State Health Assessment: Nebraska

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State Health Assessment: Nebraska

Prepared by:

Nebraska Department of Health and Human Services, Division of Public Health

Office of Community Health and Performance Management

September 2016

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DEPT. OF HEALTH AND HUMAN SERVICES

Nebraska Division of Public Health

P.O. Box 95026
301 Centennial Mall South
Lincoln, NE 68509
(402) 471-2353
www.dhhs.ne.gov/publichealth

Prepared by the
Division of Public Health
Office of Community Health and Performance Management
(402) 471-2353

To obtain this document in an alternate format,
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Note

The assessment results were completed in December 2015 and guide the development of the Nebraska State Health Improvement Plan (SHIP) and the Department of Health and Human Services, Division of Public Health Strategic Plan.

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State Health Assessment: Nebraska Summary Report

Purpose of the Assessment

The purpose of the State Health Assessment (SHA) is to serve as the foundation for setting statewide public health priorities. The 2017-2021 Nebraska State Health Improvement Plan (SHIP) will establish statewide public health priorities. Ultimately, the goal is to strengthen public health system partnerships, which will lead to better coordination of services and resources with less duplication, and increase the appreciation and awareness of public health services. This comprehensive assessment process is critical to assure that we are taking a data-driven approach to setting state performance measures to continuously improve health in Nebraska. Additionally, the assessment process better prepares the entire Nebraska public health system to anticipate, manage, and respond to changes.

While Nebraska can be proud that we are the tenth healthiest state in the country (United Health Foundation, America's Health Rankings, 2015), we are striving to do better. A thorough assessment of our health needs/gaps along with collaborative planning to establish the next State Health Improvement Plan will be critical steps to making Nebraska the healthiest state in the country.

The State Health Assessment is conducted every five years. In 2011, the Division of Public Health completed a similar needs assessment process which served as the foundation for the current 2013-2016 State Health Improvement Plan and Division of Public Health Strategic Plan.

Overview of the Assessment Process

The State Health Assessment was based on the Mobilizing for Action through Planning and Partnerships (MAPP) planning model, developed by the National Association of County and City Health Officials (NACCHO), in collaboration with the Centers for Disease Control and Prevention (CDC) in 1997. MAPP has been used successfully by many health departments across the nation and nearly all of the local health departments in Nebraska. MAPP is a comprehensive approach that includes the collection and analysis of both qualitative and quantitative data. The data and insights gathered from the assessment can also be used by the Division of Public Health and its partners to assess statewide health trends and other conditions and issues that can impact the health and well-being of the population.

The following seven guiding principles were integral to Nebraska's successful implementation of the MAPP process:

- *Systems thinking*: to promote an appreciation for the dynamic interrelationship of all local and state components of the public health system.
- *Data:* to inform each step of the process
- *Shared vision*: to form the foundation to make Nebraska the healthiest state in the nation.
- *Partnerships and collaboration*: to optimize performance through shared resources and responsibility.

- *Dialogue*: to ensure respect for diverse voices and perspectives during the collaborative process.
- *Strategic thinking*: to foster a proactive response to the issues and opportunities facing the entire Nebraska public health system.
- *Celebration of successes*: to ensure that contributions are recognized and to sustain excitement for the process.

The Steps of the MAPP Model

The MAPP model is a comprehensive planning process that provides the foundation for the Nebraska State Health Improvement Plan (SHIP). Briefly, the MAPP model (Figure 1) includes the establishment of a state coalition that includes representation from multiple collaborative partners, a visioning phase, and the completion of the four MAPP assessments. The next steps include the identification of the priorities or strategic issues, the formulation of goals and strategies to address the priorities, and the development and implementation of an action plan to improve health in Nebraska.

Figure 1. The Mobilizing for Action through Planning and Partnerships Model.[1]

The four MAPP assessments used to identify critical health challenges and opportunities are briefly described below.

[1] Source: National Association of County and City Health Officials, MAPP Project.

The Health Status Assessment examined many data sources (e.g., vital records, adult and youth risk factor surveys, cancer registry, and hospital discharge data) to describe the health of the population, including trends, health issues, behavioral factors, environmental hazards, and social and economic conditions. This assessment answers the following questions:

- How healthy are our residents?
- What does the health status of our state look like?
- What are our greatest health disparities?
- What are the trends from the last Nebraska Health Needs Assessment?

The Statewide Community Themes and Strengths Assessment is designed to highlight community issues that residents feel are important and how they perceive the health and quality of life in the state. In this assessment, data were gathered through a series of six focus groups conducted in the summer of 2015 with diverse community members from Bridgeport, Columbus, Kearney, Lincoln, Norfolk, and Hastings. This assessment answers the following questions:

- What is important to our state?
- How is quality of life perceived in our state?
- What assets do we have that can be used to improve community health?

The Forces of Change Assessment focuses on the identification of forces (events, factors, and trends) such as technology, funding challenges, legislation and other impending changes that affect the context in which the state and the public health system operate. This assessment answers the following questions:

- What is occurring or might occur that affects the health of our state or the public health system?
- What specific threats or opportunities are generated by these occurrences?

The State Public Health System Assessment focuses on assessing the performance of the state public health system. The performance is analyzed against a set of standards developed by the Centers for Disease Control and Prevention and includes the entire public health system (i.e., all of the organizations and entities that contribute to public health). This assessment was designed to answer the following questions:

- What are the activities, competencies, and capabilities of our state public health system?
- How well are the ten essential public health services being provided in our state?

Organization of the Assessment Report

This summary report provides a high level overview of the State Health Assessment results outlined in the following sections: Nebraska Health Status Summary; Community Perceptions of Needs and Strengths; Potential Challenges and Opportunities – Forces of Change; Public Health System Assessment Summary. A more detailed reporting of the results of each of the four assessments is included in the appendices.

Overall Results and Findings

Nebraska Health Status Summary

The Nebraska Health Status Assessment was completed by the Division of Public Health within the Nebraska Department of Health and Human Services, with assistance from the Social and Behavioral Sciences Research Consortium (SBSRC) at the University of Nebraska-Lincoln. The assessment process took approximately one year to complete, and included the utilization of a large number of state and national data sources and indicators that were presented under 14 overarching topic areas. Content experts within the Division of Public Health provided assistance with report development to ensure that the data were analyzed correctly and reported accurately. The full report is available within Appendix A.

Population Characteristics

According to 2014 population estimates from the U.S. Census, the State of Nebraska had 1,881,503 residents, a 3 percent increase since 2010 and a 10 percent increase since 2000. This growth, however, was not evenly distributed across population groups, with the largest increases occurring among older adults, racial and ethnic minorities, and those living in the larger urban areas of the state.

- The population among those 65 and older increased by more than 24,000 residents between 2000 and 2014, for a 9.9 percent increase.
- The racial/ethnic minority population increased by more than 150,000 residents between 2000 and 2014 (69.4% increase) while the non-Hispanic White population increased just 1.3 percent.
- The population in large urban counties increased 20.2 percent between 2000 and 2014 compared to a decline of 7.3 percent in rural counties.

Based on 2009-2013 results from the American Community Survey, an estimated 235,000 persons of all ages and 80,000 persons under 18 years of age were living in poverty in Nebraska. The poverty rate increased from 9.7 percent to 12.8 percent among all persons and from 12.3 percent to 17.4 percent among persons under 18 years of age when comparing year 2000 to years 2009-2013 combined. However, the Nebraska rate was lower than the U.S. rate for all persons and those under 18.

General Health Status

Overall birth and death rates in Nebraska have remained fairly stable over the past 10 years, with births outnumbering deaths by greater than 10,000 each year (NVR).

Life expectancy at birth averaged 79.8 years in 2013, which was up from 79.0 in 2004 and slightly higher than the U.S. life expectancy of 78.8 in 2013.

Cancer was the leading cause of death in Nebraska in 2014, accounting for 21.7 percent of all deaths. Cancer was followed closely by heart disease, which accounted for 20.6 percent of all deaths. Following heart disease, a much smaller percentage of deaths resulted from other causes. Table 1 contains information on the 10 leading causes of death in Nebraska in 2014.

Years of potential life lost (YPLL) is a measure which looks at premature mortality, and is calculated by subtracting the age at death for those persons who died prior to age 75. During the combined years of 2010-2014, cancer had the greatest total YPLL (122,694 years), followed by unintentional injury (75,457 years), heart disease (67,059 years), suicide (31,625 years), and birth defects (19,688 years). However, when looking at the average YPLL per death, birth defects had the highest number (50.5 years), followed by homicide (42.5 years), suicide (29.5 years), and unintentional injury (20.7 years). Table 1 contains information on the 10 leading causes of YPLL in Nebraska in 2014.

Table 1: Leading Causes of Death and Years of Potential Life Lost (YPLL) in Nebraska

Leading Causes of Death in NE, 2014				Leading Causes of YPLL in NE, 2010-2014				
Rank	Cause of Death	Number Deaths	% of Total	Rank	Cause of Death	Total Deaths	Total YPLL	Average YPLL Per Death
1	Cancer	3,459	21.7%	1	Cancer	17,238	122,694	7.1
2	Heart Disease	3,290	20.6%	2	Unintentional Injury	3,638	75,457	20.7
3	Chronic Lung	1,028	6.4%	3	Heart Disease	16,584	67,059	4.0
4	Stroke	797	5.0%	4	Suicide	1,072	31,625	29.5
5	Unintentional Injury	777	4.9%	5	Birth Defects	390	19,688	50.5
6	Alzheimer's	515	3.2%	6	Homicide	324	13,757	42.5
7	Diabetes	472	3.0%	7	Stroke	4,083	12,749	3.1
8	Pneumonia	310	1.9%	8	Chronic Lung	4,847	12,749	2.6
9	Kidney Disease	265	1.7%	9	Diabetes	2,295	13,559	5.9
10	Hypertension	253	1.6%	10	Pneumonia	1,458	5,137	3.5

Source: Nebraska Vital Records

Healthcare Access and Utilization

Close to 1 in 7 Nebraska adults 18-64 years of age (15.3%) reported having no healthcare coverage in 2014 (BRFSS). This percentage did decline from 19.1 percent in 2011. The Nebraska percentage in 2014 was identical to the U.S. percentage (both at 15.3%); however, Nebraska has historically had a lower percentage than the U.S. for uninsured adults 18-64 years of age.

Not having a primary care provider and cost are some of the barriers to care that Nebraska adults face.

- 1 in 5 Nebraska adults in 2014 (20.2%) reported that they did not have a primary healthcare provider (BRFSS).
- 1 in 8 Nebraska adults in 2014 (11.8%) reported that at least once during the past year they needed to but were unable to see a doctor due to potential cost of care (BRFSS).

Access to physical health, mental health and dental health services, especially specialty care, varies greatly across the state. Much of the state has been designated as shortage areas for specific physician specialties, for dentists, or for psychiatrists and mental health practitioners. For psychiatry and mental health practitioners in particular, the entire state (with the exception of Lincoln and Omaha and their immediate surrounding areas) is considered a state-designated mental health shortage area.

Chronic Disease

Cardiovascular Disease

While continuing to claim a large number of lives, the heart disease and stroke death rates declined sharply over the past decade in Nebraska:

- The heart disease death rate dropped 20 percent between 2005 and 2014, moving heart disease from the first to the second leading cause of death during this period (NVR).
- The stroke death rate dropped 28 percent between 2005 and 2014, moving stroke from the third to the fourth leading cause of death during this period (NVR).

Roughly 1 in 17 Nebraska adults in 2014 (5.8%) reported ever being told they had a heart attack or coronary heart disease while about 1 in 38 (2.6%) reported ever being told they had a stroke (BRFSS). Both of these percentages were stable of the past decade.

Lifetime diagnosis of high blood pressure and high cholesterol have increased among Nebraska adults over the past decade, and high blood pressure deaths and hospitalizations are also increasing.

- During 2013, 3 in 10 adults (30.3%) reported that they have ever been told they have high blood pressure (excluding pregnancy) while nearly 4 in 10 adults who have ever had their cholesterol checked (37.4%) reported ever being told their cholesterol was high (BRFSS).

Diabetes

Diabetes was the seventh leading cause of death in Nebraska in 2014, accounting for roughly 3 percent of all deaths (NVR). However, diabetes was listed as either the primary cause or a contributing factor in 10.8 percent of all deaths in 2014. The diabetes mortality rate has been fairly stable in Nebraska over the past decade.

Though slightly better than the nation, the percentage of Nebraska adults reporting that they have been diagnosed with diabetes continues to rise, with close to 1 in 10 Nebraska adults in 2014 (9.2%) reporting ever being told they have diabetes (excluding pregnancy) (BRFSS).

Cancer

Though the death rate declined gradually over the past decade, cancer overtook heart disease as the leading cause of death in 2009, and accounted for more than 1 in 5 deaths in 2014 (21.7%) (NVR).

Cancer was also the leading cause of years of potential life lost prior to age 75 in Nebraska, accounting for more than 122,000 years of potential life lost between years 2010-2014 combined.

The percentage of Nebraska adults reporting that they have ever been diagnosed with cancer has remained stable in recent years, with 1 in 9 during 2014 reporting a cancer diagnosis (10.7%) (BRFSS).

Lung cancer was the leading cause of cancer death in 2014, accounting for more than one-quarter (26%) of all cancer deaths (NVR).

There were nearly 9,000 newly diagnosed cancers in Nebraska in 2012, with breast and prostate being the most commonly diagnosed types (NCR).

Colon cancer was the only type of cancer in Nebraska that had higher death and incidence rates when compared to the U.S.

Screening for colon cancer among 50-75 year olds increased over the past decade, but remains lower than the U.S. and more than one-third of eligible persons in Nebraska reported being unscreened in 2014 (35.9%) (BRFSS). Self-reported screening for breast cancer among 50-74 year old women and cervical cancer among 21-65 year old women in Nebraska both declined slightly over the past decade, with breast cancer screening remaining lower than the U.S. (BRFSS).

Other Chronic Diseases

Other chronic diseases examined for this report included arthritis, asthma, COPD, kidney disease, and Alzheimer's disease.

- 1 in 4 Nebraska adults in 2014 reported ever being diagnosed with arthritis (24.6%) (BRFSS).
- 1 in 8 Nebraska adults in 2014 (12.2%) and 1 in 5 Nebraska high school students in 2015 (20.0%) reported ever being diagnosed with asthma (BRFSS; YRBS).
- 1 in 17 Nebraska adults in 2014 reported ever being diagnosed with COPD (5.8%) (BRFSS). COPD would be the third leading cause of death in Nebraska if reported as an independent cause of death, and the COPD death rate in Nebraska is higher than the U.S. rate (NVR).
- 1 in 48 Nebraska adults in 2014 reported ever being diagnosed with kidney disease (2.1%) (BRFSS). Kidney disease was the ninth leading cause of death in the state in 2014 (NVR).
- Alzheimer's disease was the sixth leading cause of death in the state in 2014 (NVR).

Risk and Protective Factors for Chronic Disease

Tobacco Use

Cigarette smoking among both adults and youth decreased sharply in Nebraska over the past decade, yet a fairly large percentage continue to smoke, with 1 in 6 adults in 2014 (17.3) and 1 in 8 high school students in 2015 (13.3%) reporting current smoking (BRFSS; YRBS).

Smokeless tobacco use declined among Nebraska adults between 2011 (5.6%) and 2014 (4.7%) while it increased among Nebraska high school students between 2011 (6.4%) and 2015 (9.3%) (BRFSS; YRBS).

In 2015, nearly 2 in 5 Nebraska high school students (38.2%) reported ever using an electronic vapor product (i.e., e-cigarette) while 1 in 5 (22.3%) reported using e-cigarettes during the past month (YRBS). This indicates that during 2015, past month e-cigarette use was far more common than past month cigarette smoking and smokeless tobacco use among Nebraska high school students.

Obesity

Obesity among Nebraska adults (based on self-reported heights and weights) continues to increase at an alarming pace. From 1990 to 2010, obesity among Nebraska adults increased from 11.6 percent to 27.5 percent. In 2014, obesity among Nebraska adults (30.2%) topped 30 percent for the first time (BRFSS).

According to 2011/2012 combined data from the National Survey of Children's Health, 28.9 percent of Nebraska children aged 10-17 years were overweight or obese, with 13.8 percent being obese.

Nutrition

Fruit and vegetable consumption among Nebraska adults has historically been lower than the U.S. but was similar in 2013. Roughly 2 in 5 Nebraska adults in 2013 (39.7%) reported consuming fruit less than one time per day, while slightly more than 1 in 5 (23.3%) reported consuming vegetables less than one time per day (BRFSS).

About 2 in 5 Nebraska high school students in 2015 (41.3%) reported consuming fruits less than one time per day while roughly one-third (36.2%) reported consuming vegetables less than one time per day (YRBS). Based on 2013 data, high school students in Nebraska reported less fruit and vegetable consumption than their national counterparts when looking at higher consumption levels.

Large percentages of youth and adults in Nebraska reported unhealthy beverage consumption.

- 3 in 10 adults in 2013 (28.5%) drank sugar-sweetened beverages daily (BRFSS).
- 3 in 5 high school students in 2015 (59.0%) drank sugar-sweetened beverages daily; which did decline since 2011 primarily due to reductions in non-diet soda consumption (YRBS).
- Just 2 in 5 high school students in 2015 (41.7%) drank milk daily, which is declining (YRBS).

Only about one-third of high school students in 2015 (36.2%) reported that they ate breakfast every day during the past seven days (YRBS).

Physical Activity

The percentage of Nebraska adults and youth who meet the current Physical Activity Guidelines for Americans recommendation is low:

- Fewer than 1 in 5 Nebraska adults in 2013 (18.8%) reported meeting the current physical activity recommendation, which was lower than the percentage for adults nationally (20.5%) (BRFSS).
- Just 3 in 10 Nebraska high school students in 2015 (29.7%) reported meeting the current physical activity recommendation (YRBS). In 2013, Nebraska high school students were more likely than students nationally to engage in the recommended amount of physical activity.

Half of Nebraska high school students in 2015 (50.8%) spent three or more hours on an average school day watching television, playing video games, or using the computer for non-school work (YRBS).

Injury

Unintentional injury was the fifth leading cause of death in Nebraska in 2014 (accounting for 4.9% of all deaths) and was the second leading cause of years of potential life lost prior to age 75 in Nebraska, accounting for more than 75,000 years of potential life lost between the years 2010-2014 combined for an average of 20.7 YPLL per death (NVR).

Motor vehicle crashes and falls are the most common types of unintentional injury in Nebraska, highlighted by:

- Motor vehicle crashes accounted for one-third (32%) of all unintentional injury death in 2014, and the Nebraska rate is higher than the U.S. rate (NVR).
- A much lower percentage of Nebraska adults in 2014, compared to adults nationally, reported that they always wear their seatbelt when driving or riding in a car (72.4% and 85.3%, respectively) (BRFSS). Nebraska high school students in 2015 were also less likely than their national counterparts to report seatbelt use (YRBS).
- Falls accounted for more than one-quarter (28%) of all unintentional injury deaths in 2014, and the Nebraska rate was higher than the U.S. rate during most of the past decade (NVR).
- Roughly 1 in 11 Nebraska adults 45 and older in 2014 (8.8%) reported a fall during the past year that resulted in an injury which limited their activities or caused them to see a doctor (BRFSS).

The homicide death rate in Nebraska during 2014 was 35 percent lower than the U.S. rate (NVR).

Maternal and Child Health

There were 26,794 births to Nebraska mothers in 2014. The Nebraska birth rate has been fairly stable over the past decade, with a decline occurring between 2009 and 2011 before a gradual increase between 2011 and 2014 (NVR).

The teen birth rate among 15-19 year olds in Nebraska dropped 38 percent between 2008 and 2014, while it dropped 46 percent among 15-17 year olds (NVR).

Preterm (births before 37 weeks of age) and low birth weight births (those less than 5lb 8oz) both improved slightly over the past decade and rates were lower than the U.S. (NVR).

In contrast, the percentage of mothers receiving first trimester prenatal care gradually declined over the past decade and in 2014 Nebraska mothers were less likely than mothers nationally to receive first trimester prenatal care (71.5% and 76.7%, respectively) (NVR).

There were 136 infant deaths in Nebraska during 2014 (NVR). The infant mortality rate in Nebraska, though inconsistent from year-to-year, improved slightly over the past decade and was consistently lower than the corresponding U.S. rate.

In 2012, 9 in 10 new mothers in Nebraska (89.0%) initiated breastfeeding while a much lower percentage breastfeed exclusively through three months of age (32.3%) (PRAMS). Both of these measures increased from 2009 percentages (which were 83.7% and 24.0%, respectively).

Mental Health and Suicide

Roughly 1 in 6 Nebraska adults in 2014 (17.7%) reported ever being diagnosed with depression (BRFSS). About 1 in 12 adults (8.2%) during the same year reported past month frequent mental distress (i.e., poor mental health on 14 or more of the past 30 days). About 2 in 5 (38.1%) of those with frequent mental distress did not report diagnosed depression in 2014. One-quarter of Nebraska high school students in 2015 (24.1%) reported depression symptoms during the past year (YRBS).

According to the Nebraska Division of Behavioral Health's Magellan Treatment Database, there were 41,215 mental health services provided to 22,579 Nebraska residents between July 2013 and June 2014.

Suicide was the 11th leading cause of death in Nebraska during 2014, claiming 250 lives (NVR). However, suicide ranked fourth in years of potential life lost, averaging 29.5 YPLL per death between the years 2010-2014 combined; indicating that suicide victims are on average younger than victims of nearly all causes of death. The number of suicide deaths and suicide death rate increased steadily between 2009 and 2014. The suicide death rate among 15-19 year olds in Nebraska was higher than the corresponding national rate during most of the past decade.

About 1 in 7 Nebraska high school students in 2015 (14.6%) reported seriously considering suicide during the past year while 1 in 11 (8.9%) reported actually attempting suicide during the past year (YRBS). Nebraska high school students who reported being bullied during the past year were far more likely to report considering and attempting suicide during the past year.

Substance Abuse

Negative consequences of alcohol and drug use in Nebraska are serious and include (among other things) deaths, treatment admissions, and arrests:

- There were an average of 543 alcohol-attributable deaths each year in Nebraska between 2006 and 2010 (CDC, ARDI), and alcohol was involved in more than one-third of all fatal motor vehicle crashes in Nebraska during 2014 (36.9%) (Nebraska Office of Highway Safety).
- Due primarily to the rise in opioid overdose deaths, the drug-induced death rate in Nebraska increased 55 percent over the past decade but remains only half the U.S. rate (NVR, NCHS).
- Alcohol was listed as the primary drug of choice in nearly two-thirds of all substance abuse treatment admissions in Nebraska during 2014 (62.1%), followed by methamphetamine (13.9%), marijuana (10.1%), and opiate drugs (5.0%) (Magellan Treatment Database).
- Alcohol accounted for one-quarter of all arrest offenses in Nebraska during 2013 (23.0%) while drug abuse violations accounted for 1 in 7 (14.6%) (Nebraska Crime Commission, UCR).

Binge drinking among Nebraska adults has remained relatively stable over the past decade and was consistently higher than the U.S., while alcohol use among high school students has declined dramatically over the past decade and is now lower than the U.S.

- In 2014, more than 1 in 5 Nebraska adults (20.3%) reported binge drinking during the past month compared to 1 in 6 adults nationally (16.0%) (BRFSS).
- Alcohol use during the past month among Nebraska high school students declined from 46.5 percent in 2003 to 22.7 percent in 2015 (YRBS).

Alcohol impaired driving among Nebraska adults has declined, but also remains higher than the U.S. (2.5% and 1.7% among adults in Nebraska and the U.S., respectively, in 2014) (BRFSS). About 1 in 10 Nebraska high school students in 2015 (10.1%) who reported driving in the past month reported driving when they had been drinking in the past month (YRBS).

Marijuana remains the most commonly used illicit drug among adults and youth in Nebraska and is showing some signs of increasing.

- During the combined years of 2013 and 2014, 5.8 percent of persons 12 and older in Nebraska reported past month marijuana use compared to 2.3 percent who reported past month use of any non-marijuana illicit drug (NSDUH).

- Past year marijuana use among persons 12 and older in Nebraska increased from 9.2 percent during 2011/2012 combined to 10.4 percent in 2013/2014 combined (NSDUH).
- Among Nebraska high school students during 2015, 26.6 percent reported ever using marijuana compared to a much lower percentage reporting lifetime non-medical use of prescription drugs (13.5%), inhalants (8.1%), synthetic marijuana (7.5%), cocaine (5.3%), and ecstasy (5.1%), followed by lesser percentages for other substances (YRBS).

Illicit drug use among Nebraska residents tends to be less common than among persons nationally across virtually all substances, highlighted by past month and lifetime marijuana use being only half as common among Nebraska high school students compared to their counterparts nationally in 2013 (YRBS).

Immunization and Infectious Diseases

Immunizations

Flu vaccination among Nebraska adults increased over the past decade and remains higher than the U.S., yet only 2 in 5 Nebraska adults in 2014 (43.9%) reported being vaccinated in the past year (BRFSS).

Nebraska children 19-35 months compared well to the U.S. in 2014 for the percentage receiving the recommended doses of DTaP, polio, MMR, Hib, hepatitis B, varicella, and PCV vaccines (80.2% and 71.6%, respectively) (NIS).

On the other hand, Nebraska adolescents 13-17 years old in 2014 compared poorly to the U.S. for Tdap and meningococcal vaccination while HPV vaccination coverage was especially low (NIS):

- 82.2 percent were up-to-date on their Tdap vaccination compared to 87.6 percent nationally.
- 74.1 percent had received at least one meningococcal vaccination compared to 79.3 percent nationally.
- Just 39.5 percent of males and 59.6 percent of females had received at least one HPV vaccination.

Influenza and Pneumonia

Pneumonia was the eighth leading cause of death in Nebraska during 2014, but it has been declining and the death rate is lower than the U.S. (NVR). Inpatient hospitalizations for pneumonia have also been declining in Nebraska, but the number of hospitalizations resulting from pneumonia remains higher than many chronic diseases including stroke, COPD, cancer, and diabetes (NHDD).

Though influenza does contribute to a large number of physician office visits and missed work and school days each year, it results in very few deaths and inpatient hospitalizations annually (NVR; NHDD).

Sexually Transmitted Diseases (STDs)

The total number of STD cases in Nebraska has increased in recent years to a high of 9,713 new cases being diagnosed in 2015 (NDHHS); however, the Nebraska rates continue to remain lower than the U.S. rates (CDC, NCHHSTP Atlas). Chlamydia, gonorrhea, and syphilis rates in Nebraska have all increased:

- Chlamydia is the most common STD, accounting for 81.9 percent of new cases in 2015. The incidence rate increased 47 percent between 2010 and 2015.

- Gonorrhea is the second most common STD, accounting for 17.6 percent of new cases in 2015. The incidence rate increased 38 percent between 2010 and 2015.
- Primary and secondary syphilis is less common, accounting for 0.5 percent of new cases in 2015. The rate between 2013 and 2015 was more than double the rate during previous years.

HIV/AIDS

AIDS accounts for a relatively small number of deaths in Nebraska, with a high of 26 and a low of 12 during years 2005-2014. The number has been at or under 18 deaths each year since 2008 (NDHHS).

There were 81 new cases of HIV infection in Nebraska during 2015. The HIV incidence rate has declined over the past decade and in 2014, the U.S. rate was 3.5 times higher than the Nebraska rate (NDHHS).

A lower percentage of Nebraska adults, compared to U.S. adults, report having ever been tested for HIV (excluding blood donations) (30.9% and 39.7%, respectively, in 2014) (BRFSS).

Foodborne Illness

Campylobacter infection continues to be the most common cause of foodborne illness in Nebraska and is increasing. There were 548 new cases identified in 2015, up from 366 in 2008 (NDHHS).

Salmonella is the second most common cause of foodborne illness, accounting for 313 new cases in 2015. The trend in salmonella infection has fluctuated inconsistently over the past decade (NDHHS).

Though E. coli can result in more serious illness, it is the least common cause of foodborne illness, accounting for 130 new cases in 2015. The trend in E. coli has also fluctuated inconsistently (NDHHS).

Other Infectious Diseases

There were 68 new cases of West Nile virus in 2015, down from a peak of 1,954 cases in 2003 (NDHHS). Since its peak, the number of new cases has fluctuated inconsistently, but has not topped 226 during any year of the past five years. Nebraska has consistently had one of the higher incidence rates for West Nile virus when compared to other states nationally (ArboNET, CDC).

While pertussis in Nebraska has been cyclical over time, it has increased dramatically in recent years due primarily to an outbreak during the fall of 2014 through the spring of 2015. In 2015, there were 559 cases, which was the highest number of cases at any point over the past decade, and the number has risen steadily from a low of 54 cases in 2011 (NDHHS). According to the CDC, the pertussis incidence rate in Nebraska was nearly double the U.S. rate in 2014.

Hepatitis C is the most common form of hepatitis in Nebraska, accounting for 1,192 new chronic cases in 2015 (NDHHS). Hepatitis B is the second most common form (226 new chronic cases in 2015) while hepatitis A is the least common (7 new cases in 2015). Hepatitis A declined over the past decade, hepatitis B remained relatively stable, and hepatitis C declined from 2006-2011 before increasing.

Oral Health

A large proportion of adults and youth in Nebraska do not receive any dental care, and dental care visits among adults appear to be increasingly less common.

- Just two-thirds of Nebraska adults in 2014 (66.4%) reported that they saw a dentist or dental clinic for any reason in the past year, which has steadily declined over the past decade (BRFSS).

- Among Nebraska high school students, three-quarters in 2015 (75.2%) reported that they saw a dentist for any reason in the past year, which has remained stable since 2011 (YRBS).
- Only half of low-income children and youth under 18 (50.4%) eligible for the EPSDT benefit through Medicaid received preventive dental services during the past year in 2013; though this is up from 44.2 percent in 2010 (Medicaid EPSDT).

While still a substantial proportion of the adult population, especially among middle-aged and older adults, the percentage reporting that they had any or all teeth extracted due to tooth decay or gum disease has declined over the past decade and is lower than the percentage nationally (BRFSS).

Environmental Health

Air Quality

No testing sites in Nebraska were in violation of the Environmental Protection Agency air quality standards in 2014 (Dept. of Environmental Quality).

Water Quality

In 2015, 1.8 percent of public water systems in Nebraska had Nitrate test results of at least 10.0 mg/L, which is the maximum contaminant level (MCL) for safe drinking water allowable by the EPA. This consisted of 24 public water systems and a total of 38 MCL violations. The number of MCL violations for nitrate over the past seven years has declined.

Water Fluoridation

Roughly 7 in 10 persons served by community water systems in Nebraska in 2015 (71.5%) received fluoridated drinking water from their community water system, an increase of 67.5 percent in 2006. (NDHHS). However, a slightly lower percentage of Nebraska, compared to U.S. residents in 2012 received fluoridated drinking water (74.6% and 71.6%, respectively) (CDC).

Age of Housing

Housing units in Nebraska are generally older than housing units nationwide. Two-thirds of housing units in Nebraska (66.5%) were built before 1980 compared to 56.9 percent nationwide (09-13 ACS).

Childhood Lead Exposure

In 2014, of the 36,352 Nebraska children under six years old who received a blood lead test that was reported to Nebraska DHHS, 393 (1.1%) had an elevated blood lead level of at least 5 µg/dL (NDHHS).

Radon

Nebraska has a very high prevalence of radon in homes compared to other parts of the county. In 2013, about 3 in 5 radon tests conducted in the state (59%) indicated elevated radon levels of 4 picocuries per liter (pCi/L) or greater (NDHHS).

Occupational Health and Safety

Many Nebraska workers are employed in high risk or high hazard industries, including 1 in 10 working in a high risk injury industry and 1 in 5 work in a high risk fatality industry in 2013 (BLS, Census).

- There were 54 Nebraska workers who died of a work-related fatal injury in 2014 (BLS). The fatal occupational injury rate in Nebraska is higher than the U.S. rate.
- About 30,000 non-fatal work-related injuries and illnesses occurred among Nebraska workers in 2013, which is declining, but the rate remains higher than the U.S. rate (BLS).
- There were 694 work-related inpatient hospitalizations and 7,327 work-related ED visits that occurred in Nebraska in 2013 (NHDD).
- Work-related musculoskeletal disorders and pesticide-associated illnesses and injuries are more common in Nebraska than the U.S. (BLS).
- There were 195 adults that had an elevated blood lead level of at least 10 µg/dL in 2013 (NE ABLES).

Changing Trends

Over the past decade trends among Nebraska residents improved within several of the topic areas covered in this report and worsened within others. Table 2 identifies the topic areas that had positive and negative change within the state over the past decade, and signifies some of the areas which experienced large positive and negative change. Note that some topic areas had little or no trend information available and were subsequently not included.

National Comparisons

Nebraska residents, compared to residents nationally, compared favorably within several of the topic areas covered in this report and poorly within others. Table 3 identifies the topic areas where Nebraska has been doing better and worse than the U.S. in recent years, and signifies some of the areas where Nebraska has been doing much better and much worse than the U.S. Note that some topic areas had little or no national comparison data available and were subsequently not included.

Table 2: Changing Trends in Health Status in Nebraska over the Past Decade*	
Trends Improved	**Trends Worsened**
Topics with an ^ signify areas that had large positive change	*Topics with an ^ signify areas that had large negative change*
No health care coverage among 18-64 year olds^	Poverty among all persons and those under 18 years of age
Heart disease deaths^ and hospitalizations	No personal doctor or health care provider among adults
Stroke deaths^	High blood pressure deaths, hospitalizations, and prevalence^ (among adults)
Cancer deaths and incidence overall and for colon, lung, and prostate	The prevalence of high cholesterol^ among adults
Cancer hospitalizations overall and for all primary types	Diabetes hospitalizations^ and prevalence^ (among adults)
Asthma hospitalizations	Cervical cancer deaths
Alzheimer's disease hospitalizations	Breast and cervical cancer screening among women
Cigarette smoking among adults^ and youth^	COPD hospitalizations and prevalence (among adults)
Smokeless tobacco use among adults	Kidney disease hospitalizations^
Motor vehicle crash deaths	Smokeless tobacco use among high school students from 2011-2015
Seatbelt use among adults and youth^	Obesity among adults^
Hospitalizations resulting from a fall	Milk consumption among high school students
Teen birth rate among 15-19 and 15-17 years olds^	First trimester prenatal care during pregnancy^
Preterm and low birth weight births	Suicide deaths^ from 2009-2014 and self-inflicted injury hospitalizations
Breastfeeding initiation and maintenance among new mothers	Drug-induced deaths^ and hospitalizations (i.e., largely opiate overdose)
Infant mortality rate	Marijuana use in past year among persons 12 and older
Frequent mental distress during past month among adults	STD incidence rates for chlamydia^, gonorrhea^, and syphilis^
Alcohol use among high school students^	Foodborne illness resulting from campylobacter infection
Alcohol impaired driving among adults and high school students	Pertussis incidence^
Any non-marijuana illicit drug use among persons 12 and older	Dental visits during the past year among adults
Pneumonia deaths and hospitalizations	
Influenza hospitalizations	
AIDS deaths and HIV incidence	
Number of new West Nile virus, hepatitis A, and mumps cases	
Low-income children and youth under 18 eligible for the EPSDT benefit through Medicaid who receive preventive dental services	
Middle age and older adults who have had any or all permanent teeth extracted due to tooth decay or gum disease	
Persons served by community water systems with fluoridated drinking water	
Non-fatal occupational injury and illness rate^	
Work-related musculoskeletal disorder rate involving days away from work	
Utilization of preventive health care services increased for receiving a routine checkup (between 2011-2014), colon cancer^ and cholesterol^ screening, and flu^ and pneumonia vaccination among adults	
*Topics presented in the order in which they appear in the report, and not in order based on how large the trend changed	
Note: Improving trends in inpatient hospitalizations were not noted as having large positive change with an ^ even if there was a large decline in hospitalizations. This was done because a large decrease may signify changes in treatment practices and not necessarily less disease. However, large increases in hospitalizations were noted with an ^ because they were more likely to reflect increases in disease.	

Table 3: Nebraska and National Comparisons in Health Status*	
Nebraska Compared Favorably to U.S. in Recent Years	**Nebraska Compared Poorly to U.S. in Recent Years**
Topics with an ^ signify areas where Nebraska is doing much better	*Topics with an ^ signify areas where Nebraska is doing much worse*
Poverty among all persons and those under 18 years of age	Colon cancer deaths and incidence as well as colon and breast cancer screenings among adults
No personal doctor or health care provider among adults	High blood pressure deaths
Cost preventing needed health care among adults	Cholesterol screening among adults
Heart disease deaths^ and prevalence (among adults)	COPD deaths^
Kidney disease deaths and prevalence (among adults)	Smokeless tobacco use among adults
Cancer prevalence (among adults) and incidence of cancer overall and for lung, melanoma, and cervical cancers	Fruit and vegetable consumption among high school students^
Prevalence of stroke, high blood pressure, diabetes, arthritis, asthma, COPD, and kidney disease among adults	Physical activity among adults
Cigarette smoking among high school students	Motor vehicle crash deaths
Soda consumption among high school students	Seatbelt use among adults^ and high school students^
Milk consumption among high school students^	First trimester prenatal care during pregnancy
Physical activity among high school students^	Suicide deaths among 15-19 year olds
Unintentional injury deaths	Binge drinking among adults^
Homicide deaths^	Alcohol impaired driving among adults^
Self-reported falls in the past year among those 45 and older	Tdap^ and meningococcal vaccination among 13-17 year old adolescents
Teen birth rate among 15-19 years olds	HIV test in lifetime among 18-64 year olds^
Preterm and low birth weight^ births	West Nile virus incidence^
Breastfeeding maintenance among new mothers	Pertussis incidence^
Infant and fetal mortality rates	Radon levels in homes higher than many other parts of the country
Diagnosed depression among adults (lower not necessarily better)	Age of housing (older homes)^
Frequent mental distress among adults^	Persons served by community water systems with fluoridated drinking water
Depression among high school students^	Fatal occupational injury rate^
Seriously considered suicide during past year among high school students^	Non-fatal occupational injury and illness rate
Alcohol use among high school students^	Work-related musculoskeletal disorder rate involving days away from work
Drug-induced deaths^ (i.e., largely opiate overdose deaths)	Work-related (reported) pesticide illness and injury rate^
Marijuana use in past year among persons 12 and older	
Marijuana use (lifetime and past month) among high school students^	
Non-medical use of pain relievers in past year among persons 12 and older	
Prescription drug use in lifetime among high school students^	
Any non-marijuana illicit drug use among persons 12 and older^	
Lifetime use of inhalants^, synthetic marijuana^, cocaine^, ecstasy^, methamphetamines^, and heroine^ among high school students	
Nebraska children 19-35 months receiving the recommended doses of DTaP, polio, MMR, Hib, hepatitis B, varicella, and PCV vaccines^	
Utilization of preventive health care services including flu, pneumonia, tetanus, and shingles^ vaccination among adults	
Pneumonia deaths	
STD incidence rates for chlamydia^, gonorrhea^, and syphilis^	
AIDS deaths^ and HIV incidence^	
Middle age and older adults who have had any or all permanent teeth extracted due to tooth decay or gum disease	
Air quality	
Elevated blood lead levels (≥ 10 µg/dL) among adults	

*Topics presented in the order in which they appear in the report, and not in order based on the size of the Nebraska vs. U.S. difference.

Community Perceptions of Needs and Strengths

Six Community Themes and Strengths focus groups were conducted in 2015 across the state to provide additional insights to how health issues are perceived at the community level. During each focus group, community members discussed health needs and strengths in their communities such as individual health behaviors, housing, community supports, jobs/economy, recreation options, safety, health issues, resources and the healthcare system. After brainstorming, reflection and discussion, each group identified and agreed upon several answers to the following question: **"What are the most significant health issues and/or community conditions facing our area at this time?"** The following themes emerged following qualitative data analysis (Table 4). Appendix B consists of a full report of the qualitative data found during the Community Themes and Strengths Assessment.

Table 4. *Community Perception of Needs*

Lack of support for a healthy lifestyle	• High rates of obesity • Lack of year round physical / fitness activities • Limited availability of quality produce and healthy foods • Lack of nutrition knowledge and education
Behavioral health services	• Access to services and treatment options • Social acceptability and awareness • Lack of education around mental health issues and resources available • Integration of behavioral healthcare (within the health system and between schools, family and medicine) • Shortage of behavioral health professionals and care providers • Lack of funding for behavioral health services
Collaborative approaches to wellness and a focus on prevention	• Need for more proactive wellness and prevention education
Drug and substance abuse	• Limited resources for those at risk • Use among youth
Issues with housing and transportation	• Lack of affordable, livable housing • Increasing cost of living • Homelessness, especially among youth who are aging out of the foster care system • Limited and/or inconvenient public transportation • Lack of transportation within and between communities

Workforce concerns	• Lack of diverse, quality paying jobs • Mainly part time, low income jobs available • High cost of education • Little value placed on technical skills and on the job training • Issues with recruitment and retention of qualified employees • Lack of skilled workers • Limited supports and/or resources for working poor
Rural versus urban disparities	• Lack of rural connection to larger cities • Limited community services in rural areas • Water quality and quantity issues in rural areas • Lack of jobs in rural areas • Inequality of resources when comparing urban and rural parts of the state
Public/community safety	• Lack of safe sidewalks and travel routes • Social/community acceptance of risky behaviors • Need for tolerance among motorists and pedestrians • Unhealthy environments • Lack of qualified childcare
Lack of supports for specific sub-populations	• Youth: mental health services, risky behaviors, sports are expensive, social media use, lack of healthy food options and mentoring programs • Elderly: impact of aging population, lack of elder care and adult day care services, limited access to physical activity • Parents: lack of affordable child care, transportation issues, and high rates of child abuse • Growing diverse populations (particularly the Hispanic population): lack of translators and bilingual outreach, language barriers and community tension related to undocumented persons
Health disparities and access to quality, affordable healthcare	• Health insurance issues and high costs • Uneven access to dental health • Lack of funding for health initiatives
Community disconnectedness and lack of commitment to coordinate community services	• Hidden diversity issues • Lack of constructive engagement • Lack of volunteerism • Limited awareness of community needs and availability of resources • Need for coordinated efforts
Ineffective policy and archaic systems	

During the focus groups, participants also had the opportunity to identify strengths and assets available to address public health needs. The lists of Nebraska public health strengths were lengthy, and reflected an awareness and appreciation for public health efforts and services across the state. Several themes emerged in many locations regarding public health strengths and assets (Table 5).

Table 5. *Community Perception of Strengths*

High quality healthcare facilities (e.g. community/rural clinics, hospitals, assisted living and specialty care facilities) and qualified healthcare providers (e.g. clinicians, dentists, behavioral health professionals and specialists).
Abundance of recreational spaces and activities including: parks, trails, walking areas, water parks and community wellness events/programs.
Housing assistance resources (e.g. rental assistance, Habitat for Humanity, homelessness programs and shelters) and affordable housing options.
Strong community programs and resources such as school/afterschool programs, athletics, YMCA, libraries, home visiting programs, community center, parks and recreation.
Low unemployment and job opportunities, specifically in agriculture, healthcare and industry.
Solid public/private infrastructure including law enforcement, fire department, schools, local health departments, advocacy and faith-based organizations.

Potential Challenges and Opportunities – Forces of Change

In 2015, two groups of public health leaders were convened from across the state to offer diverse perspectives on the forces impacting the health and well-being of Nebraskans. Representatives included individuals from local health departments, the Nebraska Hospital Association, UNMC College of Public Health, non-profit organizations, Public Health Association of Nebraska, Nebraska Association of Local Health Directors, Division of Behavioral Health, elected officials, and business, education and community leaders. The discussions were held in Kearney and Lincoln in the fall of 2015. Each group went through a facilitated process to consider various types of forces, including social, political, economic, technological, environmental, scientific, legal, and ethical. Although each group had some unique insights, there were many similarities, so the results of the two groups have been blended in this summary. Full results from the Forces of Change Assessment can be found in Appendix C.

After reflection and discussion, public health and community leaders identified and agreed upon several answers to the following question:

> *"What trends, factors, and events are, or will be, influencing the health and quality of life in our communities and the work of Nebraska's public health system?"*

- Transitions in healthcare delivery and access to care
- Challenges and opportunities related to data and technology
- Environmental impact on health
- Insufficient mechanisms for funding public health
- Political environment that hinders Public Health
- Greater focus on persistence of chronic disease burden
- Focus on health equity
- Reconfiguration of the healthcare workforce
- Demographic shifts
- Unaddressed behavioral health issues
- Focus on value and performance

Public Health System Assessment Summary

In November 2015, the Division of Public Health conducted a one-and-a-half-day State Public Health System Assessment to convene over 75 local and state public health leaders and partners in a comprehensive analysis of how well Nebraska's state public health system operates. This assessment was based on the application of Version 3.0 of the National Public Health Performance Standards. The standards are designed around the Ten Essential Public Health Services shown in Table 6. The standards focus on the overall public health system which includes state and local governmental public health agencies, other state agencies, nonprofit organizations, hospitals and physician clinics, colleges and universities, private and public insurers, tribes, businesses, and advocacy groups such as the Public Health Association of Nebraska.

Table 6. The Ten Essential Public Health Services
1. Monitor health status to identify and solve community health problems.
2. Diagnose and investigate health problems and health hazards in the community.
3. Inform, educate, and empower people about health issues.
4. Mobilize community partnerships and action to identify and solve health problems.
5. Develop policies and plans that support individual and community health efforts.
6. Enforce laws and regulations that protect health and ensure safety.
7. Link people to needed personal health services and assure the provision of healthcare when otherwise unavailable.
8. Assure a competent public and personal healthcare workforce.
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
10. Research for new insights and innovative solutions to health problems.

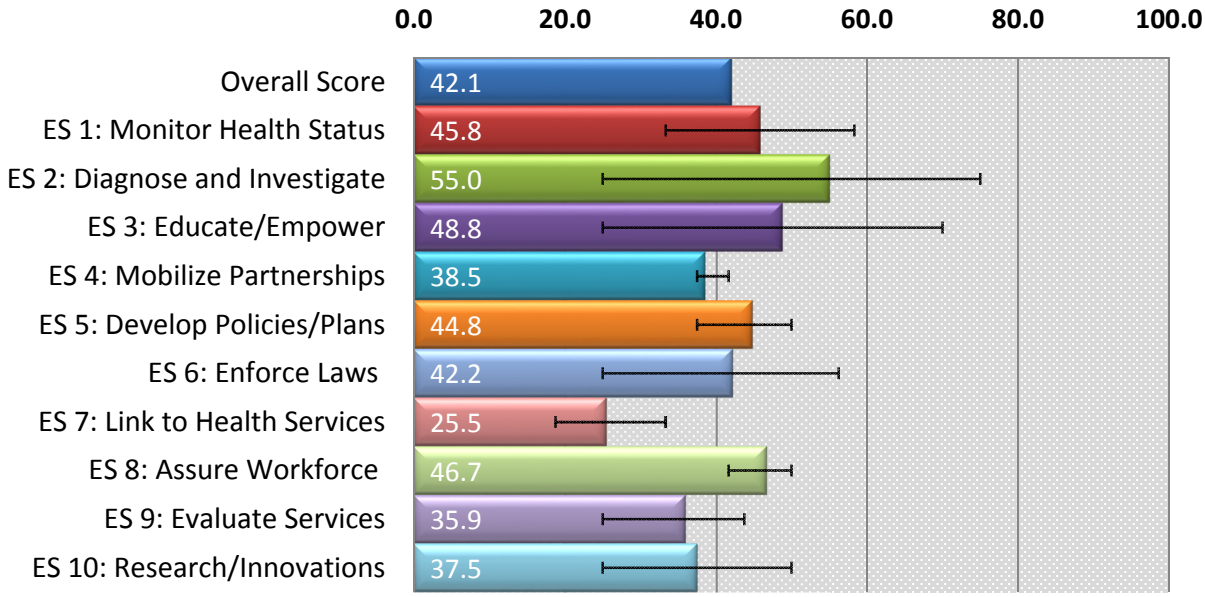
Within each of the Ten Essential Public Health Services, there are four model standards. These model standards reflect optimal levels of performance which are intended to guide activities for continuous system improvement. Discussions among the assessment participants focused on the model standards within the Essential Public Health Service assigned for the group. These model standards focus on the following main areas:

Model Standard 1: Planning and Implementation
Model Standard 2: State-Local Relationships
Model Standard 3: Performance Management and Quality Improvement
Model Standard 4: Public Health Capacity and Resources

Results, System Gaps and Emerging Concerns

Public Health System Assessment participants from across the state discussed each standard and came to consensus on a score. Using the responses to all of the assessment questions, a scoring process generates performance scores for each Essential Public Health Service. Each Essential Public Health Service score can be interpreted as the overall degree to which the public health system meets the performance standards (quality indicators) for each Essential Public Health Service. Scores can range from a minimum value of 0 percent (no activity is performed pursuant to the standards) to a maximum value of 100 percent (all activities associated with the standards are performed at *optimal* levels). Figure 2 displays the average score for each Essential Public Health Service, along with an overall average assessment score across all Ten Essential Public Health Services. Note that the black bars identify the range of performance score responses within each Essential Public Health Service. Further breakdown of these scores and detailed information about the findings within each Essential Public Health Service can be found in the full report of the Public Health System Assessment in Appendix D.

Figure 2. Summary of Essential Public Health Service Performance Scores



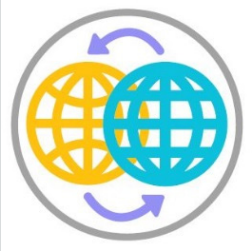
Based on the findings, the State Public Health System was most effective in providing Essential Public Health Service 2 (Diagnose and investigate health problems and health hazards in the community) and Essential Public Health Service 3 (Inform, educate and empower people about health issues). In contrast, scores were considerably lower for Essential Public Health Service 7 (Link people to needed personal health services and assure the provision of healthcare when otherwise unavailable) and Essential Public Health Service 9 (Evaluate effectiveness, accessibility, and quality of personal and population-based health services) indicating areas for greater improvement in our State Public Health System.

Public Health System Areas for Improvement

Immediately following the comprehensive system assessment, a smaller subgroup of public health leaders including Division of Public Health leadership, local health directors, tribal health departments, Public Health Association of Nebraska, Nebraska Association of Local Health Directors, and UNMC College of Public Health convened to synthesize the assessment results. The purpose was to come together as an entire system to better assess next steps and how best to make progress as a system. The facilitated process worked toward collective agreement on the question "**What are the important existing or emerging public health system gaps that would need to be addressed to improve the Nebraska Public Health System?"** The following consensus-based strategic priorities (Figure 3) provide a direction for the Nebraska Public Health System on gaps that need to be addressed to become the healthiest state in the nation.

Figure 3. Priorities for the Nebraska Statewide Public Health System

"What are the important existing or emerging public health system gaps that would need to be addressed to improve the Nebraska State Public Health System?"



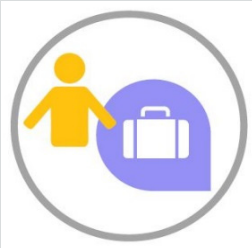
Ensuring Access to Timely and Quality Data

Shared Understanding of Collective Vision and Priorities for Public Health

Integration of Public Health into the Changing Health System

Set a Collective Agenda for Building Public Health Capacity

Communicate the Value of Public Health



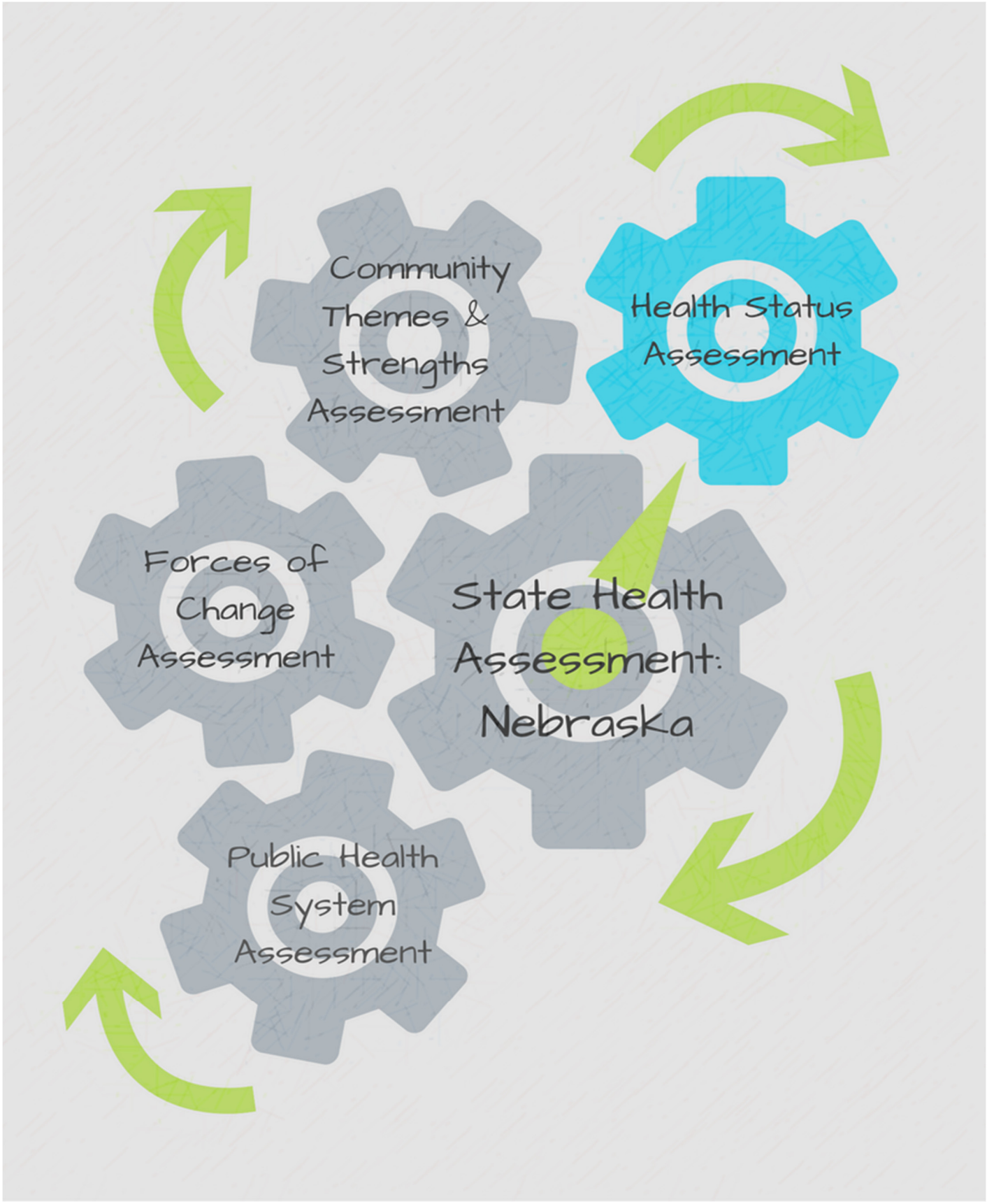
Build Workforce Capacity

Effective Alignment of Partnerships, Resources and Information

Next Steps

The Nebraska State Health Assessment will provide the foundation for the Nebraska State Health Improvement Plan (SHIP) and shape the Strategic Plan for the Division of Public Health. The SHIP is a blueprint for the state and the Strategic Plan identifies the strategic directions for the Division. The next steps will be for statewide partners to identify priorities and then come together to collectively set state goals and performance measures. Then from 2017-2021, public health partners will implement the plan, monitor progress, and evaluate the impact on health outcomes as a result of these implementation efforts.

Appendix A: Nebraska Health Status Assessment



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POPULATION CHARACTERISTICS

Demographics

According to the U.S. Census, there were an estimated 1,881,503 persons living in Nebraska in 2014, an increase of 3.0 percent from the population in 2010 (Table 1). Similarly, the estimated population of the United States increased 3.3 percent between 2010 and 2014.

Population Changes by Age Group

Nebraskans 65 to 84 years old experienced the greatest growth in population of any major age group in the state between 2010 and 2014 (10.5% increase). They now account for an estimated 12.2 percent of the state's population.

The number of elderly Nebraskans (85 years old and older) also showed growth, increasing by 6.5 percent between 2010 and 2014. The population of children 5 to 14 years old grew by 4.1 percent over the last four years.

The population of other age groups increased by 3.1 percent or less. In the case of infants and toddlers (under 5 years of age), the population decreased slightly between 2010 and 2014 (-1.3%).

Racial and Ethnic Minorities

Based on U.S. Census data, the minority population in Nebraska is growing much more rapidly than the non-Hispanic White population. Since 2010, the number of people who were classified as racial or ethnic minorities increased by 12.4 percent to an estimated population of 367,117 in 2014. In contrast, the non-Hispanic White population in Nebraska grew by only 1.0 percent over the four-year period.

While Hispanics were the fastest growing population in Nebraska between 2000 and 2010, the Non-Hispanic Asian/Pacific Islander population was the fastest growing segment between 2010 and 2014, increasing 24.7 percent, followed by Hispanics at 14.3 percent.

As of 2014, racial and ethnic minority residents comprised 19.5 percent of the population in Nebraska. There were an estimated 191,325 persons who identified themselves as Hispanic, accounting for 10.2 percent of the state's total population. Non-Hispanic African Americans made up 4.6 percent of the total, while smaller proportions of the population were non-Hispanic Asian/Pacific Islanders (2.2%) and non-Hispanic American Indians (0.8%).

Table 1: Nebraska Population Characteristics, 2000, 2010, 2014

	2000		2010		% Change in	2014		% Change in
	Population	% of Total	Population	% of Total	Population[a]	Population	% of Total	Population[b]
Nebraska Total	1,711,263	100.0%	1,826,341	100.0%	6.7%	1,881,503	100.0%	3.0%
Gender								
Female	867,912	50.7%	920,045	50.4%	6.0%	944,640	50.2%	2.7%
Male	843,351	49.3%	906,296	49.6%	7.5%	936,863	49.8%	3.4%
Age								
Under 5 years	117,048	6.8%	131,908	7.2%	12.7%	130,178	6.9%	-1.3%
5 - 14 years	252,379	14.7%	251,634	13.8%	-0.3%	261,950	13.9%	4.1%
15 - 24 years	255,240	14.9%	258,206	14.1%	1.2%	266,099	14.1%	3.1%
25 - 44 years	487,107	28.5%	466,014	25.5%	-4.3%	478,399	25.4%	2.7%
45 - 64 years	367,294	21.5%	471,902	25.8%	28.5%	473,888	25.2%	0.4%
65 - 84 years	198,242	11.6%	207,369	11.4%	4.6%	229,137	12.2%	10.5%
85 and older	33,953	2.0%	39,308	2.2%	15.8%	41,852	2.2%	6.5%
Race/Ethnicity								
White, NH[c]	1,494,494	87.3%	1,499,753	82.1%	0.4%	1,514,386	80.5%	1.0%
African American, NH	67,537	3.9%	80,959	4.4%	19.9%	87,349	4.6%	7.9%
Native American, NH	13,460	0.8%	14,797	0.8%	9.9%	15,459	0.8%	4.5%
Asian/Pacific Islander, NH	22,324	1.3%	32,885	1.8%	47.3%	40,994	2.2%	24.7%
Other, NH[d]	1,327	0.1%	2,116	0.1%	59.5%	0	0.0%	
2+ Races, NH	17,696	1.0%	28,426	1.6%	60.6%	31,990	1.7%	12.5%
Hispanic	94,425	5.5%	167,405	9.2%	77.3%	191,325	10.2%	14.3%
Minority[e]	216,769	12.7%	326,588	17.9%	50.7%	367,117	19.5%	12.4%
Urban/Rural[f]								
Urban Area – Large	915,911	53.5%	1,044,362	57.2%	13.7%	1,101,083	58.5%	5.4%
Urban Area – Small	399,699	23.4%	410,021	22.5%	3.1%	413,691	22.0%	0.9%
Rural	395,653	23.1%	371,958	20.4%	-5.9%	366,729	19.5%	-1.4%

[a] Change in population from 2000 to 2010

[b] Change in population from 2010 to 2014

[c] NH=Non-Hispanic

[d] For 2014, the estimates program forced "Other" into specific race categories.

[e] Reflects those who are not "White, NH"

[f] Urban-Large consists of seven counties, including the largest metropolitan counties and their "outlying" counties. Urban-Small consists of 15 counties, including the smallest metropolitan counties and their "outlying" counties along with all micropolitan counties. Rural consists of the remaining 71 counties in Nebraska.

Source: U.S. Census

Rural and Urban Trends

The majority of the population in Nebraska is concentrated in the eastern third of the state, with the remainder of the state being more sparsely populated. In Nebraska, the population density in 2010 was 23.8 persons per square mile compared to 87.4 nationwide. In 2000, there were 33 counties in Nebraska with a population density of <6 persons per square mile (the level which is often used to define frontier counties). By 2010, the number of counties with a population <6 persons per square mile had increased to 34.

The population in the state continues to increase in the more urban areas and decrease in the more rural areas. The population living in the large urban counties increased by 5.4 percent between 2010 and 2014. The population living in the small urban counties remained relatively stable, increasing by 0.9 percent during this period. In contrast, the population living in the rural counties decreased by 1.4 percent over the four-year period.

One-fifth of the population of rural Nebraska counties (19.6%) was 65 years of age or older in 2010, compared to 15.1 percent in small urban counties and 10.7 percent in large urban counties.

{Note: For this report large urban includes seven counties, including those counties that make up the Lincoln and Omaha areas and their surrounding metropolitan outlying counties; small urban includes 15 counties, including the Grand Island and Sioux City areas and their metropolitan outlying counties as well as all micropolitan core counties; rural includes the 71 remaining counties in the state; see methods section within this appendix for further details}

Household/Family Type

In 2010, nearly one-third (32.0%) of the 721,130 households in Nebraska had one or more children under age 18 years living in the home (which equates to more than 230,000 households).

Single-parent households continue to increase in Nebraska. The proportion of family households headed by single parents increased from 23.9 percent in 2000 (Census) to 28.7 percent in 2010 (Census) to 29.6 percent in the 2013 (American Community Survey).

Educational Level of Nebraska Adults

According to the 2009-2013 American Community Survey (ACS), 28.5 percent of persons aged 25 and older in Nebraska had obtained a bachelor's degree or higher while 33.7 percent had some college or technical training. Three out of ten adults in this age group (28.1%) had only a high school diploma or equivalent and 8.0 percent had less than a high school education. The pattern of educational attainment was similar to the nation; however, Nebraska had a slightly higher percentage with some college and a slightly lower percentage without a high school diploma.

Socioeconomic Status

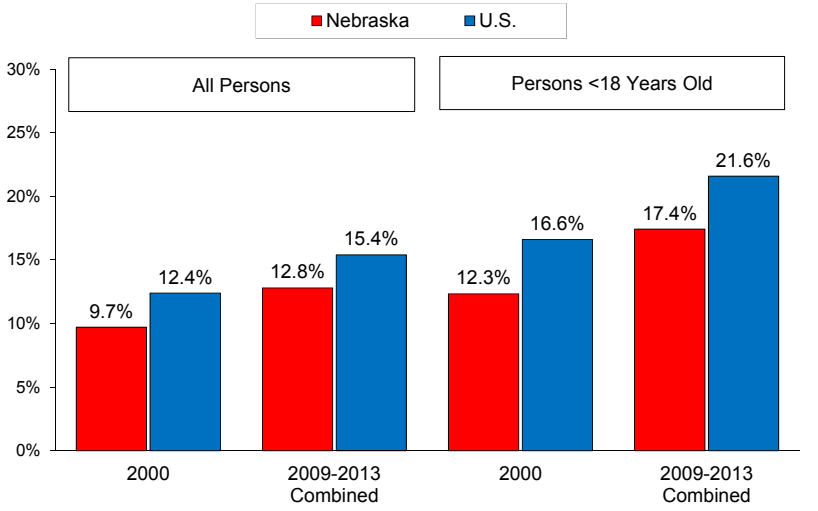
According to the 2009-2013 ACS, the median household income in Nebraska was $51,672, which was very close to the U.S. median at $53,046. There was, however; a large disparity in median incomes across Nebraska counties, ranging from a low of $33,647 in Brown County to a high of $69,965 in Sarpy County.

Poverty

The poverty rate in Nebraska increased from 9.7 percent in 2000 (Census) to 12.8 percent in 2009-2013 (ACS) among all persons and from 12.3 percent to 17.4 percent, respectively, among person under 18 years of age (Figure 1). The national rate was higher than the rate for Nebraska for all persons and those under 18.

Based on the 2009-2013 poverty estimates, an estimated 235,000 persons of all ages and 80,000 persons under 18 years of age were living in poverty.

Figure 1: Poverty Trends,* Nebraska and U.S.



*Percentage below 100% of the federal poverty level
Source: 2000 Census; 2009-2013 American Community Survey (ACS)

Food and Housing Insecurity

Food and housing insecurity can affect the physical and mental health of affected individuals and impede their ability to achieve optimal health. The United States Department of Agriculture (USDA) Economic Research Service defines food insecurity as reduced food intake or reduced dietary quality because the household lacked money and other resources for food. The U.S. Department of Health and Human Services defined housing insecurity as high housing costs in proportion to income, poor housing quality, unstable neighborhoods, overcrowding, or homelessness.

According to the USDA Economic Research Service, about 1 in 7 households in Nebraska (13.9%) were food insecure between 2012 and 2014, which was similar to the national average for the same period (14.3%). This was however an increase from 10.7 percent in Nebraska between 2002 and 2004.

The Nebraska Behavioral Risk Factor Surveillance System (BRFSS) measures food and housing insecurity based on moderate to high stress related to having enough money to buy nutrition foods and having enough money to pay the rent or mortgage among those who rent or own their home. In 2013, about 1 in 5 Nebraska adults (19.0%) reported food insecurity during the past year while more than 1 in 4 (28.8%) reported housing insecurity.

Unemployment

According to the Bureau of Labor Statistics, Nebraska's preliminary seasonally-adjusted unemployment rate was 2.9 percent for December 2015. The unemployment rate in Nebraska has declined steadily since December 2009 when it was at 4.8 percent.

In December 2015, Nebraska tied for second lowest among all 50 states and D.C., and was only 0.2 percentage points behind North Dakota at 2.7 percent, the state with the lowest preliminary unemployment rate. The rate for Nebraska was considerably lower than the preliminary December 2015 rate for the nation overall, at 5.0 percent.

High School Graduation Rates

According to the U.S. Department of Education, the public school 4-year high school graduation rate (defined as the proportion of public high school freshmen who graduate with a regular diploma four years after starting ninth grade) was 88.5 percent in Nebraska during 2013 compared to 81.4 percent nationally. The graduation rate in Nebraska has increased from 86 percent in 2011 and the preliminary 2014 rate is 89.7 percent.

GENERAL HEALTH STATUS

Health Outcomes

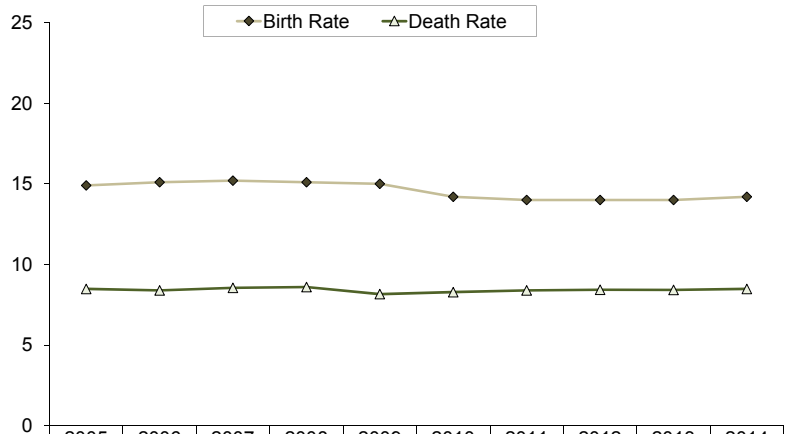
Births

Over the past ten years, the number of births and birth rate in Nebraska were stable between 2005 and 2009, declined between 2009 and 2011, and have since gradually increased (Figure 2). In 2014, there were 26,794 resident births in the state, for a rate of 14.2 live births per 1,000 population. The 2014 Nebraska birth rate (14.2) was higher than the U.S. birth rate (12.5) for the same year.

Deaths

The number of Nebraska births exceeded the number of deaths in the state by more than 10,000 in 2014 (26,794 vs. 15,965, respectively). The death rate in 2014, 8.5 deaths per 1,000 population, was similar to rates over the previous ten years (Figure 2). The 2013 Nebraska death rate (8.4) was similar to the U.S. death rate (8.2) for the same year.

Figure 2: Overall Birth and Death Rates in Nebraska (crude rate per 1,000 population), 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Birth Rate	14.9	15.1	15.2	15.1	15.0	14.2	14.0	14.0	14.0	14.2
Death Rate	8.5	8.4	8.6	8.6	8.2	8.3	8.4	8.4	8.4	8.5

Source: Nebraska Vital Records

Table 2: Leading Causes of Death in Nebraska, 2005 and 2014

2005				2014			
Rank	Cause of Death	Number Deaths	% of Total	Rank	Cause of Death	Number Deaths	% of Total
1	Heart Disease	3,633	24.3%	1	Cancer	3,459	21.7%
2	Cancer	3,353	22.4%	2	Heart Disease	3,290	20.6%
3	Stroke	986	6.6%	3	Chronic Lung	1,028	6.4%
4	Chronic Lung	813	5.4%	4	Stroke	797	5.0%
5	Unintentional Injury	706	4.7%	5	Unintentional Injury	777	4.9%
6	Alzheimer's	473	3.2%	6	Alzheimer's	515	3.2%
7	Diabetes	449	3.0%	7	Diabetes	472	3.0%
8	Pneumonia	341	2.3%	8	Pneumonia	310	1.9%
9	Kidney Disease	245	1.6%	9	Kidney Disease	265	1.7%
10	Hypertension	199	1.3%	10	Hypertension	253	1.6%
	Total	14,950			Total	15,965	

Source: Nebraska Vital Records

Leadings Causes of Death in Nebraska

Cancer was the leading cause of death in Nebraska in 2014, accounting for 3,459 deaths, about 1 in every 5 (21.7%) (Table 2). This marks the sixth consecutive year in which cancer surpassed heart disease as the leading cause of death in Nebraska. This change is due primarily to a substantial decrease in heart disease deaths, and not from a large increase in the number of cancer deaths.

Heart disease was the second leading cause of death in Nebraska in 2014, accounting for 3,290 deaths (20.6%). After heart disease and cancer, no single cause of death comprised more than 6.4 percent of Nebraska resident deaths in 2014. Chronic lung disease, stroke, and unintentional injuries ranked third through fifth in number of deaths, respectively.

While the number of deaths changed for some causes between 2005 and 2014, the order remained the same with the exception of heart disease and cancer flipping as the first and second leading causes of death, and stroke and chronic lung disease flipping as the third and fourth leading causes of death, respectively.

Years of Potential Life Lost (YPLL)

Years of potential life lost (YPLL) is a measure of premature mortality. It is calculated by subtracting the age at death for those persons who died prior to a predetermined endpoint age (in this case, age 75). It is desirable to reduce YPLL since preventing deaths among younger persons is a major public health goal. In 2014, the 15,965 deaths occurring among Nebraska residents resulted in 112,736 YPLL for a rate of 5,739.1 YPLL per 100,000 population (age-adjusted). Overall YPLL remained relatively stable over the past decade in Nebraska, with the 2014 rate (5,739.1) being similar to the 2005 rate (5,742.8); however, it should be noted that the rate fluctuated inconsistently during this period with the rate increasing from 2013 (5,415.1) to 2014.

During the combined years of 2010-2014, cancer had the greatest total YPLL (122,694) (Table 3). When combining all injury together (unintentional injury, suicide, and homicide), injury was just slightly lower at than cancer at 120,838 YPLL. Unintentional injury (when separated from all injury) ranked second at 75,457 YPLL while heart disease ranked third at 67,059 YPLL.

In addition to looking at the total YPLL, it is useful to compare the average YPLL per death. When doing this birth defects had the highest average YPLL per death (among the ten leading causes) at 50.5 YPLL per death. Birth defects was followed by homicide at 42.5, suicide at 29.5, and unintentional injury at 20.7 YPLL per death. In contrast, chronic lung disease resulted in just 2.6 YPLL per death during 2010-2014.

