EvaluationGroup, LLC

Polk-Norman-Mahnomen Community Health Services

2017
NORTHWEST REGION
ADULT HEALTH BEHAVIOR SURVEY SUMMARY

Three-County CHB-Level Report

April
2018

Authored by
Garth Kruger, Ph.D.

EvaluationGroup,LLC * 29337 310th Ave NW * Warren, MN 56762
Tel (218) 437-8435 * e-mail *gkruger@evaluationgroupllc.com*

Executive Summary

Weight

74.5% of respondents residing in the Polk-Norman-Mahnomen (P-N-M) county region are considered either overweight (37.6%) or obese (36.9%).

- This is a generally flat trend from 2014 and is higher than the state average of 64.5% (36.7% overweight; 27.8%, obese).
    - The percentage of individuals who are overweight or obese increases with age.
    - Males tend to be both more overweight and obese than females.

Physical Activity

Across the three-county region, an estimated 26% of adults are getting their recommended levels of physical activity, far lower than the state rate of 55%.

- The attainment of Physical Activity Guidelines in the P-N-M region has little/no relationship to age, gender, education or income.
- Lack of time is cited by 63% of respondents as the second largest barrier to being physically active, with adverse weather being the greatest at 67% exercise after adverse weather 67%

Fruit/Veg. Consumption

Middle-income households are less likely to consume their daily recommended intake of fruits and vegetables than those from both the upper and lower ends of the income distribution (22% vs. 42%).

Tobacco

Approximately 12% of all adults in the P-N-M region are smokers.

- This is 3.5% lower than three years previously and suggests that significant positive impacts may be the result of tobacco prevention efforts.
- Current smokers are split equally across genders but differ significantly by income and education.
    - Individuals with less than $35,000 annual household income smoke three times more than all other income groups (24% vs. 8%).
    - Only 5% of those with 4-year degrees or more smoke compared to all other educational demographic groups which smoke at approximately 16%.

Alcohol

The percentages of individuals that report drinking at least once/past 30 days are split evenly across genders at approximately 64%.

- 26% of respondents indicated that alcohol had a “harmful effect” on themselves or a family member. Income level did not change the outcome.
    - 38% of respondents aged 34 and younger report experiencing “harmful effects” from alcohol.

Mental Health

29% of respondents had been told at some point in their lives by a healthcare professional that they had a mental health condition.

- Over the past 30 days, nearly 25% of respondents expressed feelings of hopelessness, anxiety or loss of interest in things they used to enjoy.
    - This figure jumps to 37% for those who are 34 years old or less and compares to 17% for those aged 55 or older.

Recommendations

- Continue to focus resources on areas that develop and encourage physical activity.
    - Assist in structuring school, workplace and community environments to make it easier for residents to integrate physical activity into daily routines.
    - Prevention efforts need to help people prioritize time in their day to be physically active..
- Track alcohol (especially binge drinking), tobacco (e-cigarette adoption) and other drugs, such as opioid use. Maintain focus on tobacco prevention. Explore local conditions using multiple methods to collect data across sectors, seek applicable funding opportunities and implement/evaluate local strategies.
- Opportunities exists for local public health and healthcare facilities to jointly identify and describe factors that affect the health of the community, and plan/implement mutually agreed upon action steps.

Weight Status

Survey respondents were asked to report their height and weight. From the data a Body Mass Index (BMI) was calculated.[1] As Figure 1 shows below, ***74.5% of respondents residing in the Polk-Norman-Mahnomen (PNM) county region are considered either overweight (37.6%) or obese (36.9%). This is a generally flat trend from 2014 and is higher than the state average of 64.5% (36.7% overweight; 27.8%, obese).*** To learn more, see https://stateofobesity.org/states/mn . In terms of gender and age as related to weight, older males tend to be heaviest while younger females weigh the least (see Figures 2 and 3).

Figure 1

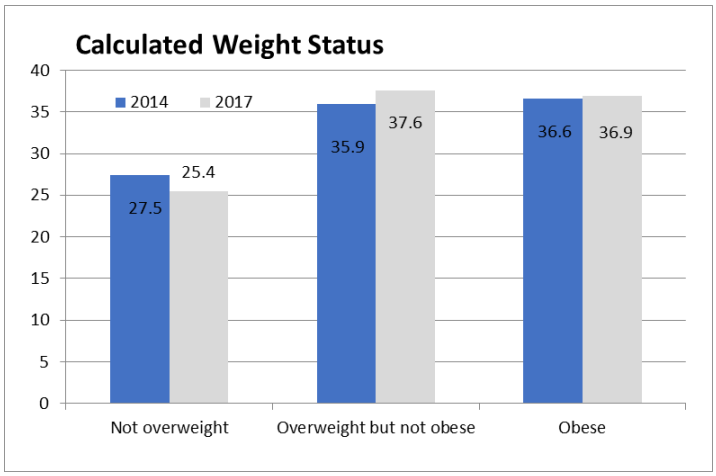
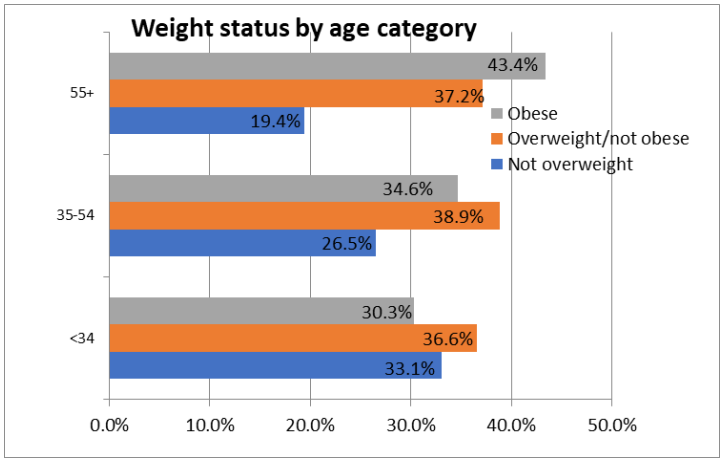


