

# 2015 Bismarck-Mandan Community Health Needs Assessment of Residents

**September 2015**

Results from a March 2015 generalizable survey of community residents in the Bismarck-Mandan Metropolitan Area including Burleigh and Morton counties in North Dakota

Conducted through a partnership between the Community Health Collaborative and the Center for Social Research at North Dakota State University

**CSR**

Center for Social Research  
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# PREFACE

This report, entitled *2015 Greater Bismarck-Mandan Community Health Needs Assessment of Residents*, presents the results of a March 2015 generalizable survey of residents in Burleigh and Morton counties in North Dakota.

The study was conducted by the Center for Social Research at North Dakota State University on behalf of the Community Health Needs Collaborative. Funding for the study was provided by Collaborative member organizations.

## Greater Bismarck-Mandan Community Health Needs Assessment Collaborative Members

Sanford Health  
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Custer Health

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# EXECUTIVE SUMMARY

## Introduction

The purpose of this generalizable survey of residents in the Greater Bismarck-Mandan Metropolitan Area (i.e., Burleigh and Morton counties in North Dakota) was to learn about the perceptions of area residents regarding community health, their personal health, preventive health, and the prevalence of disease.

## Study Design and Methodology

A generalizable survey was conducted of residents in Burleigh County and Morton County, North Dakota. The survey instrument was developed in partnership with members of the Community Health Needs Collaborative (CHNC) and the Center for Social Research (CSR) at North Dakota State University (NDSU).

Staff at the CSR, along with members of the collaborative, created 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 instrument was designed as a scannable 8-page mail survey containing 55 questions. The questions focused on general community concerns, community health and wellness concerns, personal health, preventive health, and demographic characteristics.

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

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 scannable paper 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 an online version of the survey, was mailed to non-responders approximately 10 days after the initial survey was mailed. A total of 392 paper surveys were returned for scanning and an additional five surveys were completed online for a total of 397; the response rate was 26 percent. It was apparent that elderly and male respondents were overrepresented in the scanned results. Therefore, post-stratification weights were used 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 378 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

The findings in this study provide an overall snapshot of behaviors, attitudes, and perceptions of residents living in Burleigh and Morton counties in North Dakota. However, when comparing certain demographic characteristics (i.e., age, income, minority status) with the current population estimates from the U.S. Census Bureau<sup>1</sup>, it was evident that older, white, more highly educated, and higher income earners were overrepresented. Overrepresentation of this nature is typical in health needs assessments.

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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/>.

Literature reviews indicate that there are nonresponse rate issues among younger respondents<sup>2</sup>. In particular, response rates to health care and community health needs assessment surveys have often been found to be higher for older respondents<sup>3</sup>. Studies have also shown lower response rates for socially disadvantaged groups<sup>4</sup> (i.e., socially, culturally, or financially).

In order to supplement the findings of this study, particularly for the subpopulations that are underrepresented, one might consider utilizing other data resources, such as local public health data, North Dakota Compass<sup>5</sup>, and Behavior Risk Factor Surveillance System<sup>6</sup>.

Given the nature of this study, it may be necessary to reach out to community partnerships and implement a variety of recruitment techniques in order to gather information from underrepresented groups in future studies. However, one should be mindful of increased time commitments and financial resources that may be necessary when gathering data from hard-to-reach populations.

## Key Findings

Research indicates that optimal health and well-being is much more than merely physical health. Optimal health is an integrated and interconnected state where all components of health, such as physical, mental, social, spiritual, emotional, environmental, intellectual, and occupational health are balanced to contribute to an individual's quality of life.

The *Greater Bismarck-Mandan Community Health Needs Assessment* indicated a number of possible health challenges within the metropolitan area. Local health agencies may want to consider these key findings when developing and implementing education and advocacy efforts for the community.

*Community Health Concerns.* The greatest areas of concern among respondents are for the aging population, including the cost of long term care; safety issues (including the presence of street drugs, prescription drugs, and alcohol in the community; crime; presence of drug dealers in the community; sex trafficking; and domestic violence); physical health, including cancer; health care (including access to affordable health insurance, affordable prescription drugs, and affordable health care); and issues relating to substance use and abuse (including underage drug use and abuse).

Respondents have moderately high levels of concern with respect to issues relating to children and youth (i.e., bullying) as well as other physical health issues (i.e., chronic disease, inactivity and lack of exercise, and obesity). Other moderately high concerns relate to substance use and abuse issues (i.e., drug use and abuse), health care issues (i.e., cost of affordable dental insurance coverage and the cost of affordable vision insurance coverage), aging issues, (i.e., the availability of memory care and the availability of long term care), and the safety issue of child abuse and neglect.

Regarding economic issues, respondents have a moderately high concern regarding the availability of affordable housing. However, with respect to homelessness and hunger, respondents are moderately concerned. Regarding transportation issues, respondents have moderate concerns about driving habits and

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<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 the following examples: <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>.

<sup>4</sup> See the following literature review: [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3974746/#\\_ffn\\_sectitle](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3974746/#_ffn_sectitle).

<sup>5</sup> See North Dakota Compass site: <http://www.ndcompass.org/>.

<sup>6</sup> See Behavior Risk Factor Surveillance site: <http://www.cdc.gov/brfss/index.html>.

less concern regarding the availability of good walking or biking options and the cost and availability of public transportation. Overall, respondents are only moderately concerned about the environment (i.e., water quality, air quality, hazardous waste, home septic systems).

*Personal Health Concerns.* The study results suggest possible discrepancies between respondents' perceived personal health and their actual health status as determined by objective measures. For example, using the Body Mass Index (BMI) which calculates weight status using an individual's weight and height, the majority of respondents in the metro area are overweight or obese. However, the vast majority of community respondents rate their own health as excellent, very good, or good. With good overall health habits in mind, it is important to note that within the past year, three in four respondents visited a doctor or health care provider for a routine physical and four in five respondents visited a dentist or dental clinic.

Preventive health care promotes the detection and prevention of illness and disease and is another important component of good health and well-being. Community results indicate that within the past year, the majority of respondents had a blood pressure screening, blood sugar screening, cholesterol screening, dental screening, flu shot, glaucoma test, pelvic exam (females), breast cancer screening (females), and cervical cancer screening (females). However, there are many screenings and tests that a majority of respondents did not receive (i.e., bone density test, cardio screening, hearing screening, immunizations, STD test, vascular screening, colorectal cancer screening, prostate cancer screening (males), and skin cancer screening) in the past year. Many tests and screenings may be conditional upon guidelines, which can be age sensitive/appropriate. With that in mind, a number of screenings and tests were analyzed more closely based on age. With respect to the bone density test, older respondents are twice as likely as respondents overall to get tested. Regarding the colorectal cancer screening, older respondents are more likely than respondents overall to get tested/screened. Pertaining to the prostate cancer screening, older male respondents are nearly two times more likely than male respondents overall to get screened. Among respondents not screened, reasons cited most often are that the screening was not necessary or the doctor hadn't suggested it.

As the majority of community respondents are overweight or obese, it is important to consider that obesity is related to many chronic diseases and conditions, such as heart disease, stroke, type 2 diabetes, and certain types of cancer - many of which are leading causes of preventable death. When compared to the prevalence of chronic diseases in the U.S. overall, a slightly smaller proportion of metro area respondents report having high cholesterol (one in four respondents), a smaller proportion report having hypertension (one in five respondents), a smaller proportion report having arthritis (one in seven respondents), and a much smaller proportion report having diabetes (one in 17 respondents).

According to the Office of Disease Prevention and Health Promotion, it is recommended that individuals consume 3 to 5 servings of vegetables per day and 2 to 4 servings of fruit per day depending on age. Study results suggest that the majority of respondents do not meet vegetable recommended dietary guidelines. Specifically, less than one in three respondents eat the daily recommended serving size of vegetables. Just over half of respondents eat the daily recommended serving size of fruit.

Other healthy behavior recommendations are related to physical activity levels. Guidelines from the Centers for Disease Control and Prevention recommend that individuals participate in 150 minutes of moderate physical activity per week or 75 minutes of vigorous physical activity per week to help sustain and improve health. Study results suggest that the majority of respondents do not meet physical activity guidelines. Specifically, in an average week, one in four respondents reach the weekly recommended moderate physical activity level (5 or more days of at least 30 minutes of moderate physical activity). An additional one in four respondents reach the weekly recommended vigorous activity level (3 or more days of at least 30 minutes of vigorous physical activity).



Other lifestyle choices individuals make about how they live have a significant impact on their overall health. Study results indicate that the vast majority of community respondents are not currently tobacco users. However, three in 10 respondents have smoked at least 100 cigarettes in their lifetime, which indicates a former smoker status according to the Centers for Disease Control and Prevention.

Beyond physical health, mental health is an important component of well-being at every stage of life and impacts how we think, act, and feel. Mental health influences our physical health, how we handle stress, how we make choices, and relate to others. Among Bismarck-Mandan respondents, mental health is a moderately high area of concern, particularly stress, depression, dementia and Alzheimer's disease. One in six respondents have been told or diagnosed by a doctor or health professional that they have anxiety or stress and a similar proportion have been told they have depression. In addition, two in five respondents self-report that in the last month, there were days when their mental health was not good. One in eight respondents say their mental health was not good for at least eight of the last 30 days. Furthermore, when asked specifically about particular mental health issues, one in five respondents reported little interest or pleasure in doing things for several days or more in the last two weeks and one in six respondents say that for at least several days in the last two weeks they were feeling down, depressed, or hopeless.

Substance abuse is also a mental health disorder, as defined by the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (DSM-IV), and can stem from mental health concerns. In the Bismarck-Mandan community, one in five respondents drank alcoholic beverages on at least half of the days in the last month. On days they drank, nearly one in 10 respondents drank an average of four or more drinks per day. In regards to binge drinking, one in four respondents report binge drinking at least once per month. Specifically, 3 percent binge drink 2 to 3 times a week.

When asked if they have ever had a problem with alcohol use, one in 15 respondents say they have. Among those who had a problem, two-thirds received the help they needed. Overall, one in six respondents say alcohol use has had harmful effects on themselves or a family member.

Other forms of substance abuse include the abuse of prescription or non-prescription drugs; 5 percent respondents say prescription or non-prescription drug abuse has had harmful effects on themselves or a family member.

# SURVEY RESULTS

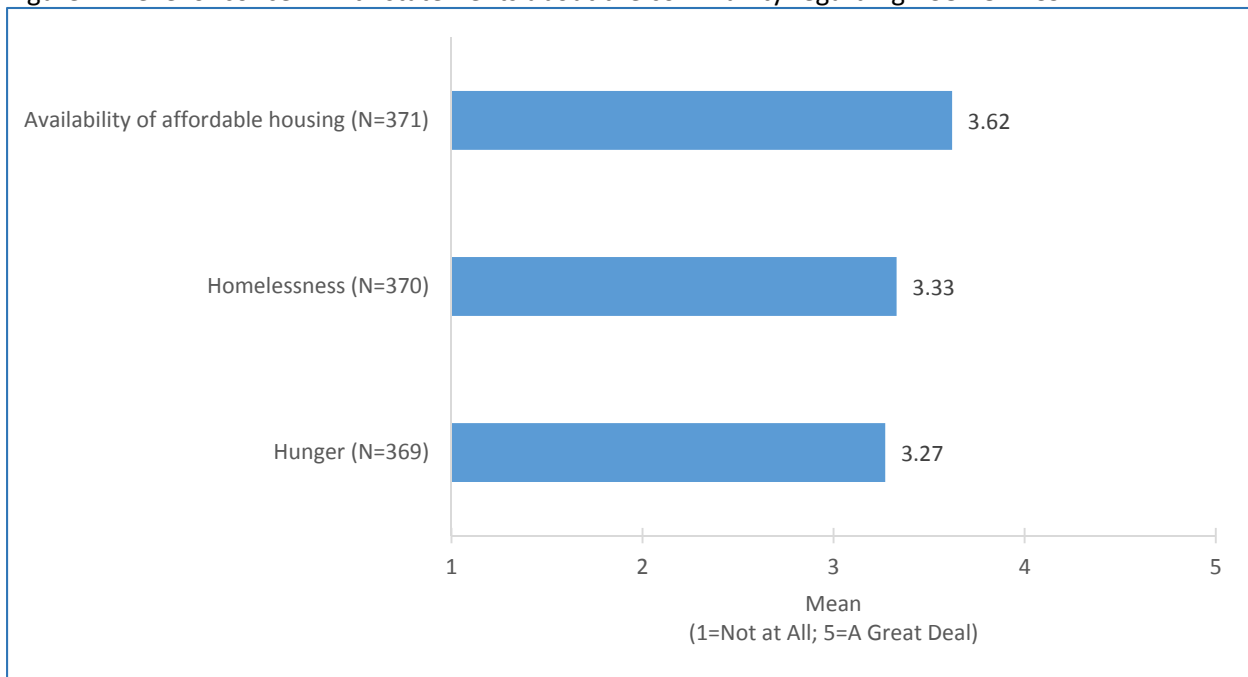
## General Health and Wellness Concerns about the Community

Using a 1 to 5 scale, with 1 being “not at all” and 5 being “a great deal,” 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.

Overall, respondents are moderately concerned about economic issues in their community (*Figure 1, Appendix Table 1*).

- On average, respondents are most concerned with the availability of affordable housing (mean=3.62); 28.9 percent of respondents have a great deal of concern.
- Although still moderately concerned, on average, respondents are less concerned about homelessness (mean=3.33), and hunger (mean=3.27).

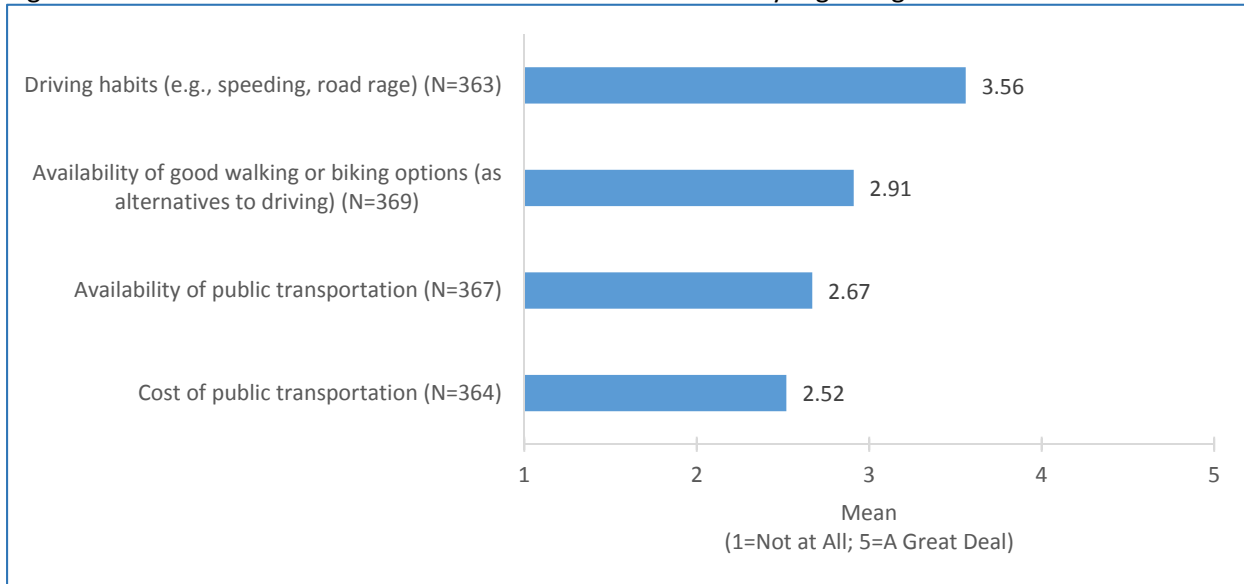
Figure 1. Level of concern with statements about the community regarding ECONOMICS



Overall, respondents are moderately concerned about transportation issues in their community (*Figure 2, Appendix Table 1*).

- On average, respondents are most concerned about driving habits (mean=3.56); 26.3 percent of respondents have a great deal of concern.
- Although still moderately concerned, on average, respondents are less concerned about the availability of good walking or biking options (mean=2.91), the availability of public transportation (mean=2.67), and the cost of public transportation (mean=2.52).

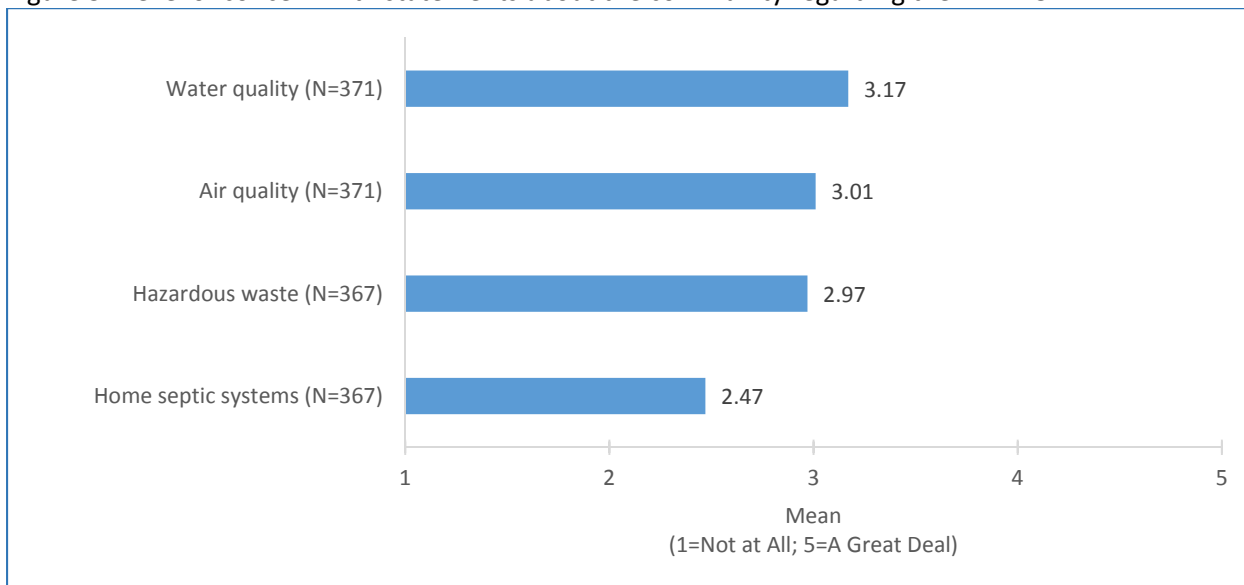
Figure 2. Level of concern with statements about the community regarding TRANSPORTATION



Overall, respondents are moderately concerned about environmental issues in their community (*Figure 3, Appendix Table 1*).

- On average, respondents are most concerned about water quality (mean=3.17), followed by air quality (mean=3.01), and hazardous waste (mean=2.97).
- On average, respondents are least concerned about home septic systems (mean=2.47).

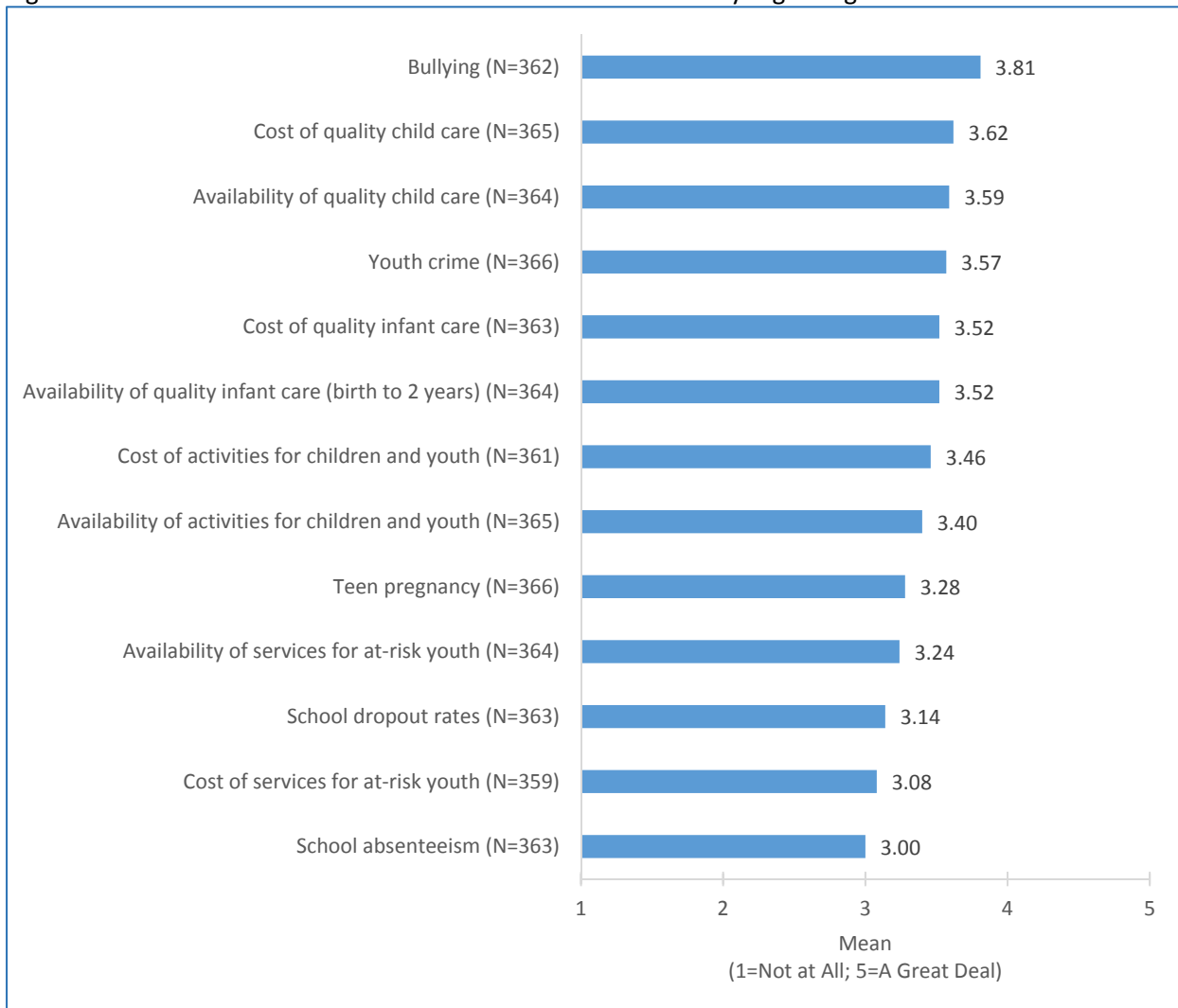
Figure 3. Level of concern with statements about the community regarding the ENVIRONMENT



Overall, respondents are moderately concerned about children and youth issues in their community (*Figure 4, Appendix Table 1*).