Table 3: Leading Causes of Years of Potential Life Lost (Before Age 75) in Nebraska*, 2010-2014 Combined

Rank	Cause of Death	Total Deaths	Total YPLL	Average YPLL Per Death
-	All Injury	5,034	120,838	24.0
1	Cancer	17,238	122,694	7.1
2	Unintentional Injury	3,638	75,457	20.7
3	Heart Disease	16,584	67,059	4.0
4	Suicide	1,072	31,625	29.5
5	Birth Defects	390	19,688	50.5
6	Homicide	324	13,757	42.5
7	Stroke	4,083	12,749	3.1
8	Chronic Lung Disease	4,847	12,749	2.6
9	Diabetes	2,295	13,559	5.9
10	Pneumonia	1,458	5,137	3.5

Source: Nebraska Vital Records

Life Expectancy

Life expectancy at birth averaged 79.8 years in 2013, with females (82.0 years) expected to live longer than males (77.5 years) in Nebraska. Compared to 2004, life expectancy is up slightly in Nebraska from 79.0 years overall, and for both females (81.3 years) and males (76.5 years). Nebraska males showed a slightly larger increase than Nebraska females in life expectancy over the past decade. In the United States, life expectancy averaged 78.8 years in 2013, with females (81.2 years) expected to live longer than males (76.4 years). The national data indicate that Nebraska residents are expected to live slightly longer than their counterparts nationally.

Health-Related Quality of Life

Health-related quality of life measures seek to determine how adults perceive their health and how well they function physically, psychologically, and socially during their usual daily activities. These measures are important because they can assess dysfunction and disability not measured by standard morbidity and mortality data.

General Health Ratings

In 2014, more than half of Nebraska adults reported their general health as "excellent" or "very good" (55.7%) while an additional one-third reported it to as "good" (31.1%). However, 13.2 percent reported it as "fair" or "poor." Fair or poor general health in Nebraska has remained fairly stable over the past ten years, though Nebraska had a lower percentage compared to the nation overall (16.8%) in 2014 (Figure 3).

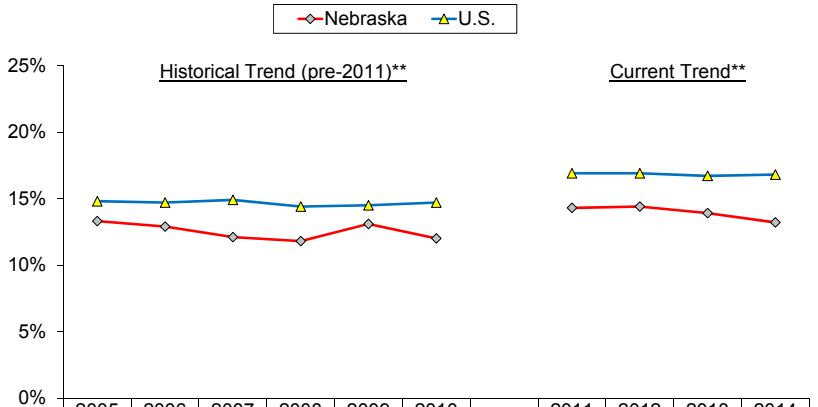
Poor Physical/Mental Health Days

In 2014, the average number of poor physical health days (3.0) and mental health days (2.8) in the past month among Nebraska adults were nearly identical, with poor physical health days tending to be slightly higher than poor mental health days over the past decade (Figure 4). Compared to adults nationally, Nebraska adults reported fewer poor physical health days (3.8 and 3.0 days, respectively) and poor mental health days (3.6 and 2.8 days, respectively) in the past month in 2014.

Sleep

Another factor that can contribute to health is obtaining the recommended amount of sleep. According to the National Heart, Lung, and Blood Institute, adults should obtain on average of 7-8 hours of sleep per day in order to be healthy. In 2014, nearly one-third of Nebraska adults (30.0%) got less than 7 hours of sleep per day, which was lower than the percentage for adults nationally (34.2%).

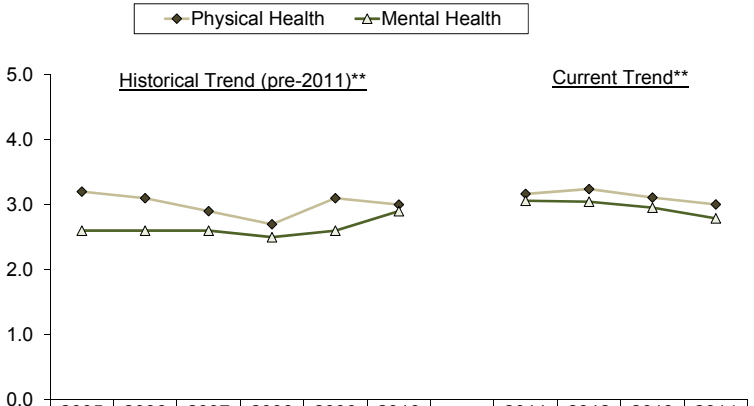
Figure 3: Fair or Poor General Health among Adults*, Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010		2011	2012	2013	2014
Nebraska	13.3	12.9	12.1	11.8	13.1	12.0		14.3	14.4	13.9	13.2
U.S.	14.8	14.7	14.9	14.4	14.5	14.7		16.9	16.9	16.7	16.8

*Percentage of adults 18 and older who report that their general health is fair or poor
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Figure 4: Average Number of Days Physical Health and Mental Health were Not Good during the Past 30 Days*, Nebraska Adults, 2005-2014



	2005	2006	2007	2008	2009	2010		2011	2012	2013	2014
Physical Health	3.2	3.1	2.9	2.7	3.1	3.0		3.2	3.2	3.1	3.0
Mental Health	2.6	2.6	2.6	2.5	2.6	2.9		3.1	3.0	3.0	2.8

*Average number of days during the previous 30 that adults 18 and older report (1) their physical health (illness and injury) was not good and (2) their mental health (including stress, depression, and emotions) was not good
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

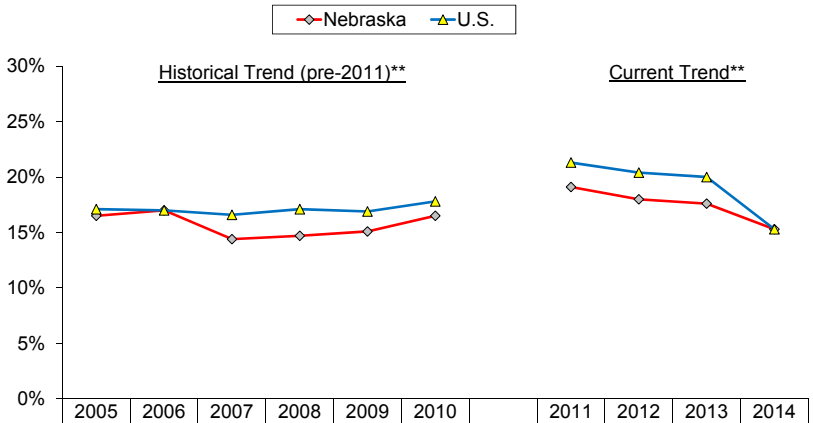
Healthcare Access and Utilization

Persons with healthcare coverage, access to healthcare services, and a primary care provider are more likely to receive appropriate preventive care, such as early prenatal care, immunizations, cancer screenings, etc., which can lead to better health outcomes and overall quality of life.

Healthcare Coverage

In 2014, about 1 in 7 18-64 year old adults in Nebraska (15.3%) reported not having any kind of healthcare coverage (either private or public health insurance). While this remains a significant portion of the population, the percentage of uninsured adults 18-64 years old has declined steadily since 2011 (19.1%), with a noticeable drop in 2014 (Figure 5). Nebraska has historically had a lower percentage of uninsured adults under age 65 compared to the U.S. overall, however; the 2014 percentage for Nebraska and the U.S. was identical.

Figure 5: No Health Care Coverage among Adults 18-64 years old*, Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010		2011	2012	2013	2014
Nebraska	16.5	17.0	14.4	14.7	15.1	16.5		19.1	18.0	17.6	15.3
U.S.	17.1	17.0	16.6	17.1	16.9	17.8		21.3	20.4	20.0	15.3

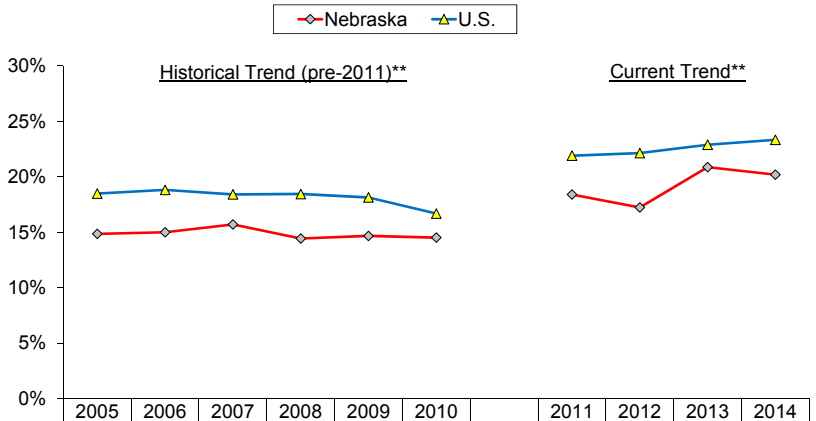
*Percentage of adults 18-64 years old who report that they do not have any kind of health care coverage
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Barriers to Healthcare

Lacking a Personal Healthcare Provider

According to the BRFSS, 1 in 5 Nebraska adults in 2014 (20.2%) reported not having someone they consider to be their personal doctor or healthcare provider. This percentage appears to be increasing, with 2013 (20.9%) and 2014 (20.2%) both being higher than 2011 (18.4%) and 2012 (17.2%) estimates (Figure 6). Positively, Nebraska continues to have a lower percentage of adults with no personal healthcare provider compared to the nation overall.

Figure 6: No Personal Doctor or Health Care Provider among Adults*, Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010		2011	2012	2013	2014
Nebraska	14.9	15.0	15.7	14.4	14.7	14.5		18.4	17.2	20.9	20.2
U.S.	18.5	18.8	18.4	18.4	18.1	16.7		21.9	22.1	22.9	23.3

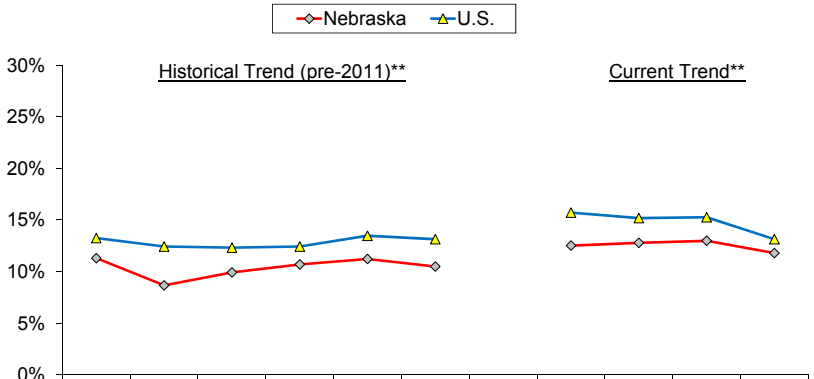
*Percentage of adults 18 and older who report that they do not have a personal doctor or health care provider
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Cost as a Barrier to Care

In 2014, 11.8 percent of Nebraska adults reported that, at least once during the past 12 months, they needed to but were unable to see a doctor due to potential cost of care. The percentage for Nebraska was

relatively stable between 2005 and 2010 and between 2011 and 2014 (Figure 7). Cost continues to be less of a barrier to needed care among Nebraska adults compared to adults nationally.

Figure 7: Cost Prevented Needed Care during the Past Year among Adults*, Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010		2011	2012	2013	2014
Nebraska	11.3	8.7	9.9	10.7	11.2	10.5		12.5	12.8	13.0	11.8
U.S.	13.3	12.4	12.3	12.4	13.5	13.1		15.7	15.2	15.3	13.1

*Percentage of adults 18 and older who report that they needed to see a doctor but could not because of cost during the past 12 months
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Hospitalizations

According to the Nebraska Hospital Discharge Data (NDHHS) the number of inpatient hospitalizations in 2014 among Nebraska residents receiving care in Nebraska hospitals was 184,741. The actual number of hospitalizations among Nebraska residents is expected to be higher as some would have received care out of state and not all hospitals in Nebraska report their data to the Nebraska Hospital Association.

During the combined years of 2005-2009 and 2010-2014 the average number of hospitalizations per year decreased only slightly (193,924 and 192,013, respectively), but both periods were higher than the 2014 number. Decreases in inpatient hospitalizations do not necessarily reflect less disease or injury needing medical care, and may have resulted from advancements in medical care allowing for more outpatient services, increased utilization of ambulatory centers, physician offices, and clinics. An expected movement towards value-based care suggests that this trend could continue into the future.

When observing broader cause categories, pregnancy and childbirth (14.1%) were the most frequent cause of hospitalizations in Nebraska during 2014 (Table 4). Circulatory system diseases (11.4%), respiratory system diseases (8.2%), digestive system diseases (8.0%), and injury and poisoning (7.3%) were also leading causes in the state during 2014.

Table 4: Leading Causes of Inpatient Hospitalization in Nebraska*, 2014

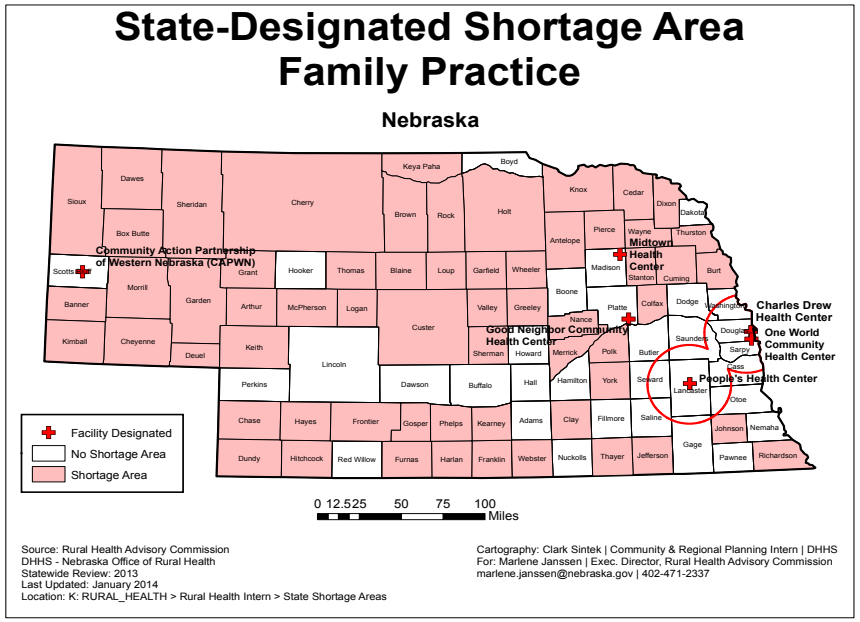
Cause	#	%
Pregnancy & Childbirth	26,102	14.1%
Circulatory System Diseases	21,109	11.4%
Respiratory System Diseases	15,213	8.2%
Digestive System Diseases	14,702	8.0%
Injury & Poisoning	13,534	7.3%
Mental Disorders	12,938	7.0%
Musculoskeletal System Diseases	11,832	6.4%
Infections & Parasitic Diseases	7,702	4.2%
Genitourinary System Diseases	6,476	3.5%
Neoplasms	6,004	3.2%
Endocrine, Nutritional, Metabolic, Immunologic Disorders	5,551	3.0%
Nervous System & Sense Organ Diseases	3,086	1.7%
Skin & Subcutaneous Tissue Diseases	2,997	1.6%
Anemia & Diseases of the Blood and Blood -Forming Organs	1,698	0.9%
Congenital Anomalies (i.e., Birth Defects)	693	0.4%
All Others	35,104	19.0%
Total	184,741	100.0

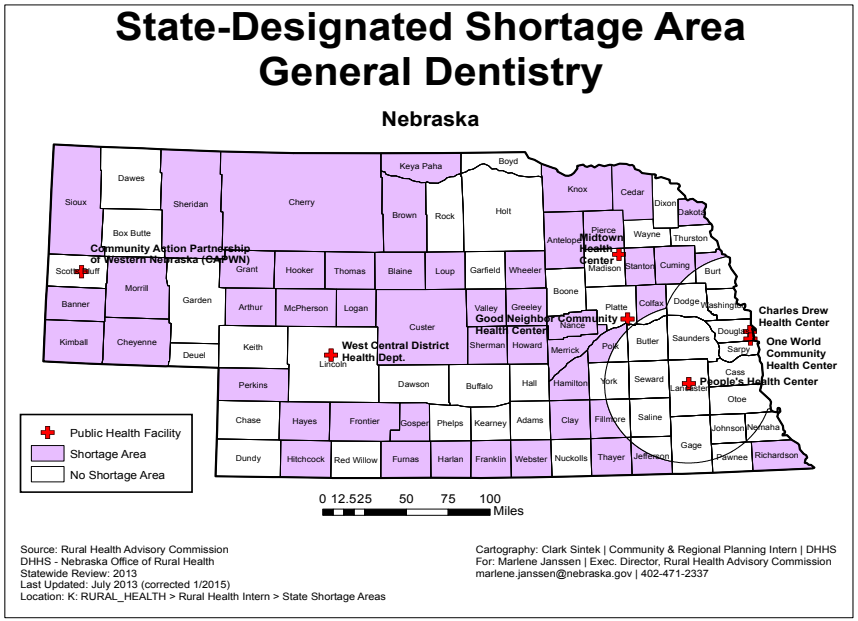
*Among Nebraska residents, based on the general ICD-9-CM categories
Source: Nebraska Hospital Discharge Data, NDHHS

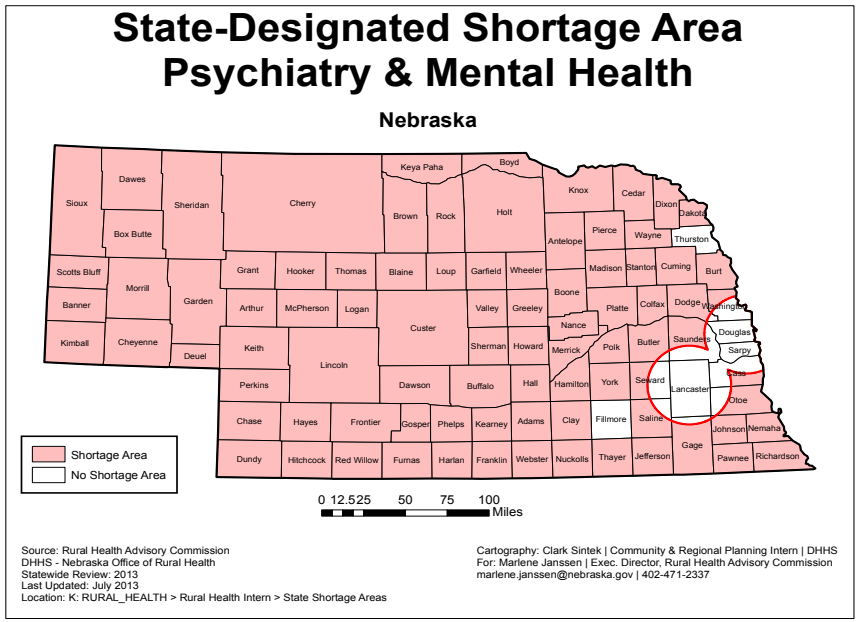
Shortage Area Designations

Access to physical health, mental health and dental health services, especially specialty care, varies greatly across the state. Rural areas often have fewer healthcare resources so people must travel greater distances to reach healthcare providers. Since people tend to have greater need for healthcare as they age, access to healthcare services is likely to become increasingly difficult in rural areas as rural hospitals struggle to stay operational and the proportion of elderly in the population increases.

Much of the state has been designated as state or national shortage areas for specific physician specialties, for dentists, or for psychiatrists and mental health practitioners. In fact, for psychiatry and mental health practitioners, the entire state (with the exception of Lincoln and Omaha and their immediate surrounding areas) is a state-designated mental health shortage area. The maps below depict state-designated shortage areas.







CHRONIC DISEASE

Cardiovascular Disease

Cardiovascular disease (CVD) includes all diseases of the heart and blood vessels, including coronary heart disease, stroke, congestive heart failure, hypertensive disease, and atherosclerosis. CVD is a chronic disease, with an onset that often extends decades after exposure to one or more risk factors.

Heart Disease

Coronary heart disease (or coronary artery disease) is a narrowing of the small blood vessels that supply blood and oxygen to the heart (coronary arteries). Coronary heart disease often results from the build-up of fatty material and plaque (atherosclerosis). As the coronary arteries narrow, the flow of blood to the heart can slow or stop. This disease can cause chest pain (stable angina), shortness of breath, heart attack, or other symptoms.

Prevalence

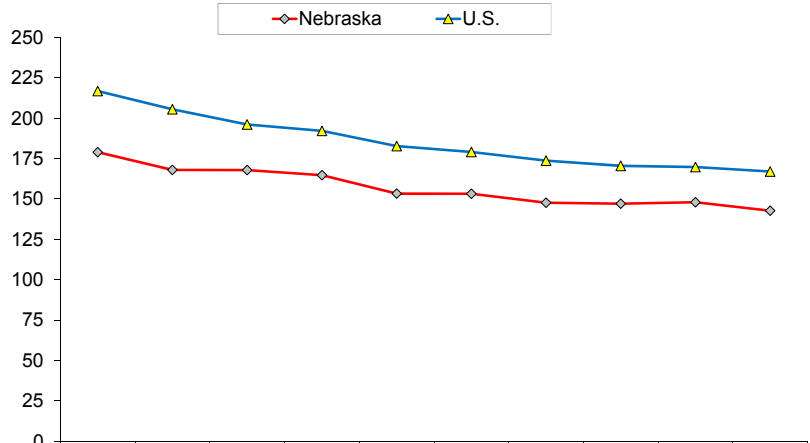
According to the 2014 Nebraska BRFSS, 1 in 17 Nebraska adults (5.8%) reported that they have ever been told they had a heart attack or coronary heart disease. This percentage was stable over the past ten years and similar to the national percentage.

Mortality

There were 3,290 deaths due to heart disease in Nebraska during 2014, accounting for 20.6 percent of all deaths among Nebraska residents. After many years as the leading cause of death, heart disease now ranks second, passed by cancer in 2009. This shift was due primarily to a substantial decrease in heart disease deaths, and not from an increase in cancer deaths. In fact, the age-adjusted heart disease death rate in Nebraska declined 20.3 percent between 2005 and 2014 (Figure 8).

Nationwide, a similar trend was evident; however, the heart disease death rate for Nebraska was lower than the rate nationally for each of the past ten years.

Figure 8: Heart Disease Death Rate per 100,000 population (age-adjusted), Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	179.0	168.0	167.9	164.7	153.3	153.2	147.7	147.0	147.9	142.7
U.S.	216.8	205.5	196.1	192.1	182.8	179.1	173.7	170.5	169.8	167.0

Source: Nebraska Vital Records; National Center for Health Statistics

Hospitalizations

With the exception of hospitalizations resulting from pregnancy and childbirth, heart disease was the leading cause of hospitalization in Nebraska during 2014, with 14,090 inpatient hospitalizations (7.6% of the total). This translates into a crude rate of 74.9 hospitalizations per 10,000 Nebraska residents. When comparing the five year periods of 2005-2009 and 2010-2014 the average annual number of hospitalizations due to heart disease decreased by more than 2,600 hospitalizations while the crude rate dropped 17.6 percent.

Stroke

Cerebrovascular disease is commonly referred to as stroke. Stroke is another type of CVD. It affects the arteries leading to and within the brain. A stroke occurs when a blood vessel that carries oxygen and nutrients to the brain is either blocked by a clot or bursts. Strokes can cause severe mental and physical complications, such as paralysis, memory loss, vision loss, speech difficulties, and death.

Prevalence

According to the 2014 Nebraska BRFSS, 1 in 38 Nebraska adults (2.6%) reported that they have ever been told they had a stroke. This percentage was stable over the past ten years and in 2014 Nebraska had a lower percentage than the nation overall (3.0%).

Mortality

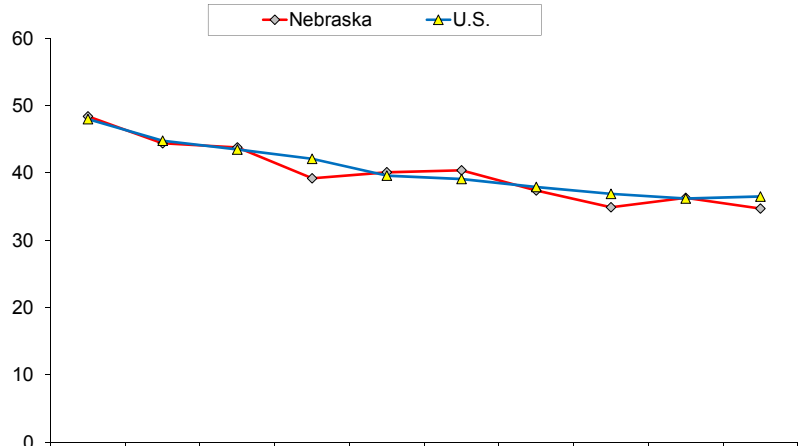
Stroke was the cause of 797 deaths in Nebraska during 2014, accounting for 5.0 percent of all Nebraska deaths during the year. The age-adjusted death rate due to stroke in Nebraska declined from 48.4 deaths per 100,000 population in 2005 to 34.7 in 2014, for a 28.3 percent overall decline (Figure 9). As a result, stroke dropped from the third to the fourth leading causes of death in Nebraska beginning in 2008.

U.S. death rates due to stroke have experienced a similar decline between 2005 and 2014, decreasing 31 percent from 48.0 to 36.5 deaths per 100,000 population, respectively.

Hospitalizations

Strokes accounted for 3,569 inpatient hospitalizations in Nebraska during 2014 (1.9% of the total). This translates into a crude rate of 19.0 hospitalizations per 10,000 Nebraska residents. While the actual number increased slightly, the crude rate for hospitalizations due to stroke remained virtually unchanged when comparing the two, five year time periods of 2005-2009 and 2010-2014.

Figure 9: Stroke Death Rate per 100,000 population (age-adjusted), Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	48.4	44.4	43.8	39.2	40.1	40.4	37.4	34.9	36.3	34.7
U.S.	48.0	44.8	43.5	42.1	39.6	39.1	37.9	36.9	36.2	36.5

Source: Nebraska Vital Records; National Center for Health Statistics

Clinical Risk Factors for Cardiovascular Disease

High Blood Pressure

High blood pressure (also referred to as hypertension) occurs when an individual has a systolic blood pressure of 140 mg/dL or higher or a diastolic blood pressure of 90 mg/dL or higher. High blood pressure often goes undetected or is not properly controlled. According to the American Heart Association roughly 1 in 5 Americans with high blood pressure are unaware that they have it, while half of those with high blood pressure do not have it under control.

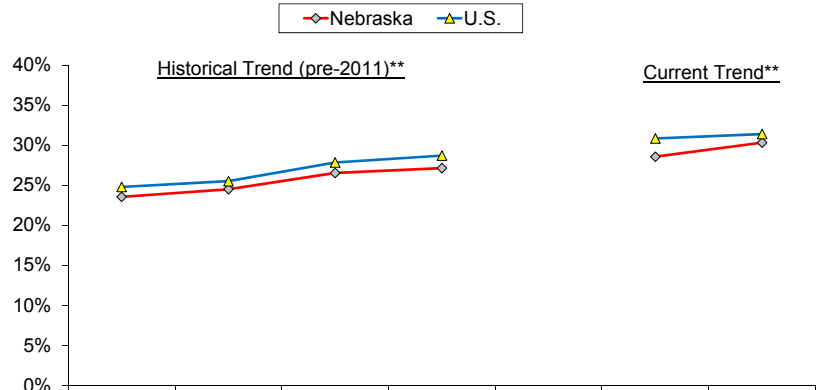
Prevalence

In Nebraska and nationwide, prevalence of high blood pressure has increased in recent years. In Nebraska, the proportion of adults reporting they have been told they have high blood pressure increased from 2003 (23.5%) to 2009 (27.1%) and from 2011 (28.5%) to 2013

(30.3%) (Figure 10). Over the past decade, Nebraska adults, compared to adults nationally, were slightly less likely to report having been diagnosed with high blood pressure.

The majority of adults who have been diagnosed with high blood pressure (78.5% in Nebraska and 78.1% in the U.S. in 2013) reported currently taking medication to control their hypertension. This percentage remained unchanged in Nebraska between 2011 (77.9%) and 2013 (78.5%).

Figure 10: Ever Told they have High Blood Pressure among Adults*, Nebraska and U.S., 2003-2013



	2003	2005	2007	2009		2011	2013
Nebraska	23.5	24.5	26.5	27.1		28.5	30.3
U.S.	24.8	25.5	27.8	28.7		30.8	31.4

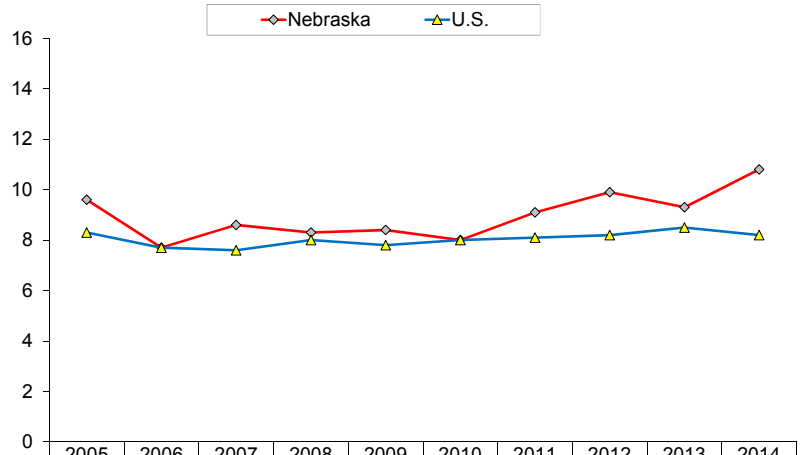
*Percentage of adults 18 and older who report that they have ever been told by a doctor, nurse, or other health professional that they have high blood pressure (excluding pregnancy)
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Mortality

High blood pressure was the cause of 253 deaths in Nebraska during 2014, making it the tenth leading cause of death in the state. Following a one year drop between 2005 and 2006, the age-adjusted death rate due to high blood pressure in Nebraska has increased steadily from 7.7 deaths per 100,000 population in 2006 to 10.8 in 2014, which was the highest rate during any of the past ten years (Figure 11).

The Nebraska death rate for high blood pressure in 2014 was 1.3 times higher than the U.S. death rates (10.8 and 8.2, respectively).

Figure 11: High Blood Pressure Death Rate per 100,000 population (age-adjusted), Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	9.6	7.7	8.6	8.3	8.4	8.0	9.1	9.9	9.3	10.8
U.S.	8.3	7.7	7.6	8.0	7.8	8.0	8.1	8.2	8.5	8.2

Source: Nebraska Vital Records; National Center for Health Statistics

Hospitalizations

High blood pressure accounted for 1,008 inpatient hospitalizations in Nebraska among Nebraska residents during 2014 (0.5% of the total). This translates into a crude rate of 5.4 hospitalizations per 10,000 Nebraska residents. When comparing the five year periods of 2005-2009 and 2010-2014 the average annual number of hospitalizations due to high blood pressure increased by about 90 hospitalizations while the crude rate increased 5.5 percent.

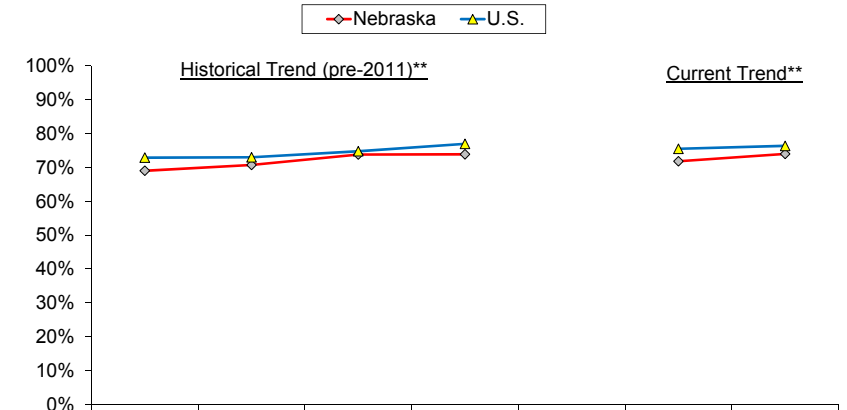
High Blood Cholesterol

High blood cholesterol is a major risk factor for coronary heart disease. Persons with elevated blood cholesterol levels (total cholesterol of 200 mg/dL or higher) are at increased risk of developing coronary heart disease. The National Institutes of Health recommend that blood cholesterol levels be checked at least once every five years in healthy adults. For many people with high cholesterol, diet and exercise alone are enough to lower and maintain cholesterol at healthy levels. Cholesterol-lowering drugs are also available to help manage cholesterol levels.

In 2013, just under three-fourths of adults in Nebraska (74.0%) and slightly more than three-fourths of adults in the U.S. (76.4%) had their blood cholesterol level checked in the past five years. While screening rates have increased in the state and the nation over the last ten years, more than one-fourth of adults in Nebraska remain unscreened. In Nebraska, the proportion of adults reporting they have had a cholesterol screening during the past five years increased from 2003 (69.0%) to 2009 (73.9%) and from 2011 (71.8%) to 2013 (74.0%) (Figure 12). The cholesterol screening rate in Nebraska continues to be slightly lower than the rate nationally during this period.

Between 2003 and 2009, among those who have ever had their cholesterol checked, an increasing proportion of adults reported having ever been told by a health professional that their cholesterol was high, 30.5 percent and 37.4 percent, respectively (Figure 13). During 2011 and 2013 the percentage was stable at just under 2 in 5 adults, 38.3 percent and 37.4 percent, respectively. The national percentage for adults having ever been told their cholesterol was high has remained similar to the Nebraska percentage over the past decade.

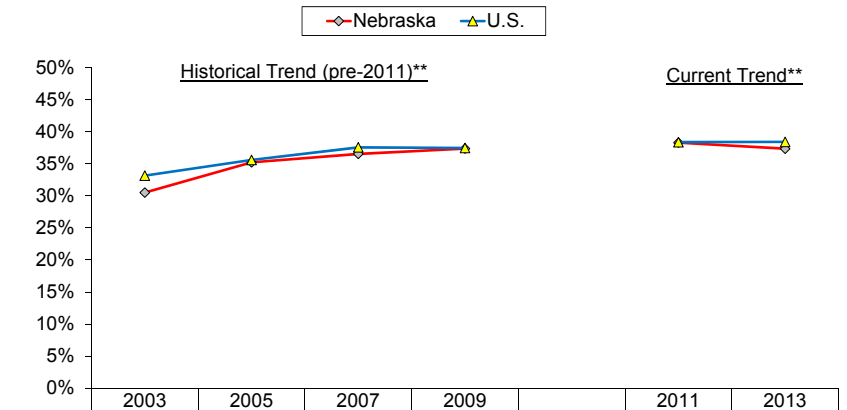
Figure 12: Had Cholesterol Checked in Past Five Years among Adults*, Nebraska and U.S., 2003-2013



	2003	2005	2007	2009		2011	2013
Nebraska	69.0	70.7	73.8	73.9		71.8	74.0
U.S.	72.9	73.0	74.8	77.0		75.5	76.4

*Percentage of adults 18 and older who report having their blood cholesterol checked during the past 5 years
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Figure 13: Ever Told they have High Cholesterol, among Adults who have Ever Had their Cholesterol Checked*, Nebraska and U.S., 2003-2013



	2003	2005	2007	2009		2011	2013
Nebraska	30.5	35.2	36.6	37.4		38.3	37.4
U.S.	33.2	35.6	37.6	37.5		38.4	38.4

*Among adults 18 and older who report ever having had their cholesterol checked, the percentage who report that they have ever been told by a doctor, nurse, or other health professional that their blood cholesterol is high
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

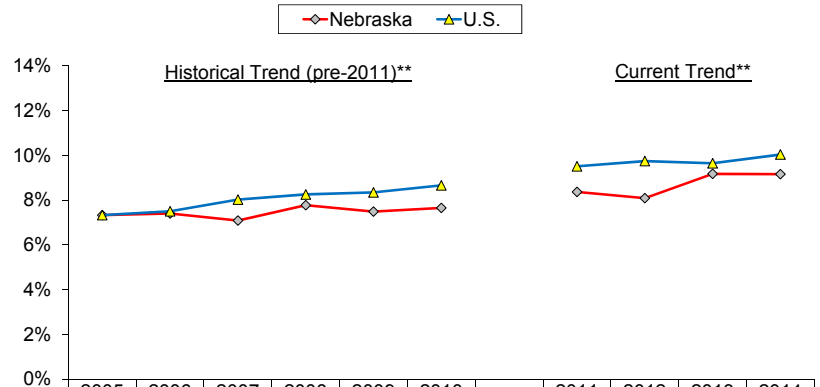
Diabetes

Diabetes is a chronic disease marked by elevated blood sugar levels caused by the body not producing or properly using insulin. Insulin helps glucose (sugar) leave the blood and enter the body's cells. Type 1 diabetes occurs when the body does not produce insulin, affecting about 5-10 percent of people with diabetes. Type 2 diabetes develops when the body does not make enough insulin or does not efficiently use insulin, affecting about 90-95 percent of people with diabetes.

Diabetes Prevalence

The self-reported prevalence of diagnosed diabetes among adults in Nebraska remained fairly constant at 4 to 5 percent between 1994 and 2001. Since then, the prevalence began to steadily rise (Figure 14). In 2014, nearly 1 in 10 Nebraska adults (9.2%) report having ever been told that they have diabetes. Compared to adults nationally, Nebraska adults reported a slightly lower percentage during 2014, 10.0 percent and 9.2 percent, respectively.

Figure 14: Ever Told they have Diabetes (excluding pregnancy) among Adults*, Nebraska and U.S., 2005-2014



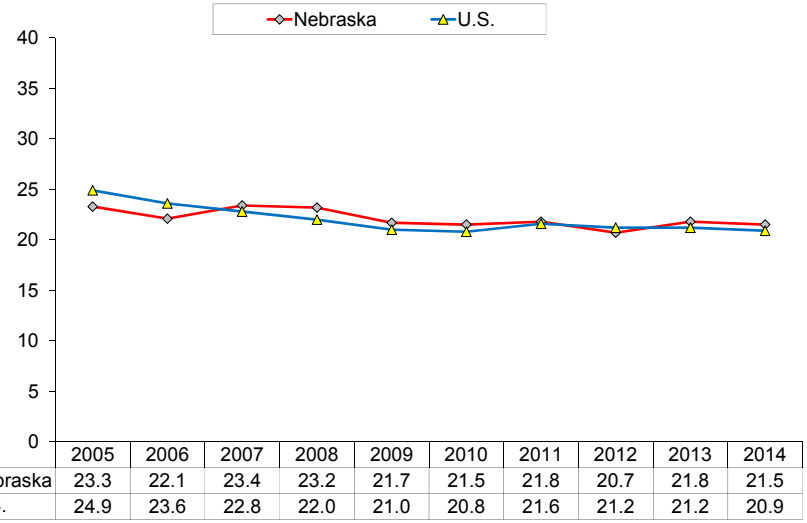
	2005	2006	2007	2008	2009	2010		2011	2012	2013	2014
Nebraska	7.3	7.4	7.1	7.8	7.5	7.7		8.4	8.1	9.2	9.2
U.S.	7.3	7.5	8.0	8.3	8.3	8.7		9.5	9.7	9.6	10.0

*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 diabetes (excluding pregnancy)
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Diabetes Mortality

Diabetes was the primary cause of 472 deaths in Nebraska in 2014, making it the seventh leading cause of death in the state. Age-adjusted diabetes death rates in Nebraska increased during the 1990s, but appear to have stabilized during the present decade with 21.5 deaths per 100,000 population in 2014 (Figure 15). Between 2005 and 2014, diabetes death rates for Nebraska have been similar to rates nationally.

Figure 15: Diabetes Death Rate per 100,000 population (age-adjusted), Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	23.3	22.1	23.4	23.2	21.7	21.5	21.8	20.7	21.8	21.5
U.S.	24.9	23.6	22.8	22.0	21.0	20.8	21.6	21.2	21.2	20.9

Source: Nebraska Vital Records; National Center for Health Statistics

In 2014, diabetes was listed as the primary cause or a contributing factor in 1,731 deaths among Nebraska residents, a rate of 77.8 deaths per 100 population (age-adjusted). This suggests that diabetes is a factor in many deaths each year resulting from other causes.

Diabetes Hospitalizations

Diabetes accounted for 2,207 inpatient hospitalizations in Nebraska among Nebraska residents during 2014 (1.2% of the total). This translates into a crude rate of 11.7 hospitalizations per 10,000 Nebraska residents. When comparing the five year periods of 2005-2009 and 2010-2014 the average annual number of hospitalizations due to diabetes increased by about 250 hospitalizations while the crude rate increased 9.2 percent.

Diabetes Management

Factors like increasing age, age of onset of diabetes, and duration of diabetes all have an effect on health outcomes for persons with diabetes. Modifiable risk factors such as smoking, obesity, physical activity, high blood pressure, and high cholesterol also have an impact on the health of persons with diabetes:

In addition, the following good health practices can help improve and maintain the health of persons with diabetes.

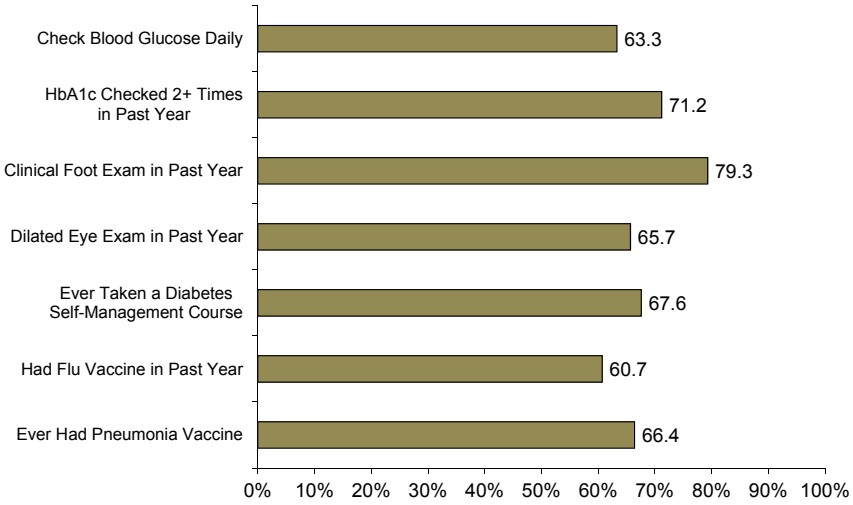
- Self-monitoring of blood glucose level at least once a day.
- Foot examination by a health professional to check for sores or irritations each year.
- Comprehensive dilated eye and visual exam each year.
- Hemoglobin A1c (HbA1c) tested at least twice each year.
- Participation in a diabetes self-management course.
- Immunizations for influenza (annually) and pneumonia (lifetime).

Of these seven good health practices, Nebraska adults with diabetes were most likely to have had a clinical foot exam during the past year (79.3%) in 2014 (Figure 16). This was an increase from the percentage in 2012 (72.1%) and 2013 (71.5%). The next highest percentage during 2014 was for having had their hemoglobin A1c checked two or more times during the past year (71.2%). Both of these measures represent services they might receive at a primary care office.

The next most common practices during 2014 included having ever taken a diabetes self-management education course (67.6%), having ever had a pneumonia vaccination (66.4%), having had a dilated eye exam during the past year (65.7%), and checking their blood glucose daily (63.3%). The least common practice during 2014 was for having had a flu vaccination during the past year (60.7%). Positively, Nebraska adults with diabetes were more likely than their national counterparts during 2014 to report getting a flu vaccination during the past year (60.7% and 56.2%, respectively) and to report ever getting a pneumonia vaccination (66.4% and 61.4%, respectively).

While most diabetics in Nebraska are engaging in these good diabetes management practices, a substantial number continue to not engage in them, ranging from about 20-40 percent depending on the practice.

Figure 16: Diabetes Management Practices among Nebraska Adults who have Ever been Diagnosed with Diabetes, 2014



Source: Behavioral Risk Factor Surveillance System (BRFSS)

Cancer

Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. If the spread is not controlled, it can result in death. Cancer is caused by both external factors (e.g., tobacco, infectious organisms, chemicals, and radiation) and internal factors (e.g., inherited mutations, hormones, immune conditions, and mutations that occur from metabolism). These causal factors may act together or in sequence to initiate and promote carcinogenesis. Ten or more years often pass between exposures to external factors and detectable cancer.

Cancer Prevalence

According to results from the 2014 Nebraska BRFSS, about 1 in 9 Nebraska adults (10.7%) reported that they have ever been told they have cancer. More specifically, 5.7 percent reported ever being told they have skin cancer and 6.1 percent reported ever being told they have some other form of cancer. These percentages have been stables since 2011 and are similar to the nation overall.

Cancer Mortality

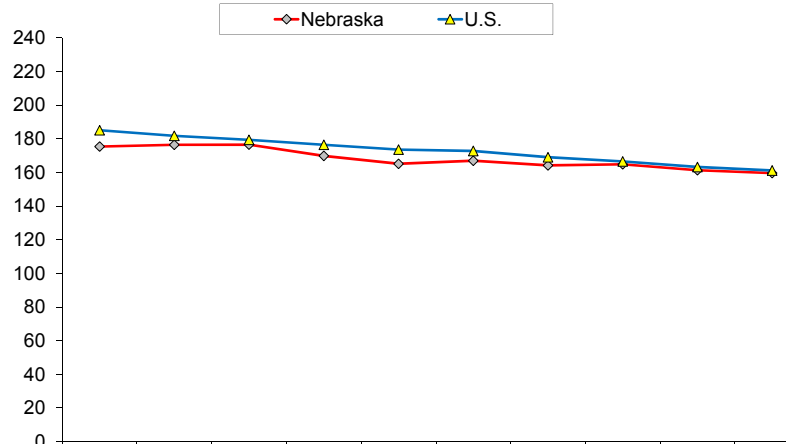
Although cancer death rates have declined gradually over the past decade, cancer overtook heart diseases as the leading cause of death in Nebraska beginning in 2009.

In 2014, there were 3,459 cancer deaths in Nebraska, accounting for more than 1 in 5 deaths. The state's age-adjusted cancer death rate per 100,000 population declined 9.0 percent between 2005 and 2014, from 175.4 to 159.6, respectively (Figure 17). The 2014 cancer death rate in Nebraska was similar to the nation overall (159.6 and 161.2, respectively).

Lung cancer was the leading cause of cancer death in Nebraska during 2014, accounting for 888 deaths at a rate of 41.3 deaths per 100,000 population (age-adjusted) (Figure 18). Colorectal cancer (i.e., colon cancer) accounted for the second most cancer deaths during 2014 (347 deaths). While it accounted for the second most cancer deaths, the colon cancer death rate of 16.2 deaths per 100,000 population (age-adjusted) was lower than the rate for female breast cancer (21.6) and prostate cancer (19.0), which accounted for the third and fourth most cancer deaths, respectively. Melanoma and cervical cancer had a much lower death rate during 2014 (2.4 and 2.3, respectively) compared to the other four types presented.

While it remains the leading cause of cancer death, the age-adjusted lung cancer death rate (per 100,000 population) declined steadily over the past decade, from 48.2 in 2005 to 41.3 in 2014. Deaths due to colon cancer and prostate cancer have also shown declines between 2005 and 2014. Death rates for female breast cancer and melanoma have remained relatively stable over this period, while rates for cervical cancer have increased slightly.

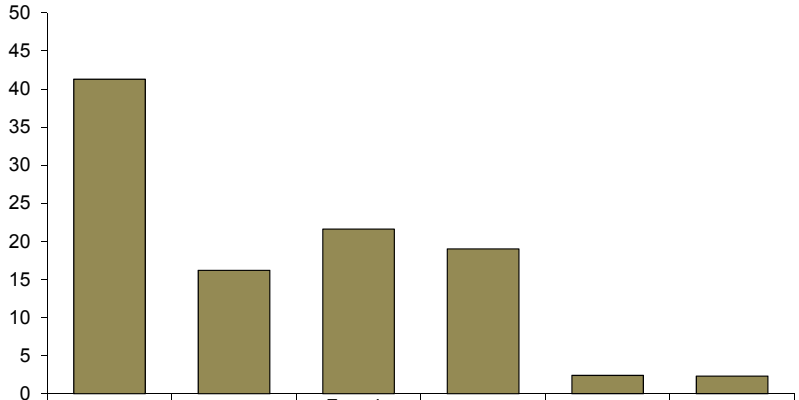
Figure 17: Cancer Death Rate (overall) per 100,000 population (age-adjusted), Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	175.4	176.4	176.5	169.8	165.1	167.0	164.2	164.8	161.3	159.6
U.S.	185.1	181.8	179.3	176.4	173.5	172.8	169.0	166.5	163.2	161.2

Source: Nebraska Vital Records; National Center for Health Statistics

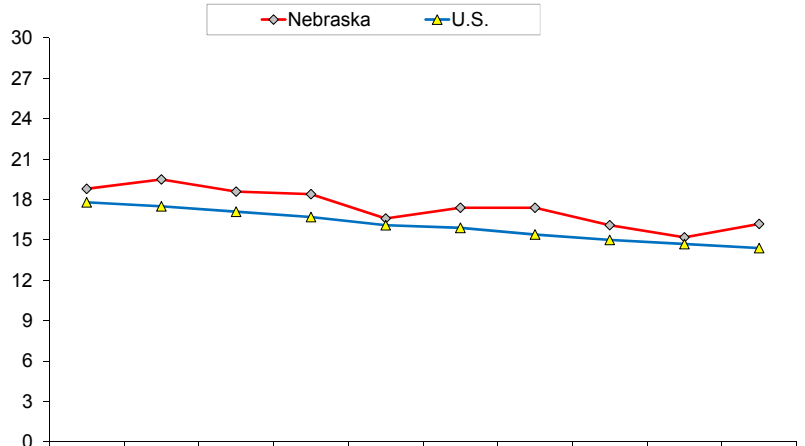
Figure 18: Cancer Death Rates in Nebraska, by Type*, per 100,000 population (age-adjusted), 2014



	Lung	Colon	Female Breast	Prostate	Melanoma	Cervical
Rate	41.3	16.2	21.6	19.0	2.4	2.3
# Deaths	888	347	251	176	53	25

*Breast and cervical rates based on female population, prostate based on male population
Sources: Nebraska Vital Records

Figure 19: Colon Cancer Death Rate per 100,000 population (age-adjusted), Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	18.8	19.5	18.6	18.4	16.6	17.4	17.4	16.1	15.2	16.2
U.S.	17.8	17.5	17.1	16.7	16.1	15.9	15.4	15.0	14.7	14.4

Source: Nebraska Vital Records; National Center for Health Statistics

Over the past decade, Nebraska death rates for cervical, prostate, and melanoma cancers have been nearly identical to the nation overall. Lung and female breast cancer death rates in Nebraska were lower than the nation during several of the past ten years, particularly the first half of the past decade. The death rate for colon cancer on the other hand, has been higher than the national rate each of the past ten years, even if only slightly higher during some of those years (Figure 19).

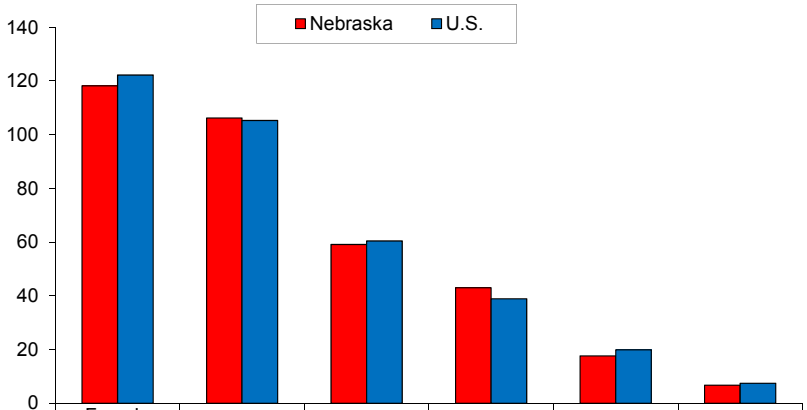
Cancer Hospitalizations

Cancer accounted for 4,892 inpatient hospitalizations in Nebraska among Nebraska residents during 2014 (2.6% of the total). This translates into a crude rate of 26.0 hospitalizations per 10,000 Nebraska residents. When comparing the five year periods of 2005-2009 and 2010-2014 the average annual number of hospitalizations due to cancer decreased by more than 800 hospitalizations while the crude rate dropped 16.5 percent. Colon cancer was the type of cancer most likely to result in inpatient care, accounting for 733 hospitalizations in 2014, for a crude rate of 3.9 hospitalizations per 10,000 Nebraska residents. It is important to keep in mind that much of the cancer care now provided occurs in outpatient settings.

Incidence of Cancer

In 2012, a total of 8,953 cases of invasive cancer were recorded in Nebraska, for an age-adjusted rate of 432.6 cases per 100,000 population. The most commonly diagnosed cancers (except cancers of the skin) among Nebraskans included cancers of the female breast (1,275), lung (1,232), prostate (1,066), and colon (885). Together these cancers comprised half of all new cases diagnosed in 2012 (49.7%). Incidence rates in 2012 (age-adjusted per 100,000 population) were highest for female breast (118.2) and prostate (106.2) followed by lung (59.1) and colon (43.0) followed by melanoma (17.6) and cervical (6.7) (Figure 20).

Figure 20: Cancer Incidence Rates, by Type*, per 100,000 population (age-adjusted), Nebraska and U.S., 2012



	Female Breast	Prostate	Lung	Colorectal	Melanoma	Cervical
Nebraska	118.2	106.2	59.1	43.0	17.6	6.7
U.S.	122.2	105.3	60.4	38.9	19.9	7.4

*Invasive cases only, breast and cervical rates based on female population, prostate based on male population
Sources: Nebraska Cancer Registry; National Center for Health Statistics

Incidence rates for many types of cancer have remained stable or declined in Nebraska over the past decade. Of the cancer presented in Figure 18, rates for colon and prostate (age-adjusted per 100,000 population) have shown the sharpest declines (from 58.0 to 43.0 and from 157.2 to 106.2 between 2005 and 2014, respectively). Lung cancer incidence declined slightly during this period while female breast, melanoma, and cervical cancers have remained relatively stable. Colon is the only of the cancers presented in Figure 18 where the Nebraska rate was higher than the U.S. rate in 2012.

Cancer Screening

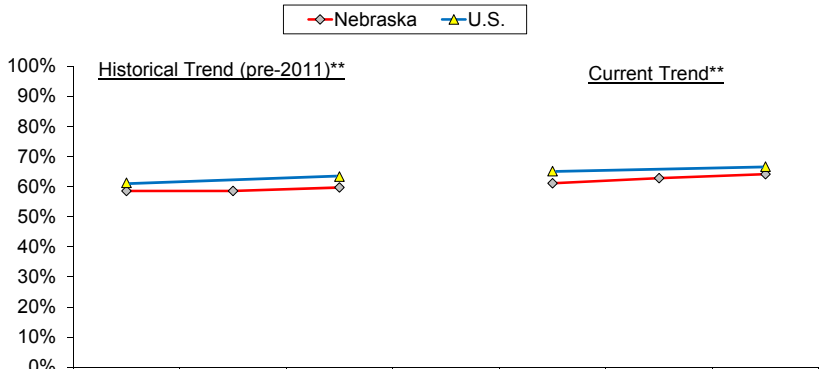
Regular screening examinations by a healthcare professional can result in the detection and removal of precancerous growths, as well as the diagnosis and treatment at an early stage.

Colon Cancer Screening

The U.S. Preventive Services Task Force recommends that adults 50-75 years old have a fecal occult blood test (FOBT) ever year, or a sigmoidoscopy every five years in combination with an FOBT every three years, or a colonoscopy every ten years.

In 2014, about two-thirds of Nebraska adults 50 to 75 years old (64.1%) reported being up-to-date on their colon cancer screening. Colon cancer screening has increased in Nebraska over the past ten years (Figure 21). Most recently, the percentage increased from 61.1 percent in 2012 to 64.1 percent in 2014. Despite the steady increase in colon cancer screening in Nebraska, 50-75 year old adults nationally continue to be more likely to be up-to-date on their colon cancer screening (64.1% and 66.6% in 2014, respectively, in 2014).

Figure 21: Up-To-Date on Colon Cancer Screening among Adults 50-75 Years Old*, Nebraska and U.S., 2004-2014



	2008	2009	2010		2012	2013	2014
Nebraska	58.5	58.5	59.7		61.1	62.8	64.1
U.S.	61.2		63.3		65.1		66.6

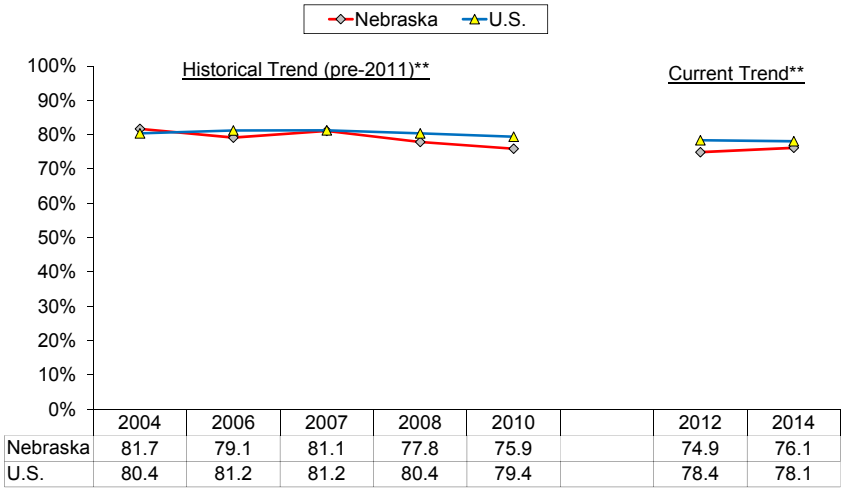
*Percentage of adults 50–75 years old who report having had a fecal occult blood test (FOBT) during the past year, or a sigmoidoscopy during the past 5 years and an FOBT during the past 3 years, or a colonoscopy during the past 10 years (U.S. data only collected during even calendar years)
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Breast Cancer Screening

Mammograms are considered the best method of detecting breast cancer early, when it is easier to treat and before it is big enough to feel or cause symptoms. The U.S. Preventive Services Task Force recommends that women 50-74 years old receive a mammogram every two years.

In 2014, about 3 in 4 Nebraska women 50 to 74 years old (76.1%) were up-to-date on their breast cancer screening. The 2014 percentage was similar to the 2012 percentage (74.9%) (Figure 22). However, unlike colon cancer screening, the percentage remained stable if not declined slightly between 2004 and 2010. Compared to the nation, 50-74 year old women in Nebraska were less likely to report being up-to-date on their breast cancer screening in 2014 (78.1% and 76.1%, respectively).

Figure 22: Up-To-Date on Breast CancerScreening among Women 50-74 Years Old*, Nebraska and U.S., 2004-2014



	2004	2006	2007	2008	2010		2012	2014
Nebraska	81.7	79.1	81.1	77.8	75.9		74.9	76.1
U.S.	80.4	81.2	81.2	80.4	79.4		78.4	78.1

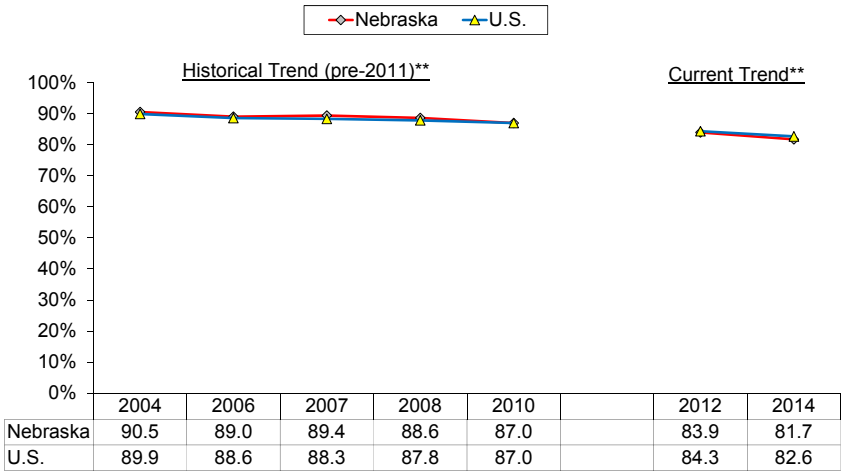
*Percentage of females 50-74 years old who report having had a mammogram during the past 2 years
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Cervical Cancer Screening

Pap tests are used to check for cell changes on the uterine cervix that could become cancerous if not treated appropriately. The U.S. Preventive Service Task Force recommends that women 21 to 65 years old receive a pap test every three years.

In 2014, about 4 in 5 Nebraska women 21 to 65 years old (81.7%) were up-to-date on their cervical cancer screening. The 2014 percentage was lower but not significantly lower than the 2012 percentage (83.9%) (Figure 23). Similar to breast cancer screening, the percentage between 2004 and 2010 remained stable if not declined slightly. In 2014, 21-65 year old women in Nebraska were equally likely to women nationally report being up-to-date on their cervical cancer screening (81.7% and 82.6%, respectively).

Figure 23: Up-To-Date on Cervical Cancer Screening among Women 21-65 Years Old*, Nebraska and U.S., 2004-2014



	2004	2006	2007	2008	2010		2012	2014
Nebraska	90.5	89.0	89.4	88.6	87.0		83.9	81.7
U.S.	89.9	88.6	88.3	87.8	87.0		84.3	82.6

*Percentage of females 21-65 years old without a hysterectomy who report having had a Pap test during the past 3 years
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

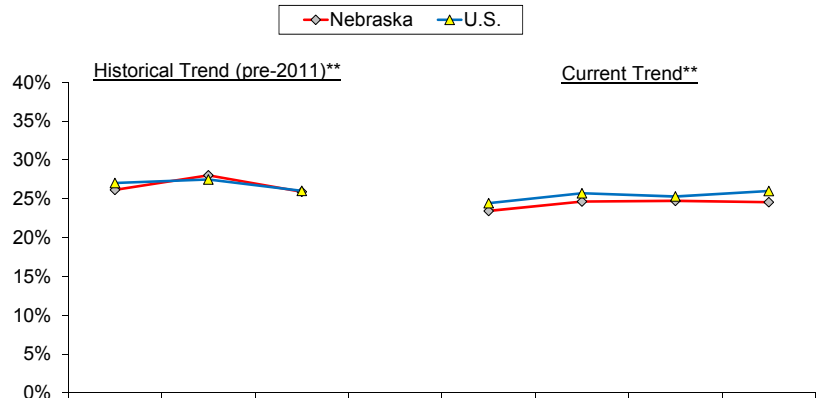
Arthritis

Osteoarthritis is the most common type of arthritis. It is characterized by deterioration of the cartilage cushioning the ends of the bones within the joint. The tissue lining of the joint can become inflamed, the ligaments looser, and the muscles weaker, resulting in pain when the joint is used. Common symptoms include swelling in one or more joints, stiffness around the joints that lasts for at least one hour in the early morning, constant or recurring pain or tenderness in a joint, difficulty in using or moving a joint normally, and warmth or redness in a joint.

Prevalence

Arthritis affects a large number of people in Nebraska, with 1 in 4 adults reporting during 2014 that they had ever been diagnosed (24.6%). Prevalence of diagnosed arthritis in Nebraska was slightly lower than the nation in 2014 (26.0%), but was similar to the nation for most of the past decade (Figure 24).

Figure 24: Ever Told they Have Arthritis among Adults*, Nebraska and U.S., 2004-2014



	2005	2007	2009		2011	2012	2013	2014
Nebraska	26.1	28.0	25.9		23.4	24.6	24.7	24.6
U.S.	27.0	27.5	26.0		24.4	25.7	25.3	26.0

*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 some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

In 2013, more than 2 in 5 adults who reported having been diagnosed with arthritis reported that their arthritis currently limits their daily activities (42.4%). Current activity limitations due to arthritis in Nebraska was lower than the nation overall (48.5%) in 2013. The percentage for Nebraska and the U.S. remained stable between 2011 and 2013.

Asthma

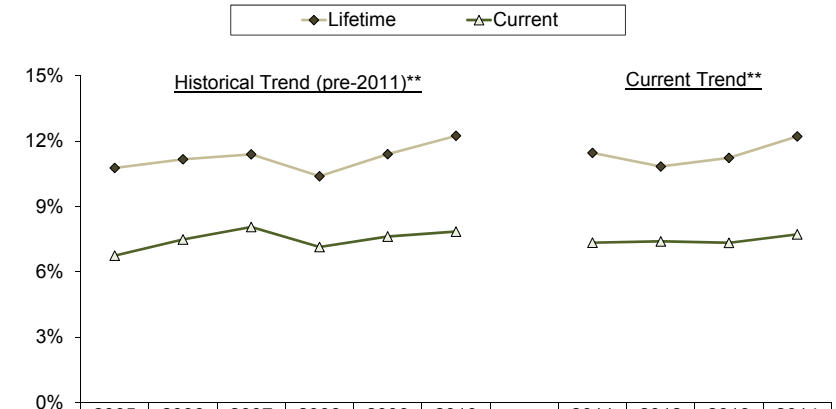
Asthma is a chronic inflammatory disease of the airways that is characterized by recurring symptoms such as wheezing, breathlessness, chest tightness, and coughing. In persons with asthma, the airways are more responsive than normal to various stimuli, such as pollen, cigarette smoke, respiratory infections, or exercise. When exposed to these stimuli, the airways narrow or become obstructed, which results in respiratory symptoms.

Asthma Prevalence

In 2014, 1 in 8 Nebraska adults (12.2%) reported having ever been told by a doctor, nurse, or other health professional that they have asthma, while 1 in 13 (7.7%) reported that they currently have asthma. Both of these percentages were lower than the nation in 2014 (13.8% and 8.9%, respectively). Over the past decade the trend in Nebraska has remained relatively stable, with slight fluctuation from year to year (Figure 25).

According to the 2015 Youth Risk Behavior Survey, 20.0 percent of Nebraska high school students reported they had ever been told they have asthma. This is an increase from 16.9 percent in 2013, but similar to the percentage for years 2003 (19.4%), 2005 (19.2%), and 2011 (19.2%) (Figure 26). The U.S. prevalence in 2013 (21.0%) was higher than the Nebraska prevalence for the same year (16.9%).

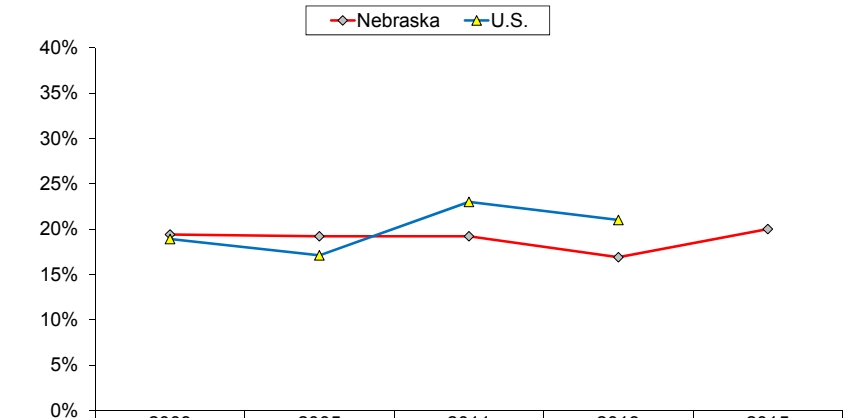
Figure 25: Lifetime and Current Asthma Diagnosis*, Nebraska Adults, 2005-2014



	2005	2006	2007	2008	2009	2010		2011	2012	2013	2014
Lifetime	10.8	11.2	11.4	10.4	11.4	12.2		11.5	10.8	11.2	12.2
Current	6.7	7.5	8.1	7.1	7.6	7.8		7.3	7.4	7.3	7.7

*Percentage of adults 18 and older who report that: (1) they have ever been told by a doctor, nurse, or other health professional that they have asthma (i.e., lifetime) and (2) they currently have asthma (i.e., current)
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Figure 26: Ever Told they Have Asthma among High School Students*, Nebraska and U.S., 2003-2015



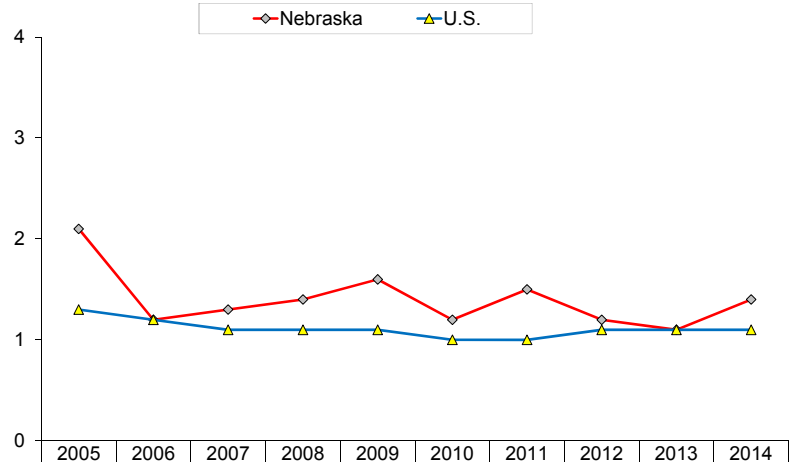
	2003	2005	2011	2013	2015
Nebraska	19.4	19.2	19.2	16.9	20.0
U.S.	18.9	17.1	23.0	21.0	

*Percentage of students who reported ever have being told by a doctor or nurse that they had asthma
Note: Only years with weighted data are displayed here
Source: Youth Risk Behavior Survey (YRBS)

Asthma Mortality

Asthma resulted in 30 deaths in Nebraska during 2014, accounting for 0.2 percent of all deaths. The age-adjusted death rate due to asthma in Nebraska remained stable between 2005 and 2014 and the death rate in 2014, 1.4 deaths per 100,000 population (age-adjusted), was similar to the nation overall (1.1) (Figure 27).

Figure 27: Asthma Death Rate per 100,000 population (age-adjusted), Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	2.1	1.2	1.3	1.4	1.6	1.2	1.5	1.2	1.1	1.4
U.S.	1.3	1.2	1.1	1.1	1.1	1.0	1.0	1.1	1.1	1.1

Source: Nebraska Vital Records; National Center for Health Statistics

Asthma Hospitalizations

Asthma accounted for 1,084 inpatient hospitalizations in Nebraska among Nebraska residents during 2014 (0.6% of the total). This translates into a crude rate of 5.8 hospitalizations per 10,000 Nebraska residents. When comparing the five year periods of 2005-2009 and 2010-2014 the average annual number of hospitalizations due to asthma decreased by slightly more than 100 hospitalizations while the crude rate decreased 12.6 percent.

COPD

Chronic Obstructive Pulmonary Disease (COPD) describes a set of lung diseases, including Chronic Bronchitis and Emphysema, which are characterized by breathing-related issues such as frequent coughing, wheezing, chest tightness and breathlessness. Though exposure to tobacco smoke is the contributing factor in most COPD diagnoses, environmental factors such as inhalation of air pollutants and genetic predisposition also contribute to COPD. According to the CDC, roughly 15 million Americans report that they have been diagnosed with COPD. However, more than half of adults with lower pulmonary function are not aware that they have COPD, meaning that the actual number may be higher.

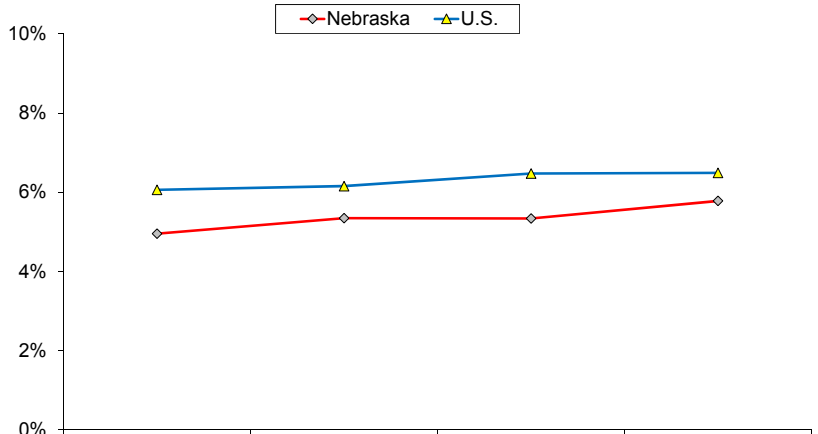
COPD Prevalence

In 2014, about 1 in 17 Nebraska adults (5.8%) reported having ever been told by a doctor, nurse, or other health professional that they have COPD. Between 2011 and 2014 the trend in self-reported COPD diagnosis increased very gradually (Figure 28). Nebraska adults, compared to adults nationally, were slightly less likely to report having been diagnosed with COPD during this same period.