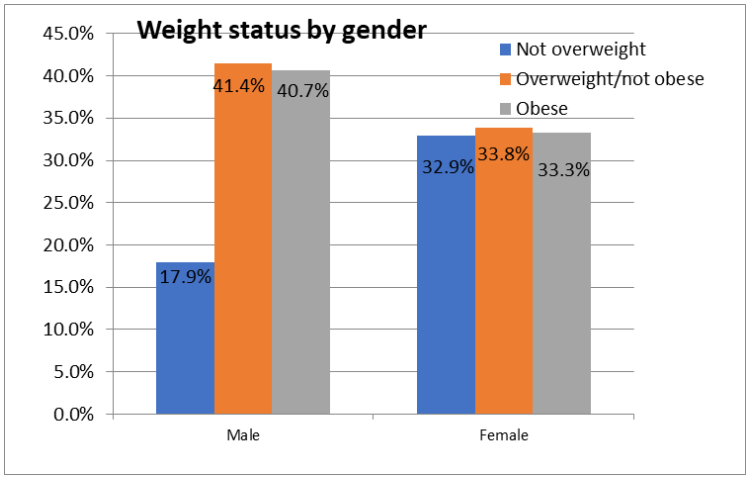
Figure 2



The percentage of individuals who are overweight or obese increases with age as shown in Figure 2. Findings suggests that the greatest short-term positive impact on population weight is to focus on adults ages 35+. However instilling habits and opportunities for individuals younger than 35 could have long-term positive results for population weight.

Figure 3

Males tend to be 7-8% more overweight and obese than females.

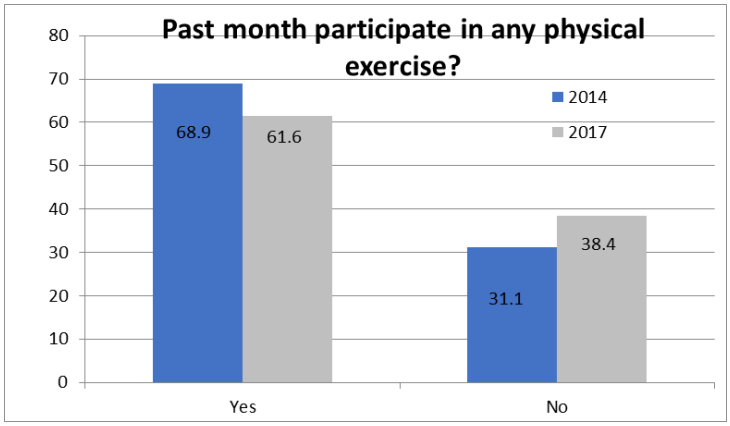


[1] There are some exceptions to be considered in using BMI to accurately assess the health of individuals; however, it is assumed here to be a generally accurate measure for the body mass composite a population.

Physical Activity

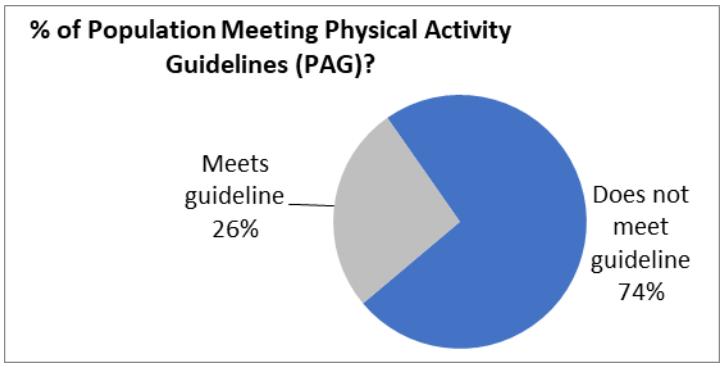
Participants were asked, "during the past 30 days, other than your regular job, did you participate in any physical activity or exercises such as running, calisthenics, golf, gardening, or walking for exercise?" Thirty-eight percent (38%) of survey respondents in 2017 indicated "no" whereas in 2014 only 31% said no. The MN state average on this measure is approximately 18%.[2,3]

Figure 4



Attainment of Physical Activity Guidelines (PAG) were assessed. This was achieved through a series of questions examining the extent of moderate physical activity (30 minutes/day for 5+ days) and vigorous physical activity (20 minutes a day for 3+ days).[4]

Figure 5



Across the three-county region, only an estimated 26% of individuals are getting their recommended levels of physical activity. This is far lower than the average rate of 55% of all Minnesotans. Overall, no noteworthy distinctions were found between the educational attainment of respondents and PAG achievement. Both males and females tended to meet PAG at the same rates (27% vs. 25.8%). However, individuals aged 55+ achieved PAG 5% more often compared to those aged 34 or less, and were 10% more likely to have engaged physical activity over the past month. Individuals with both higher ($75k+) and lower (<$35k) incomes tended to achieve PAG slightly less than those in the middle of the income spectrum (See Figure 7). Reasons for this are unclear. ***In sum, the attainment of PAG in the P-N-M region had little relationship with age, gender, education or income.***

