

# 2015 Sioux Empire Community Health Needs Assessment of Residents

**May 2015**

Results from a March 2015 generalizable survey of community residents in the Sioux Falls Metropolitan Area including Minnehaha, Lincoln, Turner, and McCook counties in South Dakota

Conducted through a partnership between the Sioux Falls Health Department, Avera McKennan Hospital and University Health Center (which includes the Avera Heart Hospital and Sanford USD Medical Center) and the Center for Social Research at North Dakota State University

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# TABLE OF CONTENTS

<b>Study Design and Methodology</b> .....	4
<b>Limitations of the Study</b> .....	4
<b>General Health and Wellness Concerns about their Community</b>	
Figure 1. Level of concern with statements about the community regarding ECONOMICS .....	5
Figure 2. Level of concern with statements about the community regarding TRANSPORTATION .....	5
Figure 3. Level of concern with statements about the community regarding the ENVIRONMENT .....	6
Figure 4. Level of concern with statements about the community regarding CHILDREN AND YOUTH .....	6
Figure 5. Level of concern with statements about the community regarding THE AGING POPULATION .....	7
Figure 6. Level of concern with statements about the community regarding SAFETY.....	7
Figure 7. Level of concern with statements about community regarding HEALTH CARE.....	8
Figure 8. Level of concern with statements about community regarding PHYSICAL AND MENTAL HEALTH .....	9
Figure 9. Level of concern with statements about community regarding SUBSTANCE USE AND ABUSE.....	9
<b>General Health</b>	
Figure 10. Respondents’ rating of health in general .....	10
Figure 11. Respondents’ weight status based on the Body Mass Index (BMI) scale .....	10
Figure 12. Number of servings of vegetables, fruit, and fruit juice that respondents had yesterday .....	11
Figure 13. Number of days in an average week respondents engage in MODERATE and VIGOROUS activity.....	11
<b>Mental Health</b>	
Figure 14. Percentage of respondents who have been told by a doctor or health professional that they have a mental health issue by type of mental health issue .....	12
Figure 15. Number of days in the last month where respondents’ mental health was not good .....	12
Figure 16. How often, over the past two weeks, respondents have been bothered by mental health issues .....	13
<b>Tobacco Use</b>	
Figure 17. Whether respondents have smoked at least 100 cigarettes in their entire life .....	13
Figure 18. How often respondents currently smoke cigarettes and use chewing tobacco or snuff...	14
Figure 19. Location respondents would first go if they wanted help to quit using tobacco.....	14
<b>Alcohol Use and Prescription Drug/Non-prescription Drug Abuse</b>	
Figure 20. Number of days during the past 30 days that respondents had at least one drink of any alcoholic beverage.....	15
Figure 21. During the past 30 days on days that respondents drank, average number of drinks per day that respondents consumed .....	15

Figure 22. Number of times during the past 30 days that respondents consumed at least 4 or 5 alcoholic drinks on the same occasion .....	16
Figure 23. Whether respondents have ever had a problem with alcohol use or prescription or non-prescription drug abuse.....	16
Figure 24. Of respondents who had ever had a problem with alcohol use or prescription or non-prescription drug abuse, whether respondents got the help they needed .....	17
Figure 25. Whether alcohol use or prescription or non-prescription drug abuse has had harmful effects on respondents or a family member over the past two years.....	17

## Preventive Health

Table 1. Whether or not respondents have had preventive screenings in the past year by type of screening.....	18
Table 2. Of respondents who have not had preventive screenings in the past year, reasons why they have not by type of screening .....	18
Figure 26. Whether respondents have any of the following chronic diseases .....	19
Figure 27. Length of time since respondents last visited a doctor or health care provider for a routine physical exam and length of time since respondents last visited a dentist or dental clinic for any reason .....	20
Figure 28. Where respondents get most of their health information .....	20
Figure 29. Best way for respondents to access technology for health information .....	21

## Demographic Information

Figure 30. Age of respondents .....	21
Figure 31. Highest level of education of respondents.....	22
Figure 32. Gender of respondents.....	22
Figure 33. Race/ethnicity of respondents .....	23
Figure 34. Annual household income of respondents .....	23
Figure 35. Employment status of respondents .....	24
Figure 36. Length of time respondents have lived in their community .....	24
Figure 37. Whether respondents own or rent their homes.....	25
Figure 38. Whether respondents have health insurance (private, public, or governmental) or oral health or dental care coverage.....	25
Figure 39. Whether respondents have one person who they think of as their personal doctor or health care provider .....	26
Figure 40. Facilities that respondents go to most often when sick and take their children when they are sick.....	26
Figure 41. Number of children younger than 18 and number of adults age 65 or older living in respondents' household.....	27
Figure 42. Of parents, whether all children in home are current on their immunizations and all children age 6 months or older get a flu shot or flu mist each year .....	27
Table 3. Zip codes of respondents .....	28

## Study Design and Methodology

A generalizable survey was conducted of residents in the Sioux Empire, which includes Minnehaha, Lincoln, Turner, and McCook counties in South Dakota. The survey instrument was developed in partnership with members of the Community Health Needs Collaborative and the Center for Social Research (CSR) at North Dakota State University (NDSU).

Members of the Sioux Empire consortium designed the cover letter. Elements of informed consent were included in the letter ensuring that the NDSU Institutional Review Board requirements were met and the protection of human subjects maintained.

The survey was designed as a scannable 8-page mail survey containing 54 questions. The questions focused on general community concerns, community health and wellness concerns, personal health, preventive health, and demographic characteristics.

The sample was a stratified random sample, drawn through a qualified vendor, to ensure that appropriate proportions from each of the four counties were included. A total of 1,500 records including names, addresses, and a few demographic indicators were drawn.

Residents listed in the sample were first mailed an introductory postcard briefly explaining the project and notifying them that a survey packet would be arriving in their mail. Survey packets, which contained the survey and a return envelope, were mailed three days after the introductory postcards; 2 percent of the packets were returned as undeliverable. A reminder postcard, containing a link to the online survey, was mailed to non-responders approximately 10 days after the initial survey was mailed. A total of 370 surveys were returned for scanning and an additional three surveys were completed online for a total of 373. It was apparent that elderly and male respondents were overrepresented in the scanned results. Therefore, post-stratification weights were applied to ensure proper representation of the population with respect to age and gender. Respondents who did not enter a gender and age response were eliminated from the analyses. A total of 354 surveys were analyzed providing a generalizable sample with a confidence level of 95 percent and an error rate of plus or minus 5.2 percentage points.

## Limitations of the Study

When comparing demographic characteristics of the sample with the current population estimates from the U.S. Census Bureau<sup>1</sup>, it was apparent the sample was skewed toward elderly residents. Communication devices (i.e., cell phones vs. land line telephones) are becoming increasingly problematic when trying to reach younger populations. Literature reviews indicate that there are nonresponse and coverage issues among younger respondents<sup>2</sup>. In particular, response rates to health care and community health needs assessment surveys<sup>3</sup> have often been found to be higher for older respondents, especially for mail surveys. Moreover, 3,000 records were suppressed from the overall population before the sample was drawn. This was done in order to avoid duplication of residents from a community engagement survey that was conducted in the same area just prior to this study.

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<sup>1</sup> U.S. Census Bureau, Population Division, Annual Estimates of the Resident Population by Sex, Race, and Hispanic Origin for the United States, States, and Counties: April 1, 2010 to July 1, 2013. Released June 2014. Available from <http://www.census.gov/popest/>.

<sup>2</sup> Michael J. Stern, Ipek Bilgen, and Don Al Dillman. Field Methods 2014, Vol. 26(3) 284-301. The State of Survey Methodology: Challenges, Dilemmas, and New Frontiers in the Era of the Tailored Design.

<sup>3</sup> See for example: <http://www.mathematica-mpr.com/~media/publications/PDFs/internetmailsurvey.pdf>;  
<http://www.allied-services.org/wp-content/uploads/2013/06/CHNA-lackawanna-2013.pdf>;  
<http://www.hcno.org/pdf/counties/Cuyahoga%20County%20Health%20Assessment%20FINAL.pdf>

# SURVEY RESULTS

## General Health and Wellness Concerns about their Community

Respondents were asked to rate their level of concern with various statements regarding ECONOMICS, TRANSPORTATION, the ENVIRONMENT, CHILDREN AND YOUTH, THE AGING POPULATION, SAFETY, HEALTH CARE, PHYSICAL AND MENTAL HEALTH, and SUBSTANCE USE AND ABUSE in their community. The level of concern was measured using a 1 to 5 scale, with 1 being “not at all” and 5 being “a great deal” of concern.

Figure 1. Level of concern with statements about the community regarding ECONOMICS

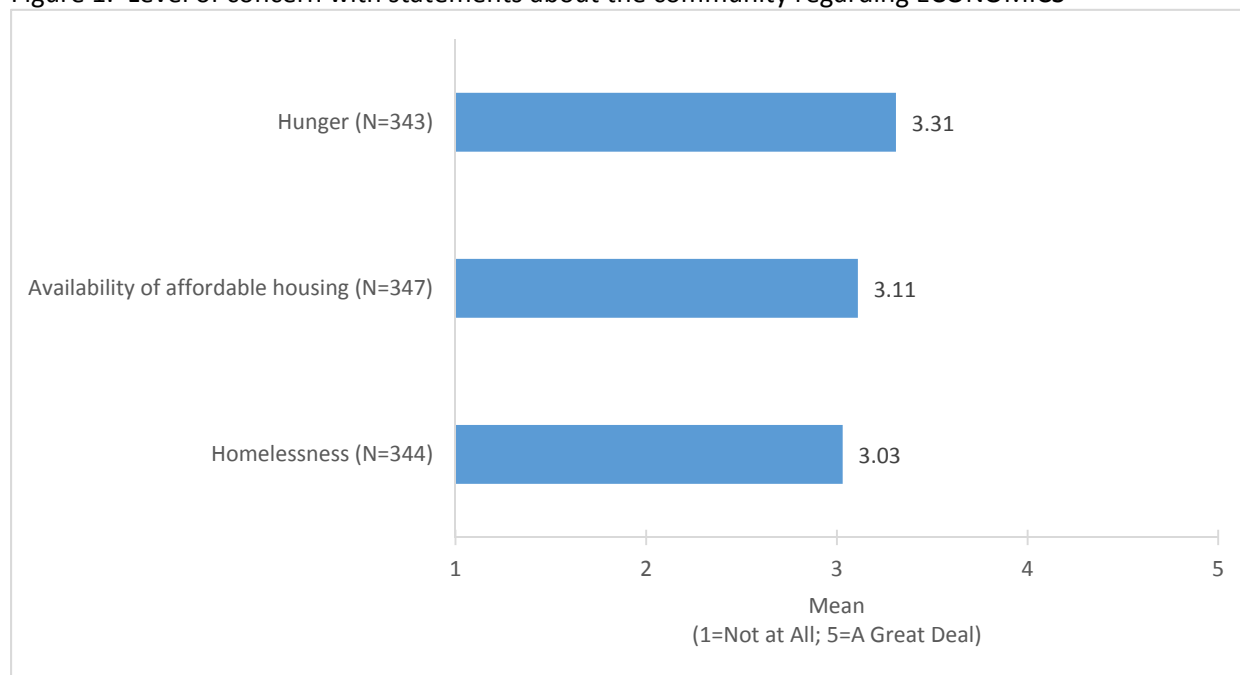


Figure 2. Level of concern with statements about the community regarding TRANSPORTATION

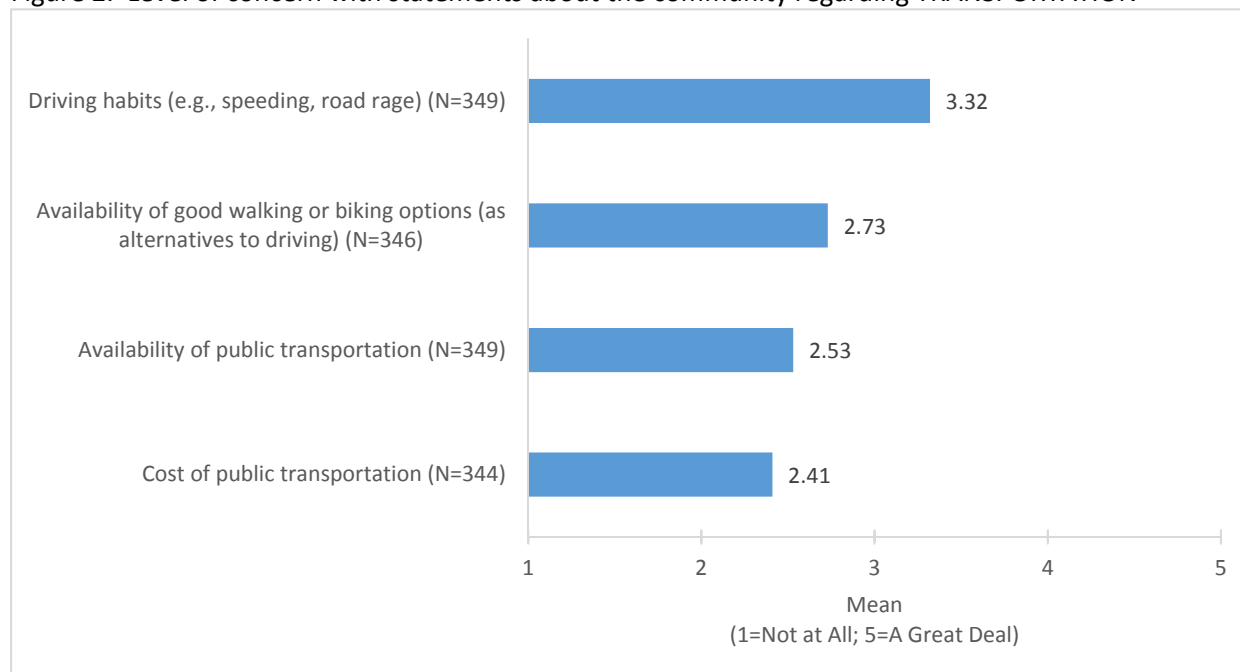


Figure 3. Level of concern with statements about the community regarding the ENVIRONMENT

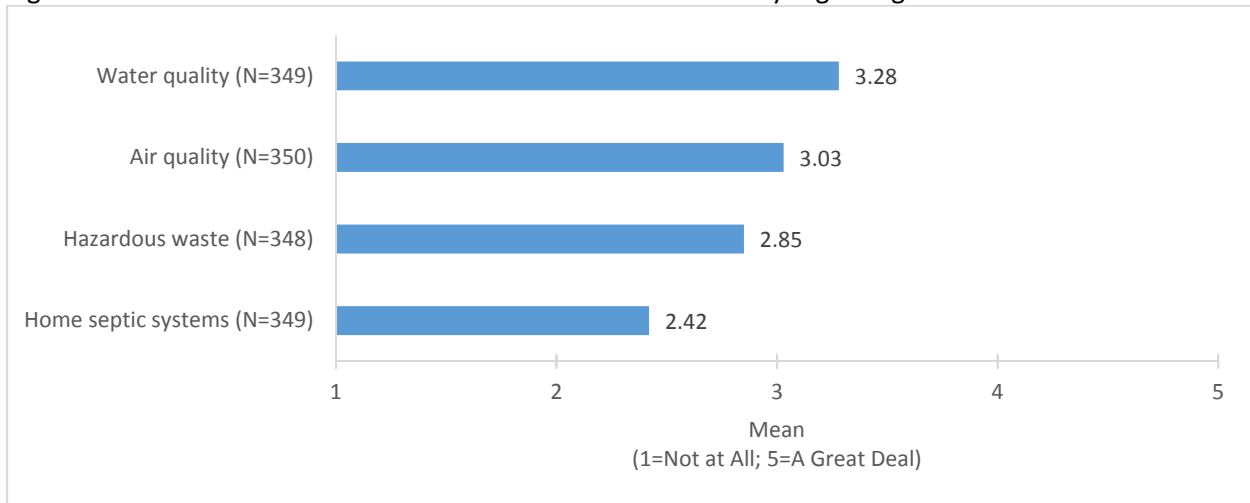


Figure 4. Level of concern with statements about the community regarding CHILDREN AND YOUTH

