Community Health Improvement Plan

Box Butte General Hospital

December 2017-December 2020

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Message from Box Butte General Hospital

Box Butte General Hospital is committed to serving the community and enhancing the quality of life for individuals, families, and communities we serve. Our goal, with the attached community health needs assessment, is to better understand the range of issues affecting our health. We look forward to working with you and our community partners to optimize health and continue to meet our mission, which is *"To Lead and Innovate in Healthcare Delivery and Community Wellness."*

The significance of better understanding our community's needs was highlighted with the Patient Protection and Affordable Care Act requirements passed in March 2010. New requirements for tax-exempt hospitals include that we regularly conduct a community health needs assessment to adopt implementation strategies to address applicable need detected during the assessment process. The Rural Nebraska Healthcare Network worked together with Panhandle Public Health District to complete the Mobilizing for Action through Planning and Partnership for each of the Nebraska Panhandle hospital services areas during 2017. The results are summarized in the attached report and align with the priorities in the regional Panhandle Community Health Improvement Plan, December 2017-December 2020.

A special thank you to the community members who took the time to attend a focus group, listened to presentations on the process, or participated in stakeholder meetings. It is our desire that our community be healthy today and even healthier tomorrow.

Lori Mazanec, ACHE

Chief Executive Officer

Overview of the Development Process

Mobilizing for Action through Planning and Partnerships (MAPP)

Mobilizing for Action through Planning and Partnerships (MAPP), a partnership-based framework, has been used for the CHNA and Community Health Improvement Plan (CHIP) development process in the Panhandle since 2011, and continued to be used for this round of the CHNA and CHIP. MAPP emphasizes the partnership with all sectors of the public health system to evaluate the health status of the region it serves, identify priority areas, and develop plans for implementation.

The MAPP model has six key phases:

1. Organize for success/Partnership development
2. Visioning
3. Four MAPP assessments
    a. Community Themes and Strengths Assessment (CTSA)
    b. Local Public Health System Assessment
    c. Forces of Change Assessment
    d. Community Health Status Assessment
4. Identify strategic issues
5. Formulate goals and strategies
6. Take action (plan, implement, and evaluate)

This document encompasses phases five and six. Phases one through four can be found in the Community Health Needs Assessment.

Priority Areas

Priority areas were determined in a series of meetings hosted in August 2017. The meetings included broad representation from the hospital. Data from the Community Health Needs Assessment was presented, and a scoring matrix was used to determine the most important priority areas. The priority areas determined were:

- **Chronic Disease,** focusing on cardiovascular disease and Diabetes
- **Cancer**
- **Access to Care**
- **Behavioral Health**

The group also decided to keep a focus on **Social Determinants of Health** across all priority areas, specifically focusing on housing, transportation, poverty, and intolerance.

Social determinants of health are "…the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels. The social determinants of health are mostly responsible for health inequities - the unfair and avoidable differences in health status seen within and between countries."[1]

Social determinants of health include:[2]

Economic Stability
- Poverty
- Employment
- Food Insecurity
- Housing Instability

Education
- High School Graduation
- Enrollment in Higher Education
- Language and Literacy
- Early Childhood Education and Development

Social and Community Context
- Social Cohesion
- Civic Participation
- Discrimination
- Incarceration

Health and Health Care
- Access to Health Care
- Access to Primary Care
- Health Literacy

Neighborhood and Built Environment
- Access to Foods that Support Healthy Eating Patterns
- Quality of Housing
- Crime and Violence
- Environmental Conditions

Social determinants of health are important to focus on because:[2]

> These factors underlie preventable disparities in health status and disease outcomes. Poor health outcomes are often the result of the interaction between individuals and their social and physical environment.

Policies that result in changes to the social and physical environment can affect entire populations over extended periods of time, while simultaneously helping people to change individual-level behavior.

Improving the conditions in which people are born, live, work, and age will ensure a healthier population, thereby improving national productivity, security, and prosperity through a healthier workforce.

[3]

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Priority Area 1: Chronic Disease

About

Cardiovascular Disease

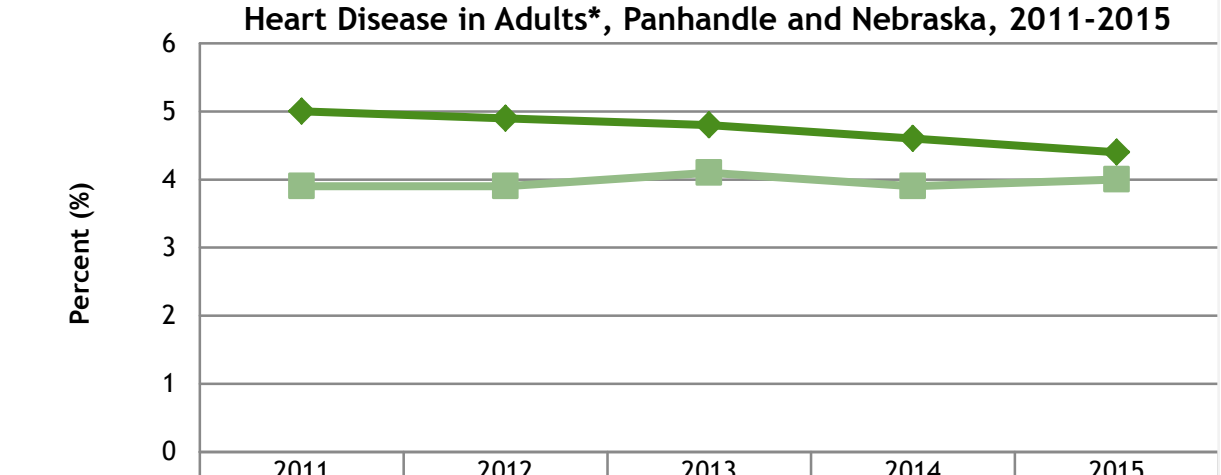
Cardiovascular diseases (CVD) are the number one cause of death across the world.[4] Cardiovascular diseases "are a group of disorders of the heart and blood vessels", they include: coronary heart disease, cerebrovascular disease, peripheral arterial disease, rheumatic heart disease, congenital heart disease, deep vein thrombosis and pulmonary embolism.[4] Risk factors for cardiovascular diseases include: unhealthy diet, physical inactivity, tobacco use, and harmful use of alcohol.

Heart Disease

Coronary heart disease is a "disease of the blood vessels supplying the heart muscle".[4] It is the most common type of heart disease in the US, and is caused by narrowing of the vessels that supply blood and oxygen to the heart due to a buildup of plaque.[5]

Prevalence

Figure 1. Heart disease in adults, Panhandle and Nebraska, 2011-2015



	2011	2012	2013	2014	2015
Panhandle	5	4.9	4.8	4.6	4.4
Nebraska	3.9	3.9	4.1	3.9	4

*Percentage of adults 18 and older who report they have ever had angina or coronary heart disease. Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey Irvine, Panhandle Public Health District

A larger percentage of adults in the Panhandle historically report having heart disease compared to the state of Nebraska, however the difference between the two has never been significant (see Figure 1). The prevalence in the Panhandle appears to be trending down from 2011 to 2015.

Mortality

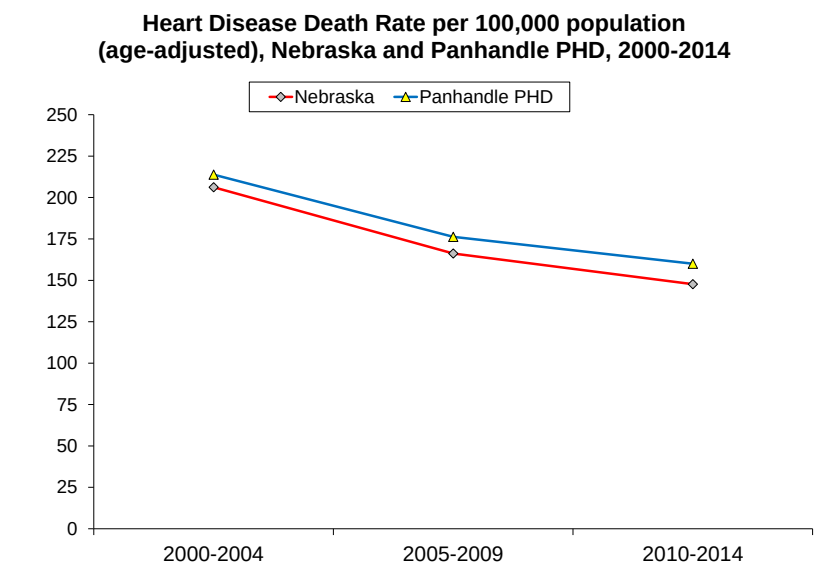
Table 1. Heart Disease Death Rate per 100,000 population (age-adjusted) Panhandle and Nebraska, 2005-2015

	2005-2007	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015
Nebraska	171.7	166.5	162.1	157.1	151.2	149.6	147.4	146.2	148.6
Panhandle	181.1	178.2	171.8	169.7	159.5	168.5	159.8	158.7	152.9

Source: Nebraska Vital Records

Similar to the prevalence of heart disease, the heart disease death rate per 100,000 population is also slightly higher when compared to the state (see Table 1 and Figure 2).

Figure 2. Heart disease death rate per 100,000 population (age-adjusted), Nebraska and Panhandle, 2000-2014



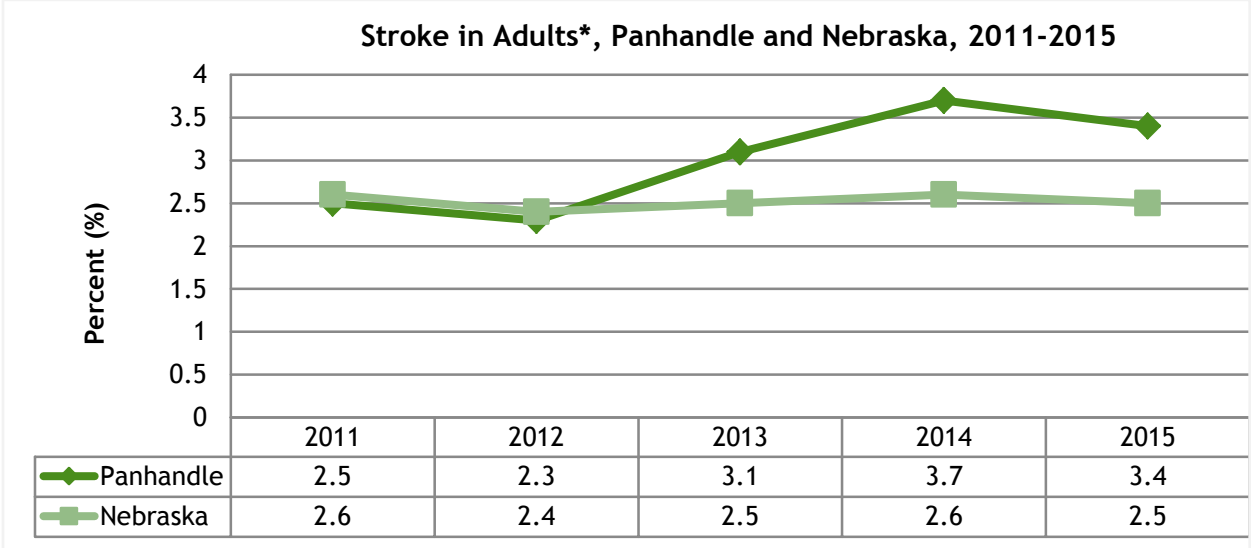
Source: Nebraska Vital Records

Stroke

Stroke, also known as cerebrovascular disease, is another type of CVD that occurs when blood supply to a part of the brain is blocked, or when a blood vessel in the brain bursts. This leads to brain damage or death. A stroke can cause severe disability, brain damage, and death.[6]

Prevalence

Figure 3. Stroke in adults, Panhandle and Nebraska, 2011-2015



	2011	2012	2013	2014	2015
Panhandle	2.5	2.3	3.1	3.7	3.4
Nebraska	2.6	2.4	2.5	2.6	2.5

*Percentage of adults 18 and older who report they were ever told they had a stroke. Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey Irvine, Panhandle Public Health District

In recent years, the prevalence of stroke in adults has been slightly higher in the Panhandle versus the state of Nebraska, however there is no significant difference in any year (see Figure 3).

