Reading and Understanding DHS Tables

Statistical tables can look intimidating at first glance. This flyer suggests ways to read and understand tables from the 2012 Tajikistan Demographic and Health Survey preliminary report.

Example 1: Current Use of Contraception
A Question Asked of a Subgroup of Survey Respondents

Step 1: Read the title and subtitle. They tell you the topic and the specific population group being described. In this case, the table is about current use of contraception by currently married women age 15-49. This is a subgroup of survey respondents.

Step 2: Scan the column headings—the top horizontal row. They describe how the information is categorized. In this case, each column represents a contraceptive method: any method, any modern method, and any traditional method. The last column lists the number of women interviewed.

Step 3: Scan the row headings—the first vertical column. These show the different ways the data are divided into categories based on population characteristics. In this case, the table presents contraceptive use among married women by number of living children, urban-rural residence, region of residence, educational level, and wealth. Most of the tables in DHS reports will be divided into these same categories.

Step 4: Look at the very last row at the bottom of the table. These percentages represent the totals of all married women age 15-49 who are currently using a method of contraception. In this case, 27.9% of currently married women age 15-49 are currently using any method of contraception, 25.8% are using any modern method, and 2.1% are using any traditional method.

Step 5: To find out what percentage of married women with no education/primary education are currently using a modern contraceptive method, draw two imaginary lines, as shown on the table. This shows that 19.9% of married women age 15-49 with no education/primary education are currently using a modern method of contraception.

Table 7.3 Current use of contraception by background characteristics — 1

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, Tajikistan 2012

Background characteristic — 3	Any method — 2	Any modern method	Any traditional method	Number of women
Number of living children				
0	0.1	0.1	0.0	746
1-2	19.5	17.7	1.8	2,333
3-4	41.9	38.7	3.2	2,268
5+	35.4	33.6	1.9	1,157
Residence				
Urban	31.5	29.0	2.5	1,571
Rural	26.8	24.8	1.9	4,933
Region				
Dushanbe	31.7	28.7	3.0	559
GBAO	35.0	34.9	0.2	129
Sughd	35.3	30.7	4.6	2,022
DRS	22.3	22.0	0.4	1,546
Khatlon	23.8	22.9	0.9	2,249
Education				
None/primary	20.5	19.9 — 5	0.6	356
General basic	21.8	20.0	1.8	2,016
General secondary	30.0	28.0	2.0	3,260
Professional primary/ middle	34.1	30.2	3.9	475
Higher	40.7	37.4	3.3	397
Wealth quintile				
Lowest	24.9	23.3	1.6	1,210
Second	24.5	22.7	1.8	1,287
Middle	25.2	23.7	1.4	1,307
Fourth	28.8	25.8	2.9	1,379
Highest	35.9	33.3	2.5	1,320
Total — 4	27.9	25.8	2.1	6,504

Practice: Use this table to answer the following questions (answers are upside down, below):

a) What percentage of married women with 5+ children are using a modern method of contraception?

b) In which region are married women least likely to use modern method of contraception?

c) Compare married women in the lowest wealth quintile to married women in the highest wealth quintile—which group is more likely to use any modern method of contraception?

a) 33.6% b) DRS-22.0% c) Married women in the highest wealth quintile —33.3% compared to 23.3% of women in the lowest wealth quintile

Example 2: Lifetime Experience with Induced Abortion
A Question Asked of a Subgroup of Survey Respondents

Step 1: Read the title and subtitle. In this case, the table is about two separate groups of women: (a) all women age 15-49 and, (b) only women who had at least one induced abortion.

Step 2: Identify the two panels. First identify the columns that refer to all women (a), and then isolate the columns that refer only to women who reported having had an induced abortion (b).

Step 3: Look at the first panel. What percentage of all women age 15-49 have had an abortion? It's 9.6%.

Now look at the second panel. How many women are included in this group? Only 923, or about 9.6% of the 9,656 women who have had an abortion. The second panel is a subset of the first panel.

Step 4: Only approximately 10% of the women in the survey reported that they ever had an abortion. Once these women are further divided into the background characteristic categories, there may be too few cases for the percentages to be reliable.

For example, look to see the mean number of abortions among women age 20-24: 1.2%. This percentage is in parentheses because there are fewer than 50 women (unweighted) in this category. Readers should use this number with caution—it may not be accurate. (For more information on weighted and unweighted numbers, see Example 4.)

Look also to see the median number of abortions among women under age 20. There is no number in this cell—only an asterisk. This is because fewer than 25 women (unweighted) under age 20 reported having had an abortion. Results for this group are not reported. The subgroup is too small, and therefore the data are not reliable.

