

STATE HEALTH ASSESSMENT

Division of Public Health

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The Nebraska Association of Local Health Directors and the University of Nebraska Medical College of Public Health were instrumental in planning, supporting, and facilitating the multiple day retreats that further explored the information gathered from the assessments.

The Office of Performance Management, within the Division of Public Health, is grateful to all the stakeholders who participated in the assessments. A thank you also goes out to the dozens of State, Local, and Tribal Health Department representatives who attended the retreats. We thank everyone involved for their time, energy, and commitment to the health and well-being of all Nebraskans.

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Acronyms

ACS: American Community Survey

BMI: Body Mass Index

CDC: Center for Disease Control

CHA: Community Health Assessment

CHIP: Community Health Improvement Plan

DEI: Diversity, equity, and inclusion

DHHS: Nebraska Department of Health and Humans Services

Epi: Epidemiological

HP 2030: Healthy People 2030

HRSA: Health Resources and Services Administration

LHD: Local Health Department

NALBOH: The National Association of Local Boards of Health

NALHD: Nebraska Association of Local Health Directors

NE DPH: Nebraska Division of Public Health

PH: Public Health

PHAB: Public Health Accreditation Board **SDOH:** Social Determinants of Health

SHA: State Health Assessment

SHIP: State Health Improvement Plan **T/LHDs:** Tribal/Local Health Departments

UNMC COPH: University of Nebraska Medical College of Public Health

Introduction

Every five years, the Division of Public Health (NE DPH), within the Nebraska Department of Health and Human Services (DHHS), leads a collaborative process, which result in data-driven state-wide examinations of the health and wellbeing of the communities across Nebraska. This process results in a state health assessment (SHA) which serves as a foundation for a state health improvement plan (SHIP). To create the SHA, a wide variety of data was drawn upon. This includes qualitative assessments gathering input from Tribal and Local Health Departments (T/LHD) and community partners, as well as quantitative public health data sources.

The 2022-2023 SHA helps to identify factors, gaps, trends, and progress in both the public health system and the health status of Nebraskans. It includes selected public health system priorities and health status priorities based on assessments and the collection of data. The selected priorities will help inform the goals, objectives, and strategies contained in the Nebraska 2023-2027 SHIP. These complex topics are state and system-wide which requires collaboration from public health with an array of sectors.

Changes in Nebraska 2022-2023 SHA

DPH has a long history of completing comprehensive state health assessments and with the 2022-2023 SHA report, Nebraska is exploring a new approach to the SHA framework. As a component in conducting the state health assessment, we engaged T/LHD and community partners to participate in assessments aimed at identifying areas of strength and opportunities of improvement within Nebraska's public health system. Together with these partners, we created the vision of prioritizing sustaining public health infrastructure and reducing health disparities across Nebraska's public health system. This report includes data points on health outcomes and disparities across Nebraska. Under this new approach we are using this data, the county health rankings data, and the DHHS health policy priorities to focus on T/LHD Community Health Improvement Plan (CHIP) priorities as health status indicators that need to be addressed in Nebraska. Under the 2023-2027 SHIP, we will collaborate with data-minded community partners and stakeholders to analyze this background data along with additional data being collected, to review with the dozens of CHIP priorities and make recommendations as to the grouping, order, and timeline we should use in addressing the health status of Nebraskans.

Nebraska Health Status Priorities

Nebraska's T/LHDs each perform community health assessments (CHA) and use the results to each develop a community health improvement plan (CHIP). A health department's CHIP justifies where resources should be allocated to best meet community needs. Each CHIP has a self- selected number of health priorities and strategies to address each.

T/LHDs play an essential and intricate role providing the majority of direct public health services. In Nebraska, there is a wide range in the T/LHDs geographic coverage, size, and diversity of population, urban and rural distribution, community health priorities, and services provided.

The Division of Public Health (NE DPH), within the Nebraska Department of Health and Human Services (DHHS), keeps the public health system strategically focused and outcomes based while providing the leadership needed to assure T/LHDs are able to fulfill their roles and responsibilities, maintain a competent workforce, and deliver quality services to all communities in Nebraska.

Advancing Public Health in Nebraska

Under the redesigned approach to Nebraska's SHA, the T/LHD's CHIPs ultimately serve as Nebraska's health status priorities. Each T/LHD is unique as is the population they serve. The Division of Public Health's internal Infrastructure Steering Committee will use DHHS health policy related priorities, the data contained in this report, as well as ongoing evaluation processes, to support the T/LHD. The story the data tells us will guide a systematic process in providing technical assistance, training, and funding to T/LHDs to meet the needs of their communities and address their CHIP priorities effectively. NE DPH is in the process of identifying data minded stakeholders to collaborate as they analyze this SHA report's data, DHHS health policy related priorities, and results from a 2023 -2024 statewide access to care assessment. This group will then compare this data review with the numerous CHIP priorities and make recommendations on timelines, clustering, and ordering to address them.

Key findings ascertained in the SHA report will be used to develop a 2023-2027 State Health Improvement Plan (SHIP). Objectives, strategies, and activities will be decided on by public health advancement topic workgroups under identified priorities. Working on the selected priorities will require collaboration across the public health system and with partners state-wide.

Data Components of Nebraska's 2022-2023 SHA Report

The 2022 SHA provides both qualitative and quantitative data to inform priorities and strategies in the 2023-2027 SHIP. In addition to background context on purpose and process, this report presents qualitative data from the public health system assessments and quantitative data on a range of health, demographic, and socioeconomic topics.

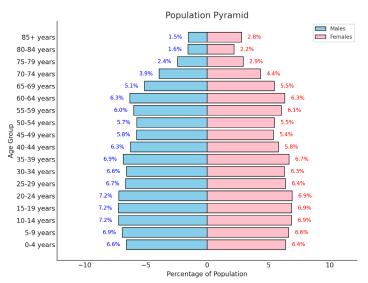
The unique geography of the state of Nebraska creates a challenging public health dynamic due to the extremes between the rural and urban landscapes. The following sections breakdown some of the demographic challenges that must be considered when creating effective public health programs.

Nebraska demographics

Population: The population of Nebraska was estimated to be 1,961,504 in the 2020 Census, a 7.4% increase compared to the 2010 Census.

Age and Gender: Age demographics show that the working-age population (18-64 years) accounts for 59.3%, followed by the population under 18 (24.5%) and the over 65 (16.2%). Female population represents 49.7%. There are 101 males per 100 females (ACS, 2018-2022). Figure 1 displays a population pyramid of Nebraska, a graphical representation depicting age and sex distribution of the population, showing a relatively balanced structure.

Figure 1: Population Pyramid of Nebraska.

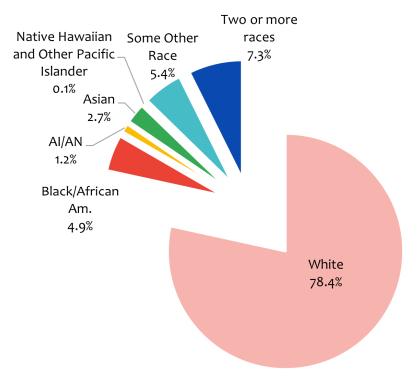


Data shows a shift towards an older demographic over time, with a significant portion of the population transferring into the older age brackets. This shift will require adjustments in various sectors, including healthcare, workforce planning, and social services, to adapt to the changing demographic profile.

Data source: American Community Survey (ACS, 5-year estimates 2018-2022. Table S0101 Age and Sex).

Race/ethnicity: White makes up the largest portion of the population at 78.4%. Minority groups (e.g., Black/African American, American Indian/Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, Some Other Race, and Population of two or more races), represent 21.6% of the total population in Nebraska. Figure 2 provides a visual comparison of the racial/ethnic groups within the state. Hispanic or Latino (of any race) represent 19.1% of the population. Please note that the percentage for Hispanic or Latino is separate from the percentages for racial categories, as Hispanic or Latino is an ethnicity, not a race, and people of Hispanic or Latino origin can be of any race.

Figure 2: Race Distribution in Nebraska

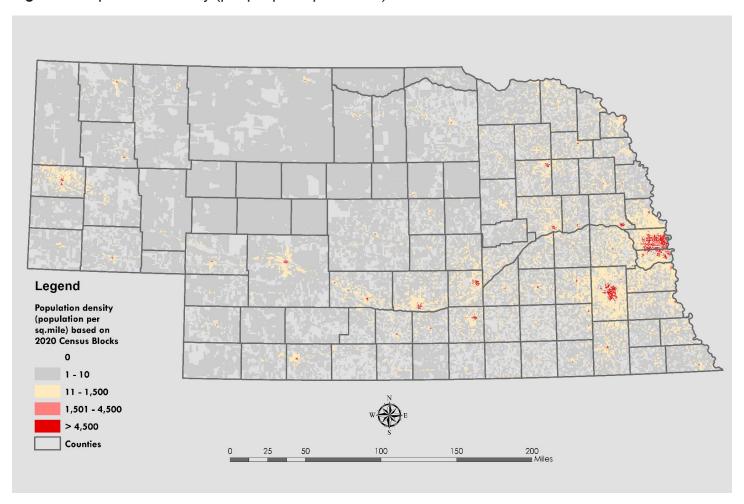


Data source: 2020 U.S. Decennial Census. Population of one race (alone). Table P9.

Population density: Nebraska is the 43rd-ranked state in terms of population density, with approximately one in three Nebraskans living in its two major cities, Omaha and Lincoln (U.S. Census Bureau, 2020). The state's rural and agricultural quality is reflected in its population distribution, with 89% of its towns having less than 3,000 people and hundreds of towns having less than 1,000 residents.

Figure 3 shows the high concentration of people measured by population density in Omaha and Lincoln (eastern Nebraska), and then cities with lower population densities across the rest of the state.

Figure 3: Population density (people per square mile) based on 2020 Census Blocks.



Data source: Census Blocks 2020. NebraskaMAP open data. Own elaboration. https://www.nebraskamap.gov/datasets/nebraska::census-blocks-2020/about

DPH is moving towards the integration of a web-based, interactive data visualization platform for delivering Nebraska's public health data. In future SHAs, we intend to use this platform to provide dynamic, online data sets and dashboards to allow public health access in a more data timely and accurate manner. This online platform, Atlas, was used to retrieve some of the health status indicator data and will be used more as the platform expands. Link to Atlas: https://dhhs.ne.gov/Pages/Nebraska-Public-Health-Atlas.aspx

Qualitative data

Four statewide public health assessments were conducted and include the:

- Nebraska State Public Health System Assessment
- Forces of Change Assessment
- Statewide Health Assessment
- · Health Improvement Planning Assessment

The Nebraska State Public Health System Assessment and Forces of Change Assessment were online platforms that allowed participants (tribal, state, and local health departments, academe, nonprofits, foundations, and other public health organizations) to share open-ended responses. The Statewide Health Assessment and Health Improvement Planning Assessment consisted of key informant interviews with local health department staff. The assessments gathered information across all regions of the state including urban, suburban, and Tribal jurisdictions to:

- Identify strengths and challenges within Nebraska's governmental public health system
- · Identify needs within Nebraska's governmental public health system
- Gather feedback on alignment between State and Local Health Assessment and Health Improvement Planning
 - Inform NE SHIP framework and priority choosing
 - Provide a baseline and foundation for ongoing SHA/SHIP process evaluation and NE DPH alignment with T/LHD assessments

As this is a comprehensive assessment, no topic area goes into significant depth, and may not represent the most up-to-date data. Therefore, the SHA report does not present every health and well-being indicator or population and instead highlights many different topic areas. Primary data was collected from three different assessments of the public health system in Nebraska. The results of the assessment highlight assets, gaps, and a vision for the future of Nebraska's public health system.

Public Health System Assessments

Stakeholder Engagement

In September of 2021 NE DPH contracted with the University of Nebraska Medical Center College of Public Health (UNMC COPH) to integrate a broader system review as a part of the state health assessment. The Public Health System assessment and the Statewide Forces of Change assessment engaged individuals representing tribal, state, and local health departments, academe, nonprofits, foundations, and other public health organizations. The State and Local Alignment assessment was completed by T/LHD representatives.

Following the statewide public health system assessments, NE DPH, Nebraska Association of Local Health Directors (NALHD), and University of Nebraska Medical Center College of Public Health (UNMC COPH) collaborated to coordinate two separate retreats to further explore the results from the system level assessments. Forty representatives from State, Tribal, and Local health departments attended a two-day retreat in November 2021. Sixty representatives from State, Tribal, and Local health departments attended the second two-day retreat in May 2022.

Qualitative primary data gathered from the assessments and retreats was interpreted by UNMC COPH and further analyzed by Juan-Paulo Ramírez, Ph.D. with GIS & Human Dimensions Evaluation and Consulting. A process evaluation is being conducted to assess this redesigned, novel approach to the SHA process. Measures being evaluated include the concept of a more public health system focused purpose of the SHA/SHIP. NE DPH program areas are undergoing an internal capacity assessment; community patterns and T/LHDs are undergoing a SHA/SHIP user assessment; T/LHDs are undergoing focused conversation and key informant interviews. NE DPH is contracting with the University of Nebraska's Methodology and Evaluation Research Core (MERC); Partners for Insightful Evaluation (PIE), GIS & Human Dimensions Evaluation and Consulting, and UNMC COPH to conduct evaluations as well as create tools based on results.

Key Findings

While regions of Nebraska differ in size, demographics, and locale there are many shared strengths and challenges when it comes to the public health system across the state. The findings below are drawn from results from all three Nebraska Public Health System Assessments. Starting on page 69 in the <u>Appendix</u>, a further analysis of qualitative data gathered from the Nebraska Public Health System Assessment of Essential Service Delivery and Governance can be found.

Key Findings 1

An overarching theme from assessments resulting in shared strategic opportunities by communities of all kinds across the state include:

- Prioritize, Improve, and Commit to Collaborative Systems and Relationships within the Governmental Public Health System
- Optimize Governmental Public Health Resources and Dollars to Support the Public Health Workforce
- Create and Implement a Framework for an Accessible, Timely Data System
- · Develop Framework and Definitions for Health Equity in Nebraska

Key Findings 2

Events, factors, and trends in which the public health system operates, and how it generates both threats and opportunities including:

- Legal and political forces, especially in the wake of the COVID- 19 pandemic, are decidedly interconnected, given that public health related legislation has been highly linked with political discourse.
- Technological and scientific forces are also highly polarizing in the wake of the COVD-19 pandemic. While Nebraska experienced the availability of new vaccines and technology, it also generated mistrust of science in some communities.
- Social forces had the highest number of threats and opportunities listed. Social forces (e.g., aging population, socioeconomic disparity, public health workforce development) can have a great impact on community and individual health.
- Most economic factors cited pertained to the instability of public health funding.
- Climate change was the most cited environmental factor.

Key Findings 3

Opportunities to improve alignment between community health assessment/improvement plans and state health assessments/improvement plans include:

- SHIP's focus on infrastructure of the governmental public health system as it is what the state has control over and can influence
- Local/Tribal health departments continue to prioritize work with their nonprofit hospitals to complete health assessment and health improvement planning (health issue priority setting)
- SHIP increases strategic planning to support local/tribal health departments CHA/CHIPs through resource provision
- Local/Tribal health departments need the Division of Public Health to provide local, granular data for each local health district as well as sustainable funding for CHA/CHIPs

More details about the assessments, processes, and results can be found in the following appendices:

The <u>Appendix</u> addresses the Statewide Public Health System Asset Inventory and considers the key assets in place in Nebraska that allow us to successfully meet the Essential Public Health Services.

Following the Appendix is a report titled <u>Social Determinants and Health Disparities: A Comparative Analysis of Urban and Rural Populations in Nebraska</u> analyzed by Juan-Paulo Ramírez, Ph.D. with GIS & Human Dimensions, LLC. This analysis delves into how health outcomes are significantly impacted by geography in both rural and urban environments.

New Approach to Assessing Health Status

Health Status Priorities of Nebraskans

Based, in part, on the public health system assessment findings we concluded that the standard SHA/SHIP process may be leading to an overall experience that is less likely to support a functional relationship between the NE DPH, T/LHDs and community partners/stakeholders. The findings lead us to believe that a state process and plan separate from the local/Tribal health department processes and plans may not be as effective in identifying population needs and strategically responding together.

Nebraska's T/LHDs each routinely perform community health assessments (CHA). The results from a CHA are used to develop a community health improvement plan (CHIP). A health department's CHIP justifies where resources should be allocated to best meet community needs. Each community is unique and has their CHA and CHIP. Every CHIP has a self-selected number of health priorities and strategies. However, a commonality among all Nebraska T/LHDs is inadequate resources (e.g., funding, training, staff, etc.)

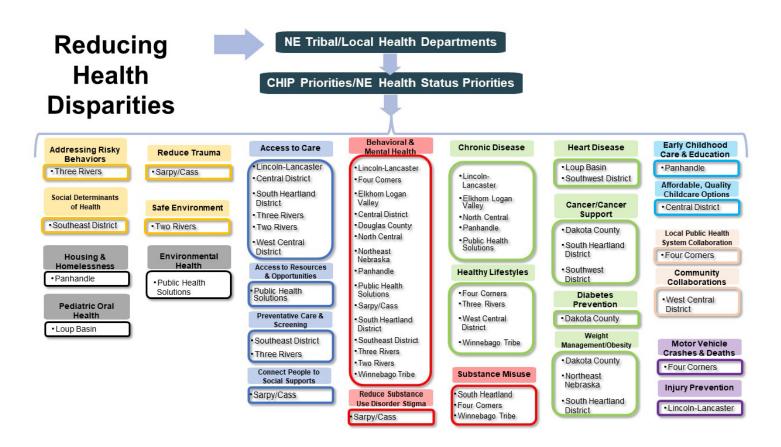
As a new approach to the SHA is explored, the T/LHD's CHIPs serve as the state health priorities to be synergized with the Department of Health and Human Service's identified health policy related priorities. A data-minded stakeholder advisory group will examine the quantitative data contained in the report along with CHIP data, DHHS health policy related priorities, and recommendations from the contracted evaluation team. This group will then make recommendations as to the order, groupings, and timeline NE DPH should use to address CHIP priorities. This will allow T/LHDs to be better equipped to meet the needs of their communities and address their CHIP priorities effectively.

Nebraska Local Health Departments

Click on each local health department below to learn more about them (<u>Nebraska Association of Local Health Directors</u>, 2022).

Central District Health Department	Dakota County Health Department	Douglas County Health Department	East Central District Health Department	Elkhorn Logan Valley Public Health Department
Four Corners Health Department	Lincoln-Lancaster County Health Department	Loup Basin Public Health Department	North Central District Health Department	Northeast Nebraska Public Health Department
Ga				
Panhandle Public Health District	Public Health Solutions	Sarpy/Cass Health Department	Scotts Bluff County Health Department	South Heartland District Health Department
				. •
	Southeast District Health Department	Southwest Nebraska Public Health Department	Three Rivers Public Health Department	
	Two Rivers Public Health Department	West Central District Health Department	Winnebago Public Health Department	

T/LHD most recent Community Health Improvement Plan (CHIP) Priorities



*Colors indicate preliminary clustering of similar priority categories. The 2023-2027 SHIP strategies/activities/advisory groups will take a deep dive into T/LHD CHIP priorities and the intentions behind them

Quantitative data

County Health Rankings

To identify the health status of Nebraskans over time, county health outcomes from the County Health Rankings datasets from 2010 to 2022 (University of Wisconsin) were analyzed according to the county grouping of the nineteen Local Health Departments in Nebraska. Health outcomes show how healthy a county is based on the physical and mental well-being of its residents. Indicators to measure health outcomes are related to length of life (e.g., premature death, and life expectancy) and quality of life (e.g., low birthweight, and those who rated their physical or mental health as poor). By applying the scores and weights to length of life and quality of life to the counties belonging to each LHD, LHDs were ranked by their health outcome, with the highest ranked LHD (rank = 1) having the best health outcome score, and the lowest ranked LHD (rank = 19) having the worst health outcome score. Please note that some counties within each LHD may have substantial differences in health outcomes among them, or some counties may have no health outcome measured due to small population size, which may impact the average ranking for the whole LHD.

To visualize health outcome results, LHD rankings were color coded from highest ranked LHD in green, and the lowest ranked LHD in red. Middle ranked LHDs are color coded in shades of yellow and orange. LHD health outcome rankings were also depicted using line charts to graphically describe how individual LHD rankings have changed over time.

It is recommended to investigate individual indicators that can explain LHD rankings by looking at individual county health outcomes and policies that could have contributed to impacting the quality of life of its residents over time.

Figure 2 shows the County Health Ranking's Model (Policies and Programs, Health Factors, and Health Outcomes) developed by the University of Wisconsin.

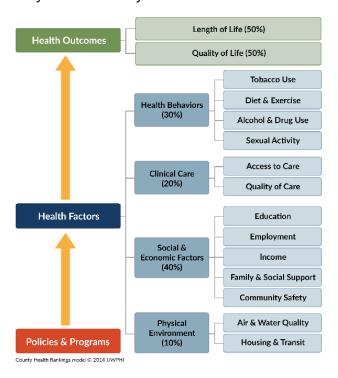


Figure 2. Source: University of Wisconsin. Population Health Institute. Available at: https://www.countyhealthrankings.org/explore-health-rankings/county-health-rankings-model/health-outcomes?

Color Coded LHD Ranking of Health Outcomes by Year

LHD	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
FOUR CORNERS	2	3	2	1	1	1	1	1	2	2	1	1	1
NORTH CENTRAL DISTRICT	6	5	11	2	2	3	2	2	1	1	8	2	2
SARPY/CASS	7	6	6	8	7	4	4	6	5	4	2	3	3
THREE RIVERS	5	7	5	6	6	7	5	5	4	7	4	6	4
CENTRAL DISTRICT	16	16	13	12	11	9	7	10	10	5	6	5	5
LINCOLN-LANCASTER	8	8	10	9	10	10	8	7	7	8	9	9	6
TWO RIVERS	11	11	8	7	5	15	17	15	8	10	7	4	7
NORTHEAST	4	1	4	5	9	11	13	8	12	12	12	8	8
EAST CENTRAL DISTRICT	3	4	3	3	3	2	6	9	9	3	3	7	9
PUBLIC HEALTH SOLUTIONS	12	13	12	15	15	17	16	17	16	9	5	15	10
DOUGLAS COUNTY	14	12	14	14	14	14	12	13	13	14	15	14	11
WEST CENTRAL DISTRICT	15	17	16	16	16	16	14	16	14	15	16	13	12
SOUTHEAST DISTRICT	17	15	17	17	17	12	15	12	18	17	17	17	13
SOUTH HEARTLAND	10	10	9	10	13	8	11	14	15	18	11	16	14
ELKHORN LOGAN VALLEY	1	2	1	4	4	5	3	3	3	6	10	10	15
DAKOTA COUNTY	13	14	15	11	12	13	10	11	11	13	13	11	16
LOUP BASIN	9	9	7	13	8	6	9	4	6	11	14	12	17
SOUTHWEST	18	18	18	18	18	18	18	18	17	16	18	18	18
PANHANDLE	19	19	19	19	19	19	19	19	19	19	19	19	19

Source: University of Wisconsin Population Health Institute. County Health Rankings State Report: 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2919, 2020, 2021, and 2022.

Note1: To calculate LHD rankings using multiple county health outcomes, the following formula was used per year:

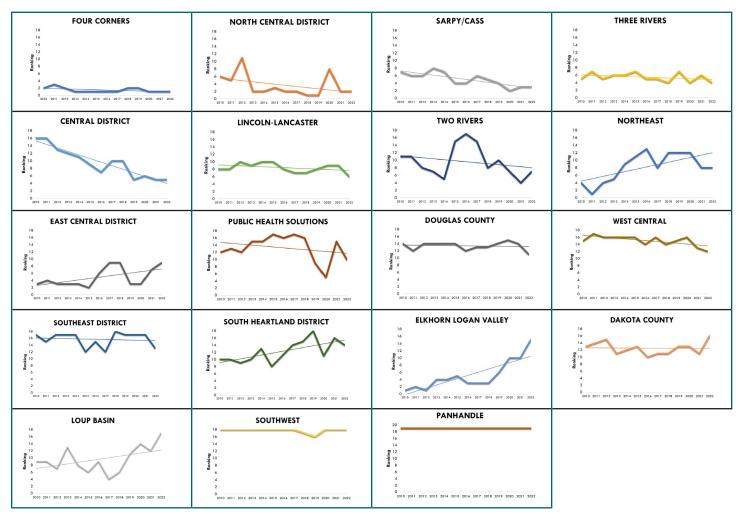
 \sum [county n length of life, Z - score] * 0.5 + \sum [county n quality of life, Z - score] * 0.5

Then health outcomes obtained from each of the 19 LHDs were sorted from lowest (rank = 1) to highest (rank = 19) per each year (see data in columns).

Note 2: Not all counties are ranked due to data suppression policies set by U. of Wisconsin.

Note 3: Length of life: Premature death (years of potential life lost before age 75). Quality of life: Self-reported health status, and percent of low birthweight newborns.

LHD Health Outcome Ranking Trends 2010-2022

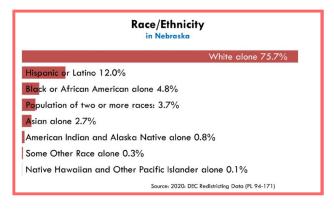


Source: University of Wisconsin Population Health Institute. County Health Rankings State Report: 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, and 2022.

Demographics and Socioeconomic Characteristics of The Population Served by The State Health Department

According to the 2020 Decennial Census, the total population in the State of Nebraska is 1,961,504 persons. The following are the main demographic and socioeconomic characteristics of the population:

Race/ethnicity



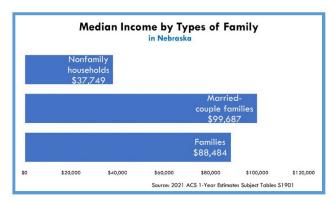
Age and Sex

37.2 +/- 0.2 Median Age in Nebraska 38.8 +/- 0.1 Median Age in United States

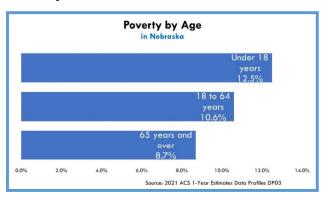
Source: S0101 | 2021 American Community Survey 1-Year Estimates

Income

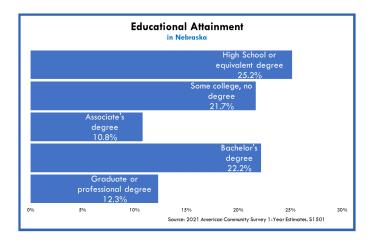
Median Household Income: \$66,817 (U.S. \$69,717)



Poverty



10.8% +/- 0.6% Poverty, All people in Nebraska 12.8% +/- 0.1% Poverty, All people in United States



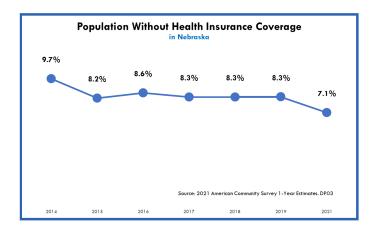
Educational Attainment

34.4%

Bachelor's Degree or Higher in Nebraska

35.0%

Bachelor's Degree or Higher in United States



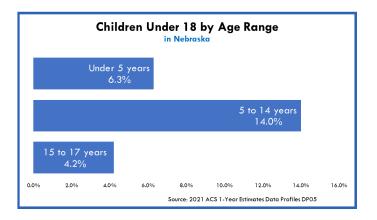
Health Insurance

7.1%

Without Health Care Coverage in Nebraska

8.6%

Without Health Care Coverage in United States



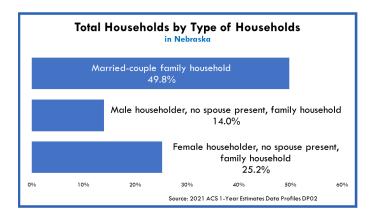
Families and Living Arrangements Children

24.6%

Under 18 years old in Nebraska

22.1%

Under 18 years old in United States



Families and Household Characteristics

3 07

Average Family Size in Nebraska

3.15

Average Family Size in United States

Health Disparities and Health Equity

Acknowledging Nebraska's health disparities is an important step in achieving equity (2020 Nebraska Health Disparities Report). Equity has been defined as being achieved when all individuals have the opportunity to attain the highest level of health, and no one is disadvantaged due to their social or economic position (Brennan et al, 2009). Achieving health equity among all populations is important to provide all individuals and communities with the opportunity to pursue a healthy and fulfilling life (World Health Organization, 2017).

Health disparities can stem from health inequities, which are systematic differences in the health of groups, and can exist across many other dimensions such as gender, sexual orientation, age, disability status, and geographic location (NASEM, 2017). Healthy People 2030 defines a health disparity as "a particular type of health difference that is closely linked with social, economic, and/or environmental factors" (Healthy People 2030).

Achieving Equal Access to Healthcare and Health Outcomes for All Nebraskans

Identifying the existing health disparities among diverse populations in Nebraska plays a vital role in achieving health equity. Understanding and recognizing where disparities exist allows for a more focused and integrated approach in eliminating those inequalities.

This report assesses the current state of Nebraska's health disparities and the changes, both positive and negative, which occurred over the 20-year period from 2000-2020. The report focuses primarily on health disparities between Nebraska's racial and ethnic populations, gender, and age, including diseases, health status, and health behaviors. The 2024 SHA delves into health disparities between Nebraska's urban and rural populations.

Methodology

Indicators in the report were categorized by race and ethnicity using the standards defined by the Office of Management and Budget, the federal agency that defines guidelines for government publications. The descriptor Hispanic or Latino is considered a designation of ethnicity, not a race, and people of Hispanic or Latino origin may be of any race. There are a minimum of five federally recognized categories for classifying race: American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or other Pacific Islander, and White. Please note the majority of White data from Vital Statistics represents those who consider themselves White, regardless of ethnicity. The Behavioral Risk Factor Surveillance System (BRFSS) data represents those from all racial groups who are not Hispanic. Please note that the American Indian data also includes Alaska Natives and African American data includes Black and African American Individuals.

Grouping populations helps to reach the population sizes needed to develop reliable statistics. For several indicators, no data is available due to small population sizes. To better analyze small groups (e.g., race and ethnicity or less common diseases), multiple years of data were combined to produce a five-year annual average.

Limitations: Data for race and ethnicity raises unique reliability problems. Those who collect the data often use different methods and standards. For some systems, the data reflects self-classification by the respondents according to the race with which they most closely identify.

To improve the health of all Nebraskans and to enable policymakers to identify future trends, target resources more effectively, and set program and policy priorities, it is critical that we keep collecting and disseminating reliable and accurate information regarding all components of health, including current health status, the determinants of health, and resources and outcomes.

Health Status

At the most basic level, the health status of any population can be expressed through two concepts – life and death. The challenge is in determining how to meaningfully measure and predict these concepts to track, compare, and explain changes in health status over time. Predicting mortality can be complex due to the variety of factors and determinants. However, researchers have found that perceived health status, a relatively simple measure, is the strongest predictor of mortality (Goldstein et al, 1984).

New research suggests that several health measures can affect self-reported health status. Lack of social support or leisure-time, physical activity, smoking, and high body mass index often lead to respondents having low perceived health status (<u>Bailis et al, 2003</u>). However, if individuals intend to change those negative measures in the future, they rate their health better.

Social Determinants of Health

While a wide variety of factors can affect health, an increasing amount of research and importance has been growing around the social determinants of health (SDOH). These social determinants are often created by the conditions in which people live and work and can be divided into five broad groups: economic stability, education access and quality, social and community context, health care access and quality, and neighborhood and built environment (Healthy People (2030)). Each of these categories includes several SDOH indicators. For example, economic stability determinants can include such indicators as poverty and employment, while education can include graduation and enrollment in higher education (CDC, 2014).

We know that certain groups often have less access to the conditions that support good health. For example, over one-third of Nebraskan's (approximately 660,029 people) live in rural areas. SDOH such as geographical location, physical environment impact, access to quality health care, housing, employment, food access, education, and transportation contribute to the less-than optimal health that is often prevalent in rural populations.

Another factor to consider can be the relationship between race and the SDOH. Racial and ethnic minority populations are far more likely to fall at the low end in each of these categories and disproportionately incur the negative consequences associated with those circumstances. The data review will further inform the efforts of NE DPH to narrow the gap of health disparities that are taking a toll on populations across Nebraska.

In the next sections of the SHA report, the document transitions from providing a broad overview of public health infrastructure and strategies to offering a more detailed description of health disparities across various demographics. The following Data Visualization Tables present disparities in household income, poverty, employment status, and health outcomes among different demographic groups, including race, ethnicity, and gender. Afterward, the report delves into geographical disparities and seeks to emphasize the influence of social determinants on health outcomes.

Data Visualization Tables

Household Income

Individuals with lower income levels are more likely to see higher mortality rates, the prevalence of acute or chronic diseases, and poorer mental health. The household income is calculated as the income of the householder and all other individuals 15 years old and over in the household in the past 12 months.

Household Income - key disparities in Nebraska: 2016-2020

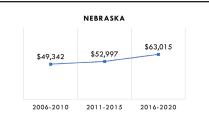
- Median household income in Nebraska is \$63,015.
- Among minority groups, African Americans had the lowest median income at \$37,163 between 2016 and 2020. Hispanics earned approximately \$13,000 less than Whites (\$65,207), while American Indians earned approximately \$21,000 less.
- Female householders reported a lower median income of \$14,474 compared to male households (\$38,743 vs. \$53,217, respectively).
- The 45 to 64 years old age group reported the highest median household income (\$76,594) among all age groups.

Trends Household Income:

- From 2006-2010 to 2016-2020, the Nebraska median household income increased \$13,673 (from \$49,342 to \$63,015, respectively).
- From 2006-2010 to 2016-2020, African Americans experienced an increase in median household income of approximately \$9,700, and Hispanics experienced an increase of approximately \$14,500.
- Between these time periods, Asians experienced an increase in median household income by approximately \$13,000, while American Indians experienced an increase by approximately \$17,500.
- From 2006-2010 to 2016-2020, female householders reported a median income increase of \$10,573 (from \$28,170 to \$38,743, respectively), \$2,995 lower when compared to male householders whose median income increased \$13,568 (from \$39,649 to \$53,217, respectively) during the same time period.
- From 2006-2010 to 2016-2020, the 65 years old and older age group increased their median household by 45 percent (from \$31,963 to \$46,268), the greatest increase among all age groups.

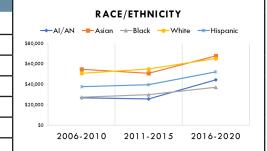
HOUSEHOLD INCOME						
Nebraska						
2006-2010 2011-2015 2016-2020						
\$46,342 \$52,997 \$63,015						
2 A : 0 (400)/F : 1 : 000/ 0010 0011 0015 0016						

Source: American Community Survey (ACS) (5-year estimates, 2006-2010, 2011-2015, 2016-2020. Table S1903).



Race/Ethnicity 2006-2010 2011-2015 2016-2020 AI/AN \$26,932 \$25,739 \$44.400 Asian \$67,853 \$54,847 \$50,787 Black \$27,468 \$29,967 \$37,163 White \$50,904 \$55,089 \$65,207 \$37,714 \$39,703 \$52,259 Hispanic

Source: American Community Survey (5-year estimates, 2006-2010, 2011-2015, 2016-2020. Table S1903).



 Gender

 2006-2010
 2011-2015
 2016-2020

 Female
 \$28,170
 \$30,973
 \$38,743

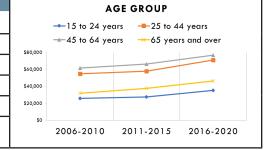
 Male
 \$39,649
 \$44,017
 \$53,217

Source: American Community Survey (5-year estimates, 2006-2010, 2011-2015, 2016-2020. Table S1903).

GENDER					
	householder, no spo ouseholder, no spou				
\$39,649	\$44,017	\$53,217			
\$28,170	\$30,973	\$38,743			
2006-2010	2011-2015	2016-2020			

Age Group 2006-2010 2011-2015 2016-2020 15 to 24 years \$25.891 \$27,413 \$35,184 25 to 44 years \$54,640 \$57,822 \$70,839 \$61,439 45 to 64 years \$66,338 \$76,594 65+ \$31,963 \$37,642 \$46,268

Source: American Community Survey (5-year estimates, 2006-2010, 2011-2015, 2016-2020. Table S1903).



Poverty

Poverty affects most aspects of life, from the affordability of health insurance to the quality of food selection. Poverty is much more prevalent among minority populations. The chart depicts those that were 100% below the federal poverty level.

Poverty - key disparities in Nebraska: 2016-2020

- 10.4 percent of Nebraskans live in poverty.
- Nearly one-fourth of American Indians (24.9%), Native Hawaiians and Other Pacific Islanders (24.6%), and African Americans (23.7%) lived below the poverty level.
- American Indians (24.9%) had a higher percent of individuals living below poverty levels when compared to the rest of races/ethnicities in Nebraska. Hispanics (18.4%) had twice the percent of individuals below the poverty line compared to Whites (9.0%).
- Female Nebraskans are more likely than males to live in poverty (11.5% vs. 9.3%, respectively).
- The under 18 years old age group is the most likely to live in poverty (12.2%) when compared to the rest of the age groups.

Trends Poverty Rate:

- From 2011-2015 to 2016-2020, poverty rates decreased 2.3 percent in Nebraska.
- The proportion of individuals below the federal poverty level decreased from 2006-2010 to 2016-2020 in all groups except the Asian population.
- The poverty rate slightly increased from 11.9% in 2006-2010 to 12.3% in 2016-2020 for the Asian population.
- American Indians experienced the largest poverty rate decrease among all groups, from 38.5% in 2006-2010 to 24.9% in 2016-2020.
- From 2011-2015 to 2016-2020, poverty rates among females decreased 2.7 percent, and poverty rates among males decreased 1.9 percent during the same time period.
- From 2011-2015 to 2016-2020, poverty rates decreased the greatest among the under 18 years old age group (4.9%).

POVERTY						
	Nebraska					
2010 2011-2015 2016-2020						
	12.9%	12.7%	10.4%			

Source: American Community Survey (1-year estimates, 2010. 5-year estimates, 2011-2015,



25.7%

18.4%

Source: American Community Survey (1-year estimates, 2010. 5-year estimates, 2011-2015, 2016-2020. Table S1701).

23.0%

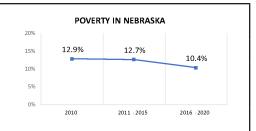
Hispanic

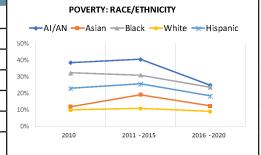
Gender			
	2010	2011-2015	2016-2020
Female	13.8%	14.2%	11.5%
Male	12.1%	11.2%	9.3%

Source: American Community Survey (1-year estimates, 2010. 5-year estimates, 2011-2015, 2016-2020. Table S1701).

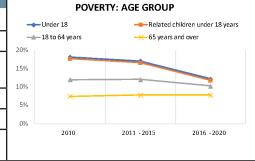
Age Group				
	