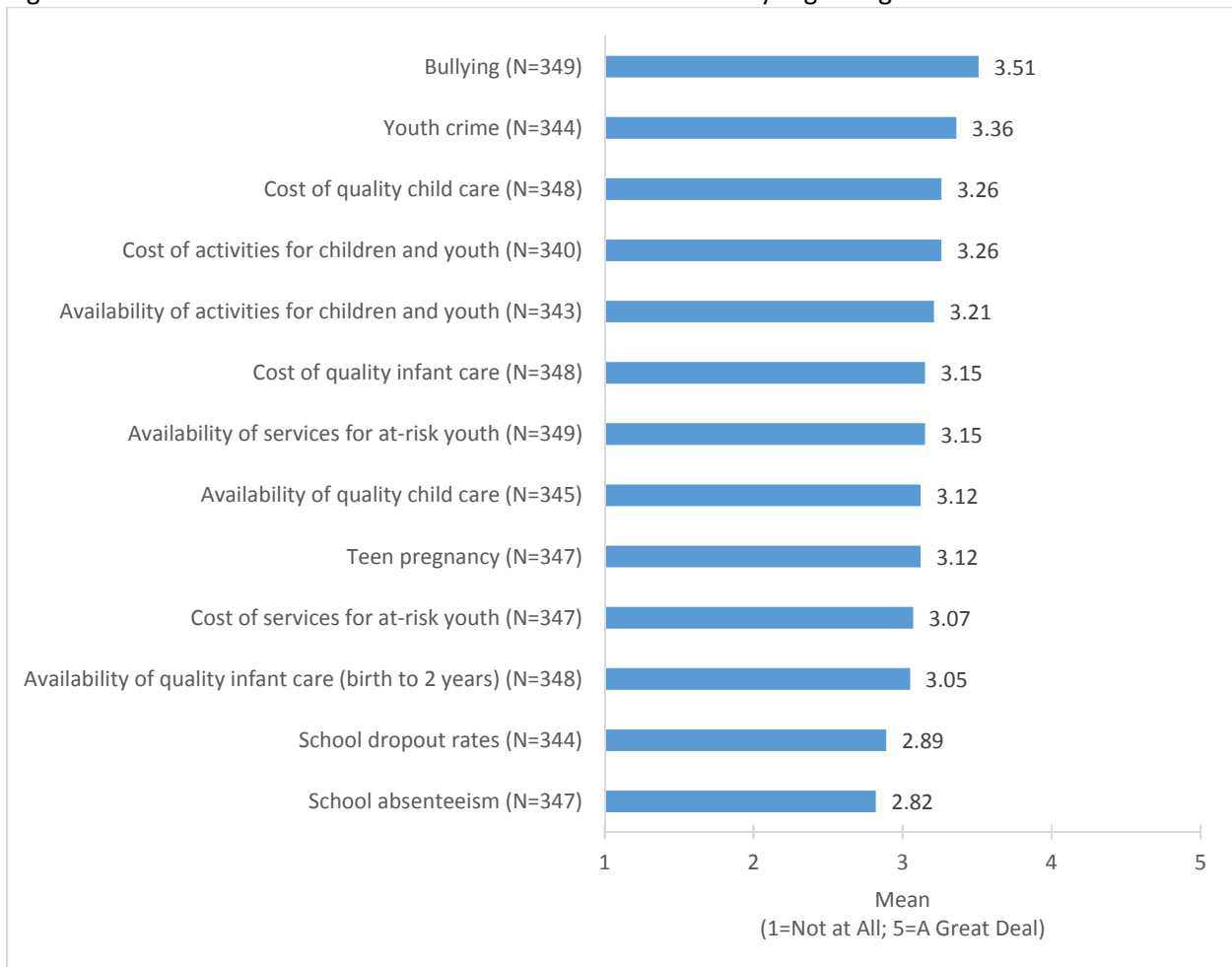


Figure 5. Level of concern with statements about the community regarding THE AGING POPULATION

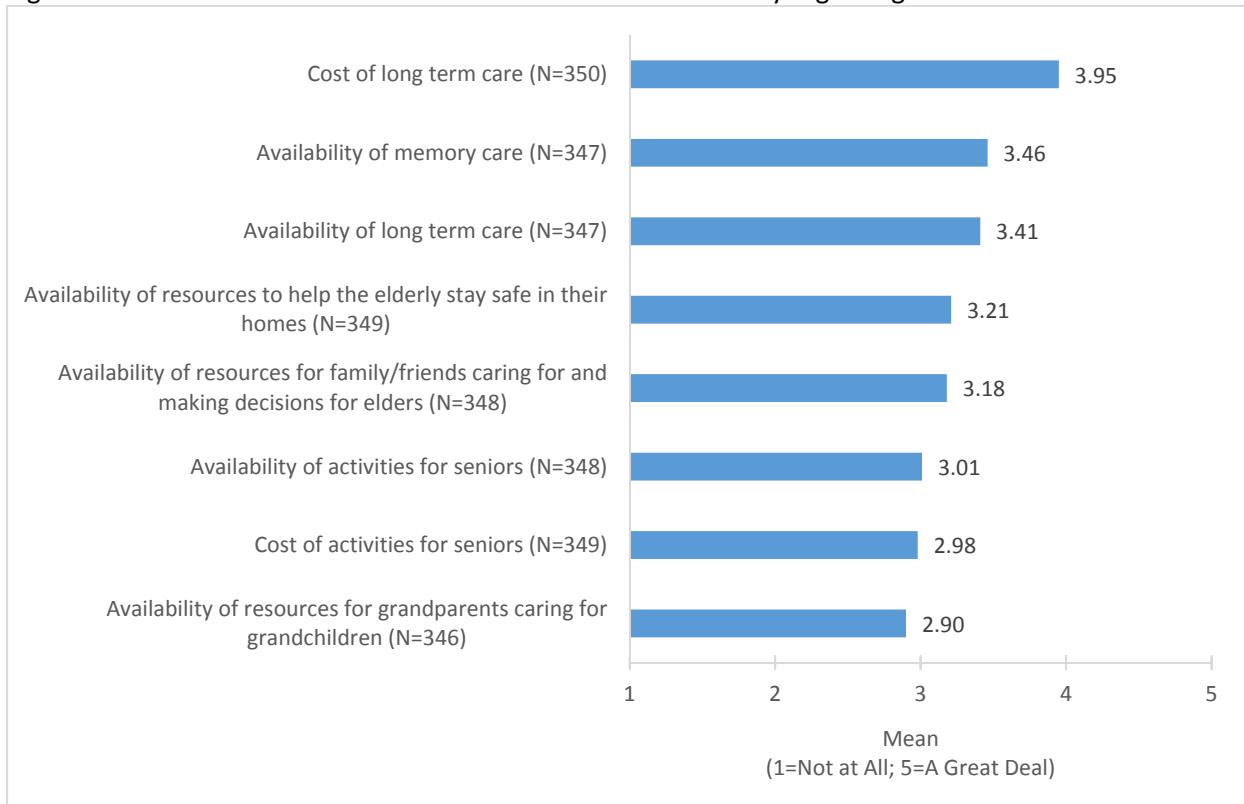


Figure 6. Level of concern with statements about the community regarding SAFETY

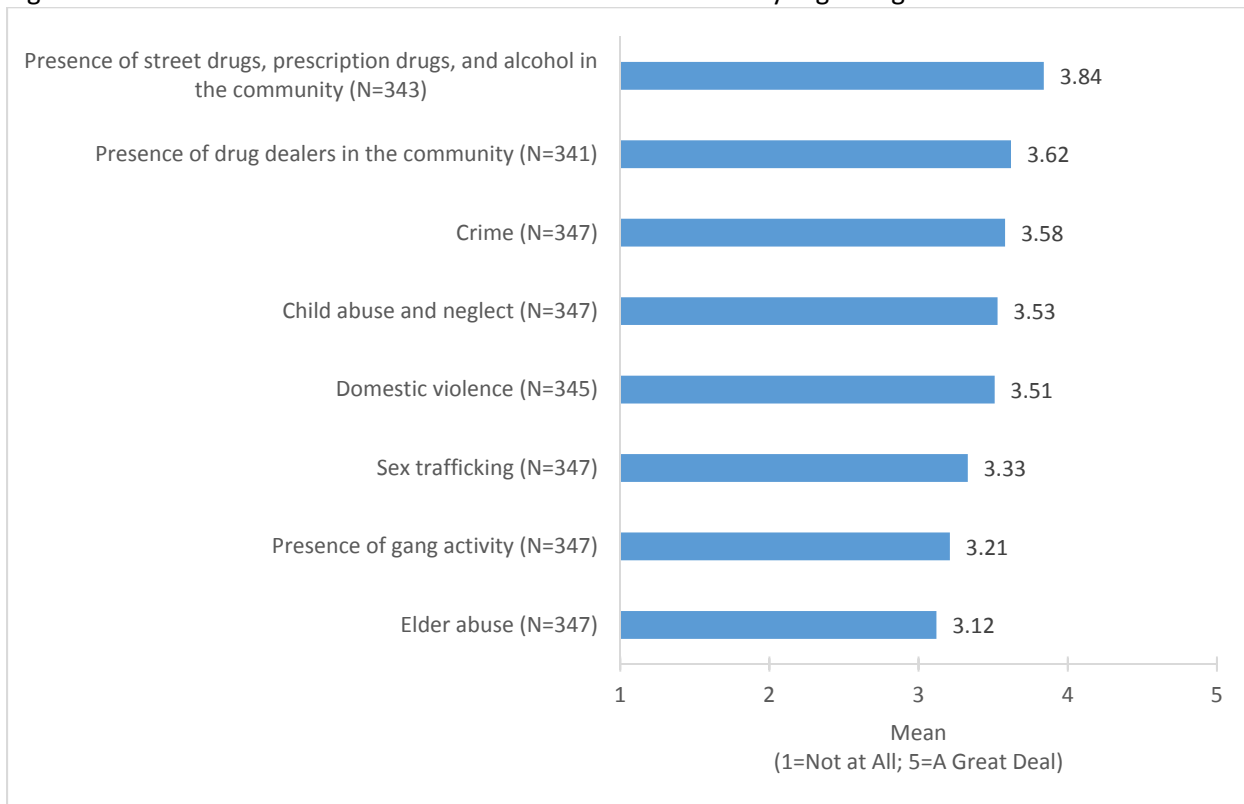


Figure 7. Level of concern with statements about community regarding HEALTH CARE

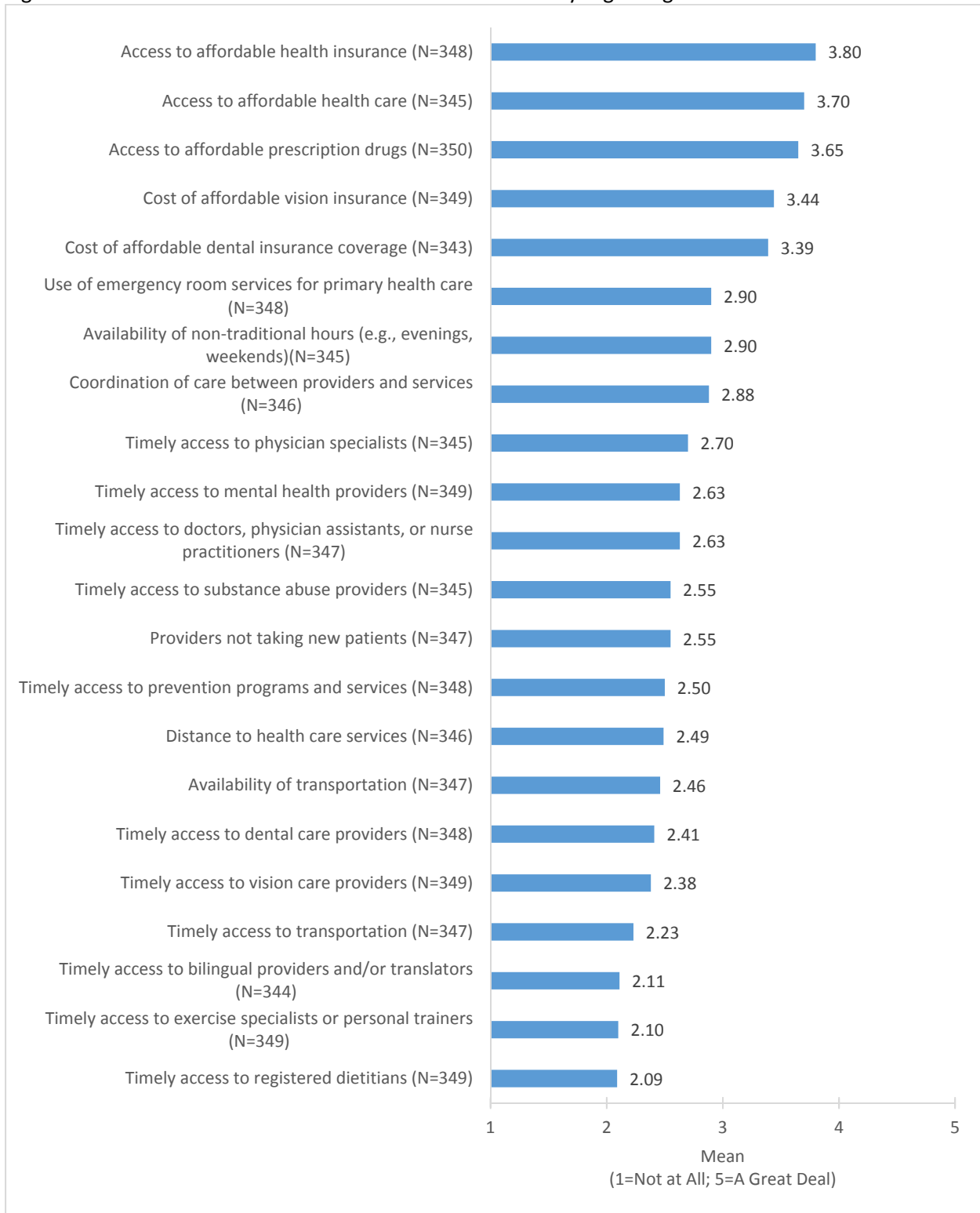




Figure 8. Level of concern with statements about community regarding PHYSICAL AND MENTAL HEALTH