- On average, respondents are most concerned about bullying (mean=3.81); 32.8 percent are concerned a great deal.
- On average, respondents have a moderately high level of concern about youth crime and issues relating to quality infant and child care:
  - Cost of quality child care (mean=3.62); 29.7 percent are concerned a great deal.
  - Availability of quality child care (mean=3.59); 30.6 percent are concerned a great deal.
  - Youth crime (mean=3.57); 21.4 percent are concerned a great deal.
  - The cost of quality infant care (mean=3.52); 27.9 percent are concerned a great deal.
  - The availability of quality infant care (mean=3.52); 31.1 percent are concerned a great deal.
- Although still moderately concerned, on average, respondents are least concerned about:
  - Teen pregnancy (mean=3.28).
  - Availability of services for at-risk youth (mean=3.24).
  - School dropout rates (mean=3.14).
  - Cost of services for at-risk youth (mean=3.08).
  - School absenteeism (mean=3.00).

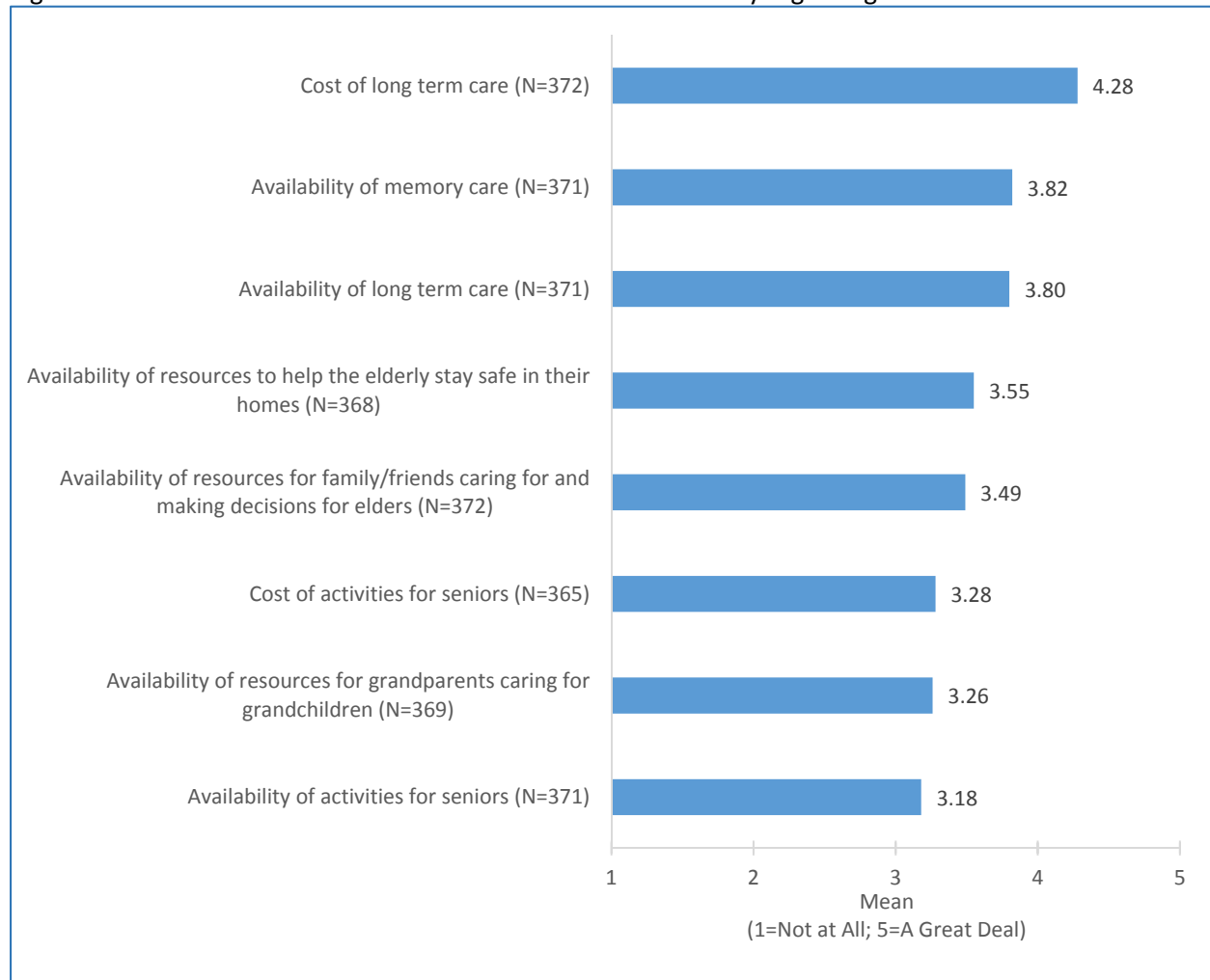
Figure 4. Level of concern with statements about the community regarding CHILDREN AND YOUTH



Overall, respondents have a moderately high level of concern about issues related to the aging population in their community (Figure 5, Appendix Table 1).

- On average, respondents are highly concerned about the cost of long term care (mean=4.28); 61.8 percent of respondents have a great deal of concern.
- On average, respondents have a moderately high level of concern about:
  - Availability of memory care (mean=3.82); 35.2 percent have a great deal of concern.
  - Availability of long term care (mean=3.80); 34.9 percent have a great deal of concern.
  - Availability of resources to help the elderly stay safe in their homes (mean=3.55); 23.3 percent have a great deal of concern.
- On average, respondents are moderately concerned about:
  - Availability of resources for family/friends caring for and making decisions for elders (mean=3.49).
  - Cost of activities for seniors (mean=3.28).
  - Availability of resources for grandparents caring for grandchildren (mean=3.26).
  - Availability of activities for seniors (mean=3.18).

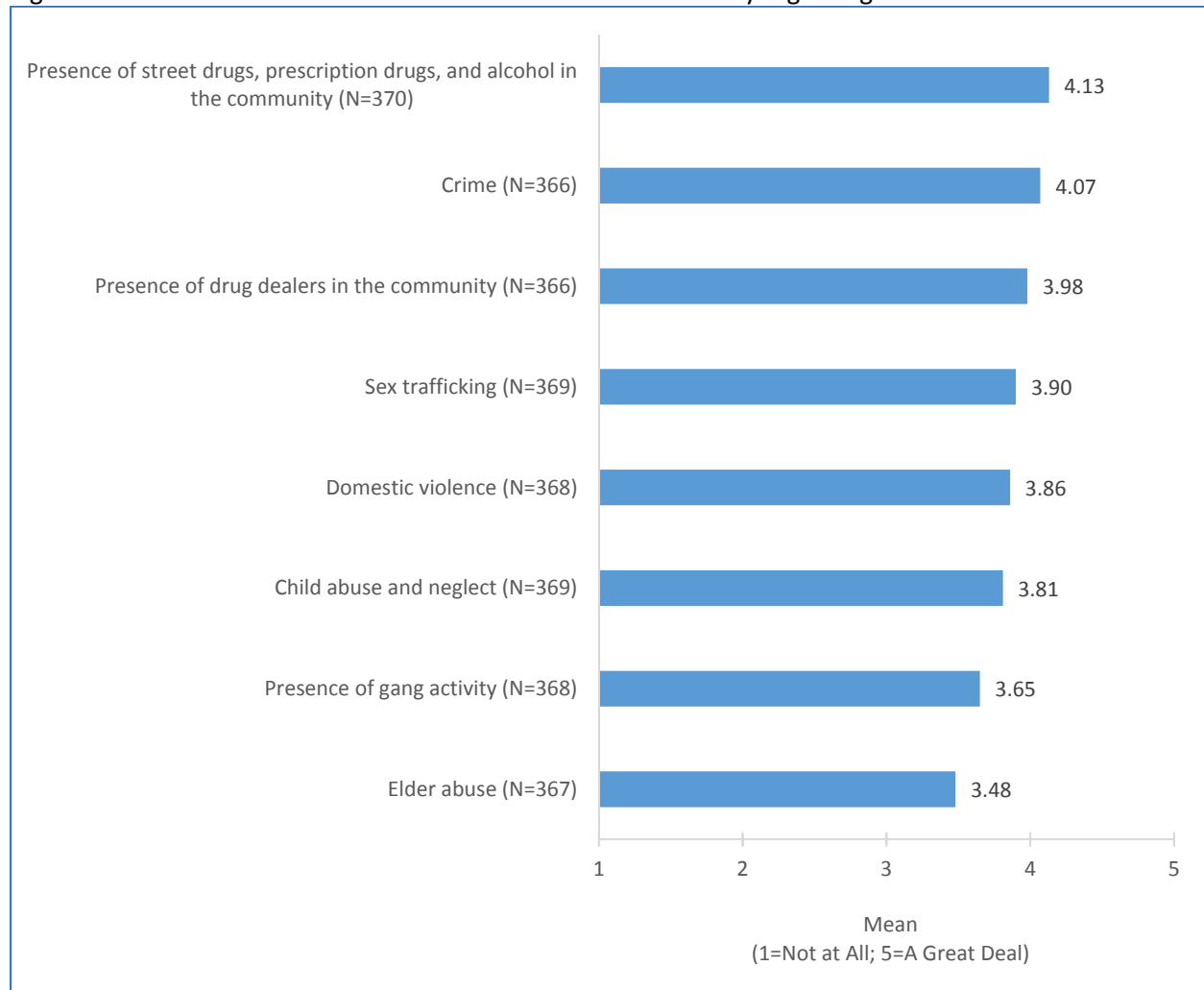
Figure 5. Level of concern with statements about the community regarding the AGING POPULATION



Overall, respondents have moderately high levels of concern with several safety issues in their community (Figure 6, Appendix Table 1).

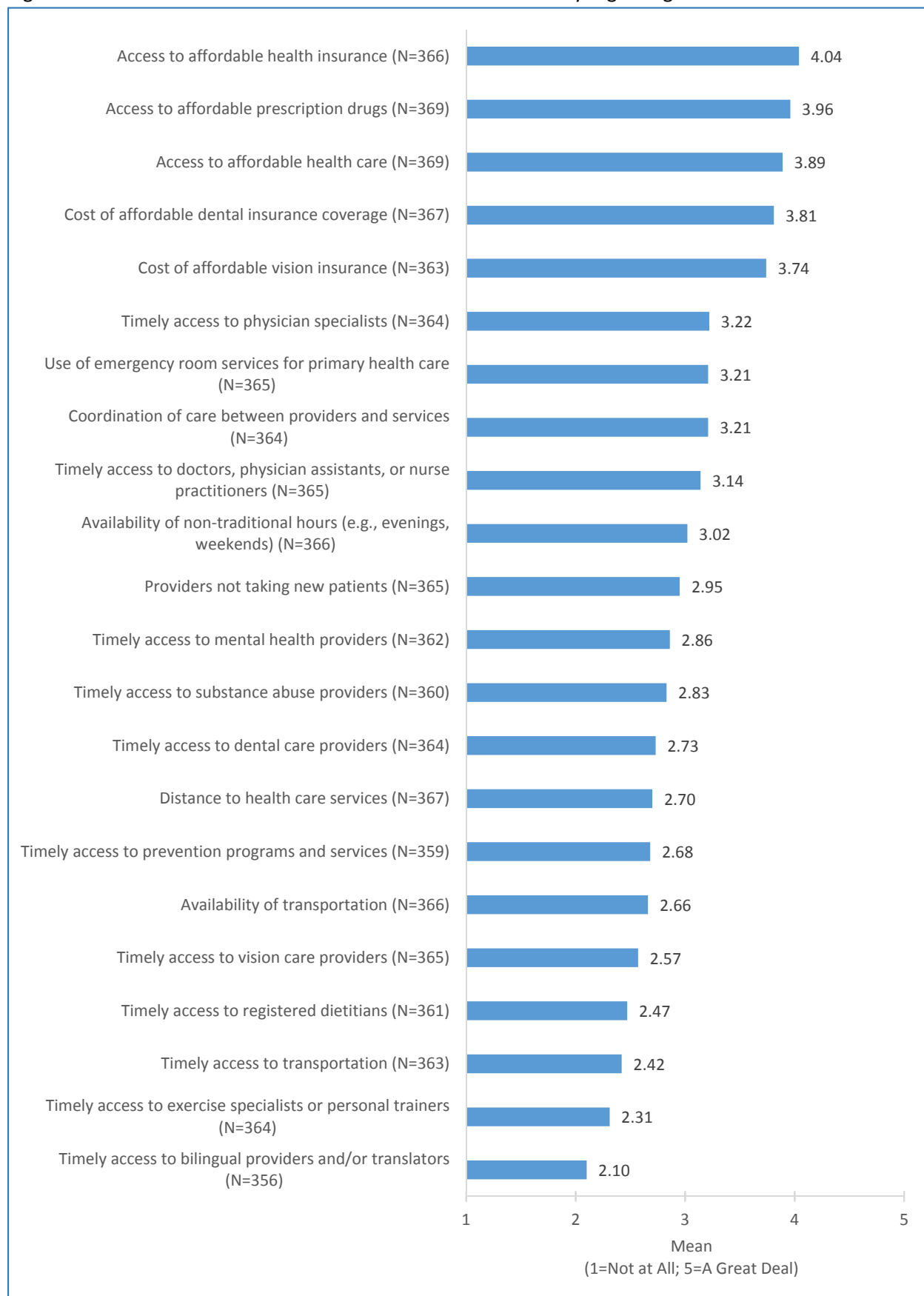
- On average, respondents are most concerned about:
  - The presence of street drugs, prescription drugs, and alcohol in the community (mean=4.13); 45.9 percent have a great deal of concern.
  - Crime (mean=4.07); 44.9 percent have a great deal of concern.
  - The presence of drug dealers in the community (mean=3.98); 44.2 percent have a great deal of concern.
  - Sex trafficking (mean=3.90); 39.7 percent have a great deal of concern.
  - Domestic violence (mean=3.86); 31.7 percent have a great deal of concern.
  - Child abuse and neglect (mean=3.81); 33.8 percent have a great deal of concern.
- On average, respondents have a moderately high level of concern about the presence of gang activity (mean=3.65); 33.3 percent have a great deal of concern.
- While still moderately concerned, on average, respondents are least concerned about elder abuse (mean=3.48).

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



- Overall, respondents are moderately concerned about health care issues (*Figure 7, Appendix Table 1*).
- On average, respondents are highly concerned about:
  - Access to affordable health insurance (mean=4.04); 48.0 percent are greatly concerned.
  - Access to affordable prescription drugs (mean=3.96); 43.1 percent are greatly concerned.
  - Access to affordable health care (mean=3.89); 41.1 percent are greatly concerned.
  - Cost of affordable dental insurance coverage (mean=3.81); 37.0 percent are greatly concerned.
  - Cost of affordable vision insurance (mean=3.74); 36.7 percent are greatly concerned.
- On average, respondents are moderately concerned about:
  - Timely access to physician specialists (mean=3.22).
  - Use of emergency room services for primary health care (mean=3.21).
  - Coordination of care between providers and services (mean=3.21).
  - Timely access to doctors, physician assistants, or nurse practitioners (mean=3.14)
- On average, respondents are least concerned about:
  - Timely access to registered dietitians (mean=2.47).
  - Timely access to transportation (mean=2.42).
  - Timely access to exercise specialists or personal trainers (mean=2.31).
  - Timely access to bilingual providers and/or translators (mean=2.10).

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

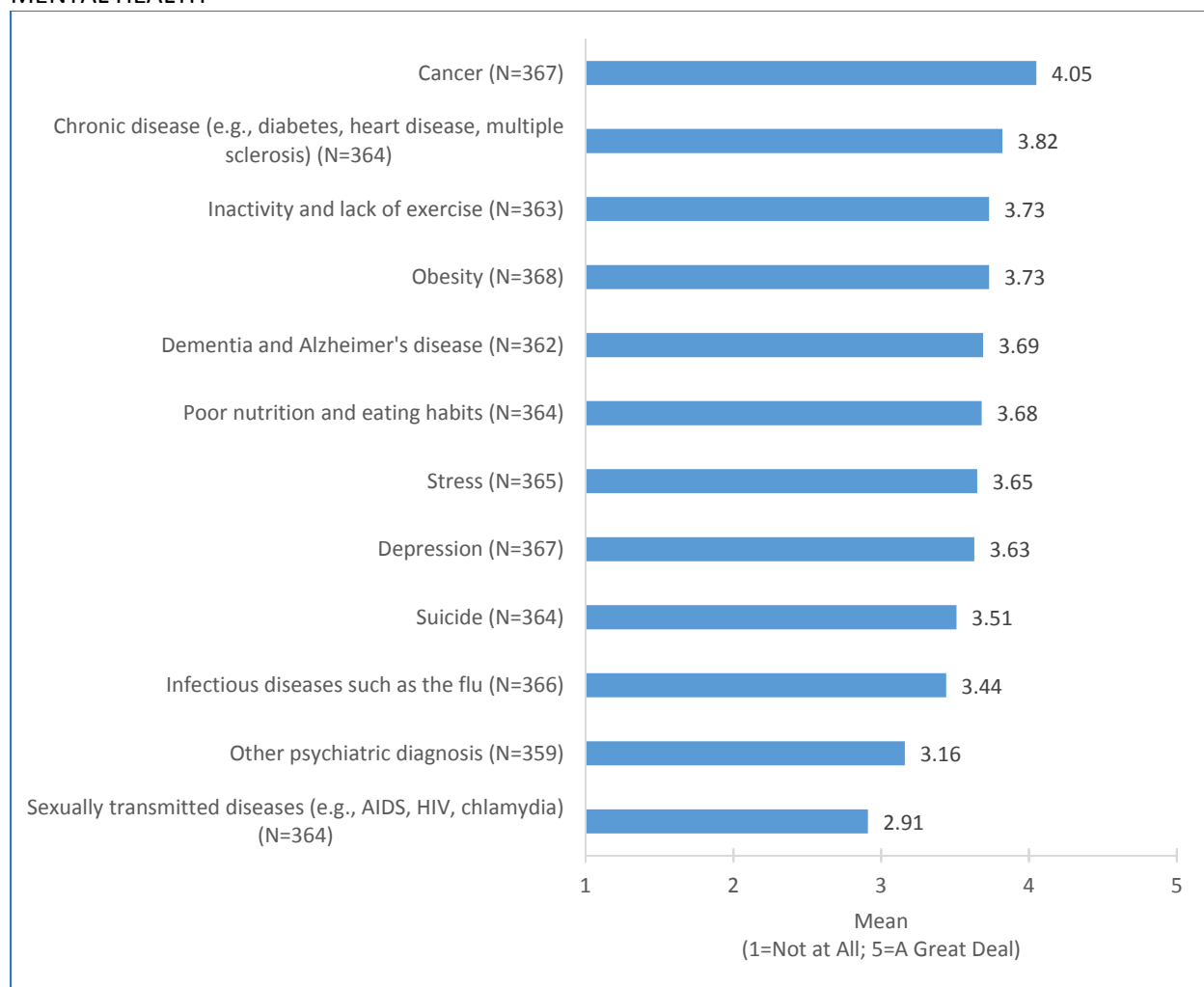




Overall, respondents have moderately high levels of concern about issues relating to physical and mental health (Figure 8, Appendix Table 1).

- On average, respondents are most concerned about:
  - Cancer (mean=4.05); 40.3 percent are greatly concerned.
  - Chronic disease (i.e., diabetes, heart disease, multiple sclerosis) (mean=3.82); 31.8 percent are greatly concerned.
- On average, respondents have moderately high levels of concern about:
  - Inactivity and lack of exercise (mean=3.73); 25.0 percent have a great deal of concern.
  - Obesity (mean=3.73); 26.5 percent have a great deal of concern.
  - Dementia and Alzheimer’s disease (mean=3.69); 25.1 percent have a great deal of concern.
  - Poor nutrition and eating habits (mean=3.68); 22.8 percent have a great deal of concern.
  - Stress (mean=3.65); 26.7 percent have a great deal of concern.
  - Depression (mean=3.63); 23.6 percent have a great deal of concern.
  - Suicide (mean=3.51); 25.9 percent have a great deal of concern.
- On average, respondents are moderately concerned about:
  - Infectious diseases such as the flu (mean=3.44).
  - Other psychiatric diagnosis (mean=3.16).
  - Sexually transmitted diseases (mean=2.91).