COPD Mortality

COPD was the cause of 1,088 deaths in Nebraska during 2014, accounting for 6.8 percent of all Nebraska deaths during the year. Chronic Lung Disease, which is a very similar but slightly different grouping of diseases, is typically reported in standardized mortality reporting. If reported instead of chronic lung disease, COPD would be the third cause of death in Nebraska. The age-adjusted death rate due to COPD in Nebraska has remained relatively stable over the past decade but continues to be higher than the nation overall and the 2014 gap is the largest over the past ten years (Figure 29).

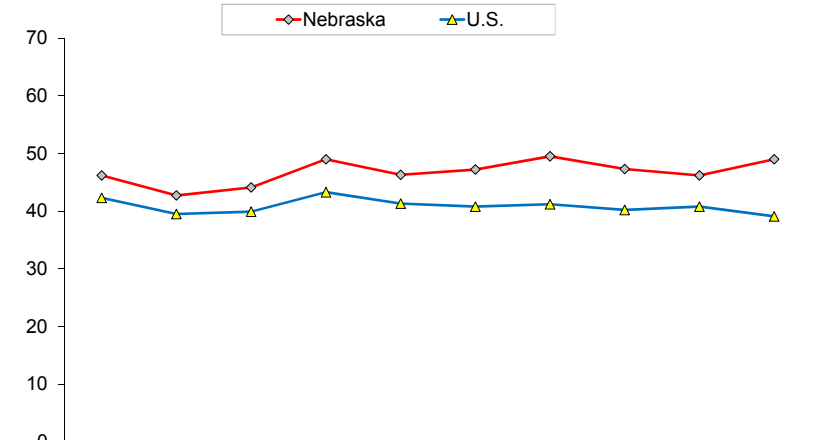
Figure 28: Ever Told they Have COPD*, Nebraska and U.S., 2011-2014



	2011	2012	2013	2014
Nebraska	5.0	5.3	5.3	5.8
U.S.	6.1	6.2	6.5	6.5

*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 chronic obstructive pulmonary disease (COPD), emphysema, or chronic bronchitis
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Figure 29: Chronic Obstructive Pulmonary Disease (COPD) Death Rate per 100,000 population (age-adjusted), Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	46.2	42.7	44.1	49.0	46.3	47.2	49.5	47.3	46.2	49.0
U.S.	42.3	39.5	39.9	43.3	41.3	40.8	41.2	40.2	40.8	39.1

Source: Nebraska Vital Records; National Center for Health Statistics

COPD Hospitalizations

COPD accounted for 3,013 inpatient hospitalizations in Nebraska among Nebraska residents during 2014 (1.6% of the total). This translates into a crude rate of 16.0 hospitalizations per 10,000 Nebraska residents. When comparing the five year periods of 2005-2009 and 2010-2014 the average annual number of hospitalizations due to COPD increased by slightly more than 200 hospitalizations while the crude rate remained virtually unchanged.

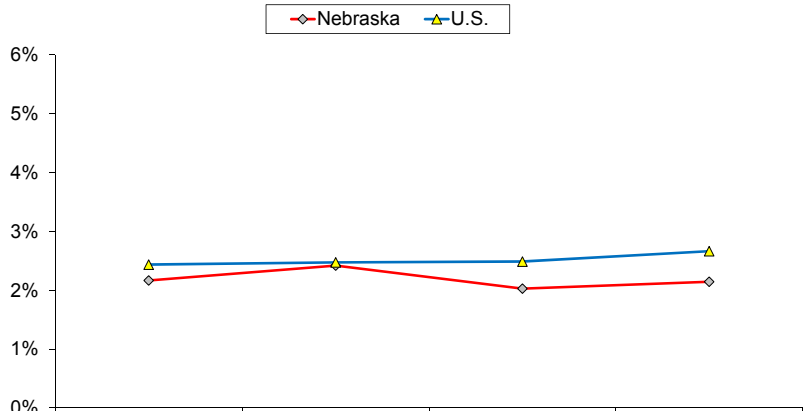
Kidney Disease

Kidney Disease indicates damage to the normal functioning of the kidneys. Individuals that have early kidney disease typically are without symptoms and feel healthy. As kidney disease progresses, the ability of the kidneys to filter water and waste out of the blood stream worsens. The two main risk factors for developing kidney disease include diabetes and/or high blood pressure, though cardiovascular disease, high cholesterol, obesity and a family history of the disease are also factors in the development of kidney disease. Early diagnosis of kidney disease through blood and urine test is important so treatment with medication and lifestyle changes can begin. Without treatment kidney failure can occur resulting in the need for regular kidney dialysis (where a machine filters excess waste and fluid from the blood as functioning kidneys would) or a kidney transplant.

Kidney Disease Prevalence

In 2014, about 1 in 48 Nebraska adults (2.1%) reported having ever been told by a doctor, nurse, or other health professional that they have kidney disease. Between 2011 and 2014 the trend in self-reported kidney diagnosis remained stable (Figure 30). Nebraska adults, compared to adults nationally, were slightly less likely to report having been diagnosed with kidney disease in 2014 (2.1% and 2.7%, respectively).

Figure 30: Ever Told they Have Kidney Disease*, Nebraska and U.S., 2011-2014



	2011	2012	2013	2014
Nebraska	2.2	2.4	2.0	2.1
U.S.	2.4	2.5	2.5	2.7

*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 kidney disease (excluding kidney stones, bladder infection, or incontinence)
Source: Behavioral Risk Factor Surveillance System (BRFSS)

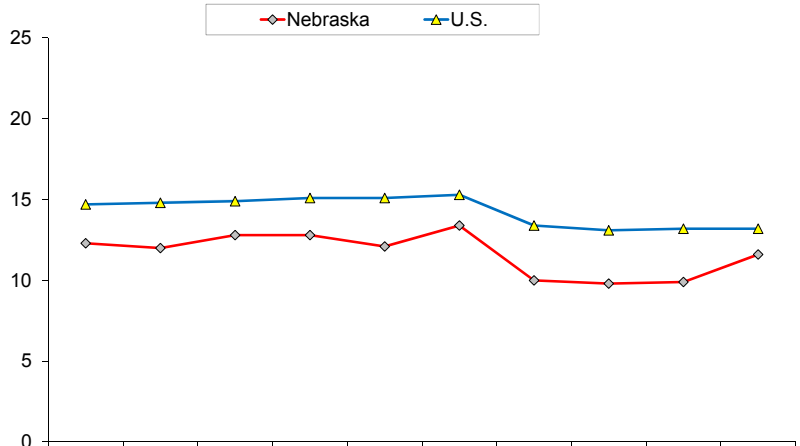
Kidney Disease Mortality

Kidney disease (often referred to as nephritis and nephrosis in standard mortality reporting) resulted in 265 deaths in Nebraska during 2014, making it the ninth leading cause of death. Aside from a moderate decline between 2010 and 2011, the age-adjusted death rate in Nebraska was fairly stable between 2005 and 2014, and has been consistently lower than the national rate during this period (Figure 31).

Kidney Disease Hospitalizations

Kidney disease accounted for 2,115 inpatient hospitalizations in Nebraska among Nebraska residents during 2014 (1.1% of the total). This translates into a crude rate of 11.2 hospitalizations per 10,000 Nebraska residents. When comparing the five year periods of 2005-2009 and 2010-2014 the average annual number of hospitalizations due to COPD increased by approximately 500 hospitalizations while the crude rate increased 26.5 percent.

Figure 31: Kidney Disease Death Rate per 100,000 population (age-adjusted), Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	12.3	12.0	12.8	12.8	12.1	13.4	10.0	9.8	9.9	11.6
U.S.	14.7	14.8	14.9	15.1	15.1	15.3	13.4	13.1	13.2	13.2

Source: Nebraska Vital Records; National Center for Health Statistics

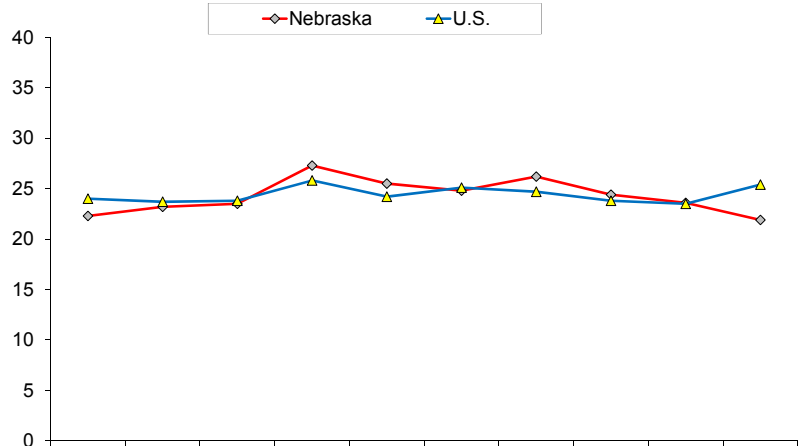
Alzheimer's Disease

Alzheimer's disease is the most common form of dementia, and is characterized by mild to severe memory loss that can affect a person's ability to carry out daily activities. According to the CDC, more than five million Americans are living with Alzheimer's disease, predominantly affecting those age 60 and older. The number of people with the disease is expected to triple by 2050, to approximately 14 million. Costs associated with Alzheimer's disease are also expected to increase, to as much as 500 billion annually by 2040 according to the CDC.

Alzheimer's Disease Mortality

Alzheimer's disease accounted for 515 deaths in Nebraska during 2014, accounting for 3.2 percent of all Nebraska deaths during the year and making it the sixth leading cause of death. Over the last decade the age-adjusted death rate due to Alzheimer's disease in Nebraska increased slightly between 2005 and 2008, remained fairly stable between 2008 and 2011, and declined slightly between 2011 and 2014, for little overall change (Figure 32). The Nebraska death rate in 2014 (21.9) was lower than the national rate during the same year (25.4); however, the rates since 2005 were similar during all other years.

Figure 32: Alzheimer's Death Rate per 100,000 population (age-adjusted), Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	22.3	23.2	23.5	27.3	25.5	24.8	26.2	24.4	23.6	21.9
U.S.	24.0	23.7	23.8	25.8	24.2	25.1	24.7	23.8	23.5	25.4

Source: Nebraska Vital Records; National Center for Health Statistics

Alzheimer's Disease Hospitalizations

Though some inpatient hospitalizations for Alzheimer's disease occur, it is not often treated in an inpatient setting. In 2014, Alzheimer's disease accounted for 149 inpatient hospitalizations in Nebraska among Nebraska residents (0.1% of the total). This translates into a crude rate of 0.8 hospitalizations per 10,000 Nebraska residents. When comparing the five year periods of 2005-2009 and 2010-2014 the average annual number of hospitalizations due to COPD decreased by more than 50 hospitalizations while the crude rate decreased 26.5 percent.

RISK AND PROTECTIVE FACTORS FOR CHRONIC DISEASE

Tobacco Use

Tobacco use remains the single most preventable cause of death in the United States. According to the CDC, an estimated 480,000 deaths result from cigarette smoking each year – about one-fifth of all deaths in the country. In addition, more than 16 million Americans have a serious illness caused by smoking. Secondhand smoke is responsible for an estimated 42,000 deaths among nonsmokers in the United States annually due to lung cancer, cardiovascular diseases, and other causes.

Cigarette Smoking Mortality and Economic Cost

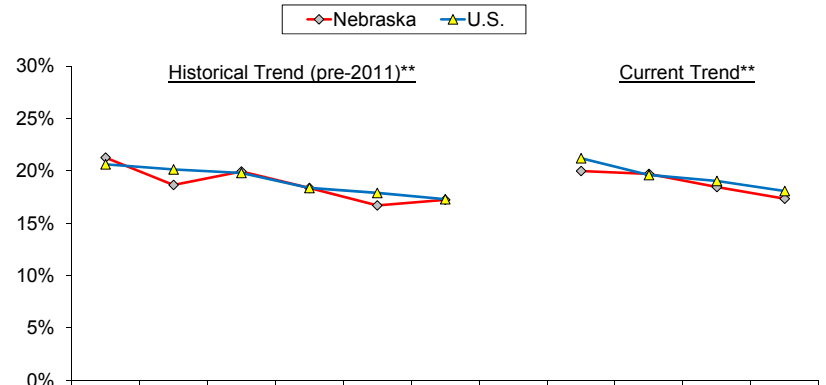
In Nebraska, more than 2,500 adults die prematurely because of cigarette smoking each year. The economic costs of smoking are also substantial. Smoking-related costs due to medical care were estimated at $795 million annually in Nebraska, while the annual cost of smoking-related lost productivity in the state was estimated at an additional $532 million. These data are based on Smoking-Attributable Mortality, Morbidity, and Economic Costs statistical software from the CDC.

Tobacco Use among Adults

Cigarette Smoking among Adults

In 2014, about 1 in 6 Nebraska adults aged 18 and older (17.3%) reported that they currently smoke cigarettes. Cigarette smoking among Nebraska adults has declined steadily over the past decade, and more recently declined from 20.0 percent in 2011 to 17.3 percent in 2014 (Figure 33). Note that the bump in smoking between 2010 and 2011 is believed to be almost entirely due to changes in how the data were collected, including adding cell phones and changing the weighting methodology. Adults in Nebraska and nationally reported a similar percentage in 2014 (17.3% and 18.1%, respectively).

Figure 33: Current Cigarette Smoking among Adults*, Nebraska and U.S., 2005-2014



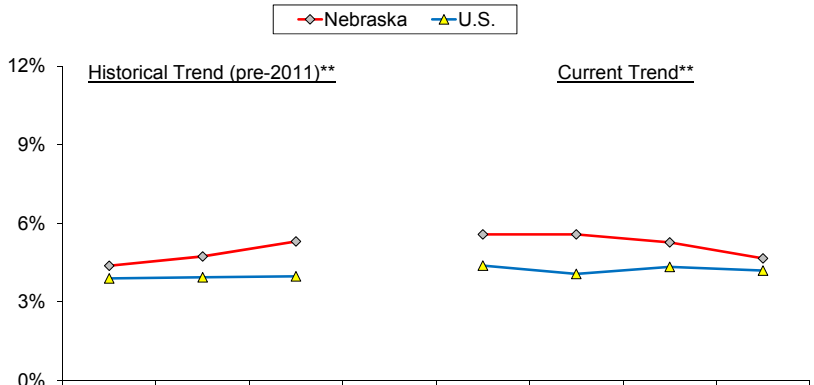
	2005	2006	2007	2008	2009	2010		2011	2012	2013	2014
Nebraska	21.3	18.7	19.9	18.4	16.7	17.2		20.0	19.7	18.5	17.3
U.S.	20.6	20.1	19.8	18.4	17.9	17.3		21.2	19.6	19.0	18.1

*Percentage of adults 18 and older who report that they currently smoke cigarettes either every day or on some days
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Smokeless Tobacco Use among Adults

In 2014, about 1 in 20 Nebraska adults reported that they currently use smokeless tobacco (4.7%). Smokeless tobacco use among Nebraska adults increased slightly between 2008 and 2010. However, between 2011 and 2014 the percentage declined slightly from 5.6 percent to 4.7 percent, respectively (Figure 34). The 2014 percentage among Nebraska adults (4.7%) was similar to the national percentage (4.2%) for the same year; thought it has historically been higher than the nation. It should be noted that men in Nebraska were 8.5 times more likely than females in Nebraska to report current smokeless tobacco use in 2014 (8.5% and 1.0%, respectively)

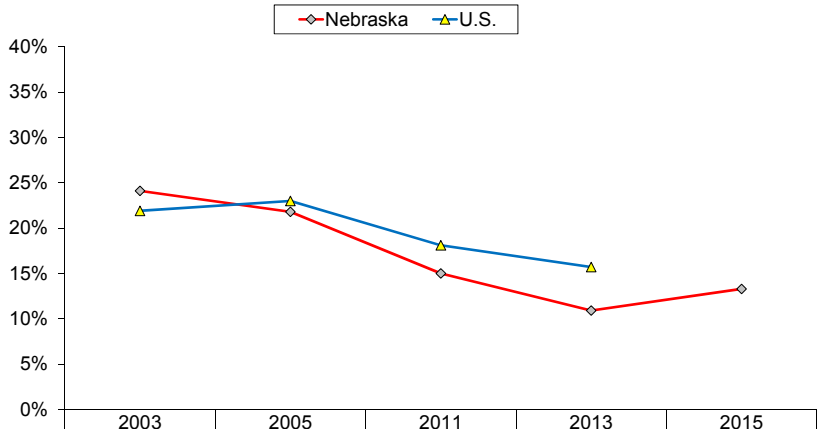
Figure 34: Current Smokeless Tobacco Use among Adults*, Nebraska and U.S., 2008-2014



	2008	2009	2010		2011	2012	2013	2014
Nebraska	4.4	4.7	5.3		5.6	5.6	5.3	4.7
U.S.	3.9	3.9	4.0		4.4	4.1	4.3	4.2

*Percentage of adults 18 and older who report that they currently use smokeless tobacco products (chewing tobacco, snuff, or snus) either every day or on some days
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Figure 35: Smoked Cigarettes in Past 30 Days among High School Students*, Nebraska and U.S., 2003-2015



	2003	2005	2011	2013	2015
Nebraska	24.1	21.8	15.0	10.9	13.3
U.S.	21.9	23.0	18.1	15.7	

*Percentage of public high school students who reported smoking cigarettes on one or more of the past 30 days
Note: Only years with weighted data are displayed
Source: Youth Risk Behavior Survey (YRBS)

Tobacco Use among Youth

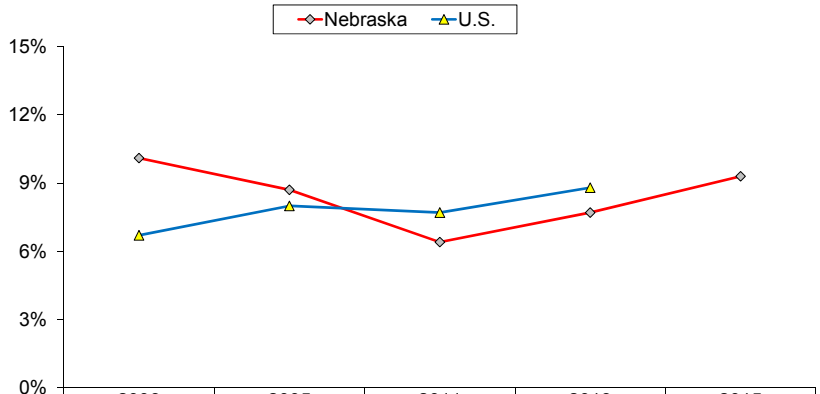
Cigarette Smoking among Youth

In 2015, about 1 in 8 Nebraska high school students (13.3%) reported smoking cigarettes on one or more of the past 30 days. Between 2003 and 2013 the percentage of Nebraska high school students who reported cigarette smoking declined dramatically from 24.1 percent to 10.9 percent, respectively, before increasing slightly to 13.3 percent in 2015 (Figure 35). High school students in Nebraska compared to their counterparts nationally were less likely to report cigarette smoking in 2013 (10.9% and 15.7%, respectively), the most recent year in which national comparison data were available.

Smokeless Tobacco Use among Youth

In 2015, about 1 in 11 Nebraska high school students (9.3%) reported using smokeless tobacco (chewing tobacco, snuff, or dip) on one or more of the past 30 days. After declining between 2003 (10.1%) and 2011 (6.4%), smokeless tobacco use among Nebraska high school students increased to 9.3 percent in 2015 (Figure 36). High school students in Nebraska and the U.S. reported a similar percentage for smokeless tobacco use during the past 30 days in 2013 (7.7% and 8.8%, respectively). It should be noted that male high school students in Nebraska are far more likely than their female counterparts to report smokeless tobacco use, with nearly a fivefold difference in 2015 (14.9% and 3.2%, respectively).

Figure 36: Smokeless Tobacco Use in Past 30 Days among High School Students*, Nebraska and U.S., 2003-2015



	2003	2005	2011	2013	2015
Nebraska	10.1	8.7	6.4	7.7	9.3
U.S.	6.7	8.0	7.7	8.8	

*Percentage of public high school students who reported using chewing tobacco, snuff, or dip on one or more of the past 30 days
Note: Only years with weighted data are displayed
Source: Youth Risk Behavior Survey (YRBS)

E-Cigarette Use among Youth

In 2015, almost 2 in 5 high school students (38.2%) in Nebraska reported that they had ever used electronic vapor products such as e-cigarettes, e-cigars, e-pipes, vape pipe, vaping pens, e-hookahs, and hookah pens (i.e., e-cigarettes). Furthermore, more than 1 in 5 (22.3%) students during 2015 reported that they used e-cigarettes during the past 30 days. This suggests that during 2015, e-cigarette use was much more common than cigarette smoking among Nebraska high school students (22.3% and 13.3%, respectively).

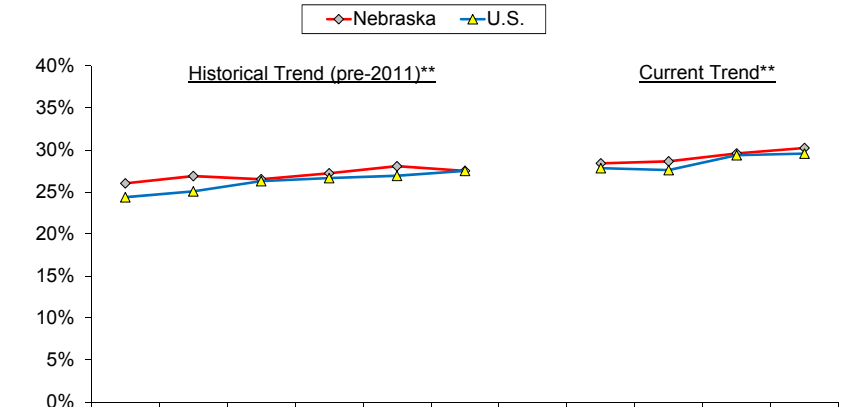
Obesity

Overweight and obesity are measured by an individual's body mass index (BMI) which is calculated as weight in kilograms divided by height in meters squared. Overweight (BMI=25.0-29.9) and obese (BMI=30.0+) individuals are at increased risk for many health conditions, including hypertension, type 2 diabetes, coronary heart disease, stroke, and some cancers. However, even modest weight loss (e.g., 5-7% of total body weight) is likely to produce health benefits.

Obesity among Adults

The proportion of adults who are at risk due to obesity has increased considerably over the past 25 years, increasing from 11.6 percent in 1990 to 30.2 percent in 2014. During just the past four years, obesity among Nebraska adults increased from 28.4 percent in 2011 to 30.2 percent in 2014, marking the first time obesity has ever topped 30 percent in Nebraska (Figure 37). The prevalence of obesity among adults in Nebraska and the U.S. was similar over the past decade. Two-thirds of Nebraska adults (66.7%) reported heights and weights that classified them as overweight or obese in 2014.

Figure 37: Obesity among Adults*, Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010		2011	2012	2013	2014
Nebraska	26.0	26.9	26.5	27.2	28.1	27.5		28.4	28.6	29.6	30.2
U.S.	24.4	25.1	26.3	26.7	26.9	27.5		27.8	27.6	29.4	29.6

*Percentage of adults 18 and older with a body mass index (BMI) of 30.0 or greater, based on self-reported height and weight
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

According to the National Survey of Children's Health, 28.9 percent of Nebraska children aged 10 to 17 years were overweight or obese in 2011/2012 combined. After increasing between 2003 (26.3%) and 2007 (31.5%), the percentage declined slightly but not significantly in 2011/12 (28.9%). About 1 in 7 Nebraska children 10-17 were obese (13.8%) in 2011/12. Children 10 to 17 years old in Nebraska were slightly but not significantly less likely than their counterparts nationally to be overweight or obese in 2011/12 (28.9% and 31.3%, respectively).

Nutrition

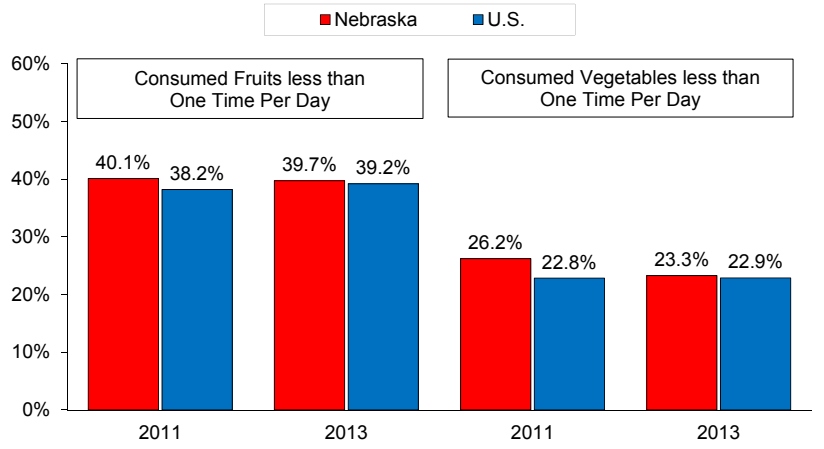
The 2010 Dietary Guidelines for Americans encourages Americans to focus on eating a healthful diet – one that focuses on foods and beverages that help achieve and maintain a healthy weight, promote health, and prevent disease. The guidelines encourage Americans to balance calories with physical activity to manage weight. They also encourage increased consumption of fruits, vegetables, whole grains, fat-free and low-fat dairy products, and seafood. In contrast, they encourage decreased consumption of foods that are high in salt, saturated and trans fats, cholesterol, added sugars, and refined grains.

Fruit and Vegetable Consumption

Fruit and Vegetable Consumption among Adults

In 2013, 2 in 5 Nebraska adults (39.7%) reported that they consumed fruits an average of less than one time per day during the past month. The 2013 percentage was similar to the nation (39.2%) for the same year, and similar to the 2011 percentage for Nebraska (40.1%) (Figure 38). In contrast, the 2013 percentage of Nebraska adults reporting that they consumed vegetables an average of less than one time per day during the past month (23.3%) was considerably lower than fruit consumption, suggesting that adults consume at least some vegetables more often than fruits. Positively, the percentage reporting that they consume vegetables less than one time per day declined between 2011 (26.2%) and 2013 (23.3%). The 2013 percentage for Nebraska was similar to the nation overall (23.3% and 22.9%, respectively).

Figure 38: Fruit and Vegetable Consumption among Adults,* Nebraska and U.S., 2011 and 2013



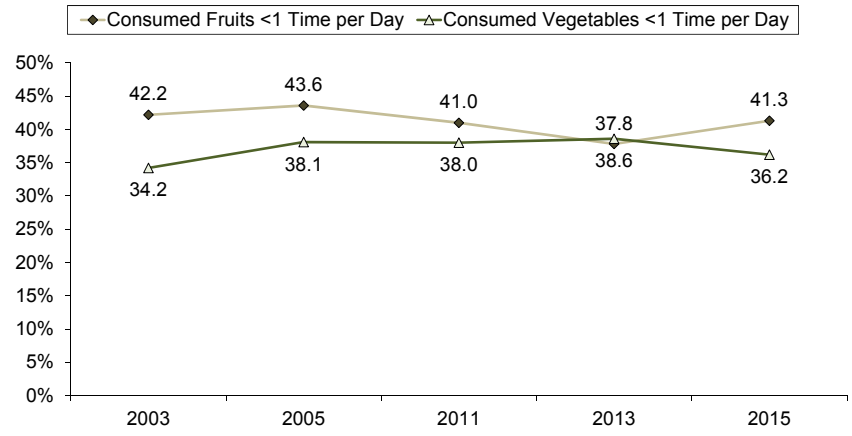
*Percentage of adults 18 and older who report consuming (1) fruit or 100% fruit juice an average of less than one time per day during the past month and (2) vegetables an average of less than one time per day during the past month
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Fruit and Vegetable Consumption among Youth

In 2015, about 2 in 5 Nebraska high school students (41.3%) reported consuming fruits and 1 in 3 (36.2%) reported consuming vegetables an average of less than one time per day during the past seven days; indicating a large proportion of students are consuming very little if any fruits and vegetables on a regular basis. Over the past decade there has been little change in the percentage reporting consumption of less than one time per day (Figure 39).

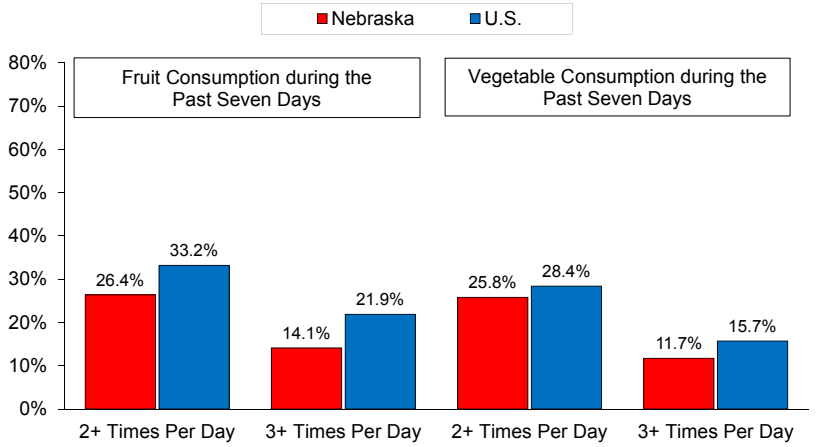
When looking at higher consumption levels, high school students in Nebraska compared to students nationally reported less fruit and vegetable consumption in 2013 (Figure 40). In particular, students nationally were more likely than those in Nebraska to report consuming fruits (21.9% and 14.1%, respectively) and vegetables (15.7% and 11.7%, respectively) three or more times per day during the past seven days, the most recent year in which national comparison data were available.

Figure 39: Fruit and Vegetable Consumption among Nebraska High School Students*, 2003-2015



*Percentage of public high school students who reported consuming (1) fruit or 100% fruit juice an average of less than one time per day during the past seven daysand (2) vegetables an average of less than one time per day during the past seven days
Note: Only years with weighted data are displayed
Source: Youth Risk Behavior Survey (YRBS)

Figure 40: Fruit and Vegetable Consumption among High School Students,* Nebraska and U.S., 2013



*Percentage of high school students who reported consuming (1) fruit or 100% fruit juice an average of 2 or more and 3 or more times per day during the past seven days and (2) vegetables an average of 2 or more and 3 or more times per day during the past seven days
Source: Youth Risk Behavior Survey (YRBS)

Beverage Consumption

Beverage Consumption among Adults

About 3 in 10 Nebraska adults (28.5%) in 2013 reported consuming sugar-sweetened beverages an average of one or more times per day during the past month. Trend and U.S. comparison data are unavailable.

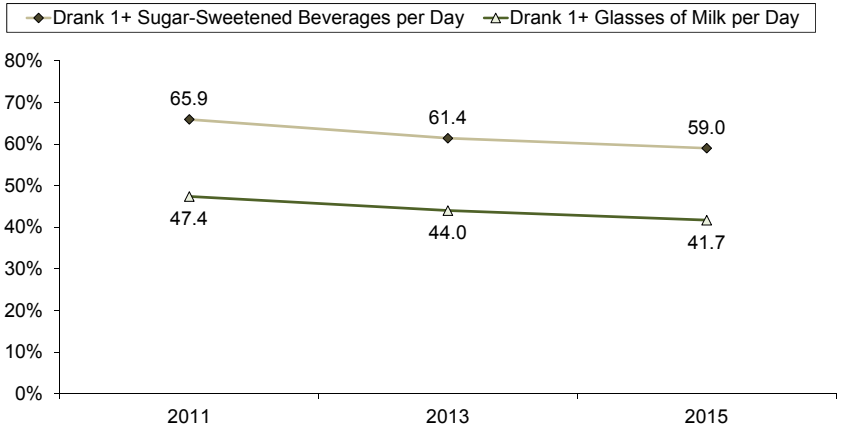
Beverage Consumption among Youth

Youth in Nebraska continue to consume large amounts of sugar-sweetened beverages, including regular (non-diet) soda or pop, full calorie sports drinks, and other sugar-sweetened beverages (such as sweet tea or coffee, flavored milk and juice drinks, or energy drinks). In 2015, 3 in 5 Nebraska high school students (59.0%) reported that they drank an equivalent of a can, glass, or bottle of sugar-sweetened beverages (soda, sports-drinks, or other sugar-sweetened drinks) one or more times per day during the past seven days. Soda was the most common sugar-sweetened beverage consumed in 2015, with 1 in 5 (20.4%) reporting that they drank soda or pop (excluding diet soda and pop) one or more times per day during the past seven days. Soda was followed by sugar-sweetened sports drinks (15.7%) and other sugar-sweetened beverages (13.0%). Of the three beverage types, only soda showed a marked decline between 2011 (26.2%) and 2015 (20.4%). Just 6.3 percent of Nebraska high school students in 2015 reported that they did not drink any sugar-sweetened beverages in the past seven days.

Milk consumption among Nebraska high school students steadily declined over the past decade, from 52.6 percent in 2005 to 41.7 percent in 2015 reporting that they drank one or more glasses of milk per day during the past seven days. About 1 in 6 students (17.3%) in 2015 reported no milk consumption during the past seven days, the highest percentage in the past decade. Positively, Nebraska had a lower percentage than the U.S. for no milk consumption in the past seven days (13.3% and 19.4%, respectively) in 2013.

Figure 41 compares daily sugar-sweetened beverage consumption to daily milk consumption among Nebraska high school students.

Figure 41: Beverage Consumption among Nebraska High School Students*, 2011-2015



*Percentage of public high school students who reported consuming (1) a can, bottle, or glass of (regular non-diet) soda or pop, sugar-sweetened sports drink, or other sugar-sweetened beverage one or more times per day during the past seven days (2) one or more glasses of milk per day during the past seven days
Note: Only years with weighted data are displayed
Source: Youth Risk Behavior Survey (YRBS)

Roughly one-third of Nebraska high school students in 2015 (36.2%) reported that they ate breakfast every day during the past seven days. This was similar to the 2013 percentage for Nebraska high school students (37.8%). Nebraska high school students, compared to those nationally, reported similar percentages for eating breakfast every day during the past seven days in 2013 (37.8% and 38.1%, respectively). Furthermore, about 1 in 8 Nebraska high school students in 2015 (13.3%) reported that they did not eat breakfast on any of the past seven days.

Salt Consumption among Adults

Close to half (46.3%) of Nebraska adults in 2013 reported that they were watching or reducing their salt intake. Trend data and national comparison data were not available for this measure.

Physical Activity

Regular physical activity can help control body weight and reduce the risk of cardiovascular disease, type 2 diabetes and some cancers. According to the 2008 Physical Activity Guidelines for Americans, adults should engage in moderate-intensity aerobic activity for at least 150 minutes per week or 75 minutes of vigorous-intensity aerobic activity per week or an equivalent mix of the two. In addition, they should engage in muscle-strengthening activities that work all major muscle groups two or more days per week. Children and adolescents should engage in at least 60 minutes of physical activity each day. Ideally, these 60 minutes should include muscle strengthening activities three or more days per week and bone strengthening activities (e.g., jumping rope, running) three or more days per week.

Physical Activity among Adults

About half of Nebraska adults in 2013 reported that they engage in the recommended amount of aerobic physical activity each week (50.1%) while only about one-fourth reported engaging in the recommended amount of muscle strengthening activity each week (28.4%). Overall, less than 1 in 5 met the current physical activity recommendation (i.e., both aerobic and muscle strengthening recommendations) in 2013 (18.8%). Adults in Nebraska, compared to those nationally, were slightly less likely to engage in the recommended amount of muscle strengthening activity in 2013 (28.4% and 29.8%, respectively) and overall recommended activity (18.8% and 20.5%, respectively) (Figure 42). Physical activity among Nebraska adults, across each of the three measures, remained stable between 2011 and 2013.

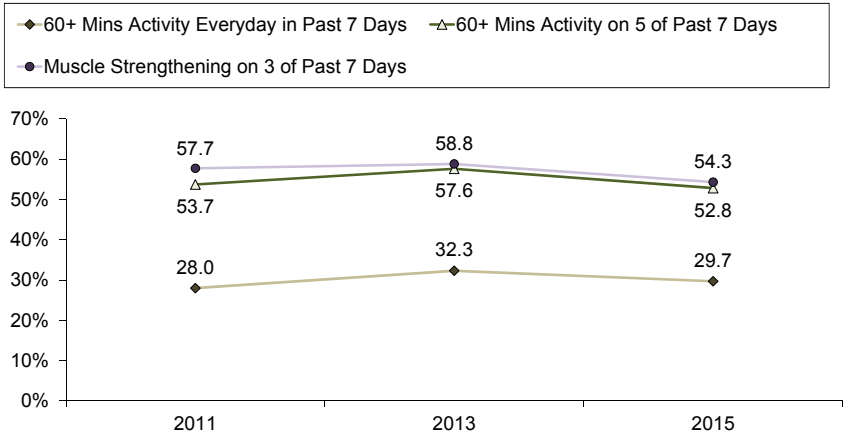
Physical Activity among Youth

In 2015, roughly half of Nebraska high school students (52.8%) reported that they engaged in at least 60 minutes of physical activity on five or more of the past seven days. However, a much smaller percentage reported engaging in at least 60 minutes of physical activity on each of the past seven days (29.7%), which is the activity recommendation for

adolescents. Slightly more than half (54.3%) reported that they did exercises to tone or strengthen their muscles on three or more of the past seven days in 2015. Participation in physical activity among Nebraska high school students remained relatively unchanged between 2011 and 2015, with a slight bump up in 2013 and then back down for participation in 60 or more minutes of activity (Figure 43). Compared to the U.S., high school students in Nebraska much more likely to report engaging in physical activity in 2013, the most recent year in which national comparison data were available (Figure 44).

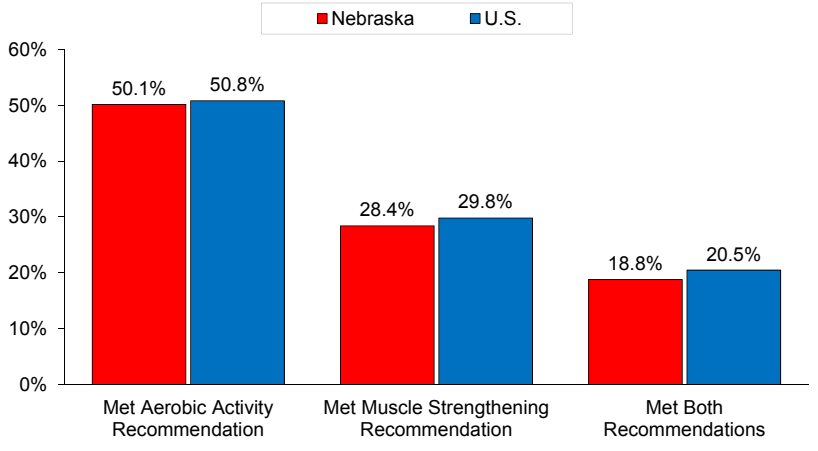
Nebraska high school students spend a lot of time engaged in sedentary activities. In 2015, 1 in 5 (20.1%) reported spending three or more hours per day during an average school watching television while 1 in 3 (31.5%) reported three or more hours playing video games or using a computer for non-school work. Collectively, half (50.8%) reported spending three or more hours watching television, playing video games, or using a computer for non-school work during an average school day.

Figure 43: Physical Activity among Nebraska High School Students*, 2011-2015



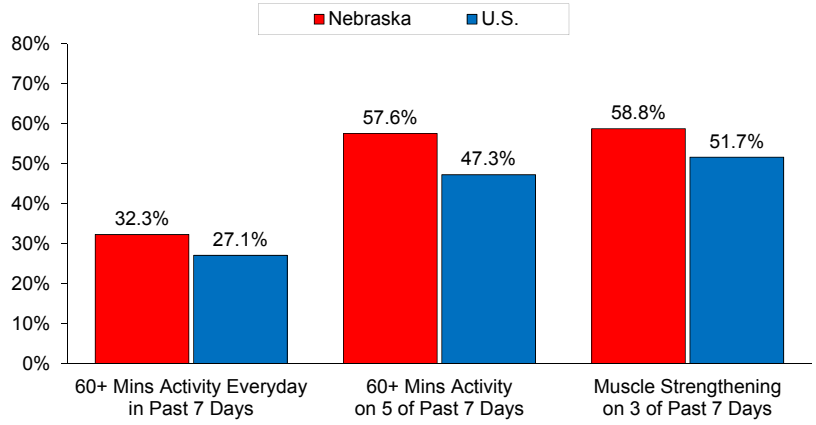
*Percentage of public high school students who reported (1) being physically active for a total of at least 60 minutes per day on seven of the past seven days; (2) being physically active for a total of at least 60 minutes per day on five of the past seven days; doing exercises to strengthen or tone their muscles, such as push-ups, sit-ups, or weight lifting, on three or more of the past seven days
Source: Youth Risk Behavior Survey (YRBS)

Figure 42: Physical Activity among Adults,* Nebraska and U.S., 2013



*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 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
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Figure 44: Physical Activity among High School Students,* Nebraska and U.S., 2013



*Percentage of public high school students who reported (1) being physically active for a total of at least 60 minutes per day on seven of the past seven days; (2) being physically active for a total of at least 60 minutes per day on five of the past seven days; doing exercises to strengthen or tone their muscles, such as push-ups, sit-ups, or weight lifting, on three or more of the past seven days
Source: Youth Risk Behavior Survey (YRBS)

INJURY

Injuries are a major public health concern in Nebraska and the United States, resulting in significant numbers of deaths, hospitalizations, and emergency department (ED) visits each year. For Nebraskans ages 1-44 years, unintentional injuries were the leading cause of death.

Deaths due to injury usually occur at a much younger age than deaths due to cancer or heart disease (the first and second leading causes of death in Nebraska for all ages). As a result, the number of years of potential life lost (YPLL) due to injury is disproportionately large.

Injuries, in addition to causing death, also result in a wide variety of adverse health and lifestyle outcomes. In many cases, injury leads to disability, chronic pain, large medical costs, and profound changes in one's daily life. Furthermore, injury affects more than just the injured. Injury impacts families, employers, and communities due to its negative social and economic outcomes. The cost of injuries in the United States is more than $406 billion annually, including medical expenses and productivity losses, according to estimates made by the Centers for Disease Control and Prevention.

Of all injury deaths in the United States, 70% are the result of an unintentional injury (i. e., those resulting from motor vehicle crashes, falls, residential fires, poisoning, and drowning, etc.). The remaining 30% are a result of violent and abusive behaviors, such as suicides, homicides, assaults, child abuse and neglect, and domestic violence.

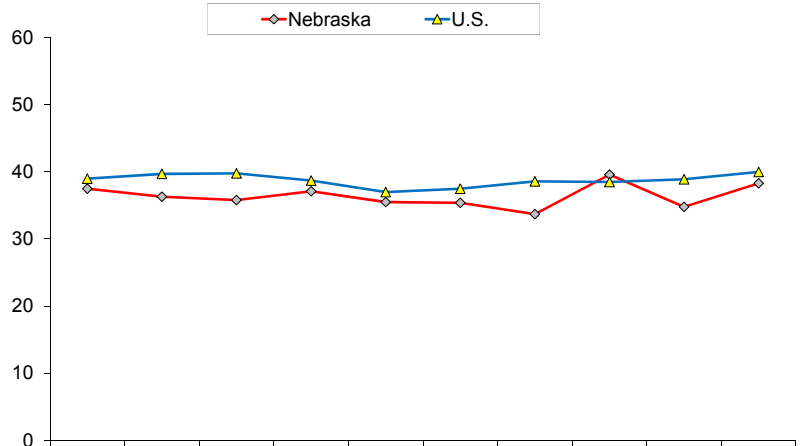
Unintentional Injury

Unintentional Injury Deaths

In Nebraska, unintentional injury accounted for 777 deaths in 2014, making it the fifth leading cause of death in the state. However, unintentional injury ranked second in years of potential life lost (YPLL), averaging 20.7 YPLL per death from 2010-2014. This indicates that unintentional injury victims are younger in comparison to the victims of most of the other leading causes of death.

The age-adjusted death rate due to unintentional injury in Nebraska remained relatively stable over the past ten years (Figure 45). Nebraska, compared to the nation overall, had a similar unintentional injury death rate in 2014 (38.3 and 40.0, respectively); however, Nebraska did have a lower rate during several of the previous ten years.

Figure 45: Unintentional Injury Death Rate per 100,000 population (age-adjusted), Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	37.5	36.3	35.8	37.1	35.5	35.4	33.7	39.6	34.8	38.3
U.S.	39.0	39.7	39.8	38.7	37.0	37.5	38.6	38.5	38.9	40.0

Source: Nebraska Vital Records; National Center for Health Statistics

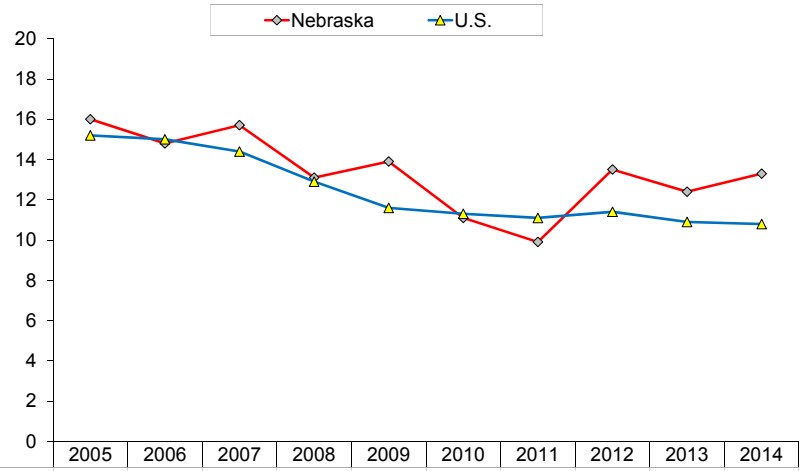
Unintentional Injury Hospitalizations

Unintentional injury accounted for 7,631 inpatient hospitalizations in Nebraska among Nebraska residents during 2014 according to state E-code data. This translates into a crude rate of 41.1 hospitalizations per 10,000 Nebraska residents. Since 2007 the rate of unintentional injury hospitalizations has been relatively stable with slight fluctuations from year to year.

Motor Vehicle Crashes

In 2014, there were 250 fatal motor vehicle crashes in Nebraska, for an age-adjusted rate of 13.3 deaths per 100,000 population. Although the mortality rate for this cause of death has improved slightly since the early part of the past decade, it remains the most frequent cause of unintentional injury death in Nebraska (Figure 46). Compared to the nation, Nebraska had a higher motor vehicle crash death rate in 2014 (10.8 and 13.8, respectively), and in general had a similar or slightly higher rate than the nation since 2005.

Figure 46: Motor Vehicle Crash Death Rate per 100,000 population (age-adjusted), Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	16.0	14.8	15.7	13.1	13.9	11.1	9.9	13.5	12.4	13.3
U.S.	15.2	15.0	14.4	12.9	11.6	11.3	11.1	11.4	10.9	10.8

Source: Nebraska Vital Records; National Center for Health Statistics

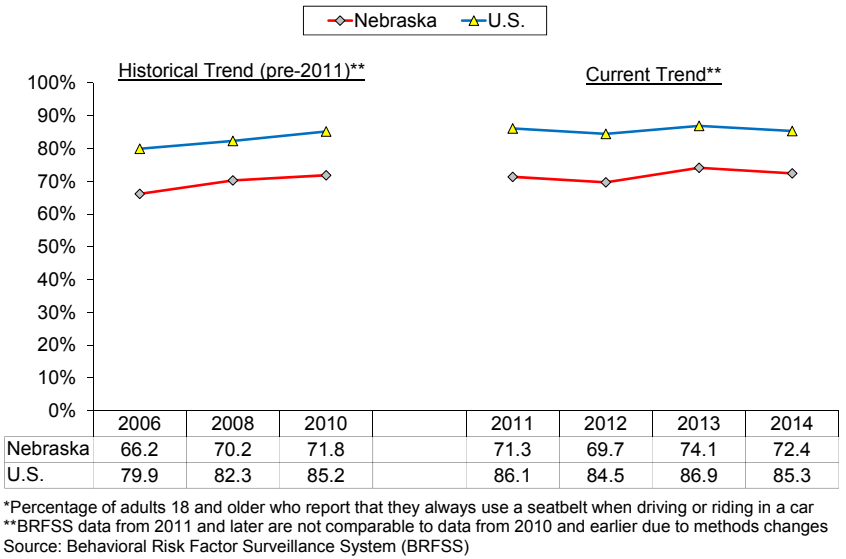
Motor vehicle crashes are also a common cause of hospitalization in Nebraska. In 2014, there were 1,054 hospitalizations in Nebraska among Nebraska residents that resulted from a motor vehicle crash. The crude rate per 10,000 Nebraska residents in 2014 (5.6) remained virtually unchanged since 2010 (5.5), but was higher than the 2007 rate (4.3).

Seatbelt Usage

Both adults and youth in Nebraska are far less likely to report seat belt use than their counterparts nationally.

In 2014, close to 3 in 5 Nebraska adults (72.4%) reported that they always wear a seatbelt when driving or riding in a car. After rising slightly between 2006 and 2010, the percentage was relatively stable between 2011 and 2014 (Figure 47). Nebraska adults were 12.9 percentage points less likely than adults nationally to report always wearing their seatbelt in 2014 (72.4% and 85.3%, respectively).

Figure 47: Always Wear a Seatbelt among Adults*, Nebraska and U.S., 2006-2014

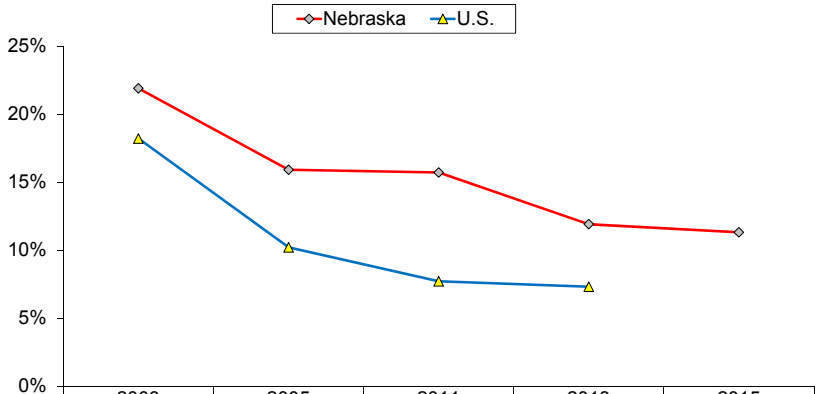


	2006	2008	2010		2011	2012	2013	2014
Nebraska	66.2	70.2	71.8		71.3	69.7	74.1	72.4
U.S.	79.9	82.3	85.2		86.1	84.5	86.9	85.3

*Percentage of adults 18 and older who report that they always use a seatbelt when driving or riding in a car
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Among Nebraska high school students in 2015, more than 1 in 10 (11.3%) stated that they rarely or never wear a seatbelt when riding in a car driven by someone else. Though the percentage has declined over the past decade, it remains considerably higher than the nationwide estimate of 7.3 percent among high school students in 2013 (Figure 48).

Figure 48: Never or Rarely Wear a Seat Belt among High School Students*, Nebraska and U.S., 2003-2015



	2003	2005	2011	2013	2015
Nebraska	21.9	15.9	15.7	11.9	11.3
U.S.	18.2	10.2	7.7	7.3	

*Percentage of public high school students who reported never or rarely wearing a seat belt when riding in a car driven by someone else
Note: Only years with weighted data are displayed
Source: Youth Risk Behavior Survey (YRBS)

Distracted Driving

In 2012, more than 1 in 4 Nebraska adults (26.8%) reported that they texted or e-mailed while driving a car or other vehicle during the past 30 days. In addition, 7 in 10 (69.1%) reported that that they talked on a cell phone while driving a car or other vehicle during the past 30 days.

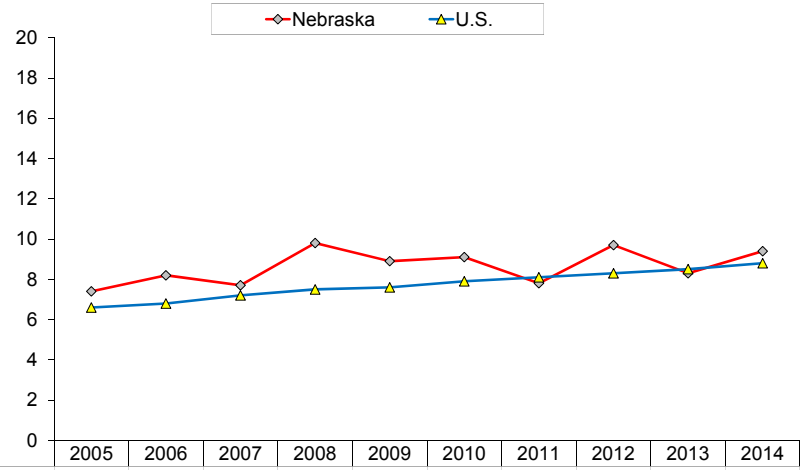
In 2015, half of Nebraska high school students who had driven a car or other vehicle in the past 30 days reported that they texted or e-mailed while driving during the past 30 days (49.4%). In 2013, the most recent year in which national comparison data were available, high school students in Nebraska reported a slightly but not significantly higher percentage than students nationally for texting or e-mailing while driving during the past 30 days (46.6% and 41.4%, respectively).

Furthermore, in 2015 more than half of Nebraska high school students who had driven a car or other vehicle in the past 30 days reported that they talked on a cell phone while driving during the past 30 days (53.8%). Overall, 3 in 5 Nebraska high school students who had driven a car or other vehicle in the past 30 days (60.2%) reported that they texted or e-mailed while driving or talked on a cell phone while driving during the past 30 days.

Falls

Falls were the second leading cause of unintentionally injury deaths in Nebraska in 2014, accounting for 217 deaths and an age-adjusted rate of 9.4 deaths per 100,000 population. After a slight increase in 2008, the death rate due to falls in Nebraska has remained relatively stable (Figure 49). The Nebraska rate has been similar to slightly higher than the national rate over the past decade. The 2014 rate for Nebraska (9.4) was similar to the national rate (8.8) for the same year.

Figure 49: Unintentional Fall Death Rate per 100,000 population (age-adjusted), Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	7.4	8.2	7.7	9.8	8.9	9.1	7.8	9.7	8.3	9.4
U.S.	6.6	6.8	7.2	7.5	7.6	7.9	8.1	8.3	8.5	8.8

Source: Nebraska Vital Records; National Center for Health Statistics

Falls are the most common non-fatal injury in Nebraska. They accounted for 4,747 hospitalizations in Nebraska among Nebraska residents during 2014. The crude rate per 10,000 Nebraska residents in 2014 (25.2) declined slightly over the prior seven years, which had a high of 28.3 hospitalizations per 10,000 residents in 2008. The crude fall hospitalization rate in 2014 was 4.5 times higher than the motor vehicle crash rate of 5.6 hospitalizations per 10,000 Nebraska residents.

In 2014, roughly 1 in 4 Nebraska adults aged 45 and older (26.1%) reported that they had a fall (to the ground or another lower level) during the past year. About 1 in 11 (8.8%) Nebraska adults 45 and older in 2014 reported that they were injured due to a fall in the past year that caused them to limit their regular activities for at least a day or to go see a doctor. These percentage for Nebraska adults were similar to 2012 percentages. Nebraska adults 45 and older in 2014 were slightly less likely than adults nationally to report a fall during the past year (26.1% and 27.8%, respectively) and to report a fall during the past year that resulted in an injury (8.8% and 10.8%, respectively).

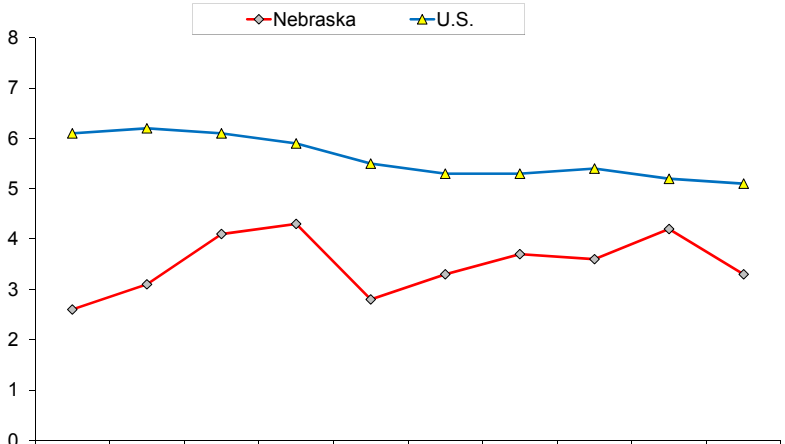
Intentional Injuries

Intentional injuries include those resulting from violent and abusive behaviors (such as suicides, homicides, assaults, child abuse and neglect, and domestic violence). Suicide is discussed in the Mental Health section of this report.

Homicide

In 2014, there were 61 deaths in Nebraska resulting from homicide for an age-adjusted rate of 3.3 deaths per 100,000 population. The rate has fluctuated inconsistently in Nebraska over the past ten years with little overall change between 2005 and 2014 (Figure 50). Nebraska had a lower homicide death rate than the nation during the past ten years.

Figure 50: Homicide Death Rate per 100,000 population (age-adjusted), Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	2.6	3.1	4.1	4.3	2.8	3.3	3.7	3.6	4.2	3.3
U.S.	6.1	6.2	6.1	5.9	5.5	5.3	5.3	5.4	5.2	5.1

Source: Nebraska Vital Records; National Center for Health Statistics

Assault

According to E-code data, there were 268 inpatient hospitalizations in Nebraska resulting from assault in 2014, for a crude rate of 1.4 hospitalizations per 10,000 Nebraska residents. The rate increased from 1.2 in 2007 to 2.0 in 2011, before declining to 1.4 in 2014.

MATERNAL AND CHILD HEALTH

The well-being of mothers, infants, and children is an important indicator of the overall health of a community, state, or nation. It also determines the health of the next generation and can help predict future public health challenges for families, communities, and the healthcare system.

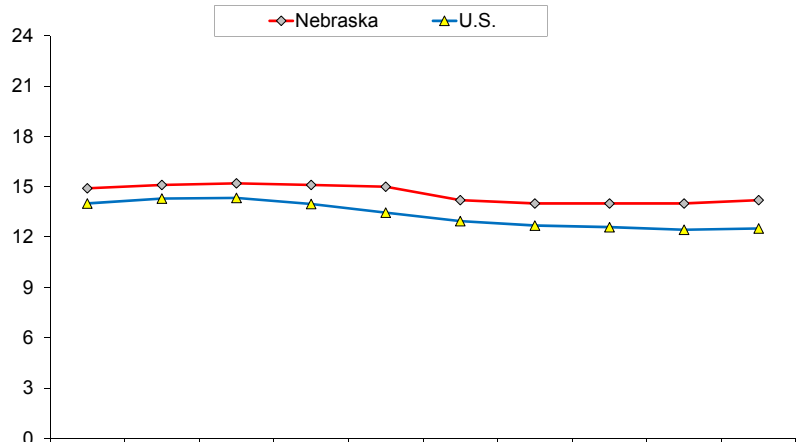
Approximately 26,000 babies are born every year in Nebraska. The health of these infants and their mothers can be improved by increasing women's access to quality preconception (before pregnancy), prenatal (during pregnancy) and interconception (between pregnancies) care. Moreover, early identification and treatment of health conditions among infants can prevent death or disability and enable children to reach their full potential.

At the individual level, many factors can affect pregnancy and childbirth, including preconception health status, maternal age, stress and poverty, infant and child health are similarly influenced by these sociodemographic factors, but are also linked to the physical and mental health of parents and caregivers. Persistent racial and ethnic disparities in mortality and morbidity for mothers and children are also related to community-level factors such as availability of quality healthcare services and health insurance coverage.

Births

Over the past ten years, the birth rate in Nebraska was stable between 2005 and 2009, declined between 2009 and 2011, and has since gradually increased between 2013 and 2014 (Figure 51). In 2014, there were 26,794 resident births in the state, for a rate of 14.2 live births per 1,000 population. The Nebraska birth rate was higher than the corresponding U.S. rate over the past decade, as was the case in 2014 (14.2 and 12.5 births per 1,000 population, respectively).

Figure 51: Overall Birth Rate (crude rate per 1,000 population), Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	14.9	15.1	15.2	15.1	15.0	14.2	14.0	14.0	14.0	14.2
U.S.	14.0	14.3	14.3	14.0	13.5	13.0	12.7	12.6	12.4	12.5

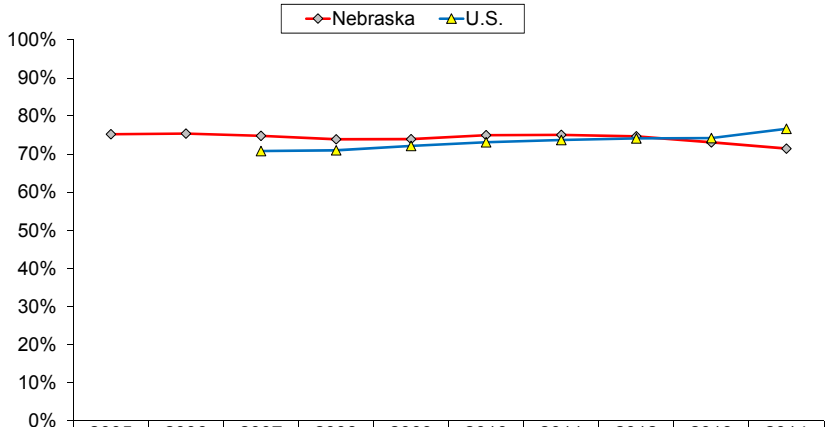
Source: Nebraska Vital Records; National Center for Health Statistics

Prenatal Care

Early and continuing prenatal care is essential to the health and well-being of both infant and mother. There are three major components to prenatal care: risk assessment, treatment of medical conditions (or reduction of risks), and education of the pregnant woman regarding needed care and behavioral risks such as smoking or alcohol.

About 7 in 10 Nebraska mothers in 2014 (71.5%) initiated prenatal care in the first trimester. First trimester prenatal care was relatively stable over the past decade in Nebraska; however, the percentage declined gradually between 2011 and 2014 (Figure 52). In contrast, the U.S. percentage increased steadily between 2007 and 2014, and was 5.2 percentage points higher than Nebraska in 2014 (76.7% and 71.5%, respectively).

Figure 52: First Trimester Prenatal Care*, Nebraska and U.S., 2005-2014**



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	75.2	75.4	74.8	73.9	73.9	75.0	75.1	74.7	73.1	71.5
U.S.			70.8	71.0	72.1	73.1	73.7	74.1	74.2	76.7

*Percentage of infants born to a woman receiving prenatal care beginning in the first trimester
**Comparable U.S. data were unavailable for 2005 and 2006 due to changes on the birth certificate
Source: Nebraska Vital Records; National Center for Health Statistics

Induction of Labor

Although there may be disadvantages to inducing labor in certain circumstances (particularly when it is elective), induction of labor has become more common in the United States over the last quarter century. The CDC reports that between 1990 and 2010 the rate of induction of labor more than doubled nationally, from 9.6 percent to 23.8 percent, respectively. However, since 2010 the national percentage has begun to decline.

In Nebraska, among all births to women under 35 years of age in 2014, about 3 in 10 (29.7%) resulted from induction of labor. Although down slightly from 2005 (33.1%) and 2006 (34.1%), the percentage for years 2008-2014 remained virtually unchanged ranging from a low of 28.0 percent in 2008 to high of 30.6 percent in 2013.

Cesarean Delivery

Cesarean delivery (C-section) has become more common in the United States over the last two decades. According to the CDC, between 1996 and 2009 the cesarean delivery rate in the United States increased 60 percent from 20.7 percent to 32.9 percent. However, since 2009, the rate for low-risk cesarean deliveries has declined slightly.

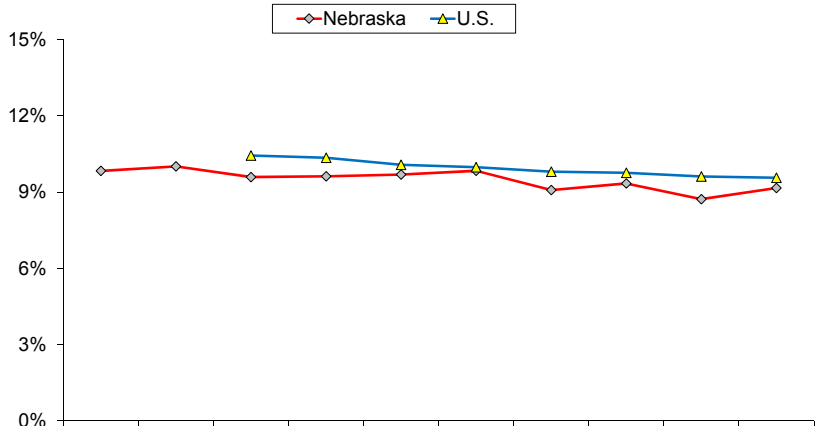
In Nebraska, more than 2 in 5 births (41.4%) among women 35 and older resulted from cesarean delivery in 2014. The Nebraska rate for women 35 and older increased between 2005 (37.7%) and 2008 (43.5%), declined slightly between 2008 and 2010 (41.7%) and has remained virtually unchanged between 2010 and 2014. Compared to the nation overall, the cesarean delivery rate for Nebraska women 35 and older was slightly lower over the past decade, including 2014 (42.5% and 41.4%, respectively).

Preterm Births

Preterm birth is the birth of an infant before 37 weeks of pregnancy. According to the CDC, it is the leading cause of infant deaths, with most preterm-related deaths occurring among babies who were born very premature (before 32 weeks). Preterm birth is also a leading cause of long-term neurological disabilities in children. CDC data indicate that preterm births increased gradually between 1990 and 2006 before starting to decline.

In Nebraska, close to 1 in 10 births (9.2%) were preterm in 2014. Though the rate changed inconsistently from year to year over the past decade, the rate between 2011 and 2014 was consistently lower than the rate for years 2005 and 2010. (Figure 53). Compared to the nation overall, the preterm birth rate in Nebraska has been consistently lower since 2007, though just slightly lower in 2014 (9.2 and 9.6 respectively).

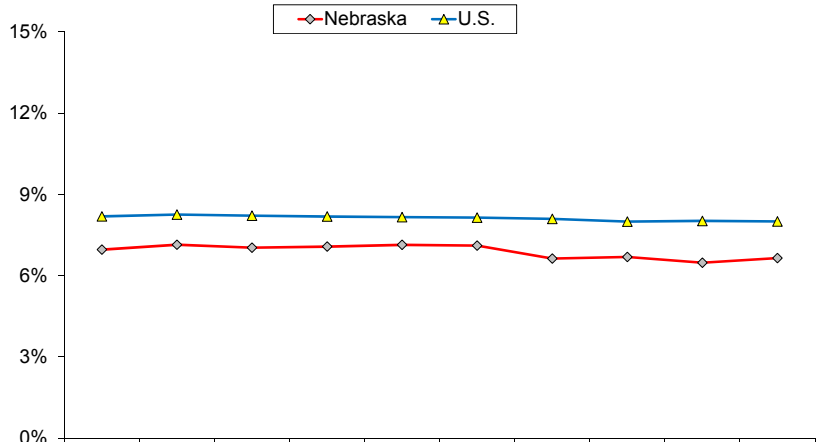
Figure 53: Preterm Births*, Nebraska and U.S., 2005-2014**



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	9.8	10.0	9.6	9.6	9.7	9.8	9.1	9.3	8.7	9.2
U.S.			10.4	10.4	10.1	10.0	9.8	9.8	9.6	9.6

*Percentage of infants born to women before 37 weeks gestation, based on O.E. gestational age
**Comparable U.S. data were unavailable for 2005 and 2006
Source: Nebraska Vital Records; National Center for Health Statistics

Figure 54: Low Birth Weight Births*, Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	7.0	7.1	7.0	7.1	7.1	7.1	6.6	6.7	6.5	6.7
U.S.	8.2	8.3	8.2	8.2	8.2	8.1	8.1	8.0	8.0	8.0

*Percentage of live births weighing less than 2,500 grams (5.5 pounds)
Source: Nebraska Vital Records; National Center for Health Statistics

Low Weight Births

Infants are classified as low birth weight (LBW) if they weigh less than 2,500 grams (or 5 Lb. 8 oz.) at birth. LBW infants include those born early (preterm) and those born full term, but who were small for their gestational age.

Some factors associated full term LBW include: maternal low birth weight, prior LBW birth history, low pre-pregnancy weight of mother, cigarette smoking, multiple births, and low pregnancy weight gain.

In 2014, about 1 in 15 births among Nebraska women (6.7%) resulted in low birth weight. The proportion of births that were LBW in Nebraska between 2011 and 2014 was slightly lower than for years 2005 to 2010 (Figure 54). Compared to the nation overall, Nebraska had a lower LBW rate over the past decade.

Unintended Births

Women of all ages may have unintended pregnancies, but some groups (such as teenagers) are at higher risk. Unintended pregnancy is associated with an increased risk of problems for mother and baby. Medically, if the pregnancy is not planned before conception, a woman may not be in optimal health for pregnancy and childbearing. In addition, a woman who is not planning to become pregnant might delay prenatal care that could affect the health of the infant.

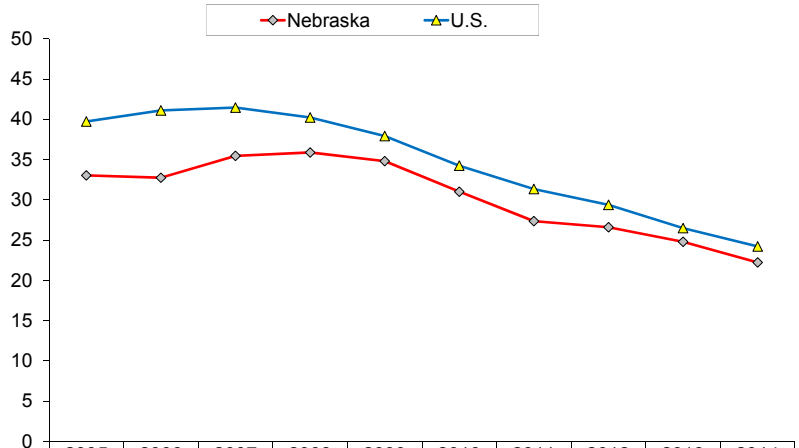
The Pregnancy Risk Assessment Monitoring System (PRAMS) collects data from mothers who recently had a live birth. According to this survey, pregnancy was unintended at the time of conception during 2 in 5 births (41.8%) in 2012.

Teen Births

In 2012, 4 in 5 births to women under 20 years of age (80.1%) were unintended according to PRAMS data. Furthermore, PRAMS data indicate that in more than one-third of all births to Nebraska teens in 2012, they smoked during the three months before their pregnancy (36.9%) while about one-quarter (24.8%) did not receive prenatal care until after their first trimester.

In 2014, there were 1,390 births in Nebraska among females 15-19 years old (i.e., teen births). The birth rate for these teens in 2014 was 22.2 births per 1,000 population, which on a positive note has declined steadily from 35.9 in 2008 (Figure 55). Compared to 15-19 year olds nationally, Nebraska teens had a lower birth rate over the past decade. When looking specifically at 15-17 year olds (i.e., younger teens) in Nebraska, the birth rate declined even faster over the past decade, dropping from 17.8 births per 1,000 population in 2007 to 9.4 in 2014.

Figure 55: Teen Birth Rate among 15-19 year old Females per 1,000 population, Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	33.0	32.7	35.4	35.9	34.8	31.0	27.3	26.6	24.8	22.2
U.S.	39.7	41.1	41.5	40.2	37.9	34.3	31.3	29.4	26.5	24.2

Source: Nebraska Vital Records; National Center for Health Statistics

Maternal Depression

Maternal (or postpartum) depression is depression that occurs after having a baby. According to a CDC survey, 8 to 19 percent of women reported having frequent postpartum depressive symptoms. A variety of factors can impact new mothers and increase their risk for depression, including infertility, having multiple babies (e.g., twins), losing a baby, being a teen mom, or having pregnancy complications.

Among new mothers responding to the Nebraska PRAMS survey in 2012, about 1 in 9 (11.1%) reported experiencing frequent postpartum depressive symptoms (defined as having frequent feelings of depression, sadness, hopelessness, or little interest in doing things after childbirth). Prevalence of frequent postpartum depressive symptoms is similar to 2011 (10.5%).

Breastfeeding

The American Academy of Pediatrics recommends breastfeeding as the best feeding choice for infants. Breastfeeding provides ideal nutrition for the first six months of life and is recommended to continue for the second six months, and then as long as mutually desired. Even a few weeks or months of breastfeeding benefit the baby. Some of the benefits of breastfeeding for infants may include a lower risk of food allergies, colic and asthma, as well as reduced risk of SIDS. Breastfeeding also benefits the mother by helping the uterus to return to normal size quickly and reduces bleeding after giving birth. In addition, it also helps form a special bond between mother and infant.

