

# EvaluationGroup,LLC

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## Polk-Norman-Mahnomen Community Health Services

### COMMUNITY HEALTH NEEDS ASSESSMENT

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## Background

A thorough and valid Community Health Assessment is a customary practice and core function of public health, and also is a national standard for all public health departments. Since the passage of the Local Public Health Act in 1976, Minnesota Community Health Boards have been required to engage in a community health improvement process, beginning with a Community Health Assessment. A Community Health Assessment identifies and describes factors that affect the health of a population, and factors that determine the availability of resources within the community to adequately address health concerns. The Community Health Assessment, therefore, assures that local resources are directed toward activities and interventions that address critical and timely public health needs. The model chosen for conducting the Polk-Norman-Mahnomen Community Health Board assessment was developed by National Association of County and City Health Officials (NAACHO) and is called MAPP (Mobilizing for Action through Planning and Partnerships). MAPP is a community-driven strategic planning process for improving community health that is facilitated by local public health leaders. The framework helps communities apply strategic thinking in prioritizing public health issues and identifying resources to address them. Four stages of the MAPP process as shown in the diagram below entail: 1) Community Health Status Assessment, 2) Forces of Change Assessment, 3) Community Themes and Strengths Assessment, and 4) Local Public Health System Assessment.



A document entitled “Minnesota County-level Indicators for Community Health Assessment: Indicators Sorted by Statewide Health Assessment Theme” was used as a point-by-point guide to provide focused data collection activities on a number of health indicators. This document was a suggested (but not required) guideline provided by MDH used to guide the data review process. Such assessments must include descriptions of community demographics, health issues, and contributing causes of community health issues based on an analysis of community health data. They must generally cover the following six areas:

- People and Place: e.g., demographics/socioeconomics, environmental conditions
- Opportunities for Health: e.g., health resource availability/access, quality of life
- Healthy Living: e.g., health behaviors, social and mental health, child and maternal health
- Chronic Disease and Conditions: e.g., heart disease, multiple sclerosis
- Infectious Disease: e.g., vaccination rates
- Injury and Violence: e.g., suicide, domestic violence, murder

These six themes reflect the organization of *The Health of Minnesota: 2010 Statewide Health Assessment*. The State Community Health Services Advisory Committee (SCHSAC)/Performance Improvement Steering Committee has recommended that as much as possible, all Minnesota Community Health Boards use the same organization and indicators as the Statewide Health Assessment so that comparisons can be more readily made between the counties and state.

## Quantitative Findings

### *Total Population and Persons Per Square Mile*

Demographic results show steady and slow declines in population year over year over the past 6 years, continuing a decades-long trend of population exodus from rural areas. More recent data from 2011 suggests that there may be a leveling-off in population decline.

<b>Total population 2005-2009</b>						<b>% change 2005-09</b>
	2005	2006	2007	2008	2009	
Statewide	5,132,799	5,167,101	5,197,621	5,220,393	5,266,214	
Roseau	16,495	16,201	15,946	15,865	15,911	-4.6%
Pennington	13,608	13,709	13,756	13,747	13,842	+2.0%
Marshall	9,965	9,951	9,618	9,502	9,184	-8.0%
Kittson	4,792	4,691	4,505	4,462	4,374	-7.8%
Red Lake	4,317	4,168	4,118	4,069	4,188	-3.0%
Polk		31088	30708	30694	30766	-1.0%
Norman-Mahnomen		11814	11814	11733	11480	-2.9%

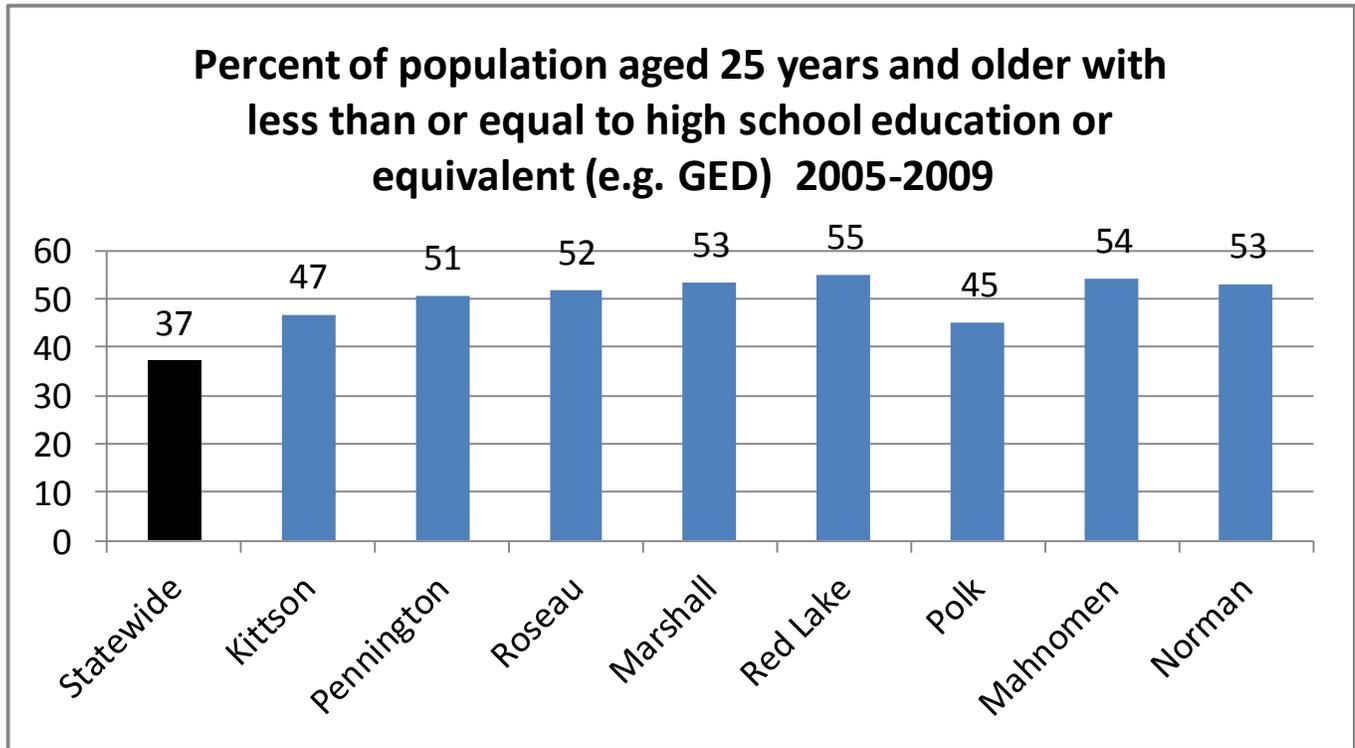
Population statistics per square mile reveal that 2 of the counties in the region (Kittson and Marshall) meet the designation of being a frontier population (six or fewer people per square mile) <http://www.frontierus.org/>.

<b>County</b>	<b>Persons per sq. mile</b>	<b>Population 2011</b>
Kittson	4	4,552
Marshall	6	9,481
Norman	8	6,869
Mahnomen	9	5,456
Roseau	9	15,540
Red Lake	10	4,105
Polk	16	31,456
Pennington	23	14,072
Minnesota	65	5.34 million
USA	84	302 million
World	117 (not including water)	7.74 billion

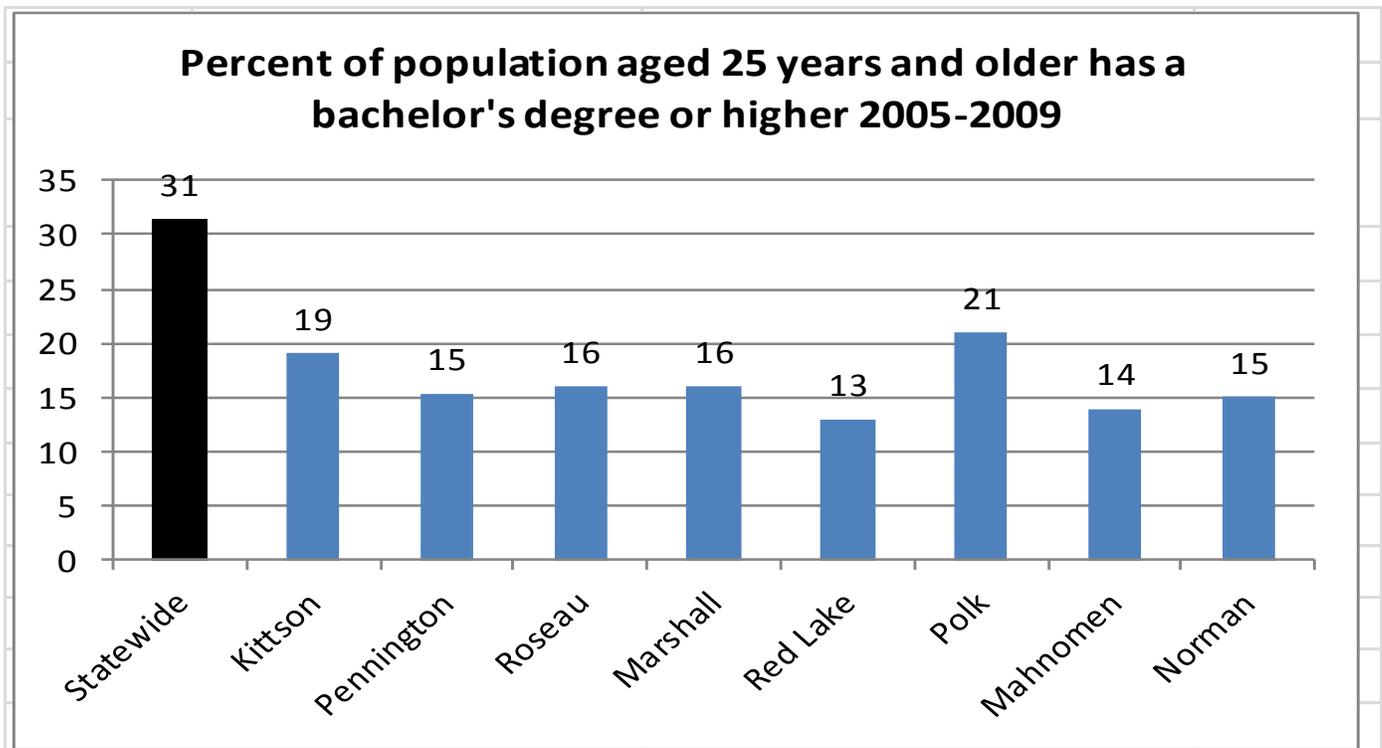
Source: U. S Census Bureau statistics, 2010/11 population estimates

## Educational Levels

Educational levels of area residents are substantially lower than in comparison to the rest of the state. Between 47-55% of the population in the region aged 25 and older has less than or equal to a high school education or equivalent compared to 37% of the population statewide.