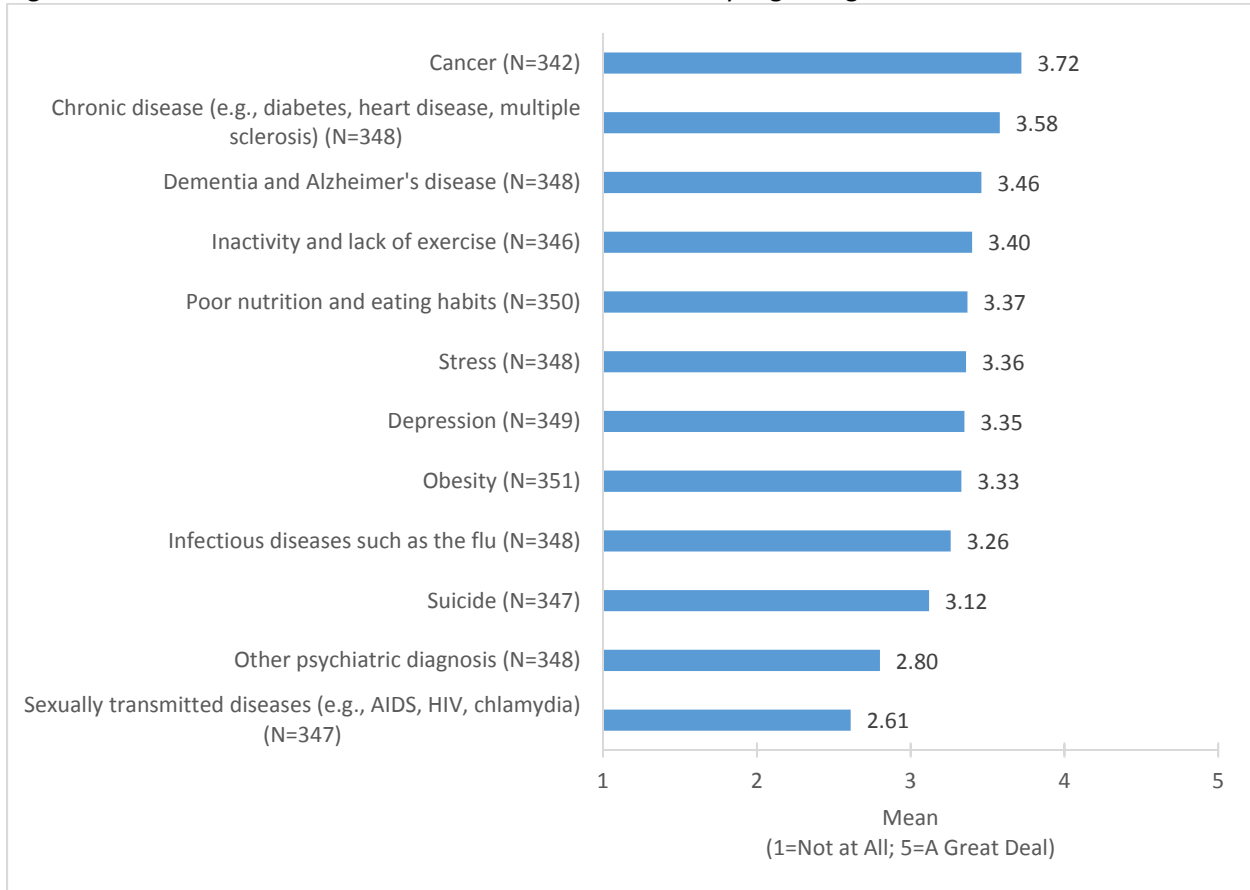
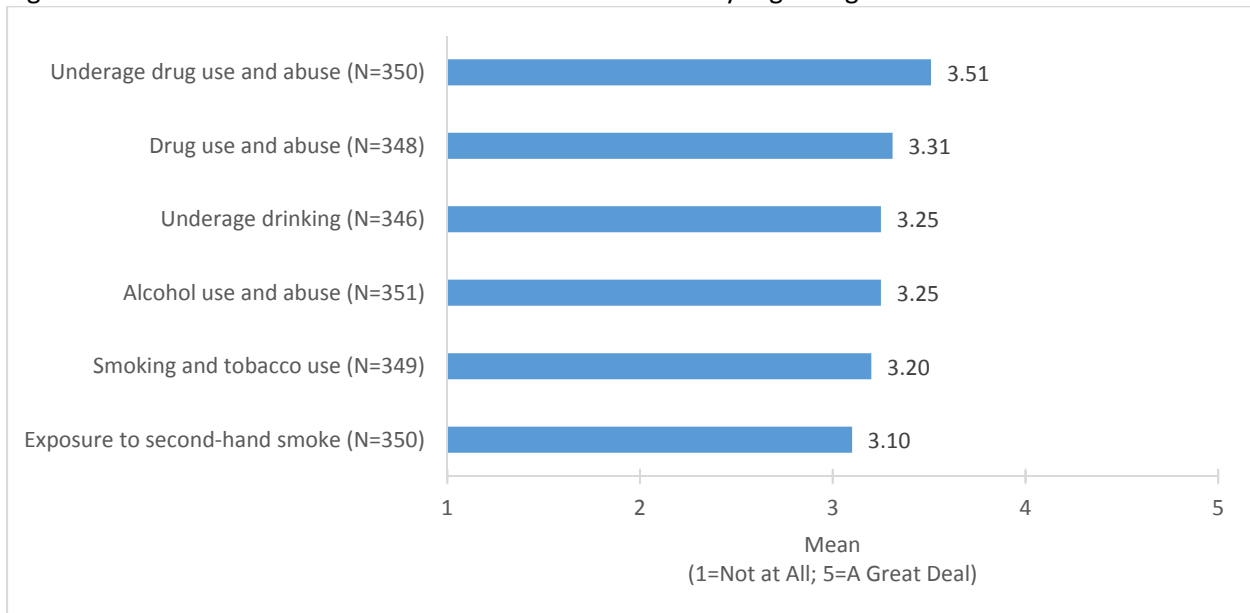
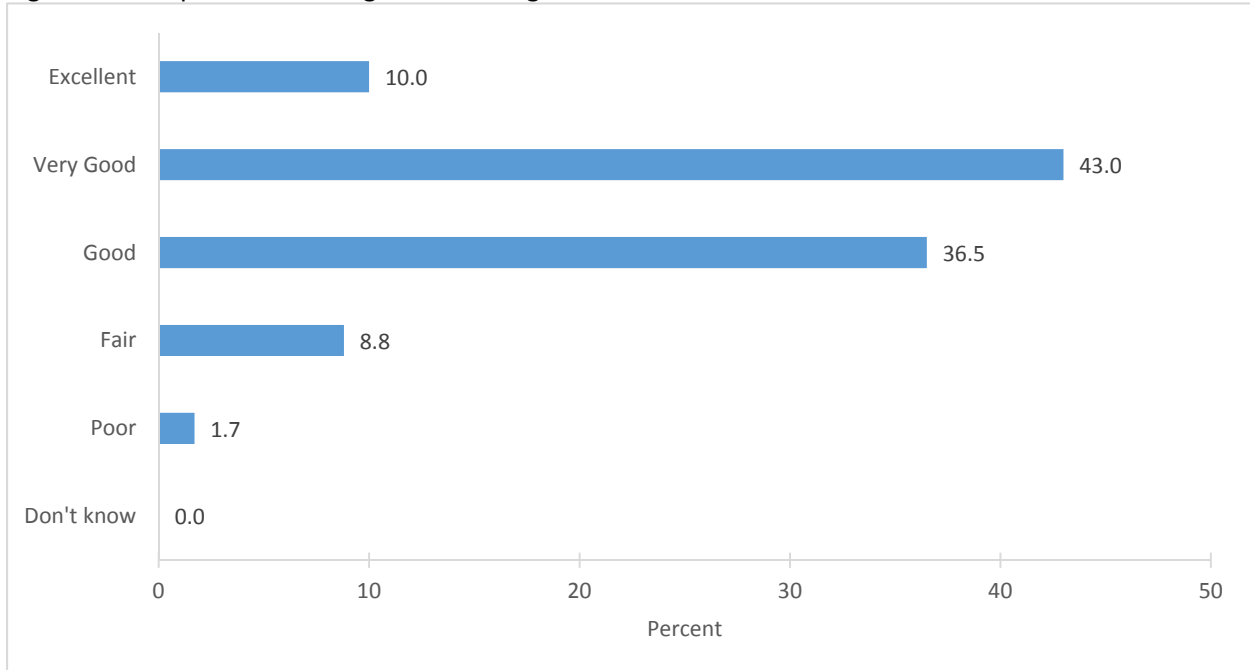


Figure 9. Level of concern with statements about community regarding SUBSTANCE USE AND ABUSE



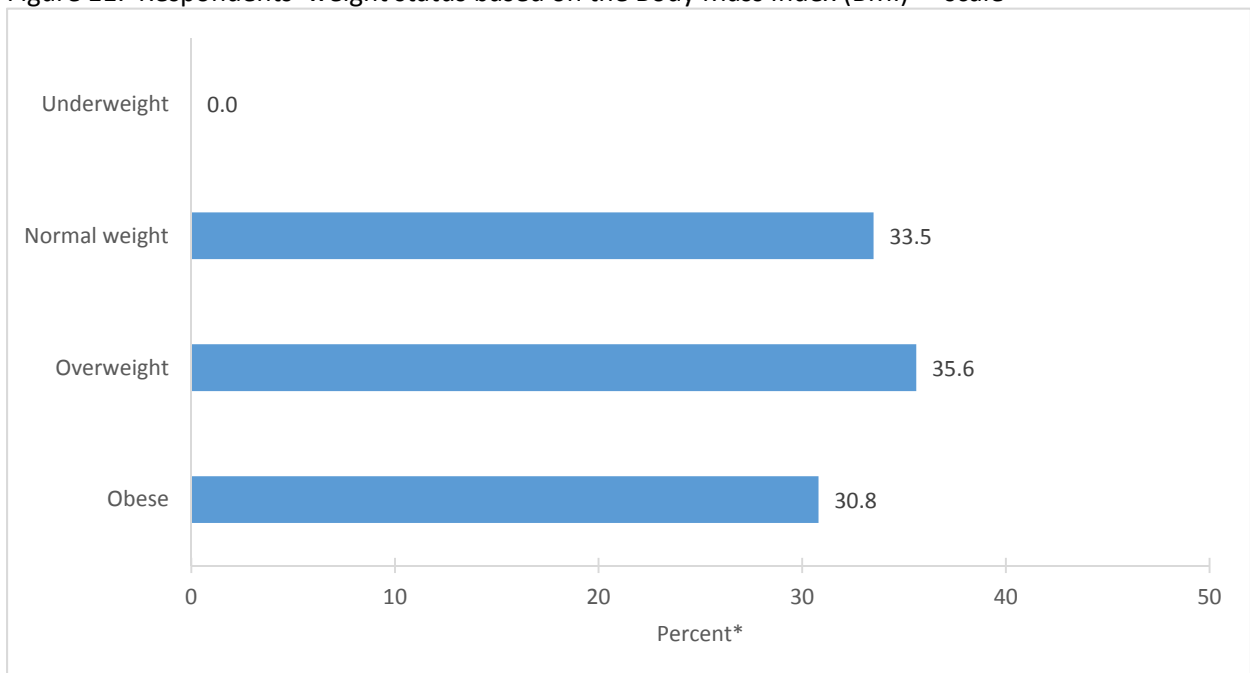
## General Health

Figure 10. Respondents' rating of health in general



N=338

Figure 11. Respondents' weight status based on the Body Mass Index (BMI)\*\* scale

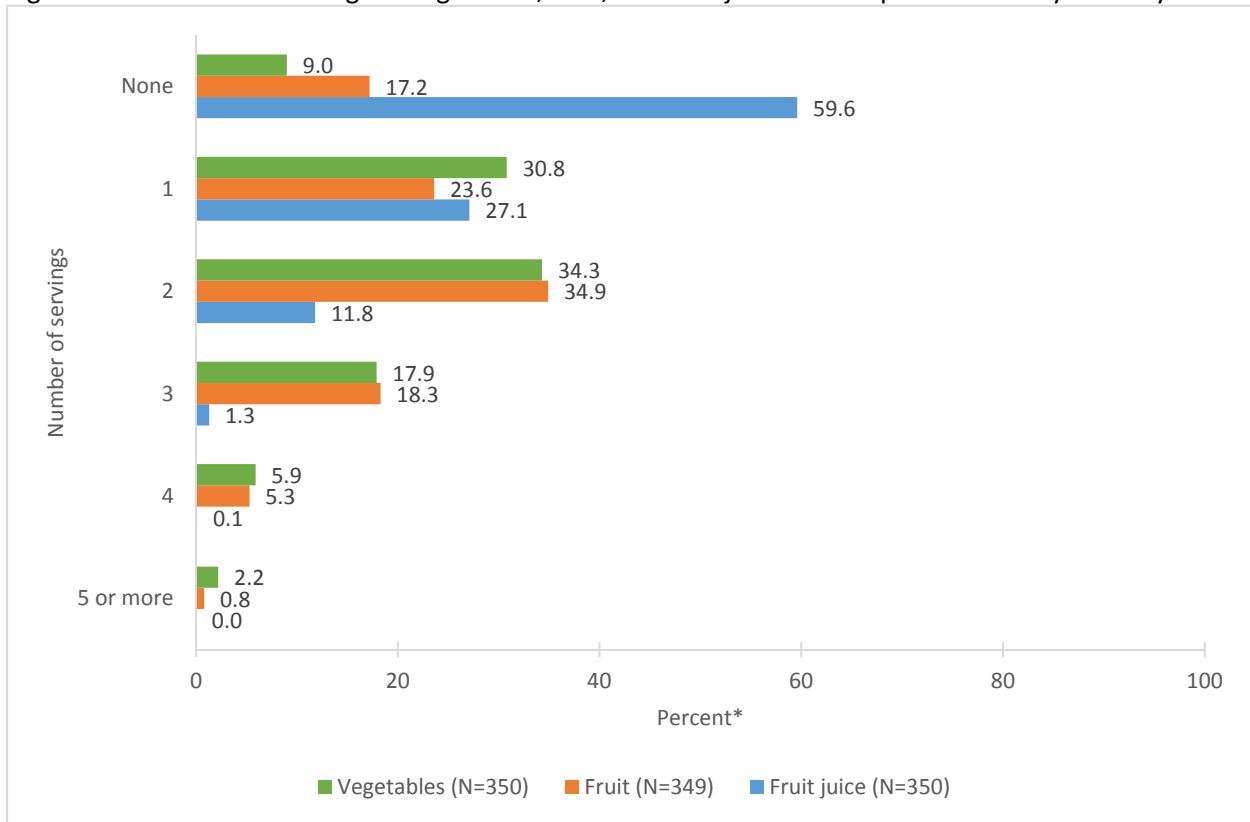


N=310

Percentages do not total 100.0 due to rounding.