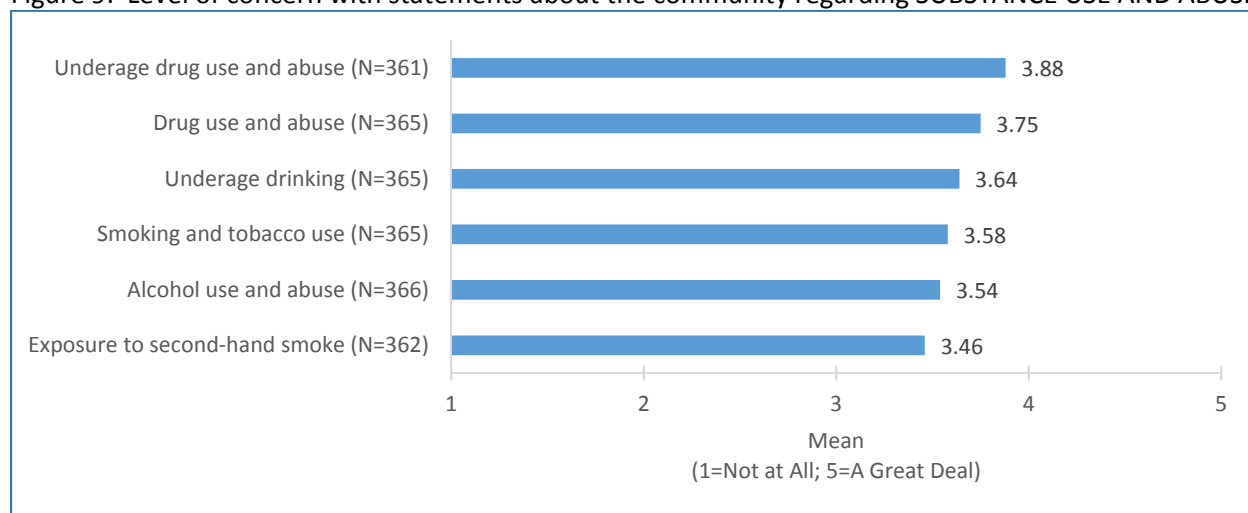
Figure 8. Level of concern with statements about the community regarding PHYSICAL AND MENTAL HEALTH



Overall, respondents have moderately high levels of concern about issues relating to substance use and abuse (Figure 9, Appendix Table 1).

- On average, respondents are most concerned about:
  - Underage drug use and abuse (mean=3.88); 40.8 percent of respondents are greatly concerned.
  - Drug use and abuse (mean=3.75); 36.2 percent are greatly concerned.
  - Underage drinking (mean=3.64); 32.0 percent are greatly concerned.
  - Smoking and tobacco use (mean=3.58); 32.5 percent are greatly concerned.
  - Alcohol use and abuse (mean=3.54); 30.3 percent of respondents have a great deal of concern.
- While still a moderate concern, on average, respondents are least concerned about exposure to second-hand smoke (mean=3.46), however, 31.5 percent have a great deal of concern.

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

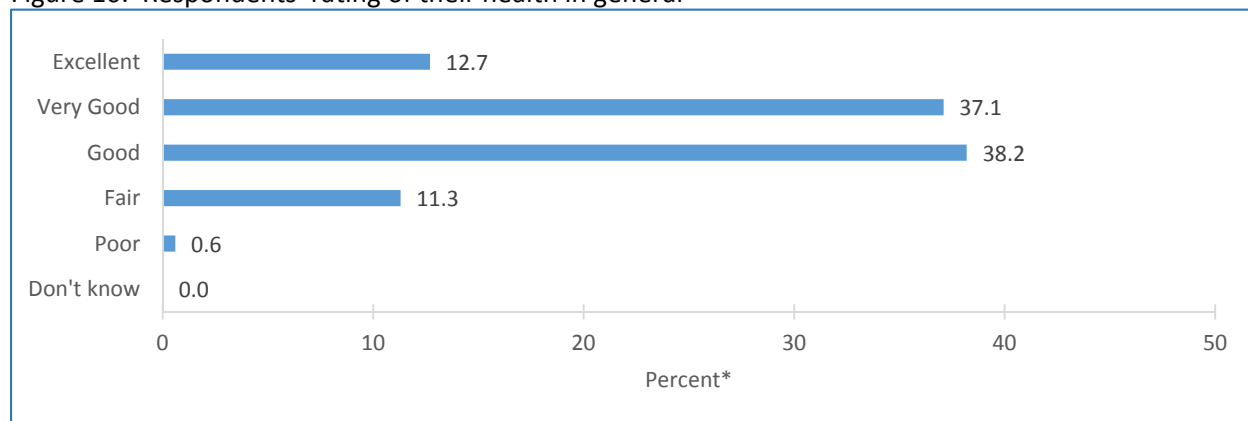


### General Health

Respondents were asked to rate their health in general (Figure 10, Appendix Table 2).

- Half of respondents say their health is very good or excellent (49.8 percent); 0.6 percent say their health is poor.

Figure 10. Respondents' rating of their health in general



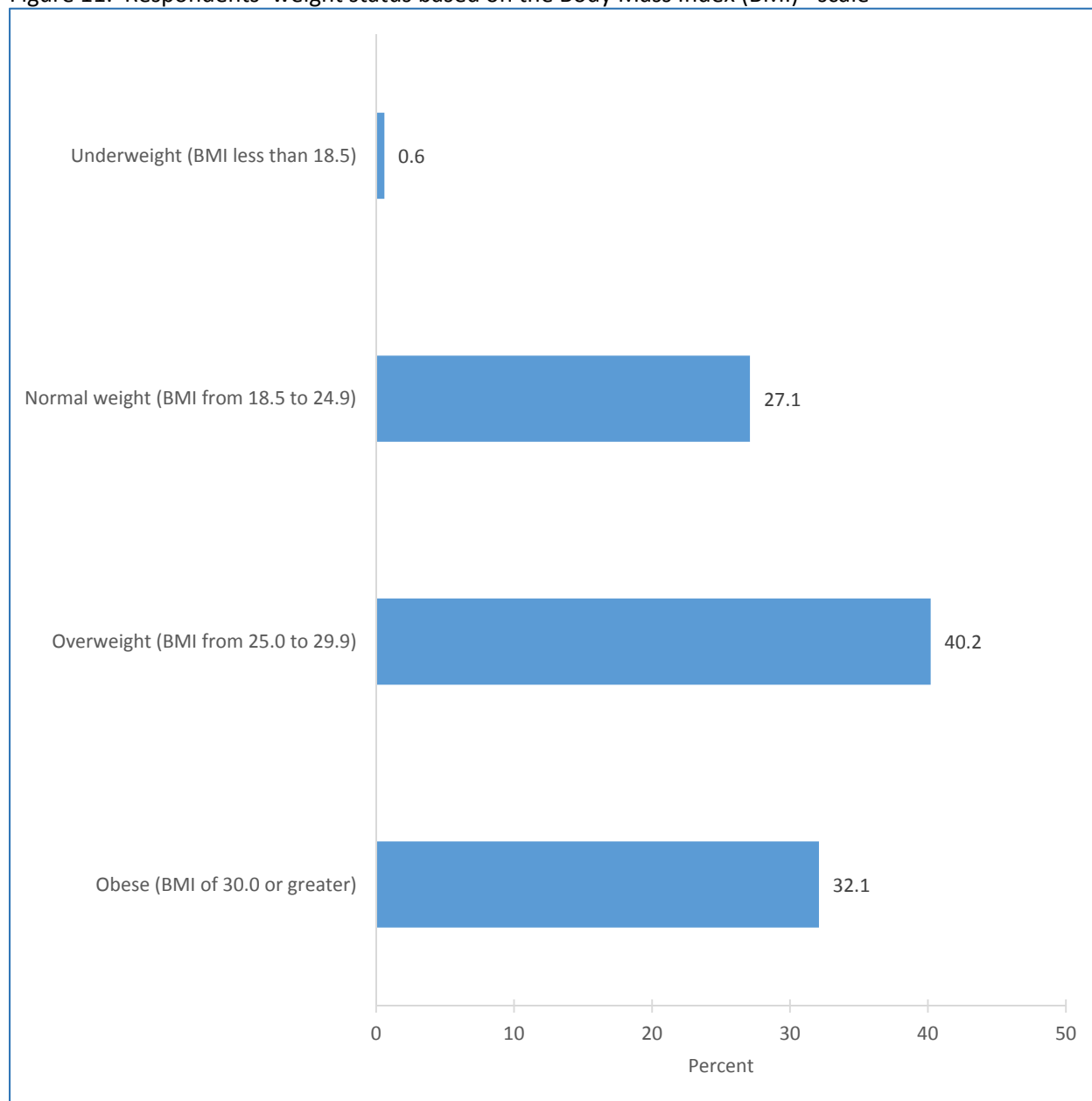
N=371

\*Percentages do not total 100.0 due to rounding.

Respondents were asked to report their height and weight. The weight status of respondents in Figure 11 was calculated using the Body Mass Index (BMI), which is derived from a person's height and weight.

- Seven in 10 respondents are overweight or obese (72.3 percent), including 40.2 percent who are overweight and 32.1 percent who are obese (Figure 11, Appendix Table 3).

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



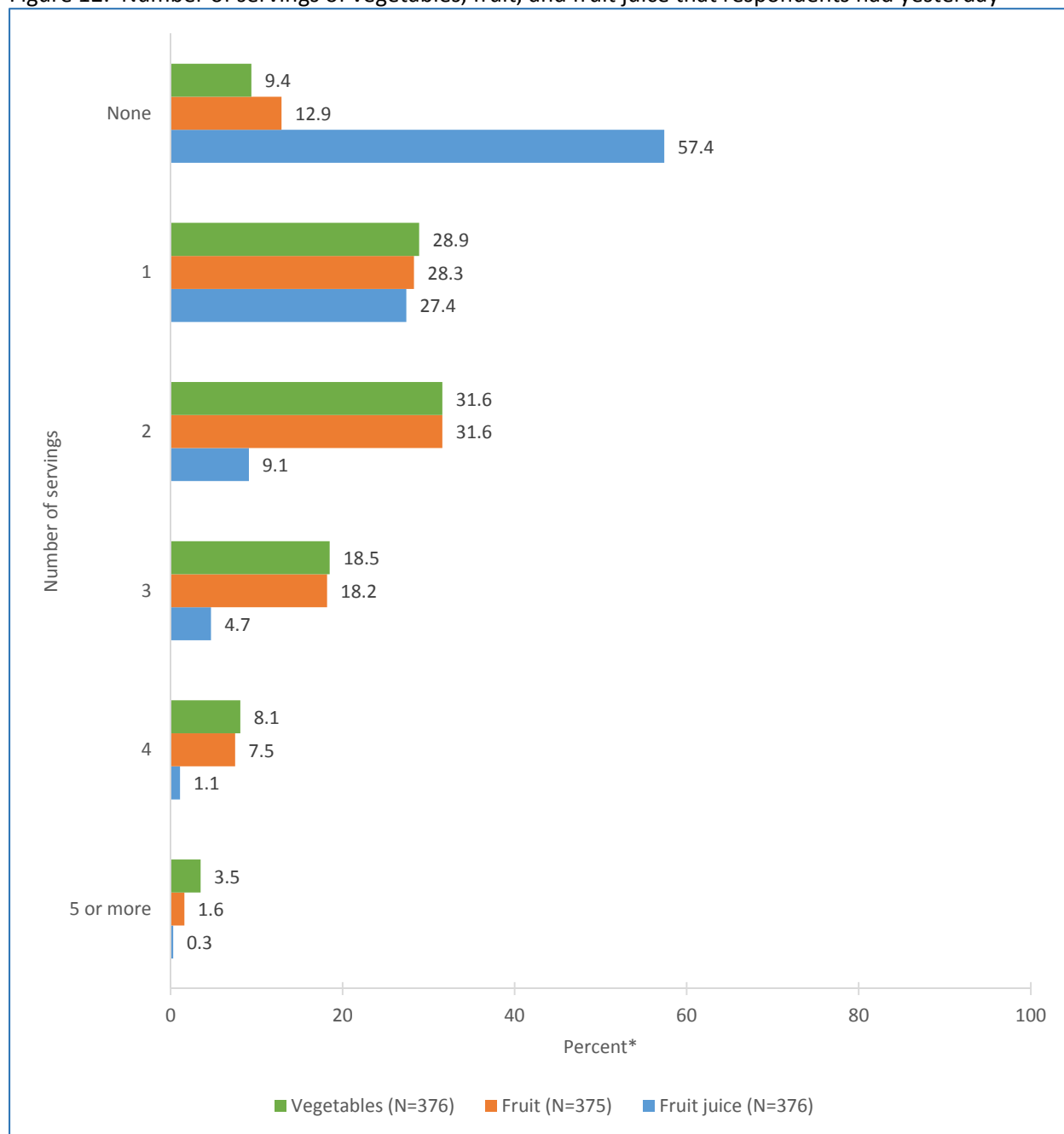
N=353

\*For information about the BMI, visit the Centers for Disease Control and Prevention, *About BMI for Adults*, [http://www.cdc.gov/healthyweight/assessing/bmi/adult\\_bmi/](http://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/).

Respondents were asked to report the number of vegetables, fruit, and fruit juice servings they had yesterday (Figure 12, Appendix Table 4).

- Three in 10 respondents (30.1 percent) ate the recommended serving size of vegetables (3 to 5 per day) yesterday; 28.9 percent had one serving and 9.4 percent had no servings.
- Three in five respondents (57.3 percent) ate the recommended servings of fruit (2 to 4 per day) yesterday; 28.3 percent had one serving and 12.9 percent had no servings.
- One in four respondents say they had one serving of fruit juice the previous day (27.4 percent); 57.4 percent had no servings of fruit juice.

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

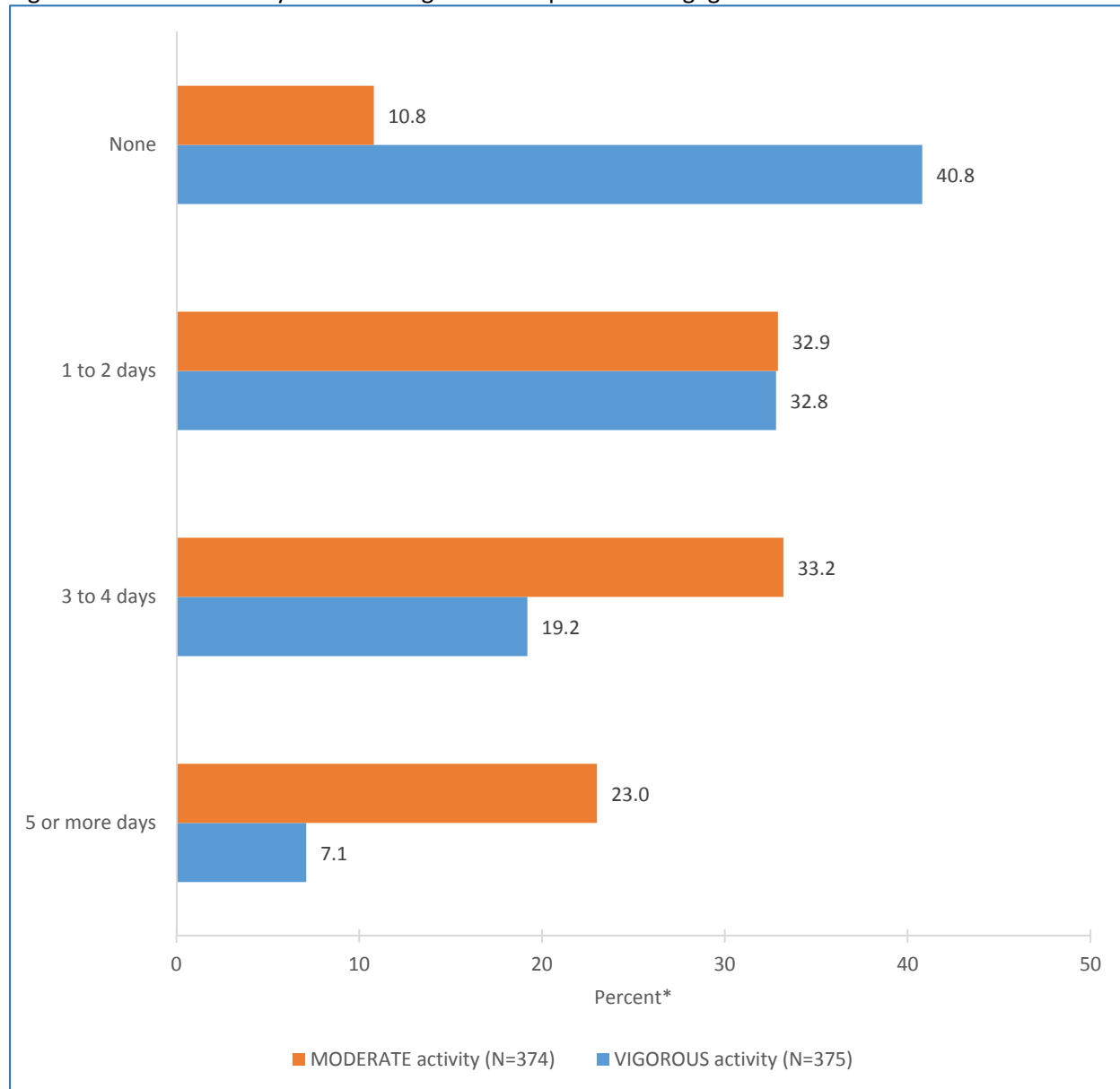


\*Percentages may not total 100.0 due to rounding.

Respondents were asked to report the number of days, in an average week, in which they get at least 30 minutes of moderate activity and 30 minutes of vigorous activity (Figure 13, Appendix Table 5).

- Approximately one in four respondents get the recommended level of moderate activity in an average week (5 or more days of at least 30 minutes per day) (23.0 percent); 32.9 percent say they get 30 minutes of moderate activity one to two days a week. One in 10 respondents (10.8 percent) do not get 30 minutes of moderate activity in an average week.
- One in four respondents get the recommended level of 30 minutes of vigorous activity three or more days a week (26.3 percent); 32.8 percent get vigorous exercise one to two days a week. Two in five respondents (40.8 percent) do not engage in vigorous physical activity for 30 minutes in an average week.

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



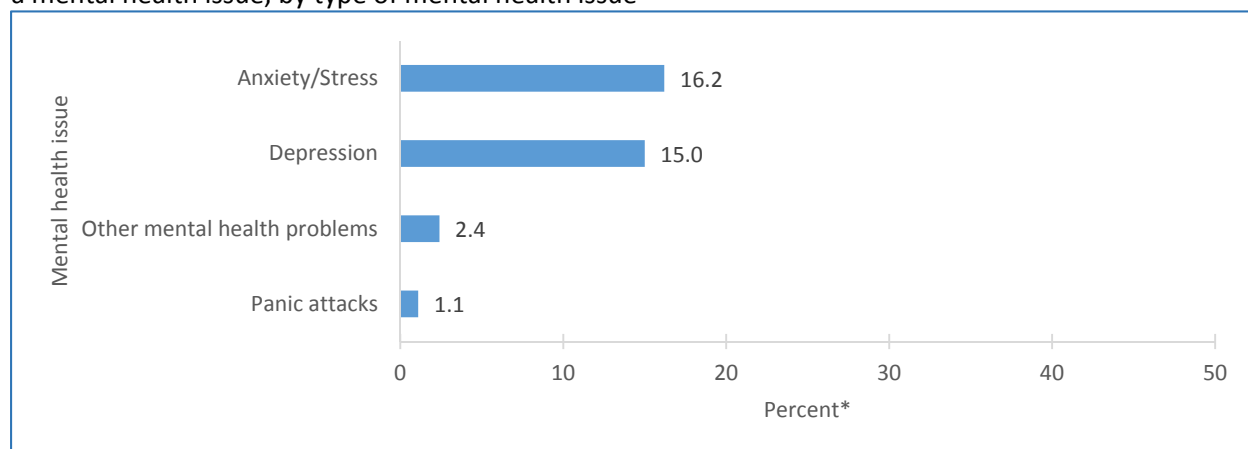
\*Percentages do not total 100.0 due to rounding.

## Mental Health

Respondents were asked if they have ever been told by a doctor or health professional that they have depression, anxiety/stress, panic attacks, or other mental health problems (Figure 14, Appendix Table 6).

- One in six respondents report being told by a doctor or health professional that they have anxiety/stress (16.2 percent); 15.0 have been diagnosed with depression.
- A small proportion have been told they have panic attacks or other mental health problems (1.1 percent and 2.4 percent, respectively).

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



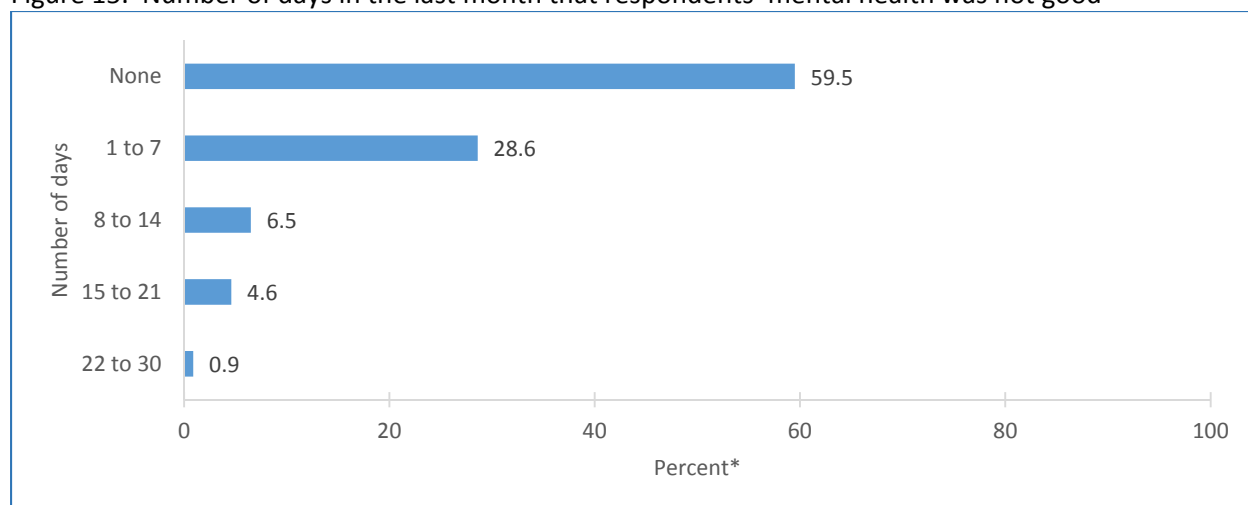
N=378

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

Respondents were asked to report how many days during the past 30 days their mental health was not good (Figure 15, Appendix Table 7).

- Two in five respondents say their mental health was not good sometime during the past month (40.5 percent); 28.6 percent say their mental health was not good for about one week or less and 5.5 percent of respondents say that their mental health was not good for at least half of the last month.