Between 13-21% of the population in the region aged 25 and older has a bachelor's degree or higher compared to 31.4% of the population statewide.



## Unemployment Rate

Year over year, the 5-year unemployment rate within Norman-Mahnomen (6.1) is higher than the state average of 5.2, whereas in Polk County it is 5.1.

Unemployment rate - annual average 2005-2009						
	2005	2006	2007	2008	2009	5-yr avg.
Statewide	4	4	5	5	8	5.2
Polk		4.7	4.5	5	6.2	5.1
Norman/Mahnomen		5.3	5.8	6.2	7.2	6.1
Kittson	5	6	6	6	7	6
Roseau	5	6	6	5	8	6
Pennington	6	6	7	7	9	7
Red Lake	7	7	8	8	10	8
Marshall	4	4	8	8	10	6.8

## Regional Income and Poverty

### Median Income

The U.S. Median income from 2006-2010 was \$51,914. In Minnesota during the same time frame it was \$57,243 (<http://quickfacts.census.gov/qfd/states/27000.html>). Statistics show that median income in the 3-county (PNM) region ranges between 14-31% lower (\$7,986 to \$17,858) than the statewide average. Across a working lifetime of 40 years this means that a household in the middle of the income distribution potentially brings home \$300,000 to \$700,000 less than other households across the state. Income levels by township do not currently exist in a reliable form known to the authors at this time. Presently, county-level estimates provide the most reliable form of assessment.

County	Median Household Income
Mahnomen <sup>1</sup>	\$39,385
Norman <sup>1</sup>	\$43,333
Pennington	\$44,926
Kittson	\$47,568
Red Lake	\$47,835
Marshall	\$48,565
Polk <sup>1</sup>	\$49,257
Roseau	\$49,400
Minnesota	\$57,243
USA	\$51,914
World	\$7,000*

\*Average income

<sup>1</sup> 2007-2011 Time frame

Per Capita Income

Per capita income or income per person is a measure of mean income within an economic aggregate, such as a country, city or county. It is calculated by taking a measure of all sources of income in the aggregate (such as GDP or Gross National Income) and dividing it by the total population. It does not attempt to reflect the distribution of income or wealth ([http://en.wikipedia.org/wiki/Per\\_capita\\_income](http://en.wikipedia.org/wiki/Per_capita_income)).

Per capita income has several weaknesses as a measurement of prosperity, including:

- As it is a mean value, it does not reflect income distribution. If the distribution of income within a country is skewed, a small wealthy class can increase per capita income far above that of the majority of the population. In this respect median income is a more useful measure of prosperity than per capita income, because it is less influenced by the outliers.
- Economic activity that does not result in monetary income, such as service provided within the family, or for barter; is usually not counted. The importance of these services varies widely among different economies.

<b>Total per capita income 2004-2008</b>					
	2004	2005	2006	2007	2008
Red Lake	\$21,970	\$23,698	\$24,243	\$28,206	\$29,707
Polk		\$27,502	\$28,277	\$30,420	\$36,854
Norman/Mahnomen		\$29,150	\$31,129	\$33,515	\$38,578
Pennington	\$31,225	\$33,671	\$33,250	\$35,873	\$38,607
Roseau	\$28,413	\$31,495	\$32,742	\$35,150	\$39,434
Marshall	\$26,019	\$26,894	\$28,447	\$31,624	\$43,631
Kittson	\$27,731	\$27,766	\$28,798	\$31,322	\$52,127
Statewide	\$36,184	\$37,290	\$38,859	\$41,105	\$42,953

Current Poverty Guidelines

The current Poverty Guidelines published by the Federal Register are shown in the table below. These figures are not the figures the Census Bureau uses to calculate the number of individuals in poverty. The figures that the Census Bureau uses are the poverty thresholds (Federal Register, Vol. 77, No. 17, Jan. 26, 2012, p. 4035).

<b>2012 Poverty Guidelines for the 48 Contiguous States and the District of Columbia*</b>	
<b>Persons in family/household</b>	<b>Poverty guideline</b>
<b>1</b>	\$11,170
<b>2</b>	15,130
<b>3</b>	19,090
<b>4</b>	23,050
<b>5</b>	27,010
<b>6</b>	30,970
<b>7</b>	34,930
<b>8</b>	38,890

\*For families/households with more than 8 persons, add \$3,960 for each additional person.

**Census Poverty Thresholds for 2011 by Size of Family and Number of Related Children Under 18 Years**

Size of family unit	Related children under 18 years								
	None	One	Two	Three	Four	Five	Six	Seven	Eight+
One person (unrelated)									
Under 65 years.	11,702								
65 years and over	10,788								
Two people.									
Householder < 65 years.	15,063	15,504							
Householder 65 years +.	13,596	15,446							
Three people.	17,595	18,106	18,123						
Four people.	23,201	23,581	22,811	22,891					
Five people.	27,979	28,386	27,517	26,844	26,434				
Six people.	32,181	32,309	31,643	31,005	30,056	29,494			
Seven people	37,029	37,260	36,463	35,907	34,872	33,665	32,340		
Eight people.	41,414	41,779	41,027	40,368	39,433	38,247	37,011	36,697	
Nine people or more.	49,818	50,059	49,393	48,835	47,917	46,654	45,512	45,229	43,487

Source: U.S. Census

The negative consequences of poverty typically have the greatest adverse impact on the elderly and the young. Between 1% and 10% more of the regional population is aged 65 and older compared to the rest of the state; furthermore the region has 1% to 8 % more of its elderly population living at home alone. Elderly people living at home are more at-risk for accidents or injuries than those living with others. Living alone may imply greater functional ability, but injuries and outcomes can be worse, especially if the person cannot rise from the ground. Living alone has been shown to be a risk factor for falls although part of this effect appears to be related to certain types of housing older people may occupy (Health Evidence Network, 2004).

<b>Number and percent of people aged 65 years and older 2010</b>			
	<b>Population 65+ years</b>		<b>Percent of households in which the resident is 65 and over and living alone</b>
	<b>Number</b>	<b>Percent</b>	
Roseau	2250	14	10.5
Mahnomen	855	16	11.6
Pennington	2212	16	12.7
Polk	5,220	17	12.9
Red Lake	701	17	13.4
Marshall	1816	19	13.6
Norman	1,465	21	16.3
Kittson	1029	23	17.9
<b>Statewide</b>	<b>683,121</b>	<b>12.9</b>	<b>9.7</b>

The dependency ratio is an age-population ratio of those typically not in the labor force (the dependent part) and those typically in the labor force (the productive part). It is used to measure the pressure on the productive population and depicts the number of people 65 and older to every 100 people of traditional working ages. The elderly dependency ratio in northwest Minnesota is between 2 and 20 points higher than in comparison to the ratio statewide. This means that there is a greater portion of the population within the northwest region dependent upon government resources, such as social security and other security net programs compared to statewide.

<b>Elderly (65+ years) dependency ratio (per 100 population 15-64) 2005-2009</b>					
	2005	2006	2007	2008	2009
Roseau	18	18	19	19	21
Pennington	23	23	23	23	24
<b>Polk</b>		<b>25.7</b>	<b>26</b>	<b>26</b>	<b>26</b>
Red Lake	28	27	26	26	29
Marshall	30	30	32	33	30
<b>Norman/Mahnomen</b>		<b>32</b>	<b>32</b>	<b>33</b>	<b>33</b>
Kittson	38	38	39	39	39
Statewide	18	18	18	18	19
USA					22

200% Poverty Rates

Regionally, Mahnomen has the greatest percentage (48.2%) of individuals living at or below 200% of poverty according to the 2011 Minnesota County Health tables and as shown below.

<b>Percent of people of all ages living at or below 200% of poverty 2005-2009</b>	
	Percent of people of all ages living at or below 200% of poverty
<b>Mahnomen</b>	<b>48.2</b>
<b>Norman</b>	<b>33.6</b>
<b>Polk</b>	<b>31.6</b>
Red Lake	31
Pennington	29
Roseau	29
Marshall	27
Kittson	26
Statewide	<b>26</b>

Poverty and Food Program Participation

Mahnomen County had the highest free/reduced priced lunch rate in the area in 2011 (71.8%), with Norman County (49.3%) being higher than the state average (37.3%) as well.

<b>Children Receiving Free/Reduced Price Lunch (Percent)</b>					
<b>Showing most recent 5 years</b>					
	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
<b>Mahnomen</b>		70.7%	73.4%	68.7%	71.8%
Red Lake	51.9%	50.8%	53.7%	49.9%	49.8%
<b>Norman</b>		47.7%	45.9%	46.4%	49.3%
Marshall	43.1%	44.1%	43.6%	46.2%	45.4%
Kittson	39.7%	38.3%	40.3%	39.7%	38.0%
<b>Polk</b>		36.4%	38.7%	37.8%	38.1%
Pennington	34.8%	34.8%	38.1%	38.7%	38.3%
Roseau	32.6%	31.2%	37.0%	34.1%	34.0%
Statewide	31.8%	32.9%	35.6%	36.7%	37.3%

**Overweight/Obesity/Physical Activity: Youth**

- ❖ Minnesota Student Survey (MNSS) results for area 12<sup>th</sup> graders indicate that overall, those students within the 3-county region are significantly more overweight than other 12<sup>th</sup> graders from across the state, and furthermore they are significantly more likely to believe they are overweight than other seniors from across the state. Mahnomen County did not achieve statistical significance because of the wide variability, likely due to small numbers.

<b>Health Risk Category 2010</b>	<b>MAHNOMEN (95% CI)</b>	<b>POLK (95% CI)</b>	<b>NORMAN (95% CI)</b>	<b>SHIP 1.0 2010 COUNTIES (95% CI)</b>	<b>MN STATE (95% CI)</b>
<b>1. Weight Status<sup>[1]</sup></b>					
a. At risk for overweight <sup>[2]</sup>	7.9 (2.4 - 22.7)	12.7 (9.2 - 17.3)	7.4 (3.0 - 16.8)	13.0 (10.8 - 15.7)	11.9 (11.6 - 12.3)
b. Overweight <sup>[3]</sup>	13.2 (5.4 - 28.8)	14.2 (10.5 - 18.9)*	17.6 (10.2 - 28.9)*	13.7 (11.4 - 16.5)*	9.4 (9.1 - 9.8)
a) Thinks overweight	31.7 (19.0 - 48.0)	31.1 (26.0 - 36.7)*	23.6 (15.0 - 35.0)	27.3 (24.3 - 30.6)*	23.1 (22.6 - 23.5)

<sup>[1]</sup> The CDC growth charts were used to determine weight status according to BMI for participants in the Minnesota Student Survey.