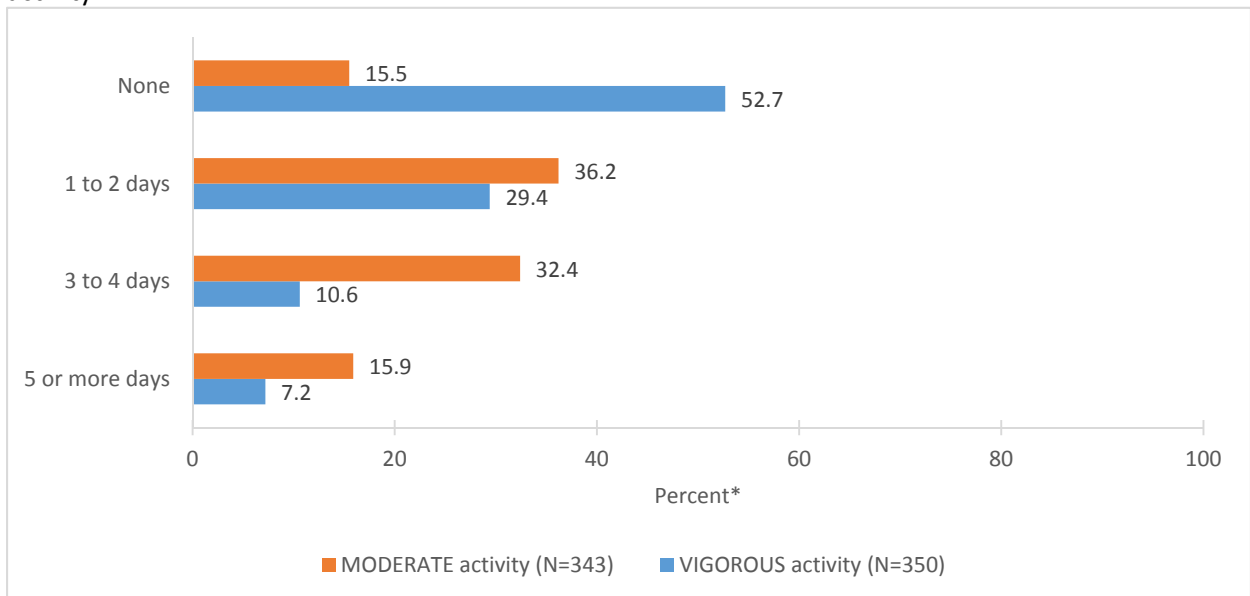
\*\*[http://www.cdc.gov/healthyweight/assessing/bmi/adult\\_bmi/](http://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/)

Figure 12. Number of servings of vegetables, fruit, and fruit juice that respondents had yesterday



\*Percentages may not total 100.0 due to rounding.

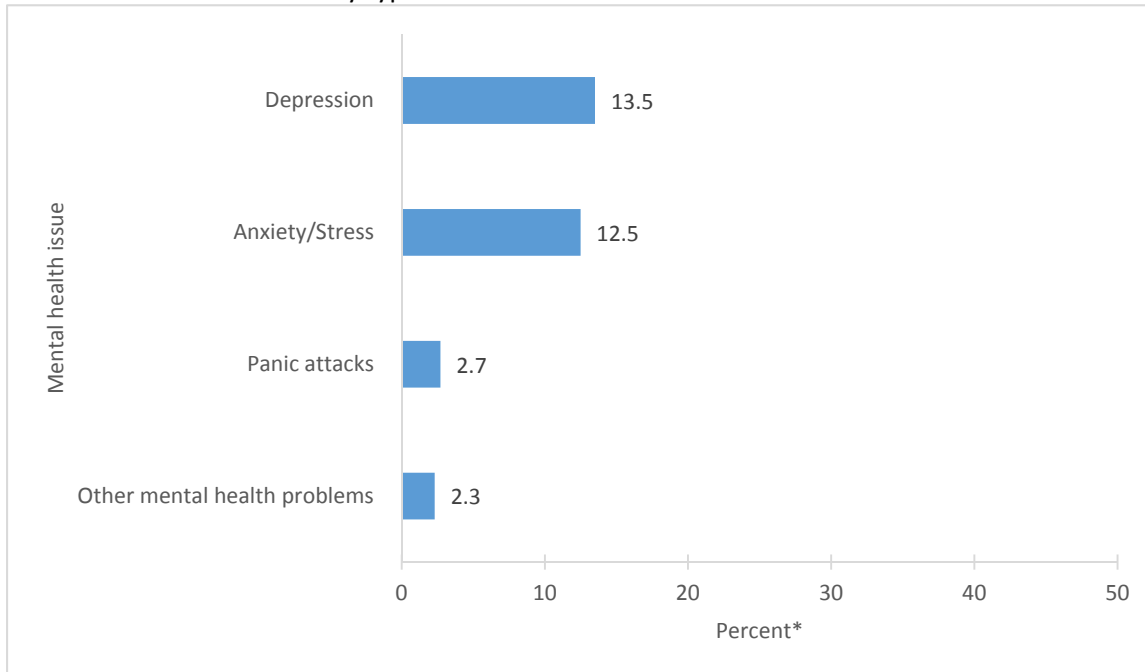
Figure 13. Number of days in an average week respondents engage in MODERATE and VIGOROUS activity



\*Percentages may not total 100.0 due to rounding.

## Mental Health

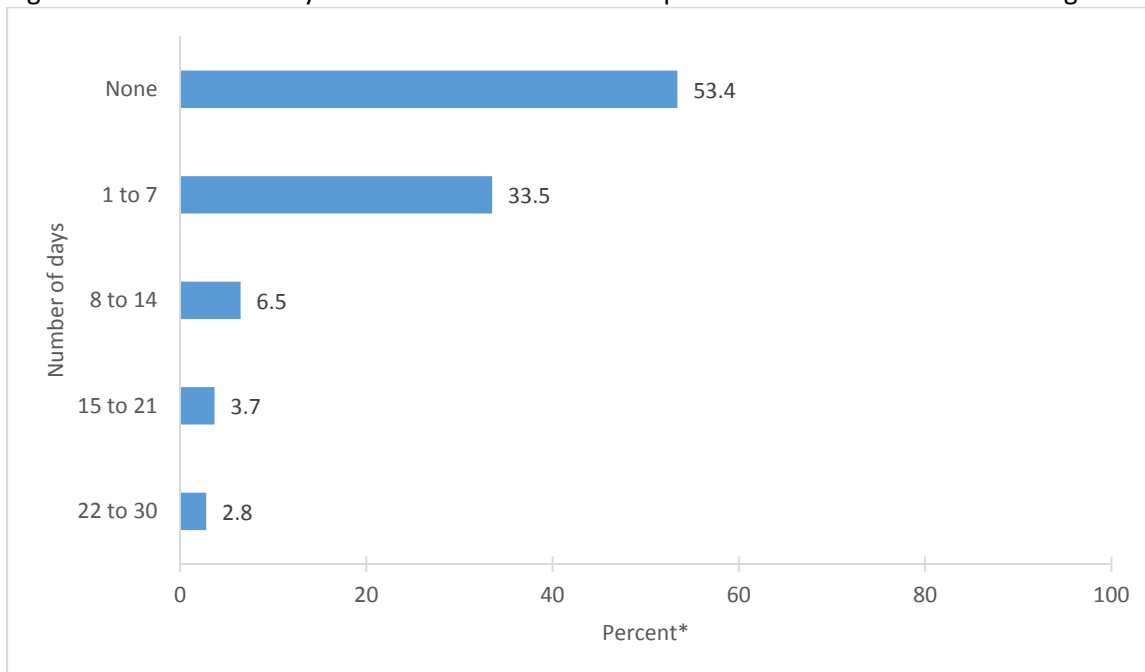
Figure 14. Percentage of respondents who have been told by a doctor or health professional that they have a mental health issue by type of mental health issue



N=354

\*Percentages do not total 100.0 due to multiple responses.

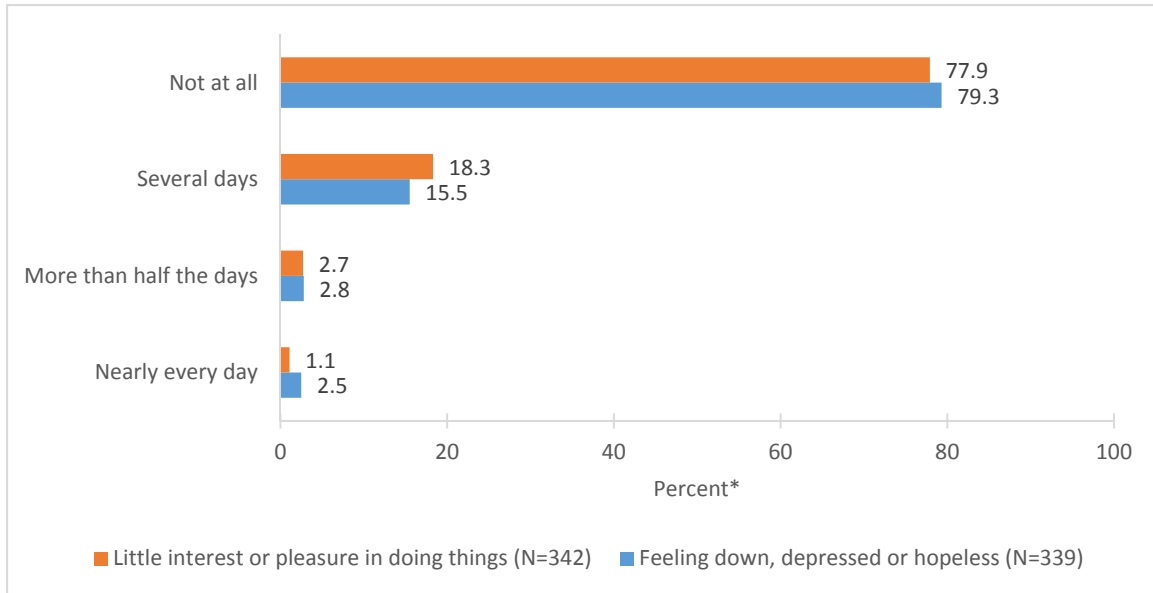
Figure 15. Number of days in the last month where respondents' mental health was not good



N=322

\*Percentages do not total 100.0 due to rounding.

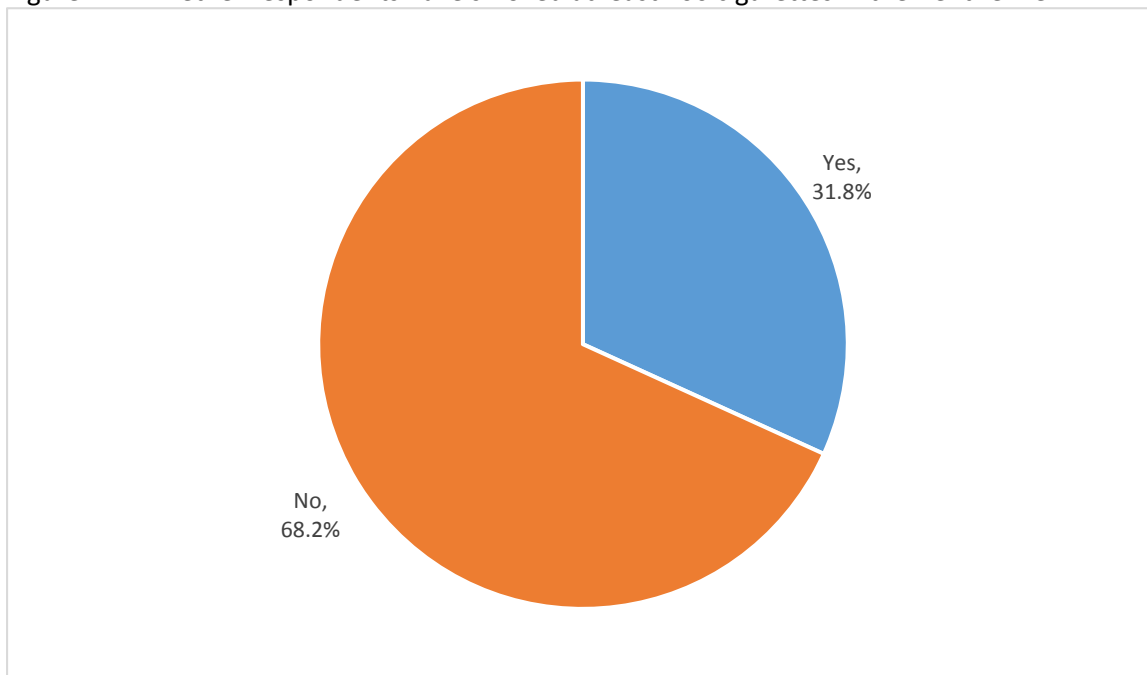
Figure 16. How often, over the past two weeks, respondents have been bothered by mental health issues



\*Percentages may not total 100.0 due to rounding.

### Tobacco Use

Figure 17. Whether respondents have smoked at least 100 cigarettes in their entire life



N=348

Figure 18. How often respondents currently smoke cigarettes and use chewing tobacco or snuff

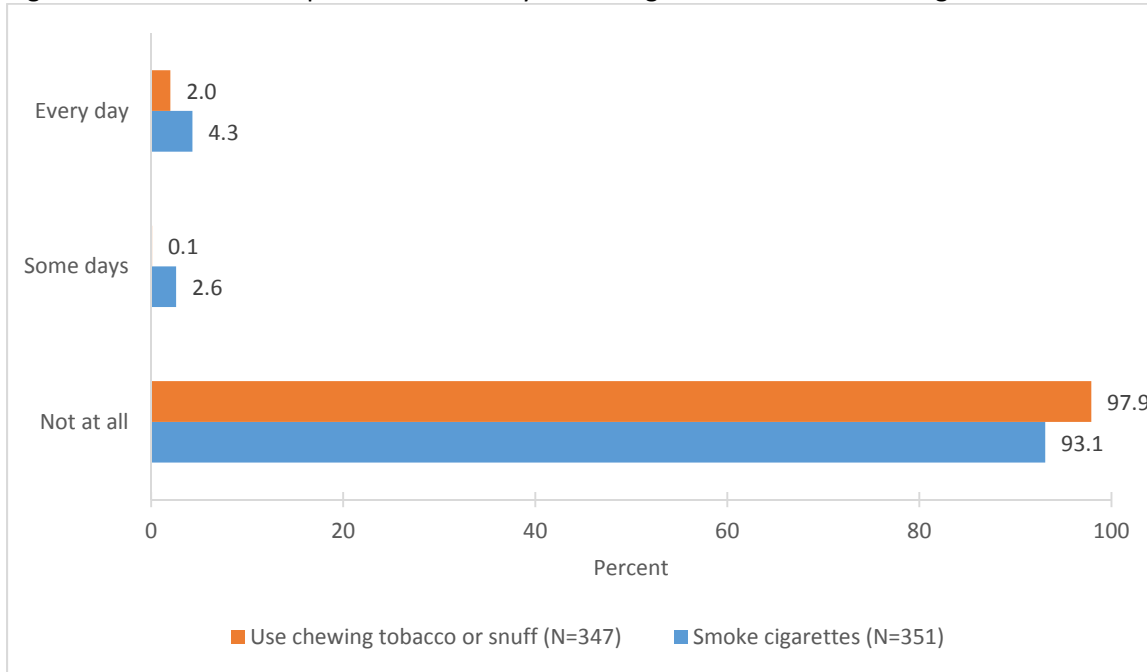
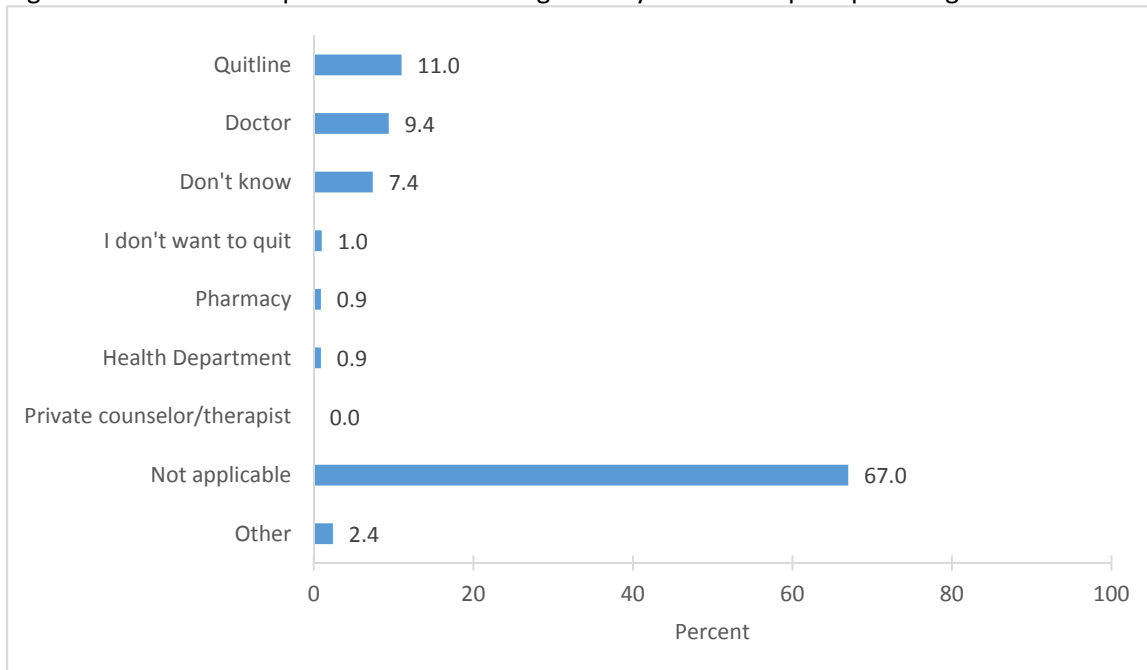


