Subject: Women's Empowerment indicator in SAS
Posted by mwoolf on Wed, 30 Mar 2016 18:43:05 GMT
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Hello, we are assessing women's empowerment (decision-making in healthcare, major household purchases, and visits to family AND wife-beating justifications) as a predictor in HIV prevalence and
risky sexual behaviors. The key countries are: Malawi 2010, Namibia 2013, Zambia 2013-14, and Zimbabwe 2010-11.
The target group is women aged 15-49 in those countries. Is the bottom code scheme correct?

We are attempting to create a women's empowerment index similar to the DHS reports. We have SAS code
below. Is this correct? How do we make this into one index instead of two separate? In the end, we want to have quartiles: none WE, low WE, moderate WE, and high WE. Is there any advice on how to do this in SAS?

Afterwards, we used proc surveylogistic, however, all of our covariates were significant for HIV prevalence. Could this
be due to large sample sizes or an error in coding? Thank you

```
*all five variables have value 0,1,8,9.. 0 menns more empowerment,
using 0 to compare with others
data women;
set women;
beating=v744A+v744B+v744C+v744D+v744E;
if beating>5 then beating=9;
run;

*three variables level 1,2,4,5,6,9, using 1 to compare with others,1 means most empowerment;
data women;
set women;
if v743a>1 then v743a=2;
if v743b>1 then v743b=2;
if v743d>1 then v743d=2;  *change v743a-d as a two level factor;
decision=v743A+v743B+v743D;
run;

Logistic Regression for risky behaviors
data women;
set women;
risky=0;
if v525<15 or v833A=1 or v766b>1 then risky=1;
run;

proc freq data=women;
tables risky;
run;
```

```
**secondary outcome;
*not significant only except decision=6;
proc surveylogistic data=women;
weight hiv05;
cluster HIVclust;
strata v022;
class beating(reference='0') decision(reference='3');
model risky(desc)=beating decision;
run;
```

Logistic Regression for HIV prevalence (1=positive, 0=negative)

```
*model inculding significant counfounders;
proc surveylogistic data=women;
weight hiv05;
cluster HIVclust;
strata v022;
class beating(reference='0') decision(reference='3') v502 v505(reference='0')v149(reference='0')
v190 v717(reference='0') v102 v781(reference='0') v763a(reference='0') v731(reference='1')
v130(reference='1');
model hiv03(desc)=beating decision v502 v505 v511  v149 v731 v190 v717 v102 v781 v130
v763a;
run;
```

Subject: Re: Women's Empowerment indicator in SAS
Posted by Liz-DHS on Tue, 19 Apr 2016 14:15:57 GMT
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Dear User,
Your query has been referred to one of our technical experts. Once we have a response we will post.
Thank you!

Subject: Re: Women's Empowerment indicator in SAS
Posted by Trevor-DHS on Wed, 20 Apr 2016 23:32:18 GMT
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I can't comment on whether this is correct or not - we can tell you how we compute indicators. We don't really use SAS, so I'm unable to test you code.
A few notes on what I see:
1) For v743a, v743b, v743d we usually consider codes 1 and 2 as empowered, not just code 1. However it is your choice as to how you wish to use the data.

2) I would recode these variables into 0/1 variables, rather than 1/2 variables. This probably doesn't matter as they are probably equivalent, but it is a little clearer what you have after you have summed them.
3) For "risky" you have not excluded code 0 on v525 (never had sex) and for v833a I think you want to use code 0 (not using condom every time had sex) as the risky act.
4) Weights are typically divided by 1000000 - however, it probably doesn't affect your results.
5) You should check your base denominator for each variable. For example, v743a is only applicable for currently married women, thus it doesn't make sense to include both "decisions" and v502 in the logistic regression. Similar issues with v505. There are also issues of colinearity with code 0 of v717 and of v731.
6) For sexually transmitted diseases, we combine v763a, v763b, and v763c into a single variable (yes on any of the variables), rather than just using v763a alone.