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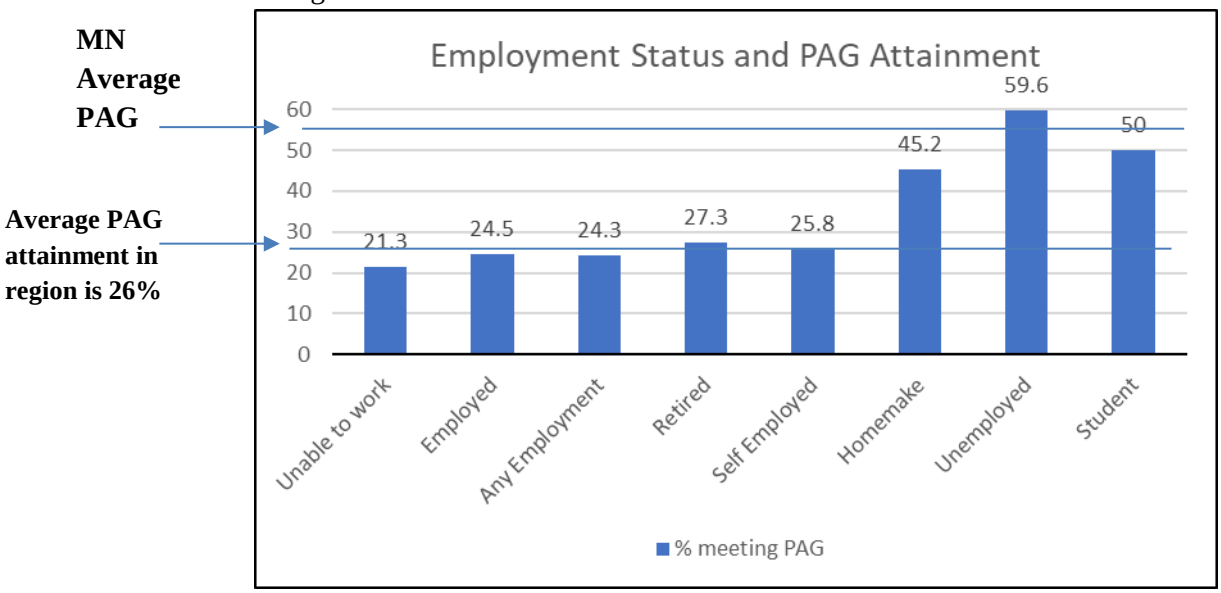
[2] https://stateofobesity.org/physical-inactivity/

[3] https://nccd.cdc.gov/dnpao_dtm/rdPage.aspx?rdReport=DNPAO_DTM.ExploreByLocation&rdRequestForwarding=Form

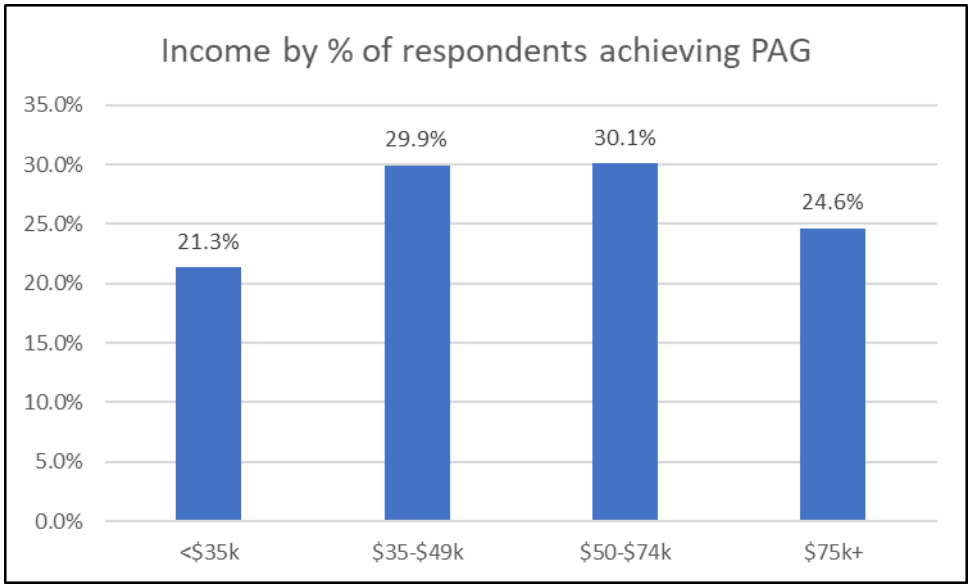
[4] *Moderate exercises are defined as those that "cause only light sweating and a small increase in breathing or heart rate, and vigorous are those that "cause heavy sweating and a large increase in breathing or heart rate. To learn more see* http://www.health.gov/paguidelines/guidelines/summary.aspx

Figure 6



Workplace wellness initiatives are popular efforts, and as the data in Figure 6 suggest these efforts are focused on a population that is lower in their attainment of Physical Activity Guidelines relative to other demographic groups (e.g. students, unemployed, homemakers). ***Therefore, P-N-M public health should continue to focus resources on developing and encouraging physical activity in workplace settings.***