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



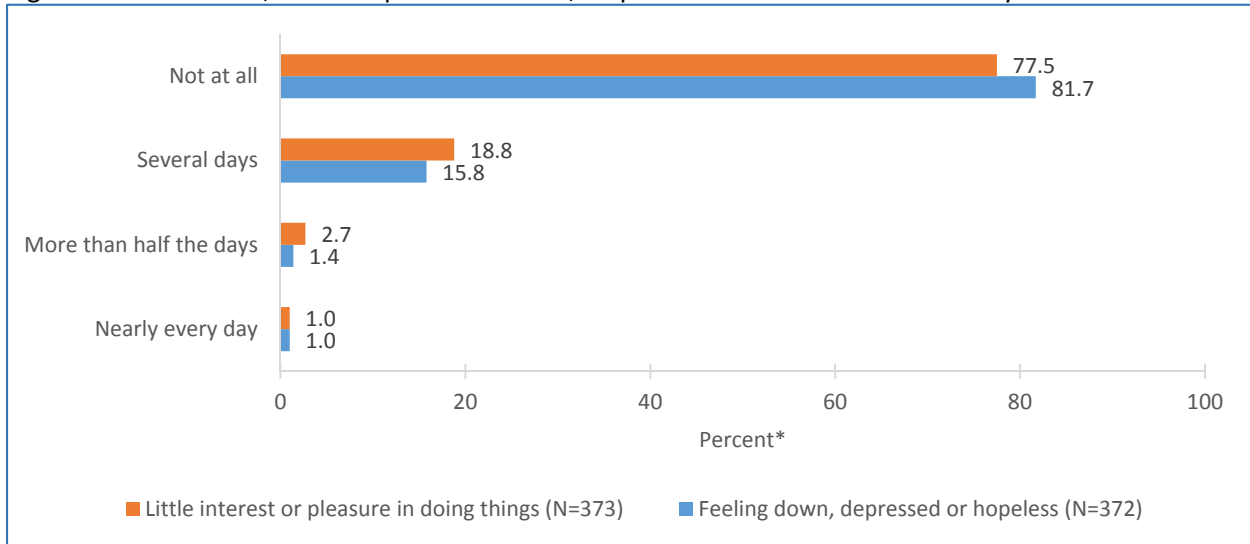
N=344

\*Percentages do not total 100.0 due to rounding.

Respondents were asked to report how often over the last two weeks they had been bothered by two specific mental health issues (*Figure 16, Appendix Table 8*).

- One in five respondents say that for several days in the last two weeks they had little interest or pleasure in doing things (18.8 percent); 1.0 percent say they had little interest or pleasure in doing things nearly every day.
- One in six respondents say that for several days in the last two weeks they were feeling down, depressed or hopeless (15.8 percent); 1.0 percent say they feel that way nearly every day.

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



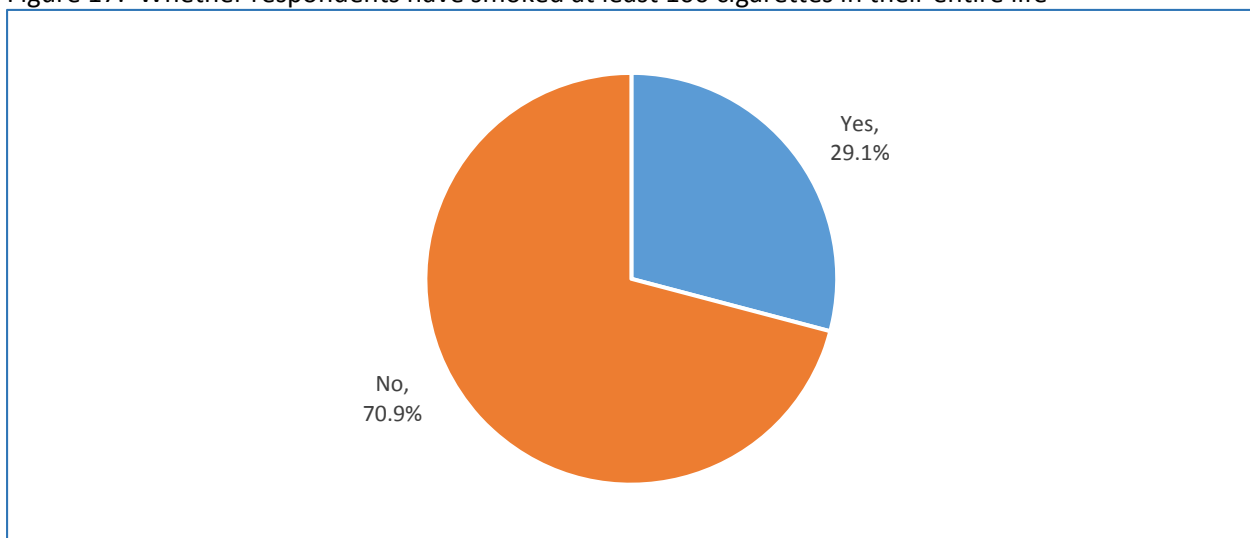
\*Percentages may not total 100.0 due to rounding.

### Tobacco Use

Respondents were asked whether they have smoked at least 100 cigarettes in their entire life (*Figure 17, Appendix Table 9*).

- Three in 10 respondents indicated they have smoked at least 100 cigarettes in their entire life (29.1 percent).

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

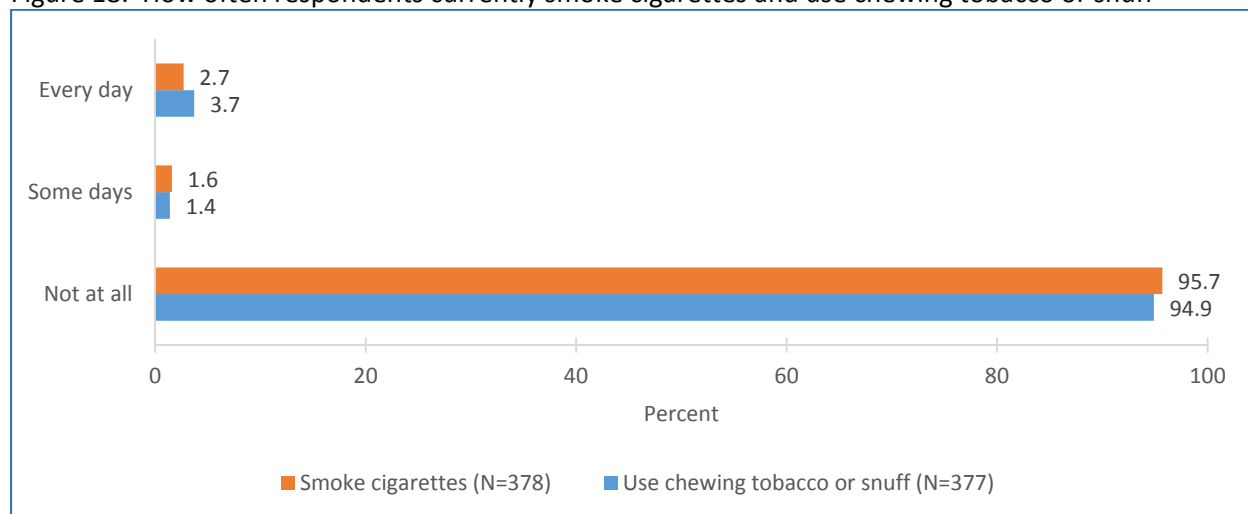


N=376

Respondents were asked how often they currently smoke cigarettes or use chewing tobacco or snuff (Figure 18, Appendix Table 10).

- A vast majority of respondents report they do not currently smoke cigarettes (95.7 percent) or use chewing tobacco or snuff (94.9 percent).

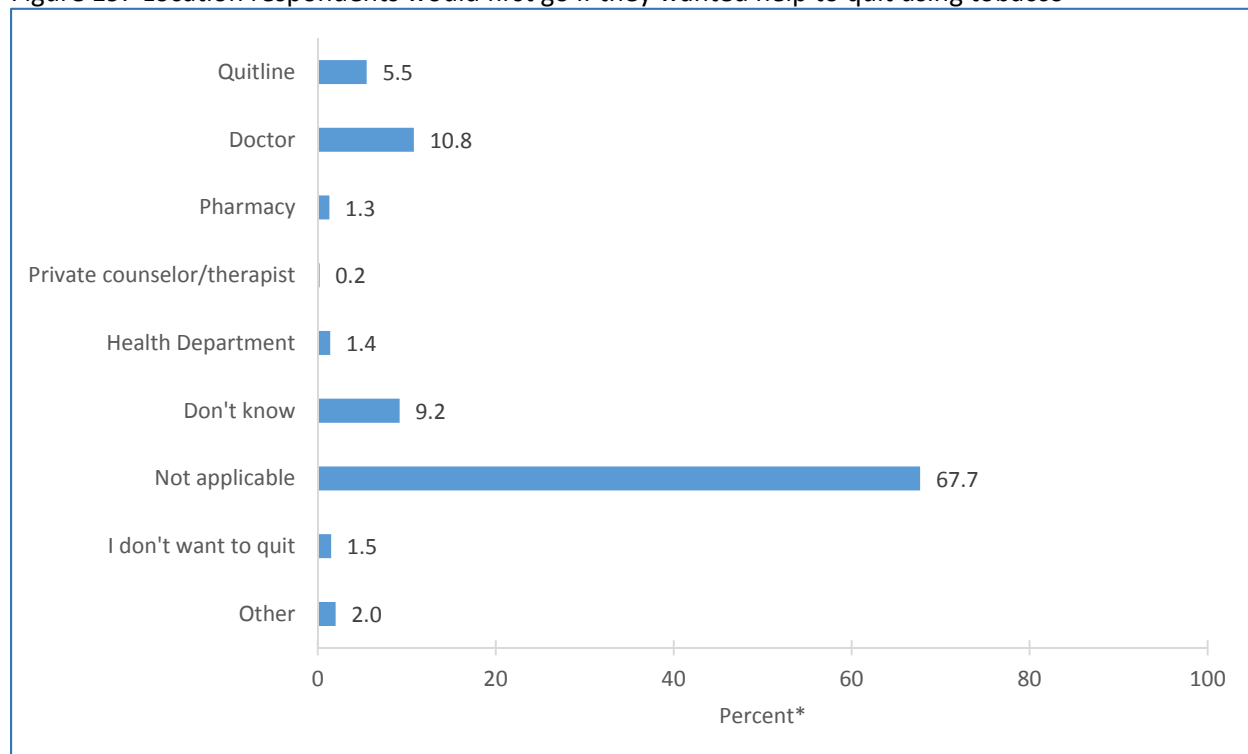
Figure 18. How often respondents currently smoke cigarettes and use chewing tobacco or snuff



Respondents were asked where they would first go for help to quit using tobacco (Figure 19, Appendix Table 11).

- One in 10 respondents say they would first go to their doctor if they wanted to quit using tobacco (10.8 percent); 5.5 percent say they would use Quitline.

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



N=344

\*Percentages do not total 100.0 due to rounding.

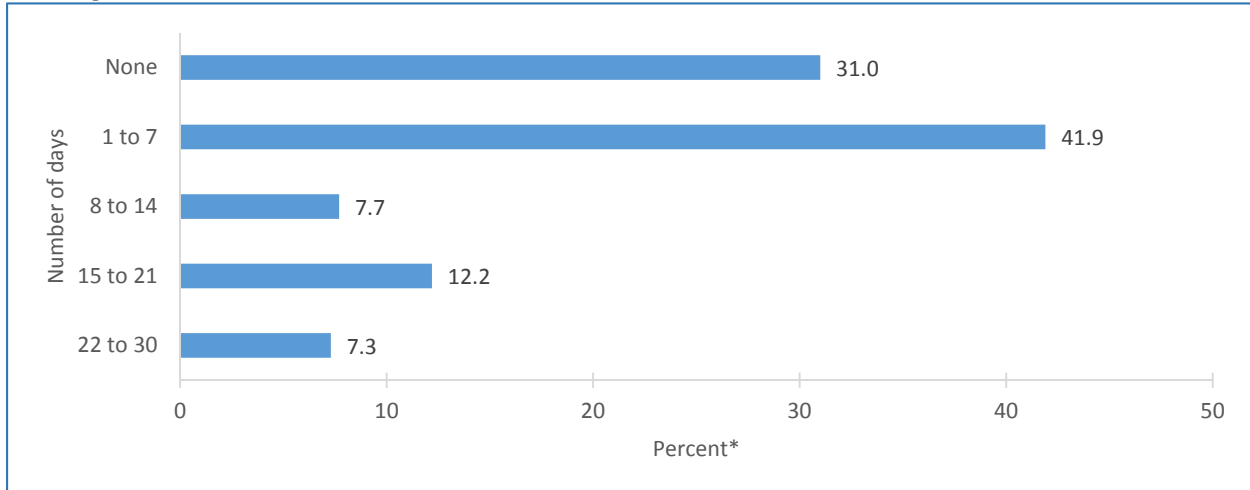


## Alcohol Use and Prescription Drug/Non-prescription Drug Abuse

Respondents were asked how many of the past 30 days they had at least one drink of any alcoholic beverage (Figure 20, Appendix Table 12).

- Two in five respondents say they drank an alcoholic beverage on, at most, seven of the last 30 days (41.9 percent); 19.5 percent say they drank an alcoholic beverage on at least half of the past 30 days.
- One in three respondents did not have any alcoholic beverages on the last 30 days (31.0 percent).

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



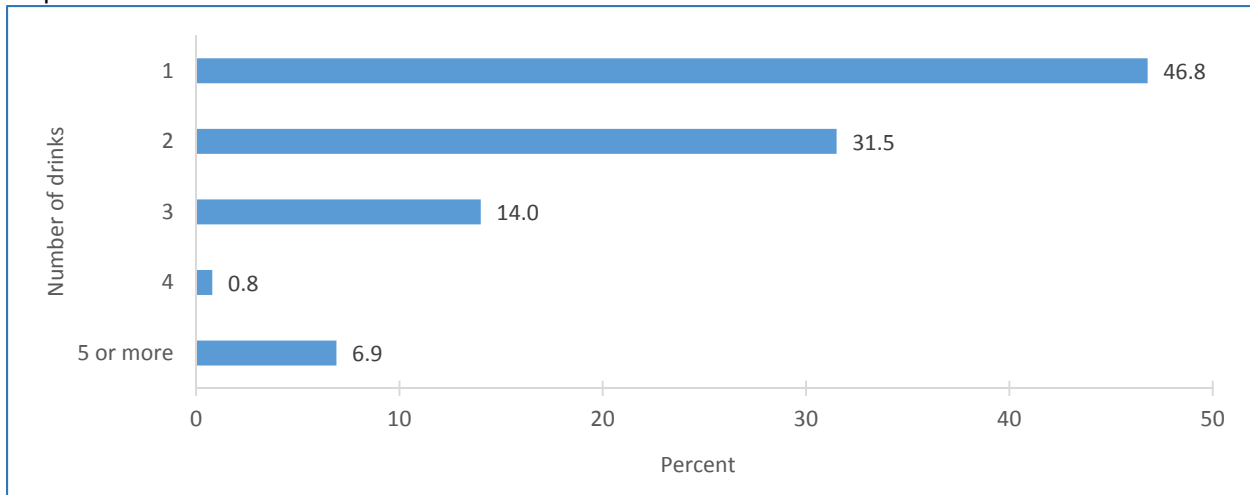
N=373

\*Percentages do not total 100.0 due to rounding.

Respondents who drank an alcoholic beverage during the last 30 days were asked to report the average number of drinks per day that they consumed (Figure 21, Appendix Table 13).

- Half of respondents say they averaged one alcoholic beverage per day during the last 30 days (46.8 percent); 31.5 percent say they averaged 2 alcoholic drinks per day and 6.9 percent averaged 5 or more drinks per day.

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

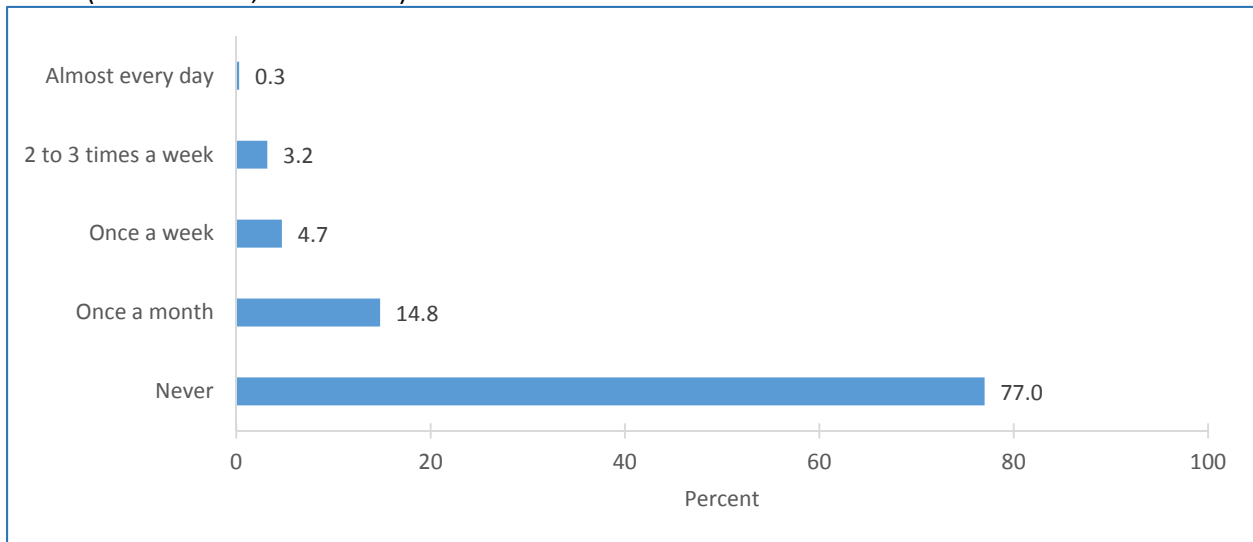


N=253

Respondents were asked how many times they consumed at least 4 or 5 alcoholic drinks on the same occasion, also defined as binge drinking\* (Figure 22, Appendix Table 14).

- Nearly one in 10 respondents report binge drinking at least once a week (8.2 percent), including 3.2 percent who binge drink 2 to 3 times a week.
- One in six respondents say they binge drink once a month (14.8 percent).

Figure 22. Number of times during the past month that respondents consumed at least 4 or 5 alcoholic drinks (4 for females, 5 for males) on the same occasion



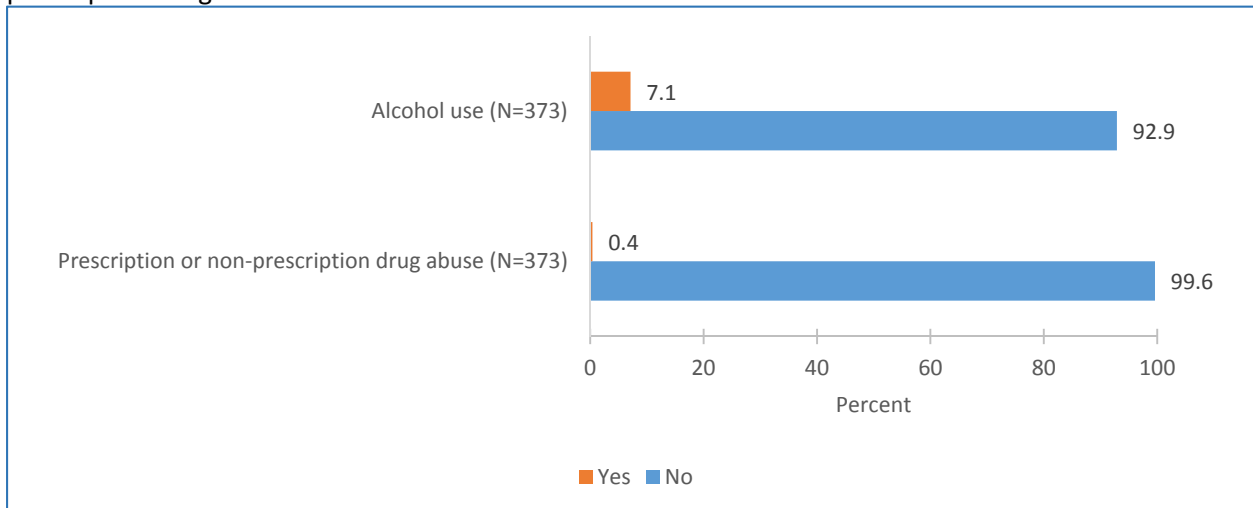
N=374

\*For information about binge drinking, visit the National Institute on Alcohol Abuse and Alcoholism, *Drinking Levels Defined* <http://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/moderate-binge-drinking>.

Respondents were asked whether they have ever had a problem with alcohol use and prescription or non-prescription drug abuse (Figure 23, Appendix Table 15).

- The vast majority of respondents report never having a problem with alcohol use (92.9 percent). Nearly all respondents report not ever having a problem with prescription or non-prescription drug abuse (99.6 percent).