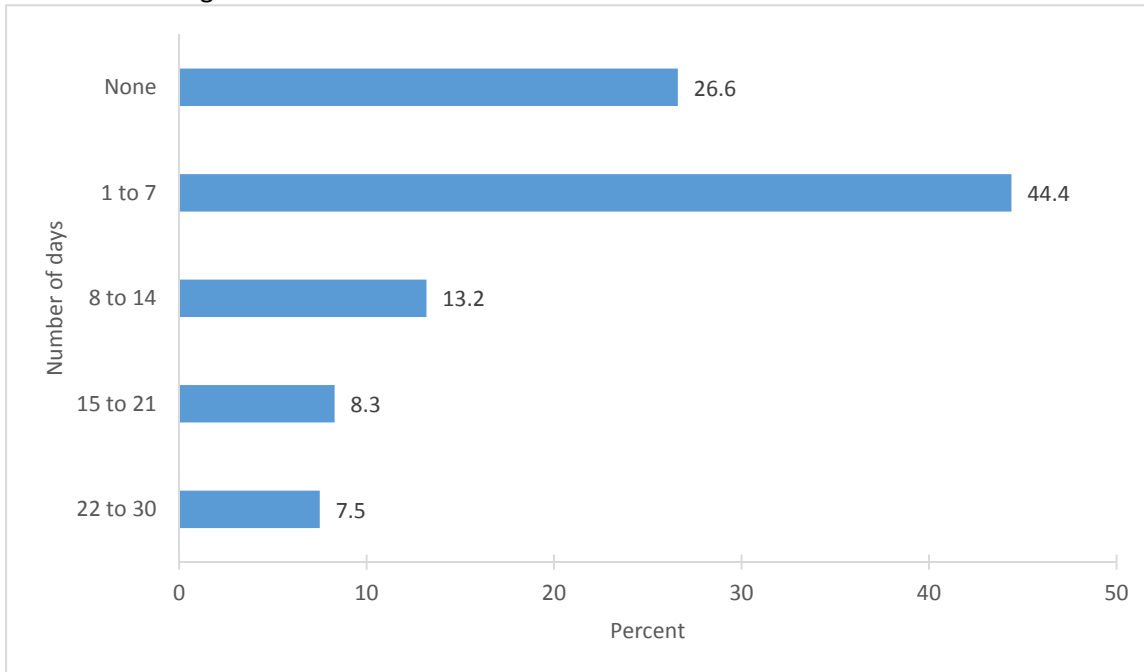
Figure 19. Location respondents would first go if they wanted help to quit using tobacco



N=321

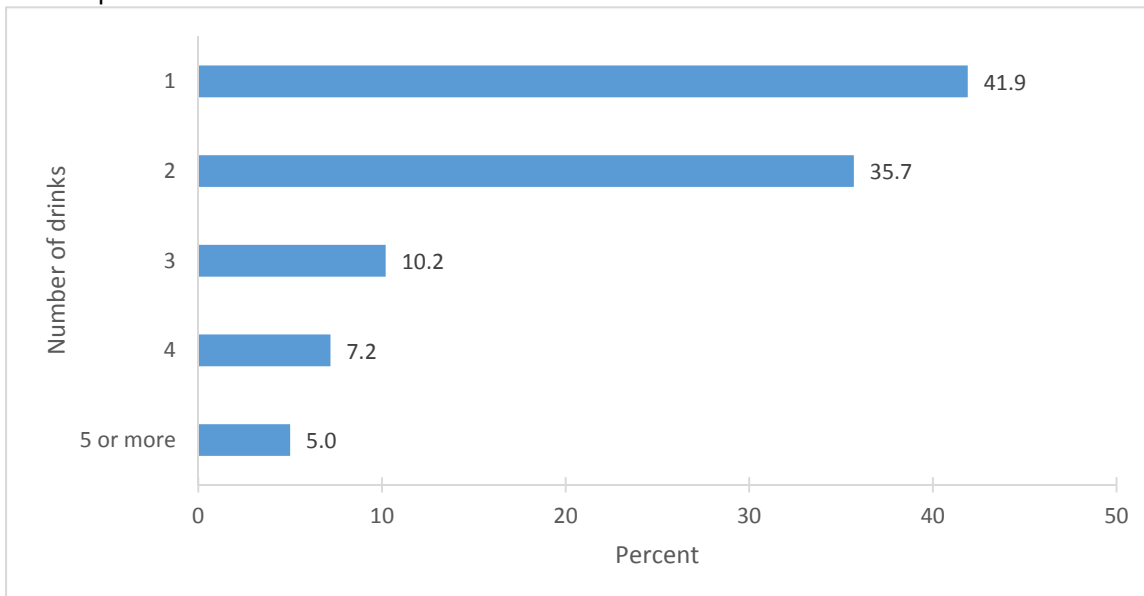
## Alcohol Use and Prescription Drug/Non-prescription Drug Abuse

Figure 20. Number of days during the past 30 days that respondents had at least one drink of any alcoholic beverage



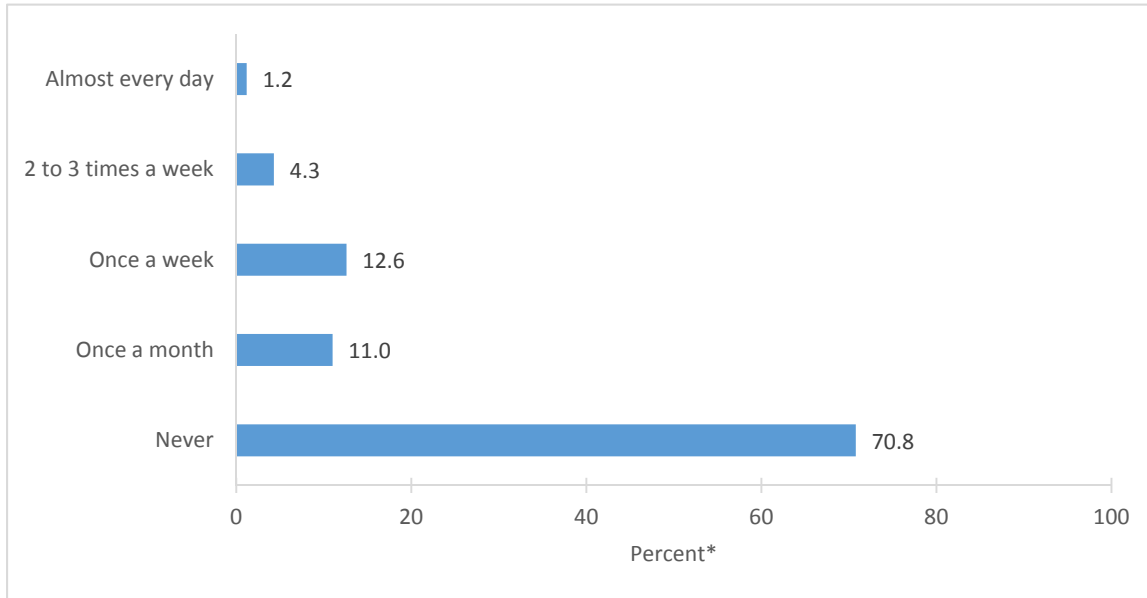
N=347

Figure 21. During the past 30 days on days that respondents drank, average number of drinks per day that respondents consumed



N=251

Figure 22. Number of times during the past 30 days that respondents consumed at least 4 or 5 alcoholic drinks on the same occasion



N=348

\*Percentages do not total 100.0 due to rounding.

Figure 23. Whether respondents have ever had a problem with alcohol use or prescription or non-prescription drug abuse

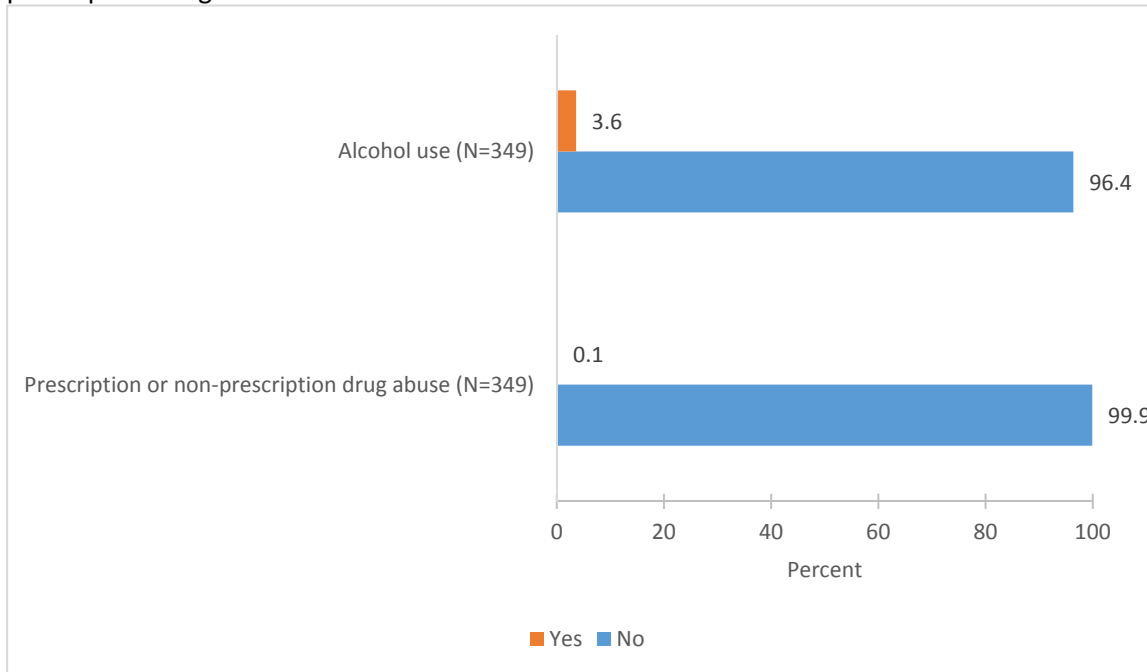




Figure 24. Of respondents who had ever had a problem with alcohol use or prescription or non-prescription drug abuse, whether respondents got the help they needed

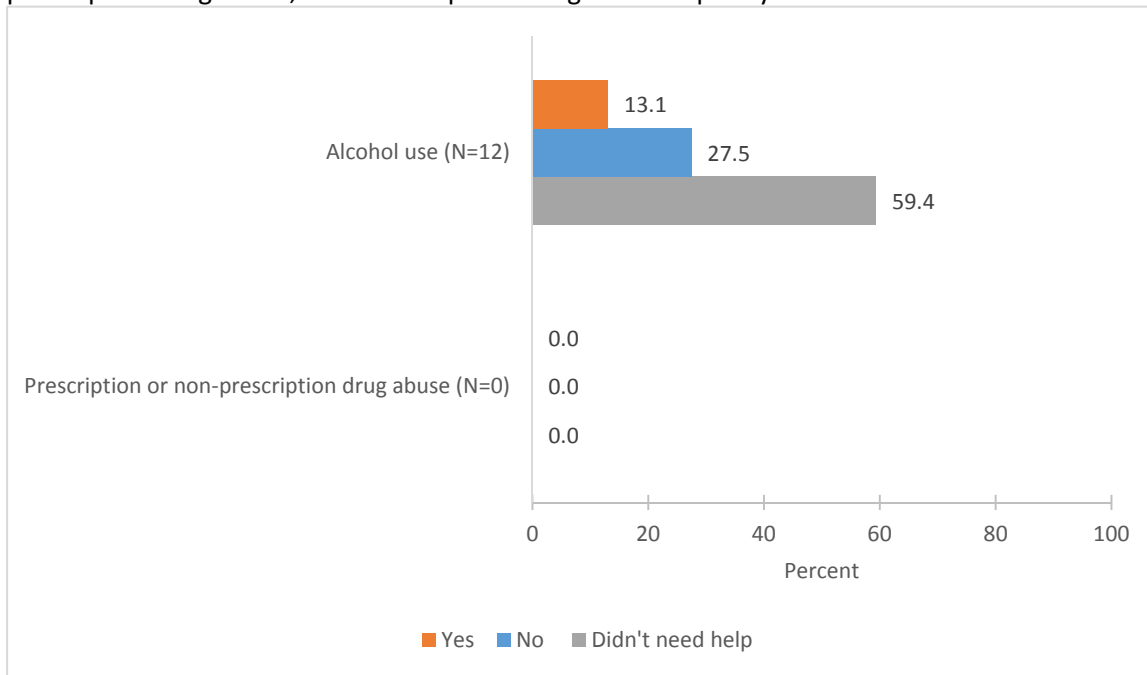
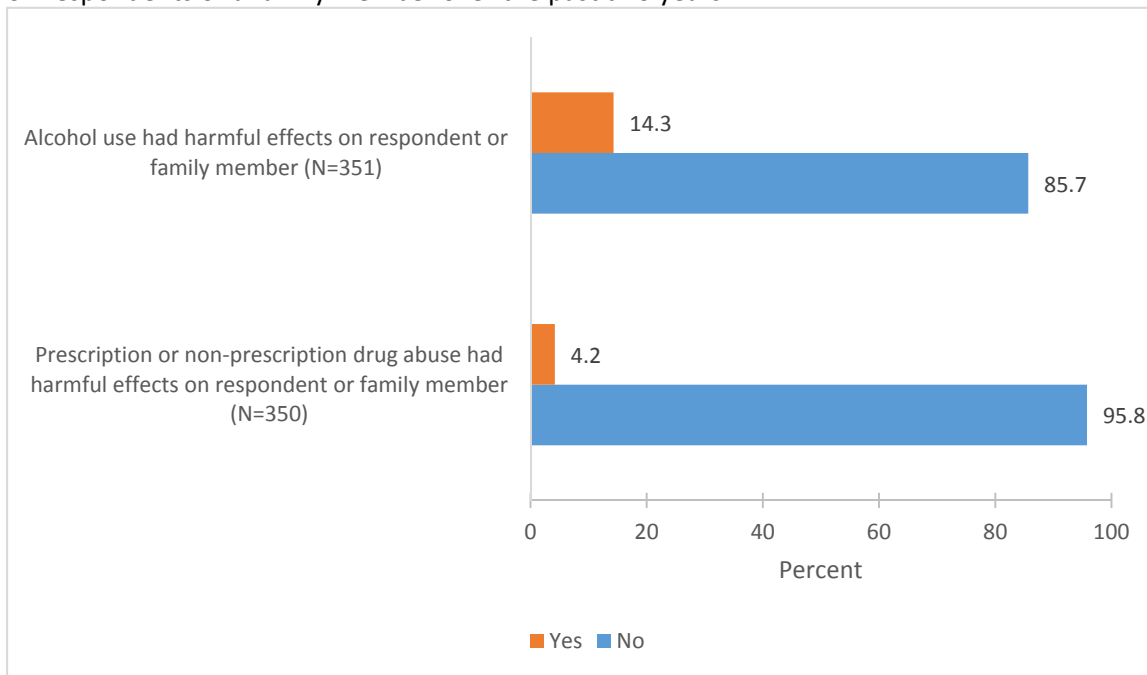