Figure 7



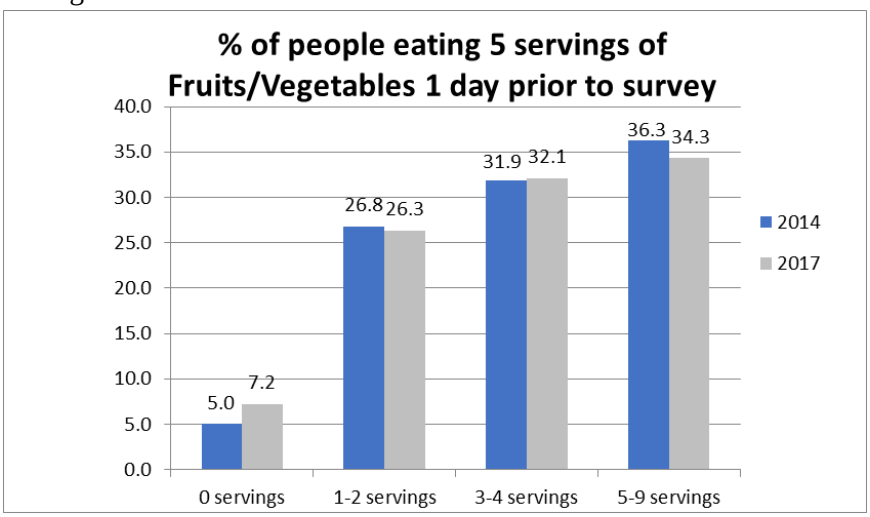
68% of respondents indicated 'weather' was the greatest reason for lack of physical activity followed by 'lack of time' at 63%. All other reasons were endorsed approximately 20% of the time including poor maintenance of sidewalks or walking paths/trails, public facilities not available when I want to use them, fear of injury, long-term illness, injury or disability, traffic problems, and not having sidewalks or walking paths/trails.

Nutrition

In 2017, a total of 34.3% of adults reported eating five or more servings of the daily recommended intake of fruit and vegetables combined per day. That total increases to 66.4% if you include those who get 3-4 servings a day, which is just below recommendations.

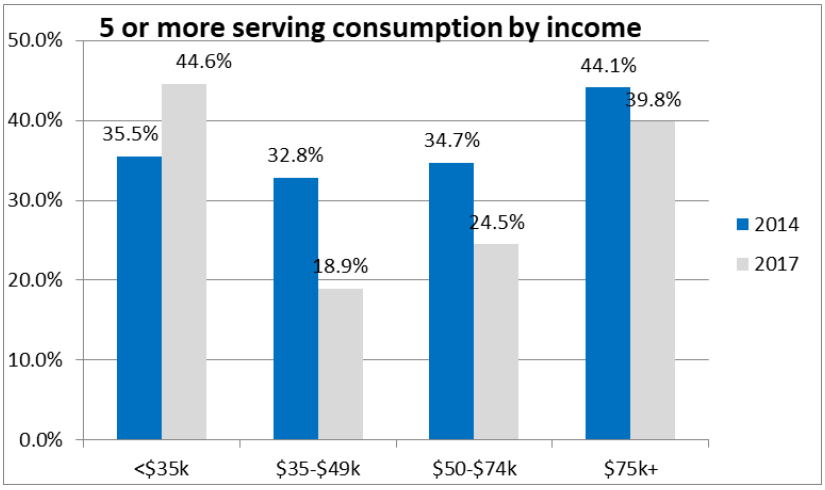
Survey results indicate that two-thirds of the population in the region regularly consume fruits and vegetables (F/V). Given the findings on nutrition intake compared to exercise, the data suggests that ***the problem it seems is not in a lack of eating F/V but rather lack of physical activity.***

Figure 8



Both fruits and vegetables are consumed at generally similar rates with vegetables having a slight edge. Differences on F/V consumption relative to age or education are negligible. The relationship between F/V consumption and income is slightly unclear, however there appears to be some variation among income groups as shown in Figure 9. Middle-income households ($35k -$75k) are less likely to consume their daily recommended intake of fruits and vegetables than those from both the upper ($75k+) and lower (<$35k) ends of the income distribution. One hypothesis could be that individuals with lower-incomes (<$35k) qualify for food program(s) and those with higher incomes ($75k+) can afford food, but those in the middle-income ranges feel the most pinch when it comes to making a choice between F/V vs. other items. Another hypothesis could be that middle-income working families look for fast, convenient meals.

Figure 9



Tobacco Use

Approximately 12% of all adults in the region are smokers. This is 3.5% lower than what was found three years previously and suggests that significant positive impacts may be the result of numerous prevention efforts. Current smokers are split equally across genders but differ significantly by income and education. ***Individuals with less than $35,000 annual household income had three times the rate of smoking compared to all other income classes (26% vs. 9%). With only 7.5% of those with 4-year degrees smoked compared to all other educational demographic groups which smoked at approximately 15%.***

