Community Health Improvement Plan

Chadron Community Hospital and Health Services

December 2017-December 2020

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Message from Chadron Community Hospital and Health Services

Chadron Community Hospital and Health Services is committed to serving the community and enhancing the quality of life for individuals, families and communities we serve. Our goal is to better understand the range of issues impacting our community's health. In order to maximize these efforts and better align our resources, every three years we do a comprehensive community assessment to identify the unique health needs of the populations we serve.

The Rural Nebraska Healthcare Network worked with the Panhandle Public Health District to complete the following publication Community Health Needs Assessment, which thoroughly outlines the most pressing health concerns of the communities served by Chadron Community Hospital, and our strategies to address these concerns moving forward. Compiled from several months of research, this document offers an insightful and detailed analysis of our service areas using quantitative data and significant input from a diverse group of residents, health experts and organizations representing a broad cross-section of our region. This report aligns with the priorities of the regional Panhandle Community Health Improvement Plan, December 2017-December 2020, and serves as an invaluable resource for the entire panhandle as we create healthier communities and redefine standards of care.

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 a privilege to serve our region as a leading health care provider. We look forward to many years of delivering high quality health care and wellness services to you and your family with compassionate, extraordinary care every day for a healthier tomorrow.

Anna Turman,

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 September and October, 2017. The priority areas the hospital decided to focus on are:

- **Mental Health & Substance Abuse**, and
- **Chronic Disease Prevention**, with a focus on Obesity.

With the goal of **Focusing on Lifespan Wellness** across both priority areas**.**

The hospital is also an active part of Dawes County Joint Planning, a community development group, and continues to advocate for and support the community in addressing the following social determinants of health:

- Expanded, improved, affordable housing
- Recruitment, retention, and development of the workforce
- Focusing on lifespan wellness
- Neighborhood Community Rehabilitation
- Economic and tourism development
- Hospitality
- Citizen engagement and leadership
- Efficient Physical Connection – Transportation
- Quality care and education for children

These have been identified by the larger community as priority areas, and may be incorporated in the CHIP as annual evaluations are completed and inclusion seems appropriate.

Priority Area 1: Mental Health & Substance Abuse

About

Mental Health and Suicide

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.).[1]

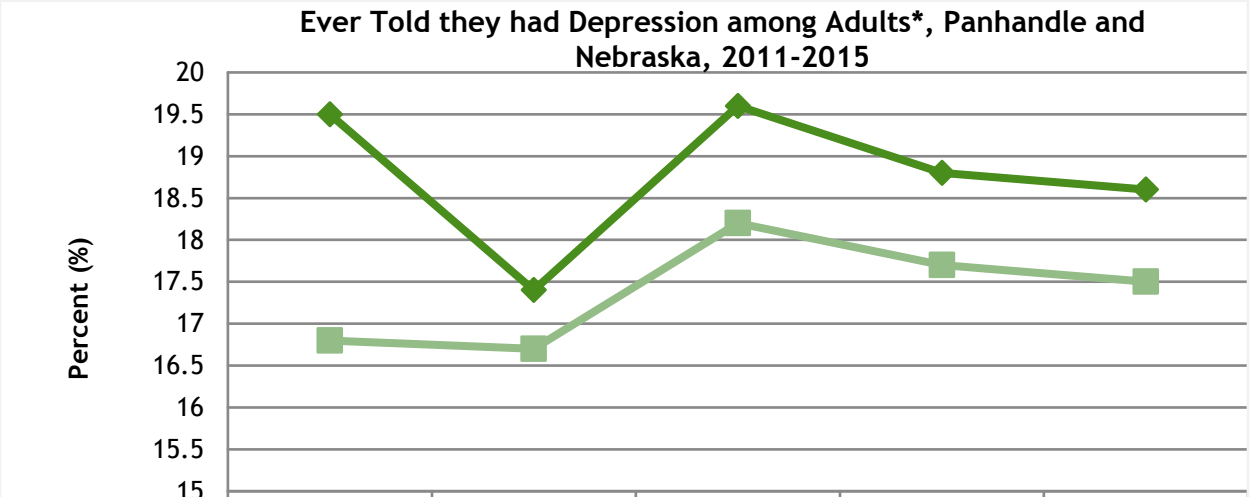
Mental Illness

Mental Illness among Adults

Figure 1 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 2) 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.

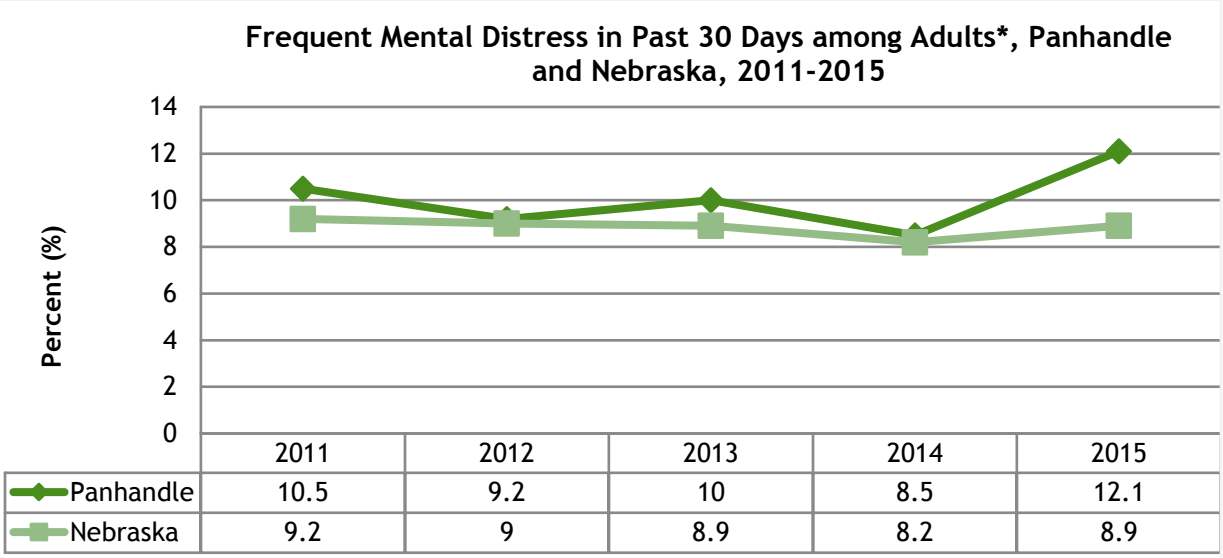
Figure 1. Adults with depression, Panhandle and Nebraska, 2011-2015



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



*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

Suicide

Death due to Suicide

Number and rate of deaths from suicide can be found in Tables 1 and 2. The number of deaths from suicide in the Panhandle increased from approximately 2005 to 2011, and has remained between about 40 and 46 per year since. The suicide death rate per 100,000 population has steadily increased.

Table 1. Number of deaths from suicide, Panhandle and Nebraska, 2005-2015

	2005-2007	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015
Nebraska	564	573	542	547	540	602	636	702	691
Panhandle	32	38	41	42	43	39	46	40	44

Source: Nebraska Vital Records

Table 2. Suicide 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	10.6	10.6	10.0	10.0	9.8	10.8	11.4	12.5	12.2
Panhandle	11.9	13.5	14.4	14.3	15.0	14.2	17.9	15.9	17.5

Source: Nebraska Vital Records

Substance Abuse

Substance abuse includes the use of alcohol, illicit drugs, or misuse of over-the-counter or prescribed medications.

Alcohol Misuse

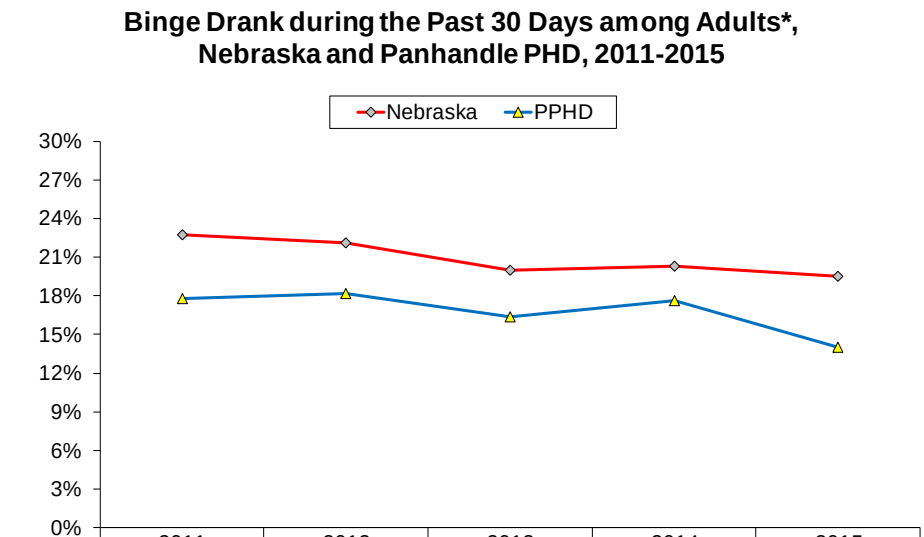
Misuse of alcohol includes underage drinking and binge drinking. Binge drinking is drinking 5 or more drinks in one occasion for men or 4 or more drinks in one occasion for women. Misuse of alcohol can contribute to increased health problems, such as injuries, violence, liver diseases, and cancer.[2]

Alcohol Use among Adults

Binge Drinking among Adults

Nebraska is known for its high rate of binge drinking. However, the Panhandle has a lower rate of binge drinking compared to the state (see Figure 3).

Figure 3. Binge drank during the past 30 days among adults, Nebraska and Panhandle, 2011-2015



	2011	2012	2013	2014	2015
Nebraska	22.7	22.1	20.0	20.3	19.5
PPHD	17.8	18.2	16.4	17.6	14.0

*Percentage of adults 18 and older who report having five or more alcoholic drinks for men/four or more alcoholic drinks for women on at least one occasion during the past 30 days
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Alcohol Impaired Driving among Adults

The percentage of adults in the Panhandle that reported driving while under the influence of alcohol was lower than or equal to that of the state in 2013 and 2015 (see Table 3).

Table 3. Alcohol impaired driving in past 30 days among adults, Panhandle and Nebraska, 2013-2015

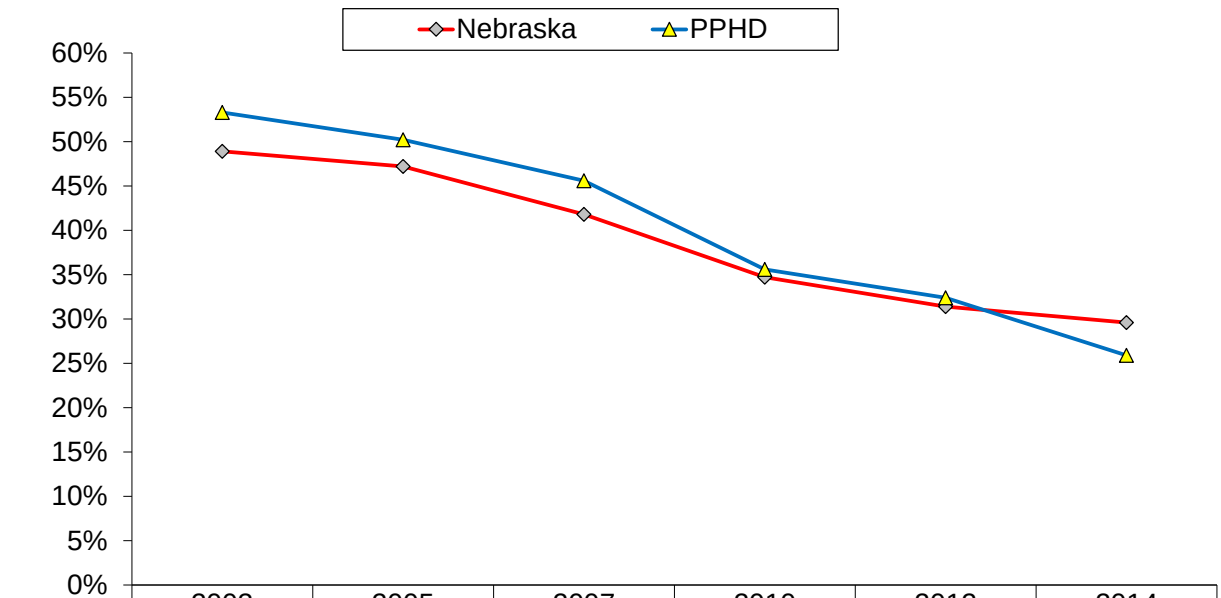
	2013	2015
Panhandle	2.5%	2.5%
Nebraska	3.4%	2.5%

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

Alcohol Use among Youth

Past month alcohol use among 12th graders in the Panhandle has decreased drastically from 2003 to 2014 (see Figure 4). From 2003 to 2012, the Panhandle had a higher percentage of 12th graders reporting that they used alcohol within the past month compared to the state. In 2014, the Panhandle dropped below the state.

Figure 4. Past month alcohol use among 12th grade high school students, Nebraska and Panhandle, 2003-2014



	2003	2005	2007	2010	2012	2014
Nebraska	48.9	47.2	41.8	34.7	31.4	29.6
PPHD	53.3	50.2	45.6	35.6	32.4	25.9

*Percentage of 12th grade high school students who reported drinking alcohol on one or more of past 30 days
**Data represent responding students, and are not intended to represent all students statewide
Source: Nebraska Risk and Protective Factor Student Survey (NRPFSS)

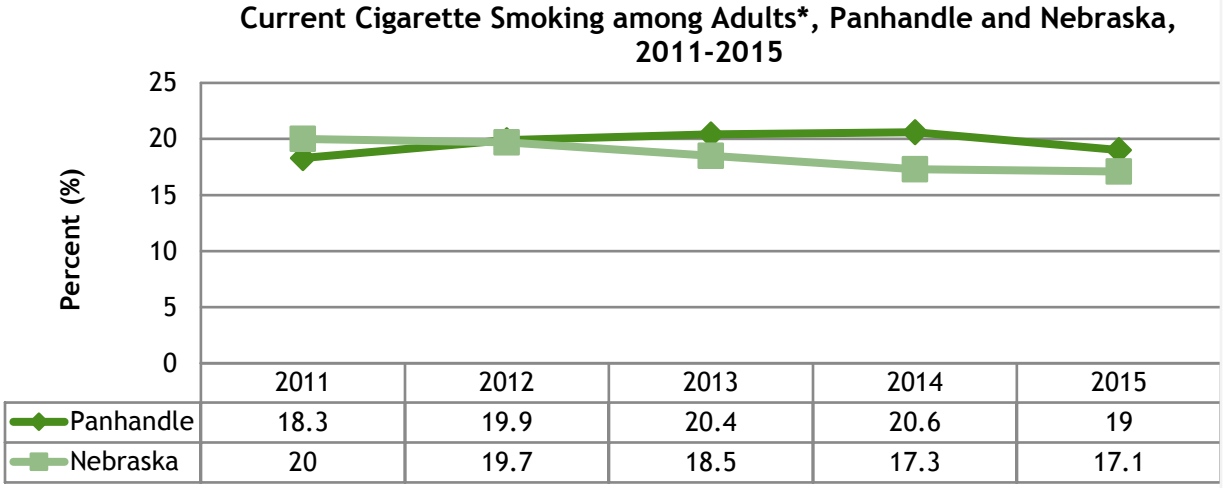
Tobacco Use

Tobacco use is the number one leading cause of preventable death, disease, and disability in the United States.[3] Approximately 75,000 Nebraskans suffer from at least one serious disease that can be attributed to smoking.[4] 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.[3,4]

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 54). 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 5).

Figure 5. 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

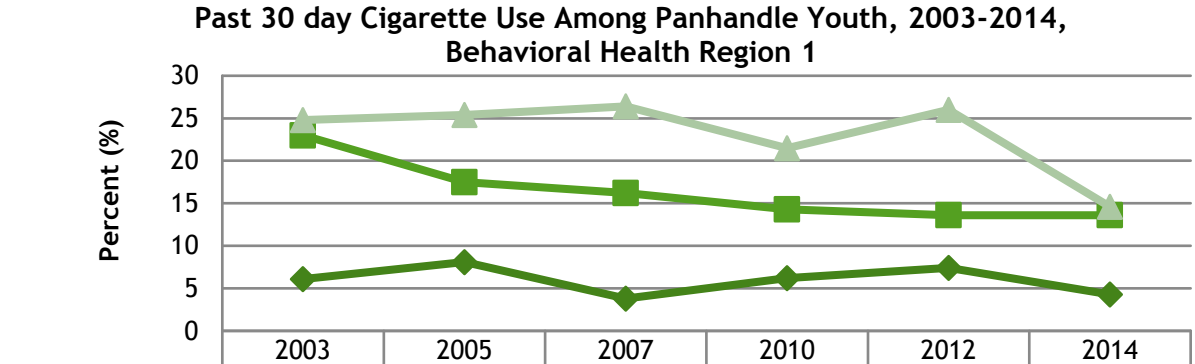
*Percentage of adults 18 and older who report that they currently smoke cigarettes either every day or on some days. Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey Irvine, Panhandle Public Health District

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 56). Past 30 day use in Panhandle 8th graders has remained relatively unchanged. Lifetime cigarette use for Panhandle youth (see Figure 6), has a clear downward trend in all grades, indicating that initiation of cigarette smoking is decreasing in youth.

Figure 6. 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 Nebraska Risk and Protective Factors Student Survey; Prepared by Kelsey Irvine, PPHD

Goal

- Reduce the amount of adults in the Panhandle that suffer from mental illness and substance abuse disorders.

Objectives

Objective 1.1:	Reduce the proportion of persons engaging in binge drinking during the past 30 days—adults aged 18 years and older (HP 2020 SA-14.3)
Baseline:	14% in 2015
Target (2020):	13.6%
Target-Setting Method:	10% improvement
Data Source:	Nebraska BRFSS
Indicator	Percentage of adults who report having five or more alcoholic drinks for men/four or more alcoholic drinks for women on at least one occasion during the past 30 days
Objective 1.2:	Reduce the proportion of persons engaging in binge drinking during the past month—adolescents aged 12 to 17 years
Baseline:	Grade 10: 8.9% in 2016 Grade 12: 17.3% in 2016
Target (2020):	Grade 10: 8.0% Grade 12: 15.6%
Target-Setting Method:	10% improvement
Data Source:	Nebraska Risk and Protective Factors Student Survey for Region 1
Indicator	Percentage who reported binge drinking one or more times during the past 30 days
Objective 1.3:	Reduce cigarette smoking by adults (HP 2020 TU-1.1)
Baseline:	19% in 2015
Target (2020):	17.1%
Target-Setting Method:	10% improvement
Data Source:	Nebraska BRFSS
Indicator	Percentage of adults who report they currently smoke cigarettes either every day or on some days
Objective 1.4:	Reduce use of cigarettes by adolescents (past month) (HP 2020 TU-2.2)
Baseline:	Grade 10: 9.2% in 2016 Grade 12: 14.3% in 2016
Target (2020):	Grade 10: 8.3% Grade 12: 12.9%
Target-Setting Method:	10% improvement
Data Source:	Nebraska Risk and Protective Factor Student Survey for Region 1
Indicator	Percentage who reported using cigarettes on or more time during the past 30 days

Objective 1.5:	Reduce the suicide rate (HP 2020 MHMD-1)
Baseline:	17.5 deaths per 100,000 persons (age-adjusted), 2013-2015 combined
Target (2020):	15.8 deaths per 100,000 persons (age-adjusted)
Target-Setting Method:	10% improvement
Data Source:	Nebraska Vital Statistics
Indicator	Suicide death rate per 100,000 persons (age-adjusted) in the Panhandle

Strategies

Evidence-based strategies based on reduction of alcohol use, integrative care, decreasing tobacco use, community support, and parenting classes were selected:

- Communities Mobilizing for Change on Alcohol (CMCA)
- Tobacco Use and Secondhand Smoke Exposure: Comprehensive Tobacco Control Programs
- Integrated Care
- Circle of Security
- Love and Logic
- Families and Schools Together (FAST)

Priority Area 2: Chronic Disease Prevention

Focus on Obesity

About

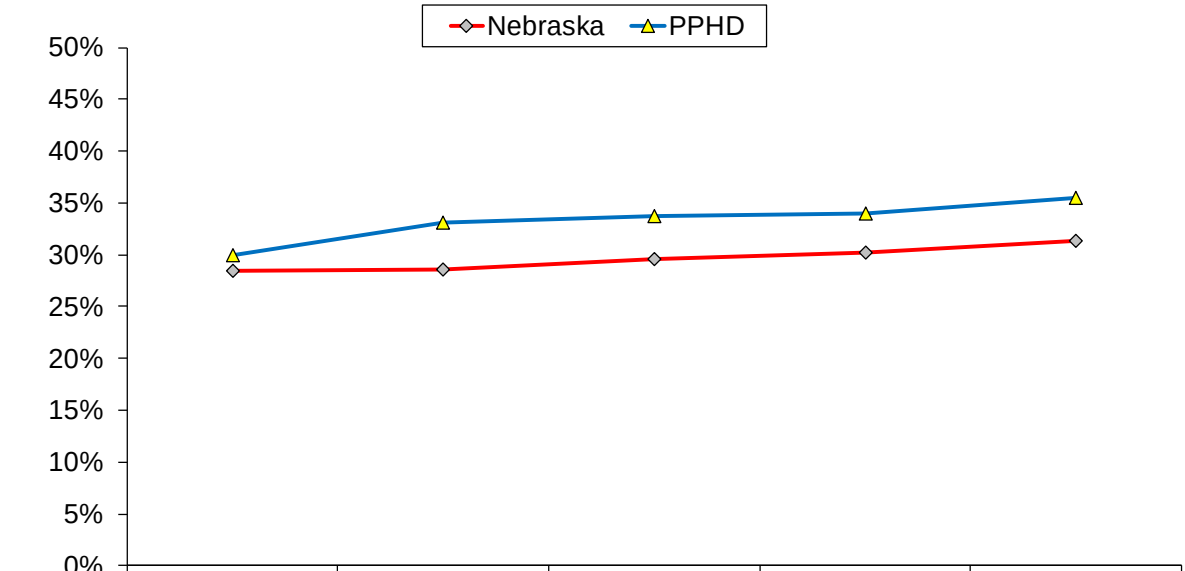
Obesity

Adult obesity is defined as a BMI of 30 or higher.[5] More than one third of adults in the US are obesity. Obesity can contribute to conditions such as heart disease, stroke, type 2 diabetes, and cancer.[6]

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 7).

Figure 7. 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

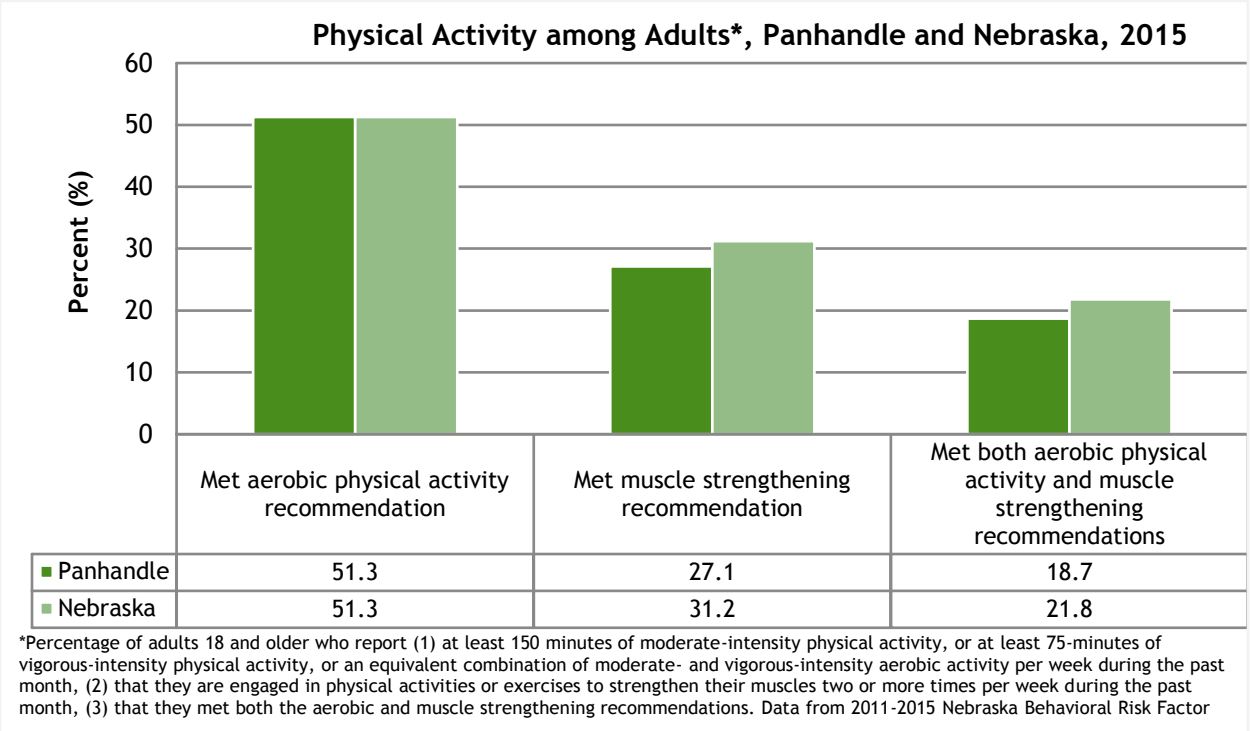
*Percentage of adults 18 and older with a body mass index (BMI) of 30.0 or greater, based on self-reported height and weight
Source: Behavioral Risk Factor Surveillance System (BRFSS)

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 8. 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 8. 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

Cardiovascular Disease

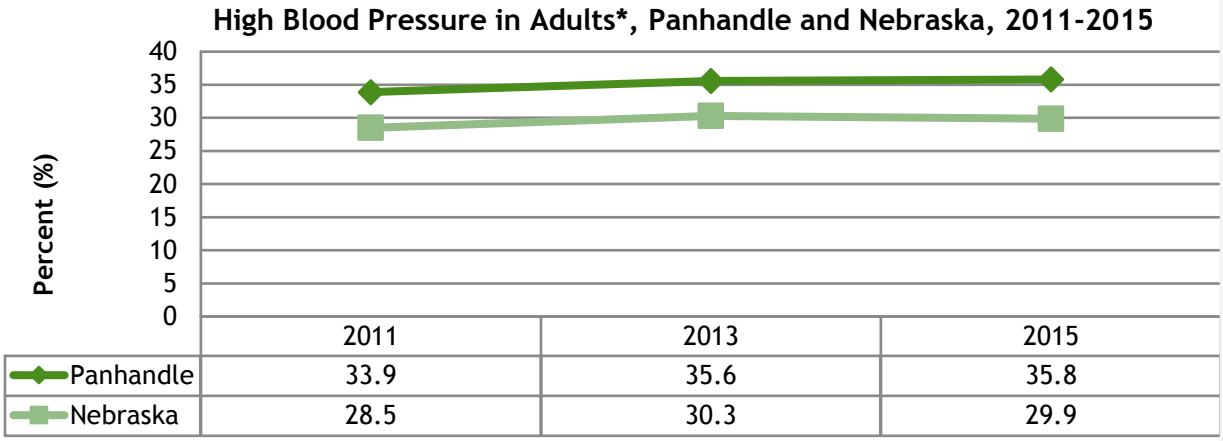
Cardiovascular diseases (CVD) are the number one cause of death across the world.[7] Cardiovascular diseases "are a group of disorders of the heart and blood vessels", they include: coronary heart disease, cerebrovascular disease, peripheral arterial disease, rheumatic heart disease, congenital heart disease, deep vein thrombosis and pulmonary embolism.[7] Risk factors for cardiovascular diseases include: unhealthy diet, physical inactivity, tobacco use, and harmful use of alcohol. Clinical risk factors for cardiovascular disease include high blood pressure and high blood cholesterol.

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.[8]

The Panhandle historically has a higher percentage of adults that report they have high blood pressure compared with the state of Nebraska (see Figure 9). The difference between the two is significant in each year measured.

Figure 9. 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

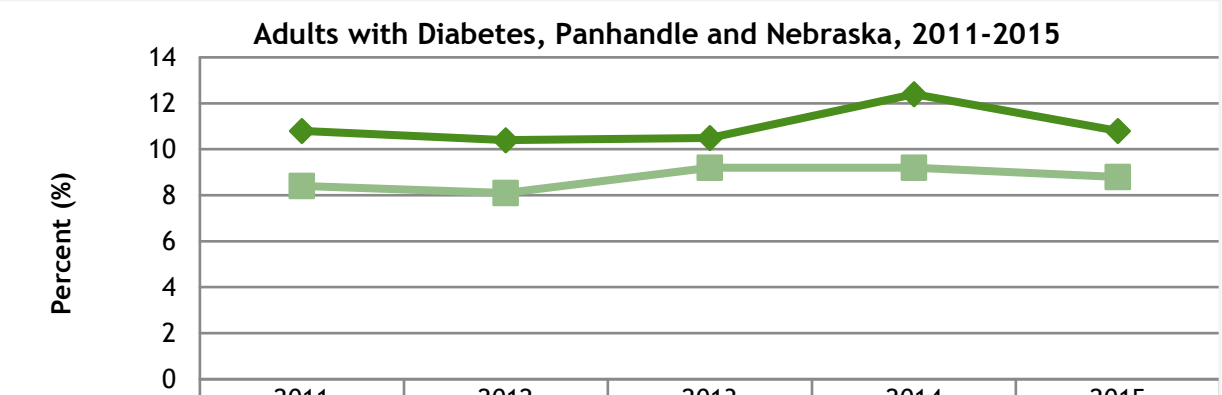
*Percentage of adults 18 and older who report they were ever told by a doctor, nurse, or other health professional that they have high blood pressure. NOTE: This indicator is measured on only odd years. Data from 2011-2015 Nebraska Behavioral Risk Factor Surveillance System (BRFSS); Prepared by Kelsey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

Diabetes

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.[9]

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.[9]

Figure 10. Adults with diabetes, Panhandle and Nebraska, 2011-2015



	2011	2012	2013	2014	2015
Panhandle	10.8	10.4	10.5	12.4	10.8
Nebraska	8.4	8.1	9.2	9.2	8.8

*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 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 10). There was a slight uptick in the percentage of adults who reported having diabetes in 2014, which then decreased in 2015.

Goal

- Decrease the amount of Panhandle adults with cardiovascular disease and diabetes, and other chronic illness for which obesity is a risk factor.

Objectives

Objective 2.1:	Reduce the proportion of adults who are obese (HP 2020 NWS-9)
Baseline:	35.5% in 2015
Target (2020):	32.0%
Target-Setting Method:	10% improvement
Data Source:	Nebraska BRFSS
Indicator	Adults who with a body mass index (BMI) of 30 or higher, based on self-reported height and weight
Objective 2.2:	Increase the percentage of Panhandle adults who meet the objectives for aerobic physical activity and muscle strengthening activity (HP 2020 PA-2.4)
Baseline:	18.7% in 2015
Target (2020):	20.57%
Target-Setting Method:	10% improvement
Data Source:	Nebraska BRFSS
Indicator	Adults who report they met both aerobic physical activity and muscle strengthening recommendations
Objective 2.3:	Reduce the annual number of new cases of diagnosed diabetes in the population (HP 2020 D-1)
Baseline:	10.8% in 2015
Target (2020):	9.0%
Target-Setting Method:	10% improvement
Data Source:	Nebraska BRFSS
Indicator	Adults who report they were ever told they have diabetes (excluding pregnancy)
Objective 2.4:	Reduce the proportion of adults with hypertension (HP 2020 HDS-5.1)
Baseline:	35.8% in 2015
Target (2020):	32.2%
Target-Setting Method:	10% improvement
Data Source:	Nebraska BRFSS
Indicator	Adults who report they were ever told by a doctor, nurse, or other health professional that they have high blood pressure.

Strategies

Evidence-based strategies based on nutrition, physical activity, team-based care, and prescription drug assistance were selected:

- Diabetes: Combined Diet and Physical Activity Promotion Programs to Prevent Type 2 Diabetes Among People at Increased Risk (National Diabetes Prevention Program)
- Diabetes Management: Team-Based Care for Patients with Type 2 Diabetes
- Cardiovascular Disease: Team-Based Care to Improve Blood Pressure Control
- Cardiovascular Disease: Reducing Out-of-Pocket Costs for Cardiovascular Disease Preventive Services for Patients with High Blood Pressure and High Cholesterol

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