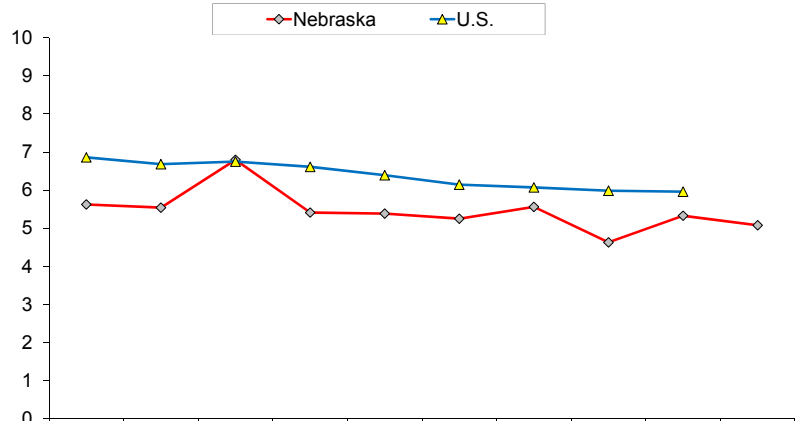
According to PRAMS data, about 9 in 10 mothers in Nebraska (89.0%) initiated breastfeeding in 2012, which was up from 83.7 percent in 2009. About one-third reported breastfeeding exclusively through three months of age (32.3%) in 2012, which was up from 24.0 percent in 2009. Based on 2011 national immunization survey data, Nebraska mothers reported a higher percentage than mothers nationally for breastfeeding exclusively at three months, and similar percentages for all other breastfeeding measures.

Infant Deaths

In addition to the impact it has on individuals and families, infant mortality is an important measure of a population's health and an indicator of general social well-being. It reflects the overall state of maternal health and the quality and accessibility of primary healthcare that is available to pregnant women and infants.

In 2014, there were 136 deaths to infants under one year of age in Nebraska for a rate of 5.1 deaths per 1,000 live births (i.e., infant mortality rate). While the infant mortality rate in Nebraska has fluctuated over the past decade, it was generally lower for years 2010-2014 when compared to 2005-2009 (Figure 56). The national rate during this period gradually declined, but was higher than the Nebraska rate for each year 2005-2013 with the exception of 2007.

Figure 56: Infant Mortality Rate per 1,000 Live Births*, Nebraska and U.S., 2005-2014



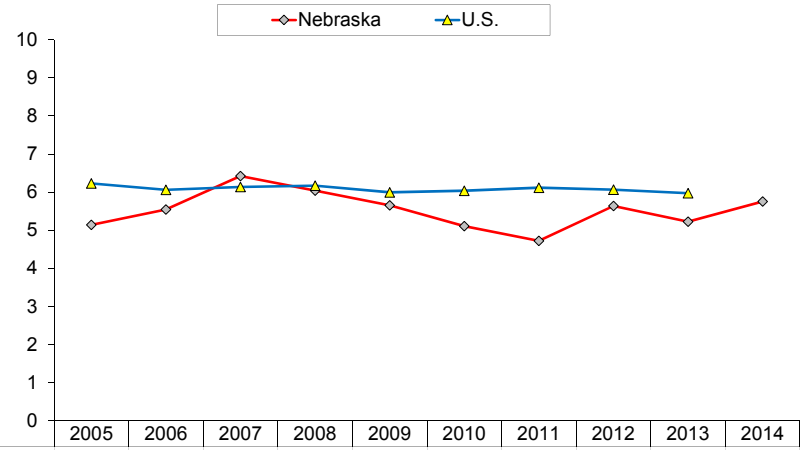
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	5.6	5.5	6.8	5.4	5.4	5.2	5.6	4.6	5.3	5.1
U.S.	6.9	6.7	6.8	6.6	6.4	6.1	6.1	6.0	6.0	

*Number of deaths to infants (less than 12 months old) per 1,000 live births
Source: Nebraska Vital Records; National Center for Health Statistics

Fetal Deaths

A fetal death is a death that occurs at or after 20 weeks gestation, and is also known as stillbirth. There were 155 fetal deaths in Nebraska during 2014, for a fetal death mortality rate of 5.8 deaths per 1,000 live births plus fetal deaths. Unlike infant mortality which saw a slight decline over the past decade, fetal deaths fluctuated inconsistently over the past decade for little overall change (Figure 57). With the exception of 2007, the U.S. rate was at or above the Nebraska rate over the past decade.

Figure 57: Fetal Mortality Rate per 1,000 Live Births*, Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	5.1	5.5	6.4	6.0	5.6	5.1	4.7	5.6	5.2	5.8
U.S.	6.2	6.1	6.1	6.2	6.0	6.0	6.1	6.1	6.0	

*A fetal death is a death that occurs during pregnancy, at or after 20 weeks gestation (i.e., stillbirth)
Source: Nebraska Vital Records; National Center for Health Statistics

MENTAL HEALTH AND SUICIDE

According to the World Health Organization, as many as 450 million people suffer from a mental or behavioral disorder. It also has been found that in developed countries such as the United States, mental illnesses account for more disability than any other group of illnesses, including cancer and heart disease. The effects of mental illness range from minor disruptions in daily functioning to personal, social and occupational impairments that can be incapacitating, and even lead to premature death.

Mental Illness

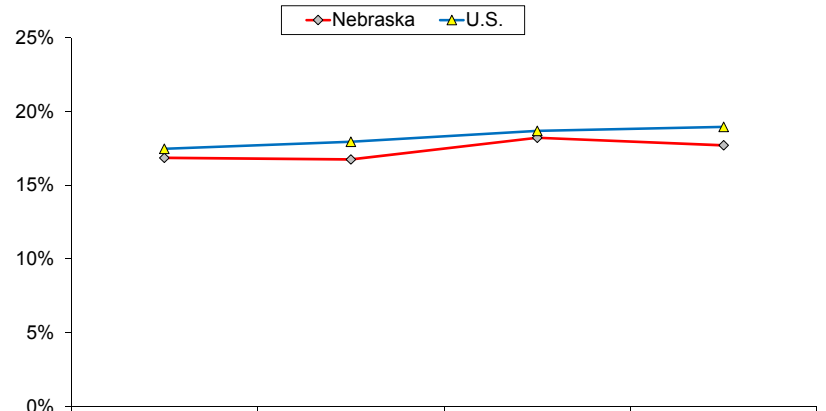
Depressive illness, including major depression, bipolar disorder, and dysthymia, is the most common mental illness, affecting roughly 21 million Americans each year.

Mental illness is associated with increased morbidity from a number of chronic diseases, including cardiovascular disease, diabetes, cancer, asthma, and obesity. Unhealthy behaviors such as tobacco and alcohol use as well as rates of injury are also higher in persons with mental illness.

Mental Illness among Adults

In 2014, about 1 in 6 Nebraska adults (17.7%) reported having ever been told by a doctor, nurse, or other health professional that they have a depressive disorder, including depression, major depression, dysthymia, or minor depression (i.e., diagnosed depression). Between 2011 and 2014 the prevalence of diagnosed depression among Nebraska adults remained relatively stable, and the 2014 percentage among Nebraska adults (17.7%) was slightly lower than among adults nationally (18.9%) (Figure 58).

Figure 58: Ever Told they have Depression among Adults*, Nebraska and U.S., 2011-2014

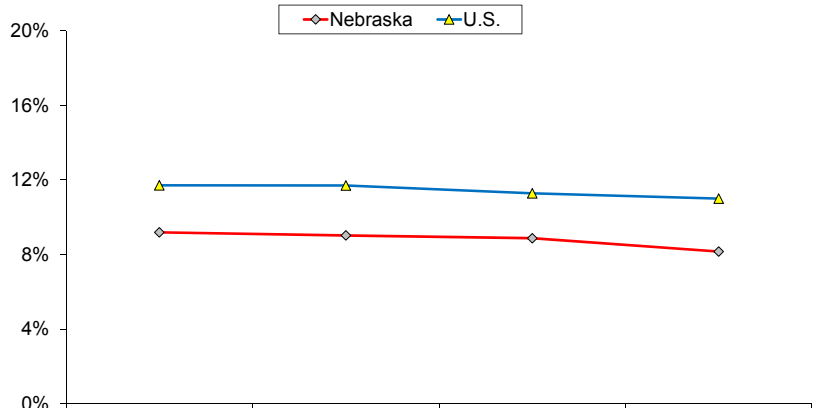


	2011	2012	2013	2014
Nebraska	16.8	16.7	18.2	17.7
U.S.	17.5	18.0	18.7	18.9

*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)
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Roughly 1 in 12 Nebraska adults in 2014 (8.2%) reported that their mental health (including stress, depression, and problems with emotions) was not good on 14 or more of the past 30 days (i.e., frequent mental distress). Positively, frequent mental distress declined slightly between 2011 and 2014 and was consistently lower than the national percentage during this period (Figure 59). However, among adults with frequent mental distress in 2014, 61.9 percent said they had diagnosed depression. While this includes the majority of persons with frequent mental distress, it suggests that there may still be a substantial proportion of those with recent mental health issues who have not sought or been referred to need care.

Figure 59: Frequent Mental Distress in Past 30 Days among Adults*, Nebraska and U.S., 2011-2014



	2011	2012	2013	2014
Nebraska	9.2	9.0	8.9	8.2
U.S.	11.7	11.7	11.3	11.0

*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
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Frequent mental distress was strongly correlated with certain physical health risk factors, beyond differences in age after age-adjusting. For example, 40.0 percent of adults with frequent mental distress in 2014 reported that they currently smoke cigarettes compared to 15.3 percent without frequent mental distress, more than a two-fold difference.

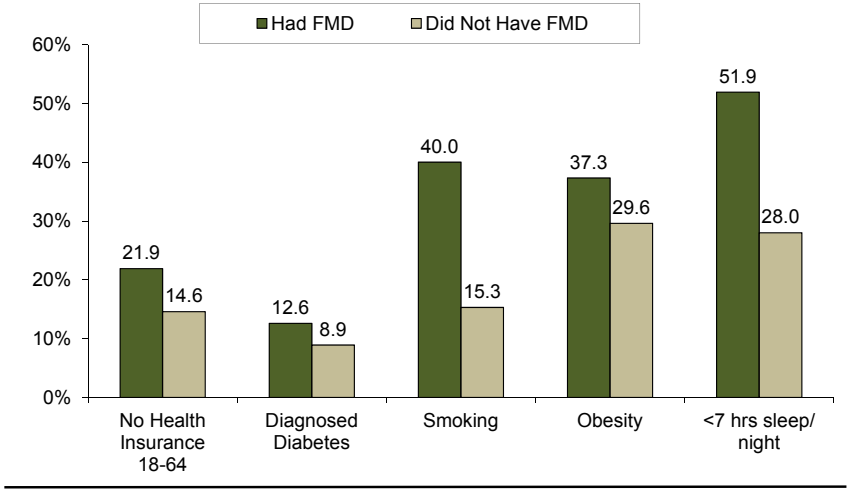
Nearly 4 in every 10 adults with frequent mental distress (37.3%) reported heights and weights that placed them in the obese category during 2014. Among respondents who did not have frequent mental distress, 29.6 percent were obese.

During 2014, adults with frequent mental distress were twice as likely as those without these symptoms to sleep less than seven hours per night on average (51.9% and 28.0%, respectively).

Furthermore, adults with frequent mental distress in 2014 were nearly four times as likely as those without frequent mental distress to report that their general health was fair or poor (38.0% and 10.8%, respectively), were more likely to be without health insurance among 18-64 year olds (21.9% and 14.6%, respectively), and were more likely to report having ever been told they had a chronic health condition including heart disease (9.4% and 5.4%, respectively), diabetes (12.6% and 8.9%, respectively), arthritis (37.7% and 23.3%, respectively), and asthma (24.2% and 11.1%, respectively).

Figure 60 compares select health indicators among adults with and without frequent mental distress.

Figure 60: Relationship between Frequent Mental Distress (FMD)* and Select Health Indicators (age-adjusted) among Nebraska Adults, 2014



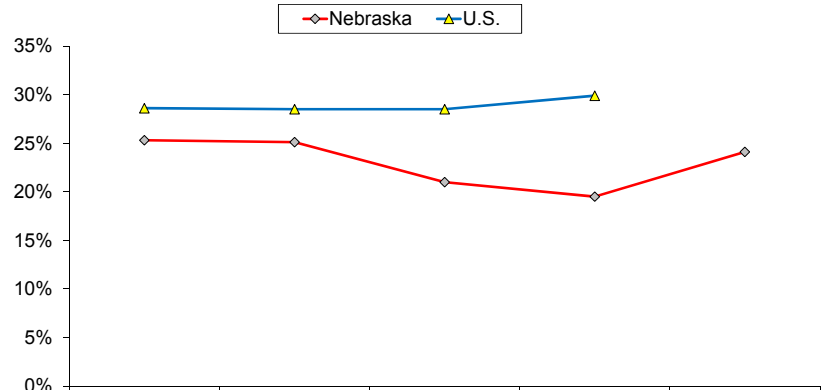
*Percentage of adults 18 and older who report that their mental health (including stress, depression, and problems with emotions) was not good on 14 or more of the previous 30 days
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Mental Illness among Youth

According to the 2015 Youth Risk Behavior Survey (YRBS), 1 in 4 Nebraska high school students (24.1%) reported that they "felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities during the past 12 months" (i.e., depression). Depression among Nebraska high school students declined

between 2005 and 2013 before increasing between 2013 and 2015 (Figure 61). Nebraska high school students, compared to students nationally, were less likely to report depression in 2013 (19.5% and 29.9%, respectively), the most recent year in which comparison data were available.

Figure 61: Depressed in Past Year among High School Students*, Nebraska and U.S., 2003-2015



	2003	2005	2011	2013	2015
Nebraska	25.3	25.1	21.0	19.5	24.1
U.S.	28.6	28.5	28.5	29.9	

*Percentage of public high school students who reported feeling so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities during the past 12 months
Note: Only years with weighted data are displayed
Source: Youth Risk Behavior Survey (YRBS)

Suicide

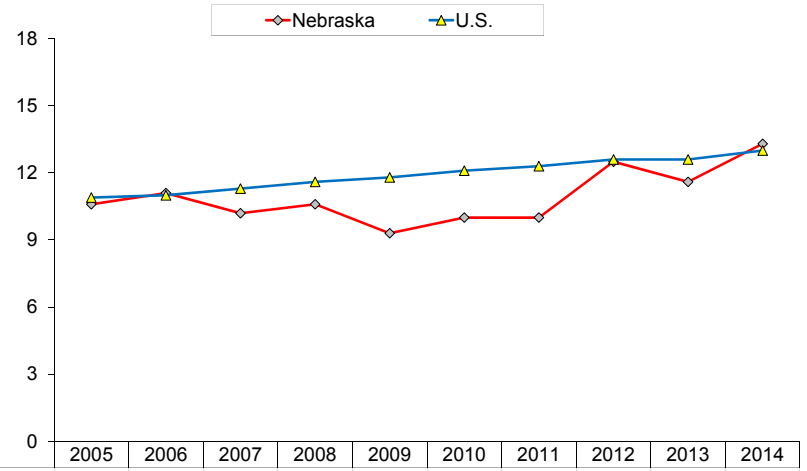
According to the Substance Abuse and Mental Health Services Administration (SAMHSA), more than 90 percent of those who die from suicide have a diagnosable mental disorder. Suicide victims are frequently experiencing undiagnosed, undertreated, or untreated depression.

Death due to Suicide

Suicide was the eleventh leading cause of death in Nebraska during 2014, claiming 250 lives. However, suicide ranked fourth in years of potential life lost (YPLL), averaging 29.5 YPLL per death from 2010-2014. This indicates that suicide victims are younger in comparison to the victims of nearly all causes of death.

After remaining relatively stable between 2005 and 2009, the suicide death rate in Nebraska increased between 2009 and 2014 to a rate of 13.3 deaths per 100,000 population (age-adjusted), the highest rate for any year during the past decade (Figure 62). The actual number of suicide deaths also increased during this period, from 170 deaths in 2009 to 250 deaths in 2014. The suicide death rate in Nebraska and the U.S. was nearly identical in 2014 (13.3 and 13.0, respectively); however, Nebraska did have a lower rate between 2009 and 2011.

Figure 62: Suicide Death Rate per 100,000 population (age-adjusted), Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	10.6	11.1	10.2	10.6	9.3	10.0	10.0	12.5	11.6	13.3
U.S.	10.9	11.0	11.3	11.6	11.8	12.1	12.3	12.6	12.6	13.0

Source: Nebraska Vital Records; National Center for Health Statistics

Suicide Care and Treatment

According to E-code data, there were 777 inpatient hospitalizations due to a self-inflicted injury that occurred in Nebraska among Nebraska residents in 2014, which was up from less than 700 per year during 2007-2010. In addition, there were 41,215 mental health treatment services provided to 22,579 Nebraska residents between July 2013 and June 2014, according to the Nebraska Magellan Treatment Database.

Of the 22,579 Nebraska residents who received mental health treatment between July 2013 and June 2014, 1,900 reported a suicide attempt within the past 30 days and 2,610 were taken into emergency protective custody.

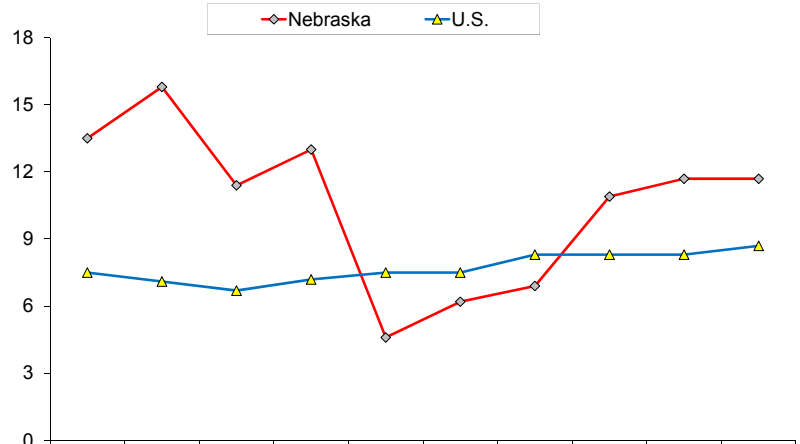
Suicides and Suicide-Related Behaviors among Youth

Suicide caused 15 deaths among Nebraska youth aged 15-19 in 2014. The age-adjusted suicide death rate (per 100,000 population) for this age group in Nebraska fluctuated greatly between 2005 and 2014 (Figure 63). It dropped sharply between 2008 and 2009 before gradually increasing. The Nebraska rate was higher than the rate nationally toward the beginning and end of the past decade.

Among Nebraska high school students, 1 in 7 (14.6%) reported that they seriously considered suicide during the past year while 1 in 11 (8.9%) reported that they actually attempted suicide during the past year, according to the 2015 Nebraska YRBS.

The prevalence of the past-year attempted suicide declined among Nebraska high school students between 2005 and 2013 before increasing between 2013 (6.0%) and 2015 (8.9%) (Figure 64). Nebraska high school students, compared to students nationally, were slightly but not significantly less likely to report a suicide attempt during the past year in 2013 (6.0% and 8.0%, respectively).

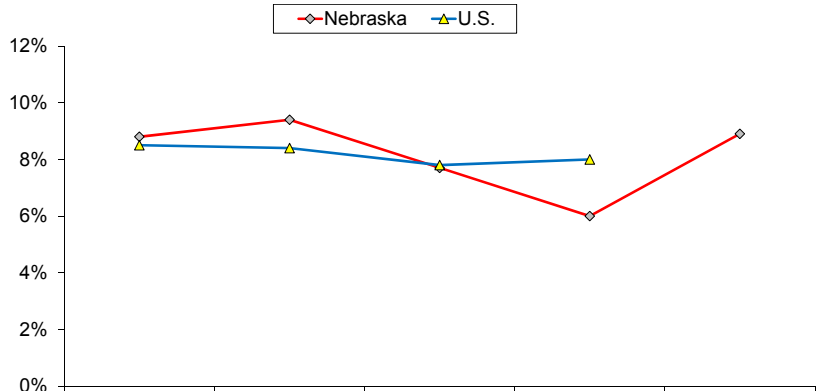
Figure 63: Suicide Death Rate among 15-19 year olds per 100,000 population (age-adjusted), Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	13.5	15.8	11.4	13.0	4.6	6.2	6.9	10.9	11.7	11.7
U.S.	7.5	7.1	6.7	7.2	7.5	7.5	8.3	8.3	8.3	8.7

Source: Nebraska Vital Records; National Center for Health Statistics

Figure 64: Attempted Suicide (self-reported) in Past Year among High School Students*, Nebraska and U.S., 2003-2015



	2003	2005	2011	2013	2015
Nebraska	8.8	9.4	7.7	6.0	8.9
U.S.	8.5	8.4	7.8	8.0	

*Percentage of public high school students who reported actually attempting suicide one or more times during the past 12 months
Note: Only years with weighted data are displayed
Source: Youth Risk Behavior Survey (YRBS)

Bullying on Mental Illness and Suicide

A greater proportion of Nebraska high school students who reported being bullied during the past year reported that they were depressed, considered suicide, and attempted suicide during the past year compared to those who did not report being bullied (Table 5).

Overall, about 1 in 4 high school students (24.1%) reported feeling depressed at some point during the past year in 2015. However, only about 1 in 6 students (16.2%) who were not bullied during the past year reported feeling depressed during the past year compared to more than 2 in 5 students (41.7%) who were bullied, a 2.6 fold difference.

The same relationship occurred for considering and attempting suicide. Students who were bullied at school or electronically during the past year were three times as likely as students not bullied to report that they considered suicide during the past year (26.3% and 8.9%, respectively) and more than twice as likely to report that they attempted suicide during the past year (13.0% and 6.1%, respectively).

Table 5: Depression and Suicide by Bullying Victimization Status during the Past Year* among Nebraska High School Students, 2015

Experienced the following during the past year**	Overall	Not Bullied	Bullied at School or Electronically
Depression	24.1%	16.2%	41.7%
Considered Suicide	14.6%	8.9%	26.3%
Attempted Suicide	8.9%	6.1%	13.0%

*Percentage of public high school students who reported having been bullied on school property during the past 12 months OR having been electronically bullied during the past 12 months

**Percentage of public high school students who reported (1) feeling so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities during the past 12 months; (2) seriously considering attempting suicide during the past 12 months; (3) actually attempting suicide one or more times during the past 12 months.

Source: Nebraska Youth Risk Behavior Survey (YRBS)

SUBSTANCE ABUSE

Substance abuse generally refers to the use of psychoactive substances, which affect mood, perception, and cognition by altering brain function. Alcohol and drug use fit into this category and are covered within this section.

Alcohol Misuse

Alcohol misuse is associated with injuries and deaths due to motor vehicle crashes, falls, fires, and drowning. Alcohol misuse is also a factor in a substantial proportion of homicides, suicides, domestic violence, and child abuse and neglect cases. Long-term heavy drinking can lead to heart disease, cancer, alcohol-related liver disease, and pancreatitis. Alcohol use during pregnancy is known to cause fetal alcohol syndrome, a leading cause of mental retardation. Excessive alcohol use is currently the third leading lifestyle-related cause of death for people in the United States each year.

Consequences of Alcohol Misuse

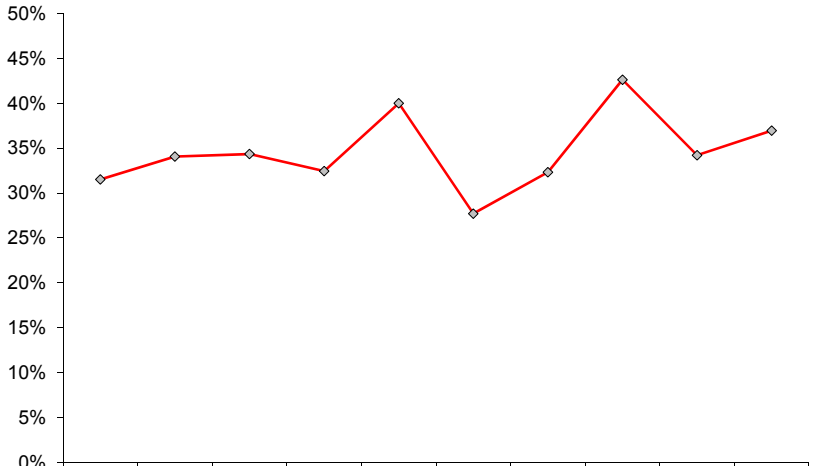
According to the CDC, between 2006 and 2010 there were an average of 88,000 alcohol-attributable deaths and 2.5 million years of potential life lost (YPLL) each year due to excessive alcohol consumption in the United States. In Nebraska, the CDC estimates there were an average of 542 alcohol-attributable deaths each year between 2006 and 2010.

In 2014, there were 21,792 substance abuse treatment admissions in Nebraska among 12,494 individuals, according to the Nebraska Magellan Substance Abuse Treatment Database. During admission, individuals report their primary, second, and third drugs of choice.

Alcohol was listed as the primary drug of choice in 62.1 percent and one of the top three drugs of choice in 77.4 percent of substance abuse treatment admissions in Nebraska during 2014. Though alcohol remains the primary drug of choice, it has declined slightly between 2011 (69.7%) and 2014 (62.1%).

According to the Nebraska Department of Highway Safety, alcohol was involved in more than one-third (36.9%) of all fatal motor vehicle crashes that occurred in Nebraska in 2014 (Figure 65). Aside from some fluctuation from year-to-year, this percentage has remained relatively stable over the past decade. However, in terms of the alcohol-related crash rate per 100 million vehicle miles traveled, there has been some improvement over the last ten years. In 2014, there were 8.7 alcohol-related crashes in Nebraska per 100 million miles traveled.

Figure 65: Percentage of Fatal Motor Vehicle Crashes in which Alcohol was Involved, Nebraska, 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	31.5	34.1	34.3	32.4	40.0	27.7	32.3	42.6	34.2	36.9

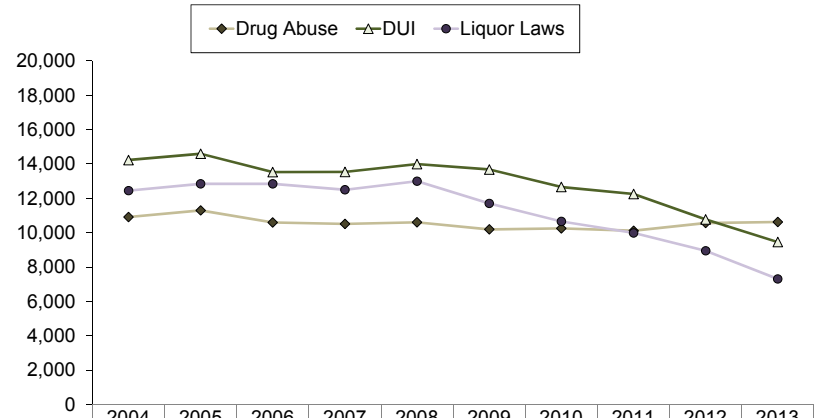
Source: Nebraska Office of Highway Safety

"Driving under the influence" (DUI) is one of the leading arrest offenses in Nebraska according to the Nebraska Crime Commission (NCC). In 2013, there were 9,453 DUI arrests in Nebraska reported to the NCC, accounting for 13.0 percent of all arrest in the state. In addition to the arrests for DUI, there were 7,304 arrests reported to the NCC for non-DUI alcohol-related offenses (liquor law violations including open container, minor in possession, procurement, etc.) in 2013, accounting

for 10.0 percent of all arrests. The total number of alcohol-related arrests has declined steadily in recent years, from 26,990 reported to the NCC in 2008 to 16,757 reported to the NCC in 2013 (Figure 66). In contrast, drug-related arrests (e.g., possession, distribution, etc.) have remained relatively steady during the same period.

This decline in alcohol-related offenses is part of a larger trend of declining total arrests overall, from 94,990 reported to the NCC in 2004 to 72,804 reported in 2013.

Figure 66: Number of Alcohol and Drug-Related Arrests in Nebraska*, 2004-2013



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Drug Abuse	10,905	11,299	10,597	10,509	10,606	10,186	10,247	10,114	10,559	10,621
DUI	14,231	14,595	13,529	13,534	13,996	13,682	12,658	12,248	10,769	9,453
Liquor Laws	12,445	12,842	12,839	12,493	12,994	11,704	10,649	9,983	8,944	7,304

*These data reflect arrests reported to the Nebraska Crime Commission from law enforcement agencies
Source: Uniform Crime Reports (UCR) Data, Nebraska Crime Commission (NCC)

Alcohol Use among Adults

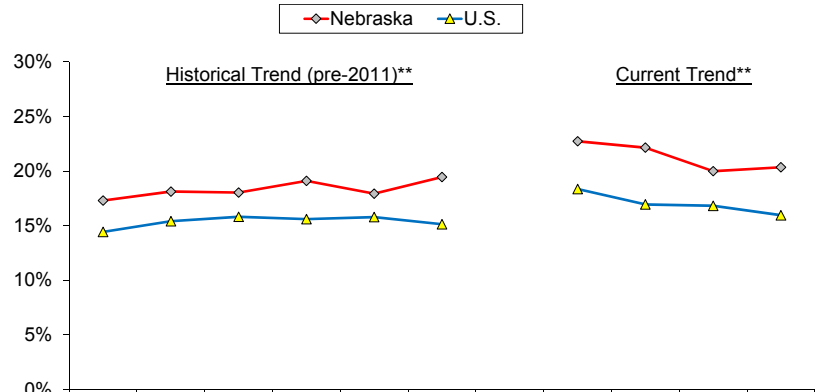
Any Alcohol Use among Adults

In 2014, about 3 in 5 Nebraska adults (59.2%) reported consuming at least one drink of an alcoholic beverage (such as beer, wine, wine coolers, liquor, or cocktails) during the past month. This percentage has remained stable over the last ten years.

Binge Drinking among Adults

Binge drinking is defined here as five or more drinks for men or four or more drinks for women (beer, wine, wine coolers, cocktails, or liquor) during one drinking occasion. In 2014, 1 in 5 Nebraska adults (20.3%) reported binge drinking at least once during the past month. Prevalence remained stable between 2005 and 2010. The 2011 and 2012 percentages were slightly higher than the 2013 and 2014 percentages (Figure 67). Note that the bump in binge drinking between 2010 and 2011 is believed to be almost entirely due to changes in how the data were collected, including adding cell phones and changing the weighting methodology. Nebraska adults, compared to adults nationally, have consistently reported higher percentages for binge drinking, with a 4.3 percentage point difference in 2014 (20.3% and 16.0%, respectively).

Figure 67: Binge Drank during the Past 30 Days among Adults*, Nebraska and U.S., 2005-2014



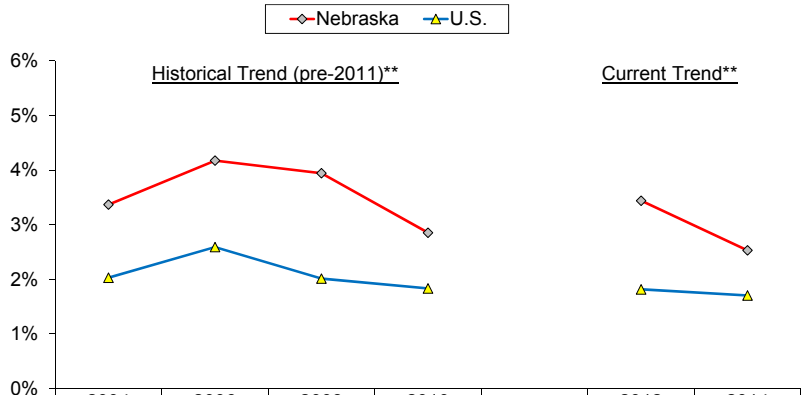
	2005	2006	2007	2008	2009	2010		2011	2012	2013	2014
Nebraska	17.3	18.1	18.0	19.1	17.9	19.4		22.7	22.1	20.0	20.3
U.S.	14.4	15.4	15.8	15.6	15.8	15.1		18.3	16.9	16.8	16.0

*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
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Alcohol Impaired Driving among Adults

In 2014, 2.5 percent of Nebraska adults (about 1 in 40) reported that they drove a motor vehicle after drinking too much alcohol during the past 30 days. This was considerably lower than the percentage who reported binge drinking, but has remained higher than the national percentage over the past 11 years (Figure 68).

Figure 68: Alcohol Impaired Driving during the Past 30 Days among Adults*, Nebraska and U.S., 2005-2014



	2004	2006	2008	2010		2012	2014
Nebraska	3.4	4.2	3.9	2.9		3.4	2.5
U.S.	2.0	2.6	2.0	1.8		1.8	1.7

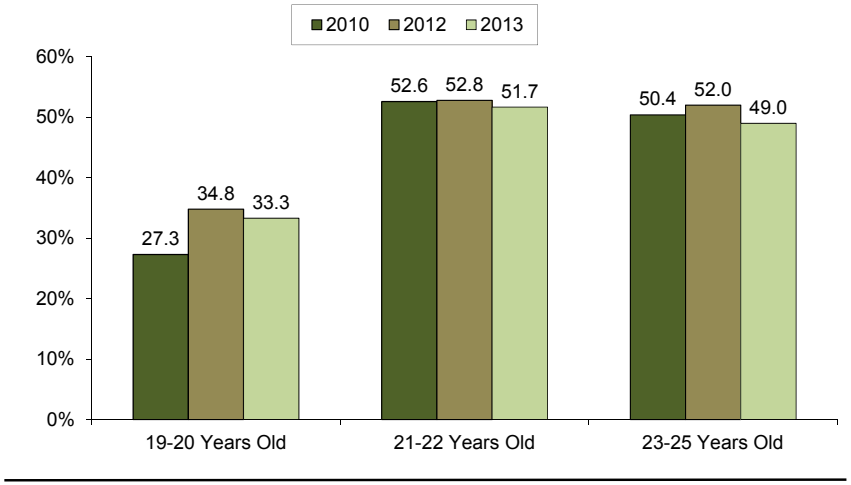
*Percentage of adults 18 and older who report driving after having had perhaps too much to drink during the past 30 days
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Alcohol Use among Young Adults

According to the 2013 Nebraska Young Adult Alcohol Opinion Survey (NYAAOS), alcohol use is particularly common among 19-25 year old young adults in the state. Although a majority of Nebraska young adults perceive moderate or great risk of harm from binge drinking (70.7 percent in 2013), 68.1 percent of young adults respondents reported using alcohol during the past 30 days, and of those two-thirds (66.3%) reported binge drinking during the past 30 days.

Among all 19-25 year old respondents, 44.9 percent reported binge drinking in the past month in 2013, which was fairly stable since 2010. However, binge drinking among underage 19 to 20 year olds, increased between 2010 (27.3%) and 2012 (34.8%) before leveling off in 2013 (33.3%) (Figure 69). Binge drinking remained stable if not declined slightly among 21-22 and 23-25 year olds during the same period.

Figure 69: Binge Drinking during the Past 30 Days among Nebraska Young Adults by Age, 2010-2013



*Percentage of 19-25 year olds who reported having five or more drinks for men/four or more drinks for women within a couple of hours on at least one of the 30 days preceding the survey
Source: Nebraska Young Adult Alcohol Opinion Survey

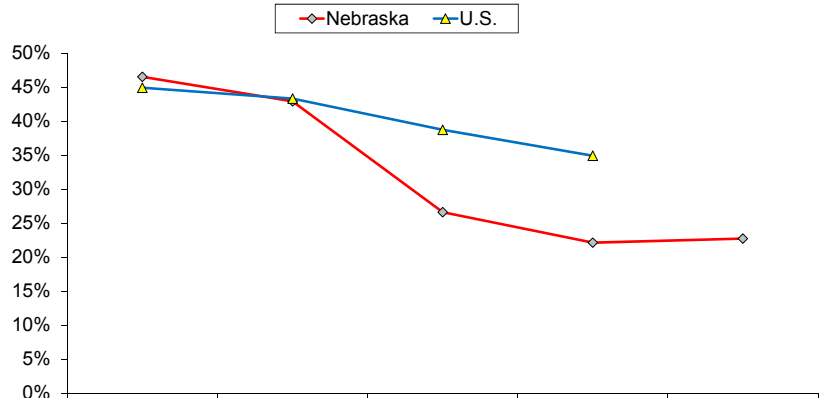
Alcohol Impaired Driving among Young Adults

DUI is an issue for Nebraskans of all ages, but appears to be particularly prevalent among young adults. According to the 2013 NYAAOS, more than 1 in 5 Nebraska young adults aged 19-25 (21.9%) reported driving under the influence of alcohol during the past year. In addition, 6.4 percent reported driving after binge drinking during the past month. Positively, both of these measures decreased between 2010 and 2013 (30.3% to 21.9%, and 8.4% to 6.4%, respectively).

Alcohol Use among Youth

Nebraska high school students were also surveyed about their alcohol use via the Youth Risk Behavior Survey. Trend data for all of the alcohol related indicators showed improvement between 2003 and 2015. In 2015, less than one-fourth of Nebraska high school students (22.7%) reported drinking alcohol during the past 30 days, down from nearly half in 2003 (46.5%) (Figure 70). Binge drinking during this period declined from 32.2 percent in 2003 to 14.3 percent in 2015. Nebraska high school students, compared to their national counterparts, were less likely to report past month alcohol use (22.1% and 34.9%, respectively) and past month binge drinking (13.6% and 20.8%, respectively) in 2013, the most recent year in which national comparison data were available.

Figure 70: Drank Alcohol in Past Month among High School Students*, Nebraska and U.S., 2003-2015



	2003	2005	2011	2013	2015
Nebraska	46.5	42.9	26.6	22.1	22.7
U.S.	44.9	43.3	38.7	34.9	

*Percentage of public high school students who reported having at least one drink of alcohol on one or more of the past 30 days
Note: Only years with weighted data are displayed
Source: Youth Risk Behavior Survey (YRBS)

Alcohol Impaired Driving among Youth

In 2015, among Nebraska high school students who reported that they drove a car or other vehicle during the past 30 days, about 1 in 10 (10.1%) reported driving when they had been drinking alcohol during the past 30 days. This percentage is slightly but not significantly higher than the 6.8 percent reported in 2013. However, self-reported driving while drinking (using a slightly different survey question) declined considerably between 2003 and 2011. Self-reported riding with a driver who had been drinking during the past 30 days among Nebraska high school students also declined between 2003 (38.5%) and 2015 (22.3%).

Drug Use

According to the U.S. Department of Health and Human Services, illicit drug use includes illegal drugs as well as the misuse of prescription and over-the-counter medications or household substances. Illicit drug use can lead to problems at school, work, home, and with relationships. It can also lead to legal problems and short and long term physical health and mental health problems.

Consequences of Drug Use

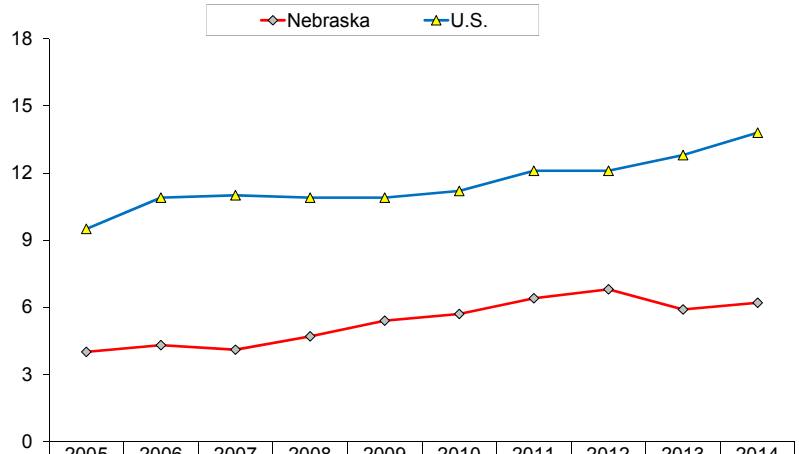
The drug-induced death rate in Nebraska increased steadily between 2005 and 2014, resulting in 109 deaths in 2014 for an age-adjusted rate of 6.2 deaths per 100,000 population (Figure 71). Experts believe this increase is likely driven by rising numbers of opioid analgesic overdose deaths (i.e., prescription drug abuse). Though increasing in Nebraska, the Nebraska death rate remains only about half of the national rate.

According to Magellan Substance Abuse Treatment Database, methamphetamine was listed as the primary drug of choice during 1 in 8 substance abuse treatment admissions (13.9%) in Nebraska during 2014, making it the second most commonly reported primary drug of choice to alcohol (62.1%). Methamphetamine was followed by marijuana (10.1%), other opiate drugs (e.g., morphine, heroin, codeine, methadone) (5.0%), and cocaine (1.4%).

In contrast to only examining the primary drugs of choice, marijuana was listed as one of the top three drugs of choice during approximately one-third of all Magellan treatment admissions (34.8%) in Nebraska during 2014, making it second to alcohol (77.4%). Marijuana was followed by methamphetamine (24.6%).

As a percentage of all substance use disorder treatment admissions in the Magellan database, admissions for cocaine have decreased in recent years while admissions for methamphetamine have increased. Admissions for marijuana and other opiate drugs have remained stable.

Figure 71: Drug-Induced Death Rate per 100,000 population (age-adjusted), Nebraska and U.S., 2005-2014



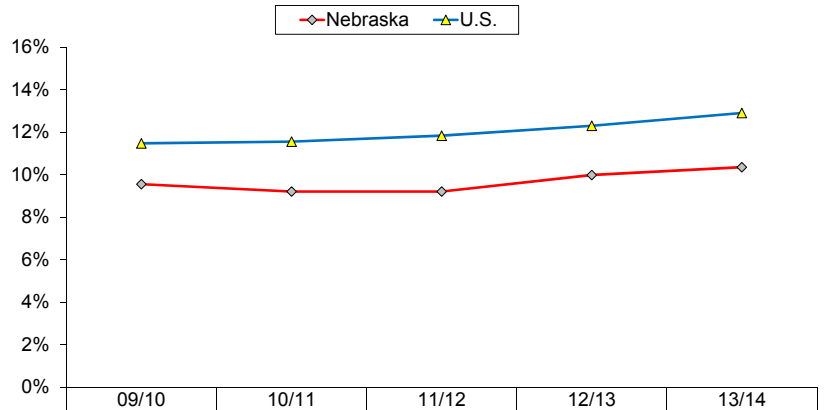
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	4.0	4.3	4.1	4.7	5.4	5.7	6.4	6.8	5.9	6.2
U.S.	9.5	10.9	11.0	10.9	10.9	11.2	12.1	12.1	12.8	13.8

Source: Nebraska Vital Records; National Center for Health Statistics

Marijuana Use

According to the National Survey on Drug Use and Health, marijuana is the most commonly used illicit drug in Nebraska. During the combined years of 2013 and 2014, 10.4 percent of all persons 12 and older in Nebraska reported using marijuana during the past year while 5.8 percent reported using it during the past month. Use was considerably higher among 18-25 year olds in Nebraska, where 29.2 percent reported past year use and 16.2 percent reported past month use during 2013/2014. The trend for all persons 12 and older has increased slightly between 2010/2011 (9.2%) and 2013/2014 (10.4%) (Figure 72). Nebraskans 12 and older were less likely than their counterparts nationally to report both past year (10.4% and 12.9%, respectively) and past month (5.8% and 8.0%, respectively) marijuana use during 2013/2014.

Figure 72: Marijuana Use in Past Year among Persons 12 and Older *, Nebraska and U.S., 2009-2014



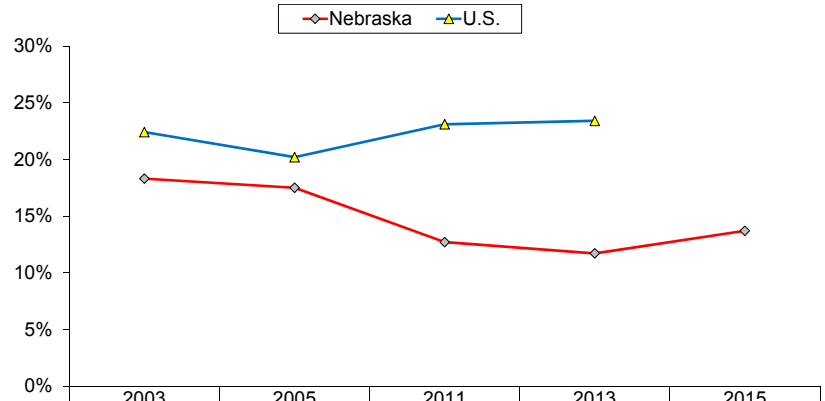
	09/10	10/11	11/12	12/13	13/14
Nebraska	9.6	9.2	9.2	10.0	10.4
U.S.	11.5	11.6	11.8	12.3	12.9

*Percentage of all persons 12 and older reporting that they used marijuana one or more times during the past 12 months
Note: Data are presented as a two year rolling average
Source: National Survey on Drug Use and Health (NSDUH)

Among Nebraska high school students responding to the 2015 YRBS, 1 in 7 (13.7%) reported that they used marijuana during the past 30 days. While this percentage declined considerably between 2005 and 2011, it has remained stable between 2011 and 2015 (Figure 73). While alcohol use remains more common than marijuana use among Nebraska high school students, the percentage for past month binge drinking in 2015

(14.3%) was nearly identical to the percentage for past month marijuana use (13.7%). High school students in Nebraska, compared to those nationally, remained less likely to report past month marijuana use in 2013 (11.7% and 23.4%, respectively), the last year in which national comparison data were available.

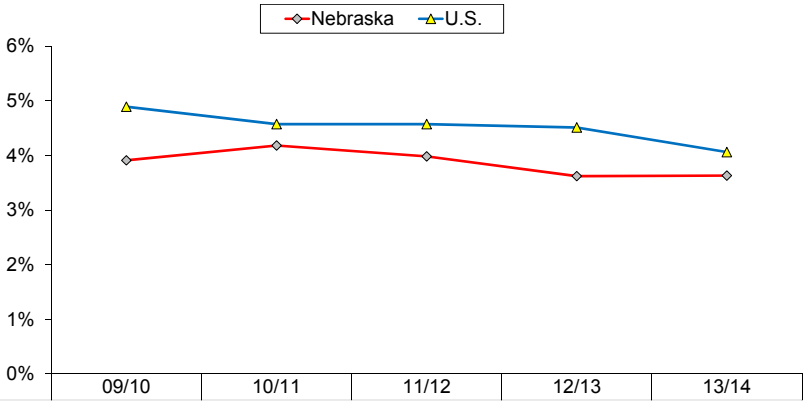
Figure 73: Marijuana Use in Past Month among High School Students*, Nebraska and U.S., 2003-2015



	2003	2005	2011	2013	2015
Nebraska	18.3	17.5	12.7	11.7	13.7
U.S.	22.4	20.2	23.1	23.4	

*Percentage of public high school students who reported using marijuana one or more times during the past 30 days
Note: Only years with weighted data are displayed
Source: Youth Risk Behavior Survey (YRBS)

Figure 74: Non-Medical Use of Pain Relievers in Past Year among Persons 12 and Older *, Nebraska and U.S., 2009-2014



	09/10	10/11	11/12	12/13	13/14
Nebraska	3.9	4.2	4.0	3.6	3.6
U.S.	4.9	4.6	4.6	4.5	4.1

*Percentage of all persons 12 and older reporting that they used a prescription pain reliever in a way a doctor did not direct them to use it, including without a prescription or in greater amounts than prescribed, one or more times during the past year
Note: Data are presented as a two year rolling average
Source: National Survey on Drug Use and Health (NSDUH)

Prescription Drug Use

As previously noted, the drug-induced death rate in Nebraska is increasing but remains at only about half of the national rate (Figure 69). The increase is believed to be a result of the increasing number of opioid analgesic overdose deaths. Furthermore, the number of drug-induced inpatient hospitalizations in Nebraska has also increased slightly, from 1,082 in 2007 to 1,468 in 2012.

According to the 2013/2014 National Survey on Drug Use and Health, 3.6 percent of persons aged 12 and older in Nebraska (about 1 in every 28) reported using a prescription pain reliever non-medically during the past year. This percentage has remained relatively stable between 2009 and 2014, and has been slightly lower compared to the nation over the past five years, though the 2013/2014 national percentage (4.1%) was similar to Nebraska (Figure 74).

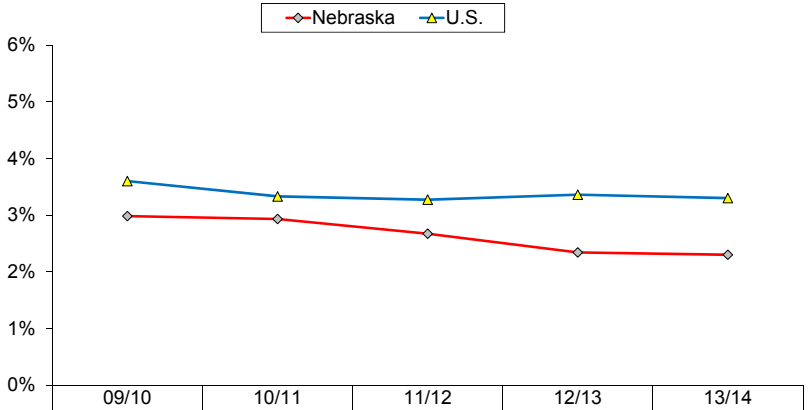
In 2015, 1 in 7 Nebraska high school students (13.5%) reported that they had ever taken a prescription drug (such as OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, Xanax) for non-medical reasons. This percentage in Nebraska changed inconsistently from 2011 (12.4%) to 2013 (10.4%) to 2015 (13.5%). Nebraska high school students, compared to students nationally, were less likely to report lifetime non-medical prescription drug use in 2013 (10.4% and 17.8%, respectively).

Other Illicit Drug Use

According to the 2013/2014 National Survey on Drug Use and Health, 6.8 percent of persons aged 12 and older in Nebraska reported using "any illicit drug," including marijuana, during the past month. The 2013/2014 national percentage was higher at 9.8 percent.

The percentage was considerably lower when looking at the use of non-marijuana illicit drugs during the past month, 2.3 percent in Nebraska during 2012/2014 combined. This percentage declined very gradually between 2009 and 2014, and was slightly lower than the percentage nationwide (3.3%) in 2013/2014 (Figure 75).

Figure 75: Non-Marijuana Illicit Drug Use in Past Month among Persons 12 and Older *, Nebraska and U.S., 2009-2014

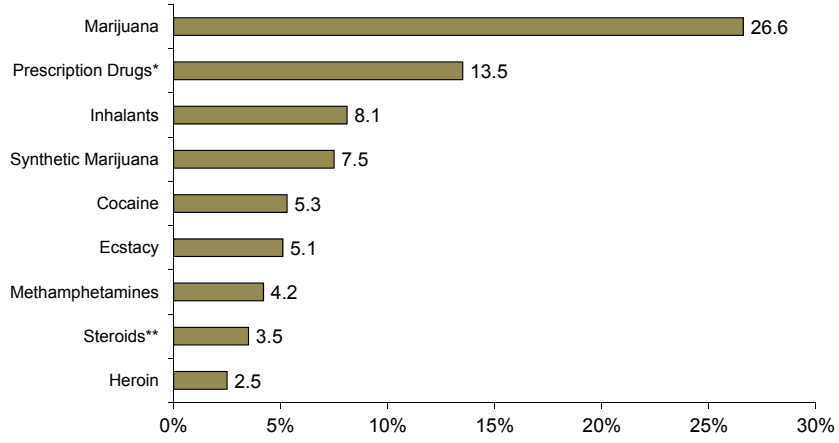


	09/10	10/11	11/12	12/13	13/14
Nebraska	3.0	2.9	2.7	2.3	2.3
U.S.	3.6	3.3	3.3	3.4	3.3

*Percentage of all persons 12 and older reporting that they used cocaine, heroin, hallucinogens, inhalants, or prescription-type psycotherapeutics nonmedically one or more times during the past month
Note: Data are presented as a two year rolling average
Source: National Survey on Drug Use and Health (NSDUH)

According to the 2015 Nebraska YRBS, the most common drug reported by Nebraska high school students during their lifetime was marijuana at about 1 in 4 students (26.6%) (Figure 76). Marijuana was followed by prescription drugs (13.5%), inhalants (8.1%), synthetic marijuana (7.5%), cocaine (5.3%), ecstasy (5.1%), methamphetamine (4.2%), steroids (3.5%), and heroin (2.5%). For every illicit drug asked on both the 2013 and 2015 YRBS, there was an increase; however, methamphetamine use was the only drug that increased significantly between 2013 (2.0%) and 2015 (4.2%). In 2013, the most recent year in which national comparison data were available, high school students in Nebraska were less likely than students nationally to use each drug asked on the 2013 survey except for steroid use, which was similar.

Figure 76: Lifetime Illicit Drug Use among Nebraska High School Students, by Drug Type, 2015



**Taking a prescription drug (OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, Xana) without a doctor's prescription
*Includes sterioids or shots taken without a doctor's prescription
Source: Nebraska Youth Risk Behavior Survey (YRBS)

IMMUNIZATION AND INFECTIOUS DISEASES

The World Health Organization defines infectious diseases as those diseases that are caused by pathogenic microorganisms, such as bacteria, viruses, parasites or fungi; the diseases can be spread, directly or indirectly, from one person to another. According to HealthyPeople.gov, the increase in life expectancy during the 20th century is largely due to improvements in child survival, which is associated with reductions in infectious disease mortality, due in large part to immunizations. However, infectious diseases remain a major cause of illness, disability, and death in the United States.

Immunizations

Vaccines are among the most cost-effective clinical preventive services and a core component of any preventive service package according to HealthyPeople.gov. Immunizations have a high return on investment, saving lives, disease, and direct and indirect costs. However, many children, adolescents, and adults in the United States are under-immunized and thus susceptible to many vaccine preventable diseases.

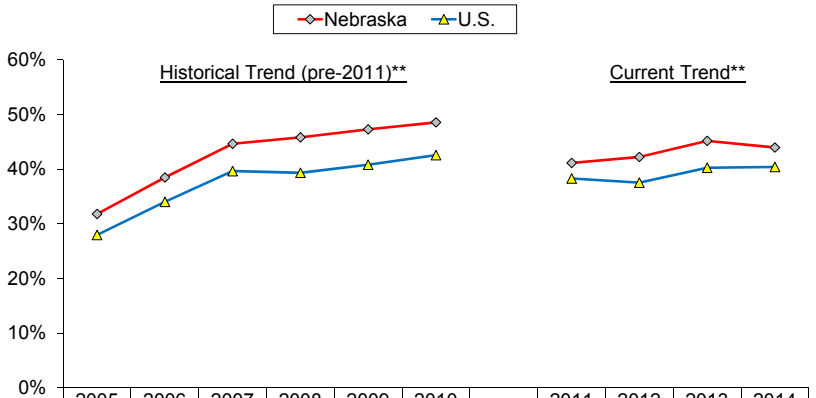
Influenza Vaccination

Influenza (or flu) vaccine (i.e., a "flu shot" or the nasal spray vaccine) can be very effective in preventing illness from the flu. According to the Centers for Disease Control and Prevention (CDC), in years when the vaccine strains and the virus strains are well-matched, the vaccine can reduce the chances of getting the flu by 50 to 60 percent in healthy adults. The CDC currently recommends flu shots for everyone 6 months or older. The nasal spray flu vaccine is recommended for healthy, non-pregnant, individuals aged 2 to 49 years.

In 2014, just 2 in 5 Nebraska adults 18 and older (43.9%) reported receiving a flu vaccination during the past year. On a positive note, this percentage has increased over the past decade and continues to be higher than the nation overall (Figure 77). Note that the drop in flu vaccination between 2010 and 2011 in Nebraska is believed to be almost entirely due to changes in how the data were collected, including adding cell phones and changing the weighting methodology.

Nebraska adults 65 and older were more likely than younger adults to have received a flu vaccination during the past year, with two-thirds (64.7%) reporting past year vaccination in 2014. This percentage has also increased over the past decade and remains higher than the nation overall, at 60.8 percent in 2014.

Figure 77: Flu Vaccination during the Past Year among Adults*, Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010		2011	2012	2013	2014
Nebraska	31.8	38.5	44.7	45.8	47.3	48.6		41.1	42.2	45.2	43.9
U.S.	27.9	34.0	39.7	39.3	40.8	42.6		38.3	37.5	40.3	40.4

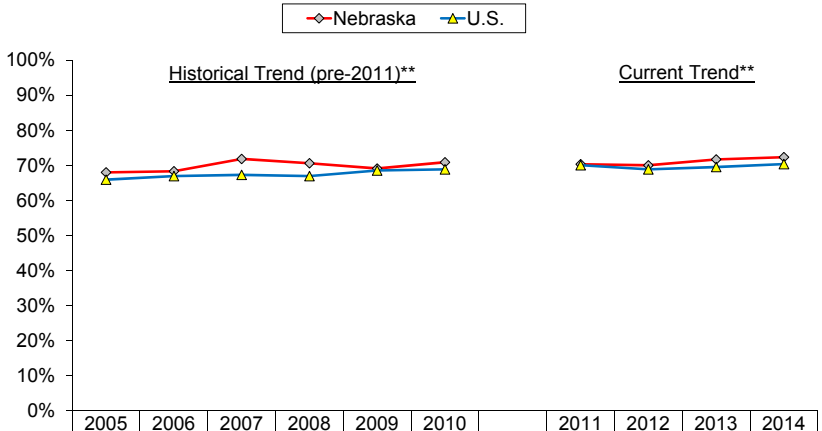
*Percentage of adults 18 and older who report that they received an influenza vaccination during the past 12 months
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Pneumococcal Vaccination

Pneumococcal vaccine can prevent more than one-half of all pneumococcal infections, although it will not protect against other types of pneumonia. It is recommended that adults aged 65 and older receive a one-time immunization against pneumococcal disease.

Close to three-quarters of Nebraska adults 65 and older in 2014 (72.3%) reported that they have ever received a pneumococcal vaccination. This percentage increased slightly over the past decade (Figure 78). Most recently the percentage increased from 70.0 percent in 2012 to 72.3 percent in 2014. Compared to the nation overall, Nebraska adults 65 and older were slightly more likely in 2014 to report that they have ever received a pneumococcal vaccination (70.3% and 72.3%, respectively), but similar over most of the past decade.

Figure 78: Lifetime Pneumococcal Vaccination among Adults 65 and Older*, Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010		2011	2012	2013	2014
Nebraska	67.9	68.3	71.8	70.6	69.1	70.9		70.3	70.0	71.7	72.3
U.S.	65.9	66.9	67.3	66.9	68.5	68.8		70.0	68.8	69.5	70.3

Percentage of adults 65 and older who report that they have ever received a pneumoncoccal vaccination
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Tdap Vaccination

Children younger than seven are vaccinated with DTaP to develop immunity to three deadly bacterial diseases, including diphtheria, tetanus, and pertussis (or whooping cough). Beginning at age 11, Tdap is given to adolescents and adults as a booster immunization for continued protection.

According to the 2014 National Immunization Survey, 82.2 percent of 13-17 year old adolescents in Nebraska were up-to-date on their Tdap vaccination. Nebraska adolescents were less likely than adolescents nationally (87.6%) to be up-to-date on the Tdap vaccination in 2014, and considerably lower than the top U.S. state at 94.8 percent.

According to the Nebraska BRFSS, 3 in 5 Nebraska adults (60.2%) in 2013 reported that they had a tetanus vaccination since 2005. Given the release of the pertussis vaccine in the U.S. in 2005, it is likely that most of these vaccines included in the 60.2 percent contained pertussis in addition to tetanus and diphtheria. Compared to the nation at 58.7 percent, Nebraska adults were slightly more likely to report in 2013 that they have had a tetanus vaccine since 2005.

Meningococcal Vaccination

According to the CDC, meningococcal vaccines help protect against the bacteria that causes meningococcal disease. Though these infections do not happen very often, they are dangerous when they do. The most serious infections include meningitis, bacteremia, and septicemia. Beginning at age 11, the meningococcal vaccine is administered, with a booster typically given at age 16.

According to the 2014 National Immunization Survey, 74.1 percent of 13-17 year old adolescents in Nebraska had received at least one meningococcal vaccination. Nebraska adolescents were less likely than adolescents nationally (79.3%) to have received at least one meningococcal vaccine, and considerably lower than the top U.S. state at 95.2 percent.

HPV Vaccination

According to the CDC, the HPV vaccine helps protect against most of the cancers caused by human papillomavirus (HPV) infection. HPV is common, and spreads between people through sexual contact. Beginning at age 11, the HPV is given to females and males using a series of three shots.

According to the 2014 National Immunization Survey, 59.6 percent of 13-17 year old females in Nebraska had received at least one HPV vaccination while just 39.5 percent of 13-17 year old males were vaccinated. Nebraska female and male adolescents had similar percentages compared to their counterparts nationally in 2014 for having had at least one HPV vaccination (59.6% and 60.0% for females, and 39.5% and 41.7% for males, respectively). While similar to the nation, the percentages were considerably lower than the percentage who had received Tdap and meningococcal vaccinations. Positively, since 2007 the percentage of adolescents nationally receiving at least one HPV vaccine has increased considerably, from 25.1 percent in 2007 to 60.0 percent in 2014 for females, and from 8.3 percent in 2011 to 41.7 percent in 2014 for males (note that pre 2011 data were unavailable for males).

Shingles Vaccination

The CDC estimates that about 1 in 3 people in the U.S will develop shingles (also known as zoster or herpes zoster) in their lifetime. Shingles occurs when the chickenpox virus reactivates, causing a painful rash on one side of the body or face. Shingles can be followed by the development of post-herpetic neuralgia (PHN), which causes continued pain due to nerve damage from shingles. The CDC recommends that people 60 years of age and older get the shingles vaccine to prevent shingles and PHN. The vaccine reduces the risk of developing shingles by 51 percent and PHN by 67 percent.

According to the Nebraska BRFSS, 2 in 5 Nebraska adults 60 and older (41.0%) in 2014 reported that they had ever received a shingles (or zoster) vaccination. Compared to the nation, Nebraska adults 60 and older in 2014 were more likely to report ever receiving a shingles vaccination (33.3% and 41.0%, respectively).

Childhood Vaccination

According to HealthyPeople.gov, childhood immunization programs provide a very high return on investment. For each birth cohort vaccinated with the routine immunization schedule, society saves 33,000 lives, prevents 14 million cases of disease, reduces direct healthcare costs by $9.9 billion, and saves $33.4 billion in indirect costs. Health professionals and families are encouraged to follow the most up-to-date immunization schedule for children.

According to the 2014 National Immunization Survey, 80.2 percent of Nebraska children aged 19-35 months had received the recommended doses of DTaP, polio, MMR, Hib, hepatitis B, varicella, and PCV vaccines. Nebraska children 19-35 months were more likely than their counterparts nationally (71.6%) to be up-to-date on these vaccines, and the Nebraska percentage was considerably higher than the lowest U.S. state in 2014 at 63.4 percent.

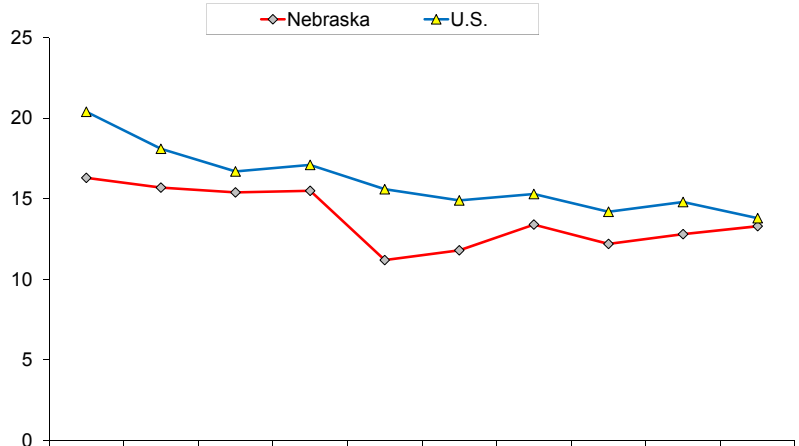
Influenza and Pneumonia

Mortality

Pneumonia was the eighth leading cause of death in Nebraska in 2014, claiming 310 lives and accounting for 1.9 percent of all deaths in the state that year. Nationwide, there were more than 50,000 deaths due to pneumonia in 2014. The death rate for pneumonia has declined in Nebraska and the U.S. over the past decade (Figure 79). The age-adjusted death rate (per 100,000 population) in Nebraska, compared to the nation overall, was similar in 2014 (13.3 and 13.8, respectively); however, Nebraska had a lower rate during most of the past decade.

Compared to pneumonia, influenza was the cause of fewer deaths in Nebraska, with the number of deaths ranging between 41 in 2013 and 1 in 2010. For the nation, fewer than 4,000 deaths due to influenza occurred in 2014.

Figure 79: Pneumonia Death Rate per 100,000 population (age-adjusted), Nebraska and U.S., 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Nebraska	16.3	15.7	15.4	15.5	11.2	11.8	13.4	12.2	12.8	13.3
U.S.	20.4	18.1	16.7	17.1	15.6	14.9	15.3	14.2	14.8	13.8

Source: Nebraska Vital Records; National Center for Health Statistics

Morbidity

Pneumonia resulted in 5,595 hospitalizations among Nebraska residents in Nebraska hospitals during 2014, which was more than many of the common chronic conditions such as stroke, COPD, cancer, and diabetes. While still common, the average number of pneumonia hospitalizations per year declined 17.0 percent when comparing 2005-2009 (7,556 hospitalizations per year on average) to 2010-2014 (6,270 hospitalizations per year on average).

In comparison, only 293 hospitalizations were reported for influenza in 2014 and that number also declined (34.7%) from 2005-2009 to 2010-2014. Although influenza rarely results in mortality or inpatient hospitalization, it accounts for a large portion of physician office visits (especially during the typical flu season) as well as missed work and missed school days.

Sexually Transmitted Diseases

Sexually transmitted diseases (STDs) remain a major public health challenge in the United States. Although progress has been made in preventing, diagnosing, and treating some STDs, the CDC estimates that nearly 20 million new infections occur each year in the United States, with half of these infections occurring among young people aged 15-24.

STDs are also the cause of many harmful and often irreversible complications, such as reproductive health problems and fetal and perinatal health problems. Studies also suggest that people with gonorrhea, chlamydia, and syphilis are at increased risk for HIV. In addition to the physical and psychological consequences of STDs, they account for $16 billion annually in U.S. healthcare costs.

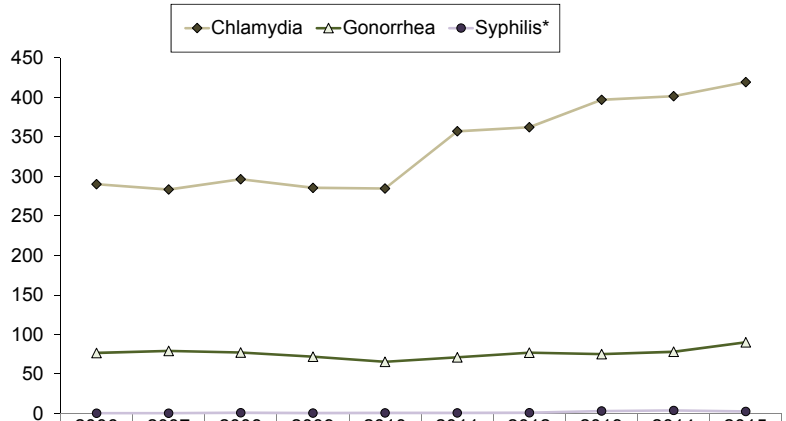
There were a total of 9,713 new STD cases diagnosed in Nebraska in 2015. STD rates in Nebraska have increased in recent years, but remain lower than comparable national rates.

Chlamydia is the most common STD in Nebraska, accounting for more than 4 in 5 STD cases in the state in 2015 (81.9%). The incidence rate for chlamydia in Nebraska was stable between 2006 and 2010 before increasing 47 percent between 2010 and 2015 (from 284.7 to 419.4 new cases per 100,000 population, respectively) (Figure 80). The Nebraska rate (401.5) was lower than the U.S. rate (456.1) in 2014 (Figure 81).

Gonorrhea is the second most common STD in Nebraska, accounting for 17.6 percent of STD cases in 2015. Incidence of gonorrhea also increased from 2010-2015, from 65.3 to 90.0 new cases per 100,000 population, respectively; a 38 percent increase (Figure 80). The 2014 Nebraska rate (78.0) was lower than the U.S. rate (110.7) (Figure 81).

Incidence of primary and secondary syphilis was much lower than chlamydia and gonorrhea, accounting for just 0.5 percent of all STD cases in the state in 2015. While only about half the U.S. rate (Figure 81), the Nebraska syphilis rate for years 2013-2015 was considerably higher than for years 2006-2012 (Figure 80).

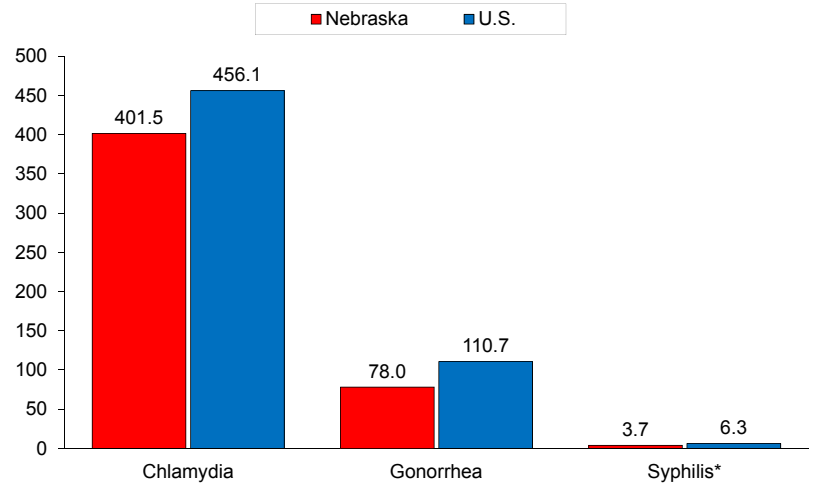
Figure 80: STD Incidence Rate by Type, per 100,000 population in Nebraska, 2006-2015



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Chlamydia	290.2	283.4	296.5	285.6	284.7	357.0	362.1	396.8	401.5	419.4
Gonorrhea	76.5	79.3	77.2	71.9	65.3	71.1	76.9	75.0	78.0	90.0
Syphilis*	0.4	0.4	0.9	0.6	0.6	0.7	0.9	3.1	3.7	2.6

*Includes Primary and Secondary Syphilis
Source: Nebraska Department of Health and Human Services

Figure 81: STD Incidence Rate by Type, per 100,000 population, Nebraska and U.S., 2014



*Includes Primary and Secondary Syphilis
Source: Nebraska Department of Health and Human Services; CDC, NCHHSTP Atlas

HIV/AIDS

AIDS (acquired immunodeficiency syndrome) is a chronic, life-threatening condition caused by the human immunodeficiency virus (HIV). By damaging or destroying the cells of a person's immune system, HIV interferes with the body's ability to effectively fight off bacteria, viruses, and fungi that cause disease. This makes the person more susceptible to opportunistic infections that the body would normally be able to resist.

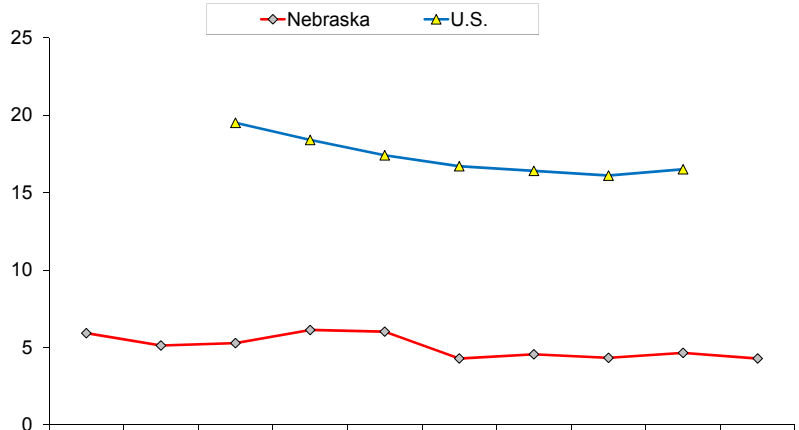
At the end of 2012, an estimated 1.2 million people in the United States were living with the HIV infection, of which 12.8 percent did not know they were infected. The CDC estimates that approximately 50,000 people are newly infected with HIV each year in the U.S. There were 13,712 deaths among people with an AIDS diagnosis in the United States in 2012.