<sup>[2]</sup> 85<sup>th</sup> to less than 95<sup>th</sup> percentile on the CDC growth charts

<sup>[3]</sup> Equal to or greater than the 95<sup>th</sup> percentile on the CDC growth charts

\*=Significant difference from state CI.

See Appendix A: MNSS Data Analysis to find additional statistics on the use of cigarettes, exercise, and a healthy diet to control weight.

## Diabetes: Adults

Synthetic Behavioral Risk Factor Surveillance Data (BRFSS) age adjusted estimates of diabetes within the region reveal that the prevalence of the disease may be elevated compared to the statewide average. Local public health staff believes strongly that the levels of diabetes within the region are higher than state averages.

<b>2009 Age-Adjusted Estimates of the Percentage of Adults with Diagnosed Diabetes in Minnesota*</b>				
	%	Lower 95% CI	Upper 95% CI	SD
Statewide	5.8			
Mahnomen	9.1	6.8	11.7	1.2
Pennington	8.6	6.3	11.4	1.3
Norman	8.1	5.9	10.9	1.2
Polk	7.7	5.9	10	1.1
Kittson	7.6	5.4	10.1	1.2
Red Lake	7.2	5.3	9.6	1.1
Marshall	6.9	5	9.3	1.1
Roseau	6.7	5	8.9	1

\*BRFSS Synthetic estimates

Source: Centers for Disease Control and Prevention (2012).

CI=Confidence Interval

SD=Standard Deviation

## Breastfeeding Rates

- ❖ Minnesota children tend to be breastfed at a higher rate (82.5%) than children from the rest of the United States versus (74.6%) (Minnesota Department of Health, Minnesota Pregnancy Risk Assessment Monitoring System PRAMS, 2011).
- ❖ The breastfeeding initiation rate among WIC participants in Minnesota during 2010 was 74.5%.
- ❖ Polk County is 1 standard deviation below the Healthy People 2010 goal of 75%, whereas Mahnomen and Norman Counties are currently at greater than 2 standard deviations below that level. For more information see <http://www.health.state.mn.us/divs/fh/wic/statistics/bffactsheet0312.pdf>

## Tobacco Use in Adults

Behavioral Risk Factor Surveillance Data from 2008 was available for quick analysis and an overview is provided in the following table. While BRFSS findings allow for some measurement of adult population health, they are generally unreliable for populations in NW Minnesota because they rely on a synthetic estimate based on population parameters based on individuals who do not reside in the area but rather are similar on demographic characteristics such as age and gender (See Appendix E for more details). Findings suggested that rates of obesity and overweight are similar to statewide averages as well as smoking rates.

The data also suggest that lack of exercise for adult populations within the three counties may be a significant issue as nearly 18% of residents in each county are estimated to not participate in any form of exercise compared to the state average of nearly 13%.

2008 Behavioral Health Risks for Polk, Norman, and Mahnomen Counties (Adults: 18+)

Health risk category	Mahnomen County (%)	Polk County (%)	Norman County (%)	SHIP 1.0 Counties (%) <sup>1</sup>	MN State (%)
Overweight (not obese)	36.5	35.8	36.9	36.4	37.5
Obese	26.1	25.5	26.0	25.9	26.5
Current smokers	15.5	15.8	15.0	15.6	15.7
No Exercise	17.8	17.8	18.3	17.8	12.9
Fair or Poor Overall Health	12.5	12.1	13.3	12.5	14.2

<sup>1</sup>Aggregate data for Kittson, Mahnomen, Marshall, Norman, Pennington, Polk, Red Lake & Roseau Counties.

1

Smoking During Pregnancy

- ❖ Because tobacco use rates are generally higher in the region, smoking during pregnancy was examined. Data show that, the percentage of births to mothers who smoked in Mahnomen County was 40% higher than the state average.

<b>Births to Mothers Who Smoked During Pregnancy (Percent) Showing most recent 5 years; Show All Years</b>					
	2006	2007	2008	2009	2010
Norman	0%	16%	19%	27%	12%
Kittson	0%	7%	13%	11%	12%
Polk	12%	15%	15%	14%	14%
Marshall	0%	13%	13%	15%	15%
Roseau	15%	17%	17%	12%	19%
Red Lake	10%	16%	17%	17%	21%
Pennington	0%	28%	27%	29%	24%
Mahnomen	0%	30%	46%	50%	52%
Statewide	9%	10%	10%	10%	10%

### ***Tobacco Use in Youth***

With the exception of Polk County in 2010, frequent use of tobacco in youth is estimated to be at or below state averages. (Polk County youth cigarette use past 30 days in 2010 was 18.7 (14.6-23.6 CI) and the state average was 13.0% (21.3-22.1 CI). Of great concern for the region is the reported frequent use of smokeless tobacco. Data indicate that Polk and Norman Counties have self-reported smokeless tobacco use rates nearly double the state average.

#### **Tobacco Products Use in Youth by County (MNSS, 2010)**

	<b>MAHNOMEN (95% CI)</b>	<b>POLK (95% CI)</b>	<b>NORMAN (95% CI)</b>	<b>SHIP 1.0 Quin COUNTIES (95% CI)</b>	<b>MN STATE (95% CI)</b>
Frequent use of tobacco (20+ days) past 30 days	12.5 (5.1 - 27.5)	18.7 (14.6 - 23.6)*	9.6 (4.6 - 19.1)	20.6* (17.9-23.7)	13.0 (12.7-13.4)
Used smokeless tobacco in past 30 days	17.5 (8.3 - 33.2)	19.0 (14.8 - 23.9)*	23.3 (14.8 - 34.6)*	21.4* (18.6-24.5)	12.1 (11.8-12.5)

\*=significant at p<.05

To learn more about where youth are purchasing tobacco products and the use of additional forms of tobacco products, see Appendix A.

To learn more about the Polk County Chemical Free Student and Parent Survey, see Appendix D.

### ***Alcohol Use in Adults***

- ❖ BRFSS data suggest that adults for whom data were available in the three-county region binge drank at approximately the same rate as adults from the rest of the state. Similar findings held true for heavy alcohol use.

<b>Average cost per capita of alcohol-related motor vehicle crashes, fatalities and injuries 2005-2009*</b>	
Roseau	\$65
Marshall	\$66
Polk	\$72
Pennington	\$101
Norman	\$112
Kittson	\$116
Mahnomen	\$338
Red Lake	\$368
Northwest MN	\$104
Statewide	\$54

\*Source: [Impaired Driving Facts](#)

Cost estimates provided by the National Safety Council and provided above do not attempt to include "comprehensive costs" but just direct costs of traffic crashes, deaths and injuries due to medical expense, property damage and lost productivity. Other procedures that attempt to include comprehensive costs (e.g. those used by US Department of Transportation) result in total cost estimates about three times greater than those calculated here.

- ❖ The DWI arrest rate in Mahnomen County is approximately three times the national average.

<b>DWI Arrest Rate per 10,000 population 2005-2009</b>	
Kittson	50.8
Red Lake	58.6
<b>Norman</b>	<b>64.2</b>
Marshall	68.8
<b>Polk</b>	<b>73.0</b>
Roseau	86.5
Pennington	87.5
<b>Mahnomen</b>	<b>139.0</b>
Statewide	61.6*
USA	44.8*

\*2003-07 data. Source: Substance use in Minnesota (2012)

- ❖ The percent of all alcohol-related motor vehicle crashes in Norman County was twice that of the state. For Mahnomen County, it was 3 times greater.

<b>Percent of all motor vehicle crashes that were alcohol-related 2005-2009</b>	
Roseau	8%
<b>Polk</b>	<b>8.5%</b>
Pennington	9%
Kittson	10%
<b>Norman</b>	<b>11%</b>
Marshall	13%
<b>Mahnomen</b>	<b>14.5%</b>
Red Lake	25%
Statewide	5%
Northwest MN	10%

Source: Substance use in Minnesota (2012)

See Appendix C: Polk County Strategic Prevention Framework State Incentive Grant to find additional youth and young adult data, indicators and strategies.

### *Cancer Age Adjusted Death Rates*

- ❖ Overall, cancer age adjusted death rates reveal that Norman-Mahnomen Counties appear to have higher overall cancer death rates than the rest of the state.

<b>Cancer Age Adjusted Death Rates</b>				
	1991-1995	1996-2000	2001-2005	2006-2010
State	196.3	191.6	170.2	169.6
Polk	216.5	211.3	171.9	165.5
Norman-Mahnomen	206.4	202.6	192.0	205.5

Source: MN Department of Vital Statistics

### *Heart Disease*

While there were elevated rates in each of the counties depicted below for COPD Hospitalizations, none of them achieved the level of statistical significance at the 95% Confidence Interval level. With the exception of Marshall County, Age Adjusted Death Rates for Heart Disease in the region were higher than state averages from 2006-2010.

Aggregated prevalence rates for heart disease at a county level do not exist. Rather, only death rates from heart disease. In order to better capture heart disease prevalence rates, it is recommended that counties consider conducting BRFSS-style population health surveys to more clearly ascertain the incidence and prevalence of this disease within the region.

<b>Heart Disease, Age Adjusted Death Rate</b>				
	1991-1995	1996-2000	2001-2005	2006-2010
Marshall	249.4	223.8	169.0	124.6
Pennington	221.3	208.4	200.2	143.6
Polk	267.8	216.2	162.9	148.6
Norman-Mahnomen	289.4	219.2	177.8	153.5
Red Lake	232.1	258.7	180.4	162.7
Roseau	234.8	265.0	203.2	174.6
Kittson	343.6	293.7	224.7	189.7
State	234.2	196.4	154.1	126.6

Green shaded cells indicate county number is higher than state average for that year

Source: <http://www.health.state.mn.us/divs/chs/Trends/index.html>

## Adolescent Sexual Health

Polk, Norman, and Mahnomen Counties' adolescent populations report higher rates of sexual activity than the state of Minnesota overall, which directly leads to increased risk of unintended pregnancies, STIs, and reproductive health disparities.

