
Subject: Replicating table 3.3 and 3.7 in Tanzania SPA 2014-15

Posted by [shakim](#) on Tue, 17 Aug 2021 16:07:19 GMT

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Dear DHS Experts and SPA Users,

I am trying to replicate some variables of table 3.3 and table 3.7 from Tanzania SPA 2014-15 in Stata. My code is:

Table 3.3-

*Improved water source:

gen water=0

replace water=1 if q330==1 | q330==2 | q330==3 | q330==4 | q330==5 | q330==7 | q330==9 | q330==10 & q331==2

*Communication equipment

gen commu1=0

replace commu1=1 if q311==1 & q312==1

gen commu2=0

replace commu2=1 if q315==1 & q314==1

gen commun=0

replace commun=1 if commu1==1 | commu2==1

*Emergency transport

gen emergen_transport=0

replace emergen_transport=1 if (q450==1 & q453==1) | q453==1

Table 3.7-

*Liver or renal function test

gen q832_9=.

recode q832 (1=1) (2=0), gen (lrtest)

*X ray machine

gen xrmachine=0

replace xrmachine=1 if q881a_2==1 & q881b_2==1 & q881c_2==1

According to the questionnaire, it looks like I am looking the right variable, but for some reason I am not getting the percentages as of the table. Do I need to consider anything else? I would greatly appreciate any help on this matter.

Many thanks

Subject: Re: Replicating table 3.3 and 3.7 in Tanzania SPA 2014-15

Posted by [SaraDHS](#) on Wed, 18 Aug 2021 15:13:11 GMT

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Hello Shakim,

Recreating the SPA tables can be a challenge, as the construction of variables can change from country to country. If you want to recreate the tables, first make sure you are using the facility weights.

```
gen wt=facwt/1000000
```

Your code for the specific items in the tables is close. I have checked the CPro code that was used to create the tables originally, and recreated it below. These all match within 1%.

*WATER

```
gen water=0
```

```
replace water=1 if inlist(q330,1,2,10) | (inlist(q330,3, 4, 5, 7, 9) & inlist(q331, 1, 2))
```

```
tab water [iw=wt]
```

*COMMUNICATION EQUIPMENT

```
gen commu1=0
```

```
replace commu1=1 if q311==1 & q312==1
```

```
gen commu2=0
```

```
replace commu2=1 if q315==1 & q314==1
```

```
gen commu3=0
```

```
replace commu3=1 if q317==1 & q318==1
```

```
gen commu4=0
```

```
replace commu4=1 if q315a==1
```

```
gen commun=0
```

```
replace commun=1 if commu1==1 | commu2==1 | commu3==1 | commu4==1
```

```
tab commun [iw=wt]
```

*EMERGENCY TRANSPORT

```
gen emergen_transport=0
```

```
replace emergen_transport=1 if (q450==1 & q453==1) | q452==1
```

```
tab emergen_transport [iw=wt]
```

*LIVER OR RENAL FUNCTION TEST

```
gen lrt=0
```

```
replace lrt =1 if q834==1 & q835==1
```

```
tab lrt [iw=wt]
```

*XRAY MACHINE

```
gen xray=0
```

```
replace xray=1 if (q881a_1==1 & q881b_1==1) | (q881a_2==1 & q881b_2==1)
```

```
tab xray [iw=wt]
```

Best of luck with your work!

Sara

Subject: Re: Replicating table 3.3 and 3.7 in Tanzania SPA 2014-15

Posted by [shakim](#) on Mon, 23 Aug 2021 04:21:33 GMT

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Dear Sara,

Thanks a lot for your kindest support and I was able to reproduce the tables with your help. Now, I want create some variables from Nepal SPA 2015 using STATA. I have tried with the following codes-

```
gen wt=facwt/1000000
```

Table 3.3:

*Regular electricity

```
gen elec=0
```

```
replace elec=1 if q340==1 & q341==1
```

```
replace elec=1 if (q343a==1 | q343b==1) & q345==1 & q346==1
```

```
replace elec=1 if q343c==1
```

```
tab elec [iw=wt],m
```

Table 3.5.1:

*Soap and running water or else

alcohol-based hand disinfectant

```
gen swatrub=0
```

```
replace swatrub=1 if (q710_02==1 & q710_01==1) | q710_03==1
```

```
tab swatrub [iw=wt]
```

Table 3.7.3:

*Xray machine

```
gen xray=0
```

```
replace xr=1 if (q881a_2==1 & q881b_2==1)
```

```
tab xray [iw=wt]
```

*Full blood count

```
gen blood_count=0
```

```
replace blood_count=1 if q802a_1==1 & q802b_1==1 & q802c_1==1
```

```
tab blood_count [iw=wt]
```

*Liver or renal function test

```
gen lrt=0
```

```
replace lrt =1 if q834==1 & q835==1
```

```
tab lrt [iw=wt]
```

It looks like I am using the correct variables. Unfortunately, I am not getting the percentages as of the tables in Nepal 2015 report.

Please help me in recreating the above variables in STATA.

Regards,

Shakim

Subject: Re: Replicating table 3.3 and 3.7 in Tanzania SPA 2014-15

Posted by [SaraDHS](#) on Mon, 23 Aug 2021 17:20:00 GMT

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Dear Shakim,

Below is the code to create these variables for Nepal. Please pay special attention to the titles and footnotes provided in these tables, as they provide descriptions for country-specific definitions of the variables. In most, but not all, of the cases, adapting the code to match the provided definition was all that needed to be done.

Best of luck,
Sara

*Regular electricity

gen elec=0

replace elec=1 if q340==1 & q341==1

replace elec=1 if regexm(q343, "A") & q345==1 & q346==1

replace elec=1 if regexm(q343, "B") & q345==1 & q346==1

replace elec=1 if regexm(q343, "C")

replace elec=1 if regexm(q343, "D") & q346b==1

tab elec [iw=wt],m

*Soap and running water or else alcohol-based hand disinfectant

gen swatrub=0

*In Nepal, methylated alcohol was included as an "alcohol-based hand disinfectant"

replace swatrub=1 if (q710_02==1 & q710_01==1) | q710_03==1 | q710_15==1

tab swatrub [iw=wt]

*In the title of Table 3.7.3, it states that this is among PHCCs and hospitals, so you need to limit each to only these types of facilities.

*Xray machine

gen xray=.

replace xray=0 if inrange(factype,1,7) | inrange(factype,12,14)

replace xr=1 if xray==0 & ((q881b_1==1 & q881c_1==1) | (q881b_2==1 & q881c_2==1 & q881b_3==1 & q881c_3==1))

tab xray [iw=wt]

*Full blood count

gen blood_count=.

replace blood_count=0 if inrange(factype,1,7) | inrange(factype,12,14)

```
replace blood_count=1 if blood_count==0 & ((q834==1 & q835==1) | (q802eb_1==1 &
q802ec_1==1 & q802eb_2==1 & q802eb_3==1 & q802ec_3==1))
tab blood_count [iw=wt]
```

*Liver or renal function test

```
gen lrt=.
```

```
replace lrt=0 if inrange(factype,1,7) | inrange(factype,12,14)
```

```
replace lrt =1 if lrt==0 & q833==1 & ((q834==1 & q835==1) |(q835c==1 & q835d==1))
```

```
tab lrt [iw=wt]
```

Subject: Re: Replicating table 3.3 and 3.7 in Tanzania SPA 2014-15

Posted by [foysal](#) on Tue, 24 Aug 2021 18:28:04 GMT

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Dear Sara,

Thanks for your response and I was able to get the same % as tables except the variable- X ray machine, full blood count, liver or renal function test".

Here is the codes with the output.

```
gen wt=facwt/1000000
```

*Xray machine

```
gen xray=.
```

```
replace xray=0 if inrange(factype,1,7) | inrange(factype,12,14)
```

```
replace xr=1 if xray==0 & ((q881b_1==1 & q881c_1==1) | (q881b_2==1 & q881c_2==1 &
q881b_3==1 & q881c_3==1))
```

```
tab xray [iw=wt]
```

xray	Freq.	Percent	Cum.
0	49.745353	37.16	37.16
1	84.1219059	62.84	100.00
Total	133.867259	100.00	

In the report table the % is 63.0 (table 3.7.3).