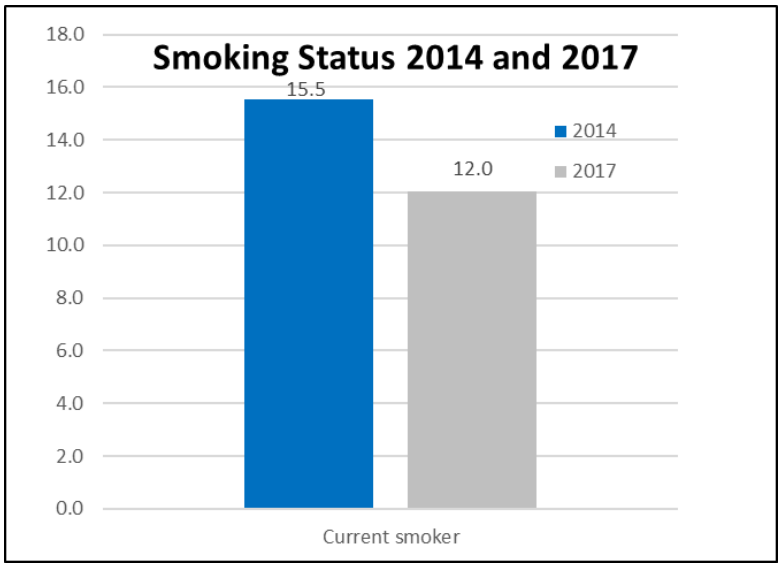
Mahnomen County has the highest smoking rates at 23.6%. This is nearly double the state average of 14.4%. For the three-county region, 29.1% of current smokers indicated that during the past 12 months they had stopped smoking for a day or longer because they were trying to quit. People attempting to quit smoking decreased 22% from 2014. It is unclear why this might be the case.

Table 1: Percent of Adults Who Smoke by County and CHB

	PNM CHB Region	Mahnomen County	Polk County	Norman County	MN State
Current smokers 2014	15.5	20.5	15.6	11.7	14.4
Current smokers 2017	12	23.6	10.3	11.7	14.4*
Net increase/decrease	-3.5	+3.1	-5.3	0	0

Results also found that 5% of adults are smokeless tobacco users. Of the 56 smokeless tobacco users in the sample, 48 of them were males. E-cigarette use is even lower at 1.4%. Statewide surveys estimate adult e-cigarette use in Minnesota at 6%.[5,] Northwest Minnesota region estimated range is 2-6% from the 2014 MN Adult Tobacco Survey.[5]

Figure 10



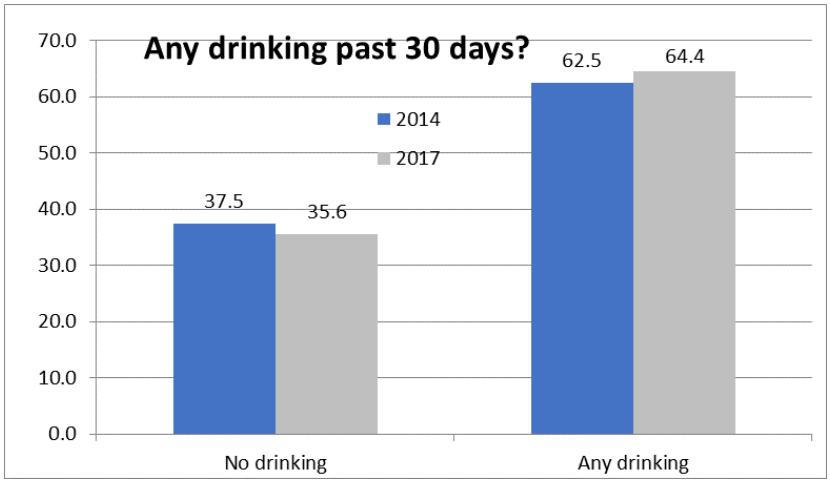
[5] http://www.mntobacco.nonprofitoffice.com/vertical/Sites/%7B988CF811-1678-459A-A9CE-34BD4C0D8B40%7D/uploads/MATS_2014_Technical_Report_Final_2015-01-21.pdf

Alcohol Use

Participants were asked "during the past 30 days, have you had at least one drink of any alcoholic beverage such as beer, wine, a malt beverage or liquor?" Respondents indicated that 64% of them had consumed alcohol. Of that, twenty-six percent of respondents indicated that alcohol had a 'harmful effect' on themselves or a family member. Income levels seemed to have no impact on harmful effects as each income group was equally impacted, however that was not the case for age or educational attainment.. Respondents aged 34 or less reported 38% of them were adversely impacted compared to 22% of those aged 35+. Similarly, 18% of individuals with a high-school diploma or less experienced harmful effects compared to 30% of those with more than a high-school education.

Drinking percentages were split evenly across the genders, however 69% of individuals younger than 55 reported drinking versus 58% for all other age groups. Eighty-one percent of individuals from higher income households (>$75k) reported drinking over the past 30 days compared to 37% of those earning less than $35k. Furthermore, individuals with a bachelor's degree or higher educational attainment were more likely to report alcohol consumption over the past 30 days (76%) than those with a high-school diploma or less (53%). It should be noted that 'any drinking' does not mean problem drinking. Future surveys should include questions pertaining to binge drinking as included in the 2014 data.