- ❖ According to the 2010 Minnesota Student Survey, approximately 60% of all 12<sup>th</sup> graders in Polk, Norman, and Mahnomen County are sexually active, more than 10% higher than the Minnesota rate of 49.5%.
- ❖ The most alarming data gathered from the most recent Minnesota Student Survey in 2010 is the rates of sexual activity among 9<sup>th</sup> graders, specifically in Norman County. The rates among females have been steadily increasing from 12% in 2004, to 21% in 2007, now at a significantly higher rate of 42% in 2010, more than two times the MN average of 19.8%.

**Percentage of Sexually Active Adolescents**

Grade	Year	MN	Polk		Norman		Mahnomen
			Male	Female	Male	Female	n/a
12 <sup>th</sup> Grade	2004	45.8%	50%	45%	42%	65%	75%
12 <sup>th</sup> Grade	2007	48.2%	57%	61%	50%	47%	55%
12 <sup>th</sup> Grade	2010	49.5%	57%	62%	54%	60%	64%
9 <sup>th</sup> Grade	2004	19.7%	20%	26%	20%	12%	46%
9 <sup>th</sup> Grade	2007	18.9%	25%	26%	15%	21%	36%
9 <sup>th</sup> Grade	2010	19.8%	27%	18%	23%	42%	16%

- ❖ Among those youth in Polk County that were identified as being sexually active, only 30-45% of sexually active 9<sup>th</sup> graders and 60-71% of 12<sup>th</sup> graders reported always using a form of birth control. These rates were higher in Norman and Mahnomen County, with 40-69% of students reporting always using birth control. This unfortunately leaves anywhere from 30-70% of sexual encounters among youth unprotected from pregnancy in our region. P-N-M students report lower rates of talking with their partners about STDs/HIV and preventing pregnancy than the state of Minnesota, highlighting the high-risk behaviors that these students are engaging in. According to Teenwise's Annual Report, each day in 2010, approximately 15 adolescents in Minnesota became pregnant and 11 gave birth. Furthermore, between 2006 and 2010, the teen birth rate for ages 15-19 was 31.9 (Polk), 21.6 (Norman) and 104.6 (Mahnomen) per 1000 as compared to 26.1 per 1000 for the State of Minnesota.
- ❖ Chlamydia rates have doubled in the last ten years in Minnesota with nearly 17,000 cases reported in 2011. Chlamydia disproportionately affects young adults between the ages of 15-24 and often has no symptoms, which leads to people not getting treatment and continuing to spread this potentially serious infection. Untreated Chlamydia can cause infertility, chronic pelvic pain, and even ectopic pregnancy. The Minnesota Chlamydia Partnership reports that the estimated cost of treating Chlamydia in Minnesota is around \$1.5 million.

### ***Bullying***

- ❖ Data suggests that 9<sup>th</sup> graders in Norman County experience teasing or harassment at approximately twice the rate as other 9<sup>th</sup> graders from across the state.

<b>MNSS: Percent of 9th graders who report that a student(s) Kicked, bit or hit them on school property in the last 12 months (1998-2010)</b>		
Statewide	9th Grade	21.1
Polk	9th Grade	23
Mahnomen	9th Grade	26
Norman	9th Grade	41

### ***Housing***

- ❖ The data suggest that housing occupied by owners across the region is greater than in comparison to the state.
  - Greater home-ownership represents both financial strength and a commitment to the area.
    - It may also indicate or suggest a need for more rental unit housing opportunities for those unable to afford a home.

<b>Percent of housing occupied by owner 2005-2009</b>	
Kittson	87
Red Lake	87
Marshall	87
Roseau	86
Norman	84
Pennington	82
Polk	78
Mahnomen	74
Statewide	78

- ❖ The child maltreatment rate appears to be much higher than state averages for Polk County.

<b>2010 Rate of children maltreatment per 1,000 children aged 0-17</b>									
	<b>Child</b>	<b>Total</b>		<b>Family Assessment</b>		<b>Investigation - Alleged</b>		<b>Investigation - Determined</b>	
	<b>Pop.</b>	<b>Unique</b>	<b>Rate per</b>	<b>Unique</b>	<b>Rate per</b>	<b>Unique</b>	<b>Rate per</b>	<b>Unique</b>	<b>Rate per</b>
	<b>Age 0-17</b>	<b>Child</b>	<b>1,000</b>	<b>Child</b>	<b>1,000</b>	<b>Child</b>	<b>1,000</b>	<b>Child</b>	<b>1,000</b>
<b>Minnesota</b>	<b>1,284,063</b>	<b>22,537</b>	<b>17.6</b>	<b>15,410</b>	<b>12.0</b>	<b>7,801</b>	<b>6.1</b>	<b>4,491</b>	<b>3.5</b>
Roseau	4,104	19	4.6	7	1.7	13	3.2	8	1.9
Pennington	3,311	29	8.8	22	6.6	7	2.1	5	1.5
Marshall	2,226	72	32.3	53	23.8	23	10.3	10	4.5
Red Lake	1,007	15	14.9	9	8.9	6	6.0	3	3.0
Kittson	984	30	30.5	30	30.5	0	0.0	0	0.0
<b>Polk</b>	<b>7,521</b>	<b>296</b>	<b>39.4</b>	<b>268</b>	<b>35.6</b>	<b>48</b>	<b>6.4</b>	<b>30</b>	<b>4.0</b>
Norman	1,666	29	17.4	26	15.6	3	1.8	1	0.6
Mahnomen	1,586	17	10.7	12	7.6	9	5.7	1	0.6

- ❖ Four-year high school graduation rates are higher in all counties compared to the rest of the state with the exception of Mahnomen County.

<b>Four year high school graduation rate 2007-2010</b>	
Statewide	77
<b>Mahnomen</b>	<b>60</b>
Pennington	81
<b>Polk</b>	<b>82</b>
<b>Norman</b>	<b>84</b>
Marshall	87
Kittson	92
Roseau	92
Red Lake	93

Source: MN Kids Count

- ❖ Each year over the past five years the percentage of school aged children changing schools appeared to be lower in the region than in comparison to the state with the exception of Mahanomen County. This means that kids and families may be more likely to stay in their schools once they start compared to youth statewide except for in Mahanomen County.

<b>2006-2010 Children Changing Schools (Percent)</b>					
	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Roseau	11.0%	9.0%	9.3%	7.1%	7.7%
Kittson	5.2%	3.5%	4.4%	6.7%	9.0%
Red Lake	10.8%	7.7%	8.1%	9.8%	11.2%
Marshall	10.4%	11.7%	10.8%	10.9%	11.6%
Pennington	10.7%	8.6%	10.9%	10.6%	11.8%
Polk		10.0%	10.5%	10.1%	9.7%
Mahanomen		24.9%	25.5%	23.6%	29.6%
Norman		10.9%	10.4%	10.4%	9.5%
Statewide	14.6%	14.6%	14.5%	13.2%	13.3%

## Qualitative Findings

### *Statewide Health Improvement Program 2010 Interview Notes Analysis*

A review analysis of 24 interviews conducted by SHIP 1.0 staff in the fall of 2010 was conducted. EvaluationGroup,LLC staff reviewed the numerous interviews, because many of them had gone unanalyzed due to a lack of time and resources with the SHIP 1.0 effort. It was hoped that a review of these interviews would help shed additional and useful information as a part of this study.

#### *1. What do you think are the most pressing health issue(s) facing (community name)?*

In no particular order of importance, the following areas were described as the most pressing health concerns in their respective communities.

- Alcohol
- Drugs
- Not enough activities
- Obesity
- Eating Habits (bad)
- Diabetes/ Health
- Elderly (greater need for resources)
- Transportation (getting to healthcare providers)
- Cancer (all kinds)
- Health Insurance (lack of)
- Provider recruitment/retention
- Income (low)

#### *2. To what extent is unhealthy eating and physical inactivity a problem in (community name)?*

Responses to this question fell into three broad themes below:

- ❖ In rural areas, fast food access may be more limited (e.g. no McDonald's), but so is access to physical fitness facilities and opportunities for participation in group activities (such as fewer community ed. offerings.)
- ❖ The climate (cold, lack of sunshine), culture (Scandinavian where everything revolves around food), coupled with busy schedules (lack of time for preparing nutritious foods) all contribute greatly to the obesity problem
- ❖ Poor eating environments exist for kids at some schools (pizza at game events becomes a meal for kids, juniors and seniors eat uptown at the convenience store instead of school lunch, lunches still not that healthy and full of carbs).

#### *3. To what extent is tobacco use a problem in (community name)?*

- ❖ Sentiments were split among interviewees. For some tobacco use was viewed as an issue of decreasing concern. These individuals' believe that no smoking ordinances have worked in helping people quit, but that if people want to smoke it is their right as long as they are not hurting anyone else with their smoke. Other respondents felt strongly that smoking was on the increase both in youth and adults. A number of individuals felt that chewing tobacco use was also on the rise.

4. *Are there any activities or policies within your organization that encourage physical fitness (i.e., healthy diet, physical activity) or tobacco cessation? If so, what are they?*

- ❖ Most commonly, tobacco cessation was encouraged by a no smoking policy within any work or school buildings. Program activities such as participation in Quitline/Quitplan programs and healthy lifestyle speakers were also commonly mentioned. A wide range of physical activity/healthy eating policies and activities were discussed, including: no pop vending machines, closed lunch hour at noon for students, free membership to fitness centers, and the formation of school wellness committees; the latter of which was a focus of SHIP grant efforts.

5. *Are you aware of any policies (rules or codified procedures) within the larger community designed to encourage physical fitness or tobacco cessation?*

- ❖ Great awareness existed regarding no smoking policies at work places, restaurants, and in school buildings. Several grants were mentioned as well regarding the encouragement of physical fitness, including school fresh fruit and vegetable grant, Our children Succeed Initiative, and the Carol White Physical Education Program (PEP) grant.

6. *What systems (groups of people, organizations, businesses, etc. working together) in (community name) encourage physical fitness or tobacco cessation?*

- ❖ School athletic programs and community hospital were mentioned most frequently as collaborators in promoting health/physical fitness in the overall community by opening up their exercise room facilities to community members. Weight watchers, kick-boxing and other community education were also mentioned as groups that promoted the health and well-being of community members.

