

Reading and Understanding Tables from the 2014 Cambodia Demographic and Health Survey (CDHS)

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

Table 5.4.1 Exposure to mass media: Women

Percentage of women age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Cambodia 2014

Background characteristic	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	11.4	63.6	41.5	7.0	26.3	2,893
20-24	10.2	63.4	35.4	6.2	28.2	3,017
25-29	8.5	61.3	30.5	4.9	30.7	2,836
30-34	7.1	60.4	26.8	4.5	33.3	3,046
35-39	4.7	56.7	25.2	2.8	37.0	1,839
40-44	5.4	57.6	30.3	3.4	34.8	2,030
45-49	4.5	56.5	34.3	2.9	33.2	1,916
Residence						
Urban	21.7	85.5	42.5	13.5	10.7	3,251
Rural	4.7	54.8	30.1	2.8	36.1	14,327
Province						
Banteay Meanchey	4.6	74.9	24.9	3.1	19.8	689
Kampong Cham	3.8	53.2	26.2	2.2	36.8	2,021
Kampong Chhnang	6.9	41.4	34.3	4.5	48.5	662
Kampong Speu	3.6	59.7	34.8	1.9	31.3	1,196
Kampong Thom	5.5	58.4	36.3	3.9	33.2	851
Kandal	5.6	87.1	45.4	4.3	10.3	1,330
Kratie	2.9	18.8	24.8	1.4	64.5	488
Phnom Penh	26.9	89.5	49.1	16.9	6.8	1,994
Prey Veng	3.4	68.3	34.4	2.0	24.8	1,188
Pursat	3.5	43.0	22.5	2.0	49.0	631
Siem Reap	6.8	40.5	29.6	3.9	46.4	1,137
Svay Rieng	3.6	64.2	21.7	2.4	30.7	654
Takeo	5.8	65.4	24.4	4.5	32.3	1,082
Otdar Meanchey	5.7	36.4	18.8	2.1	53.3	294
Battambang/Pailin	11.8	76.2	41.3	6.9	15.3	1,333
Kampot/Kep	4.5	27.4	17.7	0.1	58.8	770
Preah Sihanouk/Koh Kong	6.7	71.7	16.3	2.9	24.4	422
Preah Vihear/Stung Treng	2.1	21.8	22.5	0.6	59.8	462
Mondul Kiri/Ratanak Kiri	10.8	29.4	32.2	8.2	53.5	372
Education						
No education	0.1	33.4	18.2	0.0	58.2	2,250
Primary	3.0	55.9	27.8	1.7	35.2	8,281
Secondary and higher	16.0	74.5	42.2	10.0	18.3	7,047
Wealth quintile						
Lowest	1.3	22.8	19.5	0.5	65.0	3,143
Second	1.8	42.4	25.7	0.8	45.6	3,314
Middle	3.9	62.2	33.1	1.9	28.5	3,381
Fourth	7.8	76.4	36.6	5.0	18.3	3,612
Highest	21.1	88.3	43.0	13.4	8.3	4,128
Total	7.9	60.5	32.3	4.8	31.4	17,578

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 CDHS 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, 7.9% of women age 15-49 read a newspaper at least once a week, 60.5% watch television weekly, and 32.3% listen to the radio weekly.

Step 5: To find out what percentage of women with secondary and higher education access all three media weekly, draw two imaginary lines, as shown on the table. This shows that 10.0% of women age 15-49 with secondary and higher education access all three types of media weekly.

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

- What percentage of women in Cambodia do not access any of the three media at least once a week?
- What age group of women are most likely to listen to the radio weekly?
- Compare women in urban areas to women in rural areas—which group is more likely to watch television weekly?

Example 2: Prevalence of Anemia in Children Comparing and Understanding Patterns

Step 1: Read the title and subtitle. In this case, the table presents anemia among children age 6-59 months.

Step 2: Identify the information presented in the table—highlighted in green in the table to the right. In this table the first column is children with any anemia. The next three columns divide anemia into three levels of severity: mild, moderate, and severe.