Figure 11

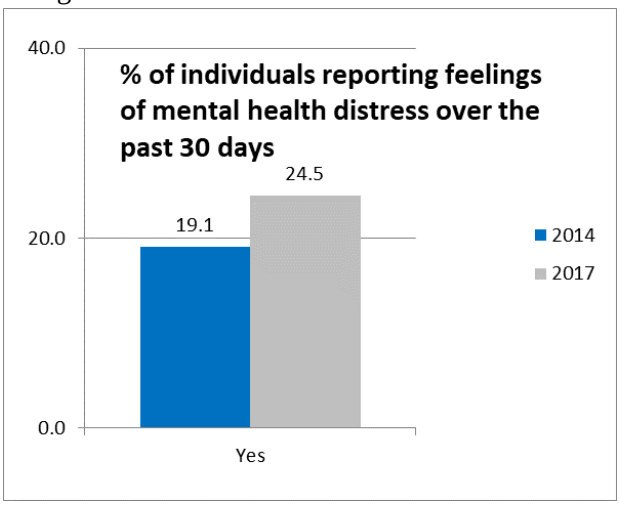


Mental Health

- ***Approximately 13.4% of individuals living in the PNM region self-reported having Fair or Poor general mental health at the time of the survey.***
- 29% have been told at some point in their lives by a healthcare professional that they had a mental health condition.
- 17% delayed getting mental health treatment when it was needed.
    - Of this group, the delay occurred for a variety of reasons, including perceived lack of severity (50%), fear of getting treatment (25%) cost (25%), 'did not know where to go' (22%), and deductible too expensive (15%).

Over the past 30 days, nearly 25% of respondents expressed feelings of hopelessness, anxiety or loss of interest in things they used to enjoy. This figure jumps to 37% for those who are 34 years old or less and compares to 17% for those aged 55 or older.

Figure 12



Medical Care

Approximately two-thirds of the regions residents reported having a medical checkup over the past year. Nineteen percent delayed seeking medical care over the past 12 months when they felt they needed it (See figure 14). The primary reason for not seeking care was cost (50%) and high deductible (30%) (See Figure 15). ***Instead of people not seeking medical care because of no health insurance, many may not be seeking medical care because the deductibles and associated costs.***