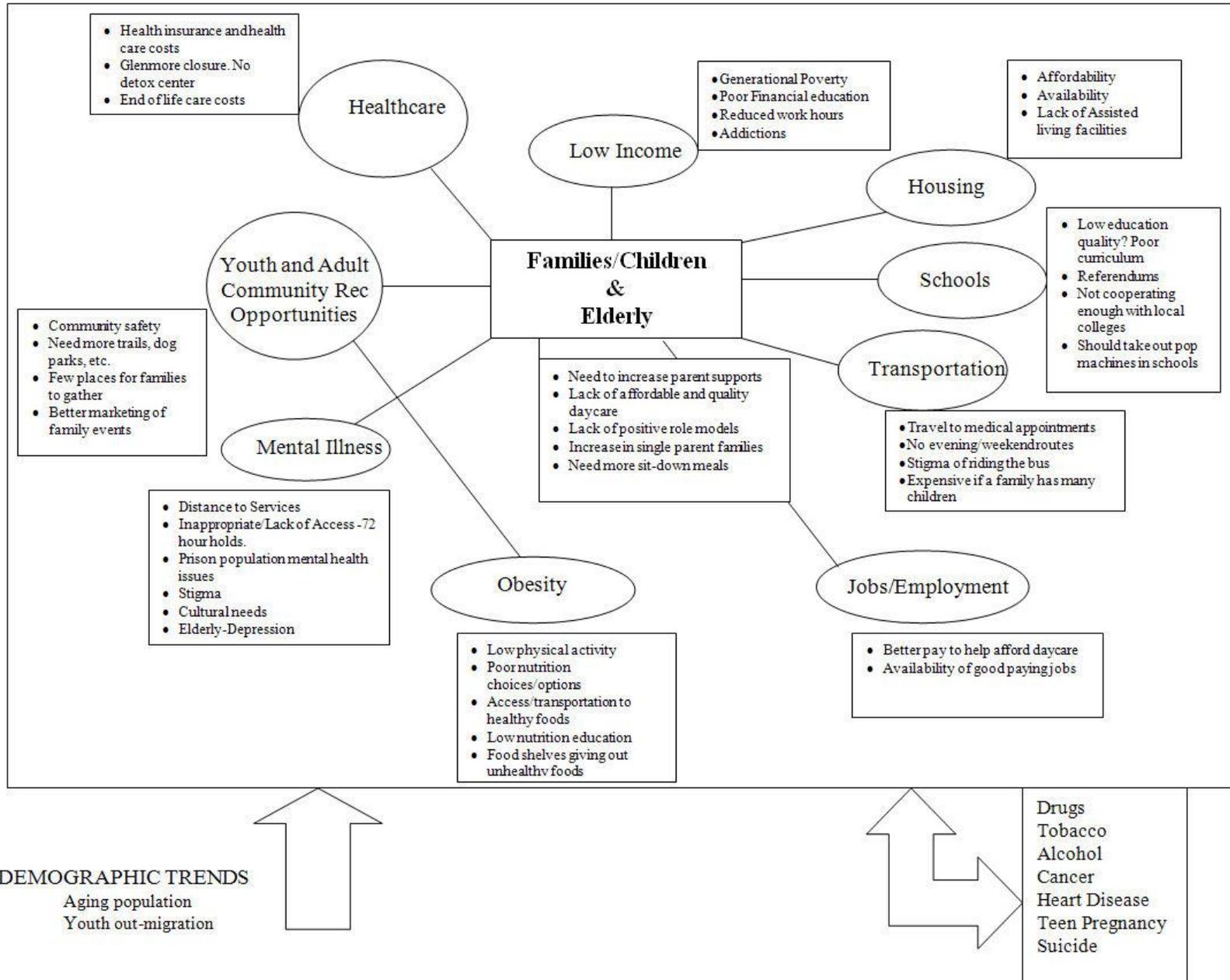
7. *What environmental structures (sidewalks, building designs, parks, recreational facilities) in (community name) encourage physical fitness or tobacco cessation?*

- ❖ Most communities tended to have access to a fitness center or weight room and public parks/walking areas. On the other hand, the concept of ‘complete streets’ (environmentally designing streets to encourage walking and bicycling) was unknown to all interviewees.

### **Community Themes and Strengths Discussion Groups**

Over 45 individuals participated in focus groups and individual conversations with public health staff held throughout the summer in Polk, Norman and Mahnommen Counties. Participants were asked to think broadly about the different recurring needs and concerns of clients and the general population served by them and their organizations. An in-depth analysis of the question, “What do you believe are the 2-3 most important issues that should be addressed in order to help further improve the quality of life for people in our community (county)?” is provided on the following page via a concept map. A concept map was developed in order to assist readers in understanding the large volume of information provided. While the qualitative items identified in the concept map are incomplete in terms of exhausting phenomena contributing to the quality of life within the region, at this time it is a highlight of those recurring items viewed by participants as most influential.

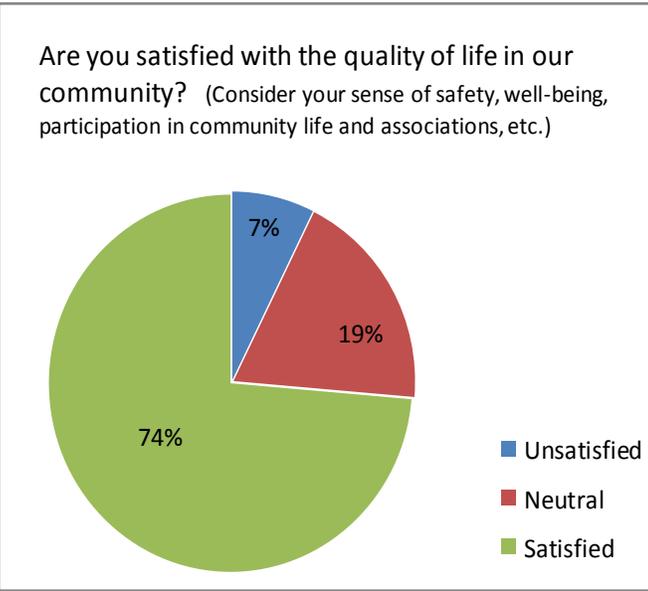
**Variance (Concept) Map of Polk-Norman-Mahnomen CHB Region Top Concerns Impacting Quality of Life**



**Quality of Life** (See Appendix B for data on all survey items)

Individuals in the community were asked to complete an 11-item quality of life survey in the local newspaper, online or at local public health meetings or client visits. All responses were anonymous. Answers to questions were given on a 5 point scale with 5 being the most positive and 1 being the least.

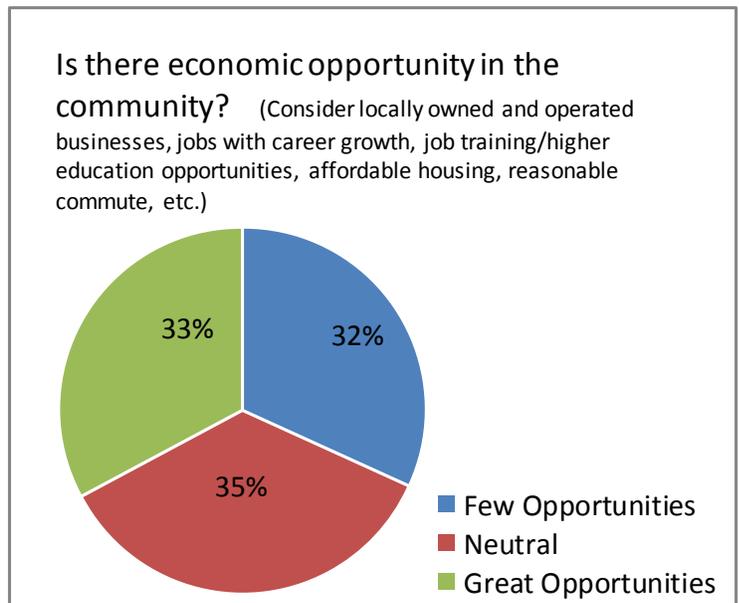
235 individuals responded to the survey. 204 (87%) reported living in Polk, Norman or Mahnomen County. The remaining respondents worked but did not live in one of the three counties. All 235 responses were included in the analysis presented.



- 60% of respondents were satisfied with the health care system in the community. Factors considered included access, cost, availability, and quality, options in health care.
- 71% said theirs was a community that was a good place to raise children. Factors considered included school quality, day care, after school programs and recreation.
- 63% felt that the community a good place to grow old. This included perceived availability of elder-friendly housing, transportation to medical services, churches, shopping; elder day care, social support for the elderly living alone, meals on wheels, etc.)
- Only 7% of respondents felt their community was not a safe place to live, and only 6% felt there were not

networks of support for individuals and families such as neighbors, support groups, faith community outreach agencies, etc.

- 65% of respondents felt either negative or neutral about economic opportunities within their community.
- 54% of respondents felt neutral or negative that they individually and collectively can make the community a better place to live.
- 50% of respondents felt neutral or negative that community assets were broad-based across multiple sectors of the population.
- 54% felt that levels of mutual trust and respect increase among community partners as they participate in collaborative activities to achieve shared community goals.



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Appendix A: Minnesota Student Survey Comparisons: 2007-2010