Step 3: Look at the row headings to identify the background characteristics. In this table, anemia is presented by age in months, sex, mother's interview status, 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 age 6-59 months with any anemia. This shows that 55.5% of children age 6-59 months in Cambodia with anemia.

Step 5: A closer look at the table shows how anemia varies throughout Cambodia. To gain a better understanding of differences in the prevalence of any anemia, consider the following questions:

- Is anemia more common in urban or rural areas? Anemia is slightly more common in rural areas (57.4%) than in urban areas (43.4%).
- Now, compare anemia among girls and boys. Anemia is slightly higher among boys (56.7%) than among girls (54.2%). However, the difference between these two groups is very small.
- What are the lowest and the highest percentages (range) of anemia by province? Just 39.7% of children age 6-59 months in Banteay Meanchey have anemia, compared to a high of 68.8% in Preah Vihear/Stung Treng.
- Look for patterns: Does anemia vary by background characteristics? For example, is there a clear pattern of anemia by age in months? By mother's education? By wealth quintile?
- Answers: Anemia is highest among children age 9-11 months (82.8%), while anemia is lowest among children age 48-59 months (40.3%). Anemia is slightly higher among children whose mothers have primary education (58.8%) than among children whose mother's have secondary and education (52.4%). However, the difference between these two groups is very small, there is almost no difference in anemia by mother's level of education. Finally, there is a clear pattern in anemia by household wealth quintile. Anemia decreases as household wealth increases; 64.1% of children living in households in the lowest wealth quintile have anemia, compared to 43.2% of children living in households in the highest wealth quintile.
- You can also look for patterns by anemia category. The patterns seen in any anemia can be different than the patterns in different levels of severity of anemia. For example, severe anemia is highest among children age 12-17 months (1.5%).
- By looking at patterns by background characteristics, we can see which groups are more in need of interventions to address anemia. Resources are often limited; looking for patterns can help program planners and policymakers determine how to most effectively use resources.

Background characteristic	Anemia status by hemoglobin level				Number of children
	Any anemia (<11.0 g/dl)	Mild anemia (10.0-10.9 g/dl)	Moderate anemia (7.0-9.9 g/dl)	Severe anemia (<7.0 g/dl)	
Age in months					
6-8	77.2	30.3	46.3	0.6	244
9-11	82.8	31.4	50.7	0.7	230
12-17	76.4	29.1	45.8	1.5	515
18-23	68.5	30.2	37.7	0.5	542
24-35	50.5	28.2	21.9	0.4	1,013
36-47	45.3	31.0	14.0	0.3	976
48-59	40.3	29.9	10.3	0.1	936
Sex					
Male	56.7	28.8	27.4	0.5	2,280
Female	54.2	30.8	23.0	0.5	2,176
Mother's interview status					
Interviewed	56.6	29.7	26.4	0.5	3,836
Not interviewed but in household	54.8	30.6	24.1	0.0	103
Not interviewed and not in the household ⁵	47.7	30.4	16.7	0.6	516
Residence					
Urban	43.4	25.7	17.5	0.2	591
Rural	57.4	30.4	26.4	0.5	3,864
Province					
Banteay Meanchey	39.7	21.1	17.2	1.4	222
Kampong Cham	62.7	40.3	22.4	0.0	625
Kampong Chhnang	59.2	27.9	31.2	0.0	161
Kampong Speu	63.9	35.2	27.8	0.9	301
Kampong Thom	66.0	36.2	29.3	0.4	197
Kandal	58.6	24.9	33.7	0.0	267
Kratie	50.2	28.5	21.7	0.0	157
Phnom Penh	41.0	24.5	16.5	0.0	335
Prey Veng	51.3	26.5	24.2	0.5	345
Pursat	64.8	25.7	36.8	2.3	192
Siem Reap	52.3	29.1	22.8	0.4	306
Svay Rieng	49.8	22.9	26.3	0.6	168
Takeo	53.1	29.0	23.5	0.6	245
Otdar Meanchey	64.3	37.1	27.3	0.0	77
Battambang/Pailin	49.0	26.8	22.2	0.0	344
Kampot/Kep	57.3	31.8	25.0	0.5	177
Preah Sihanouk/ Koh Kong	58.1	29.4	27.5	1.2	92
Preah Vihear/ Stung Treng	68.8	27.1	41.0	0.7	128
Mondul Kiri/ Ratanak Kiri	57.7	30.3	25.8	1.6	117
Mother's education					
No education	56.6	28.1	27.4	1.2	537
Primary	58.8	30.5	28.0	0.4	2,192
Secondary and higher	52.4	28.6	23.5	0.3	1,116
Wealth quintile					
Lowest	64.1	31.0	32.4	0.6	1,104
Second	60.6	32.9	26.9	0.8	929
Middle	53.5	27.3	25.8	0.3	890
Fourth	51.9	29.9	21.5	0.5	756
Highest	43.2	27.0	16.1	0.1	777
Total	55.5	29.8	25.2	0.5	4,456

