Reading and Understanding Tables from the 2015 Zimbabwe Demographic and Health Survey (ZDHS)

Example 1: Exposure to Mass Media
A Question Asked of All Survey Respondents

Table 3.4.1 Exposure to mass media: Women (1)

Percentage of women age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Zimbabwe 2015

Background characteristic (3)	(2) Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of women
Age						
15-19	15.2	30.4	31.7	5.0	47.0	2,199
20-24	15.7	34.4	35.5	7.0	43.8	1,697
25-29	14.9	32.7	35.9	6.0	44.3	1,657
30-34	18.2	33.9	37.8	7.1	42.9	1,619
35-39	15.7	29.8	35.7	5.4	45.7	1,236
40-44	17.7	29.0	35.3	6.2	46.7	965
45-49	12.4	26.4	33.8	3.5	48.7	582
Residence						
Urban	29.8	62.1	37.7	12.6	23.8	3,829
Rural	7.2	12.5	33.3	1.7	58.6	6,126
Province						
Manicaland	13.3	20.4	38.6	5.7	51.2	1,266
Mashonaland Central	8.4	13.7	41.7	2.3	49.4	882
Mashonaland East	12.4	18.8	44.9	3.6	43.0	952
Mashonaland West	12.8	30.0	42.3	3.0	39.7	1,160
Matabeleland North	8.5	14.1	20.9	1.7	66.7	465
Matabeleland South	9.4	19.8	20.9	2.8	66.3	419
Midlands	11.0	28.3	27.6	3.3	53.1	1,263
Masvingo	9.0	23.6	22.1	2.4	60.2	1,187
Harare	31.6	58.7	40.5	14.7	25.9	1,783
Bulawayo	31.5	70.5	33.3	13.2	20.2	577
Education						
No education	0.3	5.7	17.7	0.0	79.0	126
Primary	2.3	11.9	30.6	0.5	62.2	2,571
Secondary	17.0	35.8	36.4	6.1	41.3	6,527
More than secondary	56.3	68.0	41.1	24.4 (5)	14.8	731
Wealth quintile						
Lowest	2.8	2.8	23.2	0.3	74.3	1,704
Second	5.4	5.4	32.0	0.7	63.6	1,693
Middle	7.1	11.2	39.9	1.4	53.8	1,748
Fourth	19.1	41.2	38.8	7.0	36.2	2,307
Highest	35.1	74.2	38.2	15.5	15.5	2,503
Total (4)	15.9	31.6	35.0	5.9	45.2	9,955

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 women age 15-49 and their access to different types of media. All eligible female respondents age 15-49 were asked these questions.

Step 2: Scan the column headings—highlighted in green in the table above. They describe how the information is categorized. In this table, the first three columns of data show different types of media that women access at least once a week. The fourth column shows women who access all three media, while the fifth column is women who do not access any of the three types of media at least once a week. The last column lists the number of women interviewed in the survey.

Step 3: Scan the row headings—the first vertical column highlighted in blue in the table above. These show the different ways the data are divided into categories based on population characteristics. In this case, the table presents women's access to media by age, urban-rural residence, province, educational level, and wealth quintile. Most of the tables in the ZDHS report will be divided into these same categories.

Step 4: Look at the row at the bottom of the table highlighted in red. These percentages represent the totals of all women age 15-49 and their access to different types of media. In this case, 15.9% of women age 15-49 read a newspaper at least once a week, 31.6% watch television weekly, and 35.0% listen to the radio weekly.

Step 5: To find out what percentage of women with more than secondary education access all three media weekly, draw two imaginary lines, as shown on the table. This shows that 24.4% of women age 15-49 with more than secondary education access all three types of media weekly.

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

a) What percentage of women in Zimbabwe do not access any of the three media at least once a week?

b) What age group of women are most likely to listen to the radio weekly?

c) Compare women in urban areas to women in rural areas—which group is more likely to watch television weekly?

a) 45.2% of women do not access any of the three media weekly.
b) Women age 30-34—37.8%
c) Women in urban areas—62.1% watch television weekly, compared to 12.5% of women in rural areas.

Example 2: Prevalence of Diarrhoea
Comparing and Understanding Patterns

Step 1: Read the title and subtitle. In this case, the table presents diarrhoea prevalence among children under five in the two weeks before the survey.