Figure 25. Whether alcohol use or prescription or non-prescription drug abuse has had harmful effects on respondents or a family member over the past two years



## Preventive Health

Table 1. Whether or not respondents have had preventive screenings in the past year by type of screening

Type of screening	Percent of respondents		
	Yes	No	Total
<b>GENERAL SCREENINGS</b>			
Blood pressure screening (N=348)	87.1	12.9	100.0
Blood sugar screening (N=350)	70.3	29.7	100.0
Bone density test (N=348)	10.8	89.2	100.0
Cardiovascular screening (N=344)	25.5	74.5	100.0
Cholesterol screening (N=350)	74.6	25.4	100.0
Dental screening and X-rays (N=350)	89.2	10.8	100.0
Flu shot (N=351)	72.6	27.4	100.0
Glaucoma test (N=345)	51.5	48.5	100.0
Hearing screening (N=348)	17.6	82.4	100.0
Immunizations (N=348)	23.0	77.0	100.0
Pelvic exam (N=178 Females)	63.3	36.7	100.0
STD (N=345)	1.7	98.3	100.0
Vascular screening (N=344)	10.8	89.2	100.0
<b>CANCER SCREENINGS</b>			
Breast cancer screening (N=180 Females)	78.8	21.2	100.0
Cervical cancer screening (N=178 Females)	67.4	32.6	100.0
Colorectal cancer screening (N=346)	31.5	68.5	100.0
Prostate cancer screening (N=169 Males)	54.4	45.6	100.0
Skin cancer screening (N=350)	28.1	71.9	100.0

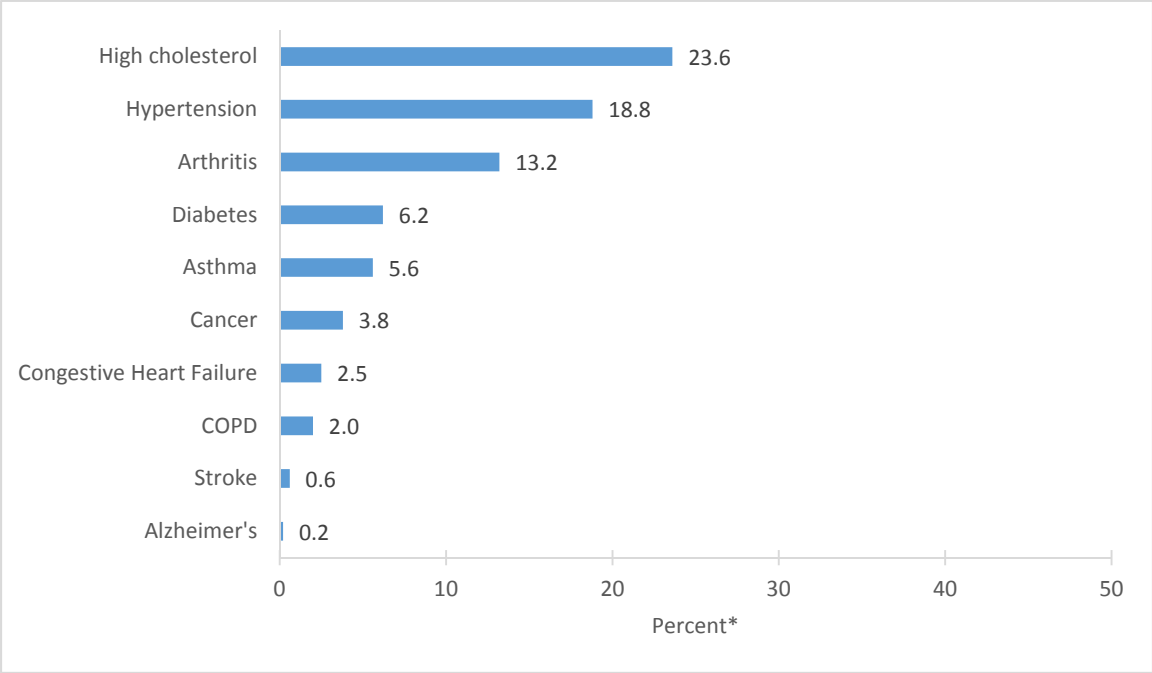
Table 2. Of respondents who have not had preventive screenings in the past year, reasons why they have not by type of screening

Type of screening	Percent of respondents*							Total
	Not necessary	Doctor hasn't suggested	Cost	Fear of procedure	Fear of results	Unable to access care	Other reason	
<b>GENERAL SCREENINGS</b>								
Blood pressure screening (N=41)	76.2	20.3	0.0	0.0	0.0	0.0	3.5	100.0
Blood sugar screening (N=91)	52.1	35.4	0.5	0.0	0.0	0.0	11.9	99.9
Bone density test (N=271)	51.0	40.9	1.8	0.0	0.0	0.0	6.2	99.9
Cardiovascular screening (N=225)	41.3	47.3	2.0	0.0	0.0	0.0	9.5	100.1
Cholesterol screening (N=81)	49.9	33.0	0.6	0.0	0.0	0.0	16.5	100.0
Dental screening and X-rays (N=36)	35.3	4.7	36.3	0.6	0.0	0.0	23.0	99.9
Flu shot (N=93)	56.1	1.6	0.0	0.0	1.8	0.0	40.6	100.1
Glaucoma test (N=151)	62.7	29.5	1.3	0.0	0.0	0.0	6.5	100.0
Hearing screening (N=246)	63.4	27.7	2.0	0.0	0.3	0.0	6.6	100.0
Immunizations (N=238)	77.1	14.1	0.4	0.0	0.0	0.0	8.4	100.0
Pelvic exam (N=54 Females)	61.8	16.4	0.9	0.0	0.0	0.0	20.9	100.0
STD (N=298)	88.5	9.3	0.5	0.0	0.0	0.0	1.6	99.9
Vascular screening (N=261)	50.6	40.7	1.9	0.0	0.0	0.0	6.8	100.0

Type of screening	Percent of respondents*							
	Not necessary	Doctor hasn't suggested	Cost	Fear of procedure	Fear of results	Unable to access care	Other reason	Total
<b>CANCER SCREENINGS</b>								
Breast cancer screening (N=34 Females)	78.1	11.8	1.5	0.0	0.0	0.0	8.6	100.0
Cervical cancer screening (N=52 Females)	64.1	17.0	1.9	0.0	0.0	0.0	17.0	100.0
Colorectal cancer screening (N=204)	63.3	22.7	3.1	2.9	0.0	0.0	8.0	100.0
Prostate cancer screening (N=Males)	55.2	33.8	1.9	0.0	0.0	0.7	8.5	100.1
Skin cancer screening (N=207)	49.5	39.0	2.9	0.0	0.0	0.5	8.2	100.1

\*Percentages may not total 100.0 due to rounding.

Figure 26. Whether respondents have any of the following chronic diseases



N=354

\*Percentages do not total 100.0 due to multiple responses.

Figure 27. Length of time since respondents last visited a doctor or health care provider for a routine physical exam and length of time since respondents last visited a dentist or dental clinic for any reason

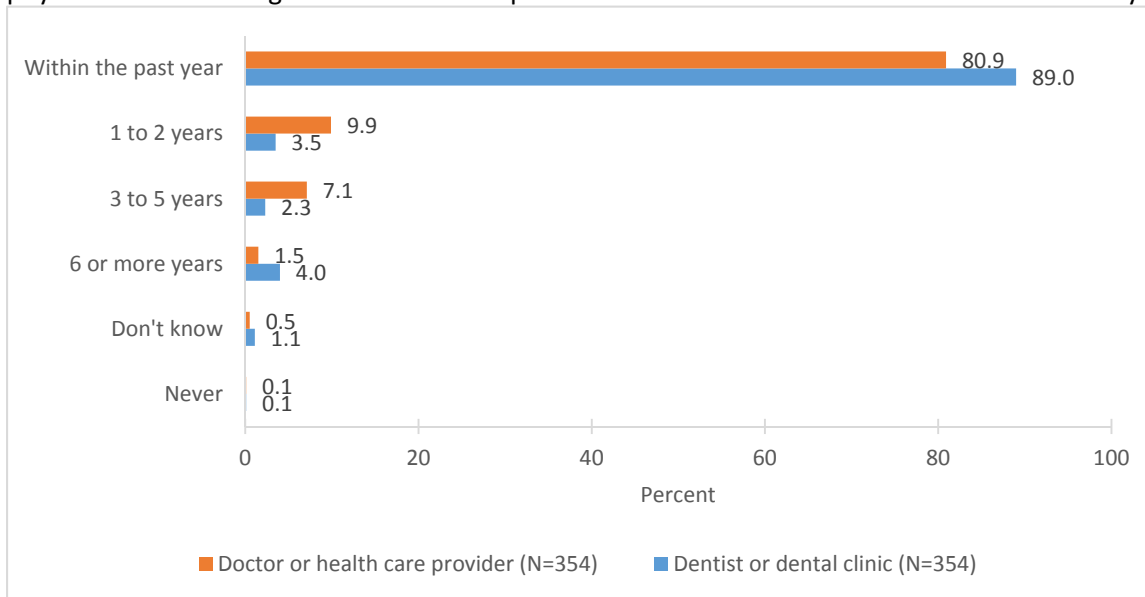
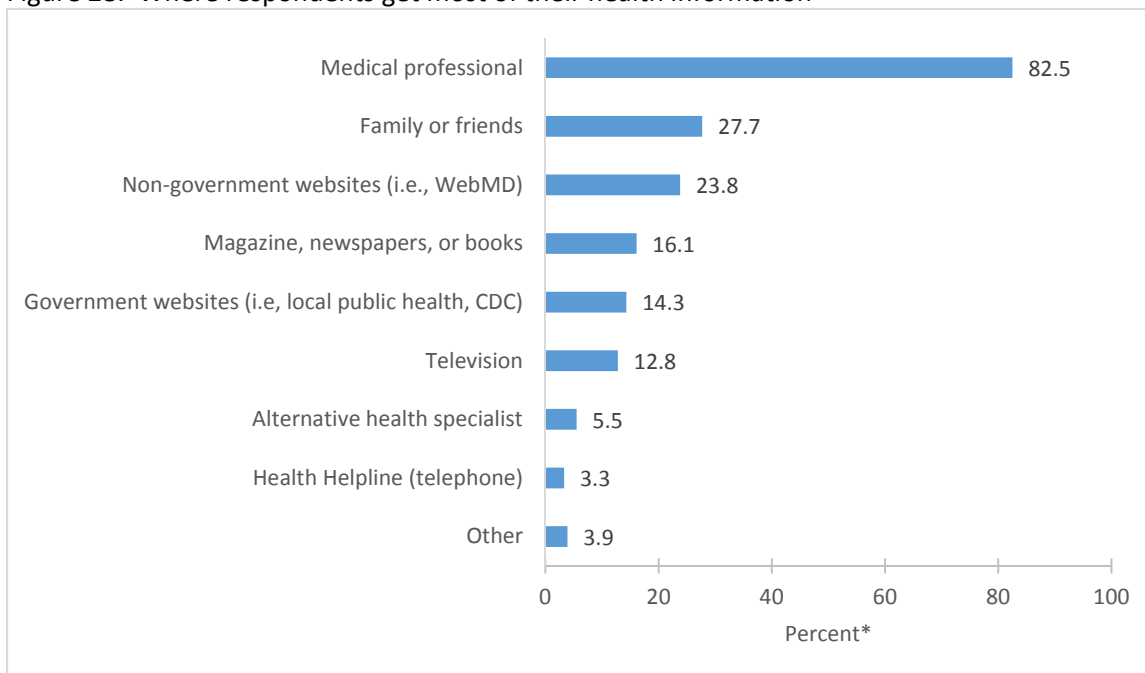


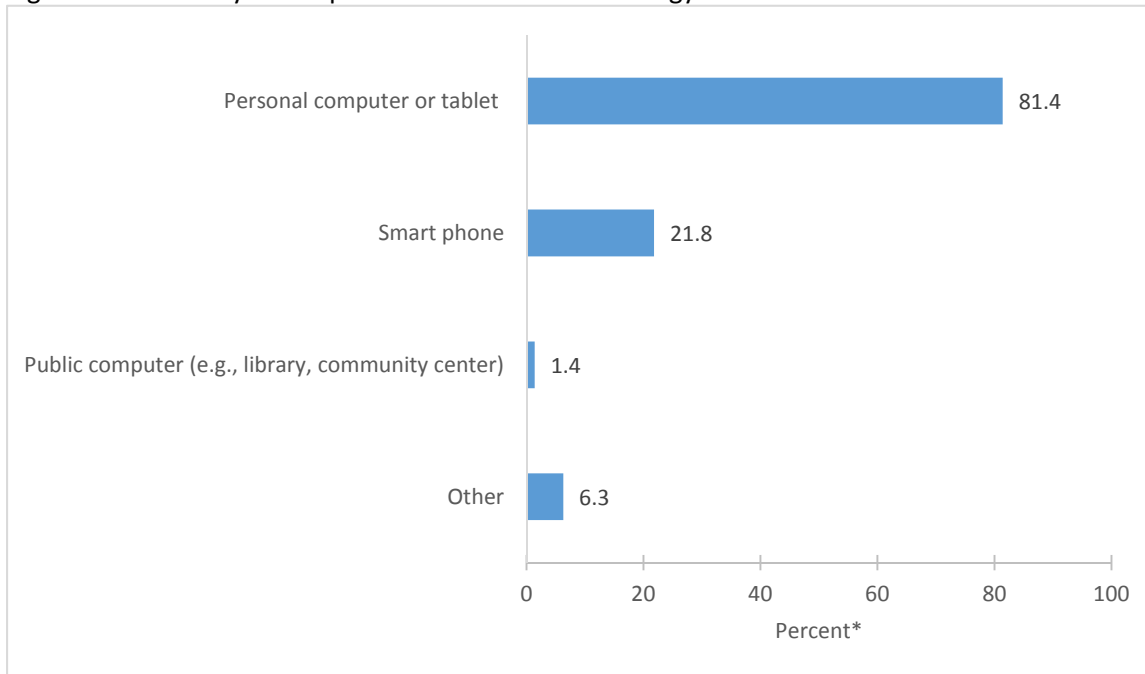
Figure 28. Where respondents get most of their health information



N=354

\*Percentages do not total 100.0 due to multiple responses.