Example 3: Payment for Sexual Intercourse and Condom Use at Last Sexual Intercourse

A Question Asked of a Subgroup of Survey Respondents

Table 18.8 Payment for sexual intercourse and condom use at last paid sexual intercourse

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, Cambodia 2014

Background characteristic	Among all men:			Among men who paid for sex in the past 12 months:	
	Percentage who ever paid for sexual intercourse	Percentage who paid for sexual intercourse in the past 12 months	Number of men	Percentage reporting condom use at last paid sexual intercourse	Number of men
Age					
15-24	4.3	2.0	1,760	91.1	36
15-19	1.7	1.0	926	*	9
20-24	7.1	3.2	835	(93.6)	27
25-29	14.9	3.4	815	(67.8)	28
30-39	11.8	3.2	1,463	90.1	46
40-49	12.9	4.3	1,152	75.2	50
Marital status					
Never married	6.4	2.9	1,663	93.4	49
Married/living together	11.4	2.8	3,405	75.5	94
Divorced/separated/widowed	18.1	12.9	122	(83.4)	16
Residence					
Urban	14.3	6.6	869	84.5	57
Rural	9.1	2.4	4,321	80.3	102
Province					
Banteay Meanchey	18.6	2.1	192	*	4
Kampong Cham	19.8	2.5	663	*	16
Kampong Chhnang	4.3	4.2	182	*	8
Kampong Speu	1.5	1.2	323	*	4
Kampong Thom	0.6	0.0	232	*	0
Kandal	1.8	1.3	413	*	5
Kratie	15.4	15.3	143	84.6	22
Phnom Penh	9.7	7.6	550	(88.2)	42
Prey Veng	10.3	3.6	342	*	12
Pursat	17.5	2.2	184	*	4
Siem Reap	4.5	3.8	337	*	13
Svay Rieng	21.6	1.8	183	*	3
Takeo	17.2	2.9	334	*	10
Otdar Meanchey	2.4	0.0	99	*	0
Battambang/Pailin	2.3	0.4	405	*	2
Kampot/Kep	2.4	2.4	241	*	6
Preah Sihanouk/Koh Kong	35.7	4.3	120	*	5
Preah Vihear/Stung Treng	1.8	1.8	112	*	2
Mondul Kiri/Ratanak Kiri	9.2	0.7	134	*	1
Education					
No education	4.4	1.9	324	*	6
Primary	8.8	2.6	2,167	76.6	57
Secondary and higher	11.6	3.6	2,699	83.8	96
Wealth quintile					
Lowest	4.3	2.1	901	*	19
Second	7.2	1.8	954	*	17
Middle	9.9	2.6	1,040	*	27
Fourth	12.7	3.0	1,124	(93.4)	34
Highest	14.1	5.3	1,171	79.0	62
Total 15-54	10.0	3.1	5,190	81.8	159

Note: 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.