AIDS accounts for a relatively small number of deaths each year in Nebraska, with a high of 26 and a low of 12 between 2005 and 2014. After 26, 24, and 26 deaths during years 2005-2007, respectively, the number has been at or under 18 deaths each year since.

There were 81 new cases of HIV infection in Nebraska during 2015, for an incidence rate of 4.3 cases per 100,000 population. Between 2011 and 2015 the HIV incidence rate remained stable (Figure 82). This was a decline from years 2006-2010 in which the rate was consistently higher. Compared to the U.S., Nebraska had a much lower HIV incidence rate per 100,000 population in 2014 (4.6 and 16.5, respectively).

In 2014, about 3 in 10 Nebraska adults (30.9%) reported having ever been tested for HIV (other than when donating blood). The proportion of Nebraska adults having ever been tested for HIV remained stable over the past decade. Compared to the nation overall, Nebraska adults were less likely during each of the past ten years to report having had an HIV test, including an 8.8 percentage point difference in 2014 (39.7% and 30.9%, respectively).

Figure 82: HIV Incidence Rate per 100,000 population, Nebraska and U.S., 2006-2015



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Nebraska	5.9	5.1	5.3	6.1	6.0	4.3	4.5	4.3	4.6	4.3
U.S.			19.5	18.4	17.4	16.7	16.4	16.1	16.5	

*U.S. data unavailable for years 2006-2007 and 2015
Source: Nebraska Department of Health and Human Services; CDC, NCHHSTP Atlas

Foodborne Illness

Though food in the United States is generally considered safe, outbreaks of foodborne illness do occur, and require swift and coordinated public health response. The CDC estimates that at least 1,000 reported outbreaks happen each year in the Unites States. The CDC also estimates that each year roughly 1 in 6 Americans (or 48 million people) get sick, 128,000 are hospitalized, and 3,000 die as a result of foodborne diseases. Direct medical expenditures resulting from Salmonella infections alone are estimated to be about $365 million per year. The following are three of the more common causes of foodborne illness.

Salmonella

According to the CDC, most people infected with salmonella develop diarrhea, fever, and abdominal cramps within 12-72 hours after infection, which usually last 4 to 7 days. Salmonella is estimated to affect approximately 1.2 million illnesses in the Unites States each year. Many cases are mild and are not diagnosed or reported.

In Nebraska, 313 new cases of salmonella infection were identified in 2015, for an incidence rate of 16.5 new cases per 100,000 population. The number of new salmonella cases fluctuated inconsistently over the past decade in Nebraska, ranging from a low of 201 in 2006 to a high of 350 in 2012.

Campylobacter

Most people infected with campylobacter develop diarrhea (which may contain blood), cramping, abdominal pain, and fever 2 to 5 days after exposure, which typically last about one week according to the CDC. Campylobacter is estimated to affect over 1.3 million persons in the United States each year. Similar to Salmonella, many cases are mild and are not diagnosed or reported.

There were 548 new cases of Campylobacter infection identified in Nebraska in 2015, for an incidence rate of 28.9 new cases per 100,000 population. Unlike salmonella, campylobacter infection has increased steadily over the past decade, increasing from 326 cases in 2008 to 548 cases in 2015.

E. coli

While hundreds of strains of E. coli are harmless, some Shiga toxin-producing (STEC) E. coli, including E. coli 0157 are dangerous and harmful. Exposure to E. coli 0157 can lead to severe diarrhea and kidney damage as well as cramping, vomiting, and mild fever. According to the CDC, an estimated 265,000 STEC infections occur each year in the U.S., with E. coli 0157 causing about 36 percent of them.

In Nebraska, there were 130 new cases of infection due to E. coli in 2015, for an incidence rate of 6.9 new cases per 100,000 population. The number of new cases in Nebraska has fluctuated inconsistently over the past decade, with little overall change between 2008 and 2015.

Other Infectious Diseases

West Nile Virus

West Nile virus (WNV) is most commonly transmitted to humans by mosquitoes. It causes fever and other symptoms in about 1 in 5 persons affected, and can result in serious, and sometimes fatal illness in less than 1 percent of those infected.

There were 68 new cases of WNV in 2015 in Nebraska. This is much lower than the 1,954 cases in 2003, when WNV was at its peak in the state. Since its peak, the number of new cases has fluctuated inconsistently. Over the past five years, the largest number of cases was 226 in 2013 while the smallest was 29 in 2011. According to the CDC (ArboNET), Nebraska has consistently had one of the higher incidence rates for West Nile virus when compared to other states.

Pertussis (whooping cough)

According to the CDC, pertussis (or whooping cough) is a highly contagious respiratory disease known for uncontrollable and violent coughing which often makes it hard to breath. It can affect people of all ages, but can be serious and even deadly for babies less than a year old.

While pertussis in Nebraska has been cyclical over time, it has increased dramatically in recent years due primarily to an outbreak during the fall of 2014 through the spring of 2015. In 2015, there were 559 new cases, the highest number during any year over the past decade. After a sharp decline between 2010 (213 cases) and 2011 (54 cases), the number of new cases increased to 239 in 2012, 244 in 2013, 351 in 2014, and 559 in 2015. According to the CDC, 2014 Pretussis Surveillance Report, Nebraska had a much higher pertussis incidence rate than the U.S. (19.6 and 10.4 cases per 100,000 population, respectively).

Hepatitis

Hepatitis is an inflammation of the liver, which results in impaired liver functioning. According to the CDC, hepatitis can result from heavy alcohol use, toxins, some medications, and certain medical conditions; however, it is most often caused by a virus. The three most common types of viral hepatitis are hepatitis A, B, and C. Incidence of acute hepatitis A and B have declined due to safe and effective vaccines. There is no vaccine for hepatitis C.

Hepatitis A is the least common type in Nebraska. There were seven new cases of acute hepatitis A in 2015, the lowest number during any year over the past decade. The annual average number of new cases in Nebraska for years 2006-2010 was 25, compared to 11 new cases for years 2011-2015.

Hepatitis B is the second most common type in Nebraska. There were 226 new cases of chronic hepatitis B in 2015. This trend has been fairly stable over the past decade, ranging from a low of 192 cases in 2012 to a high of 259 cases in 2010.

Hepatitis C is the most common type in Nebraska. There were 1,192 new cases of chronic hepatitis C in 2015. While the number of new cases in Nebraska increased between 2011 (918 cases) and 2015 (1,192 cases), it remains lower than the 1,665 cases that occurred in 2006.

Mumps

Mumps is a contagious viral disease. It often starts with mild flu-like symptoms followed by swollen salivary glands which can cause puffy cheeks and a swollen jaw. Symptoms usually occur 16-18 days after infection, with symptoms lasting up to a few weeks. Some individuals who get mumps have mild or no symptoms at all. Mumps is no longer very common in the United States, but outbreaks do still occur.

Nebraska experienced an outbreak of mumps in 2006, resulting in 362 cases. Since 2006, less than ten cases of mumps occurred each year, only two cases occurring in Nebraska during 2015.

ORAL HEALTH

Oral health is essential to overall health yet unfortunately, millions of Americans experience dental cavities and periodontal disease and many have lost all their teeth. Early tooth loss caused by dental decay in children can result in failure to thrive, impaired speech development, absence from or an inability to perform well in school, and reduced self-esteem.

Untreated dental decay in older persons can lead to pain, abscesses, and loss of teeth. Periodontal disease is the leading cause of bleeding, pain, infection, and tooth loss. It is also a chronic inflammatory disease linked to other serious health risks, such as diabetes, cardiovascular disease, and preterm/low-weight births.

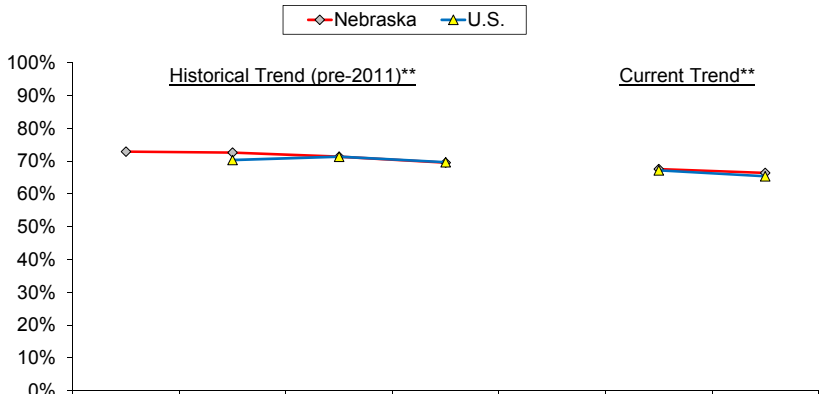
Dental disease is one of the most preventable health problems. Proper dental hygiene and good eating habits, along with regular professional dental care, decrease the risk of developing cavities and periodontal disease. Water fluoridation has helped improve oral health over the past 50 years in America, and is covered in the environmental health section of this report.

Dental Visits

Dental Visits among Adults

According to the 2014 BRFSS, two-thirds of Nebraska adults (66.4%) reported that they visited a dentist or dental clinic for any reason during the past year; indicating that one-third did not receive any dental care services in the past year. The percentage receiving dental care has also been declining over the past decade, with steady decline between 2005 and 2010 and slight though not significant decline between 2012 and 2014 (Figure 83). Nebraska and U.S. adults continue to report similar percentages for receiving past year dental services (66.4% and 65.3%, respectively, in 2014).

Figure 83: Visited a Dentist or Dental Clinic in Past Year among Adults*, Nebraska and U.S., 2005-2014



	2005	2006	2008	2010		2012	2014
Nebraska	72.9	72.6	71.3	69.5		67.6	66.4
U.S.		70.3	71.3	69.7		67.2	65.3

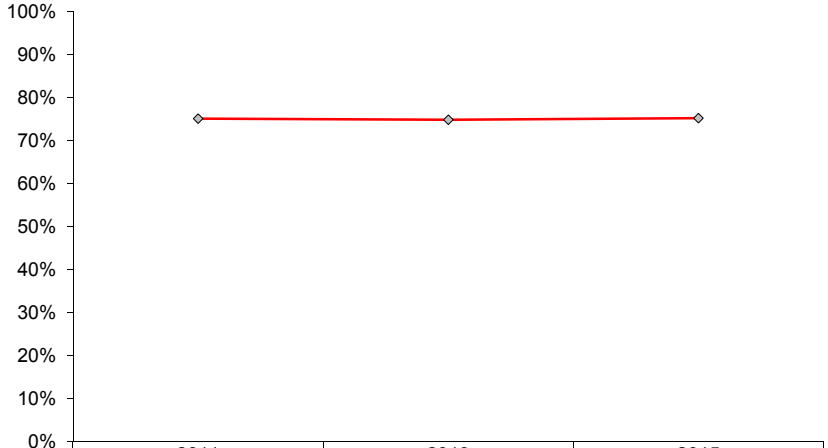
*Percentage of adults 18 and older who report that they visited a dentist or dental clinic for any reason within the past year
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Dental Visits among Youth

Among Nebraska high school students in 2015, three-quarters (75.2%) reported that they saw a dentist for any reason during the past year (e.g., check-up, exam, teeth cleaning, or other dental work). Thus, one-fourth of high school students had not seen a dentist in the last year, leaving them at risk for untreated dental problems. The percentage of Nebraska high school students reporting that they saw a dentist during the past year remained unchanged between 2011 and 2015 (Figure 84). These data were not collected for students nationally.

In 2013, just half of low-income children and youth under age 18 (50.4%) who were eligible for the early and periodic screening, diagnostic, and treatment (EPSDT) benefit received preventive dental services during the past year. On a positive note, this percentage did increase from 44.2 percent in 2010 to 50.4 percent in 2013.

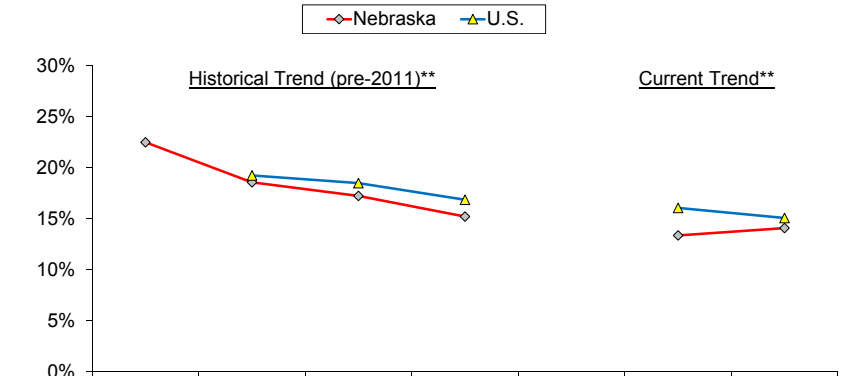
Figure 84: Saw a Dentist in Past Year among High School Students*, Nebraska and U.S., 2011-2015



	2011	2013	2015
Nebraska	75.1	74.8	75.2

*Percentage of public high school students who reported last seeing a dentist for a check-up, exam, teeth cleaning, or other dental work during the past 12 months
Source: Youth Risk Behavior Survey (YRBS)

Figure 85: Have had All Permanent Teeth Extracted among Adults 65 and Older*, Nebraska and U.S., 2005-2014



	2005	2006	2008	2010		2012	2014
Nebraska	22.5	18.6	17.2	15.2		13.4	14.1
U.S.		19.3	18.5	16.9		16.1	15.1

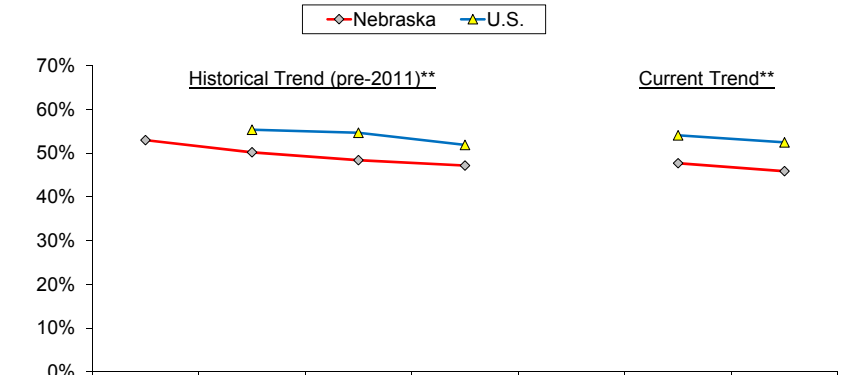
*Percentage of adults 65 and older who report that they have had all of their permanent teeth extracted because of tooth decay or gum disease, including teeth lost to infection, but not those lost for other reasons, such as injury or orthodontics
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Loss of Permanent Teeth

In 2014, roughly 1 in 7 Nebraska adults 65 and older (14.1%) have had all their permanent teeth extracted due to tooth decay or gum disease. This percentage declined sharply between 2005 (22.5%) and 2010 (15.2%) and was similar between 2012 (13.4%) and 2014 (14.1%) (Figure 85). Compared to adults nationally, Nebraska adults reported a similar percentage in 2014 (15.1% and 14.1%, respectively).

In 2014, the percentage of Nebraska adults 45-64 years old reporting that they had any permanent teeth extracted due to tooth decay or gum disease was stable between 2012 (47.7%) and 2014 (45.9%), at just under half of the population, but has declined since 2005 (Figure 86). Since 2006, the percentage for Nebraska adults was lower than the percentage for 45-64 year olds nationally, including a 6.6 percentage point difference in 2014 (45.9% and 52.5%, respectively).

Figure 86: Have had Any Permanent Teeth Extracted among Adults 45-64 Years Old*, Nebraska and U.S., 2005-2014



	2005	2006	2008	2010		2012	2014
Nebraska	53.0	50.2	48.4	47.2		47.7	45.9
U.S.		55.4	54.7	51.9		54.1	52.5

*Percentage of adults 45-64 years old who report that they have had any of their permanent teeth extracted because of tooth decay or gum disease, including teeth lost to infection, but not those lost for other reasons, such as injury or orthodontics
**BRFSS data from 2011 and later are not comparable to data from 2010 and earlier due to methods changes
Source: Behavioral Risk Factor Surveillance System (BRFSS)

ENVIRONMENTAL HEALTH

The environment has a great impact on human health and plays an important role in health and disease; therefore, protecting the environment has long been a mainstay of public health practice. Exposure to hazardous agents in air, water, soil, and food and to physical hazards in the environment are major contributors to illness, disability, and death worldwide. Efforts continue at the national, state, and local levels to ensure clean air, safe supplies of water/food, and management of wastes and to control or eliminate vector-borne illnesses. These efforts have contributed a great deal to improvement in public health in the United States.

Outdoor Air Quality

Air pollution continues to be a public health, and environmental problem in the United States, causing premature death, cancer, and long-term damage to respiratory and cardiovascular systems among Americans.

According to the Department of Environmental Quality, 2014 data show that no testing sites in Nebraska were in violation of the Environmental Protection Agency air quality standards. However, it is necessary to continue monitoring air quality to assure that this level is maintained.

Water Quality

Americans have one of the safest water supplies in the world and safe drinking water is the first line of defense in protecting human health. According to the United States Environmental Protection Agency (EPA) the public water system provides drinking water to 90 percent of Americans, or about 317 million people.

In Nebraska, approximately 45 percent of all public water systems (PWSs) are community water systems that serve 95 percent of the population. In contrast, 55 percent of the systems are non-community systems, serving approximately 5 percent of the population. Nebraska is predominantly a small system state with 96.7 percent of all PWSs serving 3,300 or fewer persons.

All PWSs in Nebraska are regulated by the Nebraska Safe Drinking Water Act. A PWS is required to monitor and verify the presence or absence of contaminants. If a contaminant is present in the water, the system must monitor and verify that it does not exceed the maximum contaminant level (MCL) set by the EPA. An MCL is the amount of a contaminant that is allowed to be in the water before the system must take corrective action to lower the level. Levels of contaminants below the MCL are not considered to be harmful to health. If a public water system fails to take the required water samples, a monitoring violation occurs. Nitrates are an example of a contaminant, where there are significant health risks associated with an exceedance of the MCL. According to the EPA, Nitrate levels above the MCL of 10mg/L can inhibit the ability of blood to carry oxygen throughout the body. This is of particular concern for pregnant women, infants under 6 months of age, nursing mothers, and those with a compromised immune system.

In 2015, 1.8 percent of PWSs in Nebraska had nitrate results of at least 10.0 mg/L, the MCL allowable by the EPA. This consisted of 24 water systems and a total of 38 MCL violations. The number of MCL violations for nitrate over the past seven years has declined.

Another water quality characteristic impacting the health of Americans is availability of fluoridated drinking water. Water containing adequate levels of fluoride provides protection against tooth decay. As noted in the oral health section of this report, tooth decay has negative effects on the health of the population.

In Nebraska, approximately 7 in 10 persons served by community water systems in 2015 (71.5%) received fluoridated drinking water from their community water system. This percentage has increased gradually since 2006, when about two-thirds (67.5%) received fluoridated water. Compared to the U.S. in 2012, Nebraska had a slightly lower percentage of residents served by community water systems that were receiving fluoridated drinking water (74.6% and 71.6%, respectively).

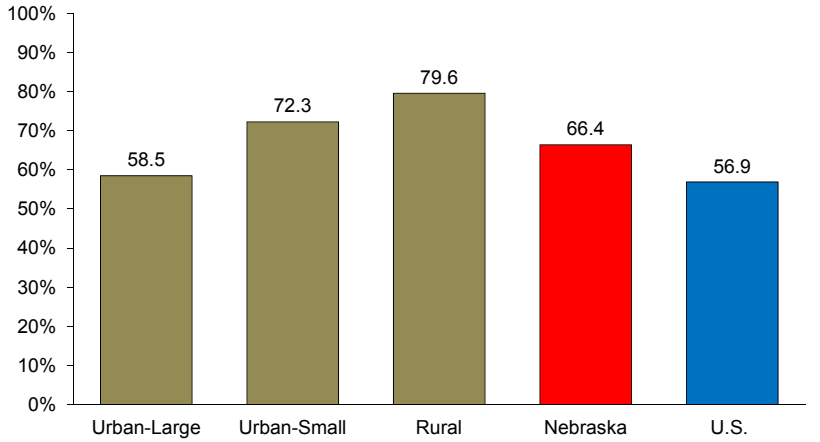
Age of Housing

While homes of any age and value can harbor serious environmental hazards, older homes are more likely to contain toxic substances, such as asbestos or lead-based paint. In particular, older properties in substandard condition typically present the greatest risks. If poorly maintained, moisture and water leaks may develop that encourage infestations of mold, mildew, rodents, cockroaches, and other pests.

Low-income families living in substandard homes may have insufficient income to maintain them or to move to housing that is newer or in better condition, placing them higher risk for negative health outcomes.

According to the 2009-2013 American Community Survey, housing units in Nebraska are generally older than housing units nationwide. Two-thirds of housing units (66.5%) were built before 1980 compared to 56.9 nationwide (Figure 87). The most rural areas of Nebraska had the highest percentage of housing units built before 1980 (79.6%).

Figure 87: Percentage of Housing Units built Prior to 1980, by Urban/Rural and Overall in Nebraska, and Overall in U.S.



*Urban-Large consists of seven counties, including the largest metropolitan counties and their "outlying" counties. Urban-Small consists of 15 counties, including the smallest metropolitan counties and their "outlying" counties along with all micropolitan counties. Rural consists of the remaining 71 counties
Source: 2009-2013 American Community Survey, U.S. Census

Childhood Lead Exposure

Lead is a highly toxic metal, especially to young children because their bodies absorb lead easier. Lead can be found in and around homes, in soils, and in some consumer products. Lead affects nearly every system in the human body, including the brain, nervous system, and other parts of the body. It can lead to delayed growth and development in children, learning disabilities, decreased intelligence, and hearing damage. Once exposed, the effects of lead exposure cannot be reversed.

Beginning in 2012, health experts began using a reference level of 5 micrograms per deciliter (µg/dL) to identify children with blood lead levels that are much higher than most children's levels. Medical therapy should be considered for children with levels exceeding 45 µg/dL.

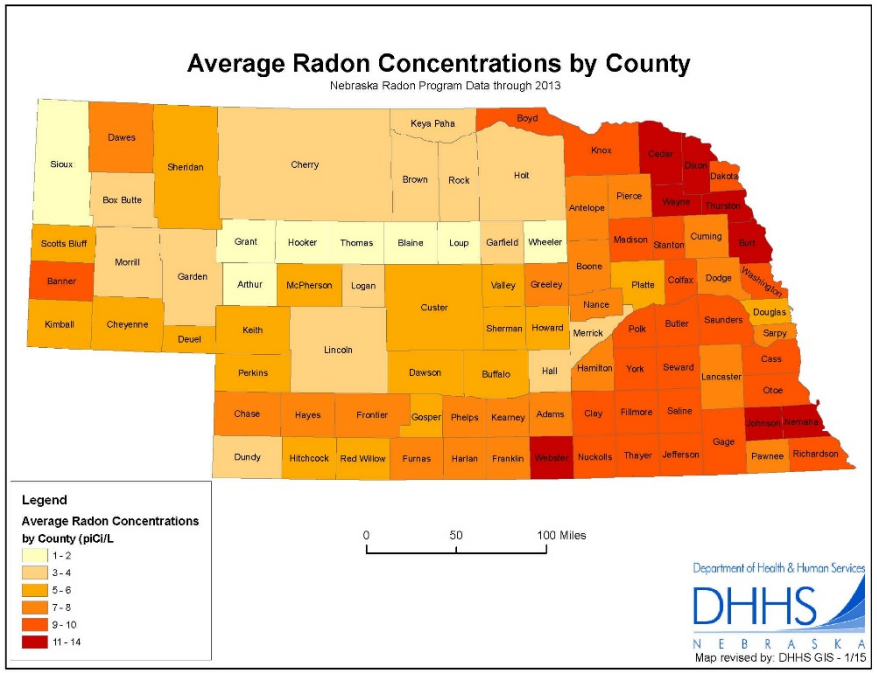
In 2014, of the 36,352 Nebraska children less than 6 years old who received a blood lead test that was reported to the Nebraska Department of Health and Human Services, 393 (1.1%) had an elevated blood lead level of at least 5 µg/dL. Adult blood lead data are presented in the Occupational Health and Safety section of this report

Radon

Radon is a cancer-causing natural radioactive gas that you cannot see, smell or taste. It occurs naturally from the breakdown (or radioactive decay) of uranium in the earth's crust, and its presence in your home can pose health risks. According to the EPA, radon is the leading cause of lung cancer among non-smokers and claims about 21,000 lives annually.

Nebraska has a high prevalence of radon in homes. In 2013, about 3 in 5 radon tests conducted in the state (59%) indicated elevated radon levels. Homes with an average radon level at or above 4 picocuries per liter (pCi/L) should be mitigated to reduce radon levels. The eastern third of Nebraska, and in particular the northeastern section has the highest average radon concentrations (11 to 14 piCi/L). However, elevated radon levels can be found throughout the entire state.

The following map shows the average radon concentrations in Nebraska, based on data from the Nebraska Radon program, by county in 2013.



Climate Change

Climate change has been a topic of growing interest in recent years as experts work to learn more about how it is impacting the planet and the populations that inhabit it. In the context of health, climate change appears to be an emerging issue that poses implications to the health of the public. In particular, researchers believe that existing health conditions are and will continue to be exacerbated by rising temperatures, increasing sea levels, more extreme weather events, and rising atmospheric carbon dioxide levels. As a result, it is important that public health continues efforts to monitor climate change and its impact on the health and well-being of the people living in Nebraska.

A 2014 report published by the University of Nebraska-Lincoln examined the impact of climate change in the local context. Findings of this report indicate that changes beyond rising temperatures, such as variations in the amounts, intensity and forms of precipitation, are already being observed in the state of Nebraska. Additionally, this report suggests that Nebraska will experience more frequent and severe droughts, warmer winters with more frost free days and heavier precipitation events in future years. While some of these alterations in climate could be beneficial, they could also result in agriculture failure, damage to infrastructure, degradation of the environment, threats to the water supply and aquatic environment, and ultimately endanger human health and the systems that promote health and well-being.

OCCUPATIONAL HEALTH AND SAFETY

Work is one of the most important determinants of a person's health. Workers spend nearly half of their waking lives at work, while many face job-related hazards and exposures that impact their risk of injury and illness. Significant improvements in workplace health and safety have occurred over the past several decades, yet workers continue to suffer work-related deaths, injuries, and illnesses.

In the United States, an estimated 3.7 million work-related injuries and illnesses occurred in 2013, according to the Bureau of Labor Statistics. There is a significant economic impact of these incidents. In a 2011 article published by J. Paul Leigh (Milbank Q. 2011 Dec; 89(4): 728–772), the total estimated costs of work-related injuries and illnesses in the U.S. was approximately $250 billion in 2007.

Nebraska's workforce employed approximately 988,000 people in 2013. Many Nebraska workers are employed in high risk or high hazard industries. In 2013, about 1 in 10 of Nebraska's workers were employed in a high injury risk industry, and about 1 in 5 of Nebraska workers were employed in a high fatality risk industry, according to the Bureau of Labor Statistics and the U.S. Census Bureau, respectively.

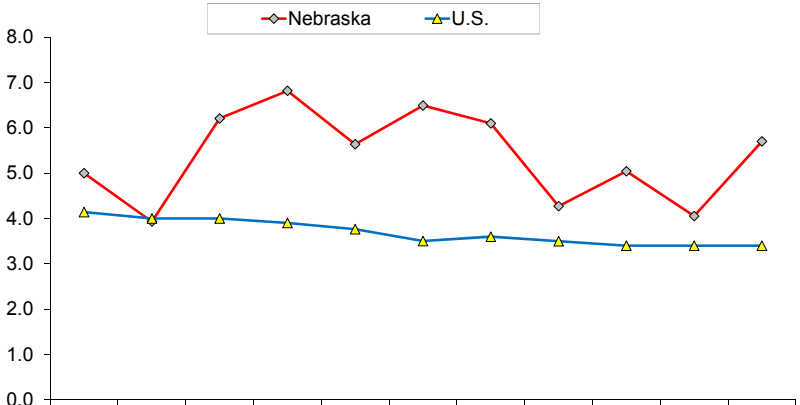
Fatal Work-Related Injuries

According to preliminary data from the Bureau of Labor Statistics Census of Fatal Occupational Injuries, 54 Nebraska workers died of a work-related fatal injury in 2014. Half of the fatalities occurred among workers aged 55 years and older, and 93 percent were male.

Transportation incidents were the leading cause of occupational injury fatalities in 2014, occurring in 46 percent of fatalities. Other common causes were *contact with objects or equipment* (19%), *falls, slips, trips* (17%), and *violence, animals, and other persons* (13%). Sixteen deaths occurred among workers in agriculture, which was the industry with the highest number of fatalities in 2014. Thirteen deaths also occurred in the *trade, transportation, and warehousing* industry (24%), nine deaths occurred in construction (17%), and seven in manufacturing (13%).

The 2014 preliminary rate for all fatal occupational injuries in Nebraska was 5.7 per 100,000 full-time equivalent workers, which was higher than the U.S. preliminary rate of 3.4. Unlike the U.S. rate which has steadily decreased over time, the fatality rate in Nebraska has varied and was higher than the national rate during most of the past decade (Figure 88).

Figure 88: Fatal Occupational Injuries per 100,000 Full-time Workers, Nebraska and U.S., 2004-2014*



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014*
Nebraska	5.0	3.9	6.2	6.8	5.6	6.5	6.1	4.3	5.0	4.1	5.7
U.S.	4.1	4.0	4.0	3.9	3.8	3.5	3.6	3.5	3.4	3.4	3.4

*2014 data is preliminary
Source: U.S. Bureau of Labor Statistics, Census of Fatal Occupational Injuries (numerator), Current Population Survey (denominator)

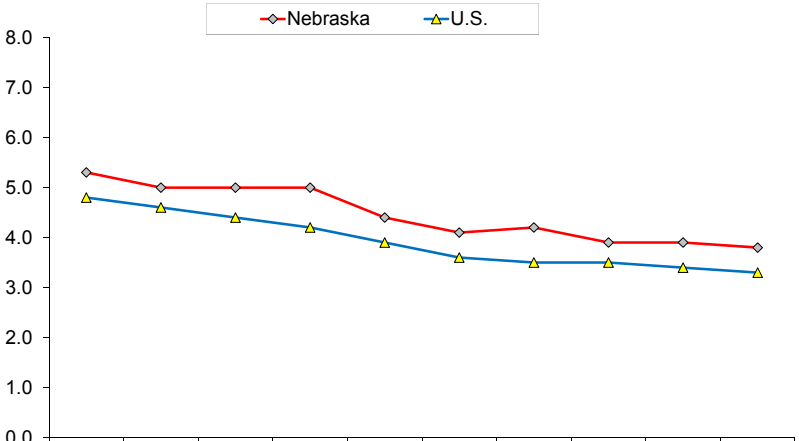
Non-Fatal Work-Related Injuries and Illnesses

Approximately 30,000 non-fatal work-related injuries and illnesses occurred among Nebraska workers in 2013, according to the Bureau of Labor Statistics. The number of injuries and illnesses in the private industry was 24,700, while 4,500 were among government workers. Out of all injury and illness cases, 7,900 (27%) involved days away from

work, and the median number of days lost was seven. The majority of cases in 2013 were due to injuries, with an estimated 22,700 injury cases. Only 2,000 cases were estimated to be illnesses.

The 2013 estimated non-fatal occupational injury and illness rate among private industries in Nebraska was 3.8 per 100 full-time workers. The highest non-fatal injury and illness rate in Nebraska was in the manufacturing industry sector (6.2 injuries/illnesses per 100 full-time workers). Since 2004, the injury and illness rate in Nebraska and the U.S. steadily declined (Figure 89). However, the Nebraska rate over this period was consistently lower than the U.S. rate.

Figure 89: Non-fatal Occupational Injury and Illness Rate per 100 Full-time Private Sector Workers, Nebraska and U.S., 2004-2013



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Nebraska	5.3	5.0	5.0	5.0	4.4	4.1	4.2	3.9	3.9	3.8
U.S.	4.8	4.6	4.4	4.2	3.9	3.6	3.5	3.5	3.4	3.3

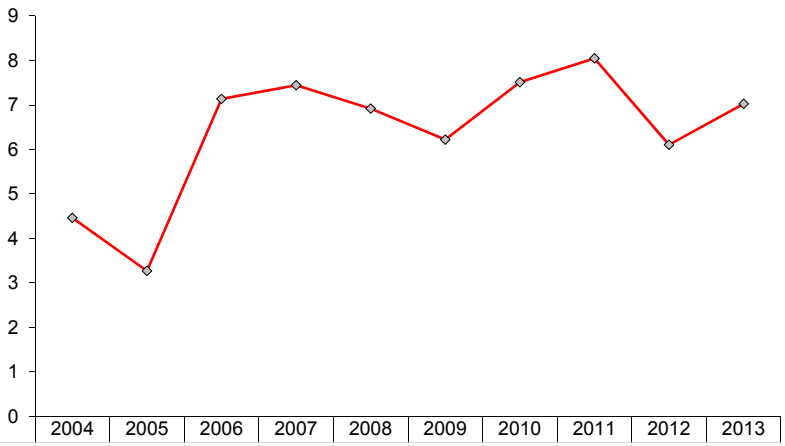
Source: U.S. Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses.

Work-Related Hospitalizations

Hospitalizations and emergency department (ED) visits were identified as work-related if a hospital discharge indicated that workers' compensation was the primary payer. In Nebraska, 694 work-related inpatient hospitalizations and 7,327 work-related ED visits occurred in 2013, according to Nebraska Hospital Discharge Data. Among the hospitalizations and ED visits that were the result of a work-related injury, falls were the most frequent reported injury cause.

Nebraska's crude work-related inpatient hospitalization rate was 7.0 per 10,000 employed persons aged 16 years and older in 2013. The crude work-related ED visit rate in 2013 was 74.5 per 10,000 employed persons aged 16 years and older in Nebraska. Aside from lower rates in 2004 and 2005, the overall trend for hospitalization and ED visit rates was relatively stable over the past ten years (Figures 90 and 91).

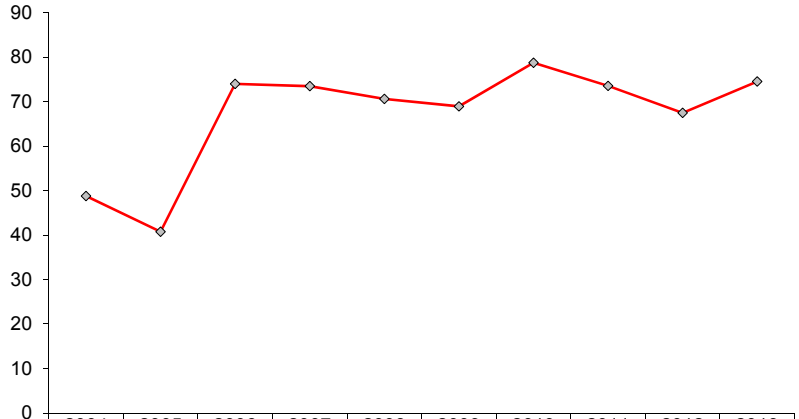
Figure 90: Work-related Inpatient Hospitalizations per 10,000 Employed Persons in Nebraska, 2004-2013



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Nebraska	4.5	3.3	7.1	7.4	6.9	6.2	7.5	8.0	6.1	7.0

Source: Hospital Discharge Data, Nebraska Hospital Association (numerator); Current Populations Survey (denominator)

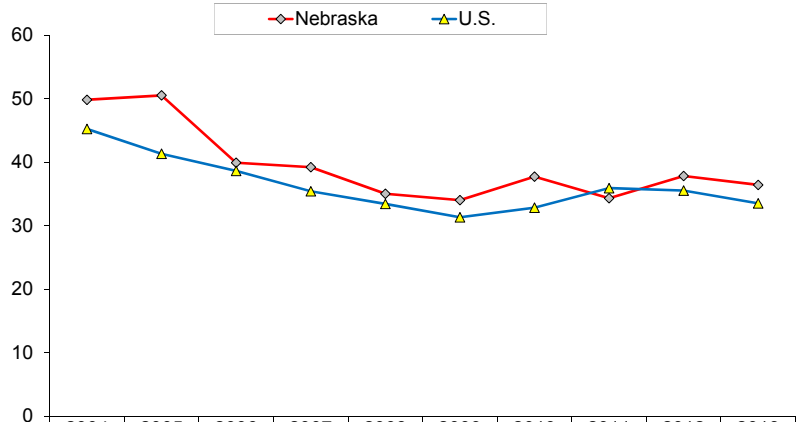
Figure 91: Work-related Emergency Department (ED) Visits per 10,000 Employed Persons in Nebraska, 2004-2013



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Nebraska	48.8	40.7	74.0	73.5	70.6	68.9	78.8	73.6	67.5	74.5

Source: Hospital Discharge Data, Nebraska Hospital Association (numerator); Current Populations Survey (denominator)

Figure 92: Work-Related Musculoskeletal Disorders Involving Days Away from Work per 10,000 Full-Time Private Sector Workers, Nebraska and U.S., 2004-2013



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Nebraska	49.8	50.5	39.9	39.2	35.0	34.0	37.7	34.3	37.8	36.4
U.S.	45.2	41.3	38.6	35.4	33.4	31.3	32.8	35.9	35.5	33.5

Source: U.S. Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses

Work-Related Musculoskeletal Disorders

According to the U.S. Bureau of Labor Statistics, an estimated 2,330 work-related musculoskeletal disorders (MSD) occurred among Nebraska workers in 2013. MSDs of the neck, shoulder, and upper extremities and MSDs of the back each accounted for an estimated 37% of all MSD cases. In 2013, an estimated 170 (7%) of MSD cases resulted from carpal tunnel syndrome.

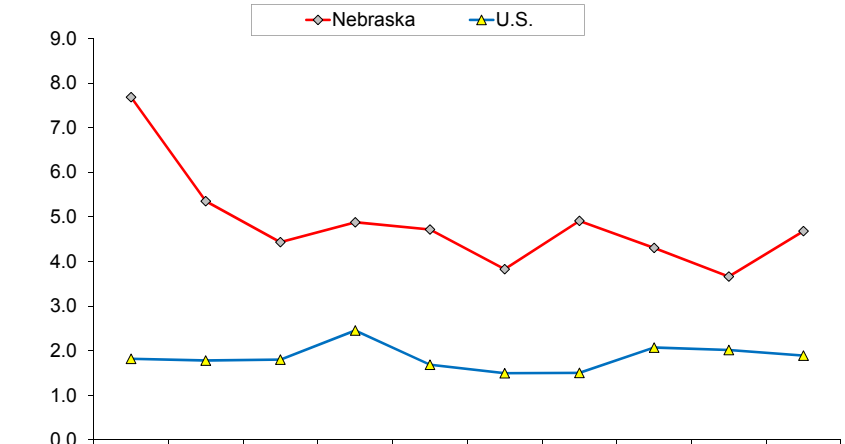
The estimated work-related MSD incidence rate in Nebraska was 36.4 per 10,000 full-time workers in 2013. The rate for Nebraska and the U.S. declined between 2004 and 2008, before leveling off between 2009 and 2013 (Figure 92). During most of the past decade, the Nebraska rate was higher than the national rate.

Work-Related Pesticide Illnesses and Injury

The Nebraska Department of Health and Human Services tracks acute pesticide-associated illnesses and injuries. Cases are identified by reports to the Nebraska Regional Poison Center. In 2012, 46 work-related pesticide-associated illnesses and injuries occurred in Nebraska.

The annual incidence rate of reported work-related pesticide illnesses and injuries per 100,000 employed persons aged 16 years and older was 4.7 in 2012. After decreasing sharply from 2003-2005, the downward trend of Nebraska's incidence rate slowed from 2006 to 2012 (Figure 93). Nebraska's pesticide illness/injury rate was consistently higher than the national rate between 2003 and 2012, with the 2012 Nebraska rate being second highest rate among all states in the U.S.

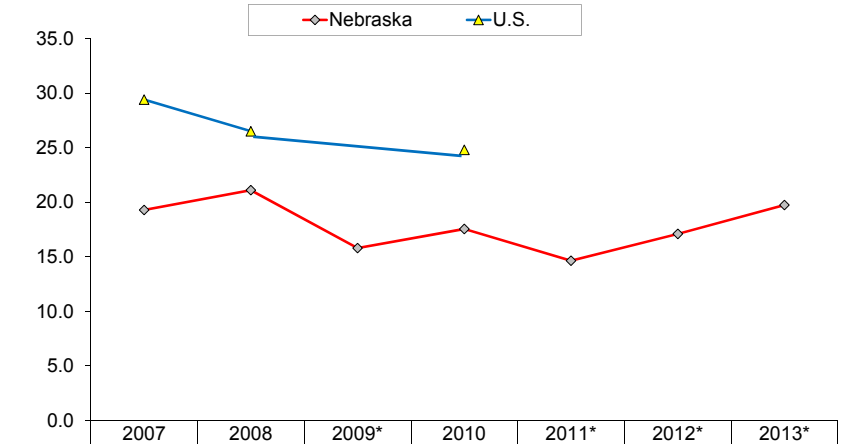
Figure 93: Reported Work-Related Pesticide Illness and Injury Cases per 100,000 Employed Persons, Nebraska and U.S., 2003-2012



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Nebraska	7.7	5.4	4.4	4.9	4.7	3.8	4.9	4.3	3.7	4.7
U.S.	1.8	1.8	1.8	2.5	1.7	1.5	1.5	2.1	2.0	1.9

Source: Nebraska and U.S. Poison Centers; Bureau of Labor Statistics

Figure 94: Elevated Blood Lead Levels (≥ 10 µg/dL) per 100,000 Employed Persons 16 and Older, Nebraska and U.S., 2007-2013



	2007	2008	2009*	2010	2011*	2012*	2013*
Nebraska	19.3	21.1	15.8	17.5	14.6	17.1	19.7
U.S.	29.4	26.5		24.8			

*Comparable U.S. data were unavailable for these years
Source: Nebraska ABLES Program; Bureau of Labor Statistics

Adult Lead Exposure

In the U.S., most adults with elevated lead levels are exposed to lead at work. Nebraska tracks adult elevated blood lead levels through laboratory tests reported to the state. In 2013, 195 adults had an elevated blood lead level at or above 10 µg/dL. Of these cases, 30 adults had an elevated blood lead level at or above 25 µg/dL while two adults had an elevated blood lead level at or above 40 µg/dL.

The 2013 rate for elevated blood lead levels at or above 10 µg/dL was 19.7 per 100,000 employed persons aged 16 years or older. Between 2007 and 2013, the Nebraska rate was relatively stable, with some fluctuation from year-to-year (Figure 94). When national data were available in years 2007, 2008, and 2010, Nebraska's rate was lower than the corresponding U.S. rate.

HEALTH DISPARITIES

Within the United States many disparities exist, particularly in health. While the term *disparities* is often associated with racial and ethnic disparities, many other disparities also exist. For example, members of racial and ethnic minority groups, persons with little income, men, and those who live in rural areas tend to be less likely to utilize preventive healthcare services.

This section presents a summary of disparities by race/ethnicity, urban/rural, gender, and socioeconomic status for the topics covered within this report. Once the State Health Improvement Plan (SHIP) priorities are selected for Nebraska, a more in-depth analysis of disparities will be conducted on the chosen priorities to further aid in the planning to address the priorities.

Disparities by Race/Ethnicity

Four racial and ethnic minority populations were compared to Whites for this report, consisting of African American, American Indian, Asian/Pacific Islander (hereafter Asian), and Hispanic.

Mortality by Race/Ethnicity

Large racial and ethnic disparities exist for mortality in Nebraska. For years 2010-2014 combined, African Americans and American Indians had higher death rates compared to Whites for most conditions included within this report, Hispanics had a mix of some higher and many lower, and Asians had consistently lower rates.

African Americans compared to Whites had higher death rates for homicide (13.3 times higher), kidney disease (3.0x), asthma (2.7x), diabetes (2.5x), hypertension (2.4x), colon cancer (1.6x), prostate cancer (1.6x), lung cancer (1.5x), stroke (1.5x), female breast cancer (1.4x), drug-induced (1.4x), cancer overall (1.3x), and heart disease (1.3x); and lower rates for only falls (47% lower) and suicide (53% lower).

American Indians compared to Whites had higher death rates for cirrhosis of the liver (7.4 times higher), homicide (5.0x), kidney disease (3.6x), diabetes (3.3x), drug-induced (1.8x), motor vehicle crashes (1.5x), lung cancer (1.4x), COPD (1.4x), and colon cancer (1.4x); and lower rates for no causes of death that had sufficient numbers for reporting.

Hispanics compared to Whites had higher death rates for homicide (2.1 times higher), cirrhosis of the liver (1.6x), and diabetes (1.4x); and lower rates for unintentional injury (22% lower), stroke (27% lower), pneumonia (35% lower), cancer overall (40% lower), colon cancer (48% lower), Alzheimer's disease (51% lower), heart disease (53% lower), female breast cancer (55% lower), lung cancer (56% lower), drug-induced (57% lower), suicide (64% lower), and COPD (74% lower). The causes of death in which Hispanics had lower rates included each of the six leading causes of death.

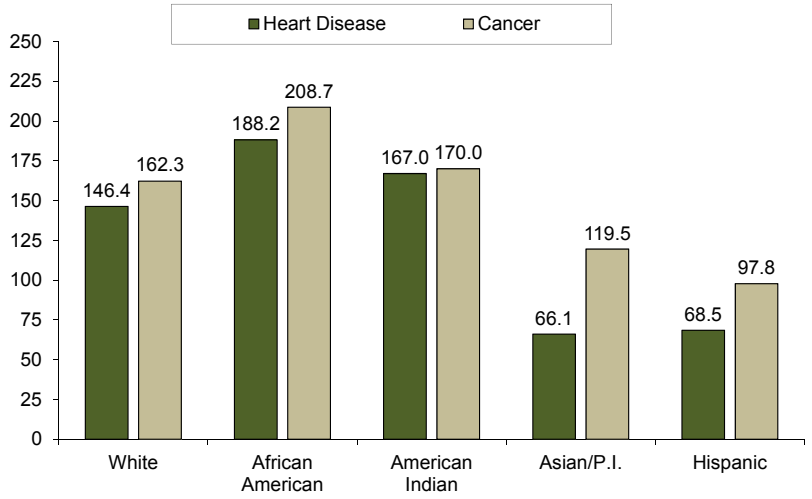
Asians compared to Whites had higher rates for no causes of death that had sufficient numbers for reporting, and lower rates for cancer overall (26% lower), colon cancer (38% lower), lung cancer (42% lower), heart disease (55% lower), and COPD (69% lower). The small number of deaths for Asians made interpreting the results difficult and limited reporting for several causes of death.

Infant and fetal mortality results by race/ethnicity are presented below within the birth outcomes section.

Figures 95, 96, and 97 present differences by race/ethnicity in Nebraska for heart disease and cancer, diabetes, and homicide, respectively.

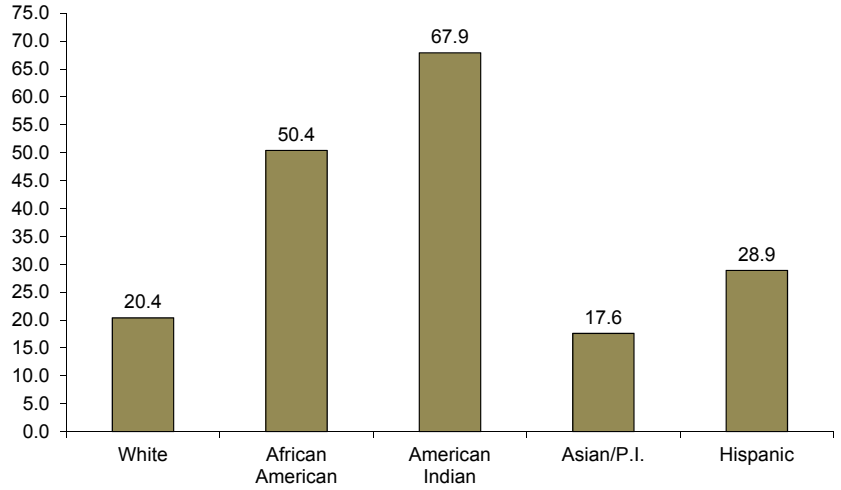
Table 6, at the end of this report section, contains mortality results by race/ethnicity among Nebraska residents for years 2010-2014 combined.

Figure 95: Heart Disease and Cancer Death Rates per 100,000 population in Nebraska (age-adjusted), by Race/Ethnicity, 2010-2014



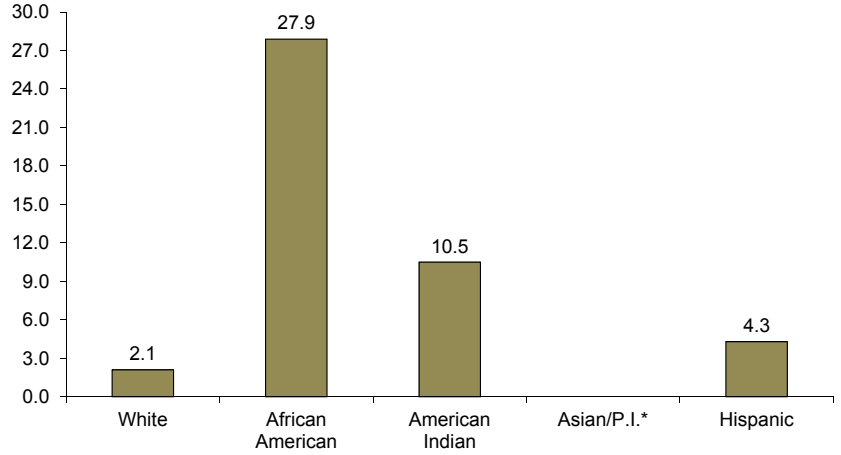
Source: Nebraska Vital Records

Figure 96: Diabetes Death per 100,000 Population in Nebraska (age-adjusted), by Race/Ethnicity, 2010-2014 Combined



Source: Nebraska Vital Records

Figure 97: Homicide Death Rate per 100,000 Population in Nebraska (age-adjusted), by Race/Ethnicity, 2010-2014 Combined



*Insufficient number of deaths to report rate
Source: Nebraska Vital Records

Behavioral Risk Factors by Race/Ethnicity

The following results are from the Behavioral Risk Factor Surveillance System, a survey of adults 18 and older, and were age-adjusted to minimize the influence of age when interpreting differences by race/ethnicity. Only statistically significant differences are noted.

For years 2011-2014 combined*, non-Hispanic African American and non-Hispanic American Indian adults were more likely than non-Hispanic White adults to report poor health outcomes and unhealthy behaviors, Hispanic adults reported a mix of more and less poor health outcomes and unhealthy behaviors, while non-Hispanic Asian adults generally reported fewer poor health outcomes and unhealthy behaviors. For this section, the remainder of results are presented without reference to "non-Hispanic," though the results for each race reflect non-Hispanics.

African Americans compared to Whites were more likely to report poor general health and less likely to report healthcare access, including being 2.1 times more likely to report having fair or poor general health and 2.0 times more likely to report that poor physical or mental health limited their usual activities on 14 or more of the past 30 days. They were also 2.3 times more likely to report having no healthcare coverage among 18-64 year olds, 2.3 times more likely to report that cost was a barrier to needed care during the past year, and 1.4 times more likely to report not having a primary healthcare provider.

African Americans compared to Whites were also more likely to report chronic diseases and risk factors, including ever being told they have kidney disease (1.9 times higher), diabetes (1.8x), stroke (1.7x), and high blood pressure (1.6x) as well as having current asthma (1.7x). They were also more likely to report current smoking (1.3x), obesity (1.3x), and less likely to report getting the recommended amount of aerobic physical activity and consuming vegetables daily.

Furthermore, African Americans compared to Whites were 22 percent less likely to have visited a dentist or dental clinic for any reason in the past year and 1.3 times more likely to report having any permanent teeth extracted due to tooth decay or gum disease among 45-64 year olds. Lastly, they were 1.8 times more likely to report housing insecurity and 1.8 times more likely to report food insecurity during the past year as well as 1.5 times more likely to report that they get less than 7 hours of sleep per on an average night.

American Indians compared to Whites were more likely to report poor general health and less likely to report healthcare access, including 2.3 times more likely to report having fair or poor general health and 2.3 times more likely to report that poor physical or mental health limited their usual activities on 14 or more of the past 30 days. They were also 1.8 times more likely to report having no healthcare coverage among 18-64 year olds, 2.3 times more likely to report that cost was a barrier to needed care during the past year, and 1.8 times more likely to report not having a primary healthcare provider.

American Indians compared to Whites were also more likely to report chronic diseases and risk factors, including ever being told they have COPD (1.9 times more likely), stroke (1.8x), heart disease (1.6x) as well as current asthma (1.8x). They were also more likely to report smoking (2.1x), obesity (1.5x), and less likely to report consuming fruits and vegetables daily.

Furthermore, American Indians compared to Whites were 1.6 times more likely to report that they had a fall in the past year among adults 45 and older, and 2.6 times more likely to report that they were injured due to a fall in the past year that caused them to limit their usual activities or to have to see a doctor.

Lastly, American Indians compared to Whites were 19 percent less likely to have visited a dentist or dental clinic for any reason in the past year, 1.6 times more likely to report having any permanent teeth extracted due to tooth decay or gum disease among 45-64 year olds, and 2.9 times more likely to report having all their permanent teeth extracted due to tooth decay or gum disease among those 65 and older.

Hispanics compared to Whites were far less likely to report healthcare access and utilization, including being 3.6 times more likely to report having no healthcare coverage among 18-64 year olds, 2.3 times more likely to report not having a primary healthcare provider, and 2.2 times more likely to report that cost was a barrier to needed care during the past year. Furthermore, they were 11% less likely to report that they had a routine checkup in the past year, 16% less likely to report having their blood pressure checked in the past year and 23% less likely to report having their blood cholesterol checked in the past five years, only half as likely to report being up-to-date on colon cancer screening among 50-75 year olds, and less likely to report having a flu vaccination in the past year, ever having a pneumonia vaccination among those 65 and older, having a tetanus vaccination since 2005 and ever having a shingles vaccination among those 60 and older.

Hispanics compared to Whites were also more likely to report having fair or poor general health (2.5 times higher), to report food and housing insecurity during the past year (2.1x and 1.7x, respectively), and they were 28 percent less likely to report that they visited a dentist or dental clinic for any reason in the past year.

Furthermore, Hispanics were 14 percent more likely than Whites to report obesity and 28% less likely to report getting the recommended amount of physical activity. In contrast, Hispanics reported a lower prevalence for many chronic disease conditions and risk factors including cancer, current asthma, and COPD as well as less smoking and smokeless tobacco use, and more fruit consumption.

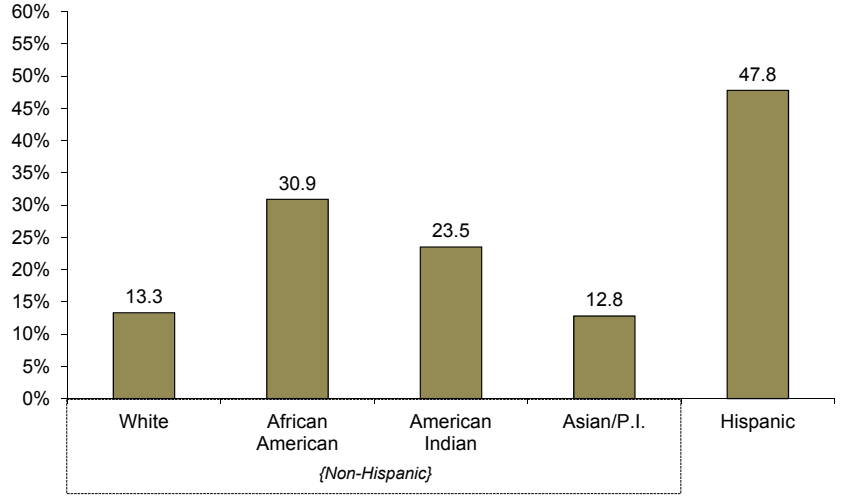
Asians compared similarly or favorably to Whites across nearly all BRFSS indicators included within this report. While Asians were less likely to report being up-to-date on cervical cancer screening among 21-65 year old females, more likely to report not having a primary healthcare provider, and more likely to report getting less than 7 hours of sleep during an average night, they compared favorably to Whites in nearly all other areas, highlighted by them being less likely to report that poor physical or mental health limited usual activities during the past month as well as many chronic diseases and risk factors including stroke, cancer, asthma, COPD, kidney disease, smoking, and obesity.

Whites compared to all other racial and ethnic minority groups did have some areas where they compared poorly. Whites were more likely to report ever being told they have cancer (in any form), less likely to report always wearing their seatbelt when driving or riding in a car, more likely to report texting and talking on a cell phone while driving in the past month, and more likely to report binge drinking in the past month (through this percentage was similar for American Indians).

Figures 98-101 display differences by race/ethnicity in Nebraska for lack of healthcare coverage, diabetes, smoking, and obesity.

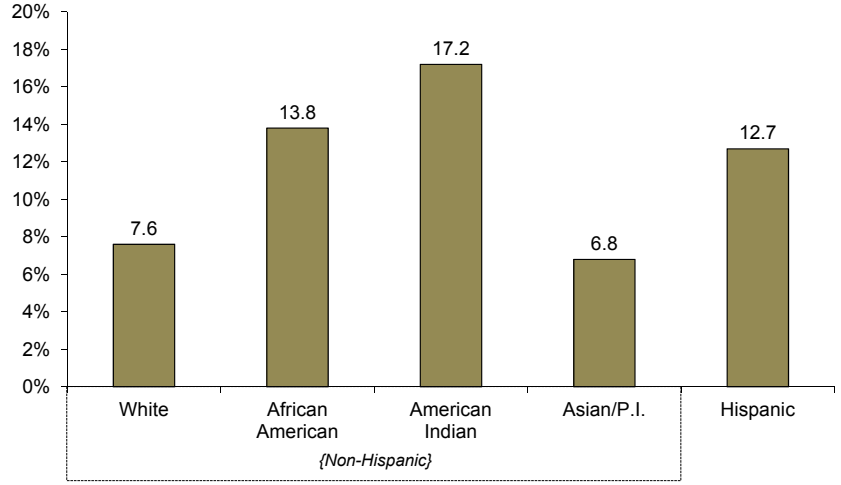
Table 7, at the end of this report section, contains BRFSS results by race/ethnicity among Nebraska adults for years 2011-2014 combined.

Figure 98: No Health Care Coverage among Nebraska Adults 18-64 Years Old (age-adjusted), by Race/Ethnicity, 2011-2014 Combined



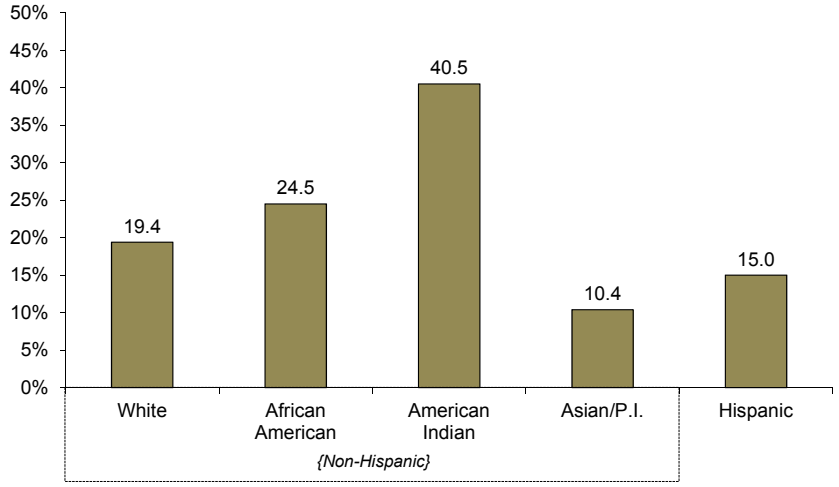
*Percentage of adults 18-64 years old who report that they do not have any kind of health care coverage
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Figure 99: Ever Told they have Diabetes (excluding pregnancy) among Nebraska Adults (age-adjusted), by Race/Ethnicity, 2011-2014 Combined



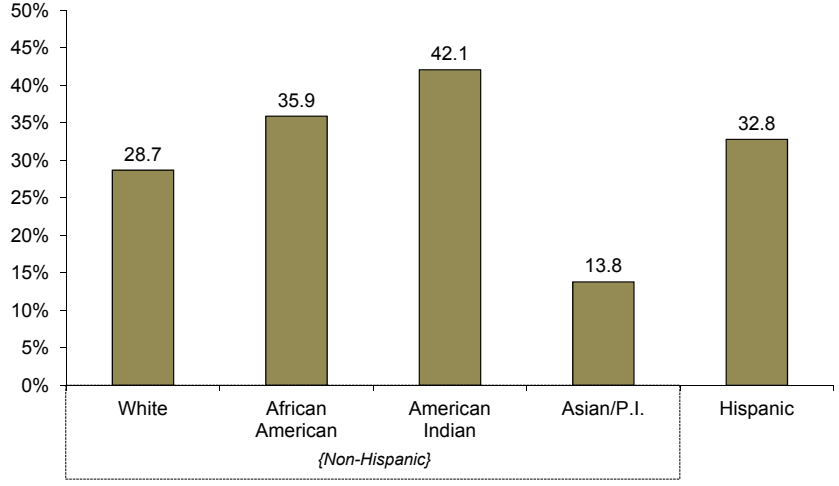
*Percentage of adults 18 and older who report that they have ever been told by a doctor, nurse, or other health professional that they have diabetes (excluding pregnancy)
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Figure 100: Current Cigarette Smoking among Nebraska Adults (age-adjusted), by Race/Ethnicity, 2011-2014 Combined



*Percentage of adults 18 and older who report that they currently smoke cigarettes either every day or on some days
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Figure 101: Obesity among Nebraska Adults (age-adjusted), by Race/Ethnicity, 2011-2014 Combined



*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)

Birth Outcomes by Race/Ethnicity

Large racial and ethnic disparities exist for birth outcomes in Nebraska. For years 2010-2014 combined, African Americans and American Indians had very poor birth outcomes compared to Whites while Hispanics and Asians had poorer birth outcomes for some measures.

African Americans compared to Whites had a teen birth rate that was 2.9 times higher for 15-19 year olds and 3.2 times higher for 15-17 year olds, the percentage of births that were preterm was 1.4 times higher, the percentage of births that were low birth weight was 2.0 times higher, and the percentage of births in which prenatal care began in the first trimester was 22% lower. Furthermore, the infant mortality rate for African Americans was 1.9 times higher than Whites while the fetal mortality rate was 2.0 times higher.

American Indians compared to Whites had a teen birth rate that was 3.5 times higher for 15-19 year olds and 4.6 times higher for 15-17 year olds, the percentage of births that were preterm and low birth weight was similar to Whites, however; the percentage of births in which prenatal care began in the first trimester was 29% lower. Furthermore, the infant mortality rate for American Indians was 1.4 times higher than Whites while the fetal mortality rate was 2.5 times higher.

Hispanics compared to Whites had a teen birth rate that was 3.3 times higher for 15-19 year olds and 4.5 times higher for 15-17 year olds, the percentage of births that were preterm and low birth weight was similar to Whites, however; the percentage of births in which prenatal care began in the first trimester was 22% lower. Infant and fetal mortality rates for Hispanics were similar to Whites.

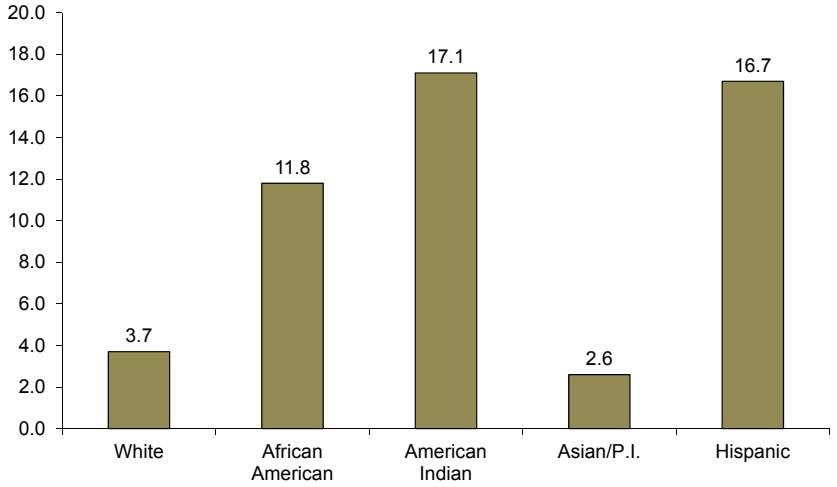
Asians compared to Whites had a teen birth rate that was 30 percent lower for 15-17 year olds, and was similar for 15-19 year olds. However, the percentage of births that were low birth weight was 1.2 times higher while the percentage of births in which prenatal care began in the first trimester was 14% lower. In addition, the fetal mortality rate for Asians was 3.2 times higher than the White rate; the small number

of infant deaths among Asians did not allow for the reporting of an infant mortality rate.

Figures 102, 103, and 104 display differences by race/ethnicity in Nebraska for the teen birth rate among 15-17 year olds, the percentage of births in which prenatal care began during the first trimester, and the infant mortality rate.

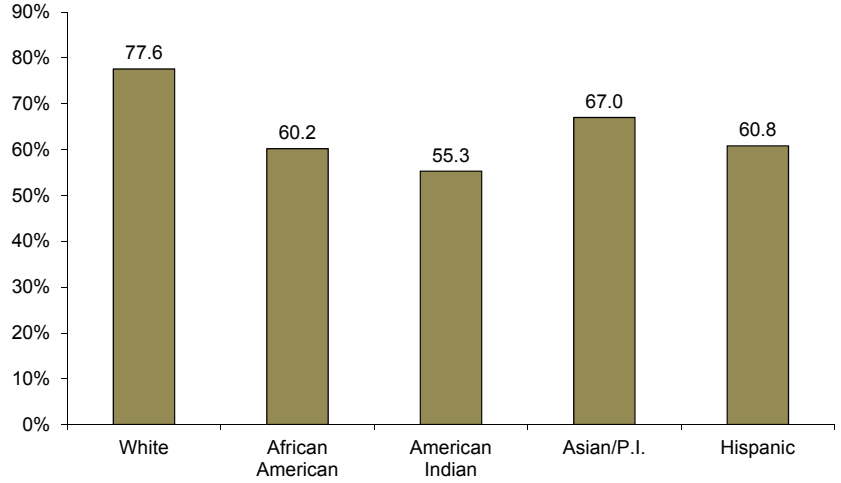
Table 8, at the end of this report section, contains birth outcome results by race/ethnicity among Nebraska residents for years 2010-2014 combined.

Figure 102: Teen Birth Rate among 15-17 year old Females in Nebraska per 1,000 population, by Race/Ethnicity, 2010-2014 Combined



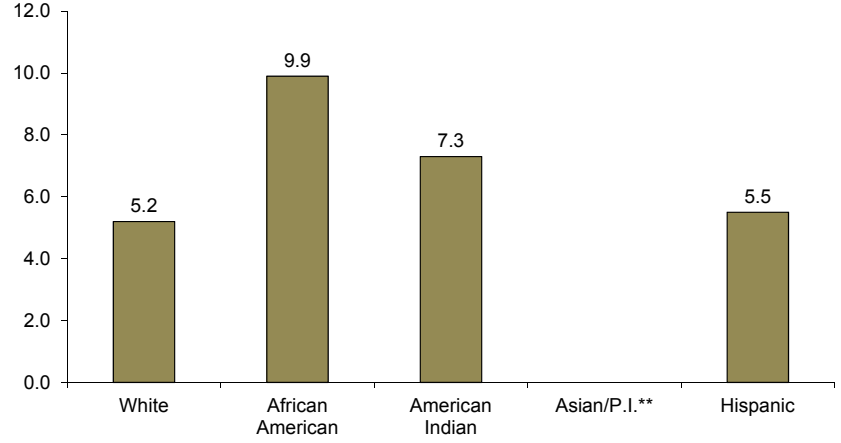
Source: Nebraska Vital Records

Figure 103: Percentage of Births in which Prenatal Care began in the First Trimester, by Race/Ethnicity, 2010-2014 Combined



Source: Nebraska Vital Records

Figure 104: Infant Mortality Rate per 1,000 Live Births*, by Race/Ethnicity, 2010-2014 Combined



*Number of deaths to infants (less than 12 months old) per 1,000 live births
**Insufficient number of deaths to report rate
Source: Nebraska Vital Records

Disparities by Urban/Rural

For this report, three categories were used to report results by urban/rural. The three categories, based on county of residence, include Urban-Large, Urban-Small, and Rural. "Urban-Large" consists of seven counties, including those counties that make up the Lincoln and Omaha areas and their surrounding metropolitan outlying counties. "Urban-Small" consists of 15 counties, including the Grand Island and Sioux City areas and their metropolitan outlying counties as well as all micropolitan core counties (i.e., those counties with mid-sized cities). "Rural" consists of the remaining 71 counties in Nebraska. The full breakdown of the classification for each of the 93 counties in Nebraska can be found in the methods section of this report.

Mortality by Urban/Rural

For years 2010-2014 combined, residents in large urban areas of the state had higher death rates for some conditions including cancer overall and lung cancer, homicide, and drug-induced deaths while residents in rural areas had higher death rates for other conditions including heart disease, unintentional injuries overall and motor vehicle crashes, and suicide. Large disparities occurred in deaths due to lung cancer, motor vehicle crashes, homicide, drug-induced, and suicide:

Heart disease death rates (per 100,000 population, age-adjusted) were higher in rural areas of the state, in particular they were 8 percent higher in rural compared to urban-large:

- Urban-large (142.2), urban-small (152.2), rural (153.1)

Unlike heart disease, cancer death rates were higher in urban areas, where the death rate for cancer overall (per 100,000 population, age-adjusted) was 8 percent higher in urban-large compared to rural while the lung cancer rate was 20 percent higher:

- Cancer overall: urban-large (169.2), urban-small (162.1), rural (156.3)
- Lung cancer: urban-large (46.7), urban-small (41.4), rural (38.8)
- Colon cancer death rates, however; were lower in urban-large (15.3) compared to urban-small (18.3), and were lower but not significantly lower than rural (16.8)

The largest urban/rural disparity occurred in unintentional injury deaths, and in particular motor vehicle crash deaths. Unintentional injury death rates (per 100,000 population, age-adjusted) were higher in rural areas of the state, where the unintentional injury death rate was 53 percent higher in rural compared to urban-large while the motor vehicle crash death rate was 2.7 times higher:

- Unintentional injury: urban-large (31.0), urban-small (40.5), rural (47.3)
- Motor vehicle crash: urban-large (7.7), urban-small (16.1), rural (20.6)

Suicide death rates (per 100,000 population, age-adjusted) were also higher in smaller urban and rural areas, in particular they were 33 percent higher in rural compared to urban-large:

- Urban-large (10.3), urban-small (12.9), rural (13.7)

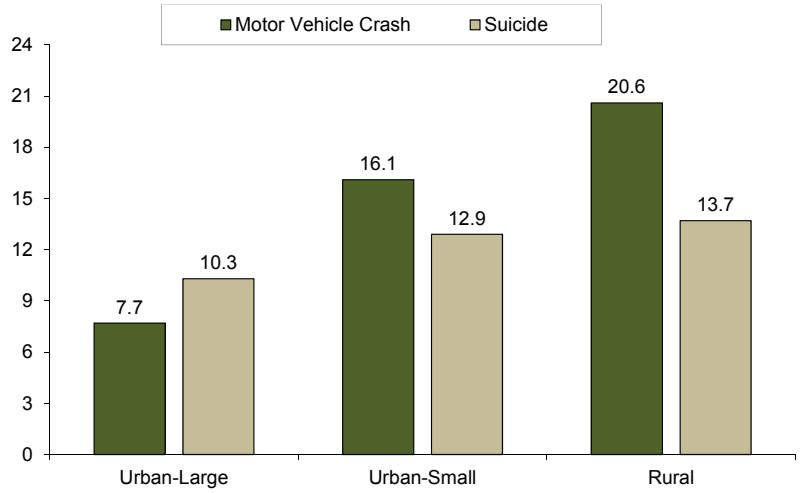
In contrast, homicide and drug-induced death rates (per 100,000 population, age-adjusted) were higher in more urban areas of the state. The homicide death rate for urban-large was more than double the rate for urban-small and rural, while the drug-induced death rate for urban-large was 50 percent higher than urban-small and 36 percent higher than rural:

- Homicide: Urban-large (4.7), urban-small (1.6), rural (2.1)
- Drug-Induced: Urban-large (7.2), urban-small (4.8), rural (5.3)

Figures 105 and 106 present differences by urban/rural in Nebraska for motor vehicle crashes, suicide, homicide, and drug-induced deaths.

