onto the DHS website that calculates these rates. I'm afraid you will have to wait until then.

Thank you for your post.

Subject: Re: Calculating Under 5 Mortality Rate
Posted by lonrwo1 on Wed, 28 Sep 2016 05:25:05 GMT
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Thank you Liz/Dr Pullum,

Thank you very much indeed for your reply. Unfortunately I'm working to an end of the week deadline, so the stata program in two weeks will sadly be of no use to me.

My understanding was that the code I am running to generate U5 mortality rate matches what is described by Dr Tom in his post and also on section C page 94 of the Guide to DHS Statistics.

```
gen hypage=(v008-b3)
gen survivelength=.
replace survivelength=hypage
replace survivelength=b7 if b5==0
gen dead=(b5==0)
ltable survivelength dead if hypage <60, int(0,1,3,6,12,24,36,48,60) failure
```

When running the above code I get the following lifetable output

Interval		Beg. Total	Deaths	Lost	Cum. Failure	Std. Error	[95% Conf. Int.]	
0	1	6079	176	61	0.0291	0.0022	0.0252	0.0337
1	3	5842	38	219	0.0355	0.0024	0.0311	0.0405
3	6	5585	38	315	0.0423	0.0026	0.0375	0.0477
6	12	5232	47	652	0.0515	0.0029	0.0461	0.0575

12	24	4533	53	1119	0.0641	0.0033	0.0579	0.0710
24	36	3361	14	1147	0.0688	0.0036	0.0622	0.0761
36	48	2200	6	1093	0.0722	0.0038	0.0651	0.0800
48	60	1101	1	1100	0.0739	0.0042	0.0662	0.0825

-- ------------------

You can see that the cumulative failure for the last interval 48 - 60 months is 0.739, x 1000 =73.9 or 74 per 1,000. This is the U5 mortality rate reported in the KDHS 2009 - Fig 8.2 page 107, so this seems to me, to confirm that this is the correct method to use. My confusion comes from the fact that when including other variables e.g. by(province) to the ltable code i.e.

ltable survivelength dead if hypage <60, by (province) int(0,1,3,6,12,24,36,48,60) failure

 the U5 rates (cumulative failure for last age interval x 1,000) for each province are;

1. very different from what is reported in the report(## per 1,000)

2. alongside being different the observed difference in rates is also not proportionate to what is reported in the report e.g. Central Province (No. 2) is 51 per 1,000 in the report but increases to 79 when using the above ltable, compared to Nyanza province (No.5) which is 151 per 1,000 in the report but reduces to 126 when using the above ltable method. It something to do with the way DHS calculate the stratum specific (e.g. province) rates?

I would be most grateful if you could provide any further insight into this apparent discrepancy.

Kind Regards,

Rob

Subject: Re: Calculating Under 5 Mortality Rate
Posted by Liz-DHS on Mon, 03 Oct 2016 18:07:50 GMT
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A response from senior technical specialist, Dr. Tom Pullum:
Quote:
The table you are referring to (Table 8.2 on page 107 of the report on the Kenya 2008-09 survey) is correct. I just re-calculated the numbers. However, the following observations may be relevant.

First, did you notice in the title of the table that it refers to the TEN years before the survey?

Second, the table itself does not include an estimate for the total (that is, all Kenya) for the ten years before the survey. I calculate that number to be 84 (83.72). That number is not mentioned anywhere, in the text or a table or a figure.

Third, I'm sorry to see that Figure 8.2, beneath Table 8.2, has an error in it. For all Kenya it gives an estimate of 74. That's obviously wrong because it is not in between the urban and rural estimates of 74 and 86, respectively. The value of 74 is for the FIVE years before the survey,

given in table 8.1. The correct value, should be 84 (as I said). I don't know whether you are trying to match the 74 for the five years before the survey or the 84 for the ten years before the survey.

Fourth, and this will affect your calculations, the DHS estimate for the five years before the survey is not based just on children born in the past five years. It is based on any exposure to any of the eight component age intervals in the past five years. Similarly for the past ten years.

I can't tell what it is that you want to do. Do you want under-five rates for some covariates that are not in table 8.2? Do you want to repeat table 8.2 for the past five years, rather than the past ten years? Or something else? I would like to be able to help but I don't really know what you are trying to do.

Subject: Re: Calculating Under 5 Mortality Rate
Posted by Olutosin on Tue, 11 Oct 2016 00:54:41 GMT
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hello please sir i want to use NDHS 2013 dataset for my project work. i am to carry out survival analyses ie(the risk of death between 0-11 months and 12-59 month) on infant and child mortality using NDHS2013 data set, as well as cox proportional hazard analyses in my work, i want to use environmental factors like toilet facility,source of drinking water,uses of solid fuel, wealth index,sex,region,residence etc as my independent variable on infant an child mortality. how can i perform the analyses using SPSS and STATA help me out please...........

Subject: Re: Calculating Under 5 Mortality Rate
Posted by Bridgette-DHS on Tue, 11 Oct 2016 11:24:41 GMT
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Following is a response from Senior DHS Specialist, Tom Pullum:

Quote:DHS staff can help on the forum with specific questions about DHS datasets, indicators, tables in reports, and that sort of thing. We cannot help you set up your analysis. Maybe someone else on the forum will be willing to help.

Subject: Re: Calculating Under 5 Mortality Rate
Posted by Olutosin on Thu, 20 Oct 2016 21:56:34 GMT
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how can I calculate the singleton of life birth and how can I know the total number of infant death

and child death from NDHS 2013 dataset

Subject: Re: Calculating Under 5 Mortality Rate
Posted by harry_92 on Sun, 25 Nov 2018 20:39:54 GMT
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Hi. I am a bit of a novice to survival probability tables. I have looked through all the forums and am trying to identify the child mortality survival rates in Ghana (using DHS 2014 round) for ages 2-5 (two-five years old) using the direct method. I have adjusted the method in chapter 3, "Analyzing Health Equity Using Household Survey Data" for calculating under 5 mortality by removing all dead and alive children reported below the ages of 2.

I am getting figures of 14.4 (looking back 5 years) and 14.9 looking back 10 years. The figures seem plausible as under 5 mortality in Ghana is 60 (as of 2014 survey) but I am not sure if I have over-simplified it in my approach.

I have attached my do file.

Could somebody kindly tell me whether my approach is suitable? If not, does someone have a do file to share / can explain the correct approach?

Further context:
My overall aim is to establish a child (aged 2-5) mortality figure at the regional level. I will then use it as an instrument for life expectancy similarly to (Oster, 2012). I want to then repeat this command for all years of Ghana surveys so I can create pseudo panel data with 2-5 year old child mortality rates estimated correctly at regional levels for each survey round.

Further readings other people may find useful:

 http://siteresources.worldbank.org/INTPAH/Resources/Publicat
ions/459843-1195594469249/HealthEquityCh3.pdf
 https://dhsprogram.com/pubs/pdf/DHSG1/Guide_to_DHS_Statistic s_29Oct2012_DHSG1.pdf
 https://iussp.confex.com/iussp/ipc2017/mediafile/Presentatio
n/Paper7059/Pullum_IUSSP_2017_paper.pdf

File Attachments
1) CHILD 2-5 MORTALITY_do.do, downloaded 609 times