Step 1: Read the title and subtitle. In this case, the table is about two separate groups of men: all men age 15-49 (a) and men age 15-49 who paid for sexual intercourse in the past 12 months (b).

Step 2: Identify the two panels. First identify the columns that refer to all men age 15-49 (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 first panel. What percentage of men age 15-49 paid for sexual intercourse in the past 12 months? It's 3.1%. Now look at the second panel. How many men are there who paid for sexual intercourse in the past 12 months? It's 159 men or 3.1% of the 5,190 men age 15-49 (with rounding). The second panel is a subset of the first panel.

Step 4: Only 3.1% of men in the survey paid for sexual intercourse in the past 12 months. Once these men are further divided into the background characteristic categories, there may be too few cases for the percentages to be reliable.

- What percentage of men age 25-29 who paid for sex in the past 12 months reported using a condom at last paid sexual intercourse? 67.8%. 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 age 15-19 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 age 15-19 (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.

Example 4: Understanding Sampling Weights in CDHS Tables

A sample is a group of people who have been selected for a survey. In CDHS 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 2014 CDHS, the survey sample is representative of the country as a whole, for urban and rural areas, and for the 19 sampling domains (provinces or groups of provinces).

To generate statistics that are representative of the country as a whole and the 19 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 17,578 women and want to produce results that are representative of Cambodia as a whole and its provinces (as in Table 5.1). However, the total population of Cambodia is not evenly distributed among the provinces: some provinces, such as Phnom Penh are heavily populated while others, such as Mondul Kiri/Ratanak Kiri are not. Thus, Mondul Kiri/Ratanak Kiri must be oversampled.

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 810 in Banteay Meanchey to 1,400 in Phnom Penh province. The number of interviews is 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 the Mondul Kiri/Ratanak Kiri province is about 2% of the population in Cambodia, while Phnom Penh is about 11% of the population in Cambodia. But as the blue column shows, the number of women interviewed in Mondul Kiri/Ratanak Kiri province accounts for about 5% of the total sample of women interviewed (964/17,578) and the number of women interviewed in Phnom Penh accounts for 8% of the total sample of women interviewed (1,400/17,578). This unweighted distribution of Cambodian women does not accurately represent the population.

Table 5.1 Background characteristics of respondents
Percent distribution of women age 15-49 by selected background characteristics, Cambodia 2014

Background characteristic	Women		
	Weighted percent	Weighted number	Unweighted number
Province			
Banteay Meanchey	3 3.9	2 689	1 810
Kampong Cham	11.5	2,021	853
Kampong Chhnang	3.8	662	899
Kampong Speu	6.8	1,196	1,022
Kampong Thom	4.8	851	905
Kandal	7.6	1,330	875
Kratie	2.8	488	874
Phnom Penh	11.3	1,994	1,400
Prey Veng	6.8	1,188	819
Pursat	3.6	631	859
Siem Reap	6.5	1,137	943
Svay Rieng	3.7	654	822
Takeo	6.2	1,082	868
Otdar Meanchey	1.7	294	823
Battambang/Pailin	7.6	1,333	867
Kampot/Kep	4.4	770	880
Preah Sihanouk/Koh Kong	2.4	422	1,010
Preah Vihear/Stung Treng	2.6	462	1,085
Mondul Kiri/Ratanak Kiri	2.1	372	964
Total	100.0	17,578	17,578

In order to get statistics that are representative of Cambodia, 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 small province, like Mondul Kiri/Ratanak Kiri, should only contribute a small amount to the national total. Women from a large province, like Phnom Penh 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 17,578 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 Cambodia, 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 Cambodia. The weighted number of women in the survey now accurately represents the proportion of women who live in Mondul Kiri/Ratanak Kiri and the proportion of women who live in Phnom Penh.

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 CDHS tables, so don't be surprised if these numbers seem low: they may actually represent a larger number of women interviewed. Also, when parentheses or asterisks are used in a CDHS 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.