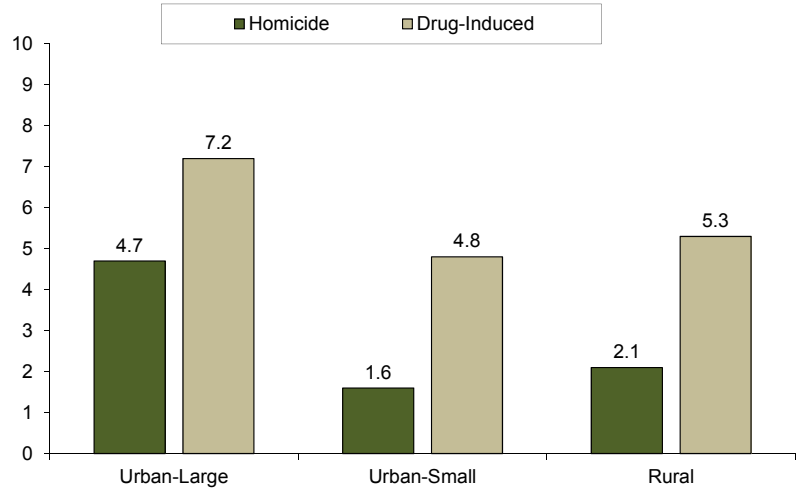
Table 9, at the end of this report section, contains mortality results by urban/rural among Nebraska residents for years 2010-2014 combined.

Figure 105: Motor Vehicle Crash and Suicide Death Rates per 100,000 population in Nebraska (age-adjusted), by Urban/Rural, 2010-2014



Source: Nebraska Vital Records

Figure 106: Homicide and Drug-Induced Death Rates per 100,000 population in Nebraska (age-adjusted), by Urban/Rural, 2010-2014



Source: Nebraska Vital Records

Behavioral Risk Factors by Urban/Rural

The following results are from the Behavioral Risk Factor Surveillance System, a survey of adults 18 and older, and were age-adjusted to minimize the influence of age when interpreting differences by urban/rural. Only statistically significant differences are noted.

For years 2011-2014 combined, residents in smaller urban and rural areas of the state were more likely to report negative health outcomes and high risk behaviors when compared to those in larger urban areas.

Utilization of preventive health services was strongly associated with urban/rural, where residents in the largest urban areas were the most likely to report utilization of preventive health services, including having had a routine medical checkup in the past year (urban-large 9% more likely than rural), a cholesterol screening within the past five years (urban-large 9% more likely than rural), being up-to-date on colon cancer screening among 50-75 year olds (urban-large 19% more likely than rural), breast cancer screening among 50-74 year old females (urban-large 12% more likely than rural), and cervical cancer screening among 21-65 year olds (urban-large 7% more likely than rural) as well as having had a flu vaccination in the past year (urban-large 18% more likely than rural), ever having a pneumonia vaccination among those 65 and older (urban-large 8% more likely than rural), ever having an HIV text (excluding blood donations) (urban-large 50% more likely than rural), and having seen a dentist or dental clinic for any reason in the past year (urban-large 12% more likely than rural).

Current smokeless tobacco use and seatbelt use were also strongly associated with urban/rural, where:

- Rural residents were 2.2 times more likely than urban-large residents to report current smokeless tobacco
- Urban-large residents were 1.5 times more likely than rural residents to report that they always wear a seatbelt when driving or riding in a car

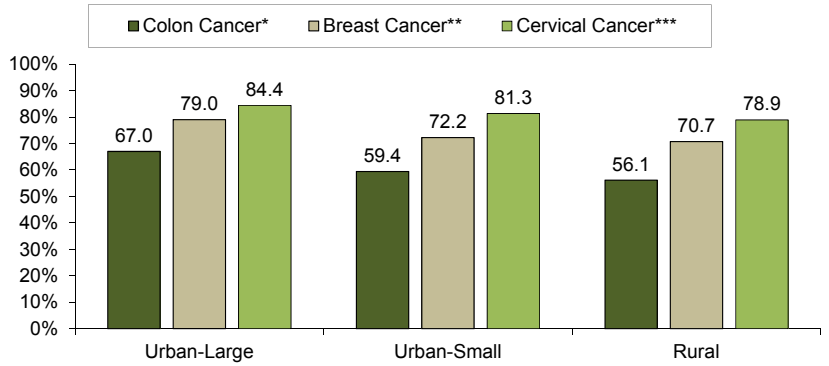
Residents in smaller urban and rural areas of the state, compared to those in larger urban areas, were also more likely to report ever being told they have heart disease, to report obesity, loss of permanent teeth due to tooth decay and gum disease, and to report a work-related injury or illness in the past year among those employed or recently out of work. They were less likely to report engaging in the recommended amount of physical activity and consuming fruits on a daily basis.

The only areas where rural residents compared favorably included having ever been told they have asthma and having had frequent mental distress in the past month (i.e., poor mental health on 14 or more of the past 30 days).

Figures 107-109 present differences by urban/rural in Nebraska for cancer screening, smokeless tobacco use, and seatbelt use.

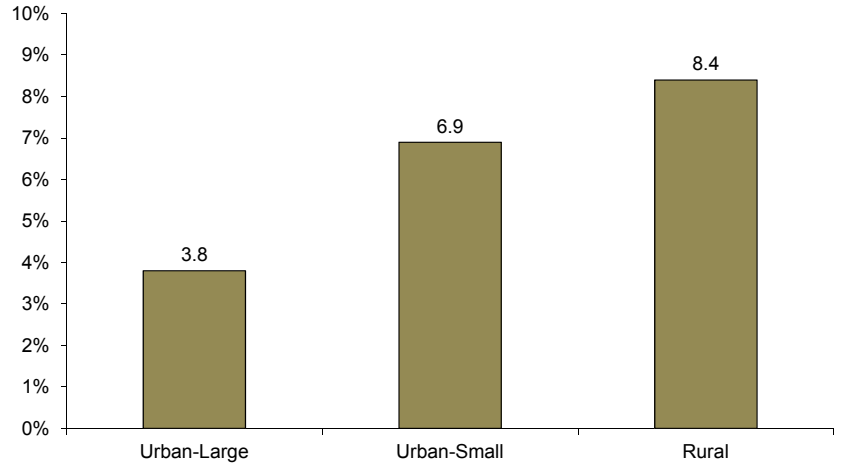
Table 10, at the end of this report section, contains BRFSS results by urban/rural among Nebraska adults for years 2011-2014 combined.

Figure 107: Up-To-Date on Cancer Screening Recommendations, among Nebraska Adults (age-adjusted), by Urban/Rural, 2012-2014^



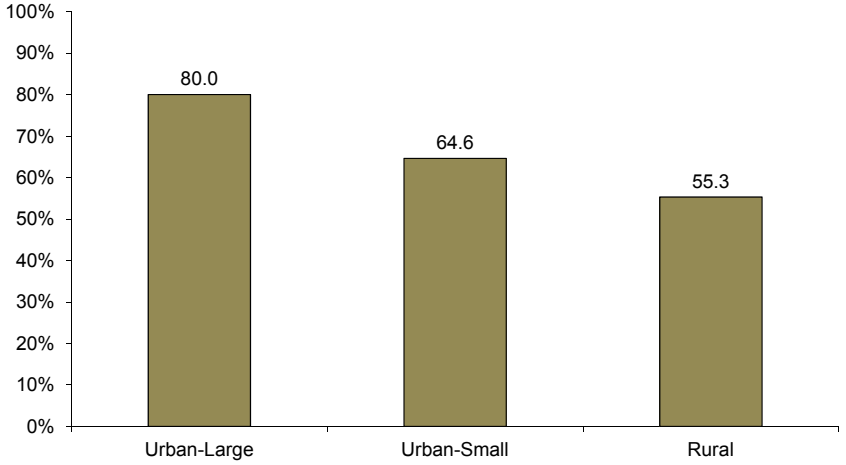
*Percentage of adults 50–75 years old who report having had a fecal occult blood test (FOBT) during the past year, or a sigmoidoscopy during the past 5 years and an FOBT during the past 3 years, or a colonoscopy during the past 10 years
**Percentage of females 50-74 years old who report having had a mammogram during the past 2 years
***Percentage of females 21-65 years old without a hysterectomy who report having had a Pap test during the past 3 years
^Years 2012-2014 combined for colon cancer, years 2012 and 2014 combined for breast and cervical cancer
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Figure 108: Current Smokeless Tobacco Use among Nebraska Adults (age-adjusted), by Urban/Rural, 2011-2014 Combined



*Percentage of adults 18 and older who report that they currently use smokeless tobacco products (chewing tobacco, snuff, or snus) either every day or on some days
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Figure 109: Always Wear a Seatbelt among Nebraska Adults (age-adjusted), by Urban/Rural, 2011-2014 Combined



*Percentage of adults 18 and older who report that they always use a seatbelt when driving or riding in a car
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Birth Outcomes by Urban/Rural

Some urban/rural disparities existed for birth outcomes in Nebraska during years 2010-2014 combined. In particular, residents in large urban areas of the state had a higher overall birth rate and were the most likely to receive first trimester prenatal care; however, they were also had a higher percentage of births that were preterm and low birth weight. Residents in small urban areas had the highest teen birth rates.

The overall birth rate (per 1,000 population) was higher in urban compared to rural areas of the state. In particular, the overall birth rate was 28 percent higher in urban-large compared to rural:

- Urban-large (14.9), urban-small (14.0), rural (11.7)

First trimester prenatal care was more common in urban-large areas of the state (75.6% indicated that they began prenatal care during the first trimester) compared to urban-small (70.5%) and rural (71.9%).

Preterm and low birth weight births were also more common in large urban areas of the state. The percentage of births that were preterm was 20 percent higher in urban-large compared to rural, while the percentage of births that were low birth weight was 15 percent higher in urban-large compared to rural.

- Preterm: Urban-large (9.7%), urban-small (8.6%), rural (8.1%)
- LBW: Urban-large (7.0%), urban-small (6.3%), rural (6.1%)

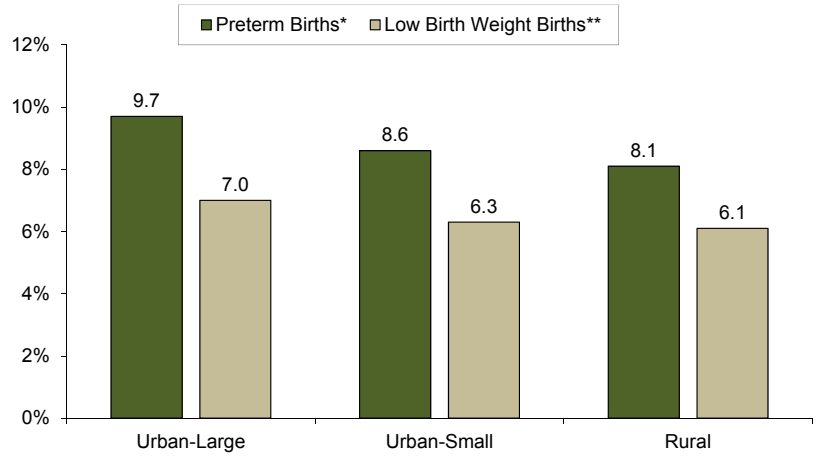
The teen birth rate among 15-17 year old females (per 1,000 population) was highest among those living in urban-small areas of the state, in particular, the rate was 1.6 times higher compared to urban-small 1.6 times higher compared to rural.

- Urban-large (5.1), urban-small (8.1), rural (5.0)

Figures 110 and 111 present differences by urban/rural in Nebraska for teen births, preterm births, and low birth weight births.

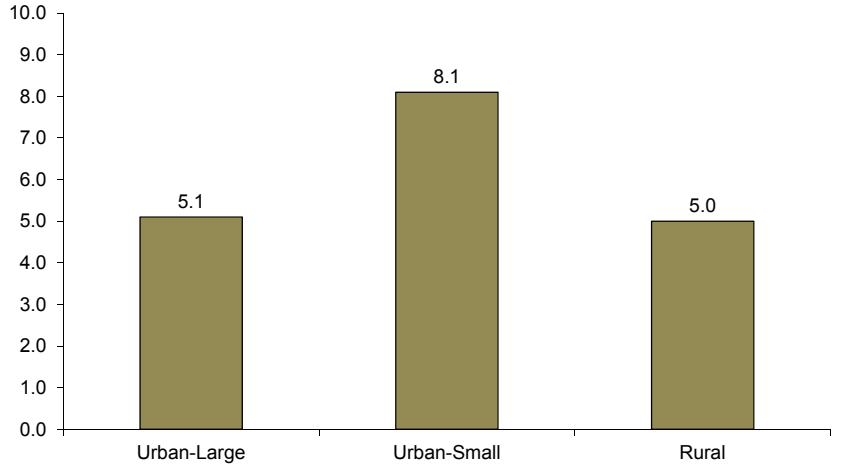
Table 11, at the end of this report section, contains birth outcome results by urban/rural among Nebraska residents for years 2010-2014.

Figure 110: Percentage of Births that were Preterm and Low Birth Weight, by Urban/Rural, 2010-2014 Combined



*Percentage of infants born to women before 37 weeks gestation, based on O.E. gestational age
**Percentage of live births weighing less than 2,500 grams (5.5 pounds)
Source: Nebraska Vital Records

Figure 111: Teen Birth Rate among 15-17 year old Females in Nebraska per 1,000 population, by Urban/Rural, 2010-2014 Combined



Source: Nebraska Vital Records

Disparities by Socioeconomic Status

According to the Centers for Disease Control and Prevention's 2013 Health Disparities and Inequalities Report, people who are living in unfavorable socioeconomic circumstances are at increased risk for illness, death, unhealthy behaviors, reduced access to healthcare, and inadequate quality of care.

Nebraska data on health status by socioeconomic status are limited. As a result, this report focuses on disparities by self-reported annual household income collected as part of the Behavioral Risk Factor Surveillance System, a survey of adults 18 and older. The results were age-adjusted to minimize the influence of age when interpreting difference by annual household income. Only statistically significant differences are noted.

For years 2011-2014 combined, residents with lower household incomes were far more likely to report poor general health, lack of healthcare access and utilization, negative health outcomes, and high risk behaviors when compared to those with higher household incomes.

General health status measures were strongly associated with income. Nebraska adults with household incomes under $25,000 per year compared to those with incomes at or above $75,000 per year were 6.5 times more likely to report fair or poor health, 4.3 times more likely to report poor physical health on 14 or more of the past 30 days, 3.9 times more likely to report frequent mental distress during the past month (i.e., poor mental health on 14 or more of the past 30 days), and 5.3 times more likely to report that poor physical or mental health limited their usual activities on 14 or more of the past 30 days.

Utilization of preventive health services was also associated with income, where residents with higher household incomes were more likely than those with lower incomes to report having had a routine medical checkup in the past year ($75,000 or more income was 1.2 times more likely than those with <$25,000 income), a blood pressure screening in the past year (1.2x), a cholesterol screening within the past five years (1.3x), being up-to-date on colon cancer screening among 50-75 year olds (1.4x), breast cancer screening among 50-74 year old females (1.3x), and cervical cancer screening among 21-65 year olds (1.2x) as well as having had a flu vaccination in the past year (1.4x), ever having a pneumonia vaccination among those 65 and older (1.2x), a tetanus vaccination since 2005 (1.3x), ever having a shingles vaccination among those 60 and older (1.8x), and having seen a dentist or dental clinic for any reason in the past year (1.7x).

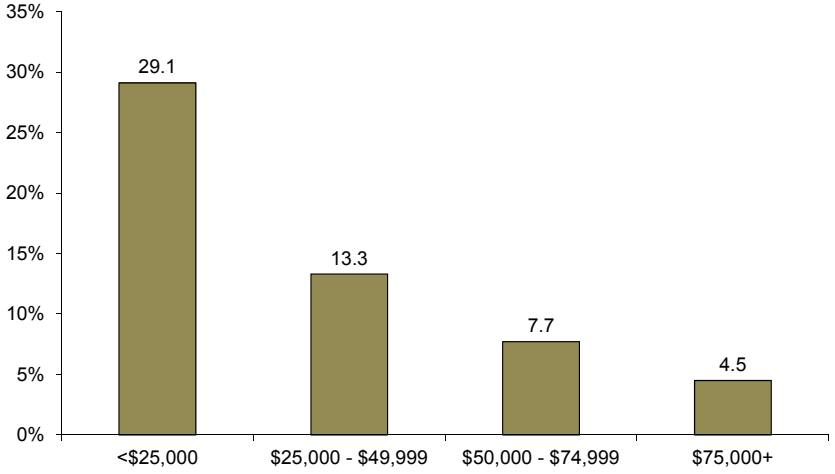
Furthermore, adults with household incomes under $25,000 per year compared to those with incomes at or above $75,000 per year were more than twice as likely to report having ever been told they had a heart attack, diabetes (excluding pregnancy), kidney disease, depression, and that they currently have asthma, they were more than three times as likely to have ever been told they had a stroke, and more than four times as likely to have ever been told they have COPD. In addition, they were more than three times as likely to report current smoking, only half as likely to report engaging in the recommended amount of physical activity, eight times more likely to have had all their permanent teeth extracted due to tooth decay or gum disease among those 65 and older, and more than five times as likely to report housing insecurity and ten times more likely to report food insecurity during the past year.

There were a small number of areas where adults with higher incomes reported riskier behaviors, including binge drinking during the past 30 days and texting and talking on a cell phone while driving during the past 30 days.

Figures 112-115 present differences by household income in Nebraska for general health status, cancer screening, diabetes, cigarette smoking, and physical activity.

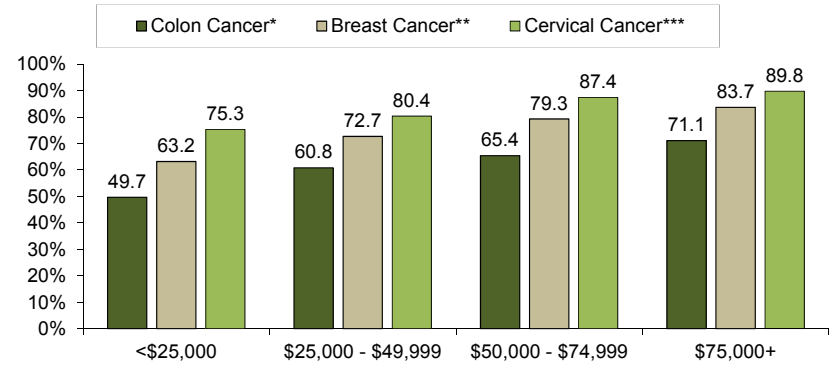
Table 12, at the end of this report section, contains BRFSS results by income among Nebraska adults for years 2011-2014 combined.

Figure 112: Fair or Poor General Health among Nebraska Adults (age-adjusted), by Household Income, 2011-2014 Combined



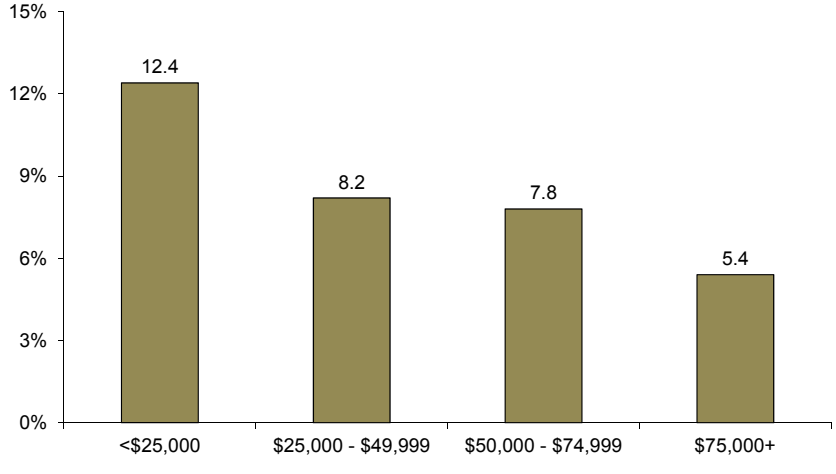
*Percentage of adults 18 and older who report that their general health is fair or poor
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Figure 113: Up-To-Date on Cancer Screening Recommendations, among Nebraska Adults (age-adjusted), by Household Income, 2012-2014^



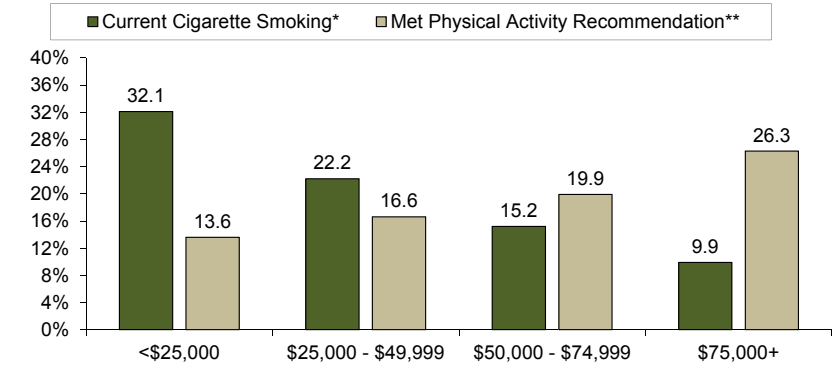
*Percentage of adults 50–75 years old who report having had a fecal occult blood test (FOBT) during the past year, or a sigmoidoscopy during the past 5 years and an FOBT during the past 3 years, or a colonoscopy during the past 10 years
**Percentage of females 50-74 years old who report having had a mammogram during the past 2 years
***Percentage of females 21-65 years old without a hysterectomy who report having had a Pap test during the past 3 years
^Years 2012-2014 combined for colon cancer, years 2012 and 2014 combined for breast and cervical cancer
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Figure 114: Ever Told they have Diabetes (excluding pregnancy) among Nebraska Adults (age-adjusted), by Household Income, 2011-2014 Combined



*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 diabetes (excluding pregnancy)
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Figure 115: Cigarette Smoking and Physical Activity among Nebraska Adults (age-adjusted), by Household Income, 2011-2014 Combined^



*Percentage of adults 18 and older who report that they currently smoke cigarettes either every day or on some days
**Percentage of adults 18 and older who report 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 and that they engaged in physical activities or exercises to strengthen their muscles two or more times per week during the past month
^Years 2011-2014 combined for current smoking, years 2011 and 2013 combined for physical activity
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Disparities by Gender

Within this section, disparities by gender are presented for mortality and behavioral risk factors.

Mortality by Gender

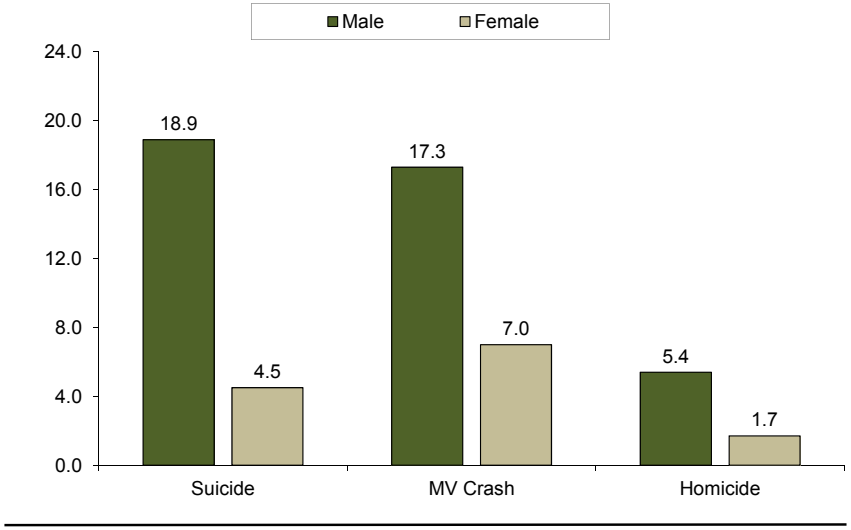
For years 2010-2014 combined, males compared to females had higher death rates for nearly all causes of death included in this report. The areas with the greatest disparity included suicide, homicide, and motor vehicle crashes:

- Suicide death rates were 4.2 times higher for males than females (18.9 and 4.5 deaths per 100,000 population, age-adjusted).
- Homicide death rates were 3.2 times higher for males than females (5.4 and 1.7 deaths per 100,000 population, age-adjusted).
- Motor vehicle crash death rates were 2.5 times higher for males than females (17.3 and 7.0 deaths per 100,000 population, age-adjusted).
- Other causes of death that had large disparities included melanoma (2.0x higher for males), unintentional injury overall (1.9x), cirrhosis of the liver (1.8x), heart disease (1.6x), falls (1.6x), lung cancer (1.6x), COPD (1.5x), and diabetes (1.5x).
- The only cause for which females had a significantly higher rate than males was Alzheimer's disease, where the female rate was 22 percent higher than the male rate.

Figures 116 and 117 present differences by gender in Nebraska for suicide, motor vehicle crash, homicide, and chronic disease deaths.

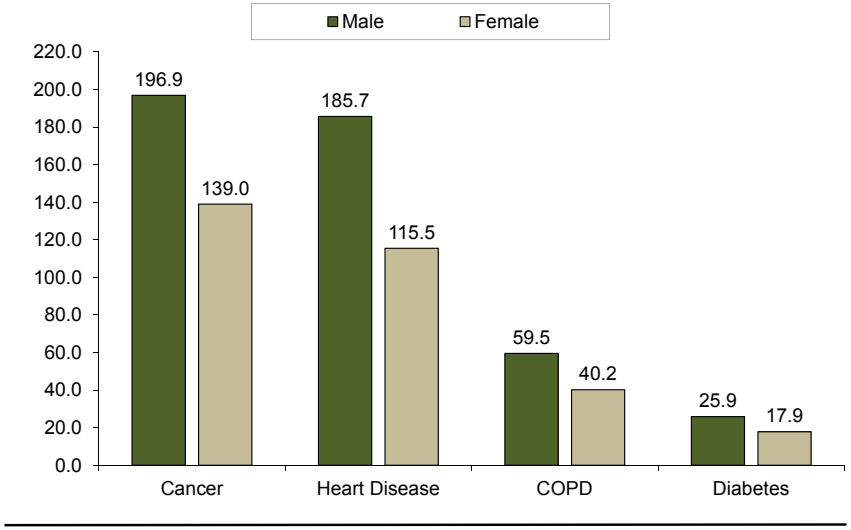
Table 13, at the end of this report section, contains mortality results by gender among Nebraska residents for years 2010-2014 combined.

Figure 116: Suicide, Homicide and Motor Vehicle Crash Death Rates per 100,000 population in Nebraska (age-adjusted), by Gender, 2010-2014



Source: Nebraska Vital Records

Figure 117: Death Rates for Select Chronic Diseases per 100,000 population in Nebraska (age-adjusted), by Gender, 2010-2014



Source: Nebraska Vital Records

Behavioral Risk Factors by Gender

The following results are from the Behavioral Risk Factor Surveillance System, a survey of adults 18 and older. Only statistically significant differences are noted.

For years 2011-2014 combined, males compared to females were less likely to report healthcare access and utilization and more likely to report high risk behaviors.

In particular, males were 1.3 times more likely to report having no healthcare coverage among 18-64 year olds and twice as likely to report having no personal doctor or healthcare provider. Furthermore, females were more likely than males to report utilization of preventive health services, including having had a routine medical checkup in the past year (females were 21% more likely than males), a blood pressure screening in the past year (8%), a cholesterol screening within the past five years (10%), being up-to-date on colon cancer screening among 50-75 year olds (6%), a flu vaccination in the past year (26%), ever having a pneumonia vaccination among those 65 and older (6%), ever having a shingles vaccination among those 60 and older (12%), ever having an HIV text (excluding blood donations) (18%), and having seen a dentist or dental clinic for any reason in the past year (10%).

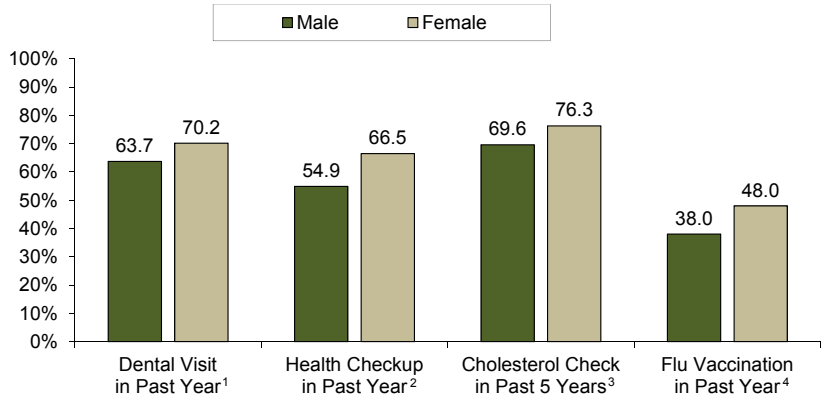
Males were also more likely to report current smoking (1.2x) and smokeless tobacco use (11.9x), to consume fruits (1.3x) and vegetables (1.3x) less than one time per day on average, less likely to always wear a seatbelt while driving or riding in a car (19% less likely), more likely to have texted while driving in the past 30 days (1.2x), to have been injured in a fall during the past year that required them to limit usual activities or to go see a doctor among those 45 and older (1.6x), to report binge drinking (1.8x) and alcohol impaired driving (4.1x) in the past month, and to have had a work-related injury or illness in the past year among those employed or recently out of work (1.5x).

Females in contrast were more likely to report poor physical and mental health in the past month, including being 1.5 times more likely to report frequent mental distress in the past month (i.e., reporting poor mental health on 14 or more of the past 30 days) as well as to report a higher prevalence for some health conditions including cancer (1.2x), COPD (1.2x), arthritis (1.3x), current asthma (1.5x), and depression (1.8x), and more likely to report housing (1.2x) and food (1.5x) insecurity during the past year.

Figures 118-120 present differences by gender in Nebraska for utilization of preventive health services, tobacco and alcohol use, and recent physical and mental health.

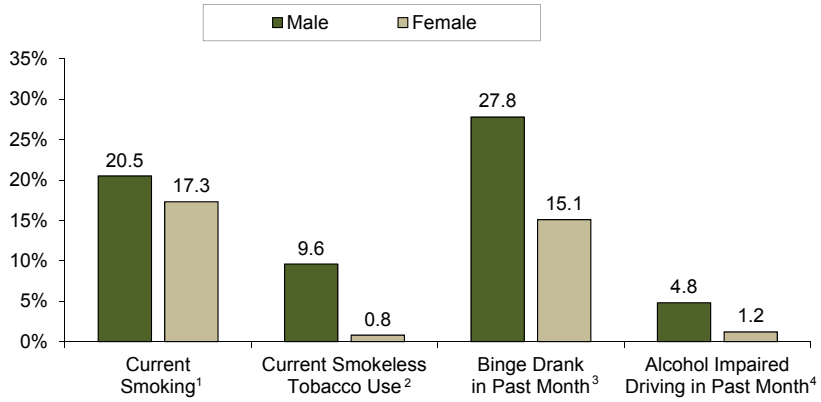
Table 14, at the end of this report section, contains BRFSS results by gender among Nebraska adults for years 2011-2014 combined.

Figure 118: Utilization of Preventive Health Services among Nebraska Adults*, by Gender, 2011-2014 Combined^



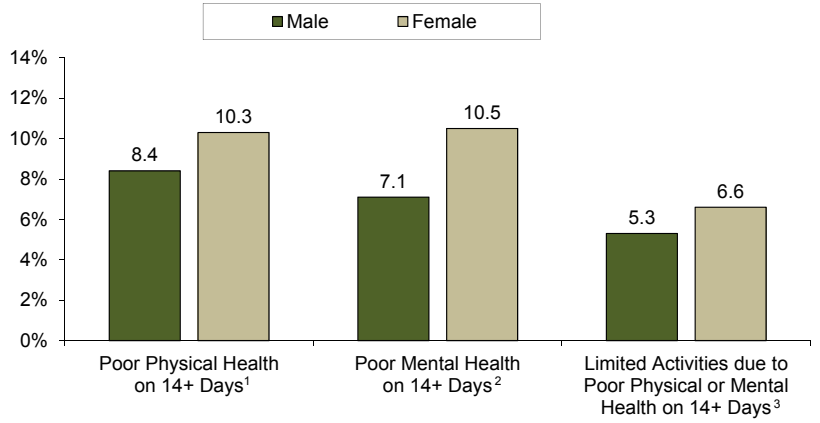
*Percentage of adults 18 and older who report (1) that they visited a dentist or dental clinic for any reason within the past year (2) that they visited a doctor for a routine checkup during the previous 12 months, (3) having had their blood cholesterol checked during the past 5 years, (4) that they received an influenza vaccination during the past 12 months
^Years 2011-2014 combined for health checkup and flu vaccination, 2011 & 2013 combined for cholesterol check, and 2012 & 2014 combined for dental visit
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Figure 119: Tobacco and Alcohol Use among Nebraska Adults*, by Gender, 2011-2014 Combined^



*Percentage of adults 18 and older who report (1) that they currently smoke cigarettes either every day or on some days, (2) that they currently use smokeless tobacco products (chewing tobacco, snuff, or snus) either every day or on some days, (3) 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, (4) report driving after having had perhaps too much to drink during the past 30 days
^Years 2011-2014 combined for smoking, smokeless tobacco, and binge drinking, 2012 & 2014 combined for alcohol impaired driving

Figure 120: Past Month Physical and Mental Health among Nebraska Adults*, by Gender, 2011-2014 Combined



*Percentage of adults 18 and older who report (1) that their physical health (including physical illness and injury) was not good on 14 or more of the previous 30 days, (2) that their mental health (including stress, depression, and problems with emotions) was not good on 14 or more of the previous 30 days (i.e., frequent mental distress), (3) that their usual activities (such as self-care, work, and recreation) were limited due to poor physical or mental health on 14 or more of the previous 30 days
Source: Behavioral Risk Factor Surveillance System (BRFSS)

Methods Summary

The state health status assessment process took approximately one year to complete, and included the utilization of a large number of state and national data sources and indicators. Content experts within the Division of Public Health were consulted with to identify available and relevant data sources and indicators and provided assistance with report development to ensure that the data were analyzed correctly and reported accurately. This report is intended to provide an overview of data results across 14 overarching topic areas. However, this overview was not necessarily intended to include the utilization of all related state and national data sources, but rather to include those that were readily available and state-specific.

The focus of each health topic area included within this report is to present current Nebraska data, to present trend information over the past decade (where available), and to present comparable U.S. data (where available). The focus of the health disparities section of this report is to present an overview of differences by race/ethnicity, urban/rural, socioeconomic status, and gender for the topic areas included using state death, birth, and Behavioral Risk Factor Surveillance System (BRFSS) data. Following the selection of the state health priorities that will be included in the State Health Improvement Plan (SHIP), further topic specific demographic analysis will be conducted to aid in identifying populations to targets for implementation efforts.

Nebraska birth and death data presented by race/ethnicity for years 2010-2014 combined were not cross-tabulated for consistency with how the data are reported in standard Nebraska vital statistics reporting. Nebraska BRFSS presented by race/ethnicity for years 2011-2014 combined were cross-tabulated for consistency with how these data are reported in standard BRFSS reporting.

Three urban and rural categories, based on county of residence, were presented within the demographic differences section of this report. These categories align with urban/rural "reporting category 1" outlined within the Disparities Demographic Data Recommendations Report, Division of Public Health, NDHHS, November 2015. The counties included within each category include:

- Urban-large (7 counties, including those counties that make up the Lincoln and Omaha areas and their surrounding metropolitan outlying counties): Core metropolitan (Douglas, Lancaster, Sarpy) and Core metropolitan outlying (Cass, Saunders, Seward, Washington)
- Urban-small (15 counties, including the Grand Island and Sioux City areas and their metropolitan outlying counties as well as all micropolitan core counties): Non-core metropolitan (Dakota, Hall), Non-core metropolitan outlying (Dixon, Hamilton, Howard, Merrick) and Micropolitan (Adams, Buffalo, Dawson, Dodge, Gage, Lincoln, Madison, Platte, Scotts Bluff)
- Rural (includes the 71 remaining counties in the state): Micropolitan outlying (Banner, Clay, Gosper, Kearney, Logan, McPherson, Pierce, Stanton), Non-metro/micro with large town (Box Butte, Butler, Cherry, Cheyenne, Colfax, Cuming, Custer, Dawes, Holt, Jefferson, Keith, Nemaha, Otoe, Phelps, Red Willow, Richardson, Saline, Wayne, York), and Non-metro/micro with no large towns (Antelope, Arthur, Blaine, Boone, Boyd, Brown, Burt, Cedar, Chase, Deuel, Dundy, Fillmore, Franklin, Frontier, Furnas, Garden, Garfield, Grant, Greeley, Harlan, Hayes, Hitchcock, Hooker, Johnson, Keya Paha, Kimball, Knox, Loup, Morrill, Nance, Nuckolls, Pawnee, Perkins, Polk, Rock, Sheridan, Sherman, Sioux, Thayer, Thomas, Thurston, Valley, Webster, Wheeler)

Not all BRFSS indicators presented by demographic were available for all years 2011-2014. See Tables 7, 10, 12, and 14 for information on which years were available for each indicator. For age-adjustment of BRFSS data, age-distribution 9, noted within the January 2001 Klein and Schoenborn publication on Age-Adjustment Using the 2000 Projected U.S. Population, was used.

Table 6: Mortality Results (age-adjusted) by Race/Ethnicity for Select Causes of Death, 2010-2014 Combined

	White			African American			Asian			American Indian			Hispanic[d]		
Causes of Death (ICD-10 Code)	N[a]	Rate[b]	95% C.I.[c] (Low - High)	N[a]	Rate[b]	95% C.I.[c] (Low - High)	N[a]	Rate[b]	95% C.I.[c] (Low - High)	N[a]	Rate[b]	95% C.I.[c] (Low - High)	N[a]	Rate[b]	95% C.I.[c] (Low - High)
Heart disease (I00-I09, I11, I13, I20-I51)	15,875	146.4	*(144.1 - 148.7)*	502	188.2	*(171.7 - 204.7)*	48	66.1	*(47.4 - 84.8)*	85	167.0	*(131.5 - 202.5)*	178	68.5	*(58.4 - 78.6)*
Stroke (I60-I69)	3,874	35.9	*(34.8 - 37.0)*	140	52.4	*(43.7 - 61.1)*	26	30.1	*(18.5 - 41.7)*	15	40.3	*(19.9 - 60.7)*	64	26.2	*(19.8 - 32.6)*
High Blood Pressure (I10, I12)	1,015	9.1	*(8.5 - 9.7)*	53	21.9	*(16.0 - 27.8)*	8	-*	*-* - -**	5	-*	*-* - -**	15	6.6	*(3.3 - 9.9)*
Diabetes (E10-E14)	2,094	20.4	*(19.5 - 21.3)*	129	50.4	*(41.7 - 59.1)*	14	17.6	*(8.4 - 26.8)*	37	67.9	*(46.0 - 89.8)*	81	28.9	*(22.6 - 35.2)*
Cancer overall (C00-C97)	16,361	162.3	*(159.8 - 164.8)*	575	208.7	*(191.6 - 225.8)*	124	119.5	*(98.5 - 140.5)*	86	170.0	*(134.1 - 205.9)*	305	97.8	*(86.8 - 108.8)*
Lung Cancer (C34)	4,252	42.5	*(41.2 - 43.8)*	173	63.7	*(54.2 - 73.2)*	25	24.5	*(14.9 - 34.1)*	26	60.9	*(37.5 - 84.3)*	52	18.7	*(13.6 - 23.8)*
Colorectal Cancer (C18-C21, C260)	1,642	16.2	*(15.4 - 17.0)*	68	26.6	*(20.3 - 32.9)*	10	10.1	*(3.8 - 16.4)*	12	21.9	*(9.5 - 34.3)*	27	8.5	*(5.3 - 11.7)*
Female Breast Cancer (C50)	1,106	20.1	*(18.9 - 21.3)*	45	28.4	*(20.1 - 36.7)*	6	-*	*-* - -**	7	-*	*-* - -**	16	9.0	*(4.6 - 13.4)*
Cervical Cancer (C53)	104	2.2	*(1.8 - 2.6)*	4	-*	*-* - -**	0	-*	*-* - -**	2	-*	*-* - -**	8	-*	*-* - -**
Prostate Cancer (C61)	876	20.6	*(19.2 - 22.0)*	31	32.5	*(21.1 - 43.9)*	2	-*	*-* - -**	3	-*	*-* - -**	13	16.2	*(7.4 - 25.0)*
Melanoma Cancer (C43)	298	3.0	*(2.7 - 3.3)*	2	-*	*-* - -**	0	-*	*-* - -**	0	-*	*-* - -**	2	-*	*-* - -**
Asthma (J45-J46)	126	1.2	*(1.0 - 1.4)*	13	3.2	*(1.5 - 4.9)*	0	-*	*-* - -**	0	-*	*-* - -**	2	-*	*-* - -**
COPD (J40-J44)	4,960	48.1	*(46.8 - 49.4)*	111	42.2	*(34.3 - 50.1)*	12	14.8	*(6.4 - 23.2)*	29	68.4	*(43.5 - 93.3)*	27	12.3	*(7.7 - 16.9)*
Kidney Disease (N00-N07, N17-N19, N25-N27)	1,102	10.2	*(9.6 - 10.8)*	75	30.5	*(23.6 - 37.4)*	9	-*	*-* - -**	16	36.2	*(18.5 - 53.9)*	24	9.7	*(5.8 - 13.6)*
Alzheimer's Disease (G30)	2,737	24.2	*(23.3 - 25.1)*	52	26.4	*(19.2 - 33.6)*	8	-*	*-* - -**	4	-*	*-* - -**	22	11.9	*(6.9 - 16.9)*
Unintentional injury overall (V01-X59, Y85-Y86)	3,381	36.2	*(35.0 - 37.4)*	130	32.6	*(27.0 - 38.2)*	9	-*	*-* - -**	40	42.6	*(29.4 - 55.8)*	186	28.4	*(24.3 - 32.5)*
Motor Vehicle Crash***	1,020	11.9	*(11.2 - 12.6)*	44	10.0	*(7.0 - 13.0)*	1	-*	*-* - -**	18	17.5	*(9.4 - 25.6)*	103	11.8	*(9.5 - 14.1)*
Falls (W00-W19)	968	9.0	*(8.4 - 9.6)*	11	4.2	*(1.7 - 6.7)*	4	-*	*-* - -**	4	-*	*-* - -**	18	6.8	*(3.7 - 9.9)*
Homicide (X85-Y09,Y87.1)	166	2.1	*(1.8 - 2.4)*	134	27.9	*(23.2 - 32.6)*	3	-*	*-* - -**	13	10.5	*(4.8 - 16.2)*	39	4.3	*(3.0 - 5.6)*
Suicide (X60-X84, Y87.0)	1,016	12.0	*(11.3 - 12.7)*	30	6.4	*(4.1 - 8.7)*	6	-*	*-* - -**	11	9.7	*(4.0 - 15.4)*	35	4.3	*(2.9 - 5.7)*
Drug induced (F11-F16, F18-F19, X40-X44, X85, Y10-Y14)	497	6.1	*(5.6 - 6.6)*	37	8.5	*(5.8 - 11.2)*	1	-*	*-* - -**	12	10.8	*(4.7 - 16.9)*	19	2.6	*(1.4 - 3.8)*
Cirrhosis of the Liver (K70, K73-K74)	718	7.5	*(7.0 - 8.0)*	31	8.0	*(5.2 - 10.8)*	3	-*	*-* - -**	47	55.3	*(39.5 - 71.1)*	46	11.9	*(8.5 - 15.3)*
Influenza (J10-J11)	104	0.9	*(0.7 - 1.1)*	1	-*	*-* - -**	0	-*	*-* - -**	1	-*	*-* - -**	1	-*	*-* - -**
Pneumonia (J12-J18)	1,395	12.5	*(11.8 - 13.2)*	44	15.3	*(10.8 - 19.8)*	3	-*	*-* - -**	7	-*	*-* - -**	19	8.1	*(4.5 - 11.7)*

[a] Number of deaths

[b] Death rate, age-adjusted to the 2000 U.S. standard population, per 100,000 population (unless otherwise noted)

[c] Low and High are the lower and upper limits of the 95% confidence interval, respectively

[d] Persons of Hispanic Origin may be any race.

^ Includes codes V02-V04, V090, V092, V12-V14, V190-V192, V194-V196, V20-V79, V803-V805, V810-V811, V820-V821, V83-V86, V870-V878, V880-V888, V890, V892

* Data suppressed due to a small number of deaths (i.e., fewer than 10)

Source: Nebraska Vital Records

Table 7: Behavioral Risk Factors among Nebraska Adults 18 and Older (Age-Adjusted unless noted) by Race/Ethnicity, 2011-2014 Combined

		White, NH			African American, NH			Asian/PI, NH			American Indian, NH			Hispanic		
Measure	Years [a]	n [b]	mean or % [c]	95% C.I. [d] (Low - High)	n [b]	mean or % [c]	95% C.I. [d] (Low - High)	n [b]	mean or % [c]	95% C.I. [d] (Low - High)	n [b]	mean or % [c]	95% C.I. [d] (Low - High)	n [b]	mean or % [c]	95% C.I. [d] (Low - High)
General health fair or poor	(2011-2014)	75,951	11.6%	*(11.2 - 11.9)*	1,738	24.6%	*(22.0 - 27.3)*	527	8.9%	*(6.3 - 12.6)*	862	26.7%	*(22.3 - 31.6)*	3,299	28.8%	*(26.6 - 31.0)*
Average number of days physical health was not good in past 30 days	(2011-2014)	74,720	2.9	*(2.8 - 3.0)*	1,703	4.3	*(3.7 - 5.0)*	512	2.2	*(1.5 - 2.9)*	844	4.8	*(3.9 - 5.6)*	3,236	3.6	*(3.2 - 4.0)*
Physical health was not good on 14 or more of the past 30 days	(2011-2014)	74,720	8.6%	*(8.2 - 8.9)*	1,703	14.0%	*(11.7 - 16.7)*	512	6.6%	*(4.3 - 10.1)*	844	15.6%	*(12.3 - 19.5)*	3,236	11.5%	*(10.1 - 13.2)*
Average number of days mental health was not good in past 30 days	(2011-2014)	75,107	3.0	*(2.9 - 3.1)*	1,727	3.8	*(3.2 - 4.3)*	517	1.7	*(1.3 - 2.2)*	848	5.1	*(4.2 - 6.1)*	3,254	2.6	*(2.3 - 2.9)*
Mental health was not good on 14 or more of the past 30 days (i.e., frequent mental distress)	(2011-2014)	75,107	8.7%	*(8.4 - 9.1)*	1,727	12.1%	*(10.1 - 14.3)*	517	5.4%	*(3.6 - 7.9)*	848	16.9%	*(13.2 - 21.4)*	3,254	7.7%	*(6.6 - 9.0)*
Average days poor physical or mental health limited usual activities in past 30 days	(2011-2014)	75,501	1.7	*(1.7 - 1.8)*	1,729	3.0	*(2.5 - 3.5)*	521	1.0	*(0.7 - 1.4)*	848	3.5	*(2.7 - 4.2)*	3,266	1.9	*(1.6 - 2.1)*
Poor physical or mental health limited usual activities on 14 or more of the past 30 days	(2011-2014)	75,501	5.4%	*(5.2 - 5.7)*	1,729	10.6%	*(8.7 - 12.9)*	521	2.2%	*(1.2 - 4.0)*	848	12.5%	*(9.3 - 16.6)*	3,266	5.6%	*(4.7 - 6.8)*
No health care coverage, 18-64 year olds	(2011-2014)	47,828	13.3%	*(12.9 - 13.8)*	1,305	30.9%	*(27.4 - 34.6)*	450	12.8%	*(9.8 - 16.6)*	676	23.5%	*(18.1 - 29.8)*	2,906	47.8%	*(45.2 - 50.4)*
No personal doctor or health care provider	(2011-2014)	75,925	17.1%	*(16.6 - 17.6)*	1,736	24.4%	*(21.6 - 27.5)*	524	22.2%	*(18.8 - 26.0)*	859	30.0%	*(25.3 - 35.3)*	3,291	39.6%	*(37.2 - 41.9)*
Needed to see a doctor but could not due to cost in past year	(2011-2014)	75,974	11.1%	*(10.7 - 11.5)*	1,738	25.3%	*(22.5 - 28.3)*	521	10.0%	*(7.4 - 13.5)*	857	25.1%	*(20.3 - 30.5)*	3,292	24.5%	*(22.4 - 26.7)*
Had a routine checkup in past year	(2011-2014)	75,053	60.0%	*(59.4 - 60.6)*	1,719	69.6%	*(66.5 - 72.6)*	515	60.2%	*(54.6 - 65.6)*	847	62.4%	*(56.7 - 67.8)*	3,240	53.6%	*(51.3 - 56.0)*
Ever told they had a heart attack or coronary heart disease	(2011-2014)	75,027	5.3%	*(5.1 - 5.5)*	1,713	7.2%	*(5.8 - 8.9)*	518	3.4%	*(1.7 - 6.8)*	842	8.5%	*(6.1 - 11.5)*	3,263	5.0%	*(4.1 - 6.2)*
Ever told they had a stroke	(2011-2014)	75,917	2.3%	*(2.1 - 2.4)*	1,738	3.8%	*(2.9 - 5.1)*	525	0.5%	*(0.2 - 1.5)*	860	4.1%	*(2.5 - 6.7)*	3,291	2.2%	*(1.5 - 3.1)*
Had blood pressure checked in past year	(2013)	7,180	84.8%	*(83.1 - 86.3)*	105	82.7%	*(71.2 - 90.3)*	42	-*	-* - -*	82	89.7%	*(78.1 - 95.5)*	265	71.3%	*(64.1 - 77.5)*
Ever told they have high blood pressure (excluding pregnancy)	(2011 & 2013)	38,278	27.4%	*(26.7 - 28.0)*	918	44.8%	*(40.6 - 49.0)*	276	26.2%	*(20.0 - 33.7)*	464	36.9%	*(30.5 - 43.7)*	1,664	26.2%	*(23.5 - 29.1)*
Had cholesterol checked in past 5 years	(2011 & 2013)	37,229	73.1%	*(72.3 - 73.8)*	893	72.2%	*(67.5 - 76.4)*	265	74.9%	*(69.2 - 79.9)*	452	72.1%	*(65.1 - 78.1)*	1,609	56.5%	*(52.9 - 60.1)*
Ever told they have high cholesterol, among those who have ever had it checked	(2011 & 2013)	32,321	32.2%	*(31.3 - 33.0)*	723	33.2%	*(28.3 - 38.4)*	186	40.5%	*(32.2 - 49.4)*	356	35.5%	*(28.6 - 42.9)*	962	33.8%	*(30.2 - 37.7)*
Ever told they have diabetes (excluding pregnancy)	(2011-2014)	76,032	7.6%	*(7.3 - 7.9)*	1,739	13.8%	*(11.8 - 16.1)*	526	6.8%	*(4.4 - 10.2)*	859	17.2%	*(14.1 - 20.8)*	3,302	12.7%	*(11.1 - 14.5)*
Ever told they have cancer (in any form)	(2011-2014)	75,817	10.7%	*(10.4 - 11.0)*	1,740	5.9%	*(4.6 - 7.5)*	526	5.6%	*(3.1 - 9.9)*	858	7.7%	*(5.6 - 10.4)*	3,295	5.4%	*(4.3 - 6.8)*
Up-to-date on colon cancer screening, 50-75 year olds^	(2012-2014)	25,931	64.1%	*(63.2 - 64.9)*	423	62.5%	*(55.9 - 68.7)*	85	58.1%	*(43.7 - 71.2)*	242	59.1%	*(48.4 - 69.1)*	549	33.6%	*(28.6 - 39.0)*
Up-to-date on breast cancer screening, female 50-74 year olds^	(2012 & 2014)	10,385	75.7%	*(74.6 - 76.9)*	220	80.2%	*(71.7 - 86.6)*	27	-*	-* - -*	119	66.2%	*(52.8 - 77.4)*	212	70.7%	*(62.2 - 78.0)*
Up-to-date on cervical cancer screening, female 21-65 year olds^	(2012 & 2014)	9,605	83.1%	*(82.0 - 84.2)*	250	84.2%	*(76.9 - 89.5)*	77	68.7%	*(54.4 - 80.1)*	150	79.0%	*(67.7 - 87.1)*	588	83.5%	*(79.1 - 87.2)*
Ever told they have arthritis	(2011-2014)	75,730	23.1%	*(22.7 - 23.5)*	1,735	25.7%	*(23.3 - 28.4)*	521	18.3%	*(14.2 - 23.3)*	856	28.4%	*(24.0 - 33.3)*	3,285	17.2%	*(15.5 - 19.1)*
Currently have activity limitations due to arthritis, among those ever told they have arthritis	(2011 & 2013)	12,404	39.6%	*(36.9 - 42.3)*	279	35.9%	*(27.0 - 45.9)*	38	-*	-* - -*	148	60.0%	*(45.6 - 72.9)*	257	43.7%	*(34.9 - 52.9)*
Ever told they have asthma	(2011-2014)	75,857	11.6%	*(11.2 - 12.0)*	1,736	16.4%	*(14.1 - 18.9)*	525	6.2%	*(4.3 - 8.8)*	860	16.6%	*(12.9 - 21.1)*	3,297	8.9%	*(7.7 - 10.4)*
Currently have asthma	(2011-2014)	75,658	7.4%	*(7.1 - 7.8)*	1,729	12.4%	*(10.4 - 14.7)*	523	3.6%	*(2.2 - 5.9)*	857	13.7%	*(10.3 - 18.0)*	3,284	5.0%	*(4.1 - 6.1)*
Ever told they have COPD	(2011-2014)	75,728	5.0%	*(4.8 - 5.2)*	1,739	5.9%	*(4.6 - 7.5)*	517	1.6%	*(0.6 - 4.4)*	857	9.7%	*(6.9 - 13.5)*	3,288	3.2%	*(2.5 - 4.1)*
Ever told they have kidney disease	(2011-2014)	75,921	2.0%	*(1.9 - 2.1)*	1,734	3.7%	*(2.7 - 5.1)*	526	0.6%	*(0.2 - 1.8)*	860	2.7%	*(1.5 - 4.6)*	3,287	2.5%	*(1.8 - 3.4)*
Current cigarette smoking	(2011-2014)	74,897	19.4%	*(18.9 - 20.0)*	1,701	24.5%	*(21.7 - 27.6)*	515	10.4%	*(7.2 - 14.6)*	848	40.5%	*(35.1 - 46.3)*	3,224	15.0%	*(13.3 - 16.8)*
Current smokeless tobacco use	(2011-2014)	75,112	5.9%	*(5.6 - 6.2)*	1,709	2.9%	*(1.9 - 4.4)*	517	3.9%	*(1.9 - 7.7)*	851	2.8%	*(1.6 - 4.6)*	3,235	2.6%	*(1.9 - 3.4)*
Obese (BMI=30+)	(2011-2014)	72,928	28.7%	*(28.1 - 29.2)*	1,649	35.9%	*(32.8 - 39.2)*	489	13.8%	*(10.1 - 18.6)*	827	42.1%	*(36.4 - 48.0)*	2,778	32.8%	*(30.4 - 35.3)*
Overweight or Obese (BMI=25+)	(2011-2014)	72,928	64.8%	*(64.2 - 65.4)*	1,649	69.8%	*(66.4 - 72.9)*	489	44.7%	*(38.8 - 50.9)*	827	76.6%	*(71.0 - 81.4)*	2,778	72.7%	*(70.4 - 74.9)*
Consumed sugar-sweetened beverages 1 or more times per day in past 30 days	(2013)	7,192	28.6%	*(26.7 - 30.5)*	103	34.7%	*(24.1 - 47.1)*	42	-*	-* - -*	82	35.8%	*(25.1 - 48.2)*	268	46.9%	*(38.5 - 55.4)*
Currently watching or reducing sodium or salt intake	(2013)	7,190	42.6%	*(40.8 - 44.5)*	104	60.1%	*(47.2 - 71.7)*	41	-*	-* - -*	82	64.8%	*(49.7 - 77.4)*	268	57.7%	*(50.5 - 64.7)*
Median times per day consumed fruits^	(2011 & 2013)	36,219	1.00	*(1.00 - 1.00)*	835	1.10	*(0.98 - 1.26)*	253	1.28	*(0.92 - 1.43)*	424	0.91	*(0.57 - 0.99)*	1,545	1.10	*(1.02 - 1.24)*
Consumed fruits less than 1 time per day	(2011 & 2013)	36,219	40.7%	*(39.8 - 41.6)*	835	43.4%	*(38.3 - 48.7)*	253	31.9%	*(25.4 - 39.0)*	424	50.4%	*(42.7 - 58.2)*	1,545	35.4%	*(32.0 - 39.0)*
Median times per day consumed vegetables^	(2011 & 2013)	35,737	1.52	*(1.51 - 1.55)*	823	1.29	*(1.18 - 1.43)*	245	1.74	*(1.59 - 2.16)*	424	1.39	*(1.16 - 1.86)*	1,514	1.57	*(1.50 - 1.72)*
Consumed vegetables less than 1 time per day	(2011 & 2013)	35,737	24.4%	*(23.7 - 25.2)*	823	37.6%	*(32.7 - 42.7)*	245	20.6%	*(14.7 - 28.0)*	424	32.4%	*(25.4 - 40.3)*	1,514	24.6%	*(21.7 - 27.9)*
Met aerobic physical activity recommendation	(2011 & 2013)	35,725	50.4%	*(49.6 - 51.3)*	829	42.7%	*(37.8 - 47.7)*	247	49.9%	*(42.0 - 57.8)*	417	47.5%	*(40.0 - 55.1)*	1,515	39.8%	*(36.3 - 43.5)*
Met muscle strengthening recommendation	(2011 & 2013)	36,378	29.2%	*(28.3 - 30.0)*	841	28.5%	*(23.9 - 33.6)*	255	29.5%	*(22.5 - 37.6)*	427	29.9%	*(23.3 - 37.6)*	1,538	23.1%	*(20.5 - 26.1)*
Met both aerobic physical activity and muscle strengthening recommendations	(2011 & 2013)	35,494	19.6%	*(18.9 - 20.3)*	821	18.9%	*(15.0 - 23.6)*	246	16.8%	*(11.9 - 23.1)*	411	20.0%	*(14.4 - 27.2)*	1,502	14.0%	*(11.8 - 16.6)*
Always wear a seatbelt when driving or riding in a car	(2011-2014)	73,202	70.7%	*(70.2 - 71.3)*	1,619	74.9%	*(71.8 - 77.7)*	495	81.7%	*(77.0 - 85.6)*	812	76.3%	*(71.5 - 80.5)*	3,090	78.9%	*(76.9 - 80.8)*
Texted while driving in past 30 days	(2012)	10,270	31.1%	*(29.9 - 32.5)*	312	23.2%	*(18.1 - 29.2)*	59	12.2%	*(6.7 - 21.1)*	163	13.5%	*(7.5 - 23.1)*	452	14.2%	*(10.9 - 18.3)*
Talked on a cell phone while driving in past 30 days	(2012)	10,248	73.5%	*(72.4 - 74.6)*	313	57.8%	*(51.0 - 64.3)*	59	53.2%	*(37.2 - 68.5)*	162	57.8%	*(45.8 - 68.9)*	445	51.1%	*(45.6 - 56.6)*
Had a fall in past year, aged 45 years and older	(2012 & 2014)	27,497	20.9%	*(17.4 - 24.9)*	480	26.7%	*(21.3 - 32.8)*	86	18.1%	*(10.2 - 30.0)*	246	33.9%	*(25.6 - 43.4)*	626	19.0%	*(8.8 - 36.1)*
Injured due to a fall in past year, aged 45 years and older	(2012 & 2014)	27,464	6.3%	*(6.0 - 6.7)*	477	9.4%	*(6.2 - 14.1)*	86	8.3%	*(3.5 - 18.7)*	245	16.6%	*(10.4 - 25.4)*	625	3.8%	*(2.6 - 5.5)*
Ever told they have depression	(2011-2014)	75,873	18.0%	*(17.5 - 18.4)*	1,738	15.2%	*(13.0 - 17.5)*	523	8.1%	*(5.6 - 11.6)*	859	27.1%	*(22.4 - 32.5)*	3,292	14.3%	*(12.7 - 16.0)*
Binge drank in past 30 days	(2011-2014)	73,127	23.8%	*(23.3 - 24.4)*	1,622	15.8%	*(13.5 - 18.5)*	495	9.3%	*(6.8 - 12.5)*	812	20.2%	*(16.1 - 25.1)*	3,085	15.6%	*(13.8 - 17.6)*
Alcohol impaired driving in past 30 days	(2012 & 2014)	36,830	3.4%	*(3.1 - 3.8)*	784	1.5%	*(0.7 - 3.0)*	244	2.3%	*(0.8 - 6.0)*	385	1.1%	*(0.5 - 2.5)*	1,571	1.7%	*(1.0 - 3.0)*
Had a flu vaccination in past year, aged 18 years and older	(2011-2014)	73,204	42.8%	*(42.3 - 43.4)*	1,621	36.9%	*(33.6 - 40.4)*	491	44.3%	*(38.7 - 50.1)*	807	48.8%	*(43.5 - 54.2)*	3,101	37.1%	*(34.8 - 39.5)*
Had a flu vaccination in past year, aged 65 years and older^	(2011-2014)	26,658	64.3%	*(63.4 - 65.1)*	387	56.7%	*(48.8 - 64.2)*	63	72.3%	*(53.3 - 85.6)*	161	75.1%	*(65.3 - 82.9)*	350	57.8%	*(50.2 - 65.0)*
Ever had a pneumonia vaccination, aged 65 years and older^	(2011-2014)	25,900	71.7%	*(70.9 - 72.4)*	374	68.1%	*(60.3 - 75.0)*	59	77.7%	*(61.8 - 88.2)*	158	75.8%	*(63.7 - 84.8)*	332	47.1%	*(39.7 - 54.7)*
Had a tetanus vaccination since 2005	(2013)	13,424	61.5%	*(60.2 - 62.9)*	215	63.2%	*(55.2 - 70.5)*	84	62.3%	*(49.1 - 73.9)*	147	67.2%	*(55.4 - 77.1)*	508	52.7%	*(46.5 - 58.9)*
Ever had the shingles vaccination, aged 60 years and older^	(2014)	9,436	42.7%	*(41.2 - 44.1)*	133	17.1%	*(9.6 - 28.7)*	25	-*	-* - -*	59	27.9%	*(13.8 - 48.4)*	135	14.6%	*(8.2 - 24.6)*
Ever been tested for HIV, 18-64 year olds (excluding blood donation)	(2011-2014)	45,114	30.5%	*(29.9 - 31.2)*	1,194	57.3%	*(53.5 - 61.0)*	409	29.8%	*(24.0 - 36.2)*	627	51.4%	*(44.9 - 57.7)*	2,676	34.9%	*(32.5 - 37.4)*
Visited a dentist or dental clinic for any reason in past year	(2012 & 2014)	37,496	69.6%	*(68.8 - 70.3)*	814	54.2%	*(49.7 - 58.7)*	244	71.8%	*(64.8 - 77.9)*	392	56.2%	*(48.0 - 64.1)*	1,636	50.0%	*(46.6 - 53.3)*
Had any permanent teeth extracted due to tooth decay or gum disease, 45-64 year olds^	(2012 & 2014)	14,126	45.5%	*(44.3 - 46.7)*	299	59.1%	*(51.1 - 66.5)*	53	46.9%	*(30.1 - 64.5)*	166	72.3%	*(58.8 - 82.8)*	452	53.4%	*(46.9 - 59.7)*
Had all permanent teeth extracted due to tooth decay or gum disease, aged 65 years and olde	(2012 & 2014)	13,472	13.5%	*(12.7 - 14.3)*	190	20.2%	*(12.9 - 30.0)*	32	-*	-* - -*	78	38.8%	*(23.2 - 57.1)*	184	11.4%	*(6.8 - 18.3)*
Housing insecurity in past year, among those who own or rent their home	(2012-2013)	12,426	26.1%	*(24.9 - 27.5)*	162	47.3%	*(38.7 - 56.0)*	82	27.3%	*(18.2 - 38.6)*	94	30.8%	*(20.0 - 44.2)*	439	43.1%	*(36.9 - 49.5)*
Food insecurity in past year	(2012-2013)	13,373	17.0%	*(15.9 - 18.2)*	173	29.9%	*(22.4 - 38.6)*	87	13.8%	*(7.6 - 24.0)*	102	24.1%	*(14.9 - 36.5)*	483	36.1%	*(30.5 - 42.2)*
Get less than 7 hours of sleep per day	(2013-2014)	35,687	30.4%	*(29.6 - 31.3)*	639	45.0%	*(39.8 - 50.3)*	238	46.0%	*(37.8 - 54.4)*	376	41.0%	*(34.0 - 48.3)*	1,503	32.3%	*(29.0 - 35.9)*
Work-related injury or illness in past year, among employed or recently out of work	(2013-2014)	10,850	4.4%	*(3.7 - 5.1)*	192	8.0%	*(4.3 - 14.6)*	69	3.6%	*(1.1 - 11.0)*	109	13.4%	*(6.7 - 24.8)*	489	5.0%	*(2.9 - 8.3)*

^ Data are not age-adjusted

[a] The years, between 2011 and 2014, for which the BRFSS indicator is available

[b] Non-weighted sample size among adults 18 and older (unless different age group noted)

[c] Weighted mean, median, or percentage (percentages are followed by the % symbol) among adults 18 and older (unless different age group noted)

[d] Low and High are the lower and upper limits of the 95% confidence interval, respectively

* Data suppressed due to a small number of respondents (i.e., fewer than 50)

Source: Behavioral Risk Factor Surveillance System

Table 8: Birth Outcomes by Race/Ethnicity, 2010-2014 Combined

Causes of Death (ICD-10 Code)	White			African American			Asian			American Indian			Hispanic[d]		
	N[a]	Rate[b]	95% C.I.[c] (Low - High)	N[a]	Rate[b]	95% C.I.[c] (Low - High)	N[a]	Rate[b]	95% C.I.[c] (Low - High)	N[a]	Rate[b]	95% C.I.[c] (Low - High)	N[a]	Rate[b]	95% C.I.[c] (Low - High)
Overall Birth Rate	102,016	12.2	*(12.2 - 12.3)*	9,013	20.3	*(19.9 - 20.7)*	3,907	20.2	*(19.6 - 20.9)*	2,195	18.1	*(17.3 - 18.8)*	19,449	21.6	*(21.3 - 21.9)*
Teen Birth Rate (15-19 year olds)	5,087	9.1	*(8.9 - 9.4)*	1,041	26.5	*(24.9 - 28.1)*	132	8.9	*(7.4 - 10.4)*	350	31.7	*(28.4 - 35.0)*	2,465	29.6	*(28.5 - 30.8)*
Teen Birth Rate (15-17 year olds)	1,234	3.7	*(3.5 - 3.9)*	279	11.8	*(10.4 - 13.2)*	23	2.6	*(1.5 - 3.6)*	114	17.1	*(14.0 - 20.2)*	835	16.7	*(15.6 - 17.9)*
First Trimester Prenatal Care[e]	100,572	77.6%	*(77.1 - 78.1)*	8,731	60.2%	*(58.9 - 61.5)*	3,774	67.0%	*(64.9 - 69.1)*	2,167	55.3%	*(53.0 - 57.7)*	18,897	60.8%	*(59.9 - 61.7)*
Induction of Labor (women less than 35 years old)	89,766	31.7%	*(31.5 - 31.9)*	8,151	25.8%	*(25.2 - 26.3)*	3,236	20.4%	*(19.7 - 21.1)*	2,041	24.7%	*(23.6 - 25.8)*	17,084	21.4%	*(21.1 - 21.7)*
Ceasarean Delivery (women 35 and older)	12,249	42.0%	*(41.2 - 42.7)*	861	42.4%	*(39.6 - 45.2)*	671	42.0%	*(38.8 - 45.2)*	154	39.0%	*(32.8 - 45.1)*	2,363	38.5%	*(37.0 - 40.1)*
Preterm Births[f]	102,015	9.0%	*(9.0 - 9.1)*	9,013	12.8%	*(12.6 - 13.1)*	3,907	8.4%	*(8.2 - 8.7)*	2,195	8.8%	*(8.4 - 9.2)*	19,449	8.8%	*(8.7 - 9.0)*
Low Birth Weight Births[g]	102,014	6.3%	*(6.2 - 6.3)*	9,013	12.3%	*(12.0 - 12.5)*	3,907	7.5%	*(7.3 - 7.8)*	2,195	6.3%	*(6.1 - 6.6)*	19,449	6.4%	*(6.3 - 6.5)*
Infant Mortality Rate[h]	534	5.2	*(4.8 - 5.7)*	89	9.9	*(7.8 - 11.9)*	8	-*	*-* - -**	16	7.3	*(3.7 - 10.9)*	106	5.5	*(4.4 - 6.5)*
Fetal Mortality Rate[i]	509	5.0	*(4.5 - 5.4)*	90	9.9	*(7.8 - 11.9)*	63	15.9	*(12.0 - 19.8)*	28	12.6	*(7.9 - 17.3)*	101	5.2	*(4.2 - 6.2)*

[a] Number of total births overall and for teens; number of births for which prenatal care, induction of labor, ceasarean deliveries, and preterm and low birth weight birth informatio was known; and infant and fetal deaths

[b] Birth rate; percentage, or death rate

[c] Low and High are the lower and upper limits of the 95% confidence interval, respectively

[d] Persons of Hispanic Origin may be any race.

