

APPENDIX C: MATERIALS FOR STEP 5 DATA ANALYSIS EXERCISES

APPENDIX C: MATERIALS FOR STEP 5 DATA ANALYSIS EXERCISES

**Quantitative Survey Example for Exercise 5.4:
Survey of Community Parents About Child Asthma**

This is an example of a survey that is administered to parents who have a child between the ages of one and 18 years. The responses to these questions have been entered into the spreadsheet accompanying this survey, using the number codes next to each response.

1. How old is your child? _____

2. Is your child male or female?
 - 1 Male
 - 2 Female

3. What race/ ethnicity is your child?
 - 1 Latino
 - 2 Pacific Islander
 - 3 American Indian/ Alaska Native
 - 4 Asian
 - 5 African American
 - 6 White
 - 7 Other single or multiple race

4. Has a doctor ever told your child that he or she has asthma?
 - 1 Yes
 - 0 No – finish with survey here if they answer no
 - 9 Don't know

5. How often does your child's asthma limit his or her physical activity – would you say always, most of the time, sometimes, rarely, or never?
- 1 Always
 - 2 Most of the time
 - 3 Sometimes
 - 4 Rarely
 - 5 Never
6. Does your child currently take prescription medicine to control asthma, including an inhaler?
- 1 Yes
 - 0 No
 - 9 Don't know
7. During the past 12 months, how often has your child had asthma symptoms, such as coughing, wheezing, shortness of breath, chest tightness, and phlegm production?
- 1 My child has not had any of these asthma symptoms in the last six months
 - 2 Less than once a month
 - 3 Once or twice a month
 - 4 More than twice a month, but not weekly
 - 5 Every week but not daily
 - 6 Every day or almost every day
8. Did your child's doctor ever explain to you how to recognize early signs of an asthma attack and tell you what you should do?
- 1 Yes
 - 0 No
 - 9 Don't know

**Quantitative Survey Example for Exercise 5.4:
Data from Asthma Survey**

		Survey Question Responses:							
		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Respondents:									
001		13	2	1	1	2	1	3	1
002		5	2	4	1	3	1	3	0
003		7	1	5	1	1	1	6	1
004		14	2	6	1	4	9	1	0
005		6	1	6	1	5	0	1	0
006		2	1	5	1	1	1	6	1
007		10	2	4	1	4	0	2	9
008		9	2	3	1	3	1	2	0
009		8	2	2	1	1	1	6	1
010		8	2	1	1	2	1	1	9
011		7	1	1	1	2	1	3	9
012		3	1	5	1	1	1	5	0
013		4	1	5	1	3	1	3	0
014		16	1	6	1	1	1	5	1
015		18	2	7	1	4	0	1	1
016		12	1	2	1	5	0	2	0
017		2	2	3	1	3	1	4	9
018		15	1	4	1	1	1	5	0
019		11	2	5	1	3	0	4	0
020		12	1	6	1	1	1	4	1

Exercise 5.4B: Sample Focus Group Discussion

This focus group was conducted among women who are participants in the Women, Infants, and Children (WIC) program. They were recruited to participate in this discussion about feeding their children healthy foods. Each of these women have at least one child under the age of five. This focus group was recorded, and this is the transcription of the discussion that occurred. To protect the participants' confidentiality, all names have been changed.

FACILITATOR: So, Carol, what do you do to feed your child healthy foods?

CAROL: I try to do fruits, but it seems that the only fruits are when we go to my sister's house. I buy the fruits and they end up spoiling. I don't let them drink soda because of the sugar in it. Or sweets. I really don't care for sweets cause of the fat in them.

MARIA: Mine she eats broccoli, she loves a lot of food in the morning and she loves to have bananas in her cereal, or strawberries or peaches. She loves yogurt. I mean, I've taught her how to eat totally different from my first two. My first two ate junk like their mother. But this one is overweight, so I thought I'd change with her. But she is very active.

JANET: I can't get my youngest to eat anything healthy. He will sit for hours with a plate of vegetables in front of him and never eat it. I get scared and have to bargain with him... put some cheese on it, or take him to McDonalds if he eats some broccoli. I just don't know what to do. My other kid is not like this.

FACILITATOR: So what other things do you think makes it hard for parents to feed their children healthy foods?

RHONDA: What they see on TV - McDonalds, Burger King - the little toy offers. Just enough with the little toy offers that McDonalds has. The kids have to collect them, so where are the parents at? Taking the kids to McDonalds to get that little toy.

MARIA: What they serve at school is horrible. My kids eat these spicy Cheetos, and cheese burgers and all this stuff I never let them have at home. Only fruit, vegetables and beans and rice, tortillas. They are allowed to have candy at home, but they know they will eat only two candies, and it depends on what kind of candy. And that will be after their meal. Not before, nothing. That's all I can do!

CAROL: Let me tell you something. I used to never be able to get my kids to stop drinking soda because I always drank it and had it around the house. Now I don't drink it myself because of the calories in it. Since I stopped buying it, nobody drinks it.