Health Risk Category	NORMAN COUNTY % (95% CI)		MAHNOMEN COUNTY % (95% CI)		POLK COUNTY % (95% CI)	
	2007	2010	2007	2010	2007	2010
<b>1. Weight Status<sup>[1]</sup></b>						
a. At risk for overweight <sup>[2]</sup>	17.9 (10.3-29.3)	<b>7.4 (3.0 - 16.8)</b>	18.4 (9.6 - 32.2)	<b>7.9 (2.4 - 22.7)</b>	9.7 (6.5 - 14.3)	<b>12.7 (9.2 - 17.3)</b>
b. Overweight <sup>[3]</sup>	14.9 (8.1-25.9)	<b>17.6 (10.2 - 28.9)</b>	12.2 (5.4-25.3)	<b>13.2 (5.4 - 28.8)</b>	14.4 (10.5-19.5)	<b>14.2 (10.5 - 18.9)</b>
a) Thinks overweight	29.7 (20.3-41.3)	<b>23.6 (15.0 - 35.0)</b>	28.0 (17.0-42.4)	<b>31.7 (19.0 - 48.0)</b>	29.2 (23.7-35.3)	<b>31.1 (26.0 - 36.7)</b>
b) Used cigarettes in the past 12 months to lose /control weight	5.4 (2.0-13.8)	<b>6.8 (2.8 - 15.5)</b>	6.0 (1.9-17.6)	<b>7.3 (2.3 - 21.2)</b>	5.8 (3.5-9.6)	<b>7.9 (5.3 - 11.6)</b>
c) used exercise in past 12 months to lose / control weight	44.6 (33.5-56.3)	<b>48.6 (37.3 - 60.2)</b>	60 (45.5-72.9)	<b>51.2 (35.7 - 66.5)</b>	50.0 (43.7-56.3)	<b>45.7 (40.0 - 51.5)</b>
d) use healthy diet to lose / control weight	40.5 (29.8-52.3)	<b>45.9 (34.7 - 57.6)</b>	48.0 (34.2-62.1)	<b>46.3 (31.3 - 62.1)</b>	48.8 (42.4-55.1)	<b>40.9 (35.4 - 46.7)</b>
<b>2. Meet guidelines for weekly PA<sup>[4]</sup></b>	72.7 (60.5-82.3)	<b>67.1 (55.3 - 77.1)</b>	75.6 (60.5-86.2)	<b>52.5 (36.7 - 67.9)*</b>	61.8 (55.2-68.0)	<b>60.9 (55.1 - 66.4)*</b>
a. insufficient weekly PA	16.7 (9.3-28.0)	<b>26.0 (17.1 - 37.5)</b>	13.3 (5.9-27.3)	<b>30.0 (17.5 - 46.5)</b>	21.8 (16.8-27.8)	<b>28.0 (23.1 - 33.5)*</b>
b. No weekly PA	10.6 (5.1-20.9)	<b>6.8 (2.8 - 15.7)</b>	11.1 (4.6-24.7)	<b>17.5 (8.3 - 33.2)*</b>	16.4 (12.0-21.9)	<b>11.1 (7.9 - 50.3)</b>
<b>3. Five or more servings of fruits and vegetables per day</b>	11.1 (5.6-21.0)	<b>11.0 (5.5 - 20.7)</b>	8.0 (2.9-20.0)	<b>22.5 (11.8 - 38.6)</b>	10.4 (7.1-15.0)	<b>13.2 (9.7 - 17.6)</b>
<b>4. Use of tobacco products in the past 30 days</b>	35.2 (24.8-47.2)	<b>42.5 (31.5 - 54.3)*</b>	38.8 (25.9-53.5)	<b>40.0 (25.6 - 56.3)</b>	32.5 (26.8 - 38.8)	<b>41.9 (36.3 - 47.7)*</b>
a. frequent use of tobacco products (20+ days) in the past 30 days	9.9 (4.7-19.6)	<b>9.6 (4.6 - 19.1)</b>	14.3 (6.8-27.6)	<b>12.5 (5.1 - 27.5)</b>	20.7 (16.0-26.3)	<b>18.7 (14.6 - 23.6)*</b>
<b>5. Cigarette use in the past 30 days</b>	32.4 (22.4-44.4)	<b>26.0 (17.1 - 37.5)*</b>	24.5 (14.2-38.9)	<b>32.5 (19.5-49.0)</b>	26.6 (21.3-32.6)	<b>32.2 (27.0 -37.8)*</b>
a. Frequent cigarette use (20+ days) in the past 30 days	9.9 (4.7-19.6)	<b>8.2 (3.7 - 17.4)</b>	10.2 (4.2-22.9)	<b>10.0 (3.6-24.6)</b>	15.2 (11.1-20.4)	<b>13.8 (10.3 - 18.4)*</b>
b. 10 + cigarettes per day in the past 30 days <sup>[5]</sup>	4.8 (0.6-28.1)	<b>35.3 (16.5 - 60.2)</b>	18.2 (4.3-52.1)	<b>15.4 (3.6 - 46.7)</b>	33.9 (23.0-46.9)	<b>20.7 (13.5 - 30.2)</b>
c. Had a cigarette before age 13	21.1 (13.0-32.4)	<b>11.0 (5.5 - 20.7)</b>	30.6 (19.0-45.3)	<b>17.5 (8.3 - 33.2)</b>	13.8 (10.0-18.8)	<b>16.0 (12.2 - 20.7)</b>
<b>6. Used smokeless tobacco in past 30 days</b>	4.2 (1.3-12.6)†	<b>23.3 (14.8 - 34.6)*</b>	6.1 (1.9-17.9)	<b>17.5 (8.3 - 33.2)</b>	13.4 (9.6-18.4)	<b>19.0 (14.8 - 23.9)</b>
<b>7. Smoked cigars, cigarillos or little cigars in past 30 days</b>	18.3 (10.8-29.3)	<b>17.8 (10.5 - 28.6)*</b>	14.3 (6.8-27.6)	<b>10.0 (3.6 - 24.6)</b>	12.2 (8.6-17.0)	<b>17.6 (13.6 - 22.4)*</b>
<b>8. Used smokeless tobacco or had a cigar before age 13</b>	7.0 (2.9-16.1)	<b>none</b>	16.3 (8.2-30.0)	<b>5.0 (1.2 - 18.8)</b>	5.0 (2.9-8.7)	<b>6.2 (3.9 - 9.7)</b>
<b>9. Tobacco Access</b>						
a. bought at gas stations or convenience store	52.0 (32.7-70.8)	<b>61.3 (43.0 - 76.8)</b>	73.7 (49.3-89.0)	<b>56.3 (31.5 - 78.3)</b>	75.3 (64.4 - 83.7)	<b>75.2 (66.8 - 82.0)*</b>
b. got it from friends	40.0 (22.7-60.2)	<b>45.2 (28.5-62.9)</b>	47.4 (26.2-69.6)	<b>37.5 (17.3 - 63.3)</b>	46.8 (35.9 - 58.0)	<b>39.2 (31.0 - 48.1)</b>
c. got it by having someone else buy it	12.0 (3.8-31.9)	<b>6.5 (1.6 - 23.0)</b>	21.1 (7.8-45.5)	<b>12.5 (3.0 - 40.1)</b>	15.6 (9.0 - 25.6)	<b>10.4 (6.1 - 17.1)*</b>

[1] The CDC growth charts were used to determine weight status according to BMI for participants in the Minnesota Student Survey.

[2] 85<sup>th</sup> to less than 95<sup>th</sup> percentile on the CDC growth charts

[3] Equal to or greater than the 95<sup>th</sup> percentile on the CDC growth charts

[4] 12<sup>th</sup> graders who have reported participating in either vigorous physical activity for 20 or more minutes per day on 3 or more days in the past 7 days or moderate physical activity for 30 or more minutes per day on 5 or more days in the past 7 days.

[5] % of those who reported smoking cigarettes in the past 30 days

\* - value in the left column for 2010 is significantly different from a corresponding value in the right column for 2010 (e.g. county -SHIP - STATE)

† - value for 2007 is significantly different from the corresponding value for 2010 within county, SHIP or MN State

Health Risk Category	SHIP COUNTIES % (95% CI)		MN STATE % (95% CI)	
	2007	2010	2007	2010
<b>1. Weight Status<sup>[1]</sup></b>				
a. At risk for overweight <sup>[2]</sup>	12.7 (10.7-15.1)	13.0 (10.8 - 15.7)	12.4 (12.0-12.8)	11.9 (11.6 - 12.3)
b. Overweight <sup>[3]</sup>	11.9 (9.9-14.3)	13.7 (11.4 - 16.5)*	9.2 (8.9-9.5)	9.4 (9.1 - 9.8)
a) Thinks overweight	28.7 (25.8-31.7)	27.3 (24.3 - 30.6)*	25.2 (24.7-25.6)†	23.1 (22.6 - 23.5)
b) Used cigarettes in the past 12 months to lose /control weight	7.6 (6.0-9.5)	6.6 (5.0 -8.6)	6.6 (6.3-6.8)†	5.5 (5.3 - 5.7)
c) used exercise in past 12 months to lose / control weight	49.1 (45.8-52.3)	44.5 (41.0 - 48.0)	47.9 (47.4-48.4)	47.2 (46.7 - 47.8)
d) use healthy diet to lose / control weight	45.8 (42.5-49.0)	40.7 (37.2 - 44.2)	43.0 (42.5-43.5)†	41.9 (41.4-42.4)
<b>2. Meet guidelines for weekly PA<sup>[4]</sup></b>	67.4 (64.1-70.5)	64.4 (60.9 - 67.7)	68.7 (68.2-69.2)	64.7 (64.2 - 65.2)
a. insufficient weekly PA	19.3 (16.7-22.1)	24.5 (21.6 - 27.7)	20.8 (20.4-21.2)†	25.9 (25.4 - 26.4)
b. No weekly PA	13.3 (11.2-15.8)	11.1 (9.0 -13.5)	10.5 (10.1-10.8)†	9.4 (9.1 - 9.7)
<b>3. Five or more servings of fruits and vegetables per day</b>	12.0 (10.1-14.3)	13.5 (11.2 - 16.1)*	16.1 (15.7 - 16.4)†	17.3 (16.9 - 17.7)
<b>4. Use of tobacco products in the past 30 days</b>	37.8 (34.7-41.1)	40.6 (37.2 - 44.2)*	34.0 (33.5-34.5)†	31.3 (30.8 - 31.8)
a. frequent use of tobacco products (20+ days) in the past 30 days	20.8 (18.3-23.6)	20.6 (17.9 - 23.7)*	14.8 (14.4-15.1)†	13.0 (12.7 - 13.4)
<b>5. Cigarette use in the past 30 days</b>	29.2 (26.3-32.3)	28.3 (25.2 - 31.7)*	25.6 (25.1-26.0)†	21.7 (21.3 - 22.1)
a. Frequent cigarette use (20+ days) in the past 30 days	13.6 (11.5-16.1)	12.8 (10.6 - 15.4)*	11.5 (11.2-11.9)†	9.3 (9.0 - 9.6)
b. 10 + cigarettes per day in the past 30 days <sup>[5]</sup>	27.9 (22.5-34.0)	25.5 (20.0 - 31.9)	25.6 (24.6-26.5)†	23.1 (22.1 - 24.1)
c. Had a cigarette before age 13	16.9 (14.5-19.5)	16.3 (13.8 - 19.1)*	13.9 (13.6-14.3)†	10.3 (10.0 - 10.6)
<b>6. Used smokeless tobacco in past 30 days</b>	16.0 (13.7-18.6)†	21.4 (18.6 - 24.5)*	10.4 (10.1-10.7)†	12.1 (11.8 - 12.5)
<b>7. Smoked cigars, cigarillos or little cigars in past 30 days</b>	15.7 (13.4-18.2)	13.6 (11.3 - 16.2)*	17.9 (17.5-18.3)	17.6 (17.2 - 18.0)
<b>8. Used smokeless tobacco or had a cigar before age 13</b>	7.2 (5.7-9.1)	7.0 (5.4 - 9.1)*	5.0 (4.8-5.2)†	4.4 (4.2 - 4.6)
<b>9. Tobacco Access</b>				
a. bought at gas stations or convenience store	69.1 (64.0-73.9)	71.1 (65.8 - 75.8)*	63.1 (62.3-64.0)	62.6 (61.6 - 63.5)
b. got it from friends	41.8 (36.7-47.2)	41.5 (36.1 - 47.1)	45.6 (44.7-46.5)†	42.6 (41.7 - 43.6%)
c. got it by having someone else buy it	16.9 (13.3-21.3)	13.5 (10.1 - 17.8)	14.6 (14.0-15.3)†	13.2 (12.6 - 13.8)