Figure 29. Best way for respondents to access technology for health information

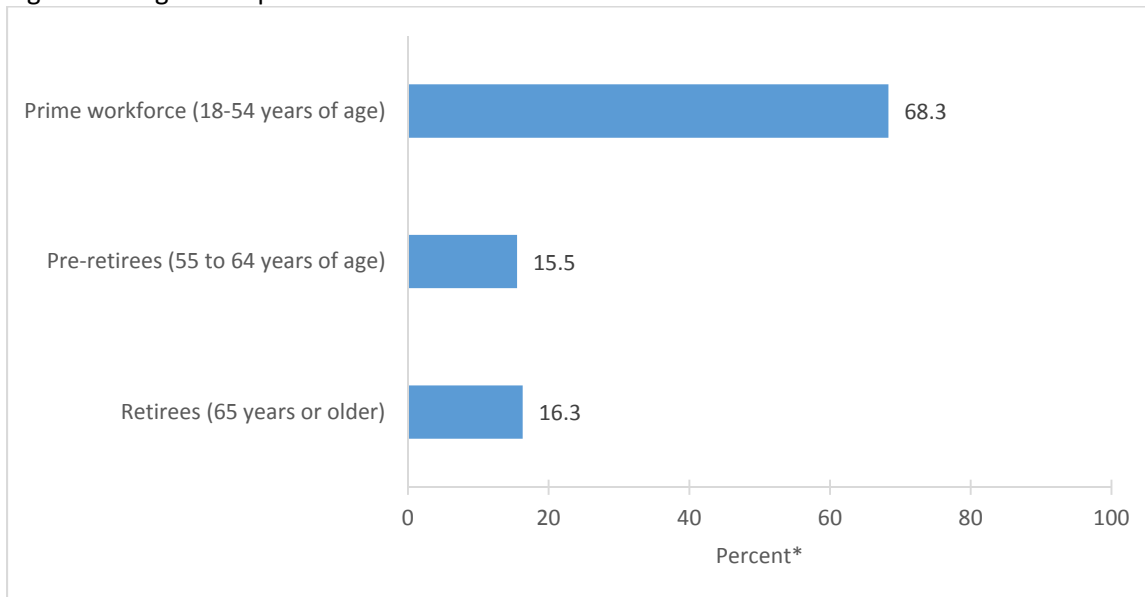


N=354

\*Percentages do not total 100.0 due to multiple responses.

### Demographic Information

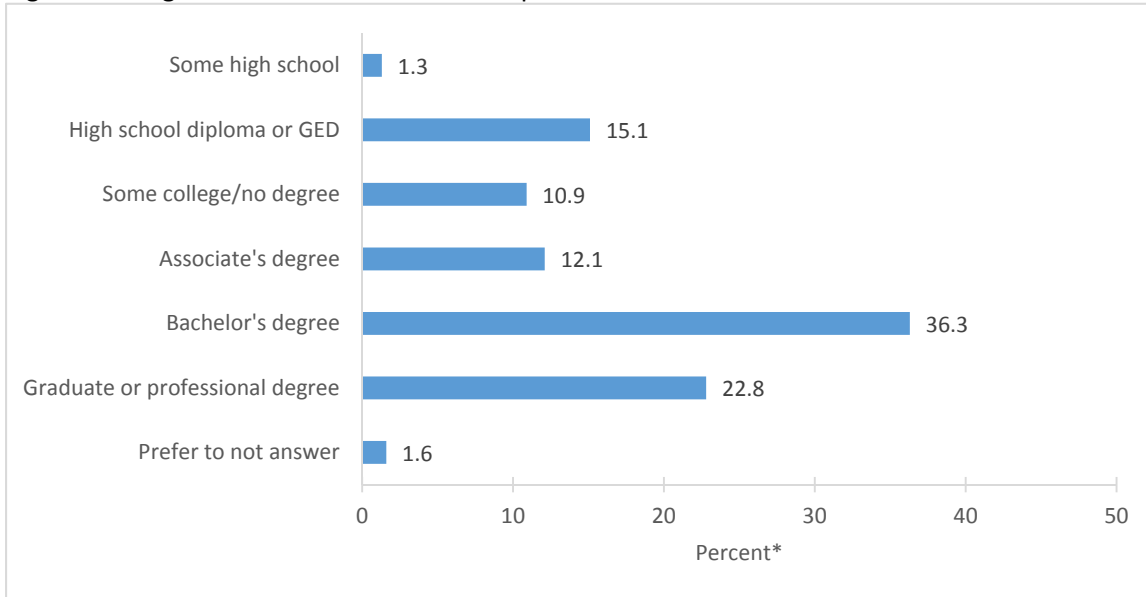
Figure 30. Age of respondents



N=354

\*Percentages do not total 100.0 due to rounding.

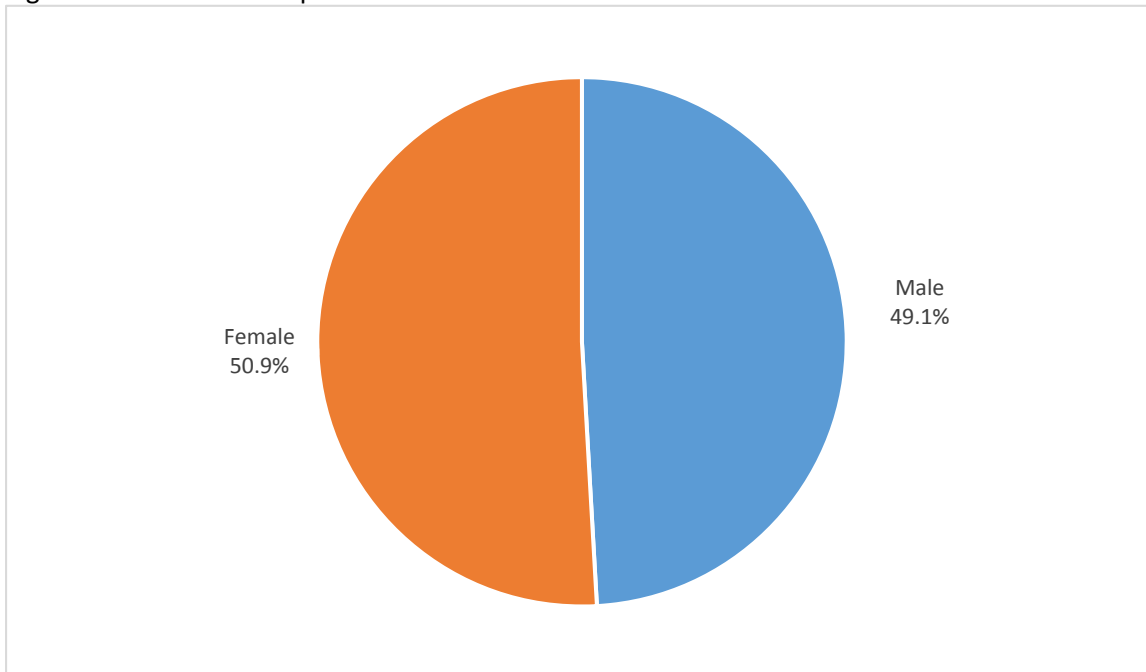
Figure 31. Highest level of education of respondents



N=351

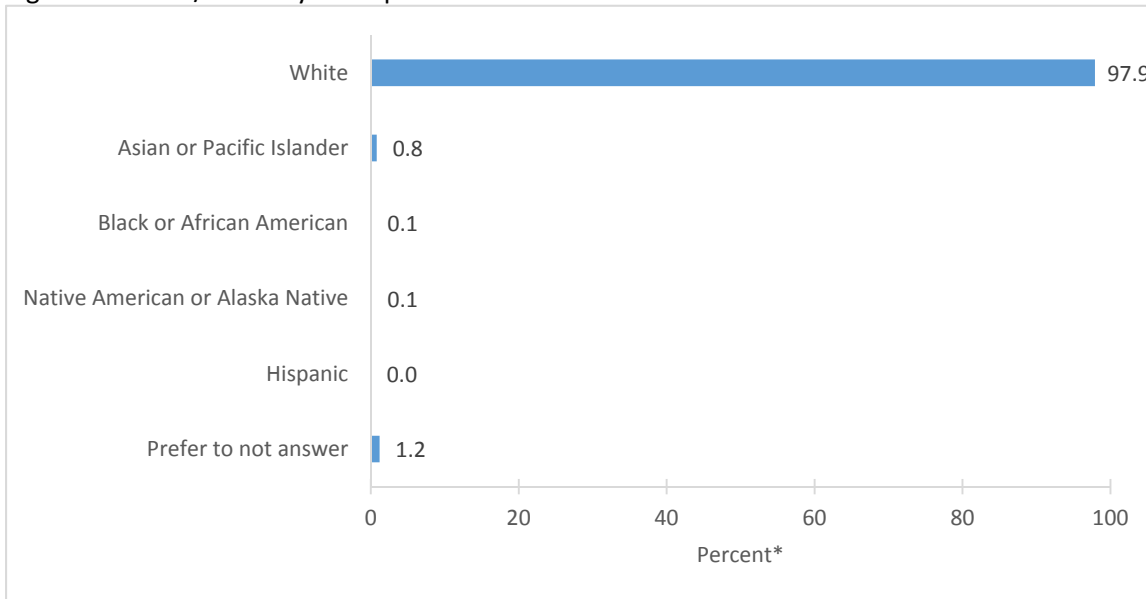
\*Percentages do not total 100.0 due to rounding.

Figure 32. Gender of respondents



N=354

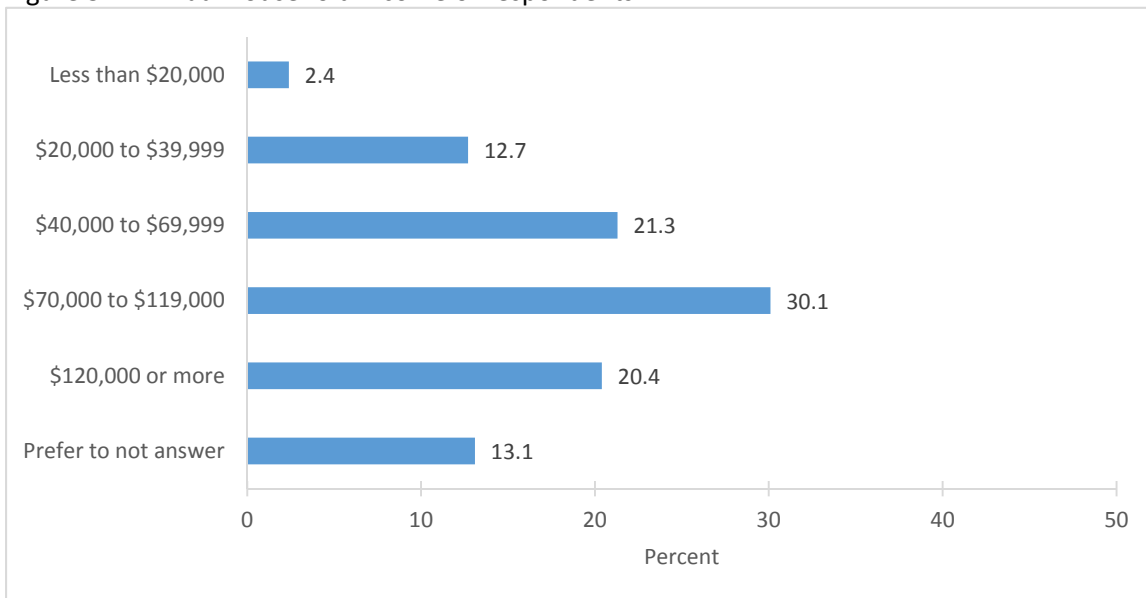
Figure 33. Race/ethnicity of respondents



N=354

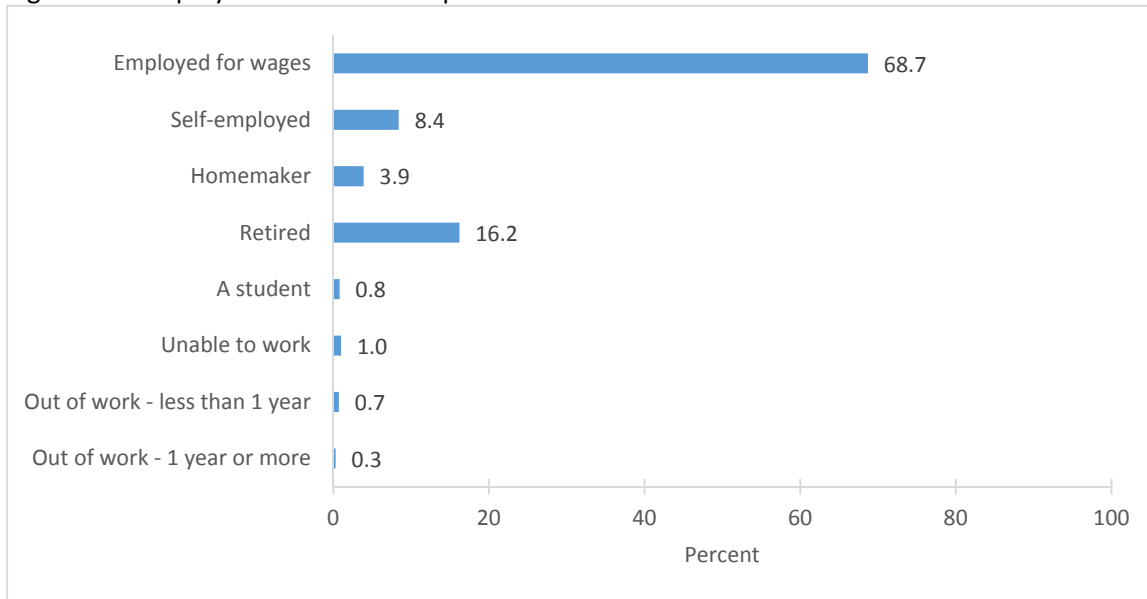
\*Percentages do not total 100.0 due to multiple responses.