Mortality

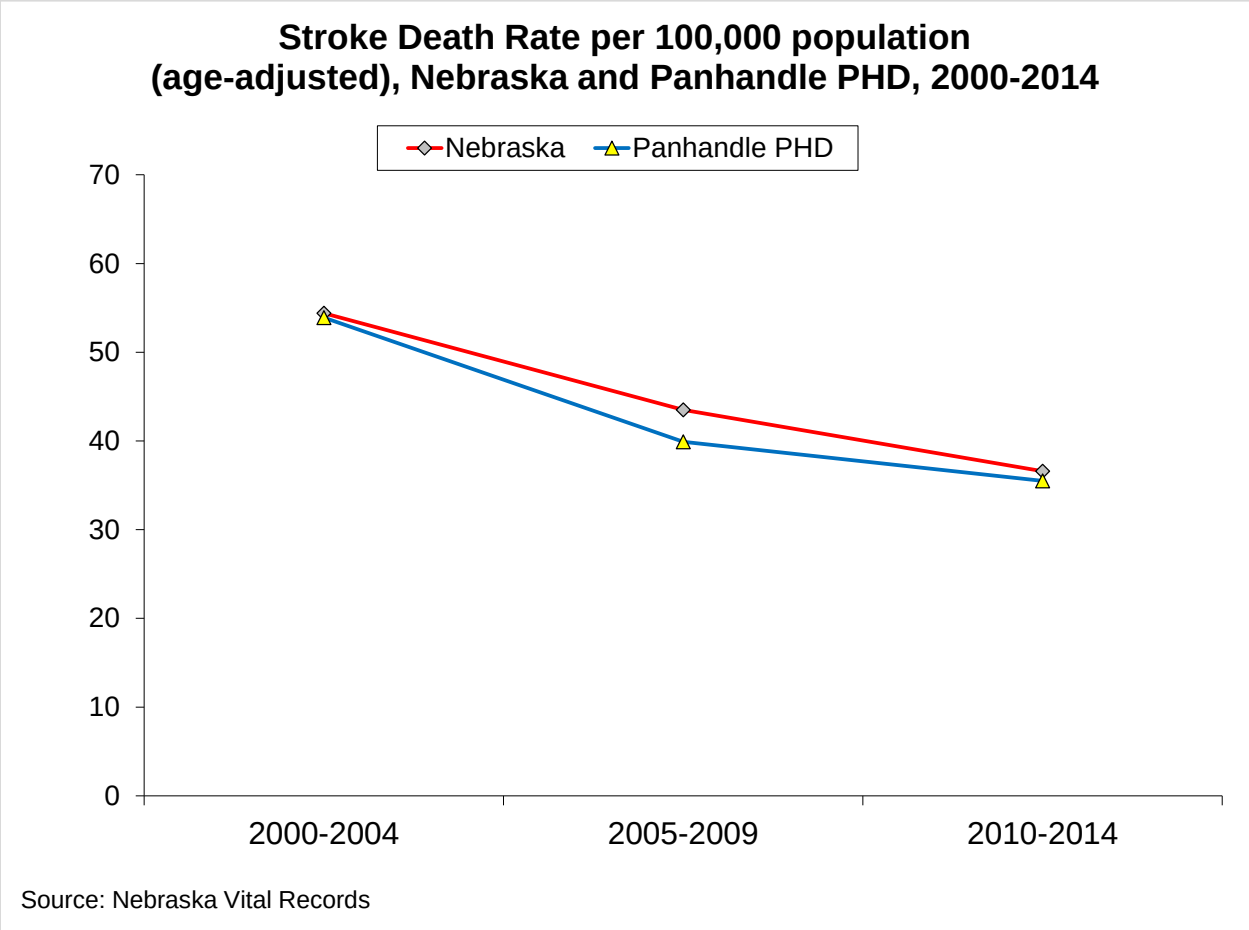
Table 2. Stroke Death Rate per 100,000 population (age-adjusted), Panhandle and Nebraska, 2005-2015

	2005-2007	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015
Nebraska	45.6	42.4	41.1	39.9	39.2	37.6	36.1	35.3	34.8
Panhandle	42.3	40.8	37.7	35.5	35.2	35.5	37.9	36.0	38.3

Source: Nebraska Vital Records

The stroke death rate per 100,000 population is similar between the Panhandle and the state of Nebraska (see Table 2 and Figure 4).

Figure 4. Stroke Death rate per 100,000 population (age-adjusted), Nebraska and Panhandle, 2000-2014



Source: Nebraska Vital Records

Clinical Risk Factors for Cardiovascular Disease

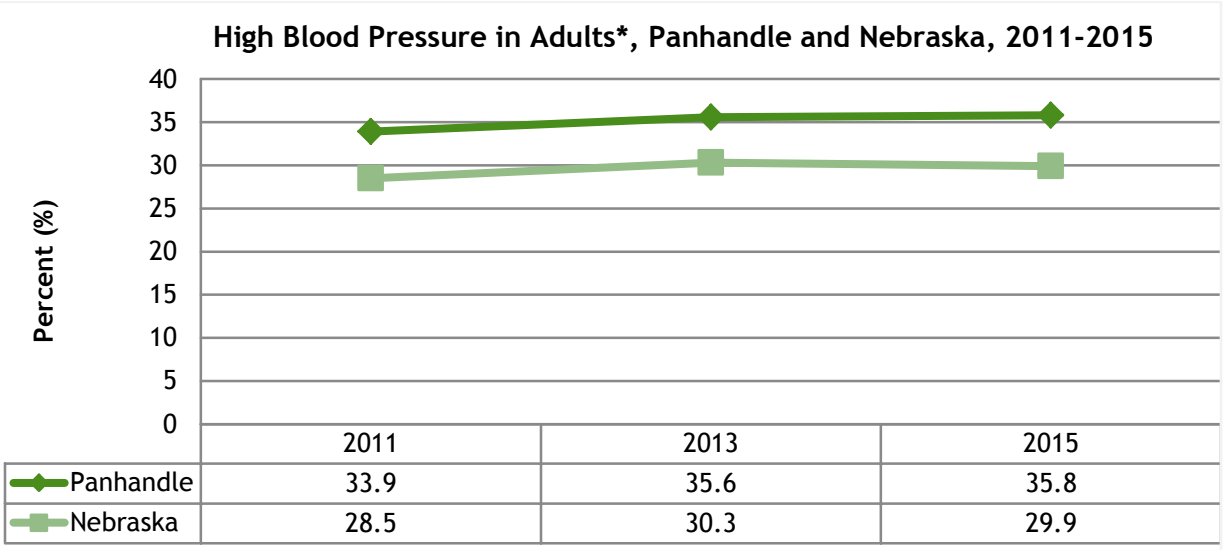
High Blood Pressure

As mentioned above, high blood pressure (also known as hypertension) is a risk factor for cardiovascular disease. High blood pressure is a common condition—about 1 in 3 US adults (75

million people) have it. However, only half of those with hypertension have their blood pressure in control.[7]

Prevalence

Figure 5. High blood pressure in adults, Panhandle and Nebraska, 2011-2015



	2011	2013	2015
Panhandle	33.9	35.6	35.8
Nebraska	28.5	30.3	29.9

*Percentage of adults 18 and older who report they were ever told by a doctor, nurse, or other health professional that they have high blood pressure. NOTE: This indicator is measured on only odd years. Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey Irvine, Panhandle Public Health District

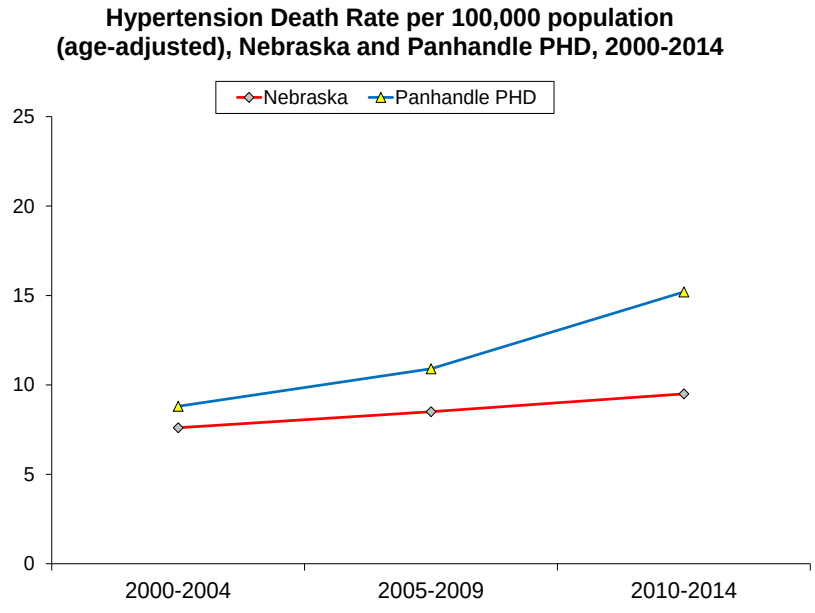
The Panhandle historically has a higher percentage of adults that report they have high blood pressure compared with the state of Nebraska (see Figure 5). The difference between the two is significant in each year measured.

84.7% of Panhandle adults reported having their blood pressure checked in 2015, as opposed to 88.0% at the state level.[8] Of adults in the Panhandle who reported they had high blood pressure in 2015, 76.0% were currently taking medication, versus 77.8% at the state level.[9]

Mortality

The hypertension death rate per 100,000 population has a similar trend as heart disease and stroke, with the Panhandle having a historically higher death rate than the state of

Figure 6. Hypertension Death Rate per 100,000 population (age-adjusted), Nebraska and Panhandle, 2000-2014



Source: Nebraska Vital Records

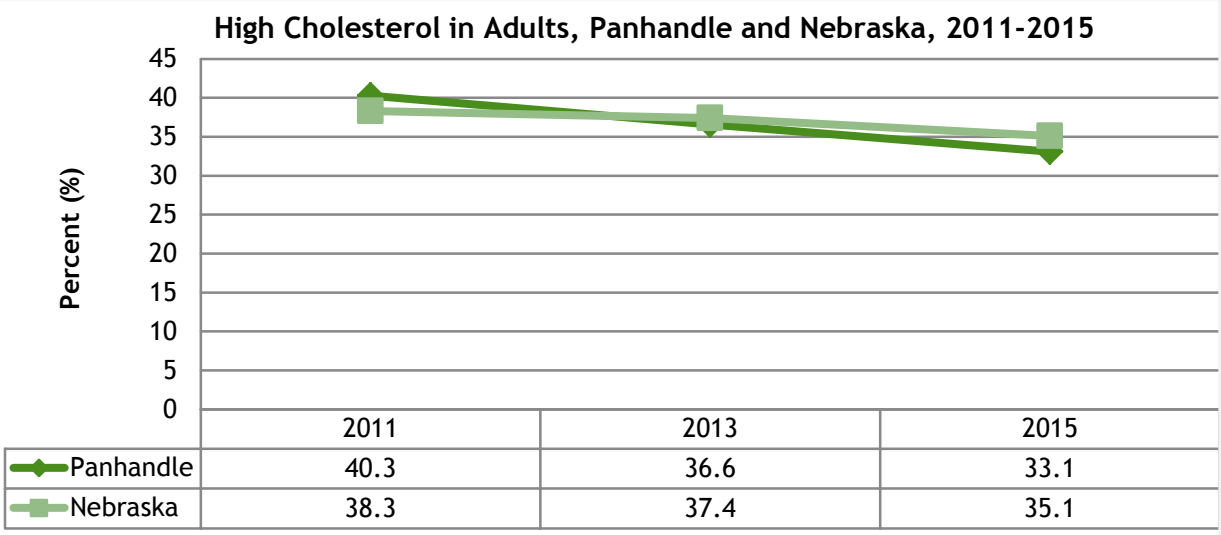
Nebraska (see Figure 6). While the state death rate has had a relatively slow increase from 2000-2014, the Panhandle death rate has increased more drastically.

High Blood Cholesterol

While cholesterol plays an important part in bodily functions, too much cholesterol can cause buildup in the walls of blood vessels, called plaque. The buildup of plaque causes blood vessels to narrow, thus less blood flows through the body and to organs.[10]

Prevalence

Figure 7. High cholesterol in adults, Panhandle and Nebraska, 2011-2015



	2011	2013	2015
Panhandle	40.3	36.6	33.1
Nebraska	38.3	37.4	35.1

*Percentage of adults 18 and older who report they were ever told they have high cholesterol. Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey Irvine, Panhandle Public Health District

The prevalence of high cholesterol in adults was higher in the Panhandle versus the state in 2011, but from 2013 to 2015 the percentage of adults that reported having high cholesterol was lower in the Panhandle than the state (see Figure 7). There was no significant difference between any of the years.

Diabetes

About

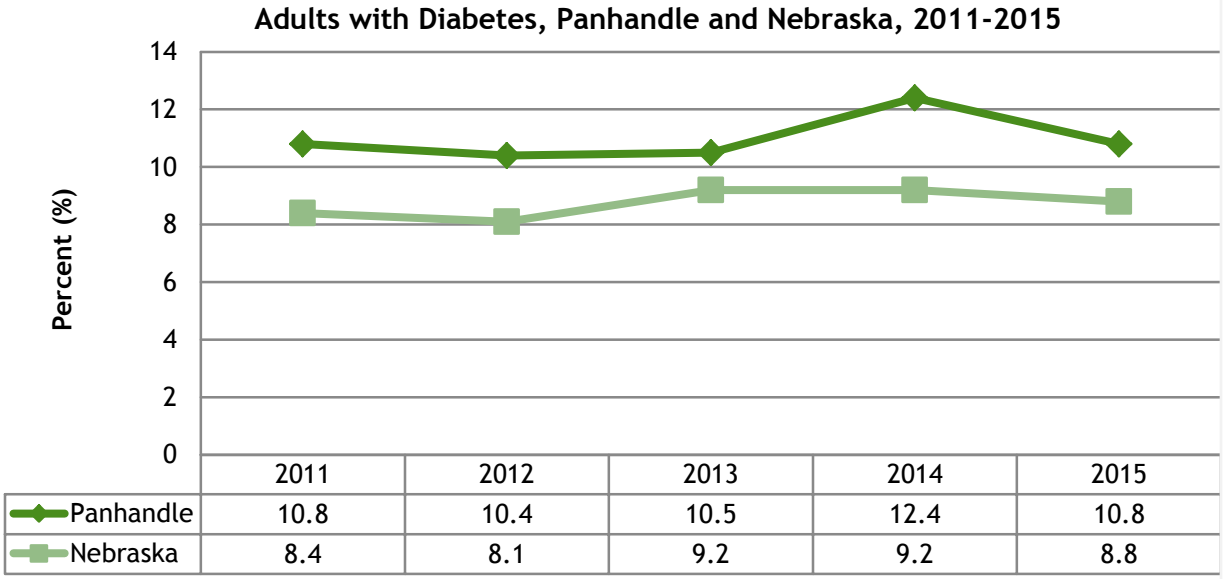
Diabetes is a chronic illness in which blood glucose levels are above normal. There are two types of diabetes: type 1 and type 2. Type 1 diabetes, often referred to as juvenile-onset diabetes, occurs when the body cannot produce its own insulin and may make up approximately 5% of diagnosed diabetes cases. Type 2 diabetes, also known as adult-onset diabetes, may make up 90-95% of diagnosed diabetes cases. Gestational diabetes is a form of diabetes that occurs in pregnant women (in 2-10% of pregnancies), but generally disappears when pregnancy ends.[10]

Risk factors for type 1 diabetes are largely unknown. Risk factors for type 2 diabetes include old age, obesity, family history of diabetes, history of gestational diabetes, impaired glucose tolerance, physical inactivity, and race/ethnicity.[10]

Diabetes Prevalence

The prevalence of diabetes is much higher in the Panhandle compared to the state, with significant differences in years 2011 and 2015 (see Figure 8). There was a slight uptick in the percentage of adults who reported having diabetes in 2014, which then decreased in 2015.