Figure 13

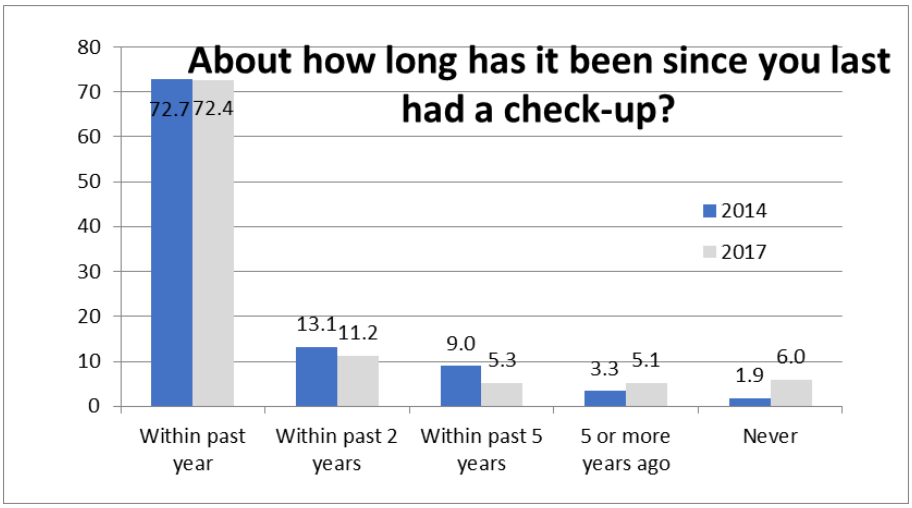


Figure 14

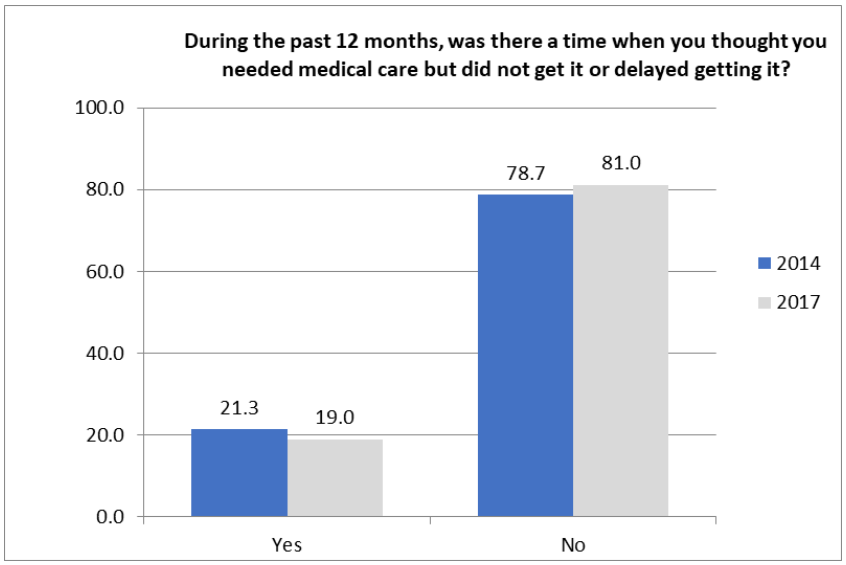
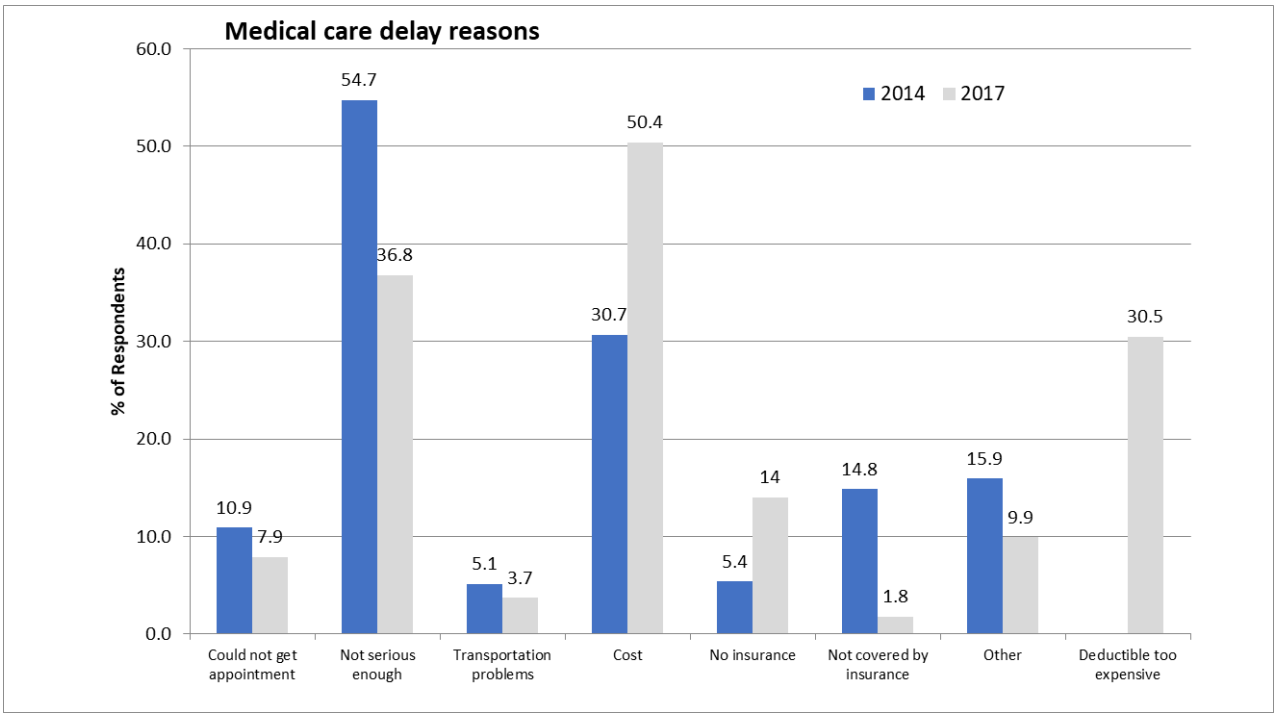
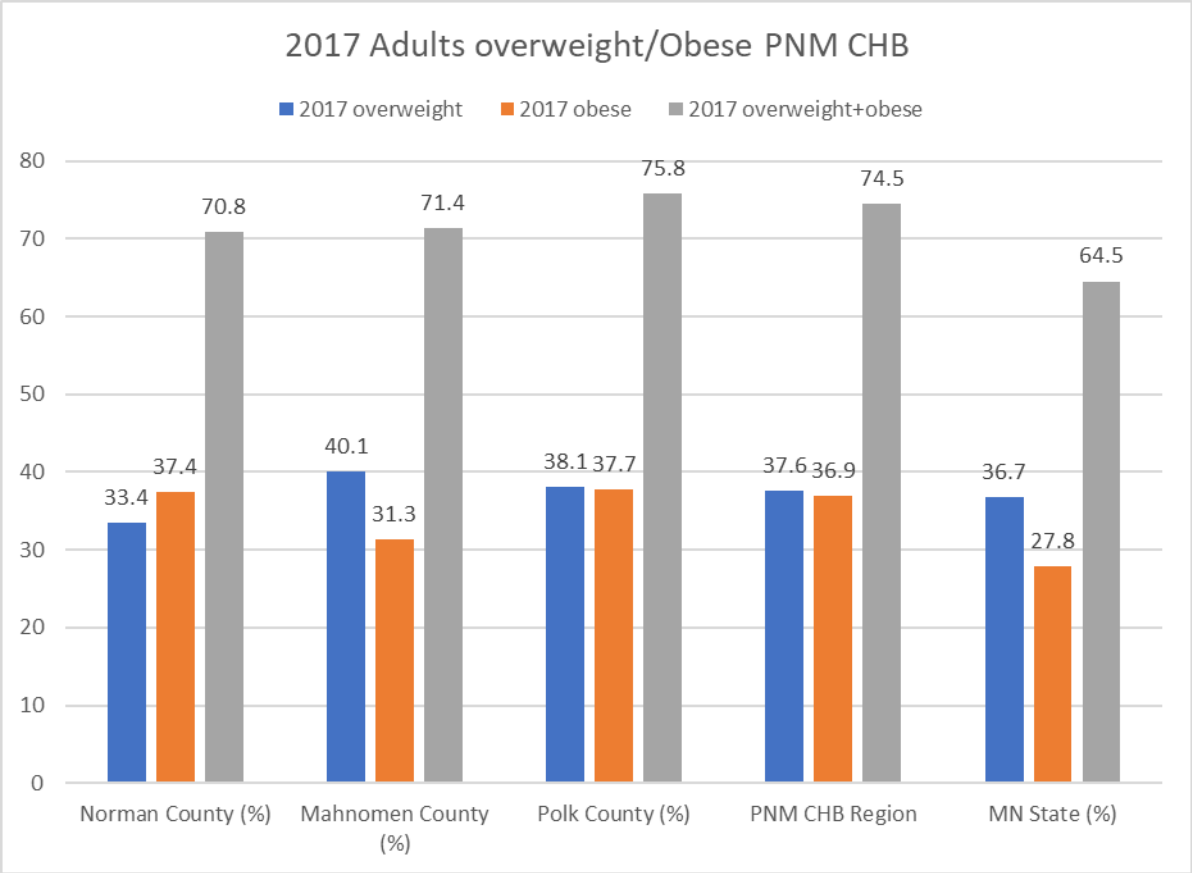