Figure 34. Annual household income of respondents



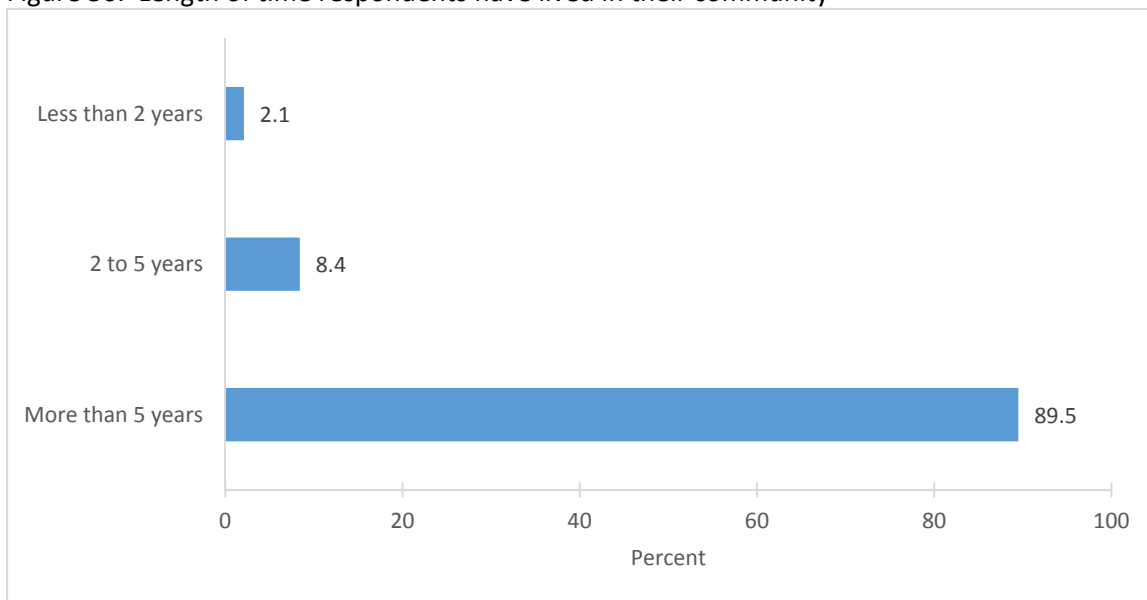
N=354

Figure 35. Employment status of respondents



N=351

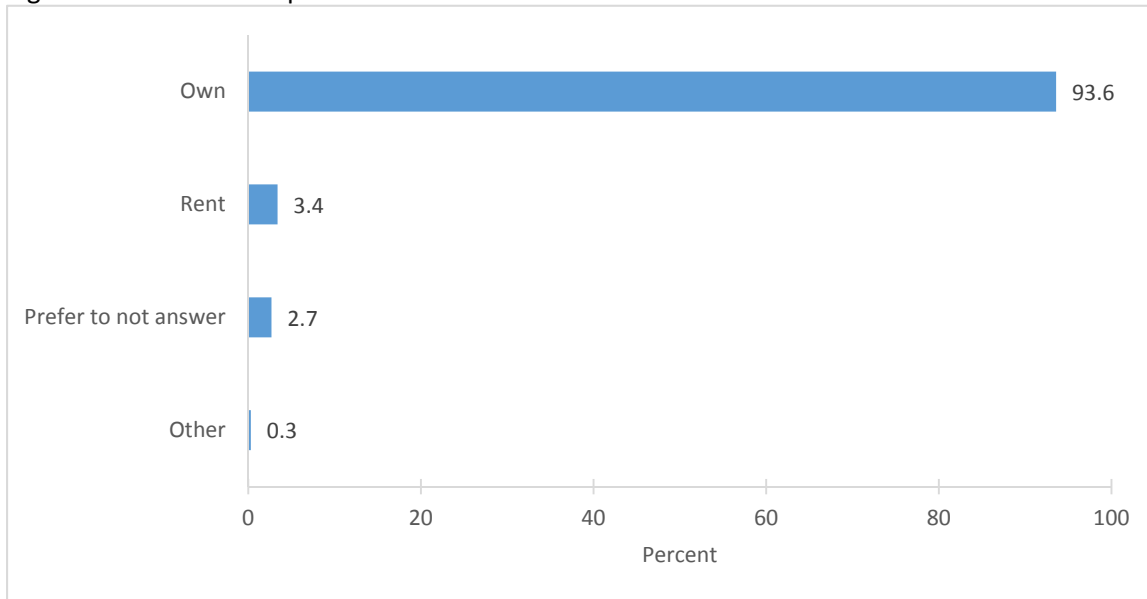
Figure 36. Length of time respondents have lived in their community



N=354



Figure 37. Whether respondents own or rent their homes



N=353

Figure 38. Whether respondents have health insurance (private, public, or governmental) or oral health or dental care coverage

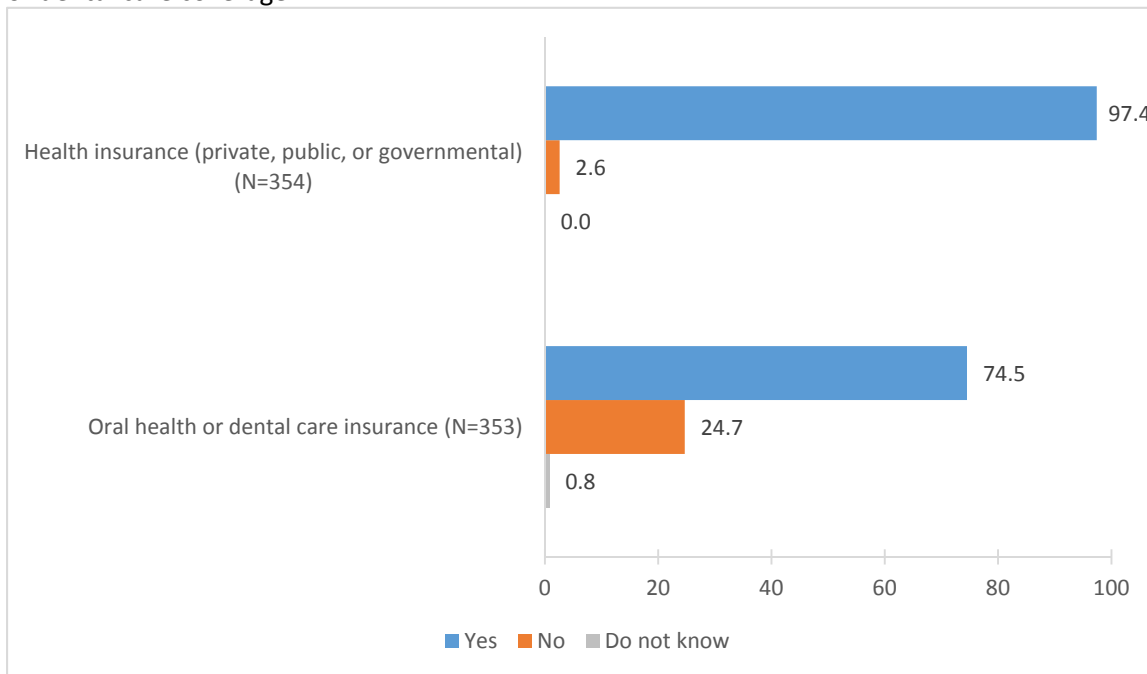
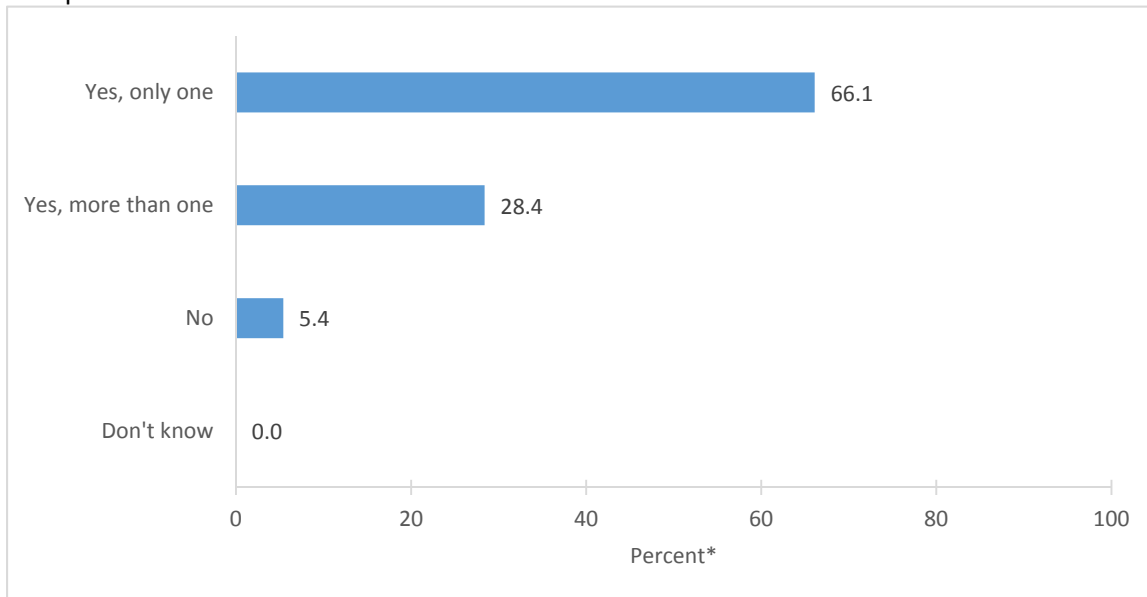


Figure 39. Whether respondents have one person who they think of as their personal doctor or health care provider



N=351

\*Percentages do not total 100.0 due to rounding.

Figure 40. Facilities that respondents go to most often when sick and take their children when they are sick

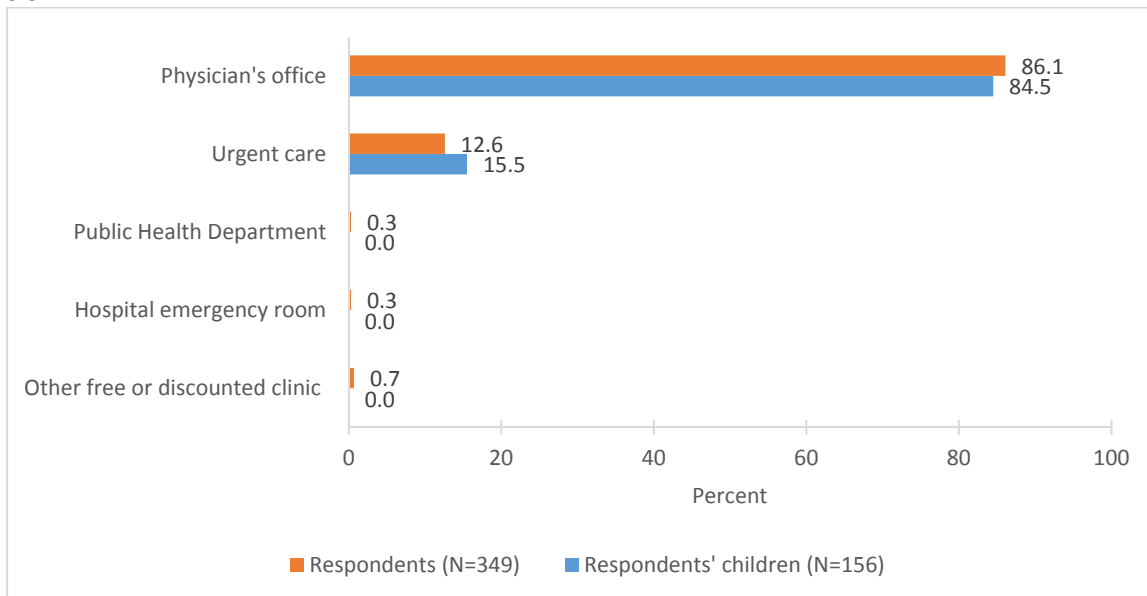


Figure 41. Number of children younger than 18 and number of adults age 65 or older living in respondents' household

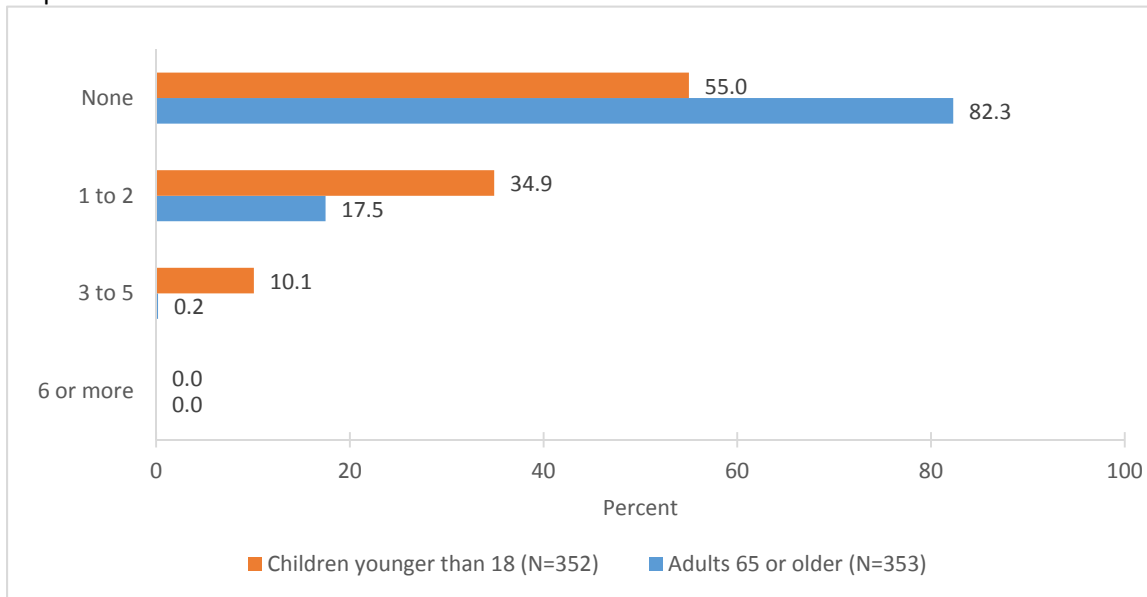
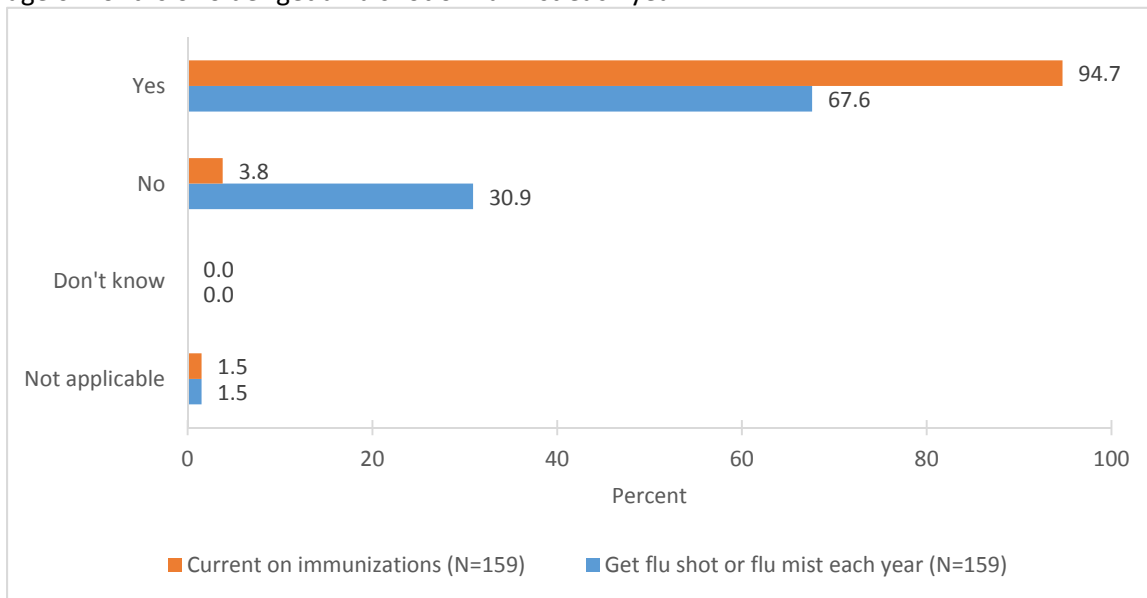


Figure 42. Of parents, whether all children in home are current on their immunizations and all children age 6 months or older get a flu shot or flu mist each year\*



\*Of respondents who have children younger than 18 years of age living in their household

Table 3. Zip codes of respondents

Zip Code	Number	Zip Code	Number
57106	48	57004	2
57103	47	57012	2
57105	39	57078	2
57005	38	57029	2
57108	27	57035	2
57110	23	57039	2
57104	16	57043	2
57032	10	57048	2
57068	10	57055	2
57033	9	57015	1
57013	8	57020	1
57022	8	57034	1
57030	8	57053	1
57058	6	57077	1
57107	6	57100	1
57064	5	57102	1
57014	4	57196	1
57070	3	57319	1
57003	2	57401	1