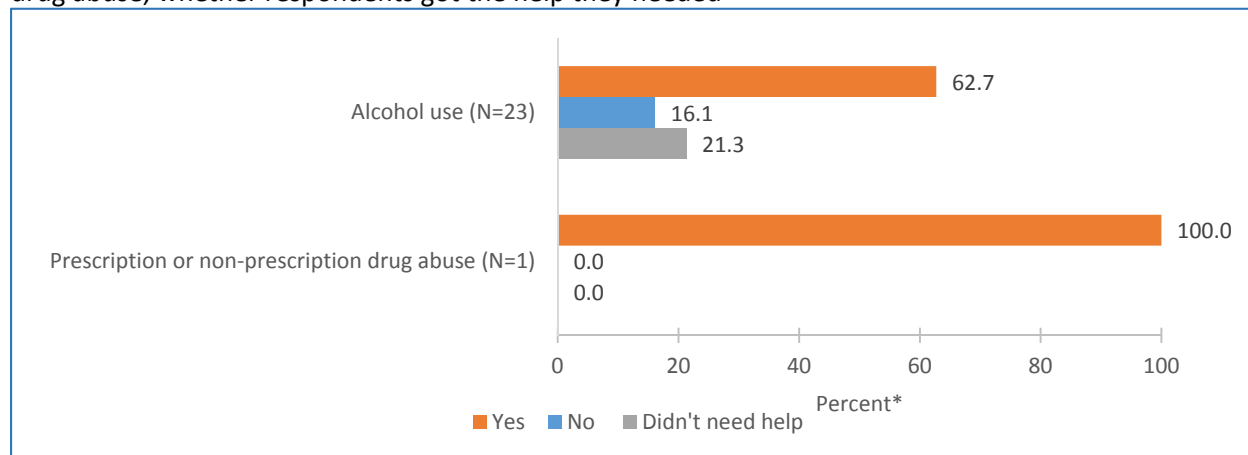
Figure 23. Whether respondents have ever had a problem with alcohol use or prescription or non-prescription drug abuse



Respondents who had a problem with alcohol use or prescription or non-prescription drug abuse were asked if they had gotten the help they needed (*Figure 24, Appendix Table 16*).

- Two in three respondents who had a problem with alcohol use say they got the help they needed (62.7 percent); 16.1 percent did not get the help they needed.
- All respondents who had a problem with prescription or non-prescription drug abuse say they got the help they needed (100.0).

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

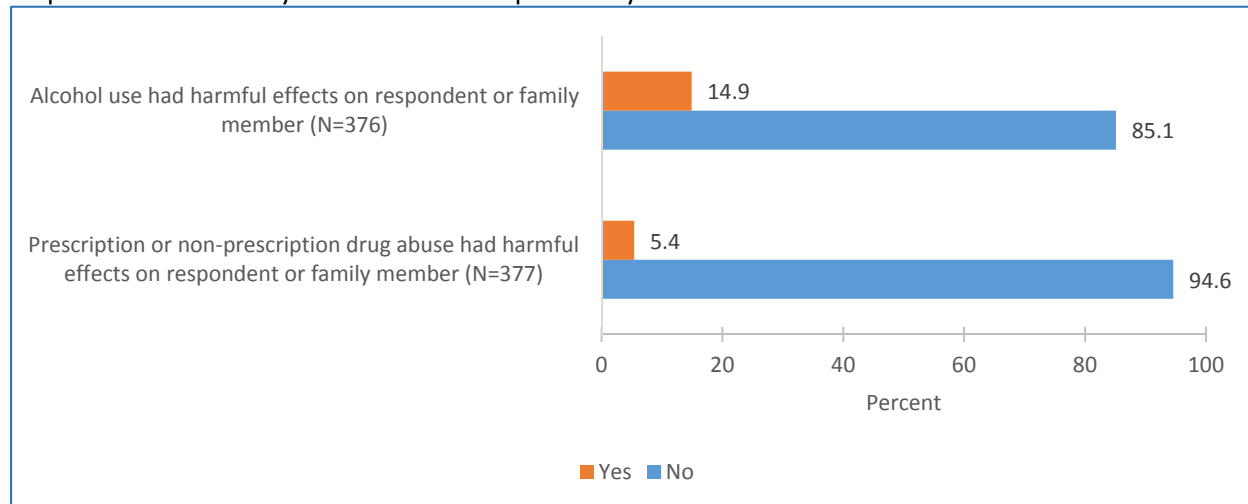


\*Percentages may not total 100.0 due to rounding.

Respondents were asked if alcohol use or prescription or non-prescription drug abuse had harmful effects on themselves or a family member over the past two years (*Figure 25, Appendix Table 17*).

- Although the vast majority of respondents say that alcohol use has not had harmful effects on themselves or a family member over the past two years (85.1 percent), 14.9 percent say they or a family member had suffered harmful effects from alcohol use.
- The vast majority of respondents say that prescription or non-prescription drug abuse has not had harmful effects on themselves or a family member over the past two years (94.6 percent); 5.4 percent say they or a family member had suffered harmful effects from prescription or non-prescription drug abuse.

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

Respondents were asked to indicate whether they had preventive screenings and procedures in the last year (Table 1).

- Within the past year, a majority of respondents had a blood pressure screening, blood sugar screening, cholesterol screening, dental screening, flu shot, glaucoma test, and pelvic exam (females), breast cancer screening (females), and cervical cancer screening (females).
- The majority of respondents did not receive a bone density test, cardio screening, hearing screening, immunizations, STD test, vascular screening, colorectal cancer screening, prostate cancer screening (males), and skin cancer screening in the past year.
- Many tests and screenings may be conditional upon guidelines, which can be age sensitive or appropriate. With that in mind, a number of tests and screenings were analyzed based on age.
  - With respect to the bone density test, older respondents are twice as likely as respondents overall to get tested.
  - With respect to colorectal cancer screening, older respondents are more likely than respondents overall to get screened.
  - Regarding the prostate cancer screening, older male respondents are twice as likely as male respondents overall to get screened.

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=376)	87.8	12.2	100.0
Blood sugar screening (N=372)	64.8	35.2	100.0
Bone density test (N=370)	13.2	86.8	100.0
Cardiovascular screening (N=370)	31.4	68.6	100.0
Cholesterol screening (N=374)	69.2	30.8	100.0
Dental screening and X-rays (N=375)	80.3	19.7	100.0
Flu shot (N=376)	62.4	37.6	100.0
Glaucoma test (N=371)	59.2	40.8	100.0
Hearing screening (N=372)	17.4	82.6	100.0
Immunizations (tetanus, hepatitis A or B) (N=366)	20.3	79.7	100.0
Pelvic exam (N=187 Females)	73.0	27.0	100.0
STD (N=358)	4.0	96.0	100.0
Vascular screening (N=359)	10.7	89.3	100.0
<b>CANCER SCREENINGS</b>			
Breast cancer screening (N=189 Females)	79.0	21.0	100.0
Cervical cancer screening (N=186 Females)	66.8	33.2	100.0
Colorectal cancer screening (N=366)	39.7	60.3	100.0
Prostate cancer screening (N=181 Males)	44.9	55.1	100.0
Skin cancer screening (N=369)	29.5	70.5	100.0

Respondents who did not get preventive screenings, were asked to specify the reasons why they did not.

- For most types of screenings, the most common reasons for not getting the test or procedure are that it is not necessary and the doctor has not suggested one.

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

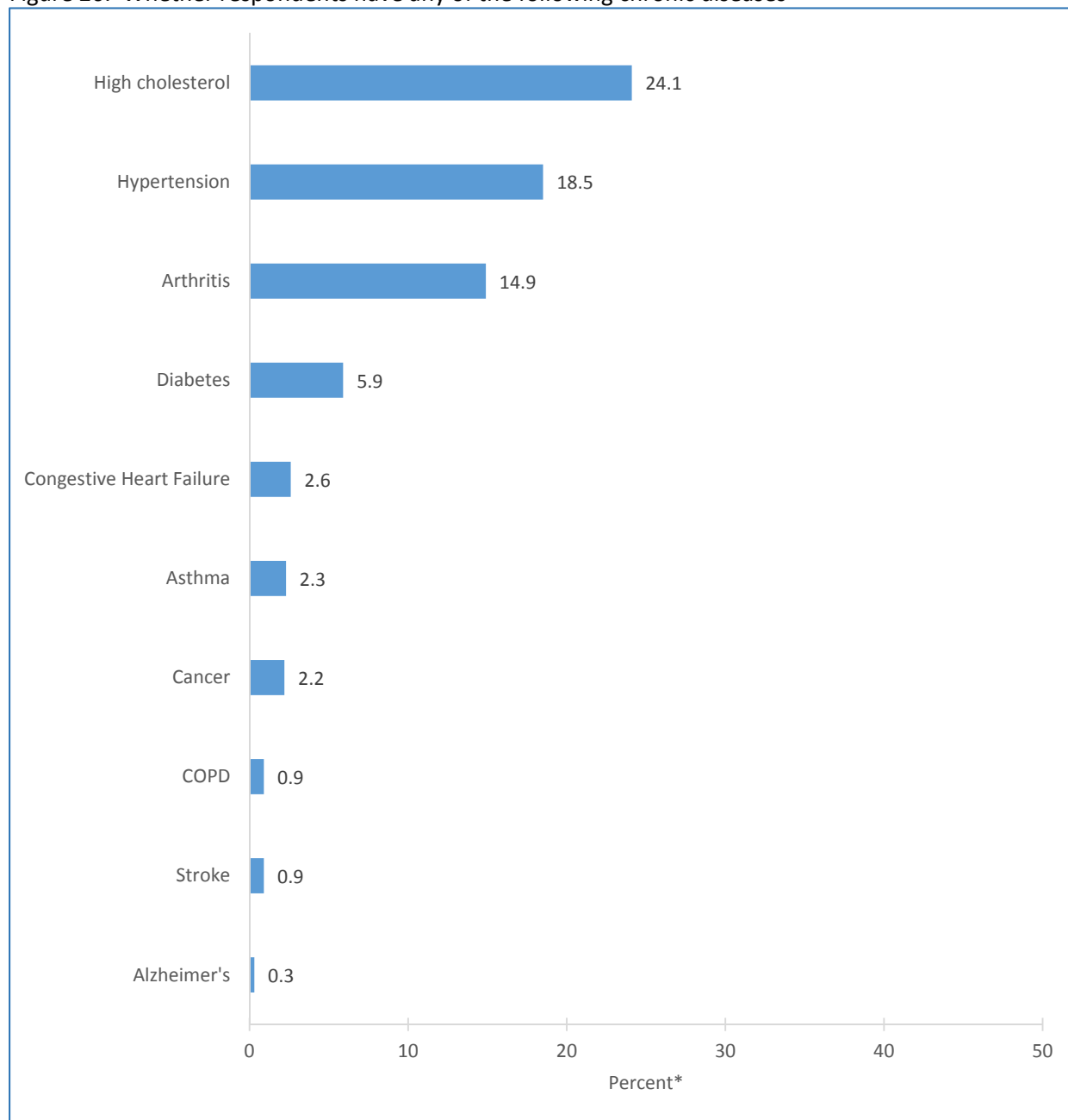
Type of screening	Percent of respondents*						
	Not necessary	Doctor hasn't suggested	Cost	Fear of procedure	Fear of results	Unable to access care	Other reason
<b>GENERAL SCREENINGS</b>							
Blood pressure screening (N=46)	56.9	15.9	7.0	0.0	1.6	1.3	16.7
Blood sugar screening (N=131)	50.3	36.0	5.1	0.0	0.0	0.5	9.1
Bone density test (N=321)	43.2	42.7	2.9	0.0	0.0	0.2	8.6
Cardiovascular screening (N=254)	36.1	50.5	2.9	0.0	0.2	0.2	5.9
Cholesterol screening (N=115)	32.5	34.2	8.8	0.0	0.5	0.5	15.7
Dental screening and X-rays (N=74)	34.7	9.9	18.6	0.8	0.0	6.3	23.7
Flu shot (N=141)	44.6	2.0	4.9	2.9	9.8	0.0	30.7
Glaucoma test (N=151)	49.5	29.4	7.1	0.0	0.0	0.4	11.6
Hearing screening (N=307)	59.5	24.4	4.6	0.0	1.0	0.2	6.0
Immunizations (N=292)	72.5	14.5	2.3	0.0	0.2	0.0	5.8
Pelvic exam (N=51 Females)	48.8	25.0	0.0	0.0	0.0	0.0	19.8
STD (N=344)	81.4	8.2	0.1	0.0	0.0	0.0	1.8
Vascular screening (N=321)	48.5	38.7	2.3	0.3	0.0	0.2	4.4
<b>CANCER SCREENINGS</b>							
Breast cancer screening (N=40 Females)	43.2	12.9	0.0	1.9	0.0	0.0	38.1
Cervical cancer screening (N=62 Females)	65.0	17.3	0.0	0.0	0.0	0.0	12.7
Colorectal cancer screening (N=221)	47.0	28.5	6.5	2.3	0.0	0.3	10.7
Prostate cancer screening (N=100 Males)	23.9	49.9	9.6	3.8	0.0	0.6	10.5
Skin cancer screening (N=260)	41.1	36.8	3.7	0.0	1.5	0.0	6.3

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

Respondents were asked to report whether they have any chronic diseases (Figure 26, Appendix Table 18).

- The top three chronic diseases that respondents reported having are:
  - High cholesterol (24.1 percent)
  - Hypertension (18.5 percent)
  - Arthritis (14.9 percent)
  - Diabetes (5.9 percent)

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



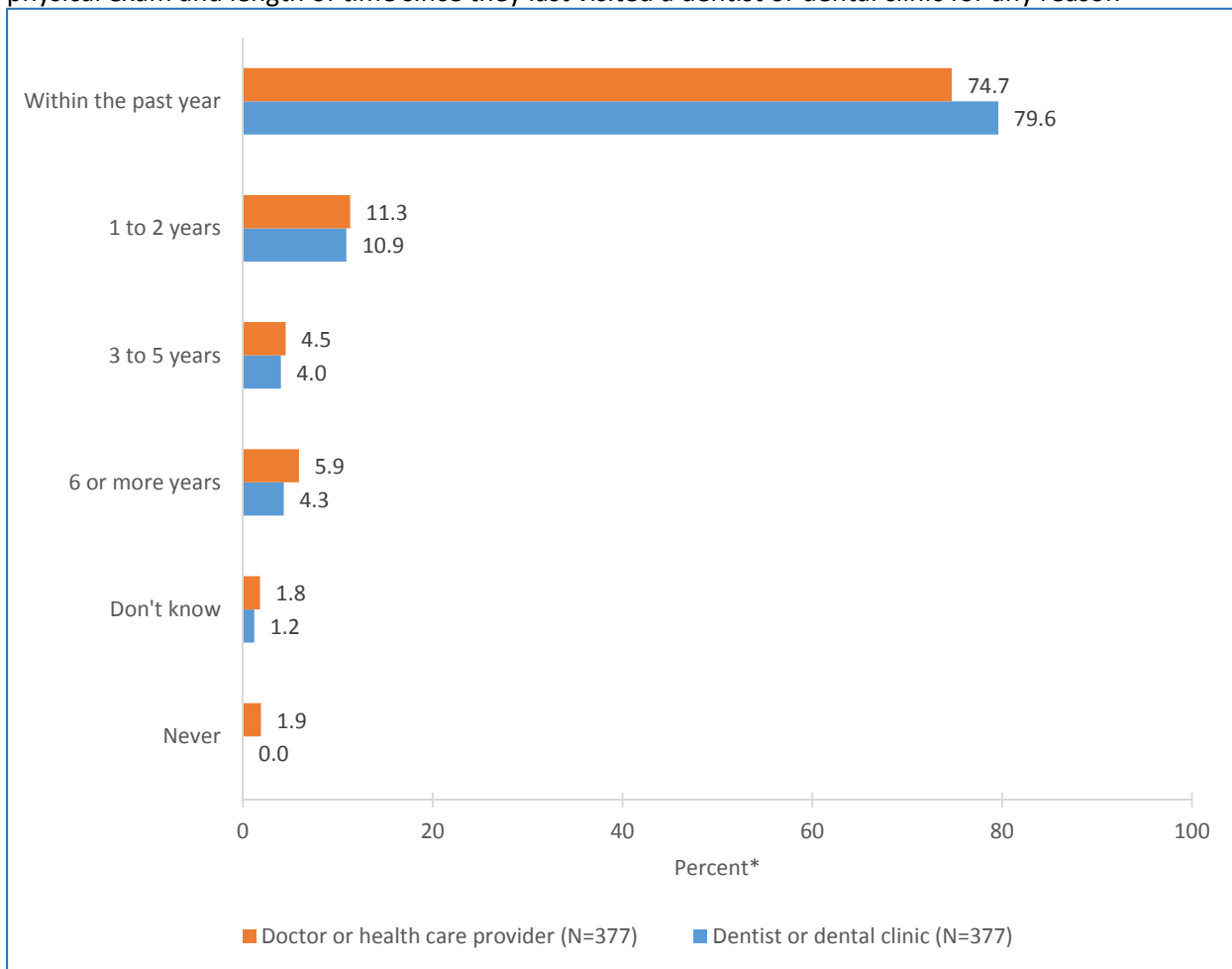
N=378

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

Respondents were asked how long it had been since they last visited a doctor or health care provider for a routine physical exam and how long it had been since they last visited a dentist or dental clinic for any reason (Figure 27, Appendix Table 19).

- Three in four respondents say they have visited a doctor or health care provider within the past year (74.7 percent); 11.3 percent say it has been, at most, 2 years and 5.9 percent say it has been 6 or more years since they have visited a doctor or health care provider for a routine physical exam. Approximately two percent (1.9 percent) have never visited a doctor or health care provider for a routine physical exam.
- Four in five respondents say they have visited a dentist or dental clinic within the past year (79.6 percent); 10.9 percent say it has been, at most, 2 years and 4.3 percent say it has been 6 or more years since they last visited a dentist or dental clinic.

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 they last visited a dentist or dental clinic for any reason

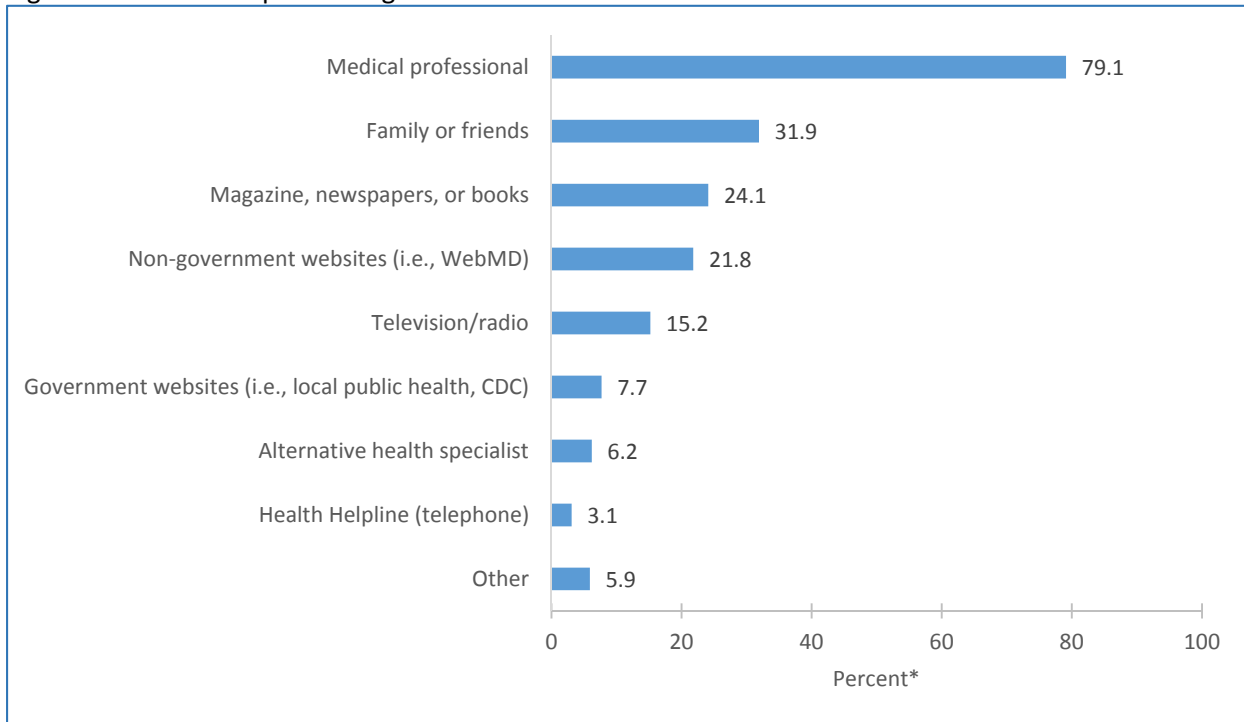


\*Percentages may not total 100.0 due to rounding.

Respondents were asked where they get most of their health information (*Figure 28, Appendix Table 20*).

- Four in five respondents say that they get most of their health information from a medical professional (79.1 percent); 31.9 percent get their health information from family or friends; 24.1 percent from a magazine, newspapers, or books; and 21.8 percent from non-government websites.

Figure 28. Where respondents get most of their health information



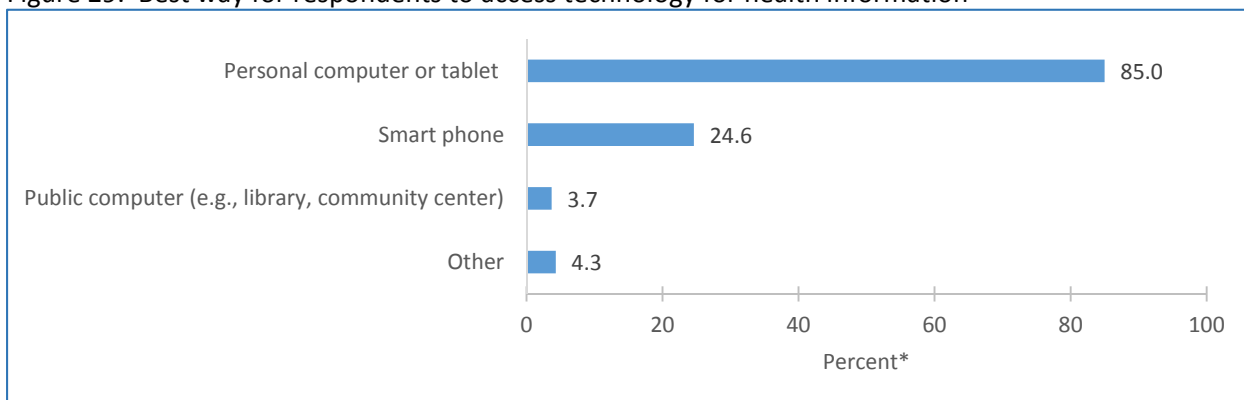
N=378

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

Respondents were asked what the best way was for them to access technology for health information (*Figure 29, Appendix Table 21*).