2001 California Health Interview Survey

<http://www.chis.ucla.edu>

Race - UCLA Center for Health Policy Research by *Ever Diagnosed with Asthma*

Subset(s): Age in years: 1 - 18

Geographic Selection: County or county group: Los Angeles

	Race - UCLA CHPR													
	Latino		American Indian/ Alaska Native		Asian		African American		White		Other single/ two or more races		All	
Ever diagnosed with asthma	Est. N	%	Est. N	%	Est. N	%	Est. N	%	Est. N	%	Est. N	%	Est. N	%
Has asthma	117,000	8.6	1,000	26.1	31,000	12.4	52,000	20.8	111,000	14.9	12,000	19	325,000	12.1
Does not have asthma	1,251,000	91.4	4,000	73.9	217,000	87.6	197,000	79.2	635,000	85.1	53,000	81	2,357,000	87.9
Total	1,368,000	100	5,000	100	248,000	100	249,000	100	747,000	100	65,000	100	2,682,000	100

Source: 2001 California Health Interview Survey

Note: This table has been modified slightly from the original output obtained on AskCHIS <http://www.chis.ucla.edu/main/default.asp>

That original output showed that the number and percentage of American Indian/ Alaskan Natives diagnosed with asthma is statistically unstable.

2001 California Health Interview Survey

<http://www.chis.ucla.edu>

Race - UCLA Center for Health Policy Research by *Ever Diagnosed With Asthma*

Subset(s): Age in years: 1 - 18

Geographic Selection: Entire State of California

	Race - UCLA CHPR													
	Latino		American Indian/ Alaska Native		Asian		African American		White		Other single/ two or more races		All	
Ever diagnosed with asthma	Est. N	%	Est. N	%	Est. N	%	Est. N	%	Est. N	%	Est. N	%	Est. N	%
Has asthma	347,000	10.1	11,000	25.8	111,000	12.7	136,000	22	611,000	15.2	49,000	17.7	1,266,000	13.7
Does not have asthma	3,081,000	89.9	32,000	74.2	763,000	87.3	482,000	78	3,399,000	84.8	230,000	82.3	7,988,000	86.3
Total	3,428,000	100	43,000	100	875,000	100	618,000	100	4,010,000	100	280,000	100	9,254,000	100

Source: 2001 California Health Interview Survey

Note: This table has been modified slightly from the original output obtained on AskCHIS <http://www.chis.ucla.edu/main/default.asp>

**STEP 5 DATA ANALYSIS EXERCISES:
Answer Key**

EXERCISE 5.4A

- 1) What is the average age of the survey participants' children?
Summary of age responses/ # respondents = $182/20 = 9.1$ years
- 2) How many children are male? How many are female? What proportion of the children are male and female?
Male = 10; Proportion = #male/total respondents = $(10/20) \times 100 = 50\%$
Female = 10; Proportion = #female/total respondents = $(10/20) \times 100 = 50\%$
- 3) How many children are Latino? 3
How many children are Pacific Islander? 2
How many children are American Indian/ Alaskan Native? 2
How many children are Asian? 3
How many children are African American? 5
How many children are White? 4
How many children are Other? 1

What proportion of the children are Latino? $(3/20) \times 100 = 15\%$

What proportion are Pacific Islander? $(2/20) \times 100 = 10\%$

What proportion are American Indian/Alaskan Native? $(2/20) \times 100 = 10\%$

What proportion are Asian? $(3/20) \times 100 = 15\%$

What proportion are African American? $(5/20) \times 100 = 25\%$

What proportion are White? $(4/20) \times 100 = 20\%$

What proportion are Other? $(1/20) \times 100 = 5\%$

Create a table that allows you to compare the frequencies and percentages of race and ethnicity data. Put #s and %s in the columns, and the different categories of race and ethnicity in the rows. Here is an example of what a table might look like:

Race/Ethnicity	Frequency	Proportion
Latino	3	15%
Pacific Islander	2	10%
American Indian/Alaskan Native	2	10%
Asian	3	15%
African American	5	25%
White	4	20%
Other	1	5%

- 4) If the total population of this community is 54,786, and there were a total of 600 diagnosed cases of childhood asthma, calculate the rate of childhood asthma per 1,000 people.

Asthma rate = $(600 \text{ cases}/54,786 \text{ total pop}) \times 1,000 = 10.95$ cases per 1,000 persons. Or, you can round up to 11 cases per 1,000 persons

- 5) If the state rate of childhood asthma is 65 cases per 1,000 people, then how does this community compare?

This community fares better – it has less cases per 1,000 people than the state of California.

- 6) Calculate the frequency of each of the responses to question #5 among African Americans.

If we look on the survey, we see that survey question #5 asks “How often does your child’s asthma limit his or her physical activity – would you say always, most of the time, sometimes, rarely, or never?”

- If we look in the spreadsheet, we see that of the 5 African American respondents, 3 answered “always”, which means 60% of the African American respondents gave this answer... $(3/5) \times 100 = 60\%$
- 2 answered “sometimes”, which is equal to 40%... $(2/5) \times 100 = 40\%$
- However, the small numbers we are working with in these calculations fail to provide us with the confidence that these results are true for a larger population of African American children with asthma.