Figure 8. Adults with diabetes, Panhandle and Nebraska, 2011-2015



*Percentage of adults 18 and older who report they were ever told they have diabetes (excluding pregnancy). Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey Irvine, Panhandle Public Health District

Diabetes Mortality

Table 3. Number of deaths from diabetes, Nebraska and Panhandle, 2005-2015

	2005-2007	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015
Nebraska	1358	1379	1386	1364	1353	1351	1373	1386	1496
Panhandle	84	68	75	82	105	105	98	90	100

Source: Nebraska Vital Records

While the rate of death by diabetes in the Panhandle was lower or approximately equal to the state from approximately 2005-2010, an uptick in the diabetes death rate per 100,000 population occurred in 2009 and continues through 2015 (see Table 4). A similar pattern is seen in the number of deaths by diabetes in the Panhandle versus the state (see Table 3).

Table 4. Diabetes death rate per 100,000 population (age-adjusted), Panhandle and Nebraska, 2005-2015

	2005-2007	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015
Nebraska	23.0	22.9	22.8	22.2	21.7	21.4	21.4	21.4	22.7
Panhandle	23.1	17.8	19.7	22.1	27.8	27.8	25.7	24.6	28.1

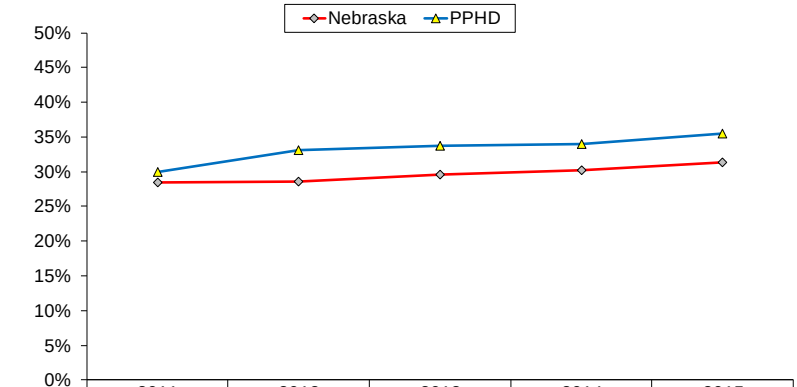
Obesity

Adult obesity is defined as a BMI of 30 or higher.[11] More than one third of adults in the US have obesity. Obesity can contribute to conditions such as heart disease, stroke, type 2 diabetes, and cancer.[12]

Obesity among Adults

Obesity in Nebraska is a growing trend, with the number of adults reporting they are obese rising each year in both the state of Nebraska and the Panhandle. However, the rate of obesity in the Panhandle has historically been higher than the state, with a significant difference occurring in 2015 (see Figure 9).

Figure 9. Obesity among adults, Nebraska and Panhandle, 2011-2015



	2011	2012	2013	2014	2015
Nebraska	28.4	28.6	29.6	30.2	31.4
PPHD	29.9	33.1	33.7	34.0	35.5

*Percentage of adults 18 and older with a body mass index (BMI) of 30.0 or greater, based on self-reported height and weight
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Nutrition

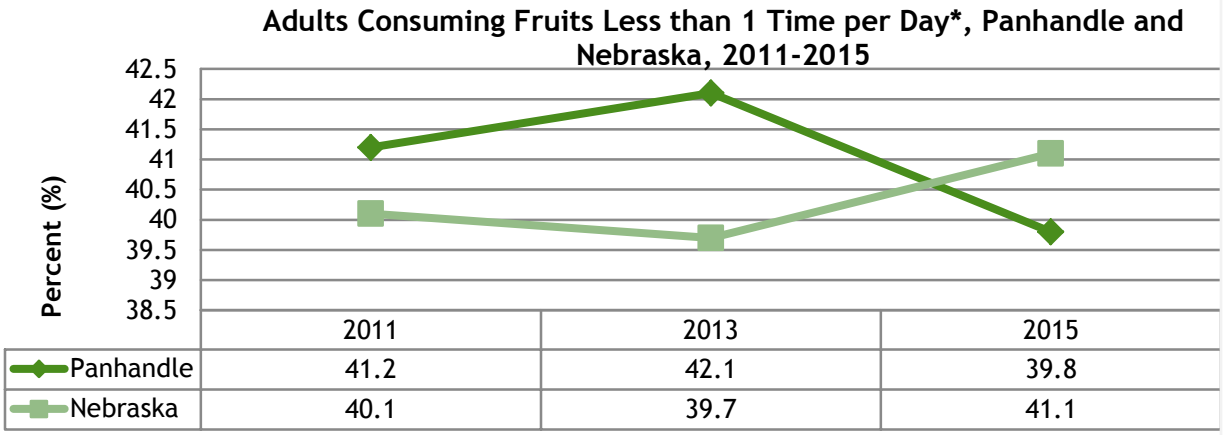
The typical American does not follow the Dietary Guidelines for healthy eating. Approximately three-fourths of Americans do not eat enough vegetables, fruits, dairy, or oils. More than 50% of Americans meet or exceed total grain and protein foods recommendations, however do not meet the recommendations for subgroups with these food groups (e.g., whole grains). The majority of Americans eat more than the recommended amount of added sugars, saturated fats, and sodium.[13] Poor nutrition can contribute to the development of preventable chronic disease.[14]

Fruit and Vegetable Consumption

Fruit and Vegetable Consumption among Adults

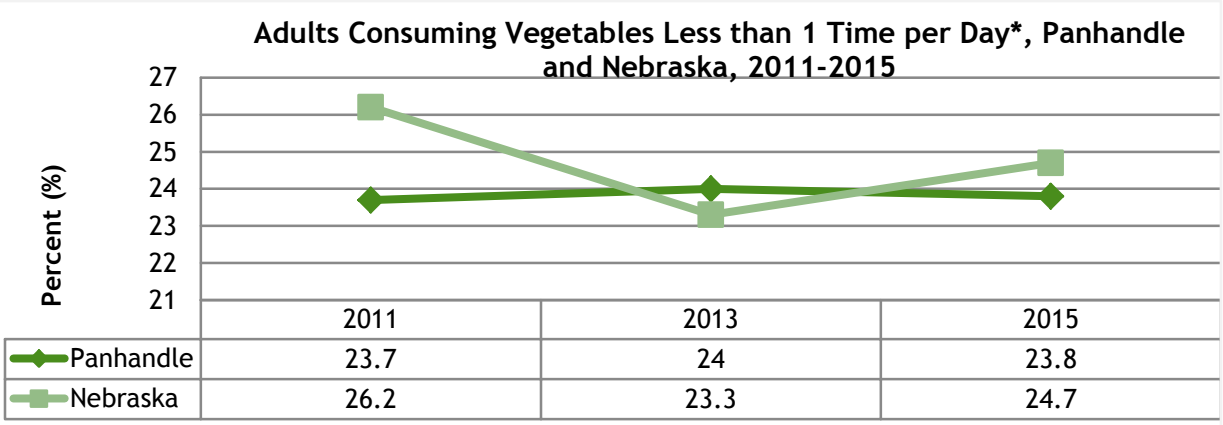
The percentage of Panhandle adults who report they consume fruits less than one time per day had a slight uptick in 2013, but decreased between 2013 and 2015 (see Figure 10). The percentage of Panhandle adults who report they consume vegetables less than one time per day has remained relatively constant (see Figure 11).

Figure 10. Adults consuming fruits less than 1 time per day, Panhandle and Nebraska, 2011-2015



*Percentage of adults 18 and older who report that they consume fruits less than one time per day. Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey Irvine, Panhandle Public Health District

Figure 11. Adults consuming vegetables less than 1 time per day, Panhandle and Nebraska, 2011-2015



*Percentage of adults 18 and older who report that they consume vegetables less than one time per day. Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey Irvine, Panhandle Public Health

Beverage Consumption

Beverage Consumption among Adults

Consumption of sugar-sweetened beverage has been measured by the BRFSS only once, in 2013. In 2013, 30.5% of Panhandle adult reported they consumed a sugar-sweetened beverage one or more time per day in the last 30 days, compared to 28.5% for the state.

Salt Consumption among Adults

In 2013, 47% of Panhandle adults reported they were watching or reducing their salt consumption, which increased to 51.1% in 2015. This is compared to the state at 46.3% and 46.8% in 2013 and 2015, respectively.

Table 5. Adults currently watching or reducing sodium or salt intake, Panhandle and Nebraska, 2013-2015

	2013	2015
Panhandle	47.0%	51.1%
Nebraska	46.3%	46.8%

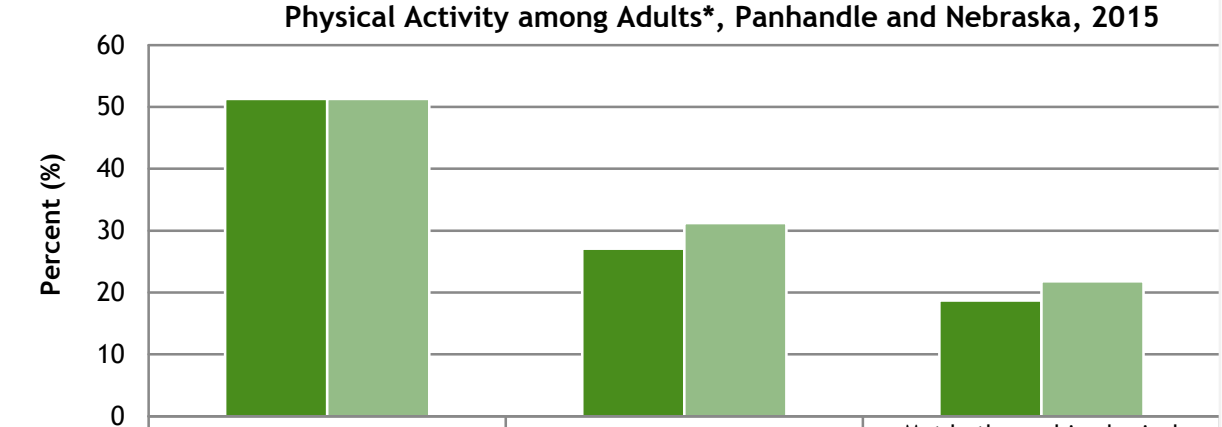
Source: 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS)

Physical Activity

Physical Activity among Adults

In 2015, 51.3% of Panhandle adults met aerobic physical activity recommendations, 27.1% met muscle strengthening recommendations, and only 18.7% met both recommendations. The comparison to the state can be found in Figure 12. The Panhandle falls slightly behind in meeting the muscle strengthening recommendation and combination of aerobic and muscle strengthening recommendation when compared to the state.

Figure 12. Physical activity among adults, Panhandle and Nebraska, 2015



*Percentage of adults 18 and older who report (1) at least 150 minutes of moderate-intensity physical activity, or at least 75-minutes of vigorous-intensity physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic activity per week during the past month, (2) that they are engaged in physical activities or exercises to strengthen their muscles two or more times per week during the past month, (3) that they met both the aerobic and muscle strengthening recommendations. Data from 2011-2015 Nebraska Behavioral Risk Factor

Goals

- Decrease the prevalence of cardiovascular disease.
- Improve health, fitness, and quality of life through daily physical activity.
- Decrease prevalence of diabetes
- Promote health and reduce chronic disease risk through the consumption of healthful diets and achievement and maintenance of healthy body weights.

Objectives

Objective 1.1 Reduce the proportion of adults with hypertension (Healthy People 2020: HD S 5.1)

Baseline:	35.8% (2015)
Target (2020):	32.2%
Target-Setting Method:	10% improvement

Data Source:	Nebraska Behavioral Health Risk Factor Surveillance System (BRFSS)
Indicator	Percentage of adults 18 and older who report that they were ever told by a doctor, nurse, or other health professional that they have high blood pressure.

Objective 1.2 Increase the proportion of adults who meet current Federal physical activity guidelines for aerobic physical activity and for muscle-strengthening activity (Healthy People 2020 PA-2)

Baseline:	18.7% (2015
Target (2020):	20.5%
Target-Setting Method:	10%
Data Source:	Nebraska Behavioral Health Risk Factor Surveillance System (BRFSS)
Indicator	Percentage of adults 18 and older who report that they met both the aerobic and muscle strengthening recommendations

Objective 1.3 Reduce the annual number of new cases of diagnosed diabetes in the population (Healthy People 2020 D-1)

Baseline:	10.8% of Panhandle adults ages 18 years and over with diabetes in 2015.
Target (2020):	9.8%
Target-Setting Method:	10%
Data Source:	Nebraska Behavioral Health Risk Factor Surveillance System (BRFSS)
Indicator	Percentage of adults 18 and older who report they were ever told they have diabetes (excluding pregnancy).