Table 8.2 Lifetime experience with induced abortion

Percentage of women age 15-49 who have had at least one induced abortion, and among these women, percent distribution by number of abortions, and the mean number of abortions, according to background characteristics, Tajikistan 2012

Background characteristic	Percentage of women with an induced abortion	Number of women	Mean number of abortions	Number of women with abortions
Age				
<20	0.2	2,013	*	3
20-24	2.1	1,950	(1.2)	42
25-34	9.6	2,797	1.4	269
35+	21.0	2,896	1.6	608
Number of living children				
0	0.3	3,483	*	10
1	3.8	1,142	(1.3)	44
2	14.7	2,820	1.5	413
3	20.6	2,211	1.6	455
Marital status				
Currently married	13.5	6,504	1.5	878
Formerly married	8.8	504	1.3	45
Residence				
Urban	12.6	2,413	1.6	305
Rural	8.5	7,243	1.5	618
Region				
Dushanbe	11.6	881	1.6	102
GBAO	9.5	220	1.5	21
Sughd	11.9	2,872	1.5	341
DRS	7.5	2,240	1.5	168
Khatlon	8.5	3,444	1.5	291
Education				
None/primary	3.5	567	*	20
General basic	6.2	3,349	1.4	209
General secondary	11.5	4,474	1.6	512
Professional primary/ middle	15.6	645	1.7	100
Higher	13.1	620	1.5	81
Wealth quintile				
Lowest	7.3	1,878	1.4	137
Second	7.3	1,913	1.6	139
Middle	8.1	1,904	1.5	154
Fourth	11.8	1,971	1.5	232
Highest	13.1	1,989	1.6	260
Total	9.6	9,656	1.5	923

Note: Currently married includes respondents in consensual union (living together). Formerly married includes divorced, separated, and widowed respondents. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.

Note: When parentheses or asterisks are used in a table, the explanation will be noted under the table. If there are no parentheses or asterisks on a table, you can proceed with confidence that enough cases were included in all categories that the data are reliable.

Practice: Use this table to answer the following questions (answers are upside down, below):

a) In what age group is induced abortion the most common?

b) What is the mean number of abortions among women with only 1 living child? Can you use this number with confidence?

b) Among women with no or primary education, what is the mean number of abortions? Why is there no number in the table?

a) 35+ —21% of women in this age group have had an abortion. b) 1.3, but because this is based on only 25-49 cases, you should use this number with caution. c) This cell is empty because there are fewer than 25 cases in this category. There are not enough women with no or primary education who have had an abortion to be able to provide an accurate number.

Example 3: Place of Delivery
Interpreting, Comparing, and Understanding Patterns

Step 1: Read the title and subtitle. In this case, the table is about place of delivery among live births in the 5 years before the survey.

Step 2: Identify the indicators in the top most row. In this shortened table there are just 2 indicators: births delivered at home and births delivered in a health facility.

Step 3: Look at the bottom of the first column to determine what percentage of births occurred at home: It's 22.5%.

Now look at the bottom of the second column to determine what percentage of births occurred in a health facilities: it's 76.5%. In Tajikistan, more than three-quarters of births occur in health facilities.

Step 4: Look at the row headings to identify the background characteristics. In this table, place of delivery is disaggregated by mother's age at birth, birth order, antenatal care visits, residence, region, mother's education, and wealth quintile.

Step 5:
Answer the following questions to understand how place of delivery varies throughout Tajikistan:

- What are the lowest and the highest percentages (range) of home births within the regions? Home births range from a low of 6.1% in Sughd to a high of 33.8% in GBAO.
- Look for patterns: Do facility births vary by background characteristics? For example, is there a clear pattern of facility delivery by wealth? By mother's level of education? By birth order?
- Answers: Births from the poorest households are more likely to occur at home, while 91.4% of births from the wealthiest households occur in health facilities. Health facility births are also more common among more educated women. As women have more children, higher birth order births are less likely to occur in a health facility. Women who have had 4+ antenatal care visits are very likely to deliver in a health facility (91.1%), while only 52.8% of births with no ANC are delivered in a health care facility.