- Four in five respondents say that a personal computer or tablet is the best way to access technology for health information (85.0 percent); 24.6 percent say a smart phone and 3.7 percent say a public computer is the best way for them to access health information using technology.

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



N=378

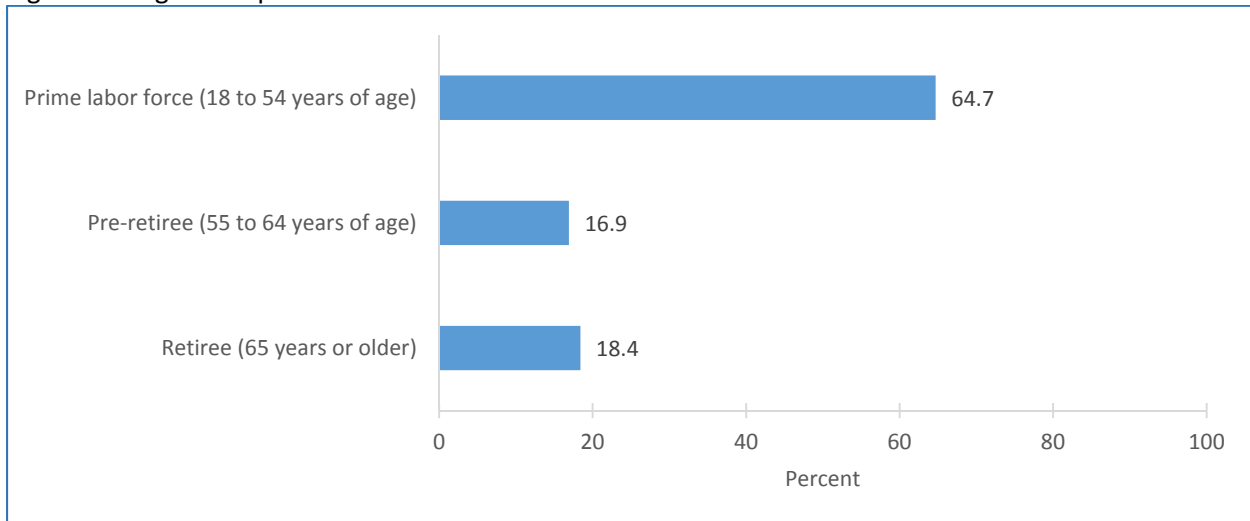
\*Percentages do not total 100.0 due to multiple responses.



## Demographic Information

- The majority of respondents are 18 to 54 years of age (64.7 percent); 16.9 percent are 55 to 64 years of age and 18.4 percent are 65 years or older (*Figure 30, Appendix Table 22*).

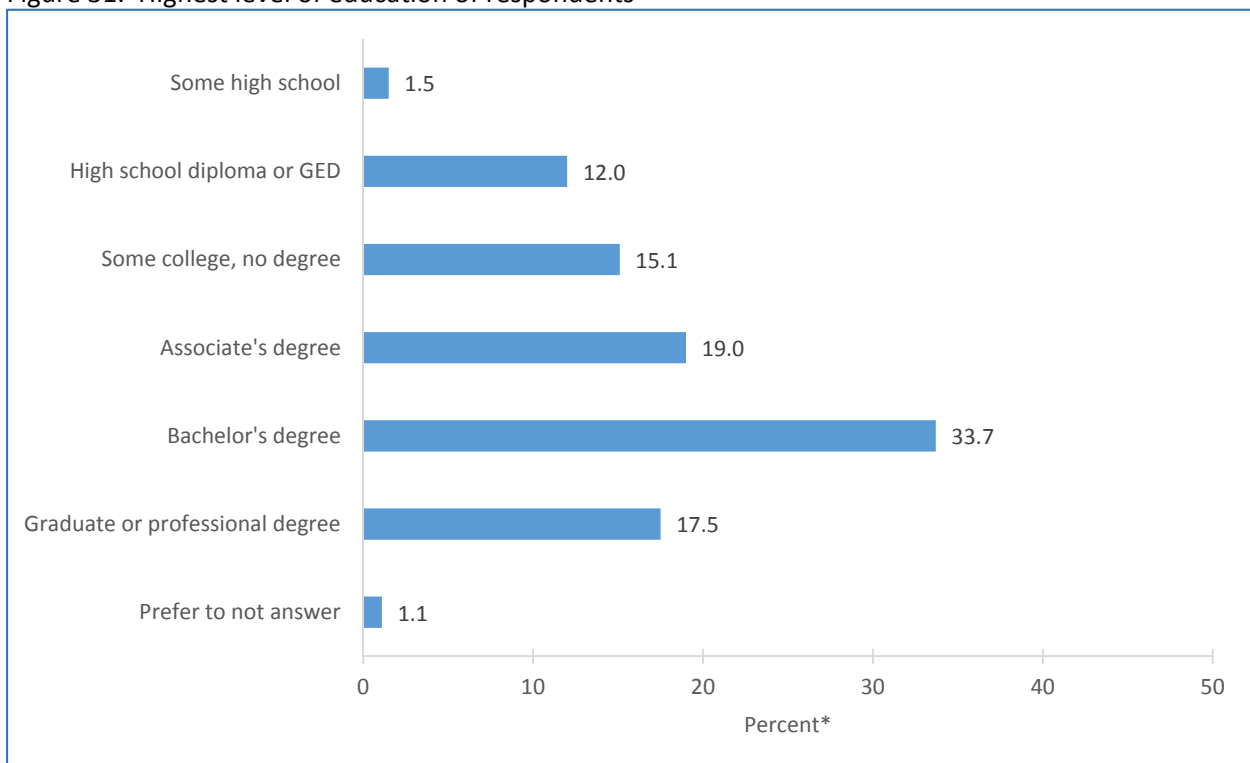
Figure 30. Age of respondents



N=378

- Half of respondents (51.2 percent) have a Bachelor's degree or higher, including 17.5 percent who have a graduate or professional degree (*Figure 31, Appendix Table 23*).

Figure 31. Highest level of education of respondents

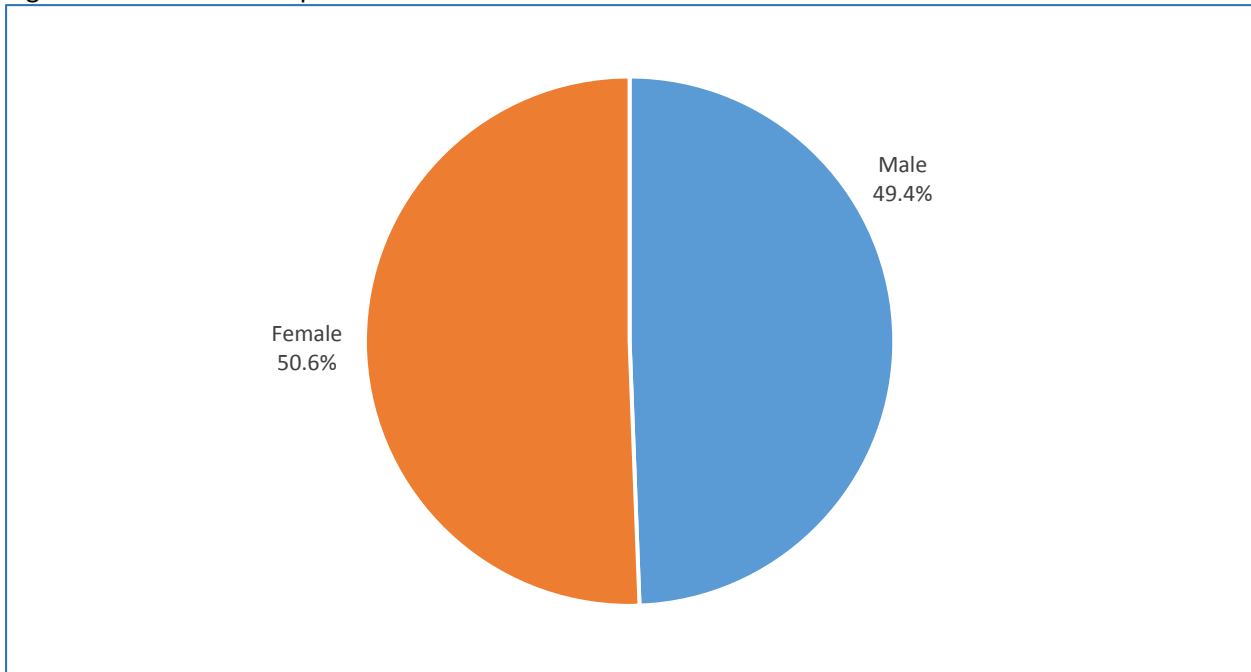


N=369

\*Percentages do not total 100.0 due to rounding.

- The gender of respondents is evenly split between males and females (*Figure 32, Appendix Table 24*).

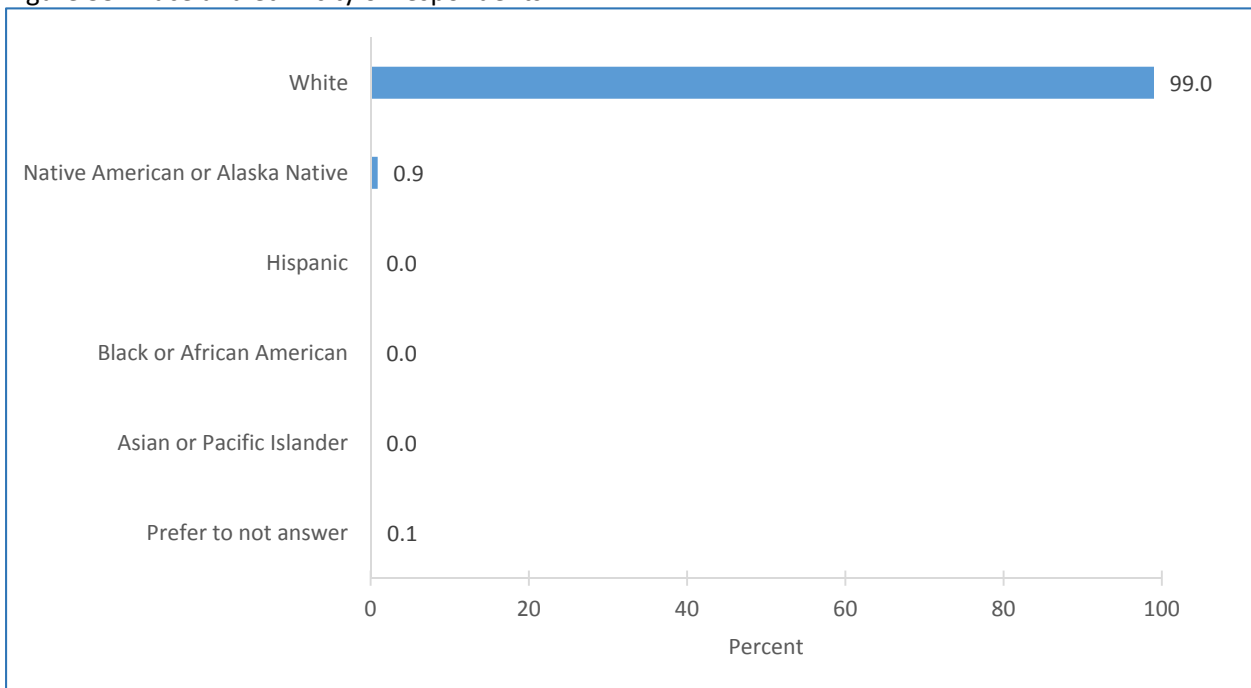
Figure 32. Gender of respondents



N=378

- Nearly all respondents are white (99.0 percent) (*Figure 33, Appendix Table 25*).

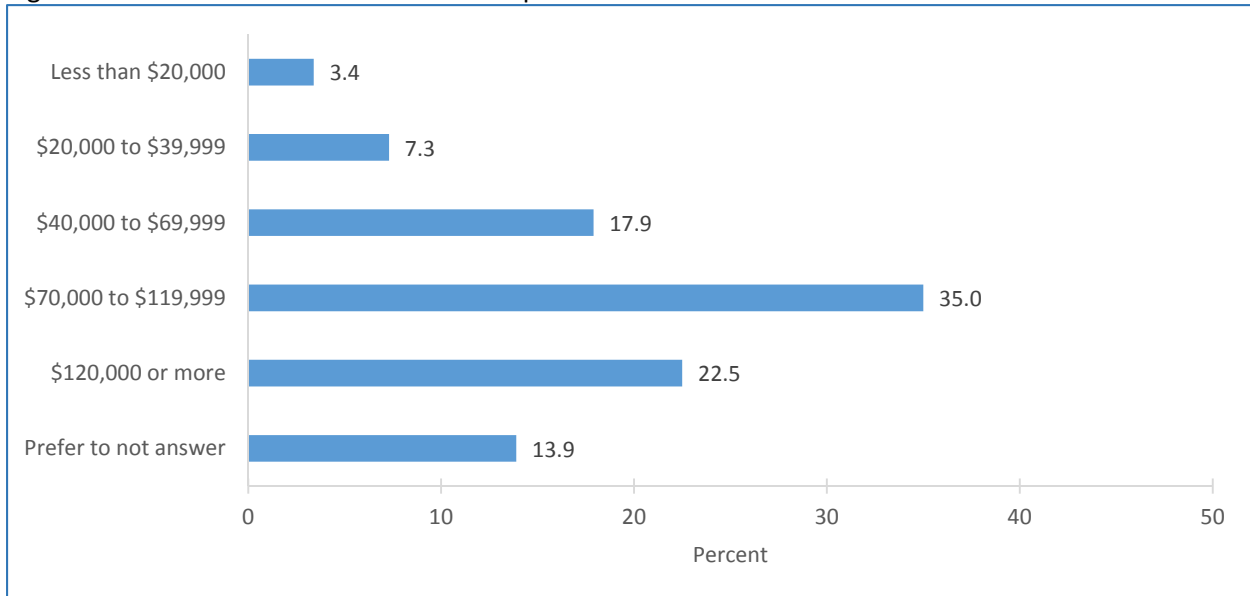
Figure 33. Race and ethnicity of respondents



N=374

- The majority of respondents (57.5 percent) have annual household incomes of \$70,000 or more; including 22.5 percent who have incomes of \$120,000 or more (Figure 34, Appendix Table 26).

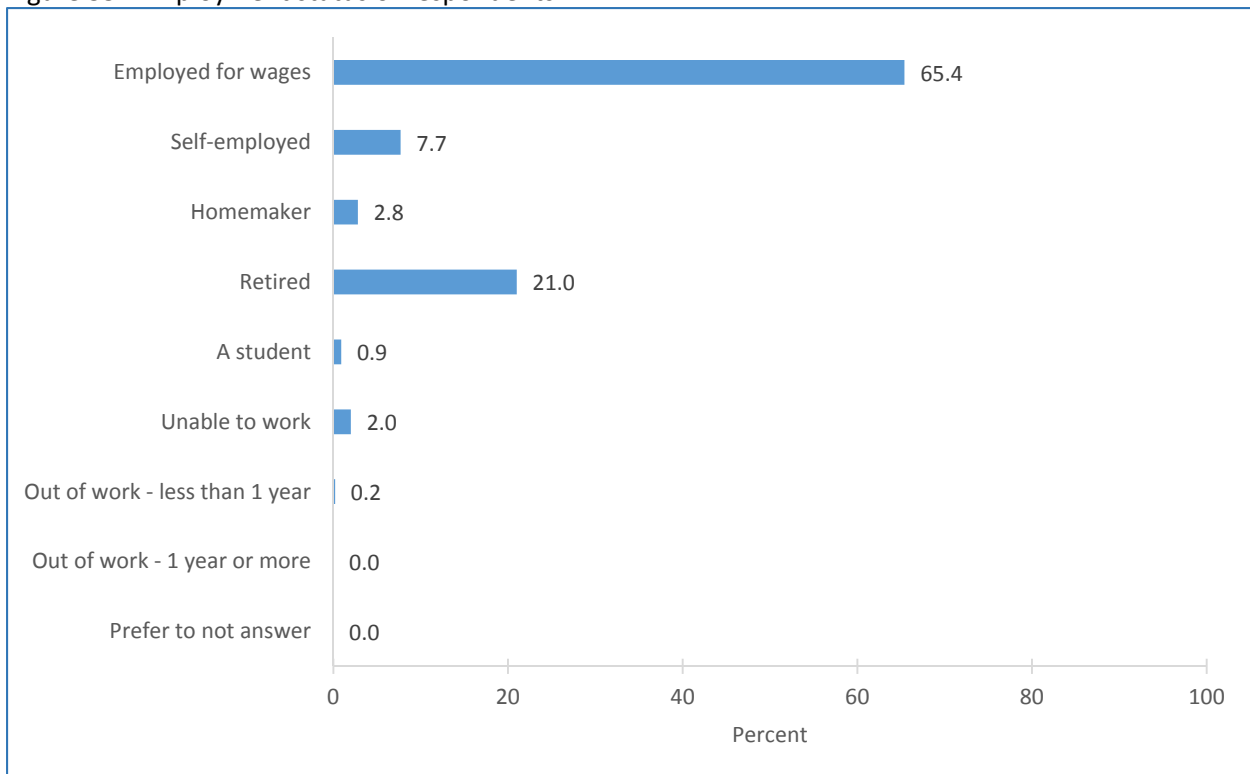
Figure 34. Annual household income of respondents



N=366

- The majority of respondents are employed for wages (65.4 percent); 7.7 percent are self-employed and 21.0 percent are retired (Figure 35, Appendix Table 27).

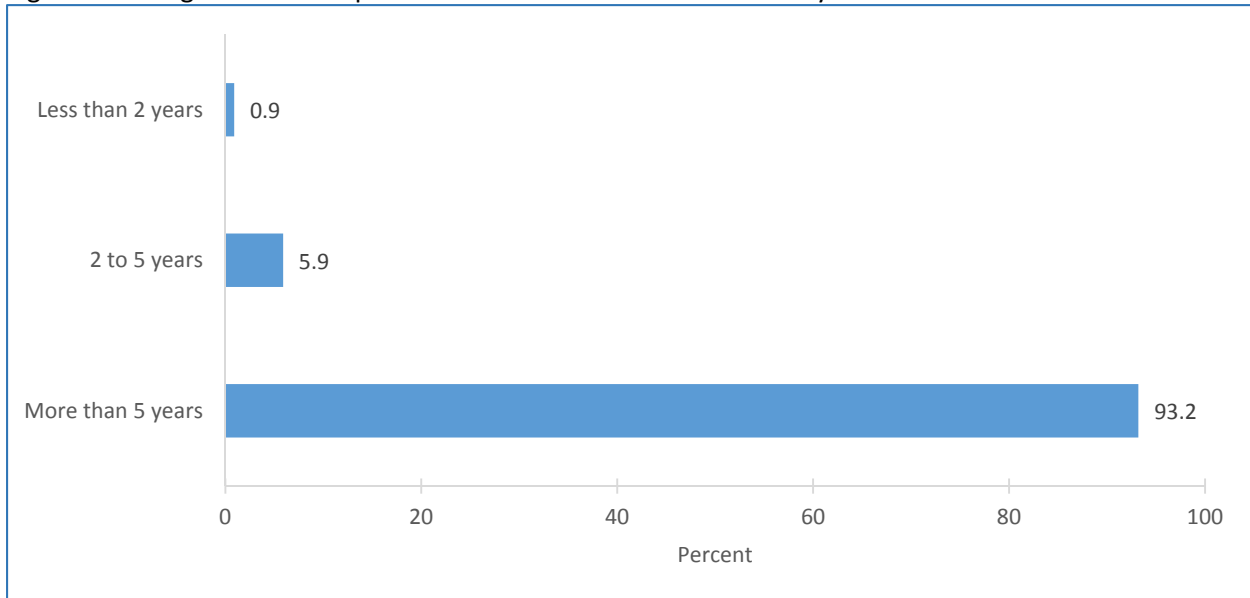
Figure 35. Employment status of respondents



N=376

- The vast majority of respondents have lived in their community for more than 5 years (93.2 percent) (Figure 36, Appendix Table 28).

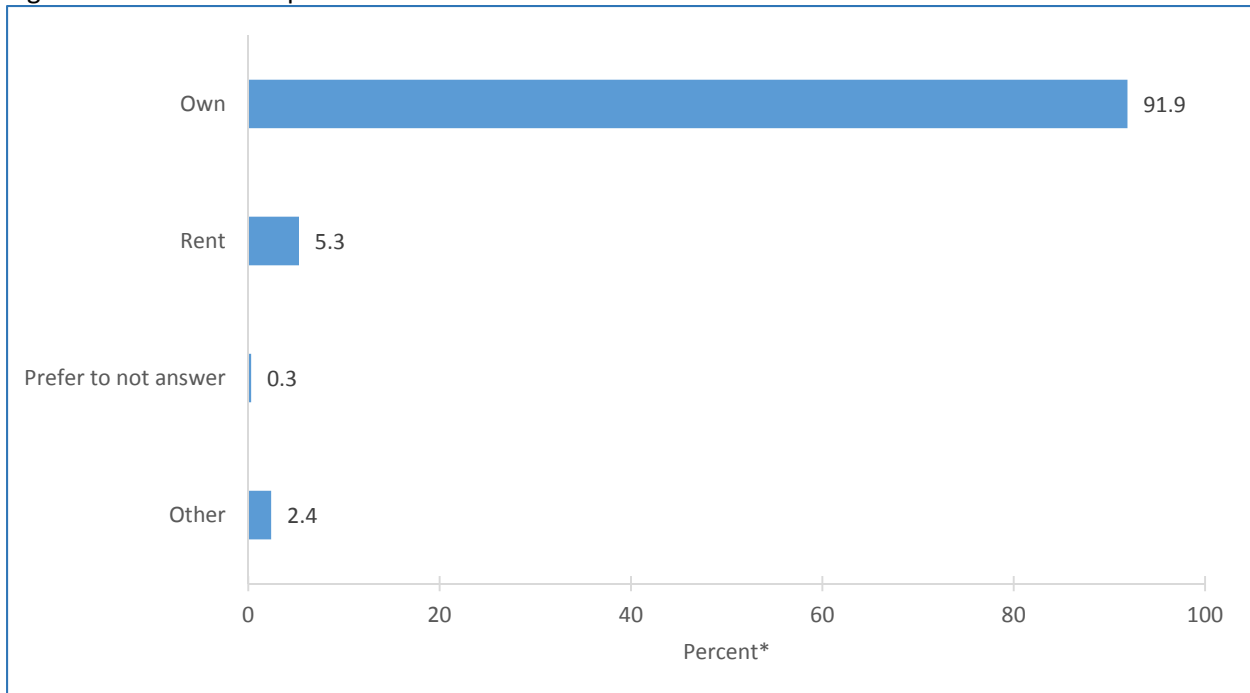
Figure 36. Length of time respondents have lived in their community



N=378

- The vast majority of respondents own their home (91.9 percent) (Figure 37, Appendix Table 29).