Objective 1.4 Increase the contribution of fruits to the diets of the population aged 2 years and older (NWS-14)

Increase the variety and contribution of vegetables to the diets of the population aged 2 years and older (NWS-15)

Baseline:	Fruit – 39.8%, Vegetable – 23.8%
Target (2020):	Fruit –43.8%

	Vegetable – 26.2%
Target-Setting Method:	10%
Data Source:	Nebraska Behavioral Health Risk Factor Surveillance System (BRFSS)
Indicator	Percentage of adults 18 and older who report that they consume fruits less than one time per day. Percentage of adults 18 and older who report that they consume vegetables less than one time per day.

Strategies

Evidence-based strategies were selected to address this objective. Specific activities can be found in the CHIP Annual Work Plan:

- Cardiovascular Disease: Self-Measured Blood Pressure Monitoring Interventions for Improved Blood Pressure Control - When Used Alone (Source: The Community Guide)
- Physical Activity: Creating or Improving Places for Physical Activity (Source: Community Preventive Services Task Force)
- Combined Diet and Physical Activity Promotion Programs to Prevent Type 2 Diabetes Among People at Increased Risk (Source: Community Preventive Services Task Force)
- Worksite: Assessment of Health Risks with Feedback (AHRF) to Change Employees' health – AHRF Plus Health Education With or Without Other Interventions (Source: Community Preventive Services Task Force)
- Strategies to Prevent Obesity and Other Chronic Diseases: The CDC Guide to Strategies to Increase the Consumption of Fruits and Vegetables (Source: CDC/NCCDPHP)

Priority Area 2: Cancer

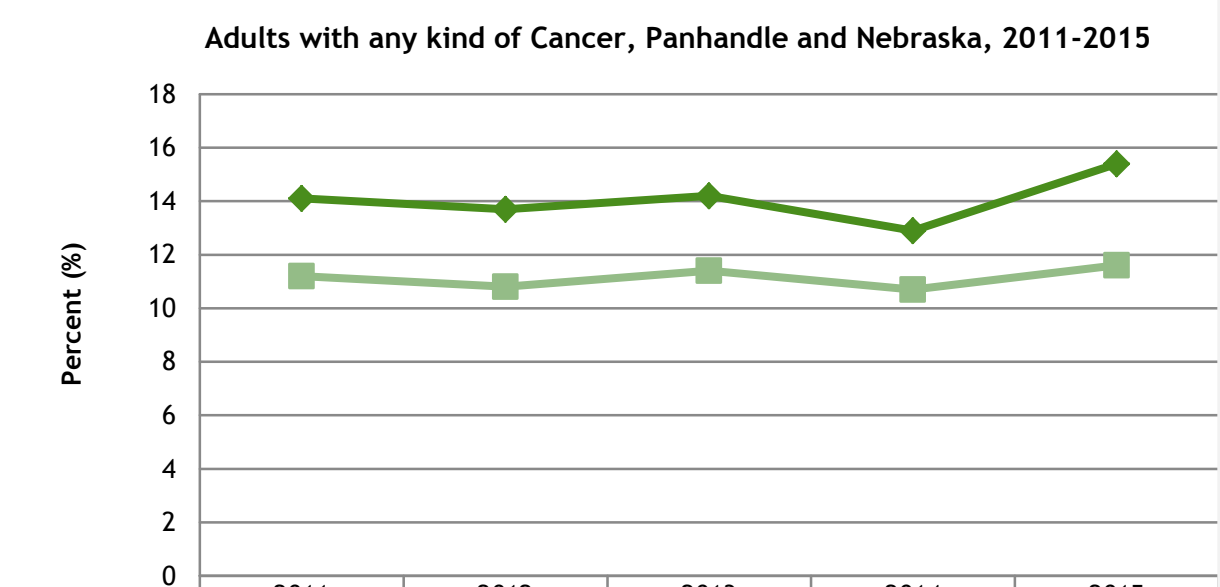
About

Cancer

"Cancer is a term used for diseases in which abnormal cells divide without control and can invade other tissues".[15] Cancer spreads throughout the body through the blood and lymph system. Cancer is not only one disease—there are more than 100 types of cancers.[15]

Cancer Prevalence

Figure 13. Adults with any kind of cancer, Panhandle and Nebraska, 2011-2015



	2011	2012	2013	2014	2015
Panhandle	14.1	13.7	14.2	12.9	15.4
Nebraska	11.2	10.8	11.4	10.7	11.6

*Percentage of adults 18 and older who report they were ever told they have any kind of cancer. Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey Irvine, Panhandle Public Health District

The percentage of adults reporting they have any kind of cancer has been significantly higher in the Panhandle when compared to the state, from 2011 forward (see Figure 13).

Cancer Mortality

Although the prevalence of cancer in the Panhandle is significantly higher than in the state, the rate of death caused by cancer is higher at the state level (see Figure 14). This is interesting because the percentage of adults that report being up to date on cancer screenings in the Panhandle is lower than that at the state level (see cancer screening section below). Table 6 shows the number of death and cancer death rate per 100,000 population from 2010-2014. Lung and bronchus cancer had the highest rate of death in the Panhandle, but it was a lower rate than that of the state. Colorectal cancer ranked second, with a mortality rate of 18.8 per 100,000 population, much higher than the 16.2 per 100,000

population of the state. The remaining types of cancer have notably lower mortality rates when compared to the state.

Table 6. Cancer Mortality, Number of Deaths and Mortality Rates, All Sites and Selected Primary Sites, US, NE, Panhandle, 2010-2014

	US		Nebraska		Panhandle	
Primary Site	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**
All sites	2,910,637	166.4	17,245	163.3	926	149.7
Lung & bronchus	784,338	44.7	4,499	43.0	228	36.6
Colorectal	258,814	14.8	1,721	16.2	114	18.8
Female breast	205,153	21.3	1,172	20.3	63	18.0
Prostate	139,802	20.0	916	20.8	47	17.0
Melanoma	46,252	2.7	302	2.9	11	1.9
Cervix	20,437	2.3	112	2.2	4	1.4
Oral cavity & pharynx	44,310	2.8	247	2.7	11	1.9

NOTE: All rates are age-adjusted to the 2000 US standard population; rates are the average annual number of cases/deaths per 100,000 population (gender-specific cancers are per 100,000 male or female population)
Source: Nebraska Vital Records

Incidence of Cancer

The incidence rate (new cases) per 100,00 population of cancers in the Panhandle during 2009-2013 were highest among prostate and female breast cancer, with lung and bronchus cancer ranking third. The incidence rate of cervix cancer is slightly higher in the Panhandle when compared to the state. All other cancers had an incidence rate relatively similar to or less than the state.

Figure 14. Cancer death rate (overall) per 100,000 population (age-adjusted), Nebraska and Panhandle, 2000-2014

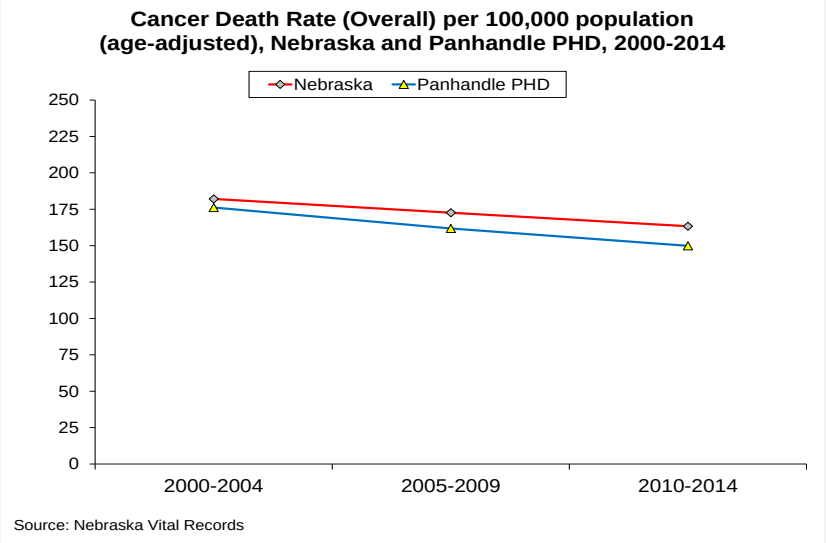


Table 7. Cancer Incidence, Number of Cases and Incidence Rates, All Sites and Selected Primary Sites, US, Nebraska, Panhandle, 2009-2013

	US		Nebraska		Panhandle	
Primary Site	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**
All sites	7,800,258	456.6	46,260	454.3	2,369	412.1
Lung & bronchus	1,067,959	62.5	6,113	59.6	293	47.7
Colorectal	692,122	40.6	4,559	44.4	233	40.4
Female breast	1,117,483	123.4	6,388	120.8	332	115.4
Prostate	1,009,595	123.2	6,026	123.6	336	117.8
Melanoma	340,070	20.3	1,925	19.7	98	18.2
Cervix	61,711	7.6	320	7.2	20	9.4
Oral cavity & pharynx	198,493	11.4	1,162	11.2	60	10.2

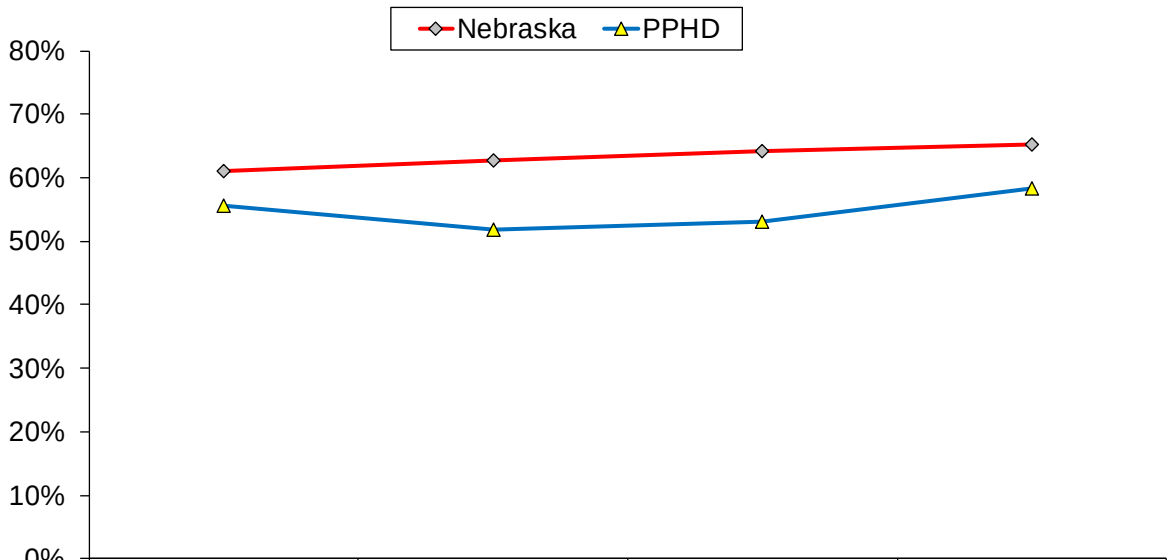
NOTE: All rates are age-adjusted to the 2000 US standard population; rates are the average annual number of cases/deaths per 100,000 population (gender-specific cancers are per 100,000 male or female population)
Source: Nebraska Vital Records

Cancer Screening

Colon Cancer Screening

The percentage of adults 50-75 years old who report being up-to-date on colon cancer screening is much lower in the Panhandle than the state of Nebraska.

Figure 15. Up-to-date on colon cancer screening among adults 50-75, Nebraska and Panhandle, 2011-2015



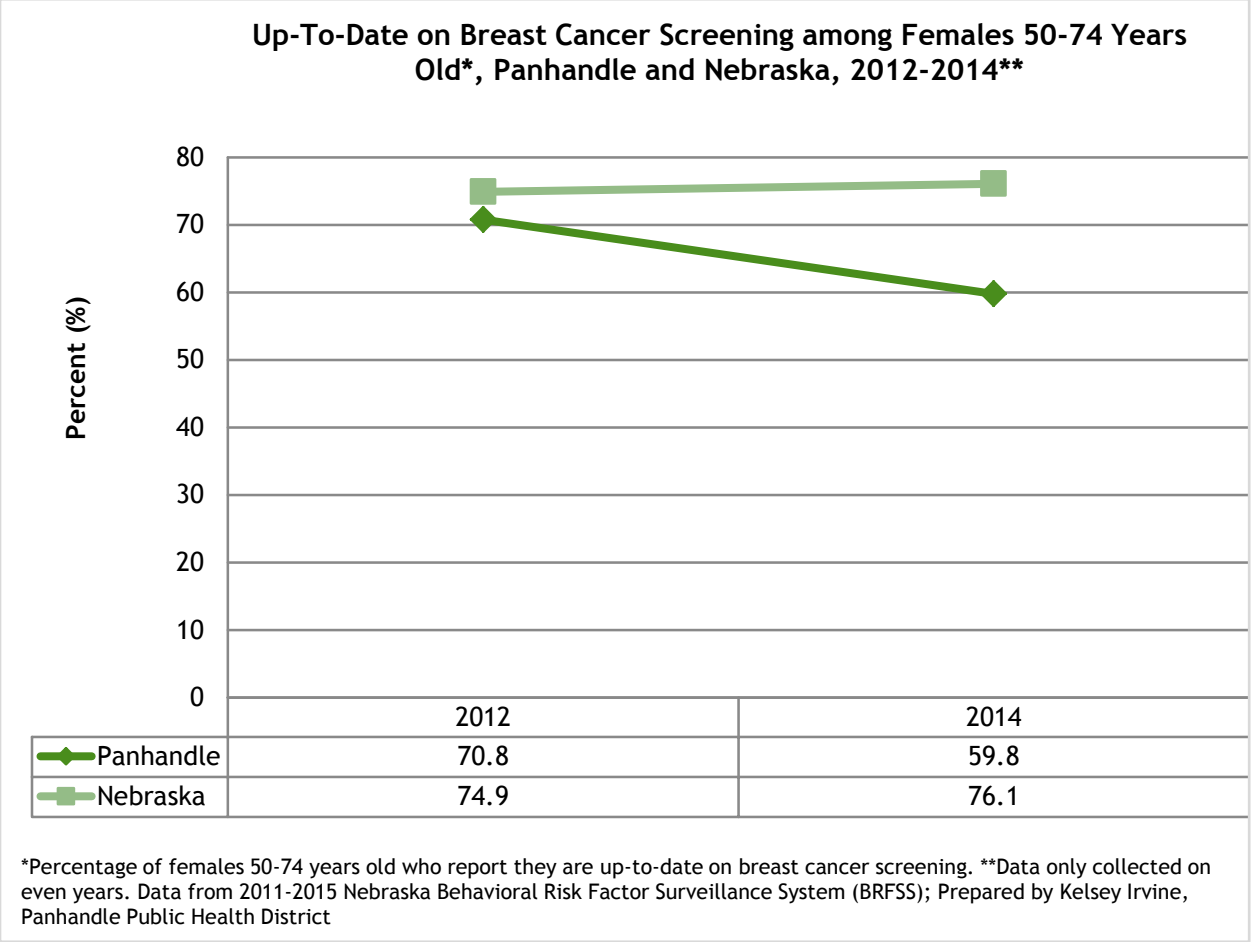
	2012	2013	2014	2015
Nebraska	61.1	62.8	64.1	65.2
PPHD	55.6	51.8	53.0	58.3