- 7) Calculate the frequency of the responses to question #5 among whites.

- Of the 4 white respondents, 2 answered “always”, which is equal to 50%
- 1 answered “rarely” = 25%
- 1 answered “never” = 25%
- Again, the small numbers we are working with in these calculations fail to provide us with the confidence that these results are true for a larger population of white children with asthma.

- 8) How do these frequencies compare?

- It is difficult to compare the responses to question #5 among whites and African Americans with any confidence, because of the small numbers that occur when we break the sample down into these small comparison groups. We might say that asthma symptoms are worse in African American respondents than whites, because they report either always or sometimes experiencing limitations to their physical activity, whereas 50% of whites experience these limitations rarely or never. However, we cannot be sure that these generalizations would hold up if we were comparing larger numbers of African Americans and whites. Therefore, we would report that the sample size was too small to compare the effect of asthma symptoms on physical activity in white and African American children with asthma.

EXERCISE 5.4B

- 1) What are the most common underlying themes that are being discussed in this focus group? Discuss these within your group until you agree on the same set of themes. These themes could take many forms. Here are some examples of some major themes:
 - Difficulty buying and eating fruits before spoiling
 - Parenting difficulties getting kids to eat healthy
 - Differences between different children's eating habits
 - Competition between junk food/fast food and healthy food
 - Competition with images on the media
 - Competition with food offered at school
 - Parent as a role model around eating behaviors

- 2) What main findings you can draw from this brief discussion?
 - It is hard to draw any concrete findings from this discussion, without reading the rest of the discussion to get some context and additional information. However, in order to summarize this one page of discussion, I might say that the mothers in this focus group:
 - Seem to understand what are healthy food choices and what are not healthy food choices for their children.
 - Identify challenges they face in providing healthy choices for their children, including: "negotiating" with their children to eat healthy food, buying fruits and serving them before they spoil, and overcoming the competition from sweets, soda, fast food, junk food, and food offered in school.
 - One mother was able to overcome these obstacles by not buying or drinking the soda herself.

- 3) Are there surprising findings? Why are they surprising?

This is a matter of personal opinion and experience.

- 4) What conclusions can you draw?
 - There are many different conclusions that may be drawn, which would depend on your purpose with this focus group and the discussion your group has around these focus group findings. I might conclude that these mothers can identify healthy eating choices and unhealthy messages for their children, and that these mothers would benefit from some hands-on strategies for overcoming barriers to providing health diets for their children.

- 5) Did your group disagree? Why? How can this help to draw your conclusions?

This type of discussion is very important for verifying your findings and strengthening your conclusions.

EXERCISE 5.6

- 1) What is the rate of asthma among African American children in Los Angeles?
(52,000 cases/249,000 total pop) $\times 1,000 = 208$ asthma cases per 1,000 persons
- 2) What is the rate of asthma among white children in Los Angeles?
(111,000 cases/747,000 total pop) $\times 1,000 = 149$ asthma cases per 1,000 persons
- 3) What is the rate of asthma among Latino children in Los Angeles?
(117,000 cases/1,368,000 total pop) $\times 1,000 = 86$ asthma cases per 1,000 persons
- 4) What is the rate of asthma among American Indian/ Alaskan Native children in Los Angeles?
(1,000 cases/5,000 total pop) $\times 1,000 = 200$ asthma cases per 1,000 persons
- 5) What is the rate of asthma among African American children in California?
African American: (136,000 cases/618,000 total pop) $\times 1,000 = 220$ asthma cases per 1,000 persons
- 6) What is the rate of asthma among white children in California?
White: (611,000 cases/4,010,000 total pop) $\times 1,000 = 152$ asthma cases per 1,000 persons
- 7) What is the rate of asthma among Latino children in California?
Latino: (347,000 cases/3,081,000 total pop) $\times 1,000 = 101$ asthma cases per 1,000 persons
- 8) What is the rate of asthma among American Indian/ Alaskan Native children in California?
American Indian/Alaskan Native: (11,000 cases/43,000 total pop) $\times 1,000 = 256$ asthma cases per 1,000 persons
- 9) Do these California rates differ from the rates in Los Angeles County?
 - The asthma rate is lower among African Americans in Los Angeles County than it is among African Americans in California.
 - The asthma rate is higher among whites in Los Angeles County than it is among whites in California.
 - The asthma rate is lower among Latinos in Los Angeles County than it is among Latinos in California.
 - The asthma rate is lower among American Indians/Alaskan Natives in Los Angeles County than it is among American Indians/Alaskan Natives in California.
- 10) How would you interpret these findings?

The interpretation of these County/State asthma comparisons are fairly straight forward. However, you will want to discuss within your group what, if anything, you think these differences might mean.

11) What conclusions can you draw?

Your answers to number 6 would be an adequate conclusion. However, if your group discusses any interesting interpretations in question 7, you may want to include these in your final conclusions.