Figure 37. Whether respondents own or rent their home

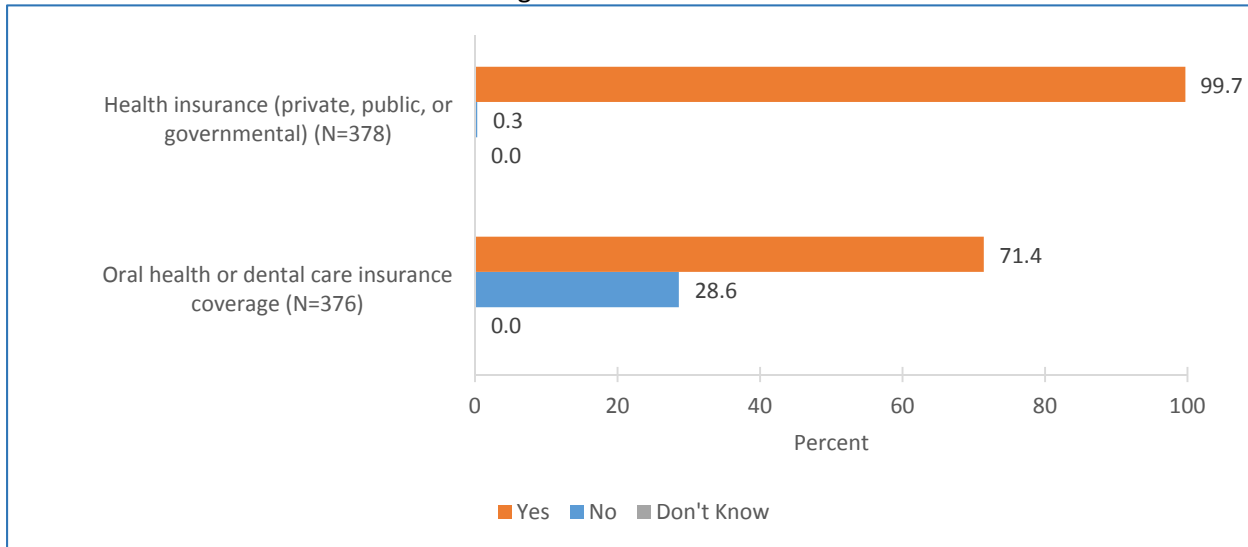


N=374

\*Percentages do not total 100.0 due to rounding.

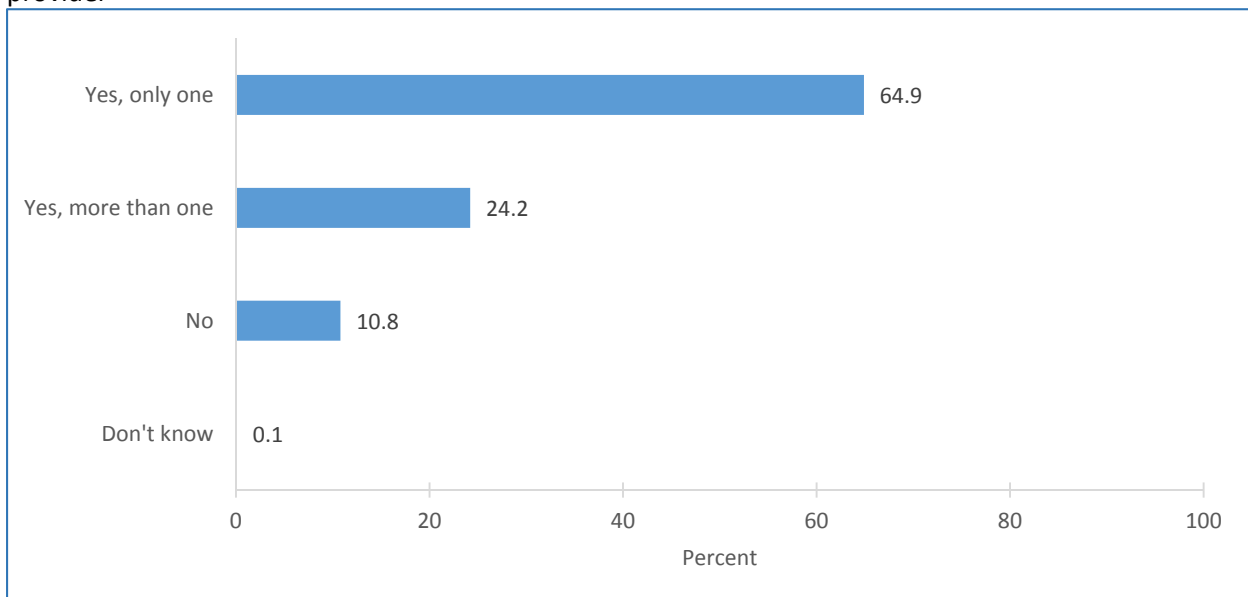
- Nearly all respondents report having some type of health insurance (99.7 percent) (Figure 38, Appendix Table 30).
- The majority of respondents (71.4 percent) report having oral health or dental care coverage.

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



- The majority of respondents (64.9 percent) say they have one person who they think of as their personal doctor or health care provider; 24.2 percent have more than one person who they think of as their personal doctor and 10.8 percent do not have a personal doctor (Figure 39, Appendix Table 31).

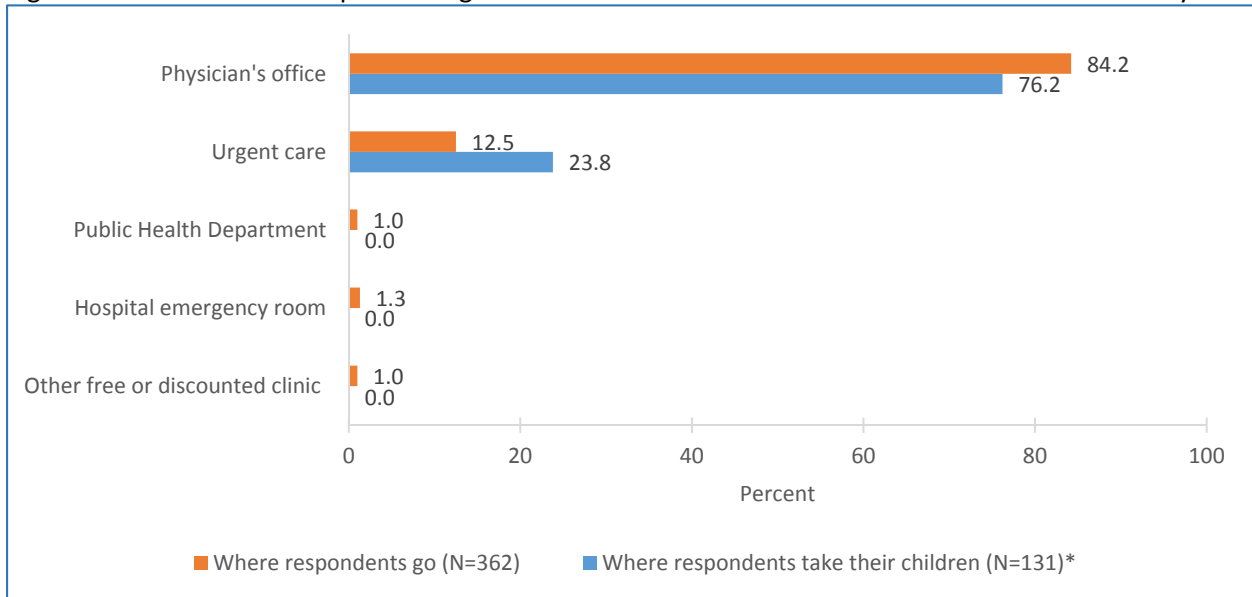
Figure 39. Whether respondents have one person who they think of as their personal doctor or health care provider



N=377

- The majority of respondents most often go to a physician’s office when they are sick (84.2 percent); 12.5 percent go to urgent care (*Figure 40, Appendix Table 32*).
- The majority of respondents who are parents most often take their children to a physician’s office when they are sick (76.2 percent); 23.8 percent take their sick children to urgent care.

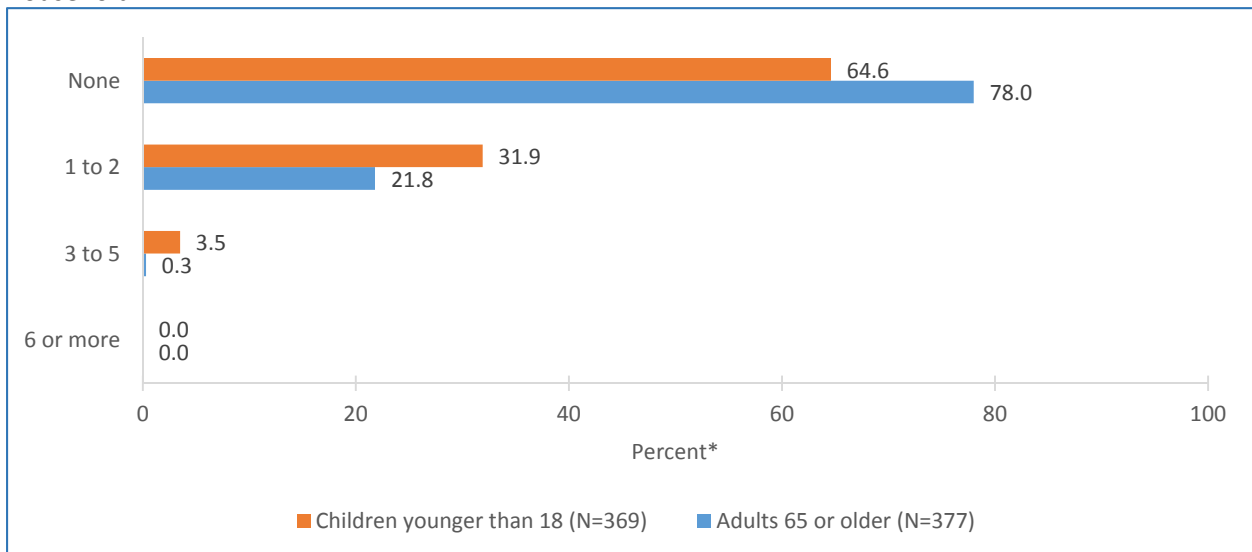
Figure 40. Facilities that respondents go to most often when sick and take their children when they are sick



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

- The majority of respondents (64.6 percent) say there are no children younger than 18 living in their household; 31.9 percent have 1 to 2 children living in their household (*Figure 41, Appendix Table 33*).
- Four-fifths of respondents say there are no adults 65 or older living in their household (78.0 percent); 21.8 percent say there are 1 to 2 adults 65 or older living in their household.

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

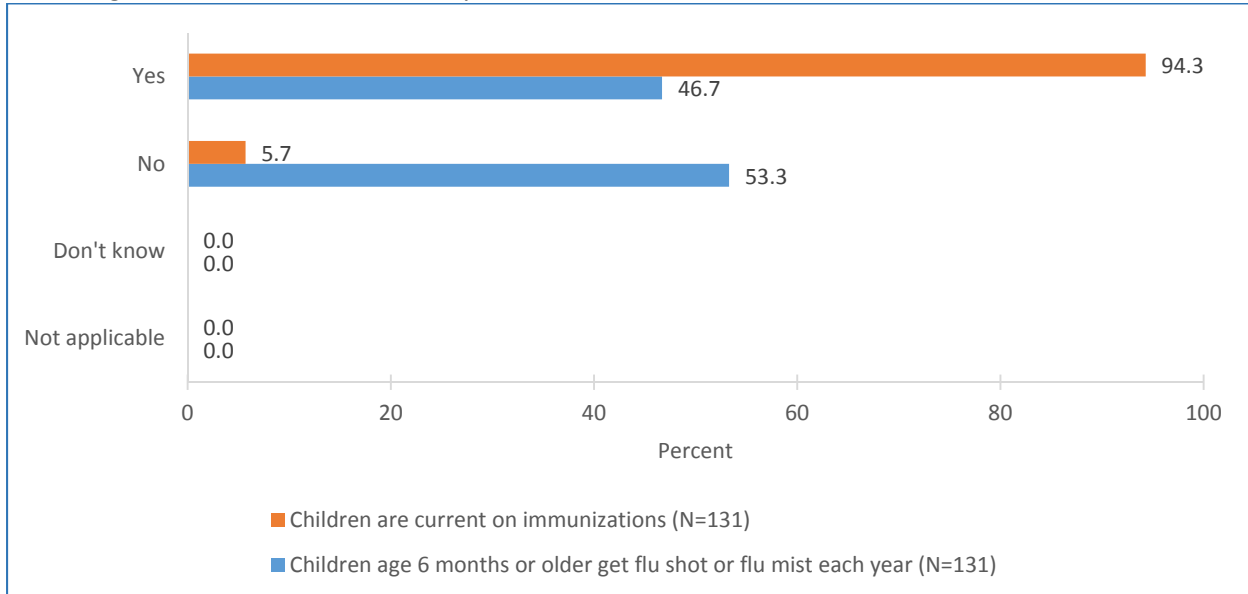


\*Percentages may not total 100.0 due to rounding.

Respondents who have children younger than 18 years living in their household were asked whether all children in their home are current on their immunizations and whether all children age 6 months or older get a flu shot or flu mist each year (Figure 42, Appendix Table 34).

- Almost all the respondents with children in their home say all children younger than 18 years are current on immunizations (94.3 percent).
- Nearly half of respondents with children say all children age 6 months or older get a flu shot or flu mist each year (46.7 percent); 53.3 percent say the children do not get a flu shot or flu mist each year.

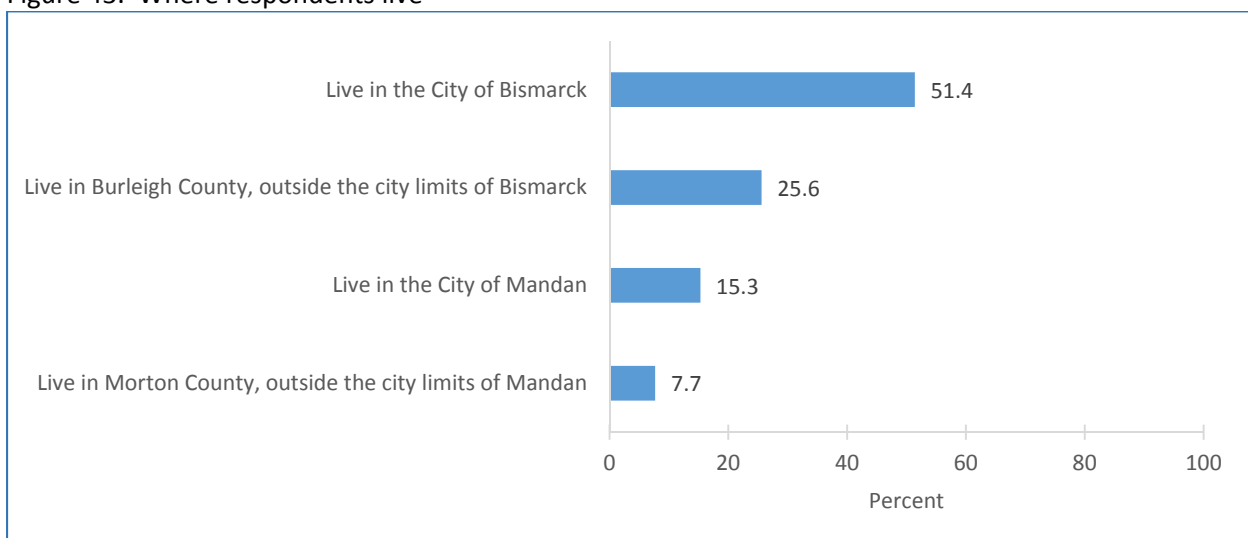
Figure 42. Whether all children in home are current on their immunizations and all children age 6 months or older get a flu shot or flu mist each year\*



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

- Half of respondents live in the City of Bismarck (51.4 percent); 25.6 percent live in Burleigh County, outside the city limits of Bismarck (Figure 43, Appendix Table 35).

Figure 43. Where respondents live



N=356

Table 3. Location of respondents based on zip code

	Percent of respondents
<b>Burleigh County, ND</b>	72.6%
Bismarck	69.5%
Rural	3.1%
<b>Morton County, MN</b>	22.8%
Mandan	20.1%
Rural	2.7%
Unknown or missing	4.6%

N=378



## APPENDICES

Appendix Table 1. Level of concern with statements about the community regarding general health and wellness

Statements	Mean	Percent of respondents*					Total
		Level of concern (1=not at all, 5= a great deal)					
		1	2	3	4	5	
<b>ECONOMICS</b>							
Availability of affordable housing (N=371)	3.62	8.5	9.0	23.9	29.8	28.9	100.1
Homelessness (N=370)	3.33	6.5	14.9	33.9	27.9	16.7	99.9
Hunger (N=369)	3.27	8.1	15.5	32.3	29.7	14.4	100.0
<b>TRANSPORTATION</b>							
Driving habits (e.g., speeding, road rage) (N=363)	3.56	7.5	12.5	22.4	31.3	26.3	100.0
Availability of good walking or biking options (as alternatives to driving) (N=369)	2.91	18.9	20.7	24.5	22.3	13.6	100.0
Availability of public transportation (N=367)	2.67	20.5	26.8	26.1	17.7	8.9	100.0
Cost of public transportation (N=364)	2.52	24.7	26.3	29.2	11.7	8.0	99.9
<b>The ENVIRONMENT</b>							
Water quality (N=371)	3.17	24.0	8.2	18.9	24.3	24.6	100.0
Air quality (N=371)	3.01	25.9	10.2	19.2	26.7	18.0	100.0
Hazardous waste (N=367)	2.97	22.6	14.3	22.7	23.9	16.5	100.0
Home septic systems (N=367)	2.47	35.0	17.1	24.4	13.2	10.3	100.0
<b>CHILDREN AND YOUTH</b>							
Bullying (N=362)	3.81	5.2	7.5	21.7	32.8	32.8	100.0
Cost of quality child care (N=365)	3.62	7.4	12.4	21.1	29.5	29.7	100.1
Availability of quality child care (N=364)	3.59	8.3	13.8	19.1	28.1	30.6	99.9
Youth crime (N=366)	3.57	3.5	15.5	22.3	37.2	21.4	99.9
Availability of quality infant care (birth to 2 years) (N=364)	3.52	10.9	11.5	23.9	22.6	31.1	100.0
Cost of quality infant care (N=363)	3.52	11.2	9.9	22.3	28.7	27.9	100.0
Cost of activities for children and youth (N=361)	3.46	7.2	13.1	24.9	36.5	18.3	100.0
Availability of activities for children and youth (N=365)	3.40	7.4	16.5	26.5	28.2	21.4	100.0
Teen pregnancy (N=366)	3.28	6.6	18.0	32.2	26.8	16.4	100.0
Availability of services for at-risk youth (N=364)	3.24	6.8	16.5	34.8	30.0	12.0	100.1
School dropout rates (N=363)	3.14	4.7	24.6	34.4	24.5	11.8	100.0
Cost of services for at-risk youth (N=359)	3.08	8.2	21.5	35.4	24.0	11.0	100.1
School absenteeism (N=363)	3.00	8.2	23.8	37.7	20.2	10.1	100.0
<b>The AGING POPULATION</b>							
Cost of long term care (N=372)	4.28	5.2	4.8	8.9	19.3	61.8	100.0
Availability of memory care (N=371)	3.82	5.8	7.4	21.2	30.2	35.2	99.8
Availability of long term care (N=371)	3.80	5.9	8.9	18.9	31.4	34.9	100.0
Availability of resources to help the elderly stay safe in their homes (N=368)	3.55	7.9	11.3	22.6	34.9	23.3	100.0