[e] Percentage of infants born to a woman receiving prenatal care beginning in the first trimester

[f] Percentage of infants born to women before 37 weeks gestation, based on O.E. gestational age

[g] Percentage of live births weighing less than 2,500 grams (5.5 pounds)

[h] Number of deaths to infants (less than 12 months old) per 1,000 live births

[i] A fetal death is a death that occurs during pregnancy, at or after 20 weeks gestation (i.e., stillbirth)

* Data suppressed due to a small number of deaths (i.e., fewer than 10)

Source: Nebraska Vital Records

Table 9: Mortality Results (age-adjusted) by Urban/Rural for Select Causes of Death, 2010-2014 Combined

Causes of Death (ICD-10 Code)	Urban-Large			Urban-Small			Rural		
	N[a]	Rate[b]	95% C.I.[c] (Low - High)	N[a]	Rate[b]	95% C.I.[c] (Low - High)	N[a]	Rate[b]	95% C.I.[c] (Low - High)
Heart disease (I00-I09, I11, I13, I20-I51)	7,252	142.2	*(138.9 - 145.5)*	4,300	152.2	*(147.7 - 156.7)*	5,032	153.1	*(148.9 - 157.3)*
Stroke (I60-I69)	1,882	37.6	*(35.9 - 39.3)*	949	33.6	*(31.5 - 35.7)*	1,252	37.7	*(35.6 - 39.8)*
High Blood Pressure (I10, I12)	517	10.1	*(9.2 - 11.0)*	263	9.1	*(8.0 - 10.2)*	304	8.8	*(7.8 - 9.8)*
Diabetes (E10-E14)	1,043	20.7	*(19.4 - 22.0)*	601	23.1	*(21.3 - 24.9)*	651	21.6	*(19.9 - 23.3)*
Cancer overall (C00-C97)	8,606	169.2	*(165.6 - 172.8)*	4,147	162.1	*(157.2 - 167.0)*	4,485	156.3	*(151.7 - 160.9)*
Lung Cancer (C34)	2,348	46.7	*(44.8 - 48.6)*	1,054	41.4	*(38.9 - 43.9)*	1,094	38.8	*(36.5 - 41.1)*
Colorectal Cancer (C18-C21, C260)	779	15.3	*(14.2 - 16.4)*	468	18.3	*(16.6 - 20.0)*	493	16.8	*(15.3 - 18.3)*
Female Breast Cancer (C50)	593	20.6	*(18.9 - 22.3)*	287	20.8	*(18.4 - 23.2)*	289	19.2	*(17.0 - 21.4)*
Cervical Cancer (C53)	63	2.3	*(1.7 - 2.9)*	32	2.9	*(1.9 - 3.9)*	17	1.4	*(0.7 - 2.1)*
Prostate Cancer (C61)	435	22.3	*(20.2 - 24.4)*	200	18.0	*(15.5 - 20.5)*	281	21.1	*(18.6 - 23.6)*
Melanoma Cancer (C43)	148	2.9	*(2.4 - 3.4)*	73	3.0	*(2.3 - 3.7)*	80	2.9	*(2.3 - 3.5)*
Asthma (J45-J46)	77	1.5	*(1.2 - 1.8)*	27	1.0	*(0.6 - 1.4)*	35	1.2	*(0.8 - 1.6)*
COPD (J40-J44)	2,360	48.0	*(46.1 - 49.9)*	1,367	51.1	*(48.4 - 53.8)*	1,397	45.3	*(42.9 - 47.7)*
Kidney Disease (N00-N07, N17-N19, N25-N27)	557	11.2	*(10.3 - 12.1)*	299	10.7	*(9.5 - 11.9)*	354	10.6	*(9.5 - 11.7)*
Alzheimer's Disease (G30)	1,230	24.8	*(23.4 - 26.2)*	801	26.7	*(24.9 - 28.5)*	772	21.1	*(19.6 - 22.6)*
Unintentional injury overall (V01-X59, Y85-Y86)	1,620	31.0	*(29.5 - 32.5)*	935	40.5	*(37.9 - 43.1)*	1,082	47.3	*(44.5 - 50.1)*
Motor Vehicle Crash***	413	7.7	*(7.0 - 8.4)*	332	16.1	*(14.4 - 17.8)*	388	20.6	*(18.6 - 22.6)*
Falls (W00-W19)	447	8.8	*(8.0 - 9.6)*	243	8.7	*(7.6 - 9.8)*	301	9.3	*(8.2 - 10.4)*
Homicide (X85-Y09,Y87.1)	258	4.7	*(4.1 - 5.3)*	32	1.6	*(1.0 - 2.2)*	34	2.1	*(1.4 - 2.8)*
Suicide (X60-X84, Y87.0)	554	10.3	*(9.4 - 11.2)*	269	12.9	*(11.4 - 14.4)*	249	13.7	*(12.0 - 15.4)*
Drug induced (F11-F16, F18-F19, X40-X44, X85, Y10-Y14)	379	7.2	*(6.5 - 7.9)*	94	4.8	*(3.8 - 5.8)*	83	5.3	*(4.2 - 6.4)*
Cirrhosis of the Liver (K70, K73-K74)	420	7.8	*(7.1 - 8.5)*	189	7.9	*(6.8 - 9.0)*	198	8.6	*(7.4 - 9.8)*
Influenza (J10-J11)	42	0.8	*(0.6 - 1.0)*	28	0.9	*(0.6 - 1.2)*	36	1.1	*(0.7 - 1.5)*
Pneumonia (J12-J18)	609	11.8	*(10.9 - 12.7)*	371	12.7	*(11.4 - 14.0)*	478	13.9	*(12.7 - 15.1)*

[a] Number of deaths

[b] Death rate, age-adjusted to the 2000 U.S. standard population, per 100,000 population (unless otherwise noted)

[c] Low and High are the lower and upper limits of the 95% confidence interval, respectively

^ Includes codes V02-V04, V090, V092, V12-V14, V190-V192, V194-V196, V20-V79, V803-V805, V810-V811, V820-V821, V83-V86, V870-V878, V880-V888, V890, V892

Source: Nebraska Vital Records

Table 10: Behavioral Risk Factors among Nebraska Adults 18 and Older (Age-Adjusted unless noted) by Urban/Rural, 2011-2014 Combined

		Urban-Large			Urban-Small			Rural		
Measure	Years [a]	n [b]	mean or % [c]	95% C.I. [d] (Low - High)	n [b]	mean or % [c]	95% C.I. [d] (Low - High)	n [b]	mean or % [c]	95% C.I. [d] (Low - High)
General health fair or poor	(2011-2014)	27,403	12.5%	(12.0 - 13.1)	24,704	16.4%	(15.7 - 17.1)	31,848	13.3%	(12.8 - 13.9)
Average number of days physical health was not good in past 30 days	(2011-2014)	27,065	3.0	(2.9 - 3.1)	24,256	3.3	(3.1 - 3.4)	31,231	2.9	(2.8 - 3.0)
Physical health was not good on 14 or more of the past 30 days	(2011-2014)	27,065	8.7%	(8.3 - 9.2)	24,256	10.2%	(9.6 - 10.7)	31,231	8.9%	(8.4 - 9.3)
Average number of days mental health was not good in past 30 days	(2011-2014)	27,141	3.1	(2.9 - 3.2)	24,387	3.0	(2.9 - 3.2)	31,464	2.7	(2.6 - 2.8)
Mental health was not good on 14 or more of the past 30 days (i.e., frequent mental distress)	(2011-2014)	27,141	9.0%	(8.5 - 9.5)	24,387	9.3%	(8.8 - 9.9)	31,464	7.9%	(7.4 - 8.4)
Average days poor physical or mental health limited usual activities in past 30 days	(2011-2014)	27,281	1.9	(1.8 - 1.9)	24,525	1.9	(1.8 - 2.0)	31,613	1.7	(1.6 - 1.8)
Poor physical or mental health limited usual activities on 14 or more of the past 30 days	(2011-2014)	27,281	5.8%	(5.4 - 6.2)	24,525	6.1%	(5.7 - 6.6)	31,613	5.4%	(5.1 - 5.8)
No health care coverage, 18-64 year olds	(2011-2014)	19,772	16.8%	(16.1 - 17.6)	15,294	20.9%	(19.8 - 22.0)	19,120	17.7%	(16.9 - 18.6)
No personal doctor or health care provider	(2011-2014)	27,381	19.8%	(19.1 - 20.5)	24,711	21.3%	(20.4 - 22.2)	31,827	18.6%	(17.8 - 19.4)
Needed to see a doctor but could not due to cost in past year	(2011-2014)	27,404	12.7%	(12.1 - 13.3)	24,713	14.9%	(14.2 - 15.7)	31,839	11.7%	(11.1 - 12.4)
Had a routine checkup in past year	(2011-2014)	27,106	61.9%	(61.1 - 62.7)	24,378	56.9%	(56.0 - 57.9)	31,437	56.8%	(55.9 - 57.7)
Ever told they had a heart attack or coronary heart disease	(2011-2014)	27,137	5.1%	(4.8 - 5.4)	24,404	5.8%	(5.5 - 6.2)	31,378	5.7%	(5.5 - 6.0)
Ever told they had a stroke	(2011-2014)	27,369	2.3%	(2.1 - 2.5)	24,717	2.6%	(2.4 - 2.9)	31,826	2.4%	(2.2 - 2.6)
Had blood pressure checked in past year	(2013)	2,117	84.4%	(82.0 - 86.5)	2,367	81.7%	(79.1 - 84.0)	3,320	84.2%	(81.9 - 86.2)
Ever told they have high blood pressure (excluding pregnancy)	(2011 & 2013)	13,911	27.6%	(26.7 - 28.6)	12,524	29.5%	(28.5 - 30.5)	16,006	28.1%	(27.2 - 29.0)
Had cholesterol checked in past 5 years	(2011 & 2013)	13,498	74.1%	(73.0 - 75.1)	12,183	68.5%	(67.2 - 69.7)	15,574	68.2%	(67.0 - 69.3)
Ever told they have high cholesterol, among those who have ever had it checked	(2011 & 2013)	11,375	32.5%	(31.3 - 33.7)	10,409	32.5%	(31.2 - 33.8)	13,412	31.4%	(30.2 - 32.6)
Ever told they have diabetes (excluding pregnancy)	(2011-2014)	27,424	8.3%	(7.9 - 8.7)	24,738	8.2%	(7.8 - 8.6)	31,885	7.7%	(7.3 - 8.0)
Ever told they have cancer (in any form)	(2011-2014)	27,355	10.1%	(9.7 - 10.5)	24,683	10.6%	(10.2 - 11.0)	31,777	10.2%	(9.8 - 10.6)
Up-to-date on colon cancer screening, 50-75 year olds^	(2012-2014)	7,779	67.0%	(65.5 - 68.4)	8,462	59.4%	(57.9 - 60.8)	11,406	56.1%	(54.9 - 57.3)
Up-to-date on breast cancer screening, female 50-74 year olds^	(2012 & 2014)	3,284	79.0%	(77.1 - 80.7)	3,394	72.2%	(70.2 - 74.1)	4,426	70.7%	(69.0 - 72.4)
Up-to-date on cervical cancer screening, female 21-65 year olds^	(2012 & 2014)	3,945	84.4%	(82.8 - 85.9)	3,015	81.3%	(79.4 - 83.1)	3,874	78.9%	(77.1 - 80.6)
Ever told they have arthritis	(2011-2014)	27,300	22.2%	(21.7 - 22.8)	24,665	23.8%	(23.1 - 24.4)	31,733	23.8%	(23.2 - 24.4)
Currently have activity limitations due to arthritis, among those ever told they have arthritis	(2011 & 2013)	3,696	40.3%	(36.5 - 44.2)	4,192	42.7%	(38.8 - 46.7)	5,545	38.9%	(34.8 - 43.1)
Ever told they have asthma	(2011-2014)	27,361	11.9%	(11.4 - 12.4)	24,689	11.1%	(10.5 - 11.7)	31,805	10.5%	(10.0 - 11.1)
Currently have asthma	(2011-2014)	27,282	7.5%	(7.1 - 8.0)	24,614	7.4%	(6.9 - 7.9)	31,727	7.2%	(6.7 - 7.6)
Ever told they have COPD	(2011-2014)	27,339	5.0%	(4.7 - 5.3)	24,644	5.7%	(5.3 - 6.1)	31,720	4.7%	(4.4 - 5.1)
Ever told they have kidney disease	(2011-2014)	27,397	2.0%	(1.8 - 2.2)	24,694	2.6%	(2.4 - 2.9)	31,818	1.8%	(1.7 - 2.0)
Current cigarette smoking	(2011-2014)	27,031	19.0%	(18.4 - 19.7)	24,302	20.5%	(19.7 - 21.4)	31,392	18.8%	(18.1 - 19.6)
Current smokeless tobacco use	(2011-2014)	27,112	3.8%	(3.5 - 4.2)	24,368	6.9%	(6.4 - 7.5)	31,496	8.4%	(7.9 - 9.0)
Obese (BMI=30+)	(2011-2014)	26,126	27.5%	(26.8 - 28.3)	23,479	32.5%	(31.6 - 33.4)	30,526	31.6%	(30.7 - 32.4)
Overweight or Obese (BMI=25+)	(2011-2014)	26,126	63.7%	(62.9 - 64.5)	23,479	68.2%	(67.3 - 69.1)	30,526	68.1%	(67.3 - 69.0)
Consumed sugar-sweetened beverages 1 or more times per day in past 30 days	(2013)	2,128	27.9%	(25.3 - 30.7)	2,370	33.8%	(30.9 - 36.9)	3,324	32.0%	(29.5 - 34.6)
Currently watching or reducing sodium or salt intake	(2013)	2,121	45.0%	(42.3 - 47.7)	2,372	46.4%	(43.7 - 49.2)	3,325	41.9%	(39.5 - 44.3)
Median times per day consumed fruits^	(2011 & 2013)	13,185	1.02	(1.02 - 1.08)	11,752	1.00	(1.00 - 1.00)	15,102	1.00	(1.00 - 1.00)
Consumed fruits less than 1 time per day	(2011 & 2013)	13,185	38.5%	(37.3 - 39.7)	11,752	42.2%	(40.8 - 43.5)	15,102	43.5%	(42.2 - 44.7)
Median times per day consumed vegetables^	(2011 & 2013)	13,021	1.56	(1.53 - 1.57)	11,619	1.46	(1.44 - 1.52)	14,845	1.49	(1.47 - 1.52)
Consumed vegetables less than 1 time per day	(2011 & 2013)	13,021	24.3%	(23.2 - 25.4)	11,619	26.1%	(24.9 - 27.3)	14,845	25.2%	(24.1 - 26.4)
Met aerobic physical activity recommendation	(2011 & 2013)	12,956	50.5%	(49.3 - 51.7)	11,639	47.5%	(46.1 - 48.8)	14,870	48.8%	(47.5 - 50.0)
Met muscle strengthening recommendation	(2011 & 2013)	13,181	31.4%	(30.3 - 32.6)	11,860	25.5%	(24.3 - 26.7)	15,184	23.8%	(22.8 - 25.0)
Met both aerobic physical activity and muscle strengthening recommendations	(2011 & 2013)	12,884	20.9%	(19.9 - 21.9)	11,561	17.0%	(16.0 - 18.0)	14,757	16.2%	(15.3 - 17.2)
Always wear a seatbelt when driving or riding in a car	(2011-2014)	26,357	80.0%	(79.3 - 80.7)	23,693	64.6%	(63.6 - 65.5)	30,661	55.3%	(54.4 - 56.2)
Texted while driving in past 30 days	(2012)	4,575	28.5%	(26.9 - 30.1)	2,804	27.7%	(25.3 - 30.2)	4,072	28.1%	(25.8 - 30.6)
Talked on a cell phone while driving in past 30 days	(2012)	4,563	70.1%	(68.5 - 71.5)	2,794	70.3%	(67.9 - 72.6)	4,067	72.1%	(70.1 - 74.1)
Had a fall in past year, aged 45 years and older	(2012 & 2014)	8,525	26.3%	(14.5 - 43.0)	8,943	35.9%	(35.3 - 36.6)	11,941	29.9%	(28.8 - 31.0)
Injured due to a fall in past year, aged 45 years and older	(2012 & 2014)	8,510	4.8%	(4.4 - 5.2)	8,932	26.4%	(25.9 - 26.9)	11,924	9.9%	(9.2 - 10.6)
Ever told they have depression	(2011-2014)	27,365	18.0%	(17.4 - 18.7)	24,689	17.5%	(16.8 - 18.2)	31,805	15.8%	(15.2 - 16.5)
Binge drank in past 30 days	(2011-2014)	26,286	22.0%	(21.3 - 22.7)	23,678	21.2%	(20.3 - 22.0)	30,669	23.5%	(22.7 - 24.3)
Alcohol impaired driving in past 30 days	(2012 & 2014)	13,186	2.9%	(2.6 - 3.3)	11,854	3.0%	(2.5 - 3.5)	15,482	3.6%	(3.1 - 4.2)
Had a flu vaccination in past year, aged 18 years and older	(2011-2014)	26,333	44.5%	(43.7 - 45.3)	23,699	40.3%	(39.4 - 41.2)	30,687	37.8%	(37.0 - 38.6)
Had a flu vaccination in past year, aged 65 years and older^	(2011-2014)	7,125	66.0%	(64.5 - 67.5)	8,902	63.7%	(62.4 - 65.0)	12,045	60.7%	(59.6 - 61.8)
Ever had a pneumonia vaccination, aged 65 years and older^	(2011-2014)	6,895	73.7%	(72.3 - 75.1)	8,644	69.4%	(68.1 - 70.7)	11,721	68.1%	(67.0 - 69.2)
Had a tetanus vaccination since 2005	(2013)	4,027	62.5%	(60.5 - 64.5)	4,475	56.0%	(53.8 - 58.2)	6,148	60.2%	(58.3 - 62.0)
Ever had the shingles vaccination, aged 60 years and older^	(2014)	2,586	42.5%	(40.1 - 44.9)	3,169	41.5%	(39.4 - 43.7)	4,187	37.4%	(35.7 - 39.1)
Ever been tested for HIV, 18-64 year olds (excluding blood donation)	(2011-2014)	18,545	36.1%	(35.2 - 37.0)	14,343	29.6%	(28.5 - 30.6)	18,075	24.1%	(23.1 - 25.0)
Visited a dentist or dental clinic for any reason in past year	(2012 & 2014)	13,443	70.1%	(69.0 - 71.2)	12,111	62.3%	(60.9 - 63.6)	15,756	62.5%	(61.2 - 63.7)
Had any permanent teeth extracted due to tooth decay or gum disease, 45-64 year olds^	(2012 & 2014)	4,790	42.8%	(41.1 - 44.6)	4,522	52.1%	(50.2 - 54.0)	6,026	51.8%	(50.2 - 53.4)
Had all permanent teeth extracted due to tooth decay or gum disease, aged 65 years and olde	(2012 & 2014)	3,707	10.7%	(9.5 - 12.1)	4,476	15.7%	(14.4 - 17.1)	5,976	17.3%	(16.1 - 18.6)
Housing insecurity in past year, among those who own or rent their home	(2012-2013)	3,801	28.2%	(26.4 - 30.1)	4,256	30.8%	(28.5 - 33.3)	5,356	26.1%	(24.0 - 28.2)
Food insecurity in past year	(2012-2013)	4,045	19.4%	(17.8 - 21.0)	4,559	20.6%	(18.6 - 22.7)	5,845	16.5%	(14.8 - 18.4)
Get less than 7 hours of sleep per day	(2013-2014)	11,219	32.0%	(30.8 - 33.2)	11,969	31.0%	(29.8 - 32.3)	15,956	30.3%	(29.2 - 31.4)
Work-related injury or illness in past year, among employed or recently out of work	(2013-2014)	3,461	3.9%	(3.0 - 5.0)	3,593	4.8%	(3.9 - 5.9)	4,864	5.9%	(5.0 - 6.9)

^ Data are not age-adjusted

[a] The years, between 2011 and 2014, for which the BRFSS indicator is available

[b] Non-weighted sample size among adults 18 and older (unless different age group noted)

[c] Weighted mean, median, or percentage (percentages are followed by the % symbol) among adults 18 and older (unless different age group noted)

[d] Low and High are the lower and upper limits of the 95% confidence interval, respectively

Source: Behavioral Risk Factor Surveillance System

Table 11: Birth Outcomes by Urban/Rural, 2010-2014 Combined

Causes of Death (ICD-10 Code)	Urban-Large			Urban-Small			Rural		
	N[a]	Rate[b]	95% C.I.[c] (Low - High)	N[a]	Rate[b]	95% C.I.[c] (Low - High)	N[a]	Rate[b]	95% C.I.[c] (Low - High)
Overall Birth Rate	79,964	14.9	*(14.8 - 15.0)*	28,939	14.0	*(13.9 - 14.2)*	21,562	11.7	*(11.5 - 11.8)*
Teen Birth Rate (15-19 year olds)	4,316	11.6	*(11.3 - 12.0)*	2,509	17.4	*(16.7 - 18.0)*	1,475	11.6	*(11.0 - 12.2)*
Teen Birth Rate (15-17 year olds)	1,138	5.1	*(4.8 - 5.4)*	702	8.1	*(7.5 - 8.7)*	379	5.0	*(4.5 - 5.5)*
First Trimester Prenatal Care[e]	78,045	75.6%	*(75.1 - 76.1)*	28,829	70.5%	*(69.7 - 71.3)*	21,415	71.9%	*(71.0 - 72.9)*
Induction of Labor (women less than 35 years old)	69,230	29.5%	*(29.2 - 29.7)*	26,069	29.3%	*(28.9 - 29.7)*	19,469	30.6%	*(30.2 - 31.0)*
Ceasarean Delivery (women 35 and older)	10,732	41.0%	*(40.3 - 41.8)*	2,868	43.0%	*(41.4 - 44.5)*	2,091	42.8%	*(40.9 - 44.6)*
Preterm Births[f]	79,962	9.7%	*(9.7 - 9.8)*	28,939	8.6%	*(8.5 - 8.7)*	21,562	8.1%	*(8.0 - 8.3)*
Low Birth Weight Births[g]	79,961	7.0%	*(7.0 - 7.1)*	28,939	6.3%	*(6.3 - 6.4)*	21,562	6.1%	*(6.0 - 6.2)*
Infant Mortality Rate[h]	411	5.1	*(4.6 - 5.6)*	161	5.6	*(4.7 - 6.4)*	102	4.7	*(3.8 - 5.6)*
Fetal Mortality Rate[i]	424	5.3	*(4.8 - 5.8)*	156	5.4	*(4.5 - 6.2)*	113	5.2	*(4.3 - 6.2)*

[a] Number of total births overall and for teens; number of births for which prenatal care, induction of labor, ceasarean deliveries, and preterm and low birth weight birth informatio was known; and infant and fetal deaths

[b] Birth rate; percentage, or death rate

[c] Low and High are the lower and upper limits of the 95% confidence interval, respectively

[e] Percentage of infants born to a woman receiving prenatal care beginning in the first trimester

[f] Percentage of infants born to women before 37 weeks gestation, based on O.E. gestational age

[g] Percentage of live births weighing less than 2,500 grams (5.5 pounds)

[h] Number of deaths to infants (less than 12 months old) per 1,000 live births

[i] A fetal death is a death that occurs during pregnancy, at or after 20 weeks gestation (i.e., stillbirth)

Source: Nebraska Vital Records

Table 12: Behavioral Risk Factors among Nebraska Adults 18 and Older (Age-Adjusted unless noted) by Annual Household Income, 2011-2014 Combined

		<$25,000			$25,000-49,999			$50,000-74,999			$75,000+		
Measure	Years [a]	n [b]	mean or % [c]	95% C.I. [d] (Low - High)	n [b]	mean or % [c]	95% C.I. [d] (Low - High)	n [b]	mean or % [c]	95% C.I. [d] (Low - High)	n [b]	mean or % [c]	95% C.I. [d] (Low - High)
General health fair or poor	(2011-2014)	21,186	29.1%	(28.0 - 30.2)	22,769	13.3%	(12.6 - 14.0)	12,650	7.7%	(7.0 - 8.5)	17,671	4.5%	(4.1 - 5.0)
Average number of days physical health was not good in past 30 days	(2011-2014)	20,600	5.5	(5.3 - 5.7)	22,487	3.0	(2.9 - 3.2)	12,571	2.4	(2.2 - 2.6)	17,600	1.7	(1.5 - 1.9)
Physical health was not good on 14 or more of the past 30 days	(2011-2014)	20,600	18.0%	(17.1 - 18.9)	22,487	8.9%	(8.3 - 9.5)	12,571	6.5%	(5.7 - 7.3)	17,600	4.2%	(3.5 - 4.9)
Average number of days mental health was not good in past 30 days	(2011-2014)	20,818	5.3	(5.1 - 5.6)	22,574	2.9	(2.8 - 3.1)	12,591	2.4	(2.2 - 2.5)	17,605	1.8	(1.7 - 2.0)
Mental health was not good on 14 or more of the past 30 days (i.e., frequent mental distress)	(2011-2014)	20,818	17.6%	(16.6 - 18.5)	22,574	8.6%	(8.0 - 9.3)	12,591	6.6%	(5.8 - 7.4)	17,605	4.5%	(3.9 - 5.3)
Average days poor physical or mental health limited usual activities in past 30 days	(2011-2014)	20,915	3.8	(3.6 - 4.0)	22,694	1.7	(1.6 - 1.8)	12,636	1.3	(1.1 - 1.4)	17,661	0.9	(0.8 - 1.0)
Poor physical or mental health limited usual activities on 14 or more of the past 30 days	(2011-2014)	20,915	13.0%	(12.3 - 13.8)	22,694	5.3%	(4.9 - 5.8)	12,636	3.8%	(3.2 - 4.4)	17,661	2.5%	(2.0 - 3.0)
No health care coverage, 18-64 year olds	(2011-2014)	11,120	41.7%	(40.3 - 43.2)	13,920	19.0%	(17.8 - 20.2)	9,785	6.5%	(5.6 - 7.4)	14,812	3.2%	(2.7 - 3.9)
No personal doctor or health care provider	(2011-2014)	21,195	28.7%	(27.6 - 29.9)	22,742	22.4%	(21.4 - 23.5)	12,637	14.7%	(13.6 - 15.8)	17,666	12.3%	(11.3 - 13.2)
Needed to see a doctor but could not due to cost in past year	(2011-2014)	21,184	29.4%	(28.3 - 30.6)	22,760	14.4%	(13.6 - 15.3)	12,651	6.9%	(6.1 - 7.7)	17,676	3.0%	(2.6 - 3.5)
Had a routine checkup in past year	(2011-2014)	20,882	54.0%	(52.8 - 55.2)	22,550	56.7%	(55.6 - 57.8)	12,557	62.8%	(61.4 - 64.2)	17,561	65.7%	(64.5 - 67.0)
Ever told they had a heart attack or coronary heart disease	(2011-2014)	20,740	8.4%	(7.9 - 8.9)	22,491	5.6%	(5.2 - 5.9)	12,592	4.6%	(4.1 - 5.1)	17,617	3.8%	(3.4 - 4.2)
Ever told they had a stroke	(2011-2014)	21,157	4.4%	(4.0 - 4.8)	22,750	2.3%	(2.1 - 2.6)	12,646	1.4%	(1.2 - 1.6)	17,669	1.3%	(1.1 - 1.5)
Had blood pressure checked in past year	(2013)	1,982	75.8%	(71.7 - 79.4)	2,154	80.8%	(77.5 - 83.7)	1,151	91.3%	(88.4 - 93.5)	1,722	90.1%	(87.1 - 92.5)
Ever told they have high blood pressure (excluding pregnancy)	(2011 & 2013)	11,037	33.5%	(32.0 - 35.0)	11,596	30.4%	(29.1 - 31.7)	6,291	26.8%	(25.1 - 28.5)	8,644	23.3%	(22.1 - 24.5)
Had cholesterol checked in past 5 years	(2011 & 2013)	10,632	61.9%	(60.2 - 63.6)	11,348	69.6%	(68.0 - 71.1)	6,202	76.2%	(74.2 - 78.0)	8,524	80.5%	(78.7 - 82.2)
Ever told they have high cholesterol, among those who have ever had it checked	(2011 & 2013)	8,571	36.8%	(34.8 - 38.9)	9,593	31.9%	(30.5 - 33.3)	5,447	32.8%	(30.9 - 34.8)	7,802	30.5%	(28.8 - 32.3)
Ever told they have diabetes (excluding pregnancy)	(2011-2014)	21,217	12.4%	(11.7 - 13.1)	22,783	8.2%	(7.7 - 8.8)	12,654	7.8%	(7.0 - 8.6)	17,680	5.4%	(4.9 - 5.8)
Ever told they have cancer (in any form)	(2011-2014)	21,142	11.2%	(10.6 - 11.8)	22,722	10.2%	(9.7 - 10.6)	12,631	10.2%	(9.6 - 10.8)	17,646	9.8%	(9.3 - 10.4)
Up-to-date on colon cancer screening, 50-75 year olds^	(2012-2014)	5,947	49.7%	(47.7 - 51.8)	7,940	60.8%	(59.2 - 62.4)	4,767	65.4%	(63.5 - 67.4)	6,444	71.1%	(69.4 - 72.7)
Up-to-date on breast cancer screening, female 50-74 year olds^	(2012 & 2014)	2,613	63.2%	(60.3 - 66.0)	3,112	72.7%	(70.4 - 74.8)	1,863	79.3%	(76.7 - 81.8)	2,286	83.7%	(81.5 - 85.7)
Up-to-date on cervical cancer screening, female 21-65 year olds^	(2012 & 2014)	2,286	75.3%	(72.6 - 77.8)	2,709	80.4%	(78.0 - 82.6)	2,016	87.4%	(85.3 - 89.3)	2,974	89.8%	(87.9 - 91.5)
Ever told they have arthritis	(2011-2014)	21,115	28.8%	(27.9 - 29.7)	22,706	23.4%	(22.7 - 24.2)	12,618	21.9%	(21.0 - 22.9)	17,642	18.8%	(18.1 - 19.6)
Currently have activity limitations due to arthritis, among those ever told they have arthritis	(2011 & 2013)	4,533	53.5%	(49.1 - 57.8)	3,783	39.0%	(34.6 - 43.6)	1,700	30.4%	(25.8 - 35.4)	1,864	38.9%	(31.6 - 46.8)
Ever told they have asthma	(2011-2014)	21,143	16.5%	(15.6 - 17.5)	22,732	11.1%	(10.4 - 11.8)	12,642	9.8%	(8.9 - 10.7)	17,663	9.2%	(8.4 - 10.0)
Currently have asthma	(2011-2014)	21,060	11.8%	(11.0 - 12.6)	22,683	6.9%	(6.4 - 7.5)	12,611	6.0%	(5.4 - 6.7)	17,643	5.5%	(5.0 - 6.1)
Ever told they have COPD	(2011-2014)	21,068	10.6%	(9.9 - 11.3)	22,697	4.7%	(4.4 - 5.1)	12,627	3.5%	(3.1 - 3.9)	17,658	2.2%	(1.9 - 2.6)
Ever told they have kidney disease	(2011-2014)	21,169	3.3%	(2.9 - 3.6)	22,741	2.1%	(1.8 - 2.3)	12,643	1.8%	(1.5 - 2.2)	17,674	1.2%	(1.0 - 1.4)
Current cigarette smoking	(2011-2014)	20,971	32.1%	(31.0 - 33.3)	22,556	22.2%	(21.3 - 23.2)	12,551	15.2%	(14.1 - 16.3)	17,525	9.9%	(9.2 - 10.7)
Current smokeless tobacco use	(2011-2014)	21,028	4.4%	(3.9 - 4.9)	22,607	6.1%	(5.6 - 6.6)	12,580	6.3%	(5.5 - 7.2)	17,566	5.1%	(4.6 - 5.7)
Obese (BMI=30+)	(2011-2014)	20,365	33.9%	(32.7 - 35.1)	22,059	31.6%	(30.6 - 32.6)	12,257	29.7%	(28.4 - 31.0)	17,200	24.5%	(23.5 - 25.6)
Overweight or Obese (BMI=25+)	(2011-2014)	20,365	66.1%	(64.9 - 67.3)	22,059	68.0%	(66.9 - 69.0)	12,257	67.6%	(66.2 - 69.0)	17,200	62.8%	(61.6 - 64.1)
Consumed sugar-sweetened beverages 1 or more times per day in past 30 days	(2013)	1,975	39.4%	(35.4 - 43.6)	2,162	36.4%	(32.8 - 40.2)	1,163	27.2%	(22.6 - 32.4)	1,735	18.0%	(14.8 - 21.8)
Currently watching or reducing sodium or salt intake	(2013)	1,972	53.4%	(49.3 - 57.4)	2,157	42.1%	(38.9 - 45.4)	1,164	43.9%	(39.4 - 48.5)	1,730	39.0%	(35.6 - 42.5)
Median times per day consumed fruits^	(2011 & 2013)	10,350	0.99	(0.99 - 1.00)	11,057	1.00	(1.00 - 1.00)	6,079	1.03	(1.02 - 1.09)	8,358	1.07	(1.06 - 1.14)
Consumed fruits less than 1 time per day	(2011 & 2013)	10,350	46.8%	(45.0 - 48.6)	11,057	41.9%	(40.3 - 43.5)	6,079	37.8%	(35.8 - 39.9)	8,358	33.6%	(31.7 - 35.5)
Median times per day consumed vegetables^	(2011 & 2013)	10,187	1.37	(1.33 - 1.43)	10,941	1.49	(1.45 - 1.54)	6,070	1.57	(1.56 - 1.62)	8,296	1.67	(1.62 - 1.72)
Consumed vegetables less than 1 time per day	(2011 & 2013)	10,187	32.1%	(30.5 - 33.9)	10,941	25.9%	(24.5 - 27.3)	6,070	19.7%	(18.1 - 21.4)	8,296	18.5%	(16.9 - 20.3)
Met aerobic physical activity recommendation	(2011 & 2013)	10,228	41.3%	(39.5 - 43.0)	10,915	46.8%	(45.2 - 48.4)	6,015	50.5%	(48.3 - 52.6)	8,250	58.1%	(56.0 - 60.1)
Met muscle strengthening recommendation	(2011 & 2013)	10,434	22.2%	(20.8 - 23.7)	11,066	25.6%	(24.2 - 27.1)	6,073	30.2%	(28.3 - 32.3)	8,337	37.3%	(35.3 - 39.3)
Met both aerobic physical activity and muscle strengthening recommendations	(2011 & 2013)	10,137	13.6%	(12.5 - 14.8)	10,851	16.6%	(15.4 - 17.8)	5,993	19.9%	(18.3 - 21.7)	8,228	26.3%	(24.5 - 28.3)
Always wear a seatbelt when driving or riding in a car	(2011-2014)	20,374	69.1%	(67.9 - 70.2)	22,042	66.6%	(65.5 - 67.6)	12,345	71.6%	(70.2 - 72.9)	17,242	78.7%	(77.7 - 79.7)
Texted while driving in past 30 days	(2012)	2,951	17.7%	(15.7 - 19.9)	3,207	26.7%	(24.4 - 29.0)	1,824	33.1%	(30.0 - 36.4)	2,412	36.4%	(34.0 - 38.9)
Talked on a cell phone while driving in past 30 days	(2012)	2,948	54.2%	(51.4 - 57.0)	3,206	69.5%	(67.3 - 71.5)	1,811	79.5%	(77.2 - 81.6)	2,410	84.8%	(82.9 - 86.4)
Had a fall in past year, aged 45 years and older	(2012 & 2014)	7,351	33.6%	(19.1 - 52.2)	8,243	18.9%	(18.0 - 19.9)	4,395	17.0%	(15.9 - 18.3)	6,011	16.2%	(15.1 - 17.2)
Injured due to a fall in past year, aged 45 years and older	(2012 & 2014)	7,334	8.2%	(7.5 - 9.0)	8,236	6.2%	(5.6 - 6.8)	4,392	5.1%	(4.4 - 5.8)	6,009	4.4%	(3.8 - 5.1)
Ever told they have depression	(2011-2014)	21,150	27.8%	(26.8 - 28.9)	22,738	17.5%	(16.7 - 18.4)	12,641	14.8%	(13.7 - 15.8)	17,668	11.8%	(11.0 - 12.7)
Binge drank in past 30 days	(2011-2014)	20,343	18.3%	(17.4 - 19.3)	22,038	22.7%	(21.7 - 23.7)	12,349	24.3%	(23.1 - 25.7)	17,264	25.9%	(24.7 - 27.1)
Alcohol impaired driving in past 30 days	(2012 & 2014)	9,963	1.8%	(1.4 - 2.2)	10,992	3.7%	(3.2 - 4.4)	6,264	3.6%	(2.9 - 4.5)	8,903	3.7%	(3.1 - 4.4)
Had a flu vaccination in past year, aged 18 years and older	(2011-2014)	20,375	36.1%	(35.0 - 37.3)	22,042	38.3%	(37.3 - 39.4)	12,343	44.4%	(43.0 - 45.9)	17,231	49.9%	(48.6 - 51.1)
Had a flu vaccination in past year, aged 65 years and older^	(2011-2014)	9,610	59.6%	(58.1 - 61.1)	8,545	64.6%	(63.1 - 66.1)	2,791	66.2%	(63.6 - 68.7)	2,759	68.8%	(66.3 - 71.1)
Ever had a pneumonia vaccination, aged 65 years and older^	(2011-2014)	9,361	71.7%	(70.3 - 73.1)	8,335	70.8%	(69.4 - 72.2)	2,704	70.4%	(67.9 - 72.7)	2,666	70.7%	(68.3 - 73.1)
Had a tetanus vaccination since 2005	(2013)	3,726	53.9%	(50.9 - 56.8)	4,067	59.4%	(56.7 - 62.0)	2,186	61.9%	(58.5 - 65.2)	3,222	68.5%	(65.8 - 71.0)
Ever had the shingles vaccination, aged 60 years and older^	(2014)	2,738	30.6%	(28.0 - 33.3)	2,970	41.8%	(39.4 - 44.4)	1,329	44.3%	(40.3 - 48.3)	1,528	48.0%	(44.5 - 51.5)
Ever been tested for HIV, 18-64 year olds (excluding blood donation)	(2011-2014)	10,415	40.5%	(39.0 - 41.9)	13,159	32.6%	(31.3 - 33.9)	9,323	29.3%	(27.8 - 30.8)	14,094	29.3%	(28.1 - 30.5)
Visited a dentist or dental clinic for any reason in past year	(2012 & 2014)	10,102	48.6%	(46.9 - 50.3)	11,136	61.8%	(60.2 - 63.4)	6,334	74.3%	(72.5 - 76.0)	9,026	83.2%	(82.0 - 84.3)
Had any permanent teeth extracted due to tooth decay or gum disease, 45-64 year olds^	(2012 & 2014)	2,763	72.2%	(69.6 - 74.6)	3,895	54.3%	(52.0 - 56.5)	2,944	44.9%	(42.3 - 47.4)	4,529	29.9%	(28.1 - 31.8)
Had all permanent teeth extracted due to tooth decay or gum disease, aged 65 years and olde	(2012 & 2014)	4,587	23.8%	(22.0 - 25.7)	4,351	11.7%	(10.5 - 13.0)	1,466	6.4%	(4.8 - 8.6)	1,502	2.9%	(2.1 - 3.9)
Housing insecurity in past year, among those who own or rent their home	(2012-2013)	3,241	51.5%	(48.5 - 54.5)	3,688	33.0%	(30.5 - 35.6)	2,094	21.6%	(18.7 - 24.8)	3,105	8.9%	(7.5 - 10.4)
Food insecurity in past year	(2012-2013)	3,603	41.6%	(38.7 - 44.5)	3,985	20.6%	(18.6 - 22.9)	2,191	10.1%	(8.0 - 12.8)	3,201	4.0%	(3.0 - 5.2)
Get less than 7 hours of sleep per day	(2013-2014)	9,433	40.7%	(38.8 - 42.6)	10,535	32.2%	(30.6 - 33.9)	5,902	30.6%	(28.4 - 32.9)	8,662	25.3%	(23.7 - 26.9)
Work-related injury or illness in past year, among employed or recently out of work	(2013-2014)	2,310	6.2%	(4.9 - 7.9)	3,205	5.5%	(4.4 - 6.8)	2,129	4.3%	(3.1 - 5.9)	3,355	2.7%	(1.8 - 3.9)

^ Data are not age-adjusted

[a] The years, between 2011 and 2014, for which the BRFSS indicator is available

[b] Non-weighted sample size among adults 18 and older (unless different age group noted)

[c] Weighted mean, median, or percentage (percentages are followed by the % symbol) among adults 18 and older (unless different age group noted)

[d] Low and High are the lower and upper limits of the 95% confidence interval, respectively

Source: Behavioral Risk Factor Surveillance System

Table 13: Mortality Results (age-adjusted) by Urban/Rural for Select Causes of Death, 2010-2014 Combined

Causes of Death (ICD-10 Code)	Male			Female		
	N[a]	Rate[b]	95% C.I.[c] (Low - High)	N[a]	Rate[b]	95% C.I.[c] (Low - High)
Heart disease (I00-I09, I11, I13, I20-I51)	8,038	185.7	*(181.6 - 189.8)*	7,837	115.5	*(112.9 - 118.1)*
Stroke (I60-I69)	1,705	38.6	*(36.8 - 40.4)*	2,378	34.9	*(33.5 - 36.3)*
High Blood Pressure (I10, I12)	380	8.4	*(7.6 - 9.2)*	704	9.7	*(9.0 - 10.4)*
Diabetes (E10-E14)	1,185	25.9	*(24.4 - 27.4)*	1,110	17.9	*(16.8 - 19.0)*
Cancer overall (C00-C97)	9,114	196.9	*(192.9 - 200.9)*	8,124	139.0	*(136.0 - 142.0)*
Lung Cancer (C34)	2,506	53.9	*(51.8 - 56.0)*	1,990	34.6	*(33.1 - 36.1)*
Colorectal Cancer (C18-C21, C260)	866	18.7	*(17.5 - 19.9)*	874	14.6	*(13.6 - 15.6)*
Female Breast Cancer (C50)	-	-	- - -	1,169	20.2	*(19.0 - 21.4)*
Cervical Cancer (C53)	-	-	- - -	112	2.2	*(1.8 - 2.6)*
Prostate Cancer (C61)	916	20.8	*(19.5 - 22.1)*	-	-	- - -
Melanoma Cancer (C43)	191	4.0	*(3.4 - 4.6)*	110	2.0	*(1.6 - 2.4)*
Asthma (J45-J46)	48	1.1	*(0.8 - 1.4)*	91	1.4	*(1.1 - 1.7)*
COPD (J40-J44)	2,648	59.5	*(57.2 - 61.8)*	2,476	40.2	*(38.6 - 41.8)*
Kidney Disease (N00-N07, N17-N19, N25-N27)	573	13.0	*(11.9 - 14.1)*	637	9.5	*(8.8 - 10.2)*
Alzheimer's Disease (G30)	876	20.5	*(19.1 - 21.9)*	1,927	26.2	*(25.0 - 27.4)*
Unintentional injury overall (V01-X59, Y85-Y86)	2,182	47.9	*(45.9 - 49.9)*	1,455	25.8	*(24.5 - 27.1)*
Motor Vehicle Crash***	796	17.3	*(16.1 - 18.5)*	337	7.0	*(6.3 - 7.7)*
Falls (W00-W19)	493	11.2	*(10.2 - 12.2)*	498	7.1	*(6.5 - 7.7)*
Homicide (X85-Y09,Y87.1)	248	5.4	*(4.7 - 6.1)*	76	1.7	*(1.3 - 2.1)*
Suicide (X60-X84, Y87.0)	861	18.9	*(17.6 - 20.2)*	211	4.5	*(3.9 - 5.1)*
Drug induced (F11-F16, F18-F19, X40-X44, X85, Y10-Y14)	283	6.3	*(5.6 - 7.0)*	273	6.2	*(5.5 - 6.9)*
Cirrhosis of the Liver (K70, K73-K74)	510	10.3	*(9.4 - 11.2)*	297	5.7	*(5.1 - 6.3)*
Influenza (J10-J11)	40	0.9	*(0.6 - 1.2)*	66	0.9	*(0.7 - 1.1)*
Pneumonia (J12-J18)	648	14.6	*(13.5 - 15.7)*	810	11.4	*(10.6 - 12.2)*

[a] Number of deaths

[b] Death rate, age-adjusted to the 2000 U.S. standard population, per 100,000 population (unless otherwise noted)

[c] Low and High are the lower and upper limits of the 95% confidence interval, respectively

^ Includes codes V02-V04, V090, V092, V12-V14, V190-V192, V194-V196, V20-V79, V803-V805, V810-V811, V820-V821, V83-V86, V870-V878, V880-V888, V890, V892

Source: Nebraska Vital Records

Table 14: Behavioral Risk Factors among Nebraska Adults 18 and Older by Gender, 2011-2014 Combined

Measure	Years [a]	Male n [b]	Male mean or % [c]	Male 95% C.I. [d] (Low - High)	Female n [b]	Female mean or % [c]	Female 95% C.I. [d] (Low - High)
General health fair or poor	(2011-2014)	34,601	14.0%	(13.5 - 14.6)	49,354	13.9%	(13.4 - 14.4)
Average number of days physical health was not good in past 30 days	(2011-2014)	34,167	2.9	(2.7 - 3.0)	48,385	3.4	(3.3 - 3.5)
Physical health was not good on 14 or more of the past 30 days	(2011-2014)	34,167	8.4%	(8.0 - 8.9)	48,385	10.3%	(9.9 - 10.7)
Average number of days mental health was not good in past 30 days	(2011-2014)	34,255	2.4	(2.3 - 2.5)	48,737	3.5	(3.4 - 3.6)
Mental health was not good on 14 or more of the past 30 days (i.e., frequent mental distress)	(2011-2014)	34,255	7.1%	(6.6 - 7.5)	48,737	10.5%	(10.0 - 11.0)
Average days poor physical or mental health limited usual activities in past 30 days	(2011-2014)	34,432	1.7	(1.6 - 1.8)	48,987	2.0	(2.0 - 2.1)
Poor physical or mental health limited usual activities on 14 or more of the past 30 days	(2011-2014)	34,432	5.3%	(5.0 - 5.7)	48,987	6.6%	(6.3 - 7.0)
No health care coverage, 18-64 year olds	(2011-2014)	23,720	19.4%	(18.6 - 20.2)	30,466	15.6%	(14.9 - 16.3)
No personal doctor or health care provider	(2011-2014)	34,564	25.8%	(25.1 - 26.6)	49,355	12.8%	(12.2 - 13.3)
Needed to see a doctor but could not due to cost in past year	(2011-2014)	34,613	10.7%	(10.2 - 11.3)	49,343	14.3%	(13.8 - 14.8)
Had a routine checkup in past year	(2011-2014)	34,225	54.9%	(54.1 - 55.8)	48,696	66.5%	(65.8 - 67.2)
Ever told they had a heart attack or coronary heart disease	(2011-2014)	34,138	7.4%	(7.0 - 7.7)	48,781	4.5%	(4.2 - 4.7)
Ever told they had a stroke	(2011-2014)	34,590	2.5%	(2.3 - 2.7)	49,322	2.6%	(2.4 - 2.8)
Had blood pressure checked in past year	(2013)	3,150	81.2%	(78.8 - 83.4)	4,654	87.8%	(85.8 - 89.5)
Ever told they have high blood pressure (excluding pregnancy)	(2011 & 2013)	17,168	31.4%	(30.4 - 32.4)	25,273	27.5%	(26.7 - 28.4)
Had cholesterol checked in past 5 years	(2011 & 2013)	16,727	69.6%	(68.4 - 70.7)	24,528	76.3%	(75.3 - 77.2)
Ever told they have high cholesterol, among those who have ever had it checked	(2011 & 2013)	13,687	40.3%	(39.0 - 41.5)	21,509	35.7%	(34.7 - 36.7)
Ever told they have diabetes (excluding pregnancy)	(2011-2014)	34,649	9.2%	(8.8 - 9.6)	49,398	8.2%	(7.9 - 8.6)
Ever told they have cancer (in any form)	(2011-2014)	34,552	9.9%	(9.5 - 10.3)	49,263	12.1%	(11.7 - 12.5)
Up-to-date on colon cancer screening, 50-75 year olds^	(2012-2014)	11,689	60.8%	(59.5 - 62.2)	15,958	64.4%	(63.3 - 65.5)
Up-to-date on breast cancer screening, female 50-74 year olds^	(2012 & 2014)	0	0.0%	(0.0 - 0.0)	11,104	75.5%	(74.4 - 76.6)
Up-to-date on cervical cancer screening, female 21-65 year olds^	(2012 & 2014)	0	0.0%	(0.0 - 0.0)	10,834	82.8%	(81.7 - 83.8)
Ever told they have arthritis	(2011-2014)	34,508	21.2%	(20.6 - 21.8)	49,190	27.4%	(26.8 - 28.0)
Currently have activity limitations due to arthritis, among those ever told they have arthritis	(2011 & 2013)	4,572	41.7%	(39.5 - 44.0)	8,861	45.3%	(43.6 - 47.0)
Ever told they have asthma	(2011-2014)	34,570	10.1%	(9.7 - 10.6)	49,285	12.7%	(12.2 - 13.2)
Currently have asthma	(2011-2014)	34,494	6.0%	(5.6 - 6.3)	49,129	8.9%	(8.5 - 9.3)
Ever told they have COPD	(2011-2014)	34,490	4.8%	(4.6 - 5.1)	49,213	5.9%	(5.6 - 6.2)
Ever told they have kidney disease	(2011-2014)	34,597	2.1%	(1.9 - 2.3)	49,312	2.3%	(2.2 - 2.5)
Current cigarette smoking	(2011-2014)	34,091	20.5%	(19.8 - 21.1)	48,634	17.3%	(16.8 - 17.9)
Current smokeless tobacco use	(2011-2014)	34,212	9.6%	(9.2 - 10.1)	48,764	0.8%	(0.7 - 1.0)
Obese (BMI=30+)	(2011-2014)	34,142	30.2%	(29.5 - 31.0)	45,989	28.2%	(27.5 - 28.9)
Overweight or Obese (BMI=25+)	(2011-2014)	34,142	72.8%	(72.0 - 73.5)	45,989	58.0%	(57.3 - 58.8)
Consumed sugar-sweetened beverages 1 or more times per day in past 30 days	(2013)	3,164	35.8%	(33.1 - 38.5)	4,658	21.7%	(19.7 - 24.0)
Currently watching or reducing sodium or salt intake	(2013)	3,165	43.4%	(40.8 - 46.0)	4,653	49.1%	(46.8 - 51.5)
Median times per day consumed fruits^	(2011 & 2013)	16,122	0.99	(0.99 - 1.00)	23,917	1.13	(1.09 - 1.15)
Consumed fruits less than 1 time per day	(2011 & 2013)	16,122	45.8%	(44.6 - 47.0)	23,917	34.4%	(33.4 - 35.4)
Median times per day consumed vegetables^	(2011 & 2013)	15,907	1.42	(1.39 - 1.43)	23,578	1.63	(1.61 - 1.68)
Consumed vegetables less than 1 time per day	(2011 & 2013)	15,907	28.2%	(27.1 - 29.3)	23,578	21.5%	(20.6 - 22.4)
Met aerobic physical activity recommendation	(2011 & 2013)	15,960	48.0%	(46.8 - 49.2)	23,505	51.0%	(50.0 - 52.1)
Met muscle strengthening recommendation	(2011 & 2013)	16,196	31.5%	(30.4 - 32.6)	24,029	25.2%	(24.3 - 26.2)
Met both aerobic physical activity and muscle strengthening recommendations	(2011 & 2013)	15,843	19.6%	(18.6 - 20.6)	23,359	18.3%	(17.4 - 19.1)
Always wear a seatbelt when driving or riding in a car	(2011-2014)	33,175	64.3%	(63.5 - 65.0)	47,536	79.1%	(78.5 - 79.7)
Texted while driving in past 30 days	(2012)	4,757	29.2%	(27.5 - 31.0)	6,694	24.4%	(22.8 - 26.0)
Talked on a cell phone while driving in past 30 days	(2012)	4,742	71.5%	(69.9 - 73.2)	6,682	66.7%	(65.2 - 68.2)
Had a fall in past year, aged 45 years and older	(2012 & 2014)	11,897	25.7%	(24.6 - 26.8)	17,512	29.0%	(28.1 - 30.0)
Injured due to a fall in past year, aged 45 years and older	(2012 & 2014)	11,879	7.2%	(6.6 - 7.9)	17,487	11.2%	(10.6 - 11.9)
Ever told they have depression	(2011-2014)	34,573	12.5%	(11.9 - 13.0)	49,286	22.1%	(21.5 - 22.7)
Binge drank in past 30 days	(2011-2014)	33,033	27.8%	(27.0 - 28.5)	47,600	15.1%	(14.5 - 15.7)
Alcohol impaired driving in past 30 days	(2012 & 2014)	16,983	4.8%	(4.4 - 5.3)	23,539	1.2%	(1.0 - 1.4)
Had a flu vaccination in past year, aged 18 years and older	(2011-2014)	33,185	38.0%	(37.2 - 38.8)	47,534	48.0%	(47.3 - 48.7)
Had a flu vaccination in past year, aged 65 years and older^	(2011-2014)	10,240	63.6%	(62.3 - 65.0)	17,832	64.2%	(63.1 - 65.2)
Ever had a pneumonia vaccination, aged 65 years and older^	(2011-2014)	9,816	68.9%	(67.6 - 70.2)	17,444	72.7%	(71.8 - 73.7)
Had a tetanus vaccination since 2005	(2013)	6,015	63.1%	(61.1 - 65.0)	8,635	57.4%	(55.6 - 59.1)
Ever had the shingles vaccination, aged 60 years and older^	(2014)	4,009	38.2%	(36.0 - 40.3)	5,933	43.3%	(41.5 - 45.2)
Ever been tested for HIV, 18-64 year olds (excluding blood donation)	(2011-2014)	22,212	28.5%	(27.6 - 29.4)	28,751	33.7%	(32.8 - 34.5)
Visited a dentist or dental clinic for any reason in past year	(2012 & 2014)	17,371	63.7%	(62.6 - 64.8)	23,939	70.2%	(69.2 - 71.1)
Had any permanent teeth extracted due to tooth decay or gum disease, 45-64 year olds^	(2012 & 2014)	6,708	48.1%	(46.4 - 49.8)	8,630	45.5%	(44.0 - 47.0)
Had all permanent teeth extracted due to tooth decay or gum disease, aged 65 years and olde	(2012 & 2014)	5,323	13.3%	(12.1 - 14.6)	8,836	14.1%	(13.1 - 15.1)
Housing insecurity in past year, among those who own or rent their home	(2012-2013)	5,442	24.9%	(23.1 - 26.7)	7,971	30.4%	(28.8 - 32.0)
Food insecurity in past year	(2012-2013)	5,843	14.6%	(13.2 - 16.2)	8,606	21.7%	(20.3 - 23.2)
Get less than 7 hours of sleep per day	(2013-2014)	16,454	31.6%	(30.5 - 32.8)	22,690	30.2%	(29.2 - 31.2)
Work-related injury or illness in past year, among employed or recently out of work	(2013-2014)	5,649	5.7%	(4.9 - 6.7)	6,269	3.8%	(3.0 - 4.9)

^ Data are not age-adjusted

[a] The years, between 2011 and 2014, for which the BRFSS indicator is available

[b] Non-weighted sample size among adults 18 and older (unless different age group noted)

[c] Weighted mean, median, or percentage (percentages are followed by the % symbol) among adults 18 and older (unless different age group noted)

[d] Low and High are the lower and upper limits of the 95% confidence interval, respectively

Source: Behavioral Risk Factor Surveillance System

Appendix B: Statewide Community Themes and Strengths Assessment

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Purpose and Methods

The Community Themes and Strengths Assessment (CTSA) was designed to gather information from community residents related to what they feel are areas of importance to their community as well as perceptions related to quality of life, community issues and concerns, and community assets. The purpose of the focus groups was to assess the attitudes and perceptions of Nebraska residents related to various health factors and health issues impacting Nebraska communities**.** In this assessment, the data were gathered through a series of six focus groups across the state (Bridgeport, Columbus, Kearney, Lincoln, Norfolk, and Hastings). This assessment intended to answer the following questions:

- What is important to our state?
- How is quality of life perceived in our state?
- What assets do we have that can be used to improve community health?

To meet the CTSA component of the Mobilizing for Action through Planning and Partnerships (MAPP) process, DHHS contracted with Facilitated Resources to conduct six focus groups around the state. Each focus group was cohosted by the local public health department, who invited a cross section of the community in order to keep the focus groups from becoming too narrowly focused. During each focus group, community members came to consensus on need areas regarding a number of aspects of health in their community.

Eight community domains were incorporated into the focus group process.

- Healthcare (availability of general healthcare services and specialists, quality of hospital care and healthcare services; asked separately for their community and region)
- Supports for raising children (child care, schools, after school programs)
- Supports for older adults (housing, transportation, meals, social networks)
- Recreational and leisure options (physical activity, arts/music/culture, leisure time activities for young and middle-age adults)
- Jobs and the economy (job availability, advancement, benefits, overall economy)
- Housing (availability and affordability of quality housing)
- Safety and security (safety, crime, trust/support from neighbors)
- Social support and civic responsibility (social support, volunteerism)

After brainstorming, reflection and discussion, each group identified and agreed upon answers to the following question:

> *"What are the most significant health issues and/or community conditions facing our area at this time?"*

Results

Community Perception of Needs

The six Community Themes and Strengths focus groups that were conducted around the state provide additional insights regarding how health issues are perceived at the community level. Across the state there were several reoccurring themes, which are outlined in Table 1.

Table 1. Community Perception of Needs

Lack of support for a healthy lifestyle	• High rates of obesity • Lack of year round physical / fitness activities • Limited availability of quality produce and healthy foods • Lack of nutrition knowledge and education
Behavioral health services	• Access to services and treatment options • Social acceptability and awareness • Lack of education around mental health issues and resources available • Integration of behavioral healthcare (within the health system and between schools, family and medicine) • Shortage of behavioral health professionals and care providers • Lack of funding for behavioral health services
Collaborative approaches to wellness and a focus on prevention	• Need for more proactive wellness and prevention education
Drug and substance abuse	• Limited resources for those at risk • Use among youth
Issues with housing and transportation	• Lack of affordable, livable housing • Increasing cost of living • Homelessness, especially among youth who are aging out of the foster care system • Limited and/or inconvenient public transportation • Lack of transportation within and between communities

Workforce concerns	• Lack of diverse, quality paying jobs • Mainly part time, low income jobs available • High cost of education • Little value placed on technical skills and on the job training • Issues with recruitment and retention of qualified employees • Lack of skilled workers • Limited supports and/or resources for working poor
Rural versus urban disparities	• Lack of rural connection to larger cities • Limited community services in rural areas • Water quality and quantity issues in rural areas • Lack of jobs in rural areas • Inequality of resources when comparing urban and rural parts of the state
Public/community safety	• Lack of safe sidewalks and travel routes • Social/community acceptance of risky behaviors • Need for tolerance among motorists and pedestrians • Unhealthy environments • Lack of qualified child care
Lack of supports for specific sub-populations	• Youth: mental health services, risky behaviors, sports are expensive, social media use, lack of healthy food options and mentoring programs • Elderly: impact of aging population, lack of elder care and adult day care services, limited access to physical activity • Parents: lack of affordable child care, transportation issues, and high rates of child abuse • Growing diverse populations (particularly the Hispanic population): lack of translators and bilingual outreach, language barriers and community tension related to undocumented persons
Health disparities and access to quality, affordable healthcare	• Health insurance issues and high costs • Uneven access to dental health • Lack of funding for health initiatives
Community disconnectedness and lack of commitment to coordinate community services	• Hidden diversity issues • Lack of constructive engagement • Lack of volunteerism • Limited awareness of community needs and availability of resources • Need for coordinated efforts
Ineffective policy and archaic systems	

Community Perception of Strengths

Community Themes and Strengths Assessment focus groups also had the opportunity to reflect and discuss the strengths and assets communities have to address public health needs. It was encouraging that the lists of Nebraska public health strengths were lengthy and reflected an awareness and appreciation for public health efforts and services across the state. There were several reoccurring themes that surfaced up in many locations regarding public health strengths and assets (Table 2).

Table 2. Community Perception of Strengths

High quality healthcare facilities (e.g. community/rural clinics, hospitals, assisted living and specialty care facilities) and qualified healthcare providers (e.g. clinicians, dentists, behavioral health professionals and specialists).
Abundance of recreational spaces and activities including: parks, trails, walking areas, water parks and community wellness events/programs.
Housing assistance resources (e.g. rental assistance, Habitat for Humanity, homelessness programs and shelters) and affordable housing options.
Strong community programs and resources such as school/afterschool programs, athletics, YMCA, libraries, home visiting programs, community center, parks and recreation.
Low unemployment and job opportunities, specifically in agriculture, healthcare and industry.
Solid public/private infrastructure including law enforcement, fire department, schools, local health departments, advocacy and faith-based organizations.

Documentation from each focus group with further details of the consensus workshop results from each community is included in the following pages.

Nebraska MAPP Assessment Initiative
Community Themes and Strengths
Bridgeport – June 29, 2015
Host: Panhandle Public Health District

Documentation of Participant Responses

N = 23

<u>Representatives included</u>: Local health department, local board of health, healthcare providers, youth-serving organizations, behavioral health providers, veterans support organizations, and citizens

Consensus Workshop Results:

Where items are repeated within a list, more than one small group had mentioned the issue. Numbers in parentheses indicate number of priority dots awarded by the participants. (Prompted during process: "What critical issues are related to the health and well-being of our communities?")

Key Question – What are the most significant health issues and/or community conditions facing our area at this time?					
Positives = Number of prevention resources and our culture of collaboration					
Health disparities (6)	**Economic instability (6)**	**Recruitment and retention of qualified employees to rural areas (6)**	**Resources for family support (2)**	**Accessible & affordable transportation in rural areas**	**Lack of awareness of existing resources (5)**
• Health disparities	• Economic affordability • Lack of housing	• Recruitment and retention of qualified employees	• High rate of child abuse • Child care (young, after school) • Lack of mental health services for all ages	• Lack of transportation • Lack of transportation within and between communities • Limited public transportation	• Lack of knowledge of available community resources • Promoting/expanding existing assets

Community disconnectedness (5)	**Access to quality and affordable healthcare (2)**	**Environmental support for more proactive wellness and prevention education and activities (10)**	**Social acceptability and access for mental health (11)**	**Concern with community acceptance of risky behaviors (16)**
• Lack of work ethic • Volunteerism • Social media	• Access to quality and affordable care • Access to healthcare	• Diet & nutrition education • More proactive wellness & prevention education • Lack of fitness opportunities • Year round activities • Limited access to alternative medicine and ideas	• Access to mental health • Stigma surrounding mental health issues • Stigma surrounding suicide • Mental health (minimal options for support)	• Social acceptance of risky behaviors • Drugs and alcohol • Substance abuse in both youth and adults • Community acceptance of risky behaviors • Safety

Nebraska MAPP Assessment Initiative

Community Themes and Strengths
Columbus – May 27, 2015
Host: East Central District Health Dept.

Documentation of Participant Responses

N = 12

<u>Representatives included</u>: Local health department, healthcare provider, media, youth-serving organizations, schools, behavioral health providers, UNL County Extension, law enforcement and citizens

Consensus Workshop Results:

Where items are repeated within a list, more than one small group had mentioned the issue. Numbers in parentheses indicate number of priority dots awarded by the participants. (Prompted during process: "What critical issues are related to the health and well-being of our communities"?)

Key Question – What are the most significant health issues and/or community conditions facing our area at this time?

A need for commitment to coordinate community services (7)	Access to mental health services (5)	Substance abuse (4)	Working poor population (4)
• Lack of coordinated efforts for families • Focus of resources for the need of community • Stronger coordinated community resources • Limited public awareness of needs	• Mental health resources • Mental health • Access to behavioral health treatment options • Lack of local mental health resources/providers • Education to all of mentally ill issues/resources	• Substance abuse (adults & youth) • Drugs/alcohol abuse • Resources for youth at risk • Youth drug/alcohol abuse • High tolerance for alcohol use/abuse • Increase in crime (gangs?) in Columbus	• Cost of living going up • Health insurance

Transportation	Affordable housing (2)	Quality affordable child care (2)	Growing diverse population	Obesity
• Transportation	• Housing • More housing needed for mentally ill/underserved/ low income/fixed income • Affordable housing	• Lack of qualified child care individuals • Lack of child care • Affordable child care • Lack of child care options	• Community tension Re: undocumented people • Lack of bilingual outreach	• Obesity

Nebraska MAPP Assessment Initiative
Community Themes and Strengths
Hastings – April 22, 2015
Host: South Heartland District Health Dept.

Documentation of Participant Responses

N = 29

<u>Representatives included</u>: Local health department, education, local board of health, healthcare providers, youth-serving organizations, behavioral health providers, students, elected officials, business community, fire department, and citizens

Consensus Workshop Results:

Where items are repeated within a list, more than one small group had mentioned the issue. Numbers in parentheses indicate number of priority dots awarded by the participants. (Prompted during process: "What critical issues are related to the health and well-being of our communities"?)

Key Question – What important items, patterns, messages and/or themes stand out to you from these posters?

Access for mental health – drug abuse services	Lack of youth supports		City/rural connections	Elderly supports and resources	Obesity
• Drug/alcohol abuse – DUI • Mental health – kids, also • Lack of mental health access & support • Mental health – metro better than rural • Drug & alcohol abuse • Access to mental health services – at risk youth and adult • Pediatric mental health – mental health & family & school work together • Mental health and addictions	• Teens need more structured activities • Lack of healthy options for teens • Access to mental health services for teens • School sports/activities expensive – grants for clothing, shoes	• Risky youth behavior • No discipline – enabling leads to mental/social issues • High risk behaviors • Social media risky behavior • Parenting skills – parents need to take care of children's needs • Nothing for teens – need mentoring programs	• Connecting community strengths • Connecting city and rural	• Impacts of aging population • Rural elderly physical activity access • Teammates for seniors	• Obesity – BIG issue – hard to help individual responsibility

Addressing the disconnect between employers and education/training	Latino/ multicultural supports	Safe streets and sidewalks	Quality affordable housing	Parental supports	Positive strengths
• Access for job applications – No internet • Lack of diverse job opportunities • Part time jobs	• Help for Latino population • Latino translators	• Unsafe streets and sidewalks for physical activity • Improved safe recreational activities • Need safe routes to school	• Quality affordable housing • Lack of appropriate housing • Affordable housing = quality	• Lack of child care • Transportation for single moms	• Great opportunities in Hastings – YMCA, etc. - poor access = cost and travel • Strong networks – health & support • Multiple strengths to build on

Nebraska MAPP Assessment Initiative
Community Themes and Strengths
Kearney – June 30, 2015
Host: Two Rivers Public Health Dept.

Documentation of Participant Responses

N = 21

<u>Representatives included</u>: Local health department, local board of health, healthcare, youth-serving organizations, education, local non-profits, behavioral health providers, Office of Health Disparities and Health Equity, dental health, and citizens

Consensus Workshop Results:

Where items are repeated within a list, more than one small group had mentioned the issue. Numbers in parentheses indicate number of priority dots awarded by the participants. (Prompted during process: "What critical issues are related to the health and well-being of our communities"?)

Key Question – What are the most significant health issues and/or community conditions facing our area at this time?

Obesity (1)	Ineffective communication creates discord (3)	Inequality of resources - rural vs. urban (1)	Lack of prevention focus (11)
• Obesity all ages • Absent nutrition knowledge	• Hidden diversity issues • Lack of constructive engagement • Healthcare/law enforcement leadership needs representation of populations (Lexington)	• Lack of assets outside of Kearney • Larger communities seem to have resources vs. rural • Affordable family activities	• Lack of prevention focus • Awareness vs. denial • Parent/child sex education (contradicting policy) • Data rich yet action poor

Complex workforce issues (11)	Barriers (stigma, affordability, access, services) to mental health resources (11)	Need for affordable healthy homes (8)	Lack of coordination and efficiency of resources (10)	Lack of affordable healthcare (7)
• Growing poverty • Quality paying jobs • Lack of family release from work • Insufficient number of skilled workers • More value on technical skills • Need for on the job training • Cost of education • Teen jobs lacking (outside Kearney)	• Behavioral health • Mental health • Behavioral health issues • Lack of behavioral health resources • Substance abuse • Stress • Stigmatization of behavioral health	• Affordable livable housing • Lack of affordable housing in Kearney • Functional mobility (built environment) • Affordable housing • Homelessness	• Lack of knowledge of resources available • Lack of utilization • Access • Money	• Politics & complexity of health insurance • Lack of affordable healthcare - Kearney • Affordable healthcare

Nebraska MAPP Assessment Initiative

Community Themes and Strengths
Lincoln – June 1, 2015
Host: Lincoln Lancaster County Health Dept.

Documentation of Participant Responses

N = 25

<u>Representatives included</u>: Local health department, healthcare providers, youth-serving organizations, behavioral health provider, students, FQHC, aging partners, Low Income serving organizations, schools, minority population serving organizations, university, veterans support organizations, and citizens

Consensus Workshop Results:

Where items are repeated within a list, more than one small group had mentioned the issue. Numbers in parentheses indicate number of priority dots awarded by the participants.

Key Question – What are the most significant health issues and/or community conditions facing our area at this time?							
Changing demographics	**Lack of political will leading to ineffective policy (11)**	**Lack of funding for health related issues (6)**	**Poverty and the working poor (7)**	**(Need for) Integrated and collaborative approaches to wellness (12)**	**Lack of support for healthy lifestyles (15)**	**Mental health issues (11)**	**Lack of will to care for the environment (7)**
• Growth - aging & new American populations	• Homeless youth, foster care - age out • Judicial system complex, hard to get out of • Lack of political will/ political inaction	• Behavioral health funding • Political reluctance to access federal insurance $$ • Appropriate funding for health initiatives • Dental health - cost prohibitive and lack of access	• Supports & resources for working poor • Income disparity (wealth vs. poverty) • Inconvenient bus system • Housing - affordable for large families • Poverty impacts health • $$ don't pay bills, resources don't cover expenses • Homelessness • Homeless youth	• Collaborative and integrative approach to wellness • Community engagement - involvement, education, awareness, proactive instead of reactive • BCBS & CHI health insurance issues - costs • Effective "one-call" for resources (akin to the Dig Line) • Tolerance between motorists and pedestrians • Whole-person, whole-child approach to wellness	• Obesity (all ages) • Healthy, affordable convenient foods • More emphasis & funding for illness & injury prevention/ management • Remove barriers to physical activity & good nutrition • Healthy eating - poor habits, access • Increased emphasis on physical activity for all ages & abilities	• Mental/ behavior health - stigma and lack of access • Identifying youth mental health issues • Mental health issues	• Continued degradation of an unhealthy environment

Nebraska MAPP Assessment Initiative

Community Themes and Strengths
Norfolk – May 28, 2015
Host: Elkhorn Logan Valley Public Health Dept.

Documentation of Participant Responses

N = 13

<u>Representatives included</u>: Local health department, library system, healthcare providers, youth-serving organizations, community college, emergency management, behavioral health providers, community support organizations, YMCA and citizen

Consensus Workshop Results:

Where items are repeated within a list, more than one small group had mentioned the issue. Numbers in parentheses indicate number of priority dots awarded by the participants. (Prompted during process: "What critical issues are related to the health and well-being of our communities"?)

Key Question – What are the most significant health issues and/or community conditions facing our area at this time?

Behavioral health (9)	A need to move toward prevention philosophy (6)	Lack of supportive services for elderly (adult day care, medical…) (3)	Limited accessibility to services (4)	Lack of policy coordination (5)
• Stigma • Substance abuse • Substance abuse • Mental health services - adult, child • Respite (mental health) • Undiagnosed behavioral health • Psychiatric shortage for behavioral health • Cooperative effective integrated care (systems/coalitions) • Substance abuse • Mental health addictions, co-occurring disorders • Behavioral health	• Prevention • Lack of structured teen activities • Lack of family activity centers • Lives too busy - over booked	• Elder care services • Need for adult day care	• Language barrier • Transportation • Lack of community services in rural areas	• Distracted driving - need stronger penalties and/or culture change • Archaic systems and policy (Legislation, HHS, foster care, alignment, communication)
Education & compensation for workforce (3)	**Comprehensive lack of housing in Madison County (1)**	**Nutrition and physical activity (3)**	**Comprehensive financial hardship (2)**	**Water quality**
• Low compensation for healthcare workers • Behavioral health - skilled workforce • Lack of affordable child care	• Comprehensive lack of housing	• Obesity (Childhood through adult) • Obesity • Lack of physical activities for youth in rural areas • Lack of quality produce in rural communities	• Lack of jobs in rural communities • Health insurance, Medicaid • Lower income issues • Unemployed, homeless	• Water quality & quantity issues in rural areas

Appendix C: Forces of Change Assessment

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Purpose and Methods

The purpose of the Forces of Change Assessment is to provide a statewide perspective on the forces of change impacting the health and well-being of Nebraskans. In order to identify the major forces of change, individuals with diverse backgrounds (e.g., representatives from local public health departments, the Nebraska Hospital Association, Emergency Medical Services, non-profit organizations, the Public Health Association of Nebraska, the College of Public Health, and businesses) were invited to participate in the discussion in either Kearney or Lincoln in the spring/summer of 2015.

The Forces of Change Assessment focuses on the identification of forces (events, factors, and trends) such as technology, funding challenges, legislation and other impending changes that affect the context in which the state and the public health system operate. This assessment answers the following questions:

- What is occurring or might occur that affects the health of our state or the public health system?
- What specific threats or opportunities are generated by these occurrences?

The participants were asked to identify what trends, factors, and events are or will be influencing the health and quality of life in our communities and the work of Nebraska's public health system. Trends, factors, and events were defined as follows:

- **TRENDS** are patterns over time, such as migration in and out of a community or a growing disillusionment with government.
- **FACTORS** are discrete elements, such as a community's large ethnic population, an urban setting, or a jurisdiction's proximity to a major waterway.
- **EVENTS** are one-time occurrences, such as a hospital closure, a natural disaster, or the passage of new legislation.

Each participant was also encouraged to consider various types of forces, including social, political, economic, technological, environmental, scientific, legal, and ethical.

Results

Although each group had some unique insights, there were many similarities, so the results of the two groups have been blended in this summary. After reflection and discussion, public health and community leaders identified and agreed upon several answers to the following question (Table 1):

> *"What trends, factors, and events are, or will be, influencing the health and quality of life in our communities and the work of Nebraska's public health system"?*

Table 1.

Transitions in healthcare delivery and access to care	➢ Affordable Care Act (ACA) ➢ Rural hospitals at risk for closure ➢ Increased integration, collaboration models
Challenges and opportunities related to data and technology	➢ Telehealth and data sharing is an advantage ➢ Large data sets, cost, access compatibility, and training ➢ Increased technology and demands
Environmental impact on health	➢ Ambient environmental conditions ➢ Climate change (extreme weather) ➢ Resources, agriculture, disease, natural disasters ➢
Insufficient mechanisms for funding public health	➢ Instability of public health funds ➢ Public health funding model is broken ➢ Funding often restrictive, limited and perspective ➢ Competition for public health funds ➢ Reduced funding
Political environment that hinders public health	➢ Constant change in political environment ➢ Lack of expanded Medicaid ➢ Lack of trust in "government" ➢ Political polarization ➢ New administration
Greater focus on persistence of chronic disease burden	➢ Leading causes of death – cancer, heart disease, etc. ➢ Looking toward non-medical preventative approaches to risk factors ➢ Community health workers ➢ Medical homes

Focus on health equity	➢ Emphasis on decreasing health disparities ➢ Increased economic disparities ➢ Societal changes
Reconfiguration of the healthcare workforce	➢ Workforce shortages ➢ Increased community navigators ➢ Rural healthcare workforce changes
Demographic shifts	➢ Population migration ➢ Immigration ➢ Increase in aging population ➢ Expanding diversity ➢ Income inequality
Unaddressed behavioral health issues	➢ Stressed funding for behavioral health ➢ Disconnected families and communities
Focus on value and performance	➢ Accreditation of public health departments ➢ Dealing with new threats to health ➢ Profound change in healthcare delivery

The individual results from both the Kearney and Lincoln assessments follow.

Nebraska MAPP Assessment Initiative
Forces of Change
Kearney – June 30, 2015
Host: Two Rivers Public Health Department

Documentation of Participant Responses

N = 17

<u>Representatives included</u>: Local health departments, local board of health, healthcare providers, dental services, community colleges, youth-serving organizations, behavioral health providers, students, elected officials, and citizens

Focus Question: What trends, factors and events are or will be influencing the health and quality of life in our communities and/or the work of our public health system?				
Climate change	**Population migration**	**Unaddressed behavioral health issues**	**Evolving healthcare policy**	**Importance of technology**
• Climate change (extreme weather) • Sustainability (greening)	• Immigration • Population migration (demographics, rural to urban) • Increasing move to urban areas	• Unaddressed psychological trauma • Lack of mental health help/funds • Severe mental illness can result in incarceration	• Affordable Care Act (ACA) • Constant change in political environment • Hospital desegregation	• Teledentistry • Telehealth & data sharing is an advantage • Technology in healthcare • Technology (Data, cost, access, compatibility, training)
Greater focus on disease prevention and preparedness	**Political environment that sacrifices Public Health**	**Economic disparities**	**Decreased public health funding concerns**	**Rural healthcare workforce changes**
• Healthy eating habits • Medical homes - proactive • Community health workers • Equal rights legislation • Epidemic illnesses (Ebola, Avian Flu, etc.) • Looking toward non-medical interventions - prevention • Fluoride varnish programs • Water fluoridation mandatory • Technology (Data, cost, access, compatibility, training)	• Limited Medicaid coverage • Removal of dental hygiene exam/assessment • Lack of dental Medicaid providers • Constant change in political environment • Dentist/dental hygiene turf wars	• Minimum wage increase • Increased economic disparities • Apathy/laziness • Agricultural trends • Societal changes (minority populations, family make-up)	• Limited oral health funds • Competition for public funds • Funding for public health (State/Federal) • Instability in public health funding	• Rural Health Opportunities Program (RHOP) students not required to return to rural areas • Healthcare professional shortage • Nurse practitioner bill • Lack of volunteers (e.g. Mission of Mercy)

Nebraska MAPP Assessment Initiative
Forces of Change
Lincoln – April 23, 2015

Documentation of Participant Responses

N = 27

<u>Representatives included</u>: Local health department directors, UNMC College of Public Health, healthcare providers, behavioral health system, American Cancer Society, NDOE, DHHS administrators, University system and Nebraska Association of Local Health Directors

Focus Question: What trends, factors and events are or will be influencing the health and quality of life in our communities and/or the work of our public health system?

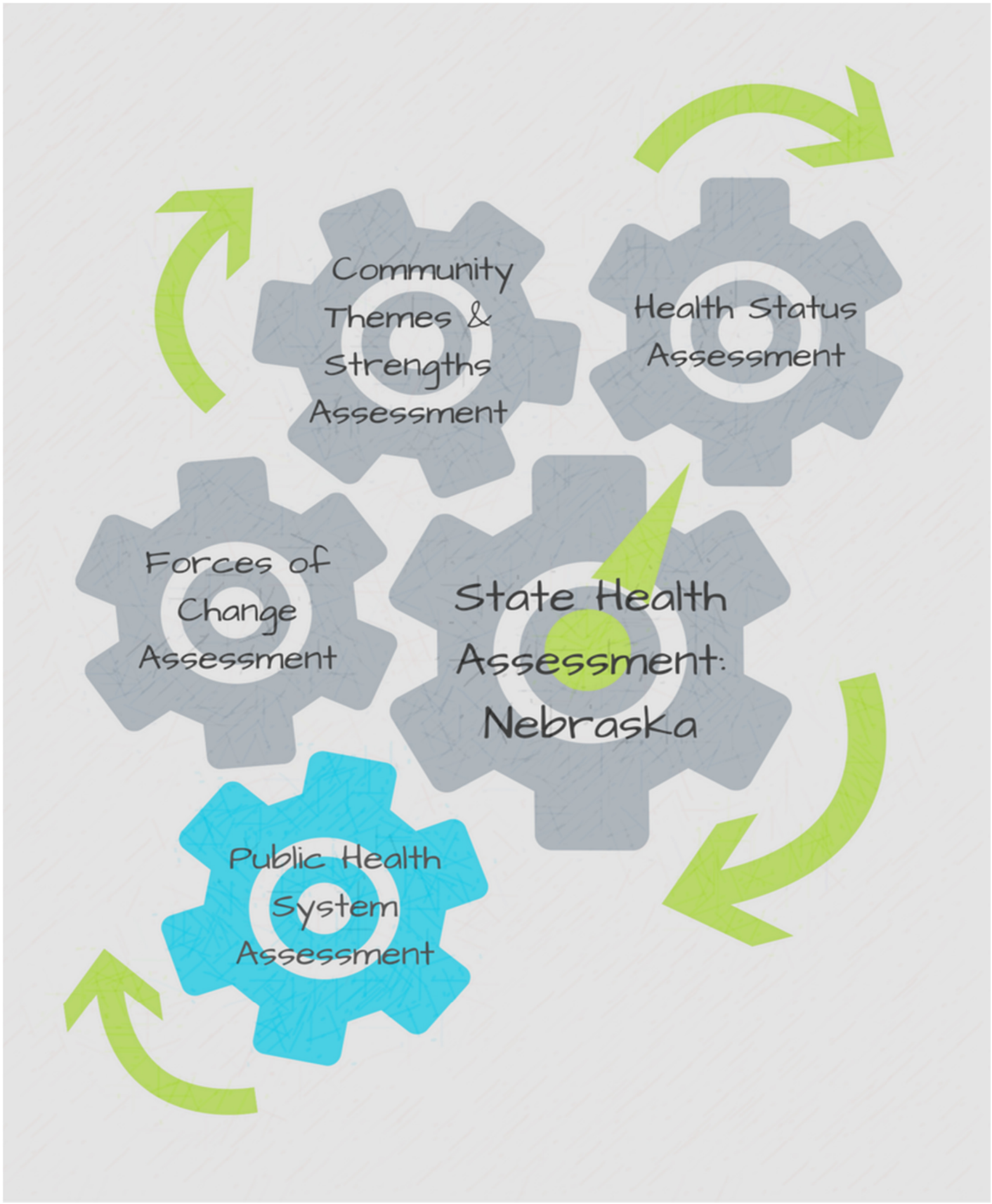
Environmental impact on health	Insufficient mechanisms for funding public health	Increased political posturing	Demographic shifts	Transitions in healthcare delivery and access to care	Challenges & opportunities related to data and technology
• Climate change (resources, agriculture, disease, natural disasters) • Ambient environmental conditions	• Funding is restrictive, limited and prescriptive • "Stable" or reduced funding • Explore other funding streams (non-Federal/State) • Short-term funding streams for long-term goals • Public Health funding model is broken	• Lack of trust in "Government" • Increased conservative political environment • New administration • Resistance to regulation • Growing influence of conservative policy • Affordable Care Act/ Medicaid • Political posturing/ polarization	• Changing social attitudes and norms • Demographics urban/rural • Increasing percentage of aging population • Change in demographics (race, equity, social, economic, workforce, aging/ retirement) • Demographic shifts • Urban migration • Income inequality • Expanding diversity • Medicare - aging population	• Profound change in healthcare delivery • Hospital closures • Rural hospitals at risk of closure • Challenges to local health department capacity • Lack of dental insurance access - prevention • Challenges to provide rural care • Physician & hospital payment structures • Affordable Care Act • Triple AIM • No Medicaid expansion • No collective impact • Increased integration, collaboration models (clinical and community) • Focus on population health • Affordable Care Act/ Medicaid	• Data technology challenges • Increased technology and demands • Technology changes • Big data

(Continuation)

Focus Question: What trends, factors and events are or will be influencing the health and quality of life in our communities and/or the work of our public health system?

Lack of access and capacity for mental/ behavioral health	Persistence of chronic disease burden	Reconfiguration of the healthcare workforce	New health risks	More focus on health equity	Focus on value and performance
• Mental health • Stressed funding for behavioral health • Increasing attention of Adverse Childhood Experiences (ACE) Study, trauma • Disconnected families and communities	• Leading causes of death - cancer, heart disease, etc. • Obesity • Increased understanding of Adverse Childhood Experiences (ACEs) and chronic diseases • Diet, nutrition, physical activity	• Workforce shortages • Workforce shortages • Increased interest in paraprofessional services • Increased community navigators (increasing access, patient-centered, help with trust)	• New risks to public health - drugs, human genome threats, technology, K2, powdered alcohol, medical marijuana • Vaccines, HPV, etc. • Human trafficking and sexual violence	• Emphasis on health equity • Emphasis on decreasing health disparities	• Accreditation of public health departments • Profound change in healthcare delivery

Appendix D: State Public Health System Assessment



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The third iteration of the Nebraska State Public Health System (SPHS) Assessment was completed on November 17, 2015 by 69 state and local representatives that had expertise and knowledge in one or more of the Ten Essential Public Health Services. These individuals represented a variety of organizations including local health departments, the Nebraska Department of Health and Human Services, academic institutions, Tribes, the Nebraska Hospital Association, the Department of Environmental Quality, the Nebraska Health Information Initiative, the Nebraska Association of Local Health Directors, Nebraska Children and Families Foundation, Project Extra Mile, Region VI Behavioral Healthcare, Nebraska Emergency Management Agency and the Public Health Association of Nebraska. A comprehensive list of the assessment participants can be found on page 172-174.

Purpose and Methods

The purpose of the assessment is to improve the quality of public health practice and the performance of the State Public Health System (SPHS). This assessment was based on the application of Version 3.0 of the National Public Health Performance Standards developed through the collaborative effort of seven national public health partners. All of the standards are designed around the Ten Essential Public Health Services shown in Table 1. The standards focus on the overall public health system which includes the entire network of organizational bodies within the state that work to improve health and well-being though the provision of the Ten Essential Public Health Services. Entities that make up the public health system in Nebraska include: state and local governmental public health related agencies, other state agencies such as the Department of Agriculture, nonprofit organizations such as community action agencies and substance abuse prevention coalitions, hospitals and physician clinics, tribes, faith-based organizations, colleges and universities, non-profit organizations, private and public insurers, businesses, and advocacy groups such as the Public Health Association of Nebraska.

Table 1.

The Ten Essential Public Health Services
1. Monitor health status to identify and solve community health problems.
2. Diagnose and investigate health problems and health hazards in the community.
3. Inform, educate, and empower people about health issues.
4. Mobilize community partnerships and action to identify and solve health problems.
5. Develop policies and plans that support individual and community health efforts.
6. Enforce laws and regulations that protect health and ensure safety.
7. Link people to needed personal health services and assure the provision of healthcare when otherwise unavailable.
8. Assure competent public and personal healthcare workforce.
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
10. Research for new insights and innovative solutions to health problems.

Within each of the Essential Public Health Services there are four Model Standards. These Model Standards reflect optimal levels of performance which are intended to guide activities for continuous system improvement. Discussions among the assessment participants focused on the Model Standards within Essential Public Health Service assigned for the group. These Model Standards focus on the following main areas:

Model Standard 1: Planning and Implementation – focuses on collaborative planning and implementation of key activities among public health partners fulfill the Ten Essential Public Health Services
Model Standard 2: State-Local Relationships – relates to the capacity building, resource allocation and assistance that the state public health system provides to the local public health system in the provision of the Ten Essential Public Health Services
Model Standard 3: Performance Management and Quality Improvement – focuses on the ability of the public health system to review the effectiveness of its performance and continuously improve the way public health is conducted
Model Standard 4: Public Health Capacity and Resources – examines how successfully the state public health system invests in and utilizes its human, financial, information and organizational resources to effectively carry out the Ten Essential Public Health Services

For each of the Ten Essential Public Health Services, a group of eight to 15 participants discussed each of the Model Standard areas and then voted on how effective the SPHS partners performed each standard. There were five response options associated with each measure score, including:

Optimal Activity (76-100%)	Greater than 75% of the activity described within the question is met.
Significant Activity (51-75%)	Greater than 50%, but no more than 75% of the activity described within the question is met.
Moderate Activity (26-50%)	Greater than 25%, but no more than 50% of the activity described within the question is met.
Minimal Activity (1-25%)	Greater than zero, but no more than 25% of the activity described within the question is met.
No Activity (0%)	0% or absolutely no activity.

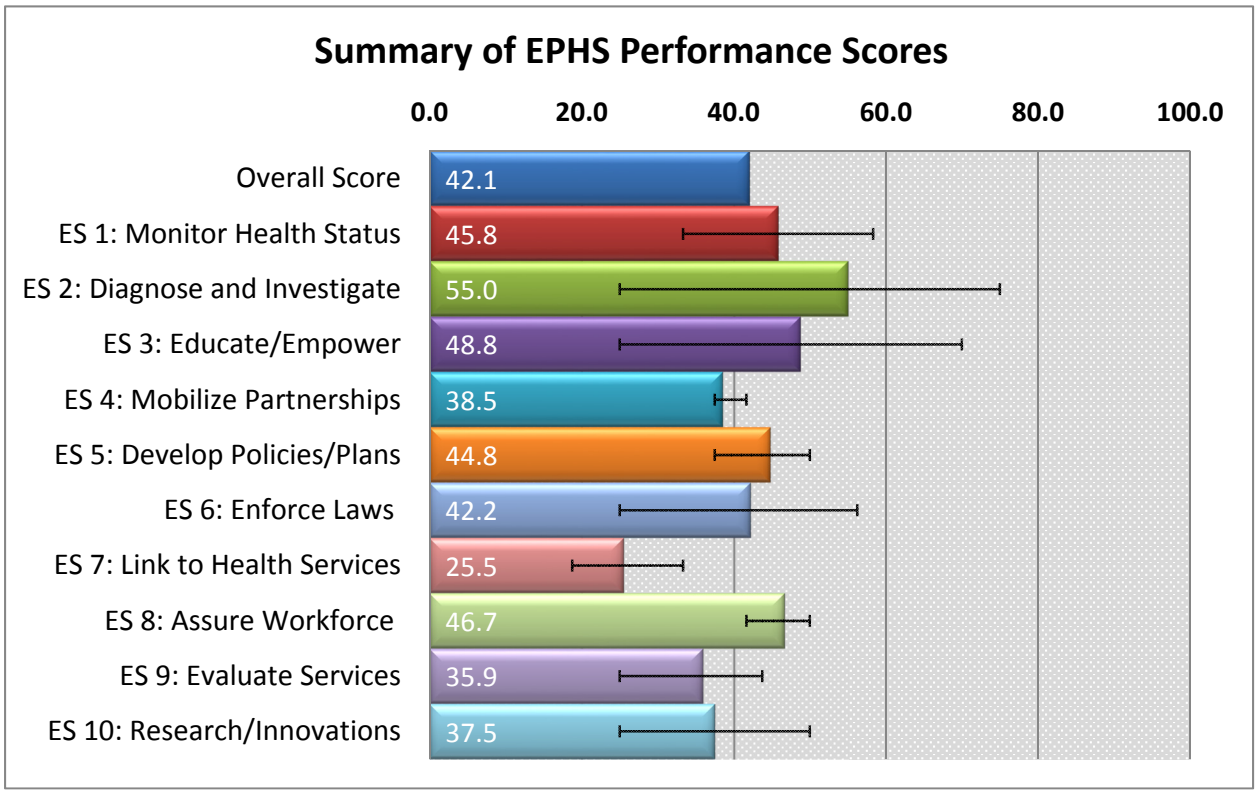
On the day following the conclusion of the SPHS assessment, a smaller group of public health leaders convened to further explore areas for state system improvement based on the scores from the assessment. The participants on day two included representatives from the Division of Public Health , local health departments, tribal health departments, Public Health Association of Nebraska, Nebraska Association of Local Health Directors, and UNMC College of Public Health. A list of all individual participants can be found on page 172. Day two served as an opportunity for the group to review and synthesize assessment results in order to examine “what are the important existing or emerging public health system gaps that would need to be addressed to improve the Nebraska State Public Health System?”

A consensus workshop was conducted to identify these system-level areas for improvement. The seven areas that emerged from the consensus workshop can be found in Figure 7.

Results

The overall results of the assessment are presented in Figure 1. Using the responses to all of the assessment questions, a scoring process generates scores (performance scores). Each Essential Public Health Service score can be interpreted as the overall degree to which the public health system meets the performance standards (quality indicators) for each Essential Public Health Service. Scores can range from a minimum value of 0 percent (no activity is performed pursuant to the standards) to a maximum value of 100 percent (all activities associated with the standards are performed at optimal levels). Figure 1 displays the average score for each Essential Public Health Service, along with an overall average assessment score across all Ten Essential Public Health Services. Note the black bars that identify the range of performance score responses within each Essential Public Health Service.

Figure 1. Summary of Average Essential Public Health Service (EPHS) Performance Scores

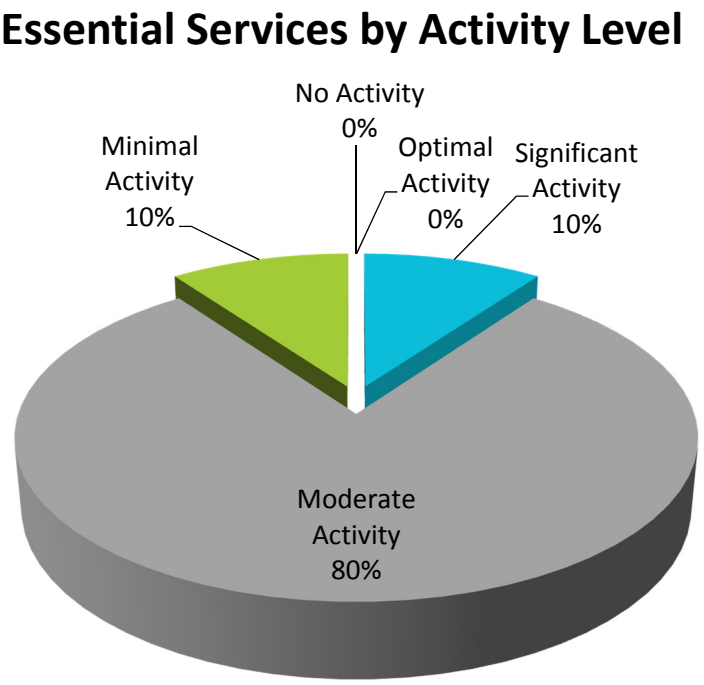


Based on the findings, the Nebraska SPHS was most effective in providing Essential Public Health Service 2 (Diagnose and investigate health problems and health hazards in the community) and Essential Public Health Service 3 (Inform, educate and empower people about health issues). In contrast, scores were considerably lower for Essential Public Health Service 7 (Link people to needed personal health services and assure the provision of healthcare when otherwise unavailable) and Essential Public Health Service 9 (Evaluate effectiveness, accessibility, and quality of personal and population-based health services) indicating areas for greater improvement within our SPHS.

The proportions of Essential Public Health Service performance scores that met the five specified levels of activity (optimal, significant, moderate, minimal and no activity) can be found in the following pie chart (Figure 2). This graph indicates that the majority, 80 percent (8 of 10), of the performance levels in the Ten Essential Public Health Services meet the threshold for "moderate activity" in these areas.

Performance scores for one of the Essential Public Health Services (ES 2) met the threshold for activity that can be described as "significant" while one (ES 7) received an overall performance score that indicates activity in this area as "minimal". None of the Essential Public Health Services received overall performance scores that fell within the activity categories of "no activity" or "optimal activity" indicating that, in the Nebraska SPHS, activity is occuring within all Essential Public Health Service areas, though there is opportunity for this activity to be increased and improved.

Figure 2. Essential Public Health Service performance scores broken down by the five activity levels



Key	
Optimal Activity (76-100%)	Greater than 75% of the activity described within the question is met.
Significant Activity (51-75%)	Greater than 50%, but no more than 75% of the activity described within the question is met.
Moderate Activity (26-50%)	Greater than 25%, but no more than 50% of the activity described within the question is met.
Minimal Activity (1-25%)	Greater than zero, but no more than 25% of the activity described within the question is met.
No Activity (0%)	0% or absolutely no activity.

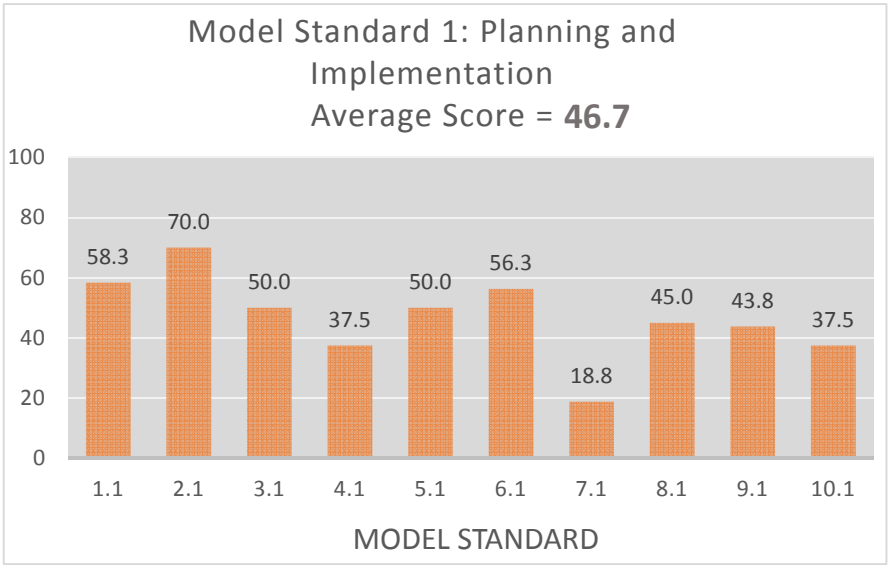
In terms of the overall average scores for each of the four Model Standards, activities associated with performance management and quality improvement (Model Standard 3) were scored lowest (35%) in each of the Ten Essential Public Health Services. As for the other three Model Standards, their overall average scores were above 40 percent indicating that activities in these areas were rated more favorably than those related to performance management and quality improvement. When examining the Essential Public Health Service scores within each of the Model Standards, Essential Public Health Service 7 (Link to Health Services) scored the lowest in planning and implementation (Model Standard 1). Specifically, ES 7 received a score of 18.8 percent, while all other Essential Public Health Services scored at or above 37.5 percent in regards to planning and implementation. This substantially lower score could suggest needs for improving activities within this area.

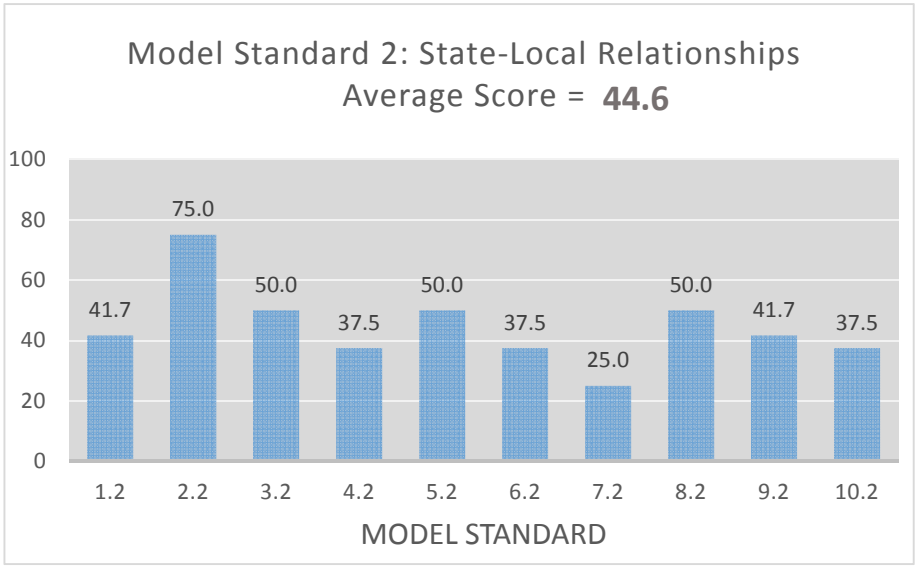
As for scores in Model Standard 2 (State-Local Relationships), Essential Public Health Service 7 again recevied the lowest score at 25 percent or minimal activity in this area which could indicate an increased need to collaborate specifically among state and local partners. All other Essential Public Health Service scores for Model Standard 2 were at 37.5 percent or above. Essential Public Health Service 2 (Diagnose and Investigate) received the highest score (75%) in Model Standard 2, which indicates strength in the state public health system for strong relationships and collaboration to effectively diagnose and investigate disease. Scores for Model Standard 3 (Performance Manangement & Quality Improvement) were much more similar across the 10 Essential Public Health Services. In fact, Essential Public Health Services 2, 3, 7 and 10 all received a score of 25 percent, while no Essential Public Health Service received a score above 50 percent.

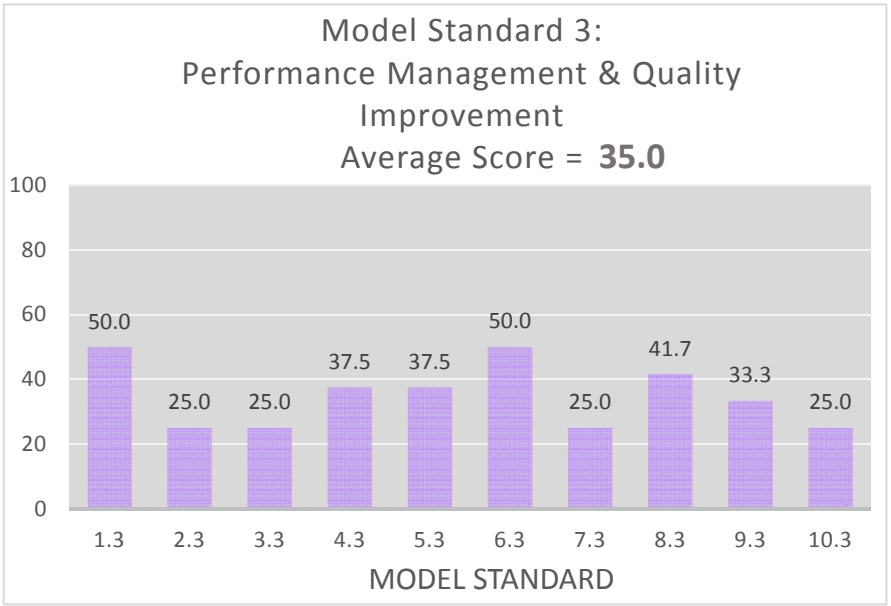
As indicated above, Model Standard 3 received the lowest score for all Model Standards, suggesting that Performance Management and Quality Improvement is the area in which the system requires the most improvement. Model Standard 4 (Public Health Capacity and Resources) scores varied, with the highest score at 70 percent (Essential Public Health Service 3) and lowest at 25 percent (Essential Public Health Services 6 and 9). The overall average score for Model Stardard 4 follows Model Standard 3 with the second lowest score of the the four standards. Activities related to public health capacity and resources received the second to lowest score, which could suggest the need to build capacity as a public health system.

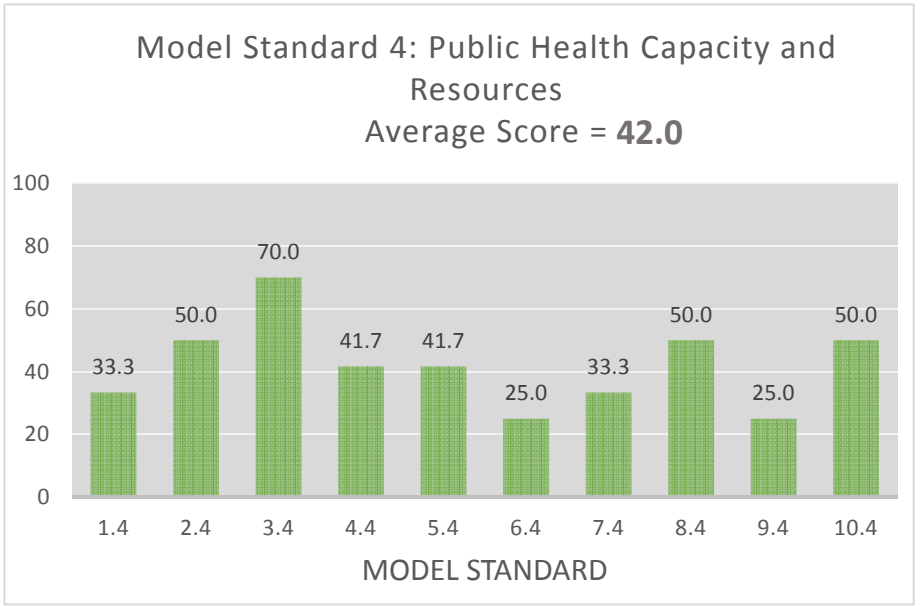
Figure 3. Performance Score by Model Standard for Each Essential Public Health Service

* Note: Scores are based on percentages (out of 100)







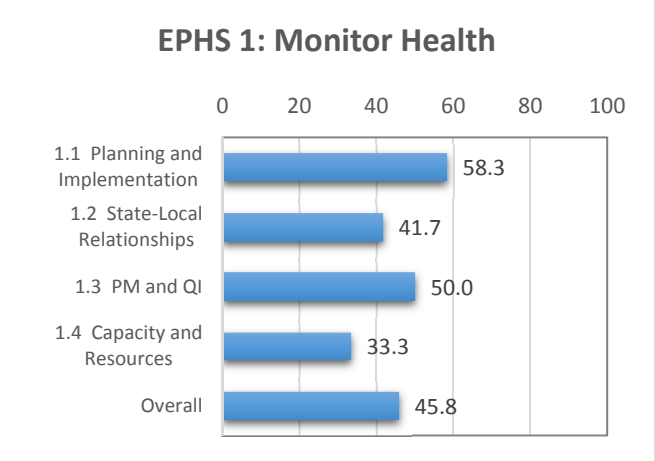


Strengths, Weaknesses and Opportunities within the Essential Public Health Services

In the assessment of the State Public Health System (SPHS), several strengths, weaknesses and opportunities for improvement were identified. Although the scores for nine of the Ten Essential Public Health Services were rated as moderate activity (i.e., greater than 25 percent but less than 50 percent), variations were observed within the four Model Standards and the Essential Public Health Services as a whole. Below is an overview of the major strengths, weaknesses and areas for improvement that emerged during the sessions for each of the Essential Public Health Services. Full detailed findings of all the strengths, weaknesses and opportunities for improvement identified during the assessment are available upon request. If interested, please contact the Division of Public Health, Office of Community Health and Performance Management at (402) 471-2353.

Essential Public Health Service 1 (Monitor Health Status to Identify Community Health Problems)

Overall Score: 45.8 out of 100 (44 out of 100 in 2011)



Planning and implementation was acknowledged as an overall strength within Essential Public Health Service 1. Assessment participants noted that there are consistent efforts and multiple sources for data collection within the SPHS. It was also noted that there is much expertise, specifically epidemiology skills, in this collection of data. Performance Management and Quality Improvement (PM and QI) was the Model Standard that ranked second to highest, following Planning and Implementation, in terms of overall average scores. Specifically, participants recognized and increased commitment to performance management and public health accreditation within the SPHS.

While our skills, collaboration and overall efforts in data collection were seen as strong points, lack of timely, regularly updated data was identified as a weakness. Additionally, the lack of a data query system or single point of access for data, as well as data that is specific to minority and sub-populations

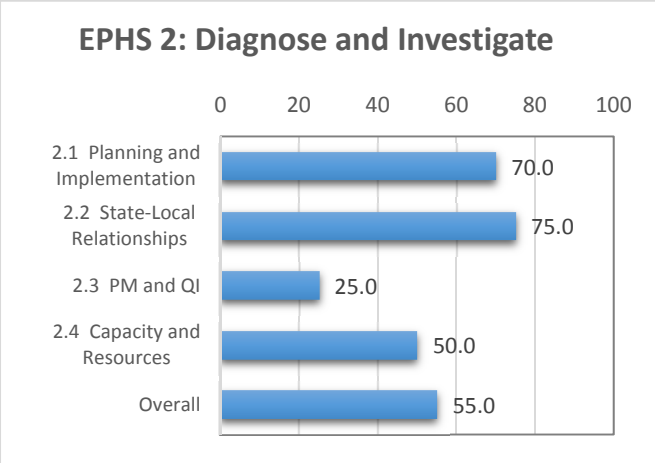
within the state were noted as weaknesses related to data. Whereas the collection and dissemination of data is related to the SPHS's capacity and resources, a lack of overall resources including, funding, staff, tools and technology, was among the other weakness that emerged.

While it was recognized that collaboration among system partners has greatly improved within this area over the past five years, several opportunities to build data capacity were identified. These opportunities for improvement include:

- Developing a data query system or warehouse for easy access to data and reports (i.e., a single access point for all data).
- Involving more statewide entities in accessing and sharing data.
- Improving data collection for select minority groups and subpopulations.
- Developing a standardized format to deliver data across Nebraska.
- Training local health departments on how to interpret, analyze and use data.
- Changing the culture around quality improvement to get more buy in from stakeholders.

Essential Public Health Service 2 (Diagnose and Investigate Health Problems and Health Hazards)

Overall Score: 55 out of 100 (65 out of 100 in 2011)



Of the Ten Essential Public Health Services, Essential Public Health Service 2 received the highest average score (55 out of 100) in the assessment. State-local relationships was the model standard ranked strongest in this Essential Public Health Service, which aligns with the overall strengths identified by participants. Specifically, it was noted that relationships and partnerships have developed and improved which has increased the public health system's ability to share resources, conduct surveillance, access data and respond. Improved coordination, collaboration, and partnerships at both the state and local level were identified as strengths in Essential Public Health Service 2.

In terms of weaknesses in our public health system's ability to diagnose and investigate health problems and health hazards, four main areas surfaced. One of these recognized weaknesses is a lack of formal surveillance review and no existing formal communication process with review and performance

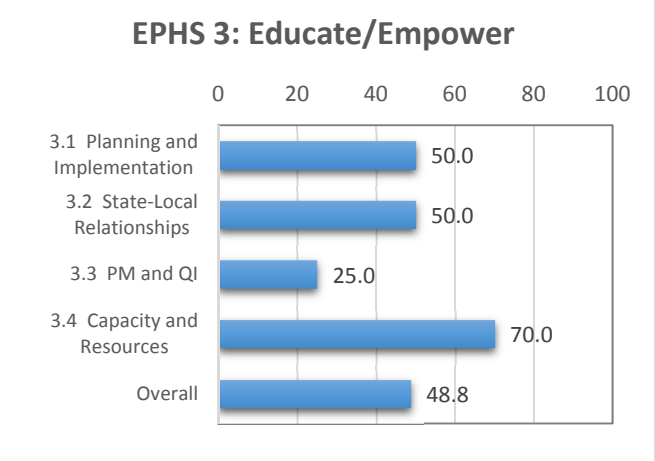
management activities. Perhaps it is this weakness that inclined participants to rate Model Standard 3 (Performance Management and Quality Improvement) as the area with the least amount of activity within this Essential Public Health Service. Data access was another area which was identified as a weakness in regards to accessibility of timely data, especially at the local level. The siloed nature of programs, particularly when it comes to epidemiology related activities was yet another weakness that came to surface in Essential Public Health Service 2. Lastly, participants voiced that the dependency on grants can be a weakness in terms of restrictions placed on the SPHS by the deliverables of the grants.

As far as the opportunities that were noted for improvement in Essential Public Health Service 2, most focused around information sharing. The main identified opportunities for improvement include:

- Increased awareness of who to contact for needed public health-related information.
- Sharing available public health information within the SPHS and to the public.
- More intentional inclusion and collaboration among SPHS partners in outbreak response efforts.

Essential Public Service 3 (Inform, Educate, and Empower People about Health Issues)

Overall Score: 48.8 out of 100 (39 out of 100 in 2011)



Essential Public Health Service 3 came in second, following Essential Public Health Service 2, with an overall score of 48.8 out of 100. Within Essential Public Health Service 3, capacity and resources was the model standard area that received the highest score. Talent and expertise within the SPHSA was indicated as one of the overall strengths, along with collaboration between organizations. It was recognized that there is a lot of health marketing available and that our public health system does a great job of conducting health education. In addition, the system is moving toward more evidence-based strategies in conducting health education and are doing a good job of focusing on the outcomes of these activities.

While there are many concerted efforts and activities being implemented in this area, some weaknesses were identified. A lack of consistency in health messaging, and a lack of understanding around the efficacy of public health messaging were noted as weaknesses. Along these same lines, participants

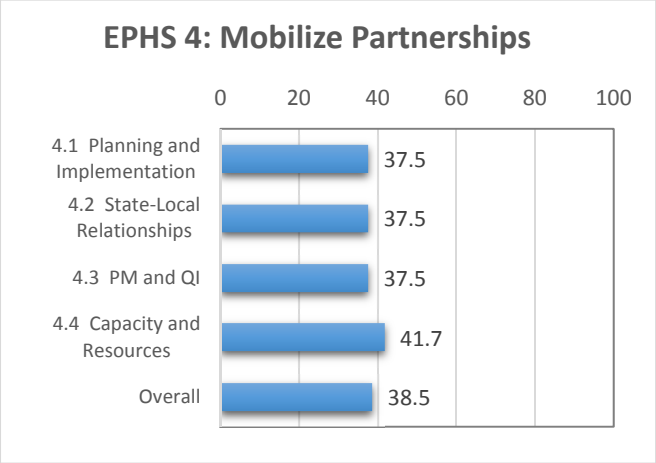
noted a lack of awareness of health literacy and culturally and linguistically appropriate services (CLAS) standards in health messaging and promotion efforts. Partners also indicated that evaluation and reporting on health education and programs can be taxing for their respective organizations. Consistent with challenges in evaluating and reporting, a lack of performance metrics on health education and health communication was identified as another weakness.

The following are areas in which the State Public Health System (SPHS) could work toward making improvements in our efforts related to Essential Public Health Service 3:

- Collaborations between payers, insurers, providers and public health.
- Return on investment (ROI) studies on the value of public health and preventive programs.
- Evaluation and communication on the effectiveness of health education efforts.
- Building on interest and commitment in areas where there are identified needs for health education.

Essential Public Health Service 4 (Mobilize Community Partnerships to Identify and Solve Health Problems)

Overall Score: 38.5 out of 100 (44.8 out of 100 in 2011)



Scores for each of the Model Standards in Essential Public Health Service 4 were very comparable, with capacity and resources being the area that scored strongest at 41.7% (the other three scored at around 37%). Overall strengths that were identified focus around our system's ability to work together and strengthen partnerships. Participants noted that partnerships seem to be valued and that there is an understanding of the vital role they play and in strengthening our public health system as a whole. Additionally, there was recognition of a tendency that public health system partners have to coordinate and align efforts in order to contribute to the greater good.

While partnerships and collaboration were recognized as strengths some weaknesses were identified which have the potential to inhibit the SPHS from fully benefiting from these partnerships. Notably, the very structure of the public health system and often siloed nature of programs and offices can prevent

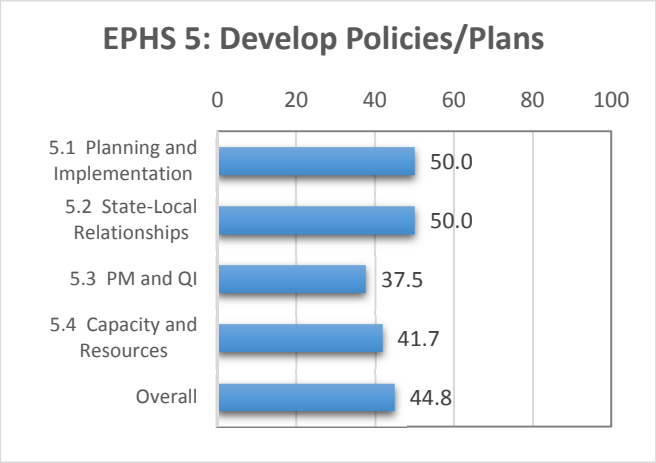
system partners from truly aligning. Lack of funding came up in discussion as another weakness, and was acknowledged as an obstacle for mobilizing partnerships. Politics was yet another overall weakness in terms of public health system partners having the opportunity to come together in an open forum to resolve differences at the state level. Lastly, a lack of a public health voice statewide in this area and the ability to sustain long-term partnerships were indicated as weaknesses.

Overall opportunities noted for improvement within this Essential Public Health Service were wide ranging and include:

- Having a statewide forum where public health issues can be discussed among partners, including controversial topics.
- Having the ability to tell our story by being able to measure our progress and make improvements.
- Sharing our success stories so we can acknowledge and recognize those organizations that are doing well in this area, not just those who are not.
- Having the opportunity to see where our plans align: what are all the different partners, organizations, departments and offices doing? We need to know this in order to align and develop these essential partnerships.

Essential Public Health Service 5 (Develop Policies and Plans that Support Individual and Community Health Efforts)

Overall Score: 44.8 out of 100 (67 out of 100 in 2011)



Scores for Essential Public Health Service 5 indicated that planning and implementation and state-local relationships are the areas where the Nebraska SPHS is performing at its strongest (both Model Standards received scores of 50%). Among the strengths for this Essential Public Health Service is the sense of willingness and availability for technical assistance from state partners to help at the local level, as well as our overall ability to bring public health system partners together for necessary conversations. Additionally, Nebraska has a well-developed State Health Improvement Plan and an established a set of standards for reviewing and tracking our progress around these improvement activities.

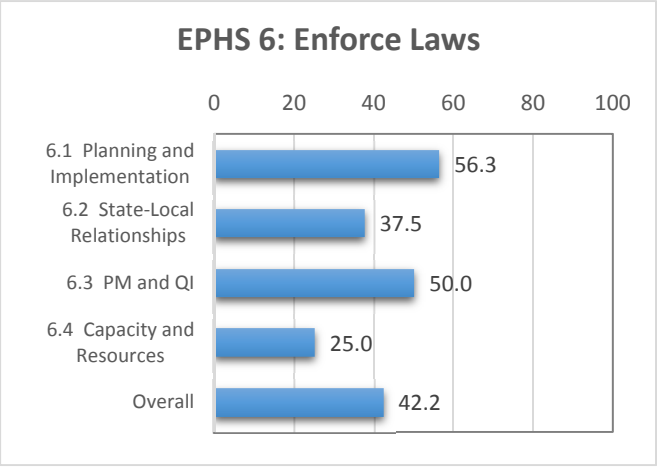
Areas of weakness identified within Essential Public Health Service 5 tend to focus around the need for continued efforts around partner engagement and a lack of activity around influencing and prioritizing policy. An absence of policy priorities as a public health system with a lack of collective movement around policy development and communicating policy came up as a weakness in many of the discussions. Follow through and communication among partners was also seen as a weakness in terms of continued efforts to move forward in developing and implementing plans and policies. Lastly, assessment participants recognized that not all partners are engaged and there may be some missing from discussions completely, which compromises the SPHS's ability to fully carry out activities in this Essential Public Health Service.

Much in line with these weaknesses are identified opportunities for improvement in the provision of Essential Public Health Service 5. These opportunities include:

- Engaging non-traditional partners who may not even see themselves as a part of the overall SPHS.
- Better aligning our efforts to optimize capacity and improve our planning and convening as a group of system partners.
- Addressing issues with policy in a more timely manner; bringing policy issues to the attention of decision makers to better assist in making policy change.
- Having a more collective and proactive approach in addressing policy and plan issues that arise (as opposed to addressing them after they come up).

Essential Public Health Service 6 (Enforce Laws and Regulations that Protect Health and Ensure Safety)

Overall Score: 42.2 out of 100 (30 out of 100 in 2011)



The overall score for Essential Public Health Service 6 was 42.2 out of 100, with planning and implementation being the Model Standard with the strongest activity. Generally, participants recognized that public health enforcement activities are being implemented and that the public health system is ensuring and protecting public health and safety. Additionally, skilled staff, access to legal expertise and

the ability to bring in regulatory bodies as needed for enforcement activities were seen as strengths in the SPHS.

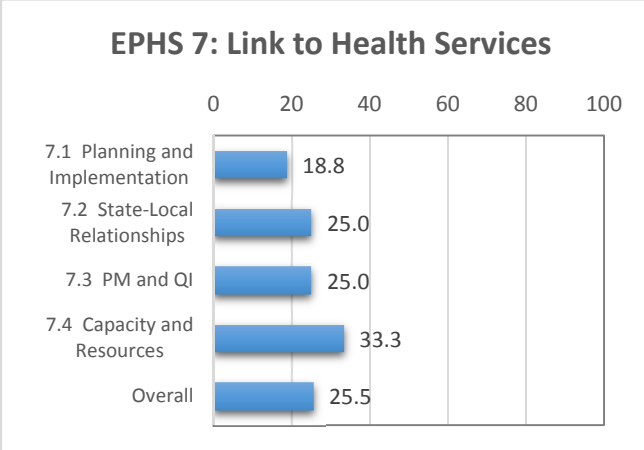
Though there was consensus around the idea that Nebraska's public health system is doing fairly well in the area of enforcement, there were some weaknesses noted in terms of carrying out these activities and doing so in the most effective way. Differing opinions among public health partners on what is "best" and what it means to protect the public's health and ensure safety proved to be a weakness that was acknowledged. In addition to this, a discrepancy between authority and responsibility in matters of law enforcement and regulation (i.e., the public health system may be responsible to do it, but does not necessarily have the authority to do it) came to surface as a problem within the current public health environment. In terms of PM and QI, efforts around continuous quality improvement and making changes based on identified issues with enforcement was indicated as a weakness within the SPHS. Furthermore, the lack of uniformity in review and QI related to enforcement activities among organizations was recognized to be a barrier to success in the SPHS's efforts in this area. Related to this are two other weaknesses including a lack of follow-up in correcting identified issues and challenges in anticipating and making necessary changes in enforcement and regulation prior to a crisis or highly debated situation (i.e., lack of a proactive approach in following-up and correcting identified issues).

Participants identified the following opportunities for improvement for Essential Public Health Service 6:

- Conducting a review of SPHS laws and regulations to determine which organizations have authority for implementation and responsibility for enforcement.
- Improving efforts and activities surrounding enforcement of laws and regulations by encouraging changes in existing laws as necessary and aiding in the development of new or proposed laws.
- Completing a comprehensive review of public health laws and update the Nebraska Public Health LawAtlas.
- Increasing the involvement of local level partners in developing public health initiatives and in enforcing laws and regulations.
- Improving coordination and communication between state and local level on the release of public health information and data.

Essential Public Health Service 7 (Link People to Needed Personal Health Services and Assure the Provision of Healthcare When Otherwise Unavailable)

Overall Score: 25.5 out of 100 (25 out of 100 in 2011)



Essential Public Health Service 7 received the lowest score of all Essential Public Health Services with a 25.5 out of 100, indicating that the Nebraska State Public Health System (SPHS) is doing minimal activity in this area. Though activity in this area is minimal, some important strengths were identified. Specifically, assessment participants emphasized that there are passionate and willing people across the state who have the professional expertise to carry out the work necessary to better link individuals to services. Additionally, a greater awareness has developed around who needs to be served and groups are working toward addressing the major gaps in providing health services. Technical assistance from the state is available and processes like public health accreditation are pushing partners to look at Nebraska's public health system processes and the areas in which we have gaps in the provision of Essential Public Health Service 7.

Although there seems to be support and increased activity in this area some major weaknesses remain, which impede the SPHS's ability to fully carry out activities that link people to needed health services. For instance, the Nebraska SPHS is not fully aware of who is being served, what services are being provided, and what services are being utilized by those in need. Categorical participation rather than broad, system level participation was another area of weakness in our ability to link people to services. Finally, a lack of monetary resources in specific high need areas (e.g., mental health, developmental health and behavioral health) and disjointed resources in general were noted as other weaknesses in this Essential Public Health Service.

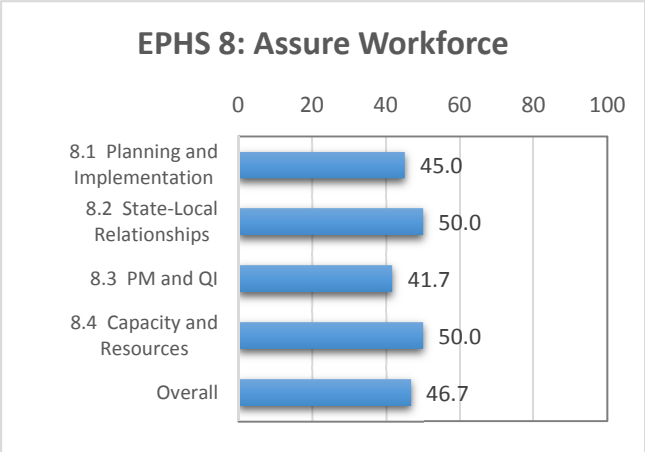
With minimal activity in this area, opportunities for improvement was a main focus of the discussions had among participants. Listed below are the major opportunities that were identified:

- Health equity should be front and center as a priority for the state; health access issues need to be tackled as an integrated system rather than categorized or isolated efforts.
- Acting on community support in addressing access issues as opposed to relying on federal funding for addressing health service access.

- Fostering patient buy in (i.e., if we don't have buy in from those who are identified as needing services we cannot force change and/or service utilization).
- Developing a statewide database for searching specific areas and demographics to better identify gaps in access and services.

Essential Public Health Service 8 (Assure a Competent Public Health and Personal Healthcare Workforce)

Overall Score: 46.7 out of 100 (42.5 out of 100 in 2011)



Assurance of a competent public health and personal healthcare workforce was regarded among the top three performing Essential Public Health Services within the state of Nebraska. Essential Public Health Service 8 received a score of 46.7 out of 100. Among the specific strengths identified by participants is leadership, at both the local and state level, supports staff learning by encouraging and allowing staff attendance at conferences, trainings, webinars, etc. Additionally, participants identified resources and activities that are specifically targeting workforce development. The Center for Preparedness at UNMC College of Public Health and the Public Health Leadership Institute are seen as great assets in this area. The Statewide Workforce Development plans, based on comprehensive workforce assessments, which exist at the state DHHS and local health departments were also noted as areas of strength within this Essential Public Health Service.

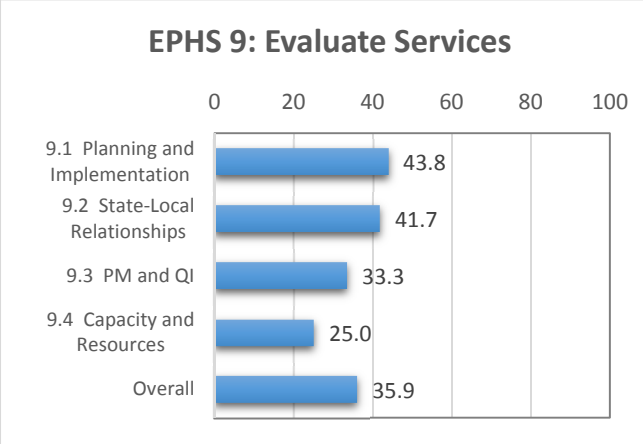
While workforce development activities are taking place within the public health system, a lack of "holistic" workforce development was identified as a weakness. A lack of capacity as a system, including staff and/or staff with expertise in this area was noted as a barrier to this lack of a holistic approach. Other weaknesses in this area focused on staff training and education opportunities. These included a dependency on funding for workforce development and training, as well as a lack of a basic, consistent orientation training for local health department staff with minimal public health knowledge or experience.

Opportunities for developing and strengthening the public health workforce in Nebraska are ever emerging. The key opportunities for improvement identified during this group's breakout session are:

- Defining, as a public health system, what we mean by workforce development (i.e., gaining a clearer understanding of the activities involved in this).
- Working to meet the needs identified in our workforce assessments- there is a need to come up with ways to address these needs that emerge.
- Looking at workforce development issues in a broader sense- for example, staff training should not just be about having the time to send staff, but rather we should develop a culture that supports and encourages staff training.
- Creating a road map/resource guide that includes helpful trainings for public health workers that have varying education and training in public health.

Essential Public Health Service 9 (Evaluate Effectiveness, Accessibility, and Quality of Personal and Population-Based Health Services)

Overall Score: 35.9 out of 100 (41.1 out of 100 in 2011)



Essential Public Health Service 9 focuses on activities that evaluate the effectiveness, accessibility and quality of personal and population-based health services. Essential Public Health Service 9 received a score of 35.9 out of 100, indicating moderate activity in this area. Participants recognized a passion and intellectual curiosity within the SPHS to evaluate personal and population-based health services. Additionally, it was noted that we have made tremendous strides in the area of quality improvement and performance management. Specifically, there is great strength in the State Health Improvement Plan (SHIP) and the nine implementation work groups that have been working on quality improvement and tracking progress towards the identified performance measures and priority areas. Communication of our evaluation efforts and their results has also greatly improved which has strengthened activity in this Essential Public Health Service. Lastly, there was an overall recognition that many/most individual programs, agencies and organizations within the State Public health System (SPHS) are evaluating their efforts in terms of accessibility and quality of health services.

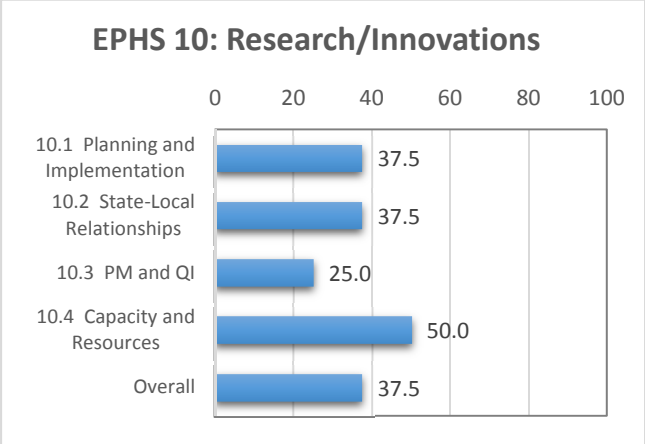
The identified weaknesses within Essential Public Health Service 9 prove to demonstrate some of the obstacles in fully carrying out activities related to this Essential Public Health Service. A lack of a comprehensive approach for evaluation of the public health system as a whole was one of the major weaknesses identified. Assessment participants noted that there is a lack of resources devoted to evaluation and that most evaluation activities are prompted by grant requirements. Beyond this lack of a system level, comprehensive approach to evaluation, a lack of resources (money and time) was recognized as yet another obstacle. It was noted that evaluation is difficult to do when there is a lack of resources and/or funding to deliver the health services in the first place. This noted lack of resources may be directly reflected in score for Model Standard 3 (Capacity and Resources), which was the area that received the lowest score in this particular Essential Public Health Service.

Though it is clear that there are some system level obstacles when it comes to the provision of Essential Public Health Service 9, it is also clear that there are many opportunities for improvement. These opportunities include:

- Making evaluation requirements (e.g., perhaps all grantees would be required to spend 10 percent of their funding on evaluation activities) for funding may help with sustainability since evaluation plans are typically the first to be abandoned.
- Discussions with UNMC College of Public Health regarding evaluation- encouragement could be given in their efforts to incorporate evaluation into academic curriculum.
- Disseminating evaluation efforts that are happening to increase knowledge and encourage more dialogue around these activities- this could help demonstrate the value of evaluation.
- Encouraging the public health system and its partners to start with evaluation in mind because evaluation efforts cannot happen after the fact.
- Involving local stakeholders in evaluation so they value, trust and understand the results (i.e., if results are just disseminated and received locals and stakeholders tend to question the accuracy of the data and/or if it's truly reflective of the health services being provided).
- Sharing of state data- much of the data used for local planning purposes is self-generated.

Essential Public Health Service 10 (Research for New Insights and Innovative Solutions to Health Problems)

Overall Score: 37.5 out of 100 (45.8 out of 100 in 2011)



Essential Public Health Service 10 is yet another area of moderate activity within the SPHS. Specifically, expertise in research is identified as a strength, and academia is doing substantial research. Examples of collaborative efforts, such as the practice-based research network and community-based participatory research were identified as strengths in this Essential Public Health Service. Beyond this expertise and collaboration, the public health system has leadership (from universities and academia) with a research vision. Finally, the widespread use of evidence-based practice throughout the SPHS is was noted as a major strength in Essential Public Health Service 10.

In terms of areas where the State Public Health System (SPHS) is lacking in research and innovation activities three main weaknesses were identified. First, participants recognized that the Nebraska SPHS lacks a uniform research agenda and a dialogue around our research and innovation activities. Additionally, a lack of resources including funding, staff and capacity for providing technical assistance was seen as a major weaknesses. Lastly, constraints on how research is conducted and how grant funds are used were recognized as a major weaknesses in this area.

With some major strengths and weaknesses in Essential Public Health Service 10 participants noted an abundance of opportunities to improve the current activity and promote further activity in this area. These opportunities regarding research for new insights and innovative solutions to health problems include:

- Improving access to data which will present the State Public Health System (SPHS) with better opportunities for research and innovation.
- Convening a group of researches to better coordinate and work on setting a comprehensive research agenda.
- Bringing people together to continue to conversation and build momentum for research and innovation.
- Developing collaborative research agendas for the practice community and the academic community.
- Using academia as a collaborative mechanism to share resources and the research work.
- Breaking down the siloed, university focused nature of research.
- Aligning academia with public health research needs.

Final Remarks and Next Steps

This report has presented the major findings from the State Public Health System Assessment based on the National Public Health Performance Standards that have been developed by the American Public Health Association, Association of State and Territorial Health Officials, National Association of County and City Health Officials, National Network of Public Health Institutes, Public Health Foundation and the Centers for Disease Control and Prevention. While the current public health system in Nebraska has many strengths there are many opportunities to strengthen and perhaps transform the system. These changes will be accomplished through visionary leadership, strong state and local collaborative partnerships and continuous quality improvement. It will also require a skilled and knowledgeable workforce and a more effective data and information system.

In terms of next steps and moving forward to improve the function of the Nebraska SPHS, a consensus workshop was conducted in order to conclude the activities from the 2015 SPHS assessment. As mentioned previously in the purpose and methods section, a smaller group of public health leaders within the state met on November 18, 2015 to review the findings from the Nebraska SPHS Assessment and build consensus around the existing or emerging gaps within the SPHS as a whole. These existing or emerging gaps will allow the SPHS and its partners to have a better sense of direction as we move forward in our improvement efforts, specifically in the development of the State Health Improvement Plan (SHIP) and the determination of health priority areas.

During the stakeholder consensus workshop and related discussions seven main existing and/or emerging gaps were identified within the SPHS. These seven areas and the sub points/activities within them represent actionable areas that could minimize/close gaps and improve the care and maintenance of the Nebraska SPHS. The seven areas for improvement are:

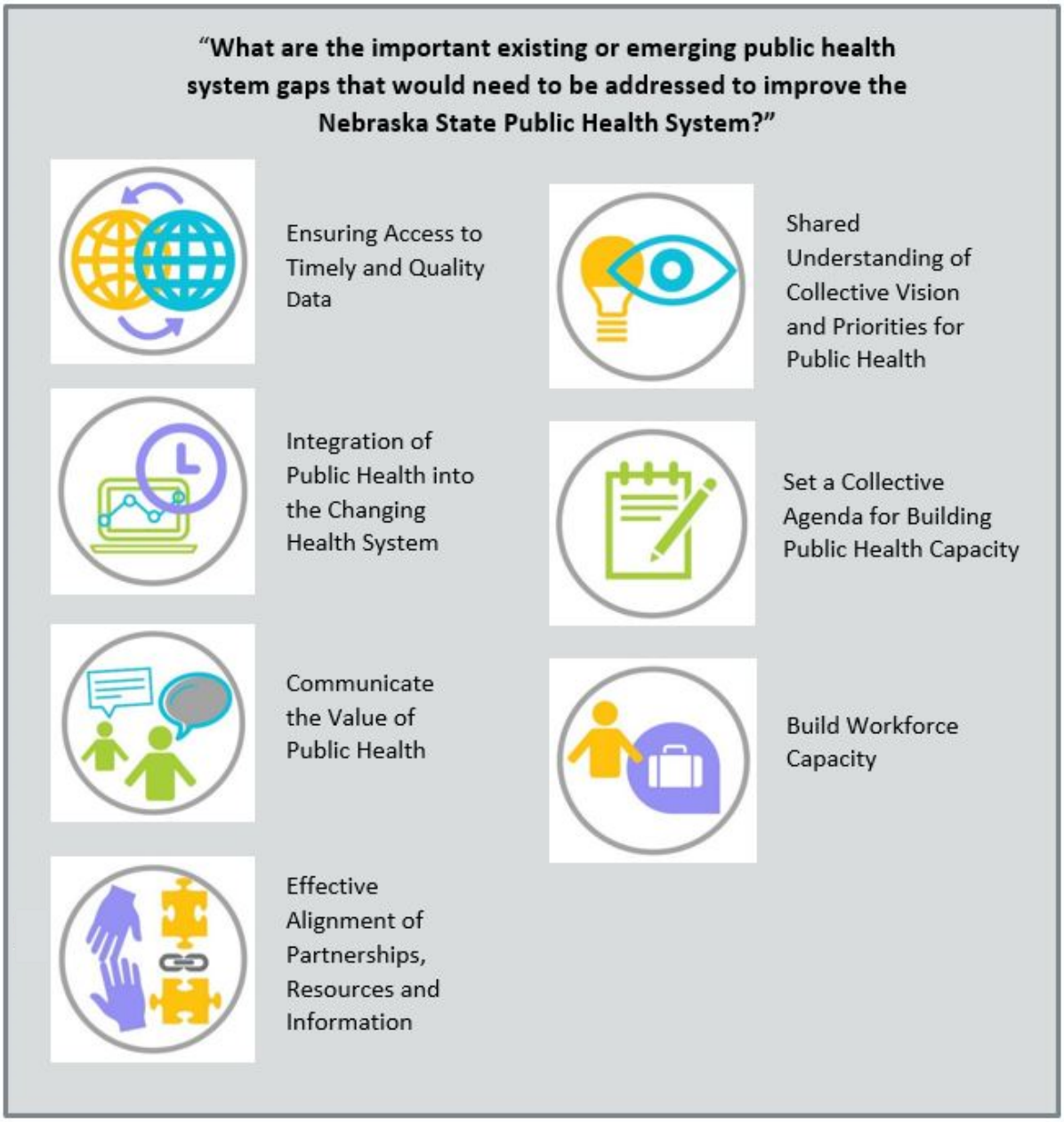


Figure 7 reflects these seven areas and additional sub points and activities within each existing or emerging public health system gap.

Figure 7.
"What are the important existing or emerging public health system gaps that would need to be addressed to improve the Nebraska State Public Health System?"

Ensuring Access to Timely and Quality Data	Integration of Public Health into the Changing Health System	Set a Collective Agenda for Building Public Health Capacity	Build Workforce Capacity	Shared Understanding of Collective Vision and Priorities for Public Health	Communicate the Value of Public Health	Effective Alignment of Partnerships, Resources, and Information
Limited untimely delivery of data	Understanding of integrating public health with primary care	Collective public health policy agenda	Addressing the gaps of a retiring workforce	Awareness of SHIP (State Health Improvement Plan)	Awareness of what public health is	Connection between academia and practice
Timely data	Including public health in the patient-centered medical home model	Under funded system	"workforce development" – include sustaining positions	Identifying and communicating set of state priorities	Decision makers don't understand role and value of public health	Lack of clear expectations between state and local public health system
Electronic data query system	Connection with medical community linkages (community health workers)	Stronger performance management / quality improvement systems	Public health informatics workforce	Unclear state public health priorities		Transparency of data, information, goals, and relationships
Data collection and utilization / dissemination	Who are the new leaders we need to engage in the revamped system?	Address the changing political landscape	Practice-based student training	Long range vision		Defining core state public health partners and their roles
Capacity to use "big data"	Alternatives to Medicaid expansion	Consistency of services across the state	Workforce deficiencies for new health system			No insurers on our jelly bean list / diagram
	Community health worker recognition / credentials	Noncompetitive funding	Capacity to address social determinants of health			Tribal engagement with public health system

	Integration of services	Increased evaluation and research				Leverage private funding
	Links to managed care	Public health research agenda				Good sharing of resources
	Leading in defining public health role in healthcare	Use of technology to keep existing players engaged				Linking systems – partners and community
	Healthcare transformation (e.g., education to public health professionals)	Making evaluation practical				State – local- tribal coordination and consistency of programs / services
						Sharing best practices (due to limited resources)
						Recognize our responsibilities to related systems (e.g., child welfare)
						Leverage of resources
						Changes in public health curriculum to address emerging issues
						Coordination of information and services at all levels
						Weave together big opportunities -communicate -leverage (e.g., 1422)

State Public Health System Assessment Participant Lists

State Public Health System (SPHS) Assessment Participant List- Day 1 (November 17th, 2015)

Participant Name	Affiliation
Sue Adams	Nebraska Division of Behavioral Health
Carol Allensworth	Douglas County Health Department
Mindy Anderson-Knott	University of Nebraska at Lincoln
Jeff Armitage	Nebraska Division of Public Health, Community Health & Performance Management
Deb Bass	Nebraska Health Information Initiative
Carole Bates	Nebraska Medical Association
Karen Berry	Nebraska Division of Public Health
Lisa Bloss	Southeast District Health Department
Susan Bockrath	Nebraska Association of Local Health Directors
Margaret Brink	Four Corners Health Department, Board of Health
Catherine Brown	Nebraska Children and Families Foundation
Nathan Busch	Nebraska Division of Children & Family Services
Bryan Buss	Nebraska Division of Public Health, Epidemiology
Nicole Carritt	Project Extra Mile
Maya Chilese	Nebraska Division of Public Health, Community Health & Performance Management
Kevin Cluskey	Southeast District Health Department
Kevin Conway	Nebraska Hospital Association
Autumn Cummings	North Central District Health Department, University of Nebraska Medical Center
Patti DeLancy	Nebraska Division of Public Health, Community Health & Performance Management
Vicki Duey	Four Corners Health Department
Sarah Eason	Public Health Solutions District Health Department
Elizabeth Essex	Nebraska Division of Public Health, Drinking Water & Environmental Health
Paula Eurek	Nebraska Division of Public Health, Lifespan Health Services Unit
Jane Ford-Witthoff	Public Health Solutions District Health Department
Steve Frederick	Lincoln Lancaster County Health Department
Crystal Fuller	Region VI Behavioral Health Systems
Liz Gebhart	Nebraska Division of Public Health, Chronic Disease Prevention & Control Program
Monet Goudreault	Nebraska Division of Public Health, Community Health & Performance Management
Liz Green	Nebraska Division of Public Health, Comprehensive Cancer Control Program
Brandon Grimm	University of Nebraska Medical Center, College of Public Health
Jamie Hahn	Nebraska Division of Public Health, Chronic Disease Prevention & Control Program
Dan Hiller	Nebraska Emergency Management Agency
Gwen Hurst	Nebraska Division of Public Health, Health Promotion Unit
Kathy Karsting	Nebraska Division of Public Health, Lifespan Health Services Unit
Heather Krieger	Nebraska Division of Public Health, Reproductive Health
Lora Langley	Ponca Tribe of Nebraska

Kristen Larsen	Nebraska Division of Public Health, NE Planning Council on DD
Shavonna Lausterer	Sarpy/Cass Department of Health & Wellness
Pat Lopez	Public Health Association of Nebraska (PHAN)
Diane Lowe	Nebraska Division of Public Health, Health Disparities & Health Equity
Judy Martin	Nebraska Division of Public Health, Community & Environmental Health
Sue Medinger	Nebraska Division of Public Health, Community & Rural Health Planning
Sara Morgan	Nebraska Division of Public Health, Lifespan Health Services Unit
Greg Moser	Nebraska Division of Public Health, Community Health & Performance Management
Peg Ogea-Ginsburg	Nebraska Division of Public Health, Injury Prevention Program
Anne O'Keefe	Douglas County Health Department
Dave Palm	University of Nebraska Medical Center, College of Public Health
Ming Qu	Nebraska Division of Public Health, Epidemiology & Informatics
Blanca Ramirez-Salazar	Nebraska Division of Public Health, Health Disparities & Health Equity
Tom Rauner	Nebraska Division of Public Health, Rural Health
Bruce Rieker	Nebraska Hospital Association
Josie Rodriguez	Nebraska Division of Public Health, Health Disparities & Health Equity
Jill Savage	Nebraska Division of Public Health, Comprehensive Cancer
Garrett Schwindt	Nebraska Division of Public Health, Community Health & Performance Management
Jennifer Severe-Oforah	Nebraska Division of Public Health, Lifespan Health
Jennifer Skala	Nebraska Children and Families Foundation
Jeff Soukup	Nebraska Division of Public Health, Community Health & Performance Management
Wehnona Stabler	Omaha Tribal Health Department
Jean Stillwell	Nebraska Division of Public Health, Tobacco Free Nebraska Program
Colleen Svoboda	Nebraska Division of Public Health, Community Health & Performance Management
Molly Swanson	North Central District Health Department
Terra Uhing	Three Rivers Public Health Department
Gina Uhing	Elkhorn Logan Valley Public Health Department
Shannon Vanderheiden	West Central District Health Department
Kay Wenzl	Nebraska Division of Public Health, Health Promotion Unit
Becci White	Tribal Health Planner, Ponca Tribe of Nebraska
Larry Wiehn	Nebraska Division of Public Health, Investigations
Fan Zhang	Nebraska Division of Public Health, Epidemiology & Informatics
Mona Zuffante	Winnebago Tribal Health Director

State Public Health System (SPHS) Assessment Participant List- Day 2 (November 18th, 2015)

Participant Name	Affiliation
Jeff Armitage	Nebraska Division of Public Health, Community Health & Performance Management
Michele Bever	South Heartland District Health Department
Susan Bockrath	Nebraska Association of Local Health Directors
Maya Chilese	Nebraska Division of Public Health, Community Health & Performance Management
Kevin Cluskey	Southeast District Health Department
Patti DeLancy	Nebraska Division of Public Health, Community Health & Performance Management
Vicki Duey	Four Corners Health Department
Sarah Eason	Public Health Solutions District Health Department
Paula Eurek	Nebraska Division of Public Health, Lifespan Health
Monet Goudreault	Nebraska Division of Public Health, Community Health & Performance Management
Brandon Grimm	University of Nebraska Medical Center, College of Public Health
Shavonna Lausterer	Sarpy/Cass Department of Health and Wellness
Pat Lopez	Public Health Association of Nebraska
Judy Martin	Nebraska Division of Public Health, Community & Environmental Health
Sue Medinger	Nebraska Division of Public Health, Community & Rural Health Planning Unit
Greg Moser	Nebraska Division of Public Health, Community Health & Performance Management
Dave Palm	University of Nebraska Medical Center, College of Public Health
Ming Qu	Nebraska Division of Public Health, Epidemiology & Informatics
Garrett Schwindt	Nebraska Division of Public Health, Community Health & Performance Management
Jeff Soukup	Nebraska Division of Public Health, Community Health & Performance Management
Wehnona Stabler	Omaha Tribal Health Department
Colleen Svoboda	Nebraska Division of Public Health, Community Health & Performance Management
Gina Uhing	Elkhorn Logan Valley Public Health Department
Shannon Vanderheiden	West Central District Health Department
Kay Wenzl	Nebraska Division of Public Health, Health Promotion Unit

Appendix E: Health Status Assessment Data Source Glossary

ArboNET = national arboviral surveillance system, CDC

ACS = American Community Survey, U.S. Census Bureau

ARDI = Alcohol-Related Disease Impact, CDC

BLS = Bureau of Labor Statistics

BRFSS = Behavioral Risk Factor Surveillance System

Census = U.S. Census Bureau

E-code = External Cause of Injury, NDHHS

EPA = Environmental Protection Agency

Magellan Treatment Database = Magellan Treatment Database, NDHHS

Medicaid EPSDT = Medicaid Early and Periodic Screening, Diagnostic and Treatment

NCHHSTP Atlas = National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention Atlas, CDC

NCHS = National Center for Health Statistics

NCR = Nebraska Cancer Registry, NDHHS

NDHHS = Nebraska Department of Health and Human Services

NE ABLES = Nebraska Adult Blood Lead Epidemiological Program Data, NDHHS

NHDD = Nebraska Hospital Discharge Data

NIS = National Immunization Survey

NSDUH = National Survey on Drug Use and Health

NVR = Nebraska Vital Records, NDHHS

PRAMS = Pregnancy Risk Assessment Monitoring System, NDHHS

UCR = Uniform Crime Reports, Nebraska Crime Commission

USDA = U.S. Department of Agriculture

USDOE = U.S. Department of Education

YPLL = Years of Potential Life Lost

YRBS = Youth Risk Behavior Survey