Step 2: Identify the information presented in the table—highlighted in green in the table to the right. In this table there is only one indicator—prevalence of diarrhoea.

Step 3: Look at the row headings to identify the background characteristics. In this table, diarrhoea is presented by child's age in months, sex, source of drinking water, toilet facility, urban-rural residence, province, mother's educational level, and wealth quintile.

Step 4: Look at the row in the bottom of the table to determine the total proportion of children under five with diarrhoea in the two weeks before the survey. This shows that 16.7% of children under five in Zimbabwe had diarrhoea in the two weeks before the survey.

Interpretation: In Zimbabwe, 16.7% of children under five had diarrhoea in the two weeks before the survey, but a closer look at the table shows how diarrhoea varies throughout Zimbabwe. To gain a better understanding of differences in the prevalence of diarrhoea, consider the following questions:

- Is diarrhoea more common among girls or boys? Prevalence of diarrhoea is slightly more common among boys (18.2%) than among girls (15.4%).
- Now, compare diarrhoea between urban and rural residence. Diarrhoea prevalence is 16.8% among rural children and 16.6% among urban children. Since these figures are so close, there is essentially no difference between these two groups.
- What are the lowest and the highest percentages (range) of diarrhoea by province? Just 9.4% of children under five in Matabeleland South had diarrhoea, compared to a high of 22.5% in Mashonaland West province.
- Look for patterns: Does diarrhoea vary by other background characteristics? For example, is there a clear pattern of diarrhoea by age in months? By source of drinking water? By toilet facility? By mother's education? By wealth quintile?

  Answers:
  - Diarrhoea is highest among children age 6-11 months (31.0%), while diarrhoea is lowest among children age 48-59 months (6.8%).
  - Children who have access to an improved water source are slightly less likely to have experienced diarrhoea (16.1%) than children who lack an improved source (18.4%).
  - Children who have access to an improved, not shared toilet facility are less likely to have experienced diarrhoea (13.7%) than children who use a shared or non-improved toilet facility (19.5% and 17.2%, respectively).
  - Diarrhoea decreases as mother's educational level increases. Prevalence is highest among children whose mothers have no education (23.6%) and lowest among children whose mothers have more than secondary education (7.2%).
  - Diarrhoea decreases as household wealth increases; 18.4% of children living in households in the lowest wealth quintile had diarrhoea in the last two weeks, compared to 14.1% of children living in households in the highest wealth quintile.

- By looking at patterns by background characteristics, we can see which groups are more in need of interventions to address diarrhoea. Resources are often limited; looking for patterns can help programme planners and policymakers determine how to most effectively use resources.

Table 10.7 Prevalence of diarrhoea

Percentage of children under age 5 who had diarrhoea in the 2 weeks preceding the survey according to background characteristics, Zimbabwe 2015

Background characteristic (3)	Diarrhoea (2)	Number of children
Age in months		
<6	9.7	624
6-11	31.0	572
12-23	30.4	1,216
24-35	17.2	1,193
36-47	9.6	1,223
48-59	6.8	1,228
Sex		
Male	18.2	2,950
Female	15.4	3,105
Source of drinking water[1]		
Improved	16.1	4,184
Not improved	18.4	1,521
Other/missing	17.6	350
Toilet facility[2]		
Improved, not shared	13.7	1,946
Shared[3]	19.5	1,734
Non-improved	17.2	2,375
Residence		
Urban	16.6	1,937
Rural	16.8	4,118
Province		
Manicaland	16.7	893
Mashonaland Central	18.9	590
Mashonaland East	12.2	574
Mashonaland West	22.5	783
Matabeleland North	11.7	275
Matabeleland South	9.4	230
Midlands	16.8	821
Masvingo	17.1	731
Harare	17.4	910
Bulawayo	13.3	249
Mother's education		
No education	23.6	70
Primary	17.7	1,884
Secondary	17.0	3,767
More than secondary	7.2	335
Wealth quintile		
Lowest	18.4	1,381
Second	16.3	1,179
Middle	16.3	1,016
Fourth	17.6	1,428
Highest	14.1	1,052
Total	(4) 16.7	6,055

[1] See Table 2.1 for definition of categories
[2] See Table 2.2 for definition of categories
[3] Facilities that would be considered improved if they were not shared by 2 or more households

Example 3: Payment for Sexual Intercourse and Condom Use at Last Sexual Intercourse
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 men: (a) all men age 15-49 and (b) men age 15-49 who paid for sexual intercourse in the past 12 months.