*Percentage of adults 50–75 years old who report having had a fecal occult blood test (FOBT) during the past year, or a sigmoidoscopy during the past 5 years and an FOBT during the past 3 years, or a colonoscopy during the past 10 years (U.S. data only collected during even calendar years)
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Breast Cancer Screening

The percentage of females aged 50-74 who report being up-to-date on breast cancer screening in the Panhandle has decreased from 2012 to 2014, always remaining lower than the state percentage (see Figure 16). Although the percentage reporting being up-to-date on breast cancer screening in the Panhandle in 2012 was relatively close to that of the state (70.8% vs. 74.9%), this gap widened in 2014 to an almost 20% difference (59.8% for the Panhandle vs. 76.1% for the state). Notably, the state percentage has increased while the Panhandle has decreased. Despite the lower screening rates in the Panhandle, the stage at which breast cancer is diagnosed is approximately the same as the state (see Table 8), with a slightly higher percentage of cases in the Panhandle identified at the "unstaged" level. Unstaged means there is not enough information to indicate the stage of cancer.[16]

Figure 16. Up-to-date on breast cancer screening among females 50-74 years old, Panhandle and Nebraska, 2012-2014



*Percentage of females 50-74 years old who report they are up-to-date on breast cancer screening. **Data only collected on even years. Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey Irvine, Panhandle Public Health District

Table 8. Stage of Disease at Diagnosis, Number and Percentage of Cases by Stage, Invasive Female Breast Cancer, Nebraska and Panhandle, 2009-2013

	Nebraska		Panhandle	
Stage at Diagnosis	**Number**	**%**	**Number**	**%**
Localized	4,077	63.8	201	60.5
Regional	1,854	29.0	99	29.8
Distant	294	4.6	17	5.1
Unstaged	163	2.6	15	4.5
Total	**6,388**	**100.0**	**332**	**100.0**

NOTE: Cases are staged according to the Derived SEER Summary Stage 2000 coding system

Cervical Cancer Screening

As with other forms of cancer, the percentage of adults who report being up-to-date on screening for cervical cancer is also lower than the state of Nebraska (see Figure 17). The percentage of cervical cancer diagnosed at the localized stage is similar between the Panhandle and state and the percentage diagnosed at the regional stage lower in the Panhandle. A slightly higher percentage of cervical cancer is diagnosed at the distant or unstaged level in the Panhandle (see Table 9).

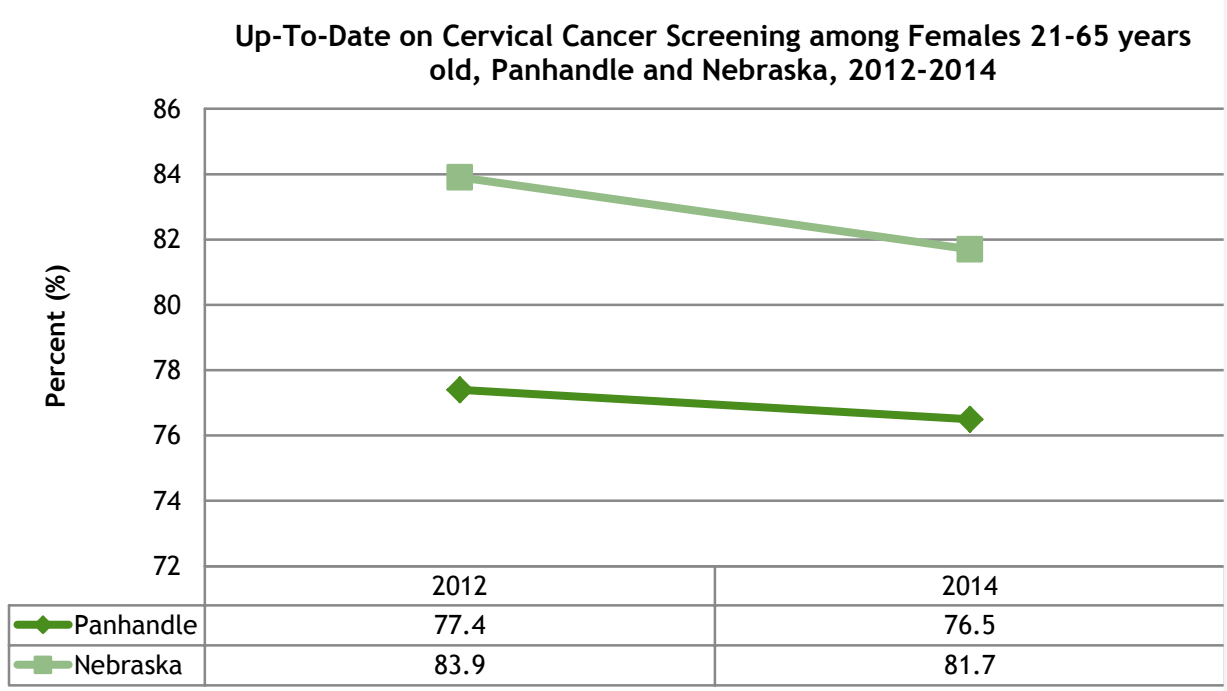
Table 9. Stage of Disease at Diagnosis, Number and Percentage of Cases by Stage, Invasive Cervical Cancer, Nebraska and Panhandle, 2009-2013

	Nebraska		Panhandle	
Stage at Diagnosis	**Number**	**%**	**Number**	**%**
Localized	142	44.4	9	45.0
Regional	118	36.9	6	30.0
Distant	44	13.8	3	15.0
Unstaged	16	5.0	2	10.0
Total	**320**	**100.0**	**20**	**100.0**

NOTE: Cases are staged according to the Derived SEER Summary Stage 2000 coding system

Source: Nebraska Vital Records

Figure 17. Up-to-date on cervical cancer screening among females 21-65 years old, Panhandle and Nebraska, 2012-2014



*Percentage of females 21-65 years old who report they are up-to-date on cervical cancer screening. **Data collected on even years only. Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey Irvine, Panhandle Public Health District

Risk and Protective Factors for Lung Cancer

Tobacco Use

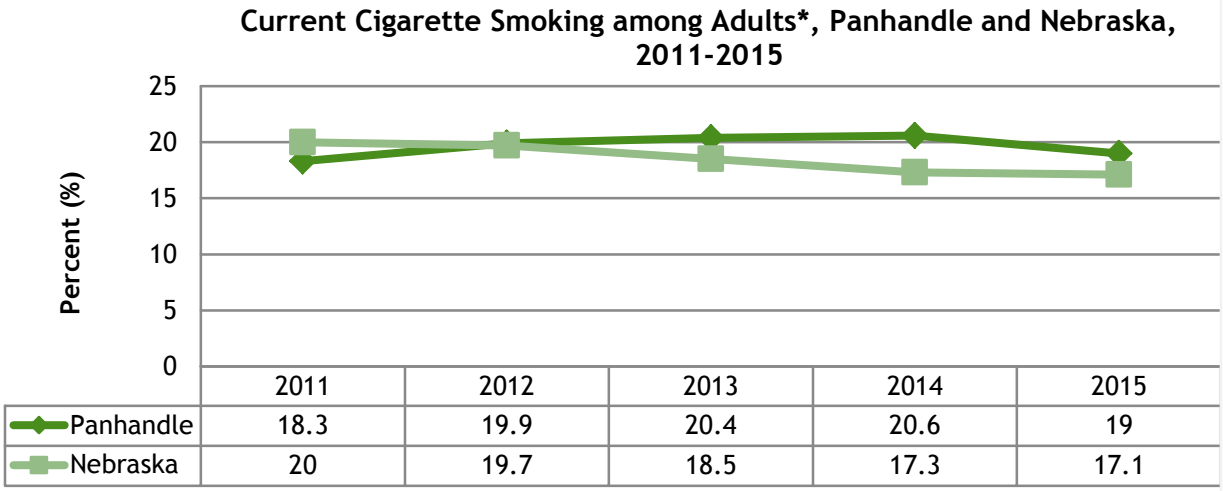
Tobacco use is the number one leading cause of preventable death, disease, and disability in the United States.[17] Approximately 75,000 Nebraskans suffer from at least one serious disease that can be attributed to smoking.[18] The United States as a whole spends almost $170 billion per year on medical care to treat smoking-related disease, and Nebraskans spend approximately $795 million.[17,18]

Tobacco Use among Adults

The percentage of adults who reported smoking in the Panhandle was lower than the state from 2011 to 2012, but has been higher from 2013 to 2015 (see Figure 18). The percentage of

adults who report using smokeless tobacco (chew, snuff, snus) in the Panhandle has consistently been higher than that of the state with a significant difference in 2011, 2012, 2013, and 2014 (see Figure 19).

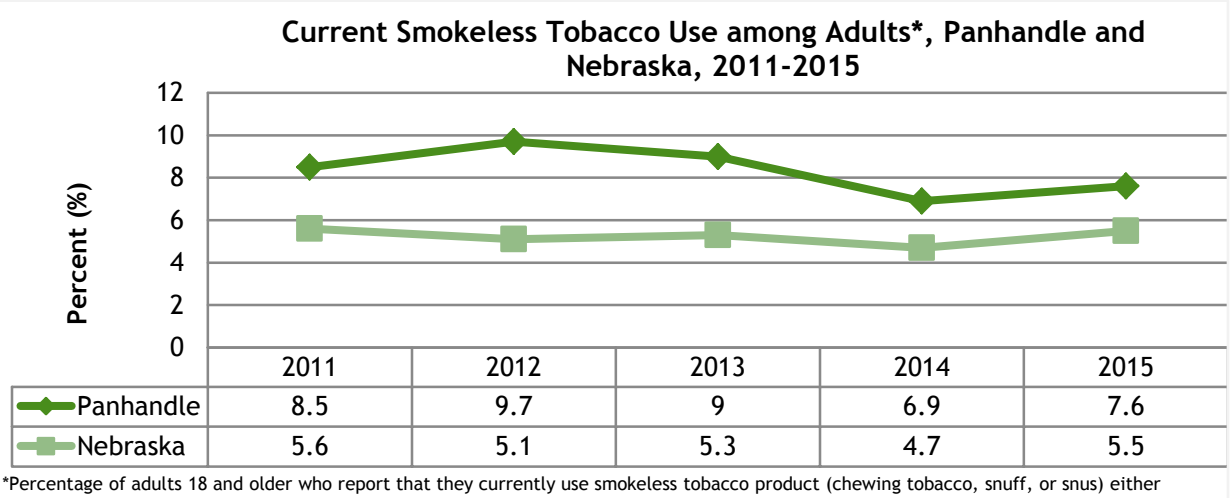
Figure 18. Current cigarette smoking among adults, Panhandle and Nebraska, 2011-2015



	2011	2012	2013	2014	2015
Panhandle	18.3	19.9	20.4	20.6	19
Nebraska	20	19.7	18.5	17.3	17.1

*Percentage of adults 18 and older who report that they currently smoke cigarettes either every day or on some days. Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey Irvine, Panhandle Public Health District

Figure 19. Current smokeless tobacco use among adults, Panhandle and Nebraska, 2011-2015



	2011	2012	2013	2014	2015
Panhandle	8.5	9.7	9	6.9	7.6
Nebraska	5.6	5.1	5.3	4.7	5.5

*Percentage of adults 18 and older who report that they currently use smokeless tobacco product (chewing tobacco, snuff, or snus) either every day or on some days. Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey Irvine, Panhandle Public Health District