*Full blood count

```
gen blood_count=.
```

```
replace blood_count=0 if inrange(factype,1,7) | inrange(factype,12,14)
```

```
replace blood_count=1 if blood_count==0 & ((q834==1 & q835==1) | (q802eb_1==1 &
q802ec_1==1 & q802eb_2==1 & q802eb_3==1 & q802ec_3==1))
```

```
tab blood_count [iw=wt]
```

blood_count	Freq.	Percent	Cum.
-----+-----			

0	35.4440796	26.48	26.48
1	98.4231793	73.52	100.00

-----+-----
 Total | 133.867259 100.00

In the final report table the % is 66.9 (table 3.7.3).

**Liver or renal function test

gen lrt=.

replace lrt=0 if inrange(factype,1,7) | inrange(factype,12,14)

replace lrt =1 if lrt==0 & q833==1 & ((q834==1 & q835==1) |(q835c==1 & q835d==1))

tab lrt [iw=wt]

lt	Freq.	Percent	Cum.
----	-------	---------	------

0	70.8263274	52.91	52.91
1	63.0409315	47.09	100.00

-----+-----
 Total | 133.867259 100.00

In the report the % is 46.5 (table 3.7.3).

How can I get the same % of this variables as the table?

Regards,
 Shakim

Subject: Re: Replicating table 3.3 and 3.7 in Tanzania SPA 2014-15

Posted by [shakim](#) on Tue, 24 Aug 2021 18:34:45 GMT

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Dear Sara,

Thanks for your response and I was able to get the same % as tables except the variable- X ray machine, full blood count, liver or renal function test".

Here is the codes with the output.

gen wt=facwt/1000000

*Xray machine

gen xray=.

replace xray=0 if inrange(factype,1,7) | inrange(factype,12,14)

replace xr=1 if xray==0 & ((q881b_1==1 & q881c_1==1) | (q881b_2==1 & q881c_2==1 & q881b_3==1 & q881c_3==1))

tab xray [iw=wt]

xray	Freq.	Percent	Cum.
------	-------	---------	------

0	49.745353	37.16	37.16
---	-----------	-------	-------

1 | 84.1219059 62.84 100.00

-----+-----

Total | 133.867259 100.00

In the report table the % is 63.0 (table 3.7.3).

*Full blood count

gen blood_count=.

replace blood_count=0 if inrange(factype,1,7) | inrange(factype,12,14)

replace blood_count=1 if blood_count==0 & ((q834==1 & q835==1) | (q802eb_1==1 & q802ec_1==1 & q802eb_2==1 & q802eb_3==1 & q802ec_3==1))

tab blood_count [iw=wt]

blood_count | Freq. Percent Cum.

-----+-----

0 | 35.4440796 26.48 26.48

1 | 98.4231793 73.52 100.00

-----+-----

Total | 133.867259 100.00

In the final report table the % is 66.9 (table 3.7.3).

**Liver or renal function test

gen lrt=.

replace lrt=0 if inrange(factype,1,7) | inrange(factype,12,14)

replace lrt =1 if lrt==0 & q833==1 & ((q834==1 & q835==1) |(q835c==1 & q835d==1))

tab lrt [iw=wt]

lrt | Freq. Percent Cum.

-----+-----

0 | 70.8263274 52.91 52.91

1 | 63.0409315 47.09 100.00

-----+-----

Total | 133.867259 100.00

In the report the % is 46.5 (table 3.7.3).

How can I get the same % of this variables as the table?

Regards,

Shakim

Subject: Re: Replicating table 3.3 and 3.7 in Tanzania SPA 2014-15

Posted by [SaraDHS](#) on Wed, 25 Aug 2021 18:20:52 GMT

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Dear Shakim and Foysal,

Please see my response to another user, who interestingly is looking at the exact same variables as you.

[https:// userforum.dhsprogram.com/index.php?t=msg&th=11193&start=0#msg_num_3](https://userforum.dhsprogram.com/index.php?t=msg&th=11193&start=0#msg_num_3)

Best,
Sara