Step 2: Identify the two panels. First, identify the columns that refer to all men (a), and then isolate the columns that refer only to those men who paid for sexual intercourse in the past 12 months (b).

Step 3: Look at the row headings to identify the background characteristics. In this case, the table presents payment for sexual intercourse and condom use at last paid sexual intercourse by age, marital status, urban-rural residence, province, educational level, and wealth quintile.

Step 4: Look at the first panel. What percentage of men age 15-49 paid for sexual intercourse in the past 12 months? It's 3.6%. Now look at the second panel. How many men are there who paid for sexual intercourse in the past 12 months? It's 286 men or 3.6% of the 8,041 men age 15-49 (with rounding). The second panel is a subset of the first panel. Once these men who paid for sex are further divided into the background characteristic categories, there may be too few cases for the percentages to be reliable.

Table 13.8 Payment for sexual intercourse and condom use at last paid sexual intercourse (1)

Percentage of men age 15-49 who ever paid for sexual intercourse and percentage reporting payment for sexual intercourse in the past 12 months, and among them, the percentage reporting that a condom was used the last time they paid for sexual intercourse, by background characteristics, Zimbabwe 2015

(3) Background characteristic	(2) Among all men: Percentage who ever paid for sexual intercourse	Among all men: Percentage who paid for sexual intercourse in the past 12 months	Among all men: Number of men	Among men who paid for sex in the past 12 months: Percentage reporting condom use at last paid sexual intercourse	Among men who paid for sex in the past 12 months: Number of men
		a			b
Age					
15-24	6.1	2.6	3,456	91.0	90
15-19	1.6	1.0	2,126	*	20
20-24	13.3	5.2	1,330	94.4	69
25-29	22.1	4.7	1,148	95.2	54
30-39	29.2	5.0	2,036	83.9	103
40-49	29.9	2.9	1,400	(94.8)	40
Marital status					
Never married	7.8	3.7	3,624	87.8	134
Married/living together	25.7	2.5	4,010	90.2	102
Divorced/separated/ widowed	40.3	12.2	407	(94.4)	49
Residence					
Urban	22.9	4.1	2,900	90.4	118
Rural	15.8	3.3	5,140	89.4	168
Province					
Manicaland	19.6	4.3	1,072	(94.0)	46
Mashonaland Central	16.2	2.9	806	(93.9)	24
Mashonaland East	17.8	3.1	807	*	25
Mashonaland West	20.0	3.6	1,004	(94.7)	37
Matabeleland North	9.6	2.3	366	*	9
Matabeleland South	15.7	3.4	335	(89.2)	11
Midlands	15.6	3.2	986	(87.7)	32
Masvingo	14.1	3.2	843	*	27
Harare	26.5	4.1	1,412	(100.0)	58
Bulawayo	14.1	4.3	409	(65.8)	18
Education					
No education	(21.5)	(6.5)	38	*	2
Primary	15.7	4.3	1,803	86.0	77
Secondary	19.0	3.6	5,349	91.8	192
More than secondary	20.3	1.7	849	*	14
Wealth quintile					
Lowest	15.7	2.9	1,212	(73.9)	35
Second	16.5	4.5	1,448	87.0	65
Middle	14.9	2.4	1,558	(100.0)	37
Fourth	22.6	3.9	1,852	95.6	73
Highest	20.3	3.9	1,970	89.1	76
Total 15-49	18.4	3.6 (4)	8,041	89.8	286 (4)
50-54	44.1	2.9	355	*	10
Total 15-54	19.5	3.5 (5)	8,396	90.2	296

Notes: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

- What percentage of men age 40-49 who paid for sex in the past 12 months reported using a condom at last paid sexual intercourse? 94.8%. This percentage is in parentheses because there are fewer than 50 men (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.)
- What percentage of men with no education who paid for sex in the past 12 months reported using a condom at last paid sexual intercourse? There is no number in this cell—only an asterisk. This is because fewer than 25 men with no education (unweighted) paid for sex in the past 12 months. Results for this group are not reported. The subgroup is too small, and therefore the data are not reliable.

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.

Step 5: The ZDHS also interviewed men age 15-54. Find the row for men age 50-54 who paid for sex in the past 12 months. It's 2.9%. The final row above the footnotes shows that 3.5% of men age 15-54 paid for sex in the past 12 months. It is important to note that all of the background characteristics in this table are only shown for men age 15-49. For example, 4.3% of men age 15-49 with primary education paid for sex in the past 12 months.

Example 4: Understanding Sampling Weights in ZDHS Tables

A sample is a group of people who have been selected for a survey. In ZDHS surveys, the sample is designed to represent the national population age 15-49. In addition to national data, most countries want to collect and report data on smaller geographical or administrative areas. However, doing so requires a minimum sample size per area (e.g., about 800 women per area). For the 2015 ZDHS, the survey sample is representative at the national and provincial levels and for urban and rural areas.

To generate statistics that are representative of the country as a whole and the 10 provinces, the number of women surveyed in each province should contribute to the size of the total (national) sample in proportion to size of the province. However, if some provinces have small populations, then a sample allocated in proportion to each province's population may not include sufficient women from each province for analysis. To solve this problem, provinces with small populations are oversampled. For example, let's say that you have enough money to interview 9,955 women and want to produce results that are representative of Zimbabwe as a whole and its provinces (as in Table 3.1). However, the total population of Zimbabwe is not evenly distributed among the provinces: some provinces, such as Harare are heavily populated while others, such as Matabeleland South, are not. Thus, Matabeleland South must be oversampled.

Table 3.1 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, Zimbabwe 2015

Background characteristic	Women		
	Weighted percent	Weighted number	Unweighted number
Province			
Manicaland	12.7	1,266	1,019
Mashonaland Central	8.9	882	993
Mashonaland East	9.6	952	910
Mashonaland West	11.7	1,160	1,054
Matabeleland North	4.7	465	849
Matabeleland South	4.2	419	829
Midlands	12.7	1,263	1,062
Masvingo	11.9	1,187	1,046
Harare	17.9	1,783	1,235
Bulawayo	5.8	577	958
Total 15-49	100.0	9,955	9,955

A sampling statistician determines how many women should be interviewed in each province in order to get reliable statistics. The blue column (1) in the table at the right shows the actual number of women interviewed in each province. Within the provinces, the number of women interviewed ranges from 829 in Matabeleland South to 1,235 in Harare. These numbers of interviews are sufficient to get reliable results in each province.

With this distribution of interviews, some provinces are overrepresented and some provinces are underrepresented. For example, the population in Matabeleland South is about 4% of the population in Zimbabwe, while Harare province is about 18% of the population in Zimbabwe. But as the blue column shows, the number of women interviewed in Matabeleland South accounts for about 8% of the total sample of women interviewed (829/9,955) and the number of women interviewed in Harare province accounts for 12% of the total sample of women interviewed (1,235/9,955). This unweighted distribution of Zimbabwean women does not accurately represent the population.

In order to get statistics that are representative of Zimbabwe, the distribution of the women in the sample needs to be weighted (or mathematically adjusted) such that it resembles the true distribution in the country. Women from a less populated province, like Matabeleland South, should only contribute a small amount to the national total. Women from a large province, like Harare, should contribute much more. Therefore, DHS statisticians mathematically calculate a "weight" which is used to adjust the number of women from each province so that each province's contribution to the total is proportional to the actual population of the province. The numbers in the purple column (2) represent the "weighted" values. The weighted values can be smaller or larger than the unweighted values at provincial level. The total national sample size of 9,955 women has not changed after weighting, but the distribution of the women in the provinces has been changed to represent their contribution to the total population size.

How do statisticians weight each category? They take into account the probability that a woman was selected in the sample. If you were to compare the red column (3) to the actual population distribution of Zimbabwe, you would see that women in each province are contributing to the total sample with the same weight that they contribute to the population of Zimbabwe. The weighted number of women in the survey now accurately represents the proportion of women who live in Matabeleland South and the proportion of women who live in Harare province.

With sampling and weighting, it is possible to interview enough women to provide reliable statistics at national and provincial levels. In general, only the weighted numbers are shown in each of the ZDHS tables, so don't be surprised if these numbers seem low: they may actually represent a larger number of women interviewed.