Table 10.4 Place of delivery

Percent of live births in the five years preceding the survey by place of delivery, according to background characteristics, Tajikistan 2012

Background characteristic	Home	Health facility	Number of births
Mother's age at birth			
<20	18.0	80.1	480
20-34	21.6	77.7	4,321
35-49	37.0	61.1	433
Birth order			
1	12.9	85.9	1,765
2-3	23.2	76.1	2,256
4-5	31.5	68.2	889
6+	45.8	51.4	323
Antenatal care visits[1]			
None	45.3	52.8	729
1-3	31.1	68.8	953
4+	8.8	91.1	1,889
Residence			
Urban	11.7	87.4	1,119
Rural	25.5	73.6	4,114
Region			
Dushanbe	10.6	88.4	414
GBAO	33.8	65.4	91
Sughd	6.1	93.3	1,383
DRS	29.1	70.0	1,316
Khatlon	31.4	67.4	2,029
Mother's education			
None/primary	30.4	69.1	452
General basic	25.7	73.3	2,063
General secondary	21.6	77.3	2,161
Professional primary/middle	10.3	89.1	302
Higher	5.8	93.9	255
Wealth quintile			
Lowest	40.5	58.5	1,062
Second	29.3	68.8	1,132
Middle	21.9	77.1	1,092
Fourth	9.9	89.8	1,037
Highest	8.3	91.4	909
Total	22.5	76.5	5,233

- What does this mean? To improve maternal and newborn health, more births should be delivered in health facilities. With limited resources, programs should target less educated, poor women, and those living in GBAO, Khatlon, and DRS to improve their access to and use of health care facilities for delivery services. It also appears that reaching women at antenatal care increases their chances of delivering in a health care facilities.

Example 4: Understanding Sampling Weights in DHS Tables

A sample is a group of people that have been selected for a survey. In DHS surveys, the sample represents the entire national population. Most countries want to collect data and report information both for the entire country and also for a country's regions or provinces. For the 2012 TjDHS, the survey sample is representative nationally, at the urban-rural level, and for each of the 5 regions.

DHS surveys are designed to provide these national and regional statistics. We want the sample surveyed in each region to resemble the actual population of that region, just as we want the national sample to resemble the actual population of the country. If the regions in a particular country vary in size and especially if some regions have very small populations, then a randomly-drawn sample may not include enough people from each region for analysis.

For example, let's say that you have enough money to interview 9,656 women for a survey that should be representative of both the regions and the entire country (as in the Tajikistan table to the right). In Tajikistan, the regions are not evenly distributed: some region are more heavily populated (such as Khatlon), while others have smaller populations (such as GBAO).

A sampling statistician can determine how many women should be interviewed in each region in order to get reliable statistics. In the case of Tajikistan, the blue column (1) shows the actual number of women selected and interviewed in each region, ranging from 1,069 in GBAO to 2,436 in Khatlon. With these numbers, there are enough interviews to get reliable results in each region.

With this distribution of interviews, some regions are overrepresented and some zones are underrepresented. For example, the population of GBAO in 2010 was about 2% of the entire Tajik population. In contrast, the population of Khatlon in 2010 was approximately 36% of the Tajik population. Khatlon's population is approximately 15 times larger than the population in GBAO. But as the blue column shows, the DHS survey has interviewed only about twice as many people in Khatlon as in GBAO. This does not accurately represent the population of the country.

Table 3.1 Background characteristics of respondents

Percent distribution of women age 15-49 by selected background characteristics, Tajikistan 2012

	Women		
Background characteristic	Weighted percent	Weighted number	Unweighted number
Region			
Dushanbe	9.1	881	1,733
GBAO	2.3	220	1,069
Sughd	29.7	2,872	2,084
DRS	23.2	2,240	2,334
Khatlon	35.7	3,444	2,436
Total	100.0	9,656	9,656

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In order to get statistics that are representative of the entire country, the distribution of the women in the sample needs to resemble the distribution of the women in the country. Women from a smaller region, like GBAO, should only contribute a small amount to the national total. Likewise, women from a larger region, like Khatlon, should contribute more. Therefore, DHS statisticians mathematically adjust or "weight" the number of women from each region so that each region's contribution to the total is proportionate to the actual population of the country. The numbers in the purple column (2) represent the "weighted" values. The total sample size of 9,656 women has not changed, but the distribution of the women in the regions has been changed to represent their contribution to the total population size.

How do statisticians weight each category? They recalculate the categories to reflect the real population of the country. If you were to compare the light red column (3) to the actual population distribution of Tajikistan, you would see that women in each region are contributing to the total sample with the same weight that they contribute to the population of the country. The weighted number of women in the survey now accurately represents how many women live in Khatlon and how fewer women live in GBAO.

With sampling and weighting, it is possible to interview enough women to provide reliable statistics at both the national and regional level without distorting the overall distribution of the population within the country. In general, only the weighted numbers are shown in each of the DHS tables, so don't be distressed if these numbers seem low: they may actually represent a larger number of women interviewed. And remember, the table will use parentheses and asterisks to warn you if there are too few unweighted cases in any category.