Statements	Mean	Percent of respondents*						Total
		Level of concern (1=not at all, 5= a great deal)						
		1	2	3	4	5		
Availability of resources for family/friends caring for and making decisions for elders (N=372)	3.49	8.0	14.1	21.0	34.9	22.0	100.0	
Cost of activities for seniors (N=365)	3.28	11.0	10.4	32.8	31.3	14.5	100.0	
Availability of resources for grandparents caring for grandchildren (N=369)	3.26	10.0	17.4	28.4	25.3	18.9	100.0	
Availability of activities for seniors (N=371)	3.18	11.0	15.4	29.9	31.9	11.7	99.9	
<b>SAFETY</b>								
Presence of street drugs, prescription drugs, and alcohol in the community (N=370)	4.13	1.2	6.2	16.3	30.3	45.9	99.9	
Crime (N=366)	4.07	2.3	4.6	21.3	26.8	44.9	99.9	
Presence of drug dealers in the community (N=366)	3.98	2.4	8.7	21.3	23.4	44.2	100.0	
Sex Trafficking (N=369)	3.90	2.8	12.4	16.3	28.8	39.7	100.0	
Domestic violence (N=368)	3.86	2.6	8.4	20.9	36.4	31.7	100.0	
Child abuse and neglect (N=369)	3.81	3.3	9.6	23.5	29.8	33.8	100.0	
Presence of gang activity (N=368)	3.65	4.9	13.7	25.6	22.4	33.3	99.9	
Elder abuse (N=367)	3.48	4.0	15.0	29.9	30.6	20.4	99.9	
<b>HEALTH CARE</b>								
Access to affordable health insurance (N=366)	4.04	6.1	5.6	14.8	25.4	48.0	99.9	
Access to affordable prescription drugs (N=369)	3.96	4.5	9.4	14.8	28.2	43.1	100.0	
Access to affordable health care (N=369)	3.89	6.1	9.3	15.0	28.5	41.1	100.0	
Cost of affordable dental insurance coverage (N=367)	3.81	4.9	9.1	23.4	25.6	37.0	100.0	
Cost of affordable vision insurance (N=363)	3.74	3.6	11.9	28.0	19.9	36.7	100.1	
Timely access to physician specialists (N=364)	3.22	13.7	17.6	21.0	28.2	19.5	100.0	
Coordination of care between providers and services (N=364)	3.21	10.7	19.2	27.9	22.8	19.3	99.9	
Use of emergency room services for primary health care (N=365)	3.21	12.4	19.7	26.6	17.7	23.6	100.0	
Timely access to doctors, physician assistants, or nurse practitioners (N=365)	3.14	16.4	16.8	24.0	22.7	20.2	100.1	
Availability of non-traditional hours (e.g., evenings, weekends) (N=366)	3.02	16.3	18.4	26.1	25.7	13.5	100.0	
Providers not taking new patients (N=365)	2.95	14.8	23.3	29.4	17.2	15.4	100.1	
Timely access to mental health providers (N=362)	2.86	20.6	21.9	25.2	15.0	17.3	100.0	
Timely access to substance abuse providers (N=360)	2.83	20.7	20.0	28.4	17.3	13.7	100.1	
Timely access to dental care providers (N=364)	2.73	20.6	22.7	30.6	15.5	10.6	100.0	
Distance to health care services (N=367)	2.70	23.1	20.5	32.5	10.9	13.0	100.0	

Statements	Mean	Percent of respondents*						Total
		Level of concern (1=not at all, 5= a great deal)						
		1	2	3	4	5		
Timely access to prevention programs and services (N=359)	2.68	18.4	26.6	30.8	17.1	7.2	100.1	
Availability of transportation (N=366)	2.66	20.6	26.3	31.0	10.6	11.5	100.0	
Timely access to vision care providers (N=365)	2.57	23.2	25.4	30.0	13.9	7.4	99.9	
Timely access to registered dietitians (N=361)	2.47	23.4	32.3	26.0	10.9	7.4	100.0	
Timely access to transportation (N=363)	2.42	24.6	32.3	27.3	8.1	7.7	100.0	
Timely access to exercise specialists or personal trainers (N=364)	2.31	28.7	33.6	23.2	7.1	7.5	100.1	
Timely access to bilingual providers and/or translators (N=356)	2.10	40.1	26.9	21.3	6.7	5.1	100.1	
<b>PHYSICAL AND MENTAL HEALTH</b>								
Cancer (N=367)	4.05	3.4	6.4	12.5	37.4	40.3	100.0	
Chronic disease (e.g., diabetes, heart disease, multiple sclerosis) (N=364)	3.82	5.1	6.1	21.9	35.2	31.8	100.1	
Obesity (N=368)	3.73	3.8	11.1	19.5	39.1	26.5	100.0	
Inactivity and lack of exercise (N=363)	3.73	3.2	12.9	16.3	42.7	25.0	100.1	
Dementia and Alzheimer's disease (N=362)	3.69	3.7	11.1	22.9	37.2	25.1	100.0	
Poor nutrition and eating habits (N=364)	3.68	4.1	10.9	21.0	41.1	22.8	99.9	
Stress (N=365)	3.65	4.4	11.1	26.6	31.2	26.7	100.0	
Depression (N=367)	3.63	4.0	13.0	22.9	36.5	23.6	100.0	
Suicide (N=364)	3.51	8.9	13.2	21.5	30.4	25.9	99.9	
Infectious diseases such as the flu (N=366)	3.44	5.1	10.5	35.1	33.6	15.7	100.0	
Other psychiatric diagnosis (N=359)	3.16	11.3	19.2	26.5	28.5	14.4	99.9	
Sexually transmitted diseases (e.g., AIDS, HIV, chlamydia) (N=364)	2.91	14.6	25.7	26.8	19.8	13.0	99.9	
<b>SUBSTANCE USE AND ABUSE</b>								
Underage drug use and abuse (N=361)	3.88	4.0	9.0	22.3	23.9	40.8	100.0	
Drug use and abuse (N=365)	3.75	5.6	12.7	18.7	26.9	36.2	100.1	
Underage drinking (N=365)	3.64	5.9	13.7	23.3	25.1	32.0	100.0	
Smoking and tobacco use (N=365)	3.58	8.6	12.6	23.2	23.1	32.5	100.0	
Alcohol use and abuse (N=366)	3.54	8.4	14.4	22.1	24.9	30.3	100.1	
Exposure to second-hand smoke (N=362)	3.46	11.2	14.5	23.2	19.6	31.5	100.0	

\*Percentages may not total 100.0 due to rounding.

Appendix Table 2. Respondents' rating of their health in general

Response	Percent of respondents*
Excellent	12.7
Very Good	37.1
Good	38.2
Fair	11.3
Poor	0.6
Don't know	0.0
Total	99.9

N=371

\*Percentages do not total 100.0 due to rounding.

Appendix Table 3. Respondents' weight status based on the Body Mass Index (BMI)\* scale

Weight/BMI status	Percent of respondents
Underweight = (BMI less than 18.5)	0.6
Normal weight = (BMI from 18.5 to 24.9)	27.1
Overweight = (BMI from 25.0 to 29.9)	40.2
Obese = (BMI of 30.0 or greater)	32.1
Total	100.0

N=353

\*For information about the BMI, visit the Centers for Disease Control and Prevention, *About BMI for Adults*, [http://www.cdc.gov/healthyweight/assessing/bmi/adult\\_bmi/](http://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/).

Appendix Table 4. Number of servings of vegetables, fruit, and fruit juice that respondents had yesterday

Type of servings	Percent of respondents*						
	Number of servings						Total
	None	1	2	3	4	5 or more	
Vegetables consumed yesterday (N=376)	9.4	28.9	31.6	18.5	8.1	3.5	100.0
Fruit consumed yesterday (N=375)	12.9	28.3	31.6	18.2	7.5	1.6	100.1
Fruit juice consumed yesterday (N=376)	57.4	27.4	9.1	4.7	1.1	0.3	100.0

\*Percentages may not total 100.0 due to rounding.

Appendix Table 5. Number of days in an average week respondents engage in MODERATE and VIGOROUS activity

Type of exercise	Percent of respondents*				
	Number of days				Total
	None	1 to 2 days	3 to 4 days	5 or more days	
At least 30 minutes of MODERATE activity in an average week (N=374)	10.8	32.9	33.2	23.0	99.9
At least 30 minutes of VIGOROUS activity in an average week (N=375)	40.8	32.8	19.2	7.1	99.9

\*Percentages do not total 100.0 due to rounding.

Appendix Table 6. 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

Mental health issue	Percent of respondents*
Anxiety/Stress	16.2
Depression	15.0
Other mental health problems	2.4
Panic attacks	1.1

N=378

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

Appendix Table 7. Number of days in last month where respondents' mental health was not good

Number of days	Percent of respondents*
None	59.5
1 to 7 days	28.6
8 to 14 days	6.5
15 to 21 days	4.6
22 to 30 days	0.9
Total	100.1

N=344

\*Percentages do not total 100.0 due to rounding.

Appendix Table 8. How often, over the past two weeks, respondents have been bothered by mental health issues

Issues	Percent of respondents*				Total
	Not at all	Several days	More than half the days	Nearly every day	
Little interest or pleasure in doing things (N=373)	77.5	18.8	2.7	1.0	100.0
Feeling down, depressed or hopeless (N=372)	81.7	15.8	1.4	1.0	99.9

\*Percentages may not total 100.0 due to rounding.

Appendix Table 9. Whether respondents have smoked at least 100 cigarettes in their entire life

Response	Percent of respondents
Yes	29.1
No	70.9
Total	100.0

N=376

Appendix Table 10. How often respondents currently smoke cigarettes and use chewing tobacco or snuff

Tobacco use	Percent of respondents			
	Every day	Some days	Not at all	Total
How often do you currently smoke cigarettes? (N=378)	2.7	1.6	95.7	100.0
How often do you currently use chewing tobacco or snuff? (N=377)	3.7	1.4	94.9	100.0

Appendix Table 11. Location respondents would first go if they wanted help to quit using tobacco

Resources	Percent of respondents*
Quitline	5.5
Doctor	10.8
Pharmacy	1.3
Private counselor/therapist	0.2
Health Department	1.4
Don't know	9.2
Not applicable	67.7
I don't want to quit	1.5
Other:	2.0
<i>Would quit by themselves/Cold Turkey (10)</i>	
Total	99.6

N=344

\*Percentages do not total 100.0 due to rounding.

Appendix Table 12. Number of days during the past month that respondents had at least one drink of any alcoholic beverage

Number of days	Percent of respondents*
None	31.0
1 to 7 days	41.9
8 to 14 days	7.7
15 to 21 days	12.2
22 to 30 days	7.3
Total	100.1

N=373

\*Percentages do not total 100.0 due to rounding.

Appendix Table 13. During the past month on days that respondents drank, average number of drinks per day respondents consumed

Number of drinks	Percent of respondents
1 drink	46.8
2 drinks	31.5
3 drinks	14.0
4 drinks	0.8
5 or more drinks	6.9
Total	100.0

N=253

Appendix Table 14. Number of times during the past month that respondents consumed at least 4 or 5 alcoholic drinks (4 for females, 5 for males) on the same occasion

Number of days	Percent of respondents
Almost every day	0.3
2 to 3 times a week	3.2
Once a week	4.7
Once a month	14.8
Never	77.0
Total	100.0

N=374

Appendix Table 15. Whether respondents have ever had a problem with alcohol use or prescription or non-prescription drug abuse

Had a problem with...	Percent of respondents		
	Yes	No	Total
Alcohol use (N=373)	7.1	92.9	100.0
Prescription or non-prescription drug abuse (N=373)	0.4	99.6	100.0

Appendix Table 16. Of respondents who ever had a problem with alcohol use or prescription or non-prescription drug abuse, whether respondents got the help they needed

Got the help they needed for...	Percent of respondents*			
	Yes	No	Didn't need help	Total
Alcohol use (N=23)	62.7	16.1	21.3	100.1
Prescription or non-prescription drug abuse (N=1)	100.0	0.0	0.0	100.0

\*Percentages may not total 100.0 due to rounding.

Appendix Table 17. 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

Over the past two years...	Percent of respondents		
	Yes	No	Total
Has alcohol use had harmful effects on you or a family member? (N=376)	14.9	85.1	100.0
Has prescription or non-prescription drug abuse had harmful effects on you or a family member? (N=377)	5.4	94.6	100.0

Appendix Table 18. Whether respondents have any of the following chronic diseases

Chronic diseases	Percent of respondents*
High Cholesterol	24.1
Hypertension	18.5
Arthritis	14.9
Diabetes	5.9
Congestive Heart Failure	2.6
Asthma	2.3
Cancer	2.2
COPD	0.9
Stroke	0.9
Alzheimer's	0.3

N=378

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

Appendix Table 19. Length of time since respondents last visited a doctor or health care provider for a routine physical exam and length of time since they last visited a dentist or dental clinic for any reason

Length of time since...	Percent of respondents*						
	Within the past year	1 to 2 years	3 to 5 years	6 or more years	Don't know	Never	Total
Respondent last visited a doctor or health care provider for a routine physical exam (N=377)	74.7	11.3	4.5	5.9	1.8	1.9	100.1
Respondent last visited a dentist or dental clinic for any reason (N=377)	79.6	10.9	4.0	4.3	1.2	0.0	100.0

\*Percentages may not total 100.0 due to rounding.

Appendix Table 20. Where respondents gets most of their health information

Source of health information	Percent of respondents*
Government websites (i.e., local public health, CDC)	7.7
Non-government websites (i.e., WebMD)	21.8
Television	15.2
Magazine, newspapers, or books	24.1
Medical professional	79.1
Alternative health specialist	6.2
Family or friends	31.9
Health Helpline	3.1
Other:	5.9
<i>Internet (3)</i>	
<i>Co-workers</i>	
<i>Books/studies</i>	
<i>As needed</i>	

N=378

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



Appendix Table 21. Best way for respondents to access technology for health information

Type of technology	Percent of respondents*
Personal computer or tablet	85.0
Public computer (e.g., library, community center)	3.7
Smart phone	24.6
Other:	4.3
<i>TV/mailings/newspapers (11)</i>	
<i>Medical professional/clinic (9)</i>	
<i>Internet (3)</i>	
<i>Phone (3)</i>	
<i>Other people (3)</i>	
<i>Misc. (3)</i>	

N=378

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

Appendix Table 22. Age of respondents

Age	Percent of respondents
18 to 54 years (Prime labor force)	64.7
55 to 64 years (Pre-retiree)	16.9
65 years and older (Retiree)	18.4
Total	100.0

N=378

Appendix Table 23. Highest level of education of respondents

Education	Percent of respondents*
Some high school	1.5
High school diploma or GED	12.0
Some college, no degree	15.1
Associate's degree	19.0
Bachelor's degree	33.7
Graduate or professional degree	17.5
Prefer to not answer	1.1
Total	99.9

N=369

\*Percentages do not total 100.0 due to rounding.

Appendix Table 24. Gender of respondents

Gender	Percent of respondents
Male	49.4
Female	50.6
Total	100.0

N=378

Appendix Table 25. Race and ethnicity of respondents

Race/ethnicity	Percent of respondents
White	99.0
Black or African American	0.0
Native American or Alaska Native	0.9
Asian or Pacific Islander	0.0
Hispanic	0.0
Prefer to not answer	0.1
Total	100.0

N=374

Appendix Table 26. Annual household income of respondents

Approximate annual income	Percent of respondents
Less than \$20,000	3.4
\$20,000 to \$39,999	7.3
\$40,000 to \$69,999	17.9
\$70,000 to \$119,999	35.0
\$120,000 or more	22.5
Prefer to not answer	13.9
Total	100.0

N=366

Appendix Table 27. Employment status of respondents

Employment status	Percent of respondents
Employed for wages	65.4
Self-employed	7.7
Homemaker	2.8
Retired	21.0
A student	0.9
Unable to work	2.0
Out of work – less than 1 year	0.2
Out of work –1 year or more	0.0
Prefer to not answer	0.0
Total	100.0

N=376

Appendix Table 28. Length of time respondents have lived in their community

Length of time in community	Percent of respondents
Less than 2 years	0.9
2 to 5 years	5.9
More than 5 years	93.2
Total	100.0

N=378

Appendix Table 29. Whether respondents own or rent their home

Response	Percent of respondents*
Own	91.9
Rent	5.3
Prefer to not answer	0.3
Other	2.4
Total	99.9

N=374

\*Percentages do not total 100.0 due to rounding.

Appendix Table 30. Whether respondents have health insurance (private, public, or governmental) and oral health or dental care insurance coverage

Response	Percent of respondents	
	Health insurance (private, public, or governmental) (N=378)	Oral health or dental care insurance coverage (N=376)
Yes	99.7	71.4
No	0.3	28.6
Don't know	0.0	0.0
Total	100.0	100.0

Appendix Table 31. Whether respondents have one person who they think of as their personal doctor or health care provider

Response	Percent of respondents
Yes, only one	64.9
Yes, more than one	24.2
No	10.8
Don't know	0.1
Total	100.0

N=377

Appendix Table 32. Facilities that respondents go to most often when they are sick and take their children when they are sick

Location	Percent of respondents	
	Where respondents go (N=362)	Where respondents take their children (N=131)*
Physician's office	84.2	76.2
Urgent care	12.5	23.8
Public Health Department	1.0	0.0
Hospital emergency room	1.3	0.0
Other free or discounted clinic	1.0	0.0
Total	100.0	100.0

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

Appendix Table 33. Number of children younger than 18 and number of adults age 65 or older living in respondents' household

Response	Percent of respondents*	
	Children younger than 18 (N=369)	Adults 65 or older (N=377)
None	64.6	78.0
1 to 2	31.9	21.8
3 to 5	3.5	0.3
6 or more	0.0	0.0
Total	100.0	100.1

\*Percentages may not total 100.0 due to rounding.

Appendix Table 34. Whether all children living in respondents' home are current on their immunizations and all children age 6 months or older get a flu shot or flu mist each year\*

Response	Percent of respondents	
	Current on immunizations (N=131)	Get flu shot or flu mist each year (N=131)
Yes	94.3	46.7
No	5.7	53.3
Don't know	0.0	0.0
Not applicable	0.0	0.0
Total	100.0	100.0

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

Appendix Table 35. Where respondents live

Location	Percent of respondents
City of Bismarck	51.4
Burleigh County, outside the city limits of Bismarck	25.6
City of Mandan	15.3
Morton County, outside the city limits of Mandan	7.7
Total	100.0

N=356

Appendix Table 36. Additional comments by respondents

Comments
Did you know you cannot get a Burleigh County social services eligibility worker by phone on Wednesday? Seems ridiculous - are you only supposed to need assistance Monday-Tuesday or Thursday-Friday?
Environmental concerns: Contaminated salt water and oil spills going into Little Missouri River systems, Missouri River, ending up in Lake Sakakawea. There is never 100% clean up. Are there requirements for payment of funds for future clean-up for each spill? After each spring run-off the lake is and will become more contaminated. For Aging Population: Cost of long-term care Nursing homes cost are around \$8,000 per month. To buy insurance is cost prohibitive for most people. A 5-year stay, around \$500,000, will be more than most people can pay. We need lower cost insurance of lower cost nursing homes or it will bankrupt the US government. [Has had prostate cancer and is cancer free; prostate was removed.]
Health care costs and insurance coverage costs are getting out of this world to afford. Nobody has the [gall] to do anything about it.
High property taxes, especially to build schools and other improvements for growing city; elderly people on fixed income can't keep up.
Hospitals should offer 2-6 hour days of free healthcare. If not more.
I don't think people realize how people on Medicaid are treated by health care and long term care facilities. They are the last to receive proper care anywhere and might be helped only if no one with insurance is competing for the same care. Money talks-if you don't have it, you're screwed!
I have been chronically sick for a couple of years. I spent \$1000 trying to get answers or help from [medical facility] in 2013- no answers or help. I fly to NH about 3 times a year to see a naturopathic doctor who is a

Comments
specialist in chronic illness and cancer. He found all my issues and has helped me so very much. I do not trust conventional health care anymore. I'm healing w/o drugs.
Professionals (in dental and medical) seem to be getting "sloppier". Hear of more and more instances from friends and family of botched procedures.
The cost of dental care continues to rise, because of greedy dentist, making it unaffordable for many families. Perhaps a study needs to be done to find a solution.
The environment and community sustained agriculture, especially organic foods, are important concerns for me. Good food = better health.
Park district provides virtually no activities designed for older adults (50+). Example: basketball, softball leagues.
I do not believe any of the 4 sponsoring agencies are truly interested in improving health care in the community. The 2 hospitals are interested in market share-profitability and the 2 public health districts are interested in self-sustaining funding!
Lawyer and eldercare info and budgeting concern. Only one can go to legal aid. No caring help just condemning.
Worried about monopoly in health care insurance. Example: [medical facility]. Or monopoly of business. Example: [grocer]. This increases cost of living.
Cost of memory care - dementia, etc. Cost of procedures - medical, dental, (screenings, oral surgery).
[I have] marginal diabetes and cholesterol managed by prescription.
I am 99 years very good health. I have family in Bismarck. I quit driving two years ago before an accident happened.
[I] am a 25 year breast cancer survivor.
Are quite satisfied with our services.
Dental questions- we have dentures. We do watch our grandson - and he has all is shots; will be one shortly.
I am a widow of 23 years, living at the same place, live on SSV and am 89 years of age and hope this survey will help.
I am on social security for the last year and go to the V.A. for most medical and also have Medicaid.
I do what I can to keep up with my health. I do not like that [medical facility] took over.
I'm 88 and live in my own home alone but will move to Valley View Assisted Living when I can't drive anymore.
In the last 40 years I have only taken a total of 2 days off for work for the most part I am pretty healthy and stay active.
I have stage 4 polycystic kidney disease and am on a transplant list.
I still have sex once a week.
I was told to drink a little wine (dark) every day for my arthritis. But half the time I forget to drink some.
We just retired and moved from our farm and ranch to the city.
When younger, alcohol use on a social level with no addiction.
[I] work on a health care facility, so my answers may be skewed.
20 minutes??
I, the female in this household answered these questions!
I feel that your survey is missing the 'SANDWICH' generation. While it covered a lot of issues there seems to be a number of families that are raising children and caring for aging parents.
Lot of foolish questions.
No more comments and never smoked or drank alcohol.
I quit filling out this survey because I don't know what "concern" means. I am "concerned" a great deal about all of these issues. But if concern means how the community should address them, there are so many that don't affect me, e.g., I don't have children, I don't use public transportation, I don't use drugs, and I'm not hungry.
Several questions should have an N/A choice. Example: prostate screening- I'm a female. Question 49- I have no children.
Some questions are ????
Some questions are hard to answer being we are not involved with the situations at this time i.e., daycare, old folks homes etc.
Thank you for including me in this survey.
Thank you for the opportunity to participate in this important survey.
The format is a little ambiguous. Do you mean do these things in my community concern me because of personal experience, or just because I know the problems exists.
The questions that have been answered were answered as honestly as I can get. I respect NDSU and the associated groups responsible for this survey but I think this survey is flawed.
There is a lot to get information on people's private information on their self that should be private.

Comments
This survey seems to be too generalized to measure anything. I feel like I was answering 'Do you like truth, justice and the American way?'
To NDSU: Thank you for involving yourself with community and individual areas of concern. Knowledge is power for action!
Good survey!
You failed to ask any question on youth health!! Like - are our kids having access to enough youth programs!!