Figure 15



Appendix A:


2017 Adults overweight/Obese PNM CHB
2017 overweight
2017 obese
2017 overweight+obese
80
70
60
50
40
30
20
10
0
33.4
37.4
70.8
40.1
31.3
71.4
38.1
37.7
75.8
37.6
36.9
74.5
36.7
27.8
64.5
Norman County (%)
Mahnomen County (%)
Polk County (%)
PNM CHB Region
MN State (%)

Appendix B: Methodology

Survey Instrument

Staff from the public health agencies representing Beltrami, Clearwater, Hubbard, Kittson, Lake of the Woods, Mahnomen, Marshall, Norman, Pennington, Polk, Red Lake and Roseau counties developed the questions for the survey instrument with technical assistance from the Minnesota Department of Health Center for Health Statistics. Existing items from the Behavior Risk Factor Surveillance System (BRFSS) survey and from recent county-level surveys in Minnesota were used to design some of the items on the survey instrument. The survey was formatted by the survey vendor, Survey Systems, Inc. of New Brighton, MN, as a scannable, self-administered English-language questionnaire.

Sample

A two-stage sampling strategy was used for obtaining probability samples of adults living in each of the twelve counties. A separate sample was drawn for each county. For the first stage of sampling, a random sample of county residential addresses was purchased from a national sampling vendor (Marketing Systems Group of Horsham, PA). Address-based sampling was used so that all households would have an equal chance of being sampled for the survey. Marketing Systems Group obtained the list of addresses from the U.S. Postal Service. For the second stage of sampling, the "most recent birthday" method of within-household respondent selection was used to specify one adult from each selected household to complete the survey.

Survey Administration

An initial survey packet that included a cover letter, the survey instrument, and a postage-paid return envelope was mailed November 27, 2017, to 18,679 households in the 12-county region. In nine of the counties, survey packets were mailed to samples of 1600 households per county. Three of the counties have fewer than 1600 households; in these cases, survey packets were mailed to all households.

About one week after the first survey packets were mailed (December 5), a reminder postcard was sent to all sampled households, reminding those who had not yet returned a survey to do so, and thanking those who had already responded. Three weeks after the reminder postcards were mailed (December 27), another full survey packet was sent to all households that still had not returned the survey. The remaining completed surveys were received over the next six weeks, with the final date for the receipt of surveys being January 31, 2018.

Completed Surveys and Response Rate

Completed surveys were received from 4296 adult residents of the twelve counties; thus, the overall response rate was 22.9% (4296/18679). County-specific response rates can be found on the next page.

Data Entry and Weighting

The responses from the completed surveys were scanned into an electronic file by Survey Systems, Inc.

To ensure that the survey results are representative of the adult population of each of the twelve counties, the data were weighted when analyzed. The weighting accounts for the sample design by adjusting for the number of adults living in each sampled household. The weighting also includes a post-stratification

adjustment so that the gender and age distribution of the survey respondents mirrors the gender and age distribution of the adult populations of the twelve counties, according to U.S. Census Bureau American Community Survey 2012-2016 estimates.

County	Surveys mailed	Completed Surveys	Response Rate
Beltrami	1600	316	19.8%
Clearwater	1600	354	22.1%
Hubbard	1600	376	23.5%
Kittson	1402	445	31.7%
Lake of the Woods	1553	337	21.7%
Mahnomen	1600	299	18.7%
Marshall	1600	401	25.1%
Norman	1600	383	23.9%
Pennington	1600	301	18.8%
Polk	1600	351	21.9%
Red Lake	1414	373	26.4%
Roseau	1600	360	22.5%
Total	18769	4296	22.9%

The term ‘respondents’ in this report refers to those who responded to this survey and can be taken to assume that they represent the population in so far as the reader believes the response rates and weightings to be representative of the population.

Strengths and Weaknesses of Current Survey Design Methods

Strengths

1. No other adult behavioral risk study focusing on a broad range of health topics has been conducted in the region other than the BRFSS studies (which have traditionally sampled very few individuals in the region)

2. Randomized sampling of county residential addresses was used. This procedure helps eliminate data that is either positively or negatively skewed due to selection biases often associated with convenience sampling.

Weaknesses

1. It must be assumed through the process of weighting that individuals responding to the survey who fall within specific demographic groups (for example males aged 18-35), are not different in any substantial way from their peers within that subgroup who did not respond to the survey. It is possible in some instances where responses within individual demographic categories were small enough that the assumption of similarity between those two groups is of concern. Unfortunately, it is impossible to know to what degree of accuracy is achieved ultimately except to examine each data point individually, in context, and through conversations with experienced healthcare professionals serving the region.