## Appendix B: Quality of Life Survey Results by Item

**Are you satisfied with the health care system in the community? (Consider access, cost, availability, quality, options in health care, etc.)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	.9	.9	.9
	2	26	11.1	11.3	12.2
	3	61	26.0	26.5	38.7
	4	94	40.0	40.9	79.6
	5	47	20.0	20.4	100.0
	Total	230	97.9	100.0	
Missing	System	5	2.1		
Total		235	100.0		

**Is this community a good place to raise children? (Consider school quality, day care, after school programs, recreation, etc.)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	7	3.0	3.1	3.1
	2	10	4.3	4.4	7.4
	3	45	19.1	19.7	27.1
	4	90	38.3	39.3	66.4
	5	77	32.8	33.6	100.0
	Total	229	97.4	100.0	
Missing	System	6	2.6		
Total		235	100.0		

**Is this community a good place to grow old? (Consider elder-friendly housing, transportation to medical services, churches, shopping; elder day care, social support for the elderly living alone, meals on wheels, etc.)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	1.7	1.7	1.7
	2	20	8.5	8.7	10.4
	3	58	24.7	25.2	35.7
	4	96	40.9	41.7	77.4
	5	52	22.1	22.6	100.0
	Total	230	97.9	100.0	
Missing	System	5	2.1		

**Is this community a good place to grow old? (Consider elder-friendly housing, transportation to medical services, churches, shopping; elder day care, social support for the elderly living alone, meals on wheels, etc.)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	1.7	1.7	1.7
	2	20	8.5	8.7	10.4
	3	58	24.7	25.2	35.7
	4	96	40.9	41.7	77.4
	5	52	22.1	22.6	100.0
	Total	230	97.9	100.0	
Missing	System	5	2.1		
Total		235	100.0		

**Is there economic opportunity in the community? (Consider locally owned and operated businesses, jobs with career growth, job training/higher education opportunities, affordable housing, reasonable commute, etc.)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	18	7.7	7.8	7.8
	2	55	23.4	23.8	31.6
	3	81	34.5	35.1	66.7
	4	63	26.8	27.3	93.9
	5	14	6.0	6.1	100.0
	Total	231	98.3	100.0	
Missing	System	4	1.7		
Total		235	100.0		

**Is the community a safe place to live? (Consider residents' perceptions of safety in the home, the workplace, schools, playgrounds, parks, the mall. Do neighbors know and trust one another? Do they look out for one another?)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	2.1	2.2	2.2
	2	12	5.1	5.2	7.4
	3	40	17.0	17.4	24.8
	4	107	45.5	46.5	71.3
	5	66	28.1	28.7	100.0
	Total	230	97.9	100.0	
Missing	System	5	2.1		
Total		235	100.0		

**Are there networks of support for individuals and families (neighbors, support groups, faith community outreach, agencies, organizations) during times of stress and need?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	.4	.4	.4
	2	12	5.1	5.3	5.8
	3	70	29.8	31.0	36.7
	4	97	41.3	42.9	79.6
	5	46	19.6	20.4	100.0
	Total	226	96.2	100.0	
Missing	System	9	3.8		
Total		235	100.0		

**Do all individuals and groups have the opportunity to contribute to and participate in the community's quality of life?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	23	9.8	10.1	10.1
	3	73	31.1	32.2	42.3
	4	94	40.0	41.4	83.7
	5	37	15.7	16.3	100.0
	Total	227	96.6	100.0	
Missing	System	8	3.4		
Total		235	100.0		

**Do all residents perceive that they — individually and collectively — can make the community a better place to live?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	.9	.9	.9
	2	35	14.9	15.2	16.1
	3	90	38.3	39.1	55.2
	4	94	40.0	40.9	96.1
	5	9	3.8	3.9	100.0
	Total	230	97.9	100.0	
Missing	System	5	2.1		
Total		235	100.0		

**Are community assets broad-based and multi-sectoral?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	1.3	1.3	1.3
	2	34	14.5	15.2	16.5
	3	82	34.9	36.6	53.1
	4	97	41.3	43.3	96.4
	5	8	3.4	3.6	100.0
	Total	224	95.3	100.0	
Missing	System	11	4.7		
Total		235	100.0		

**Are levels of mutual trust and respect increasing among community partners as they participate in collaborative activities to achieve shared community goals?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	.4	.4	.4
	2	27	11.5	11.7	12.1
	3	81	34.5	35.1	47.2
	4	104	44.3	45.0	92.2
	5	18	7.7	7.8	100.0
	Total	231	98.3	100.0	
Missing	System	4	1.7		
Total		235	100.0		

**Is there an active sense of civic responsibility and engagement, and of civic pride in shared accomplishments?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	7	3.0	3.0	3.0
	2	21	8.9	9.1	12.2
	3	101	43.0	43.9	56.1
	4	84	35.7	36.5	92.6
	5	17	7.2	7.4	100.0
	Total	230	97.9	100.0	
Missing	System	5	2.1		
Total		235	100.0		

APPENDIX C: Polk County Strategic Prevention Framework State Incentive Grant

Data driven indicators and correlating strategies selected by the Polk County Wellness Coalition. Indicators are the highest root causes of alcohol consumptions to the age groups of focus for the Strategic Prevention Framework State Incentive Grant.

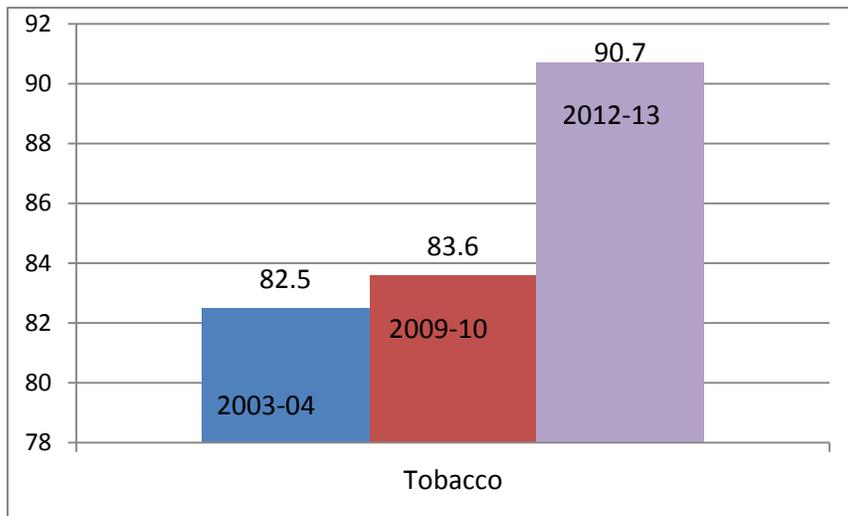
<b>Indicators</b>	<b>Strategy</b>
<b>Retail Access/Availability</b>	
60.4% of 18-20 year olds not asking to show their ID the last time they bought alcohol in their community	<ul style="list-style-type: none"> <li>• Responsible Beverage Server Training</li> <li>• Alcohol Compliance Checks</li> </ul>
74.4% of 18-20 year olds reporting that it is very or somewhat likely that a drunken adult, 21 years of age or older, would be served a drink of alcohol if they asked for one in a local bar	<ul style="list-style-type: none"> <li>• Social Marketing Campaign</li> <li>• Responsible Beverage Server Training</li> </ul>
34% of alcohol establishments failing alcohol compliance checks	<ul style="list-style-type: none"> <li>• Alcohol Compliance Checks</li> <li>• Responsible Beverage Server Training</li> </ul>
<b>Social Access/Availability</b>	
1 out of 15 communities a social host ordinance has been instituted.	<ul style="list-style-type: none"> <li>• Social Host Ordinance</li> </ul>
48.1% of 18-20 year olds reporting they were given alcohol by a friend, acquaintance or sibling (both under 21 and 21 or older)	<ul style="list-style-type: none"> <li>• Social Host Ordinance</li> <li>• Sticker Shock Campaign w/media</li> </ul>
<b>Individual Factors</b>	
13.1% of 6,9 and 12 <sup>th</sup> graders reporting having had their first drink of alcohol other than a few sips at age 13 or younger	<ul style="list-style-type: none"> <li>• Sticker Shock Campaign</li> <li>• Social Host Ordinance</li> </ul>
16.3% of 18-25 year olds reporting they participated in an activity involving the rapid consumption of alcohol on at least one day in the past 30 Days	<ul style="list-style-type: none"> <li>• Social Norms Marketing Campaign</li> </ul>

## APPENDIX D: Polk County Chemical Free Student and Parent Survey

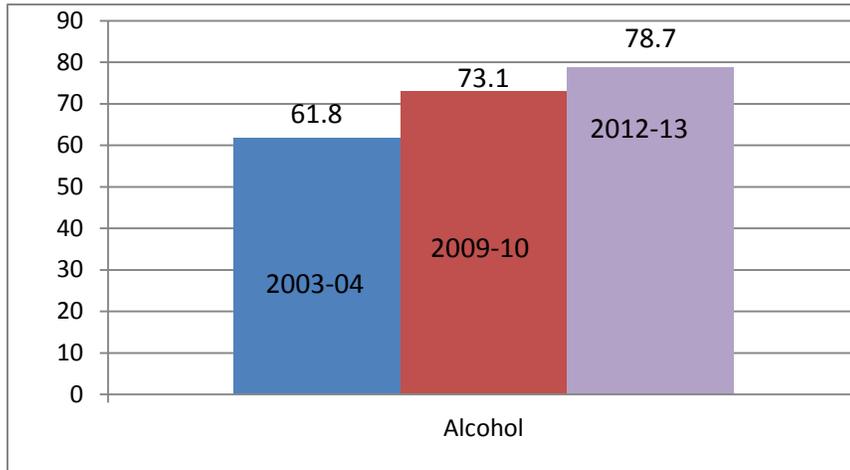
Throughout the entire 10 year grant period (which ended Sept 30, 2013), Polk County Public Schools participated in the Polk County Drug Free Survey. This survey sought information regarding student substance use, perception of use as well as additional risky behavior areas. The DFC Grant requires all grantees to include questions involving past 30-day use, parental disapproval, and perception of use. Evaluator Dr. Edward Simonton, South Dakota State University, facilitated the survey, which for the past two years was conducted online. Dr. Simonton cleaned the data of inconsistencies prior to analysis and in cases where obvious inconsistencies were found, all the data from that student were removed. Questions regarding risky behavior and substance use were asked, however the three most abused drugs by Polk County youth are:

- Tobacco
- Alcohol
- Marijuana
- 

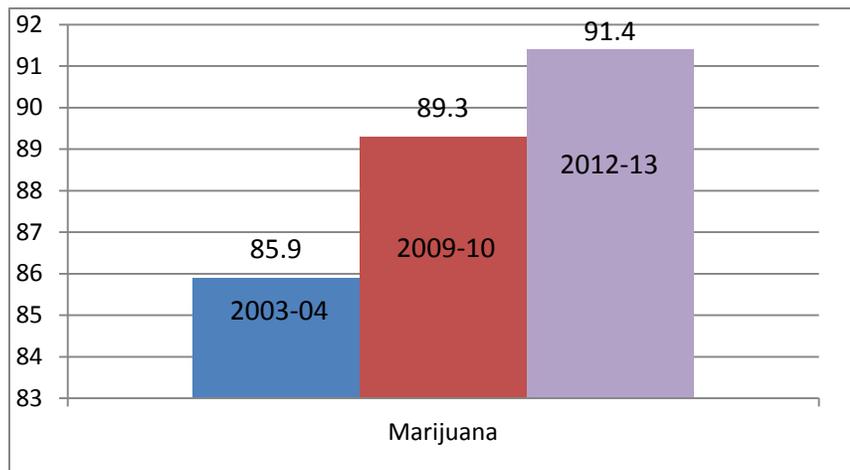
**Table 1: Question:** The percent of students reporting they did **NOT** use tobacco during the past 30 days tobacco (smoke - cigarettes, cigars, pipes?)



**Table 2: Question:** The percent of students reporting they did **NOT** use alcohol during the past 30 days, (beer, wine, hard liquor, other)



**Table 3: Question:** The percent of students reporting they did **NOT** use marijuana during the past 30 days.

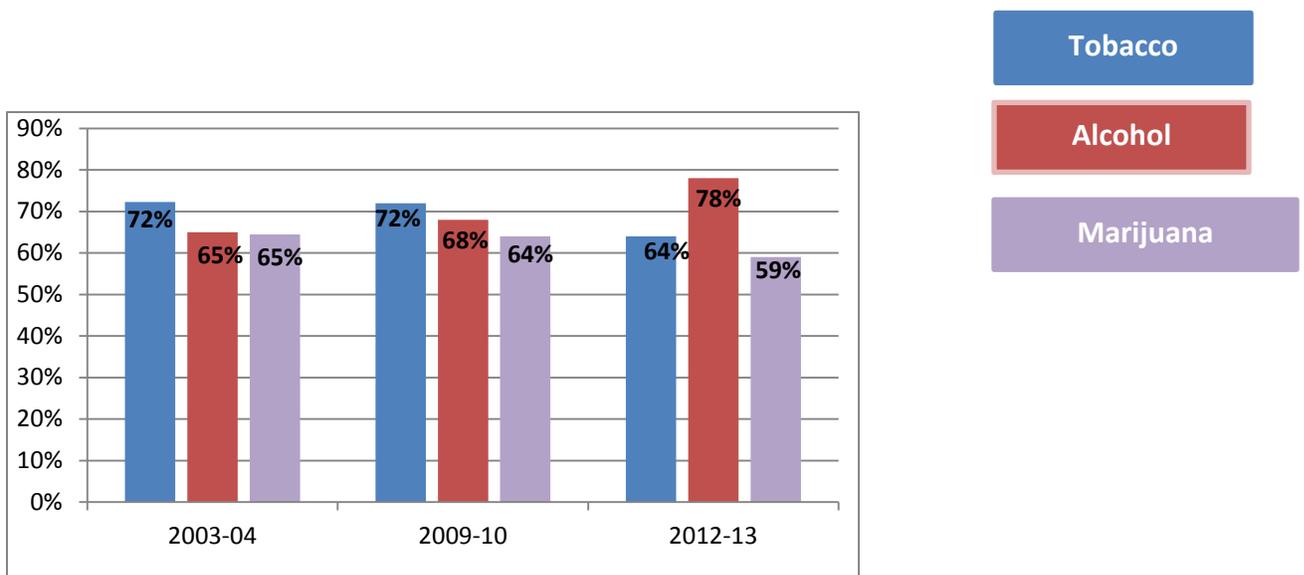


## MISPERCEPTION

**Misperception** occurs when individuals incorrectly perceive the attitudes and behaviors of their peers to be different from their own (Perkins, 2003). Misperception also occurs in relation to problem or risk behavior (which is usually over estimated) and in relation to healthy protective behavior (which is usually underestimated) (Perkins, 2003). Concern about huge gaps between actual and misperceived behavior are valid as this often leads to individuals changing their own behavior to conform to the misperceived (risky) behavior. When the majority of youth “believe” that “everybody’s doing it” they feel either pressured into and/or justified to engage in the risky behavior.

Polk County students continue misperceiving the number of their peers who use tobacco, alcohol and drugs. However, as detailed by the data, the gap between reality and misperception is closing.

**Question: During the past 30 days how many students do you think used tobacco/alcohol/marijuana:**



### Personal Story about Perception (or misperception):

*A few years ago, a Polk County parent was asked by her daughter if it would be okay for her and her boyfriend to have sex. When the parent asked her daughter “why”, the daughter responded with, “Well, mom, everybody at my high school is doing it!” After naming several high school students and asking her daughter if in fact each one of them was having sex, her daughter responded with an emphatic, “No”. “Okay” replied mom, “So not everybody’s doing it”.*

## Parents/Caregivers Have More Influence over Children's Behavior

Parents are the biggest influence on their kids when it comes to drinking, smoking or using drugs. That's right. You may not think they pay attention to you, but in recent surveys, kids identified "parental disappointment" as the number one reason why they chose not to use alcohol/tobacco or other drugs.

*"What parents may not realize is that children say that parental disapproval of underage drinking is the key reason they have chosen not to drink."*

~Charles Curie, SAMHSA Administrator U.S. Department of Health and Human Services

In Polk County, 80% of students identified "parental disapproval" as the main reason they chose to abstain from alcohol and other drugs. Not surprising is the fact that a common thread among teens that do well academically and socially, and stay healthy and drug-free, is that they have close relationships with their parents. These teens report that their parents are interested in them, in what they do and in who they know. They also say their parents are curious about their lives and their ideas. They feel connected because their parents listen to them and take time to find out what's going on in their world. This only makes sense. Teens that are close to their parents, or a trusted adult caregiver, have more at stake when it comes to decisions about risk-taking behaviors. At that moment of truth when they are confronted with a risky choice, they don't want to disappoint their parents or betray their trust.

### PARENT SURVEY

During the spring of 2012, the Polk County Alcohol, Tobacco and Other Drugs (ATOD) Advisory Board surveyed parents in Polk County. More than 400 parents completed the survey.

#### **IN BRIEF:**

- **90%** of Polk County parents believe that underage drinking is a serious problem in their community
- **71%** of Polk County parents believe that binge drinking is a serious problem in their community
- **97%** of Polk County parents believe that students are less likely to use alcohol, tobacco and other drugs if they think their parents would disapprove
- **84%** of Polk County parents believe that marijuana use is a problem in their community
- **83%** of Polk County parents believe that tobacco use is a problem in their community
- **98%** of Polk County parents prefer receiving substance abuse prevention materials by either presentations at their children's school or printed materials from their children's school

## APPENDIX E: BRFSS METHODOLOGY

The Behavioral Risk Factor Surveillance System (BRFSS) is a state-based system of health surveys that collects information on health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury. The BRFSS questionnaire is designed by a working group of state coordinators and CDC staff and is administered annually through a random-digit-dialed telephone survey of the U.S. adult (18 and over) non-institutionalized population. The survey includes core questions that are asked by all participating states in a given year, optional modules that a state may use in their survey and state-specific questions. Furthermore core modules consist of fixed-core questions and a rotating core.

While fixed core BRFSS items include questions about *cigarette smoking*, *leisure time exercise* in the past 30 days as well as height and weight information that allows calculation of indices of obesity such as *body mass index (BMI)*, some rotating core modules are only used biannually and include specific questions about weekly levels of *moderate and vigorous physical activity*, as well as *daily consumption of fruits and vegetables*.

Optional BRFSS modules relevant to the present project include questions regarding smokeless tobacco use and smoking policy. Since 2001 the smokeless tobacco module has been expanded to include other tobacco products such as cigar and pipe use. Although in the publicly accessible CDC databases for the past 12 years this module was offered several times including the 2008 BRFSS questionnaire, the state of Minnesota did not use it in any of the years of its availability. However, the 2004 BRFSS administration in Minnesota did include another optional module on secondhand smoke policy.

### **Methodology used on BRFSS in this Report**

This report provides the most recent available state and county data on important behavioral risks including physical activity levels, consumption of fruits and vegetables, excessive alcohol consumption, tobacco use, exposure to second hand smoke, preventive cancer screenings, overweight and obesity levels. The report also provides prevalence rates for debilitating chronic conditions and life threatening events such as heart disease, diabetes and stroke.

All state and county data have been extracted from the Behavioral Risk Factor Surveillance Survey (BRFSS) database- or an otherwise noted local, regional or state source. Specifically, indices of tobacco use, excessive alcohol consumption, overweight and obesity, chronic conditions and cancer screenings were obtained from the 2010 BRFSS database. Optional modules on physical activity and fruit and vegetable consumption were used in the Minnesota survey in 2009. Thus these statistics were derived from the 2009 BRFSS database. Finally data on secondhand smoke policy refers to the 2004 BRFSS administration when this optional module was last used in Minnesota.

Specifically the final weights used in statistical estimation on the state and county levels take into consideration the Stratum weight (number of records in a stratum divided by the number of records selected), Raw weighting factor (number of adults in the household divided by the imputed number of phones), and the Post-stratification weight (Population estimate for race/gender/age categories divided by the weighted sample frequency by race/gender/age). Adjustment by the final weight is thus thought to render more accurate estimates of population statistics which are presented in this report with 95% confidence (a range of values that is 95% likely to contain the true population value).