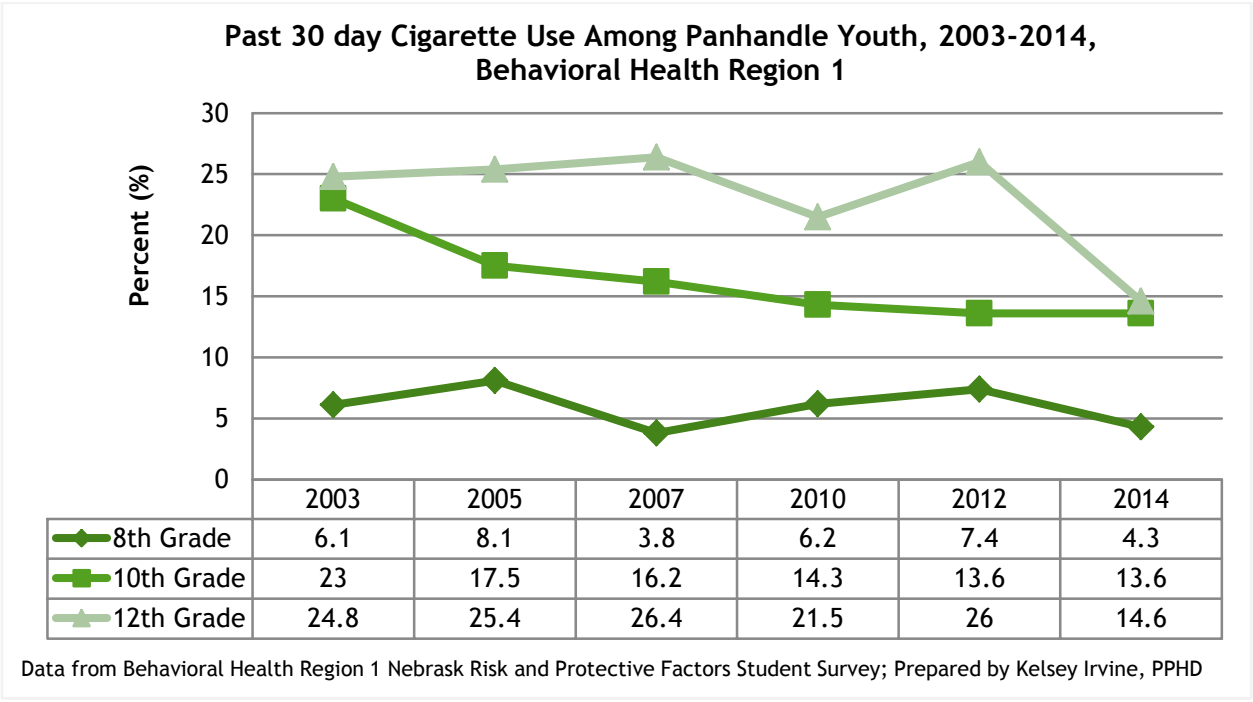
Tobacco use among Youth

Cigarette Smoking among Youth

Past 30 day use of cigarettes in Panhandle youth has had a slight downward trend in 10th and 12th grade from 2003 to 2014 (see Figure 20). Past 30 day use in Panhandle 8th graders has remained relatively unchanged. Lifetime cigarette use for Panhandle youth (see Figure 22), has a clear downward trend in all grades, indicating that initiation of cigarette smoking is decreasing in youth.

Figure 21 gives some indication as to where Panhandle youth that used cigarettes in the past 30 days procured their cigarettes. In 2014, the majority of youth got cigarettes by borrowing them from someone else, with getting someone else to buy them ranking second.

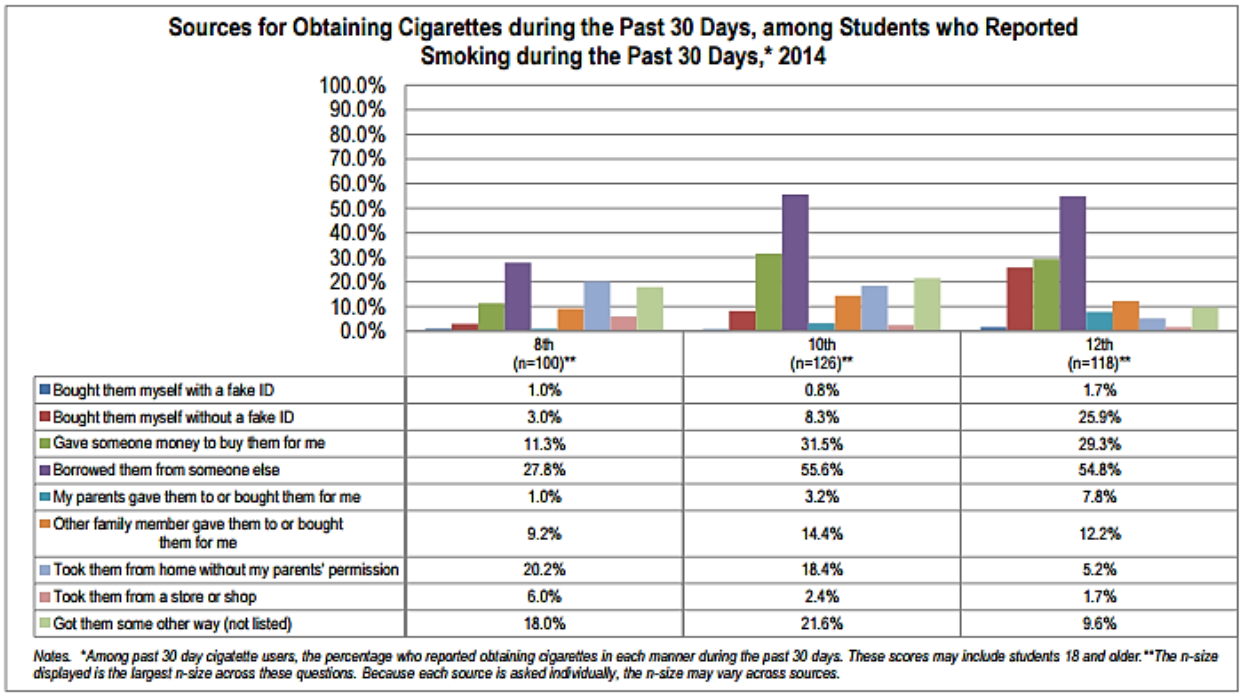
Figure 20. Past 30 day cigarette use among youth, 2003-2014, Behavioral Health Region 1



	2003	2005	2007	2010	2012	2014
8th Grade	6.1	8.1	3.8	6.2	7.4	4.3
10th Grade	23	17.5	16.2	14.3	13.6	13.6
12th Grade	24.8	25.4	26.4	21.5	26	14.6

Data from Behavioral Health Region 1 Nebrask Risk and Protective Factors Student Survey; Prepared by Kelsey Irvine, PPHD

Figure 21. Sources for obtaining cigarettes during the past 30 days, among students who reported smoking during the past 30 days, 2014

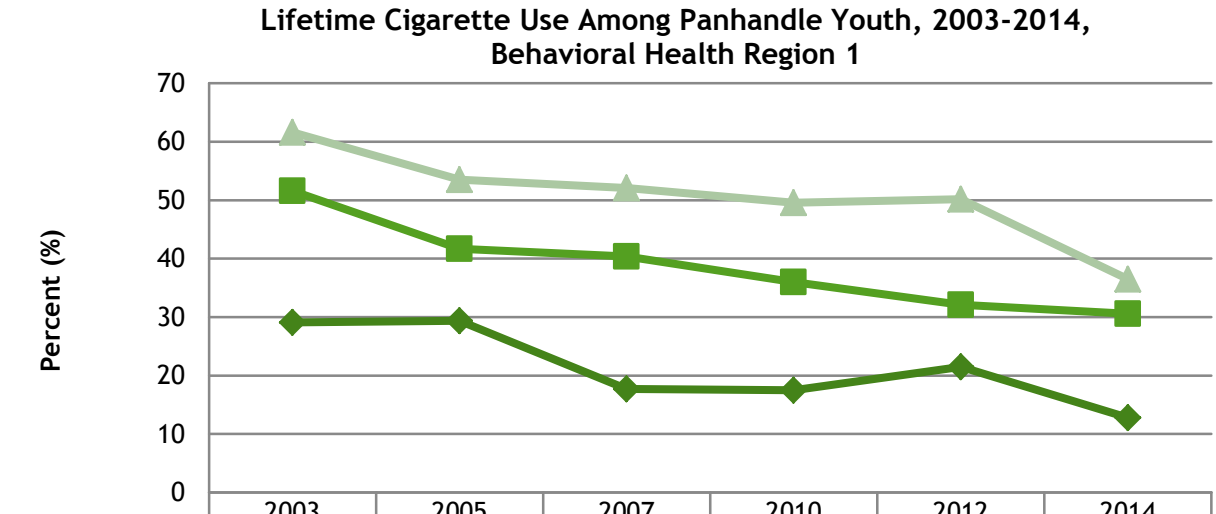


	8th (n=100)**	10th (n=126)**	12th (n=118)**
Bought them myself with a fake ID	1.0%	0.8%	1.7%
Bought them myself without a fake ID	3.0%	8.3%	25.9%
Gave someone money to buy them for me	11.3%	31.5%	29.3%
Borrowed them from someone else	27.8%	55.6%	54.8%
My parents gave them to or bought them for me	1.0%	3.2%	7.8%
Other family member gave them to or bought them for me	9.2%	14.4%	12.2%
Took them from home without my parents' permission	20.2%	18.4%	5.2%
Took them from a store or shop	6.0%	2.4%	1.7%
Got them some other way (not listed)	18.0%	21.6%	9.6%

*Notes. *Among past 30 day cigatette users, the percentage who reported obtaining cigarettes in each manner during the past 30 days. These scores may include students 18 and older.**The n-size displayed is the largest n-size across these questions. Because each source is asked individually, the n-size may vary across sources.*

Source: Region 1 Nebraska Risk and Protective Factors Student Survey

Figure 22. Lifetime cigarette use among youth, 2003-2014, Behavioral Health Region 1



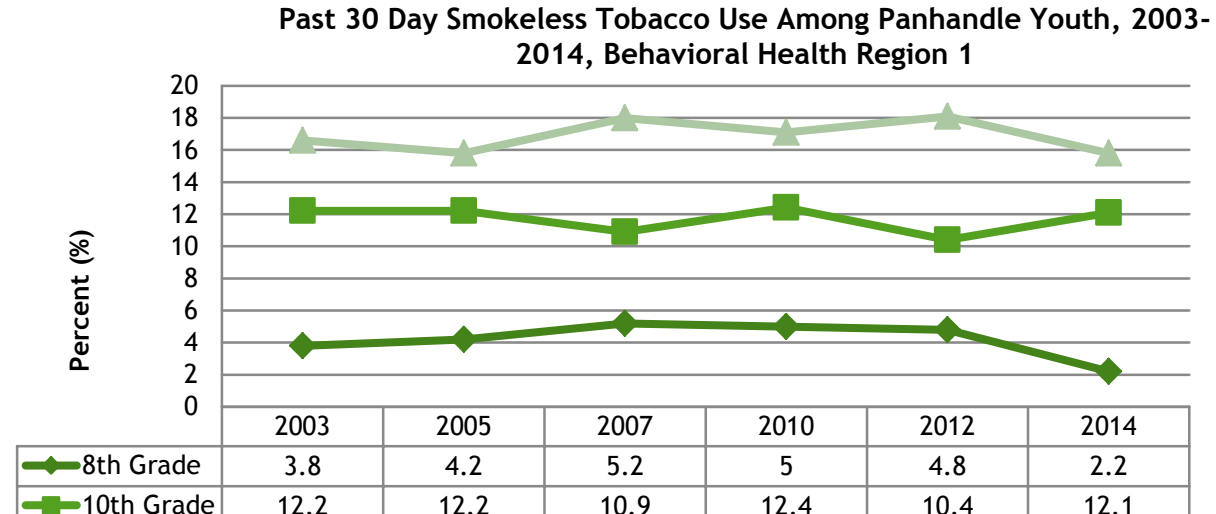
	2003	2005	2007	2010	2012	2014
8th Grade	29.1	29.4	17.7	17.5	21.5	12.8
10th Grade	51.6	41.7	40.4	36	32.1	30.6
12th Grade	61.6	53.5	52.1	49.6	50.2	36.5

Data from Behavioral Health Region 1 Nebrask Risk and Protective Factors Student Survey; Prepared by Kelsey Irvine, Panhandle Public Health District

Smokeless Tobacco Use among Youth

Past 30 day smokeless tobacco use in Panhandle youth (see Figure 23) has remained fairly consistent over the year. However, lifetime smokeless tobacco use among Panhandle Youth (see Figure 24) has showed a trend downward similar to that as lifetime cigarette use.

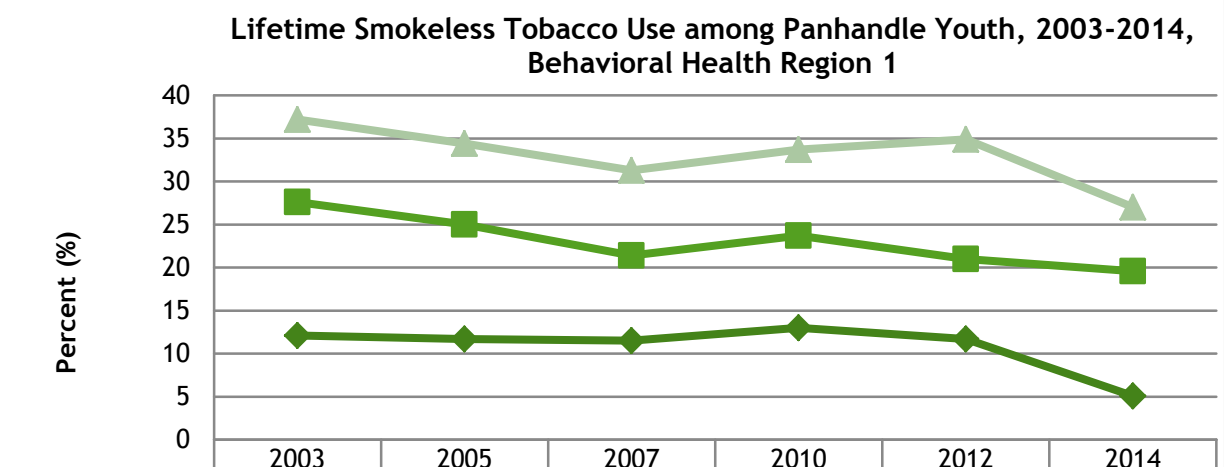
Figure 23. Past 30 day smokeless tobacco use among Panhandle youth, 2003-2014, Behavioral Health Region 1



	2003	2005	2007	2010	2012	2014
8th Grade	3.8	4.2	5.2	5	4.8	2.2
10th Grade	12.2	12.2	10.9	12.4	10.4	12.1
12th Grade	16.6	15.8	18	17.1	18.1	15.8

Data from Behavioral Health Region 1 Nebrask Risk and Protective Factors Student Survey; Prepared by Kelsey Irvine, Panhandle Public Health District

Figure 24. Lifetime smokeless tobacco use among Panhandle youth, 2003-2014, Behavioral Region 1



	2003	2005	2007	2010	2012	2014
8th Grade	12.1	11.7	11.5	13	11.7	5.1
10th Grade	27.6	25	21.4	23.7	21	19.6
12th Grade	37.2	34.4	31.3	33.7	34.9	27

Data from Behavioral Health Region 1 Nebrask Risk and Protective Factors Student Survey; Prepared by Kelsey Irvine, Panhandle Public Health District

Goas

- Increase the number of adults ages 50-75 who are up-to-date on colon cancer screening in the Panhandle of Nebraska.
- Increase the number of females ages 50-74 who are up-to-date on breast cancer screening in the Panhandle of Nebraska.
- Increase the number of adults ages 21-65 who are up-to-date on cervical cancer screening in the Panhandle of Nebraska.
- Reduce the number of females with human papillomavirus (HPV) infection.
- Reduce illness, disability, and death related to tobacco use and secondhand smoke exposure.

Objectives

Objective 2.1: Increase the proportion of adults who were counseled about cancer screening consistent with current guidelines (Healthy People 2020: C-18)

Baseline:	Colon Cancer - 58.3% (2015) Breast Cancer - 59.8% (2015) Cervical Cancer - 76.5% (2015)
Target (2020):	Colon Cancer - 64% Breast Cancer - 65.7% Cervical Cancer - 84%
Target-Setting Method:	10% improvement

Data Source:	Nebraska Behavioral Risk Factor Surveillance system (BRFSS)
Indicator	Colon Cancer - Percentage of adults 50-75 years old who reported having had a fecal occult blood test (FOBT) during the past year, or a sigmoidoscopy during the past 5 years and an FOBT during the past 3 years, or a colonoscopy during the past 10 years. Breast Cancer - Percentage of females 50-74 years old who report they are up-to-date on breast cancer screening. Cervical Cancer - Percentage of females 21-65 years old who report they are up-to-date on cervical cancer screening.

Objective 2.2 Reduce the proportion of females with human papillomavirus (HPV) infection (Healthy People 2020: STD-9)

Baseline:	9.4 new cervical cancer cases, 2009-2013 combined
Target (2020):	8.5 new cervical cancer cases
Target-Setting Method:	10% improvement
Data Source:	Nebraska Vital Records
Indicator	Cervical Cancer Incidence

Objective 2.3 Reduce tobacco use by adults (Healthy People 2020 TU-1)

Baseline:	Cigarette Smoking – 19% (2015) Smokeless Tobacco – 7.6% (2015)
Target (2020):	Cigarette Smoking – 17.1% Smokeless Tobacco – 6.8%
Target-Setting Method:	10% improvement
Data Source:	Nebraska Behavioral Risk Factor Surveillance system (BRFSS)
Indicator	Percentage of adults 18 and older who report that they currently smoke cigarettes either every day or on some days. Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS)

Strategies

Evidence-based strategies were selected to address this objective. Specific activities can be found in the CHIP Annual Work Plan:

- Cancer Screening: Multicomponent Interventions—Colorectal Cancer (Source: The Community Guide)

- Cancer Screening: Multicomponent Interventions—Breast Cancer (Source: The Community Guide)
- Cancer Screening: Multicomponent Interventions—Cervical Cancer (Source: The Community Guide)
- Vaccination Programs: Community-Based Interventions Implemented in Combination (Source: The Community Guide)
- Tobacco Use and Secondhand Smoke Exposure: Quitline Interventions (Source: Community Preventive Services Task Force)
- Tobacco Use and Secondhand Smoke Exposure: Smoke-Free Policies (Source: Community Preventive Services Task Force)

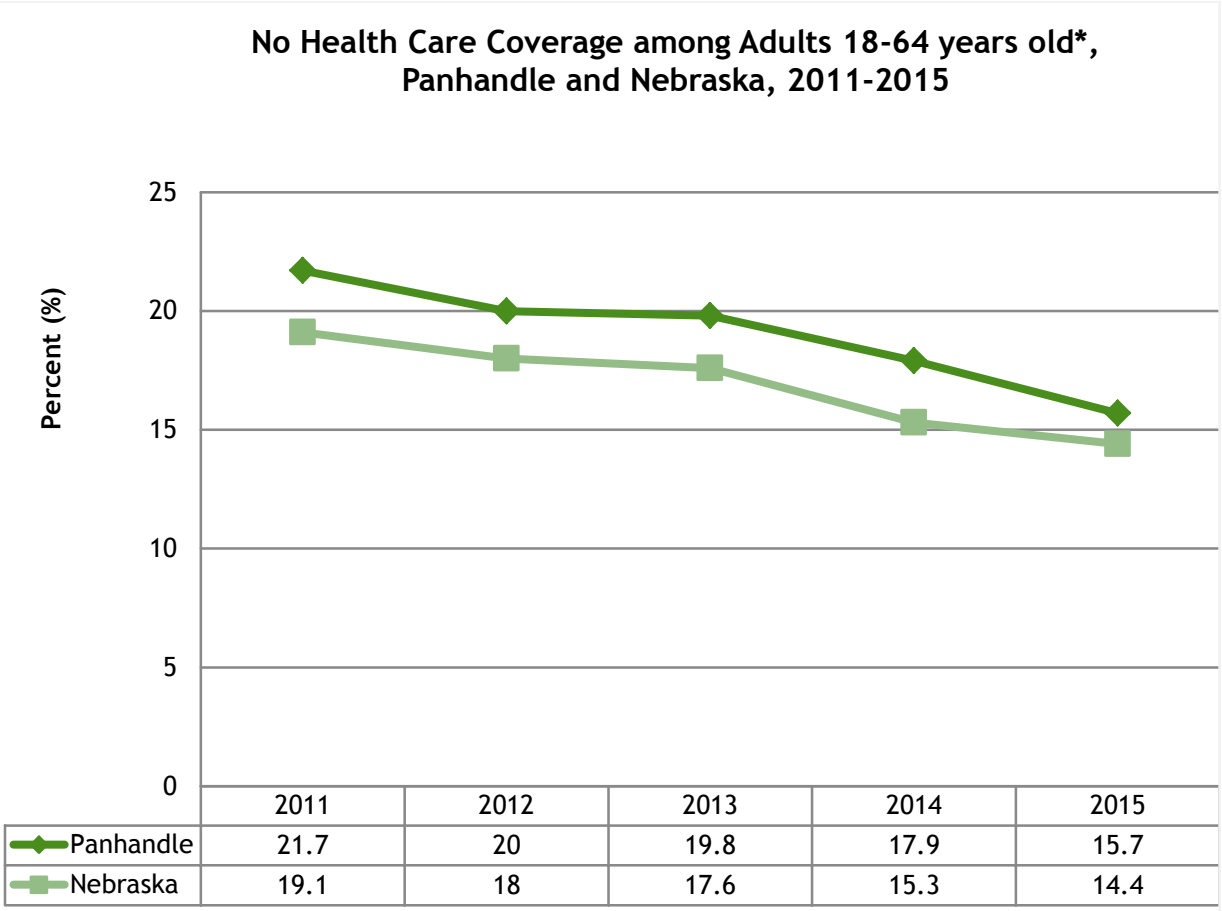
Priority Area 3: Access to Care

About

Healthcare Coverage

From 2011 to 2015, the Panhandle has consistently had a slightly higher percentage of individuals that report they do not have health insurance. This difference was not significant for any year. However, this number has dropped from year to year, with only 15.7% of Panhandle adults reporting that they do not have health insurance in 2015. This drop is likely due to the initiation of health insurance exchanges, a part of the Affordable Care Act that came into effect in October of 2013.

Figure 25. No health care coverage among adults 18-64 years old, Panhandle and Nebraska, 2011-2015



	2011	2012	2013	2014	2015
Panhandle	21.7	20	19.8	17.9	15.7
Nebraska	19.1	18	17.6	15.3	14.4

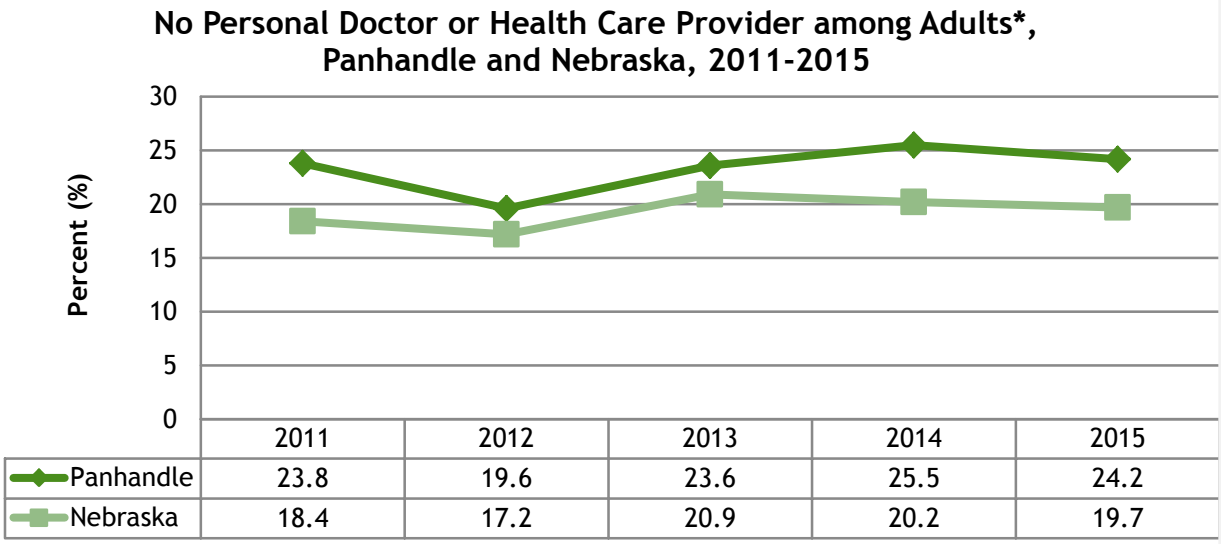
*Percentage of adults 18-64 years old who reoprt that they do not have any kind of health care coverage. Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey Irvine, Panhandle Public Health District

Barriers to Healthcare

Lacking a Personal Healthcare Provider

Adults in the Panhandle consistently report they do not have a doctor or health care provider at a higher rate than the rest of the state, with significant differences in 2011, 2014, and 2015 (see Figure 26). This percentage appears to have an upward trend in recent years.

Figure 26. No personal doctor or health care provider among adults, Panhandle and Nebraska, 2011-2015

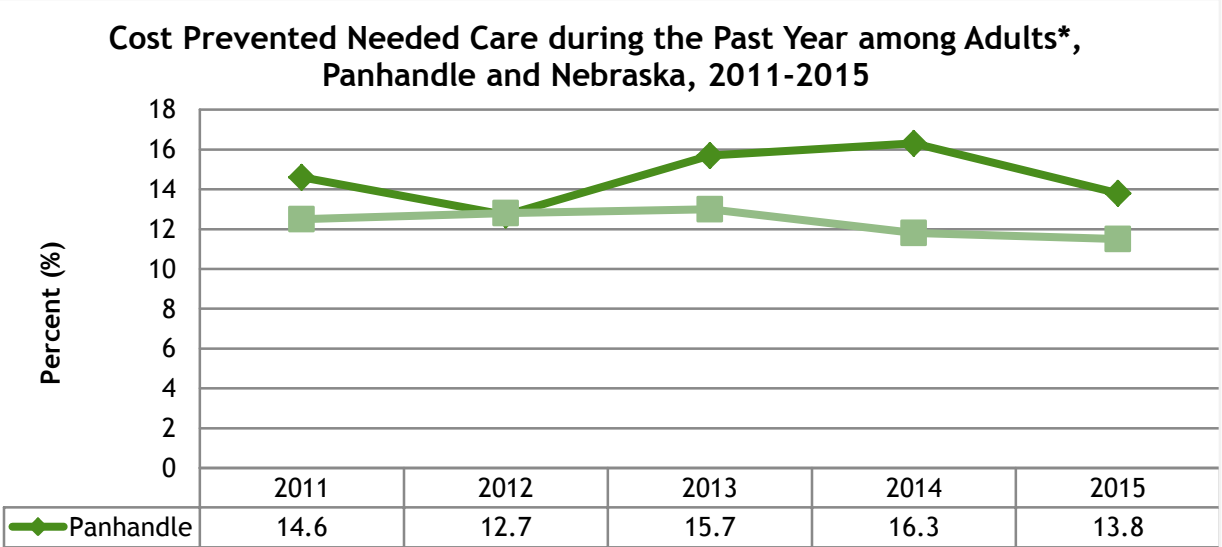


	2011	2012	2013	2014	2015
Panhandle	23.8	19.6	23.6	25.5	24.2
Nebraska	18.4	17.2	20.9	20.2	19.7

*Percentage of adults 18 and older who report that they do not have a personal doctor or health care provider. Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey Irvine, Panhandle Public Health District

Cost as a Barrier to Care

Figure 27. Cost prevented needed care during the past year among adults, Panhandle and Nebraska, 2011-2015



	2011	2012	2013	2014	2015
Panhandle	14.6	12.7	15.7	16.3	13.8
Nebraska	12.5	12.8	13	11.8	11.5

*Percentage of adults 18 and older who report that they needed to see a doctor but could not because of cost in the past 12 months. Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey Irvine, Panhandle Public Health District

In 2015, 13.8% of Panhandle adults reported that they needed to see a doctor but could not because of cost in the past 12 months (see Figure 27). This number has historically been higher than the state, however trended down between 2014 and 2015. The difference between the Panhandle and the State was significant only in 2014.

Shortage Area Designations

Access to health care services (physical, mental, and dental) varies across the state, with rural areas generally having fewer resources than metropolitan areas. Specialists are especially scarce in rural areas.

Not only is the Panhandle rural, but it has an aging population. People tend to utilize health care services more as they age, which can be an issue in a rural area.

Shortage area maps exist for Nebraska for three health care areas: Family Practice, General Dentistry, and Psychiatry and Mental Health.

Family Practice

Outside of Scotts Bluff County, all other Panhandle counties are designated shortage areas for family practice (see Figure 28).

General Dentistry

Scotts Bluff, Box Butte, Garden, and Deuel Counties are not shortage areas for general dentistry. Every other Panhandle county is designated as a shortage area (see Figure 29).

Psychiatry and Mental Health

The entire Panhandle area is designated as a shortage area for psychiatry and mental health. Only the metropolitan areas of Douglas/Sarpy Counties and Lancaster County are not shortage areas for psychiatry and mental health (see Figure 30).

Figure 28. State-Designated Shortage Area, Family Practice

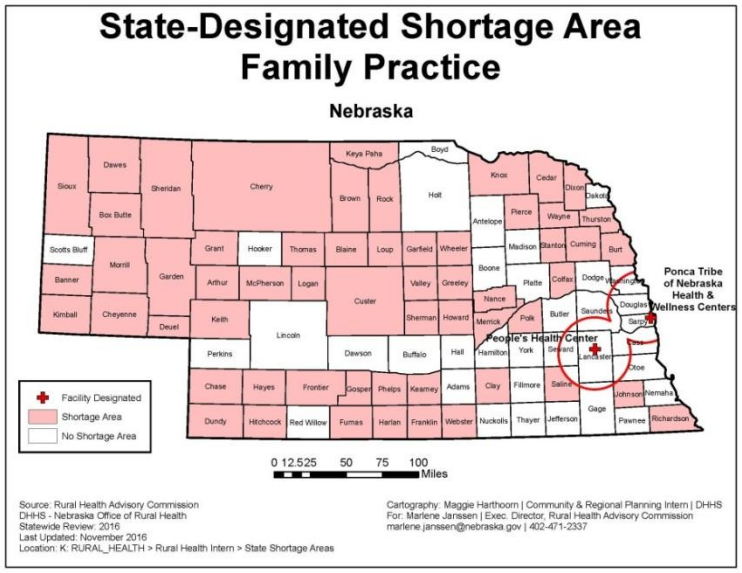


Figure 29. State-Designated Shortage Area, General Dentistry

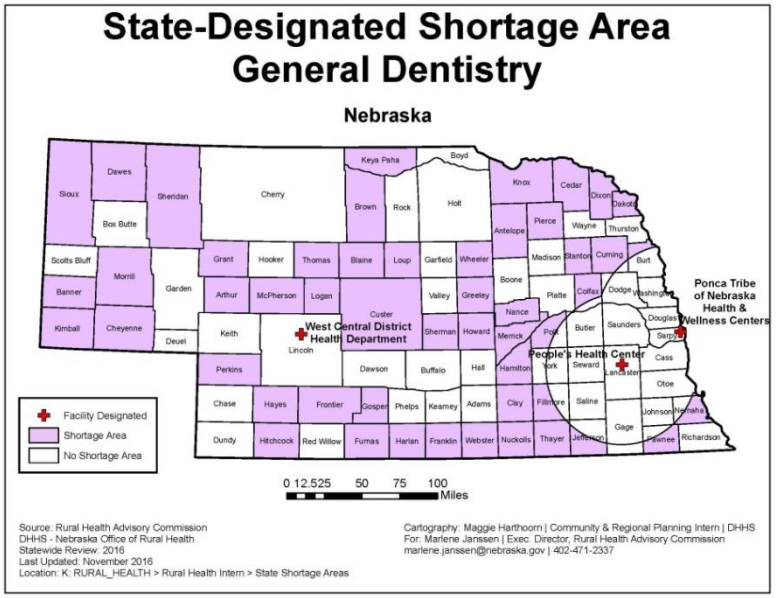


Figure 30. State-Designated Shortage Area, Psychiatry and Mental Health

Licensed Hospital Beds

The Panhandle region has 135 licensed long-term beds in its hospitals, and 275 acute beds (see Table 9).

Table 9. Number of licensed beds in Panhandle hospitals

Hospitals	Licensed Beds	
	Acute	Long term
Regional West Medical Center	130	0
Box Butte General Hospital	25	0
Sidney Regional Medical Center	25	63
Garden County Health Services	10	40
Kimball Health Services	15	0
Morrill County Community Hospital	20	0
Gordon Community Hospital	25	32
Chadron Community Hospital	25	0
TOTAL	**275**	**135**

Goal

- Improve access to comprehensive, quality health care services.

Objectives

Objective 3.1: Reduce the proportion of persons who are unable to obtain or delay in obtaining necessary medical care (Healthy People 2020: AHS-6.2)

Baseline:	13.8%
Target (2020):	12.4%
Target-Setting Method:	10% decrease
Data Source:	Nebraska Behavioral Risk Factor Surveillance system (BRFSS)
Indicator	Percentage of adults 18 and older who report that they needed to see a doctor but could not because of cost in the past 12 months.

Strategies

Evidence-based strategies were selected to address this objective. Specific activities can be found in the CHIP Annual Work Plan:

- Reducing Structural Barriers for Clients (Colorectal Cancer, Breast Cancer, Cervical Cancer) (Source: The Community Guide)

Priority Area 4: Behavioral Health

About

Mental illness is a variety of mental disorders, or conditions that are characterized by a difference in mood, thinking, or behavior, linked to impaired functioning or distress. Depression is the leading type of mental illness, impacting more than 26% of the US adult population. Research indicates that mental disorders are strongly associated with the occurrence and treatment of many chronic diseases, such as diabetes, cancer, cardiovascular disease, asthma, and obesity, as well as with many risk factors for chronic disease (physical inactivity, smoking, drinking, etc.).[19]

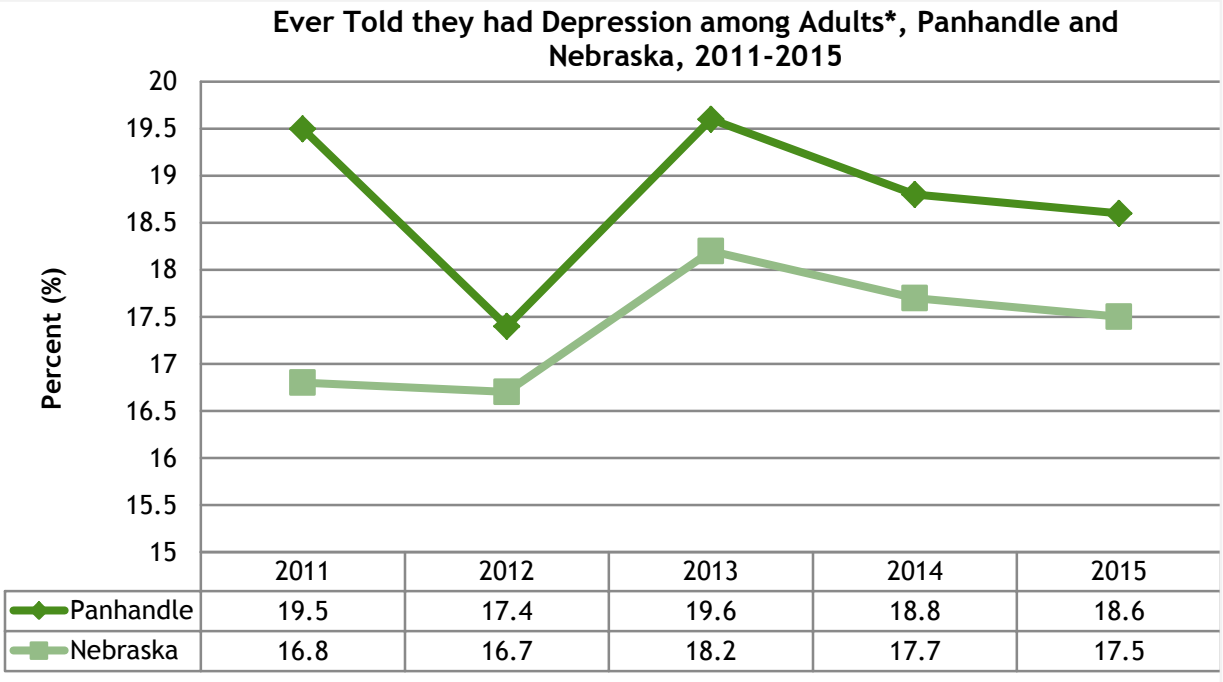
Mental Illness

Mental Illness among Adults

Figure 31 shows the percentage of adults in the Panhandle and state who report ever being told they had depression. The percentage of adults reporting depression in the Panhandle is consistently higher than that of the state, however the difference has never been significant. From 2013 to 2015 this percentage has been trending down.

The percentage of adults who report frequent mental distress (see Figure 32) was trending down, but had an upward tick from 2014 to 2015. The percentage of adults reporting frequent mental distress in the Panhandle has consistently been slightly higher than that of the state of Nebraska.

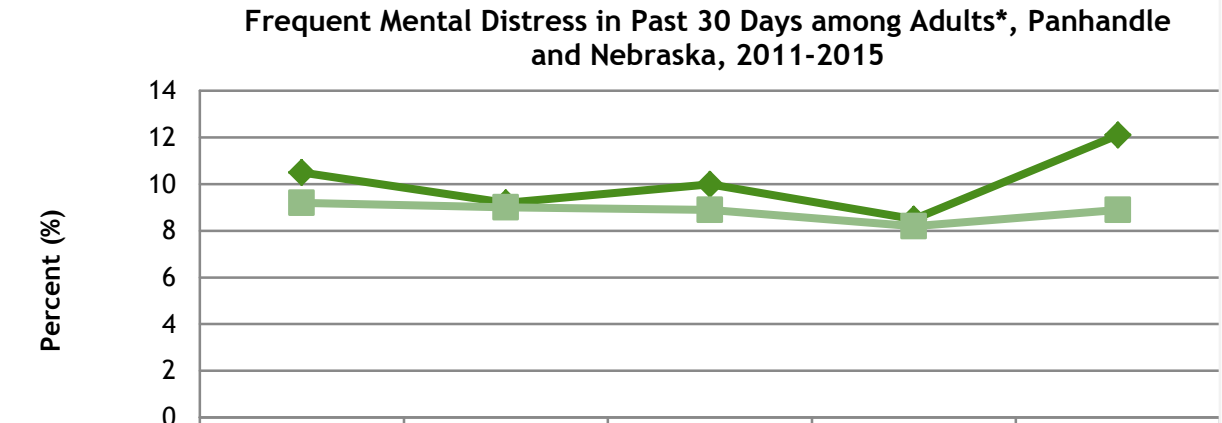
Figure 31. Adults with depression, Panhandle and Nebraska, 2011-2015



	2011	2012	2013	2014	2015
Panhandle	19.5	17.4	19.6	18.8	18.6
Nebraska	16.8	16.7	18.2	17.7	17.5

*Percentage of adults 18 and older who report that they have ever been told by a doctor, nurse, or other health professional that they have a depressive disorder (depression, major depression, dysthymia, or minor depression). Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey Irvine, Panhandle Public Health District

Figure 32. Frequent mental distress in past 30 days among adults, Panhandle and Nebraska, 2011-2015



	2011	2012	2013	2014	2015
Panhandle	10.5	9.2	10	8.5	12.1
Nebraska	9.2	9	8.9	8.2	8.9

*Percentage of adults 18 and older who report that their mental health (including stress, depression, and problems with emotions) was not good on 14 or more of the previous 30 days. Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey Irvine, Panhandle Public Health District

Goal

- Improve mental health through prevention and by ensuring access to appropriate, quality mental health services.

Objectives

Objective 4.1: Increase depression screening by primary care providers (Healthy People 2020: MHMD-11)

There are no regional data points that measure this objective. Data for this objective will be developed throughout the cycle of this CHIP.

Objective 4.2: Increase understanding, recognition, and response to the effects of all types of trauma

There are no regional data points that measure this objective. Data for this objective will be developed throughout the cycle of this CHIP.

Strategies

Evidence-based strategies were selected to address this objective. Specific activities can be found in the CHIP Annual Work Plan:

- Mental Health and Mental Illness: Collaborative Care for the Management of Depressive Disorders (Source: Community Preventive Services Task Force)
- Suicide Risk: Screening in Adolescents, Adults, and Older Adults (Source: United States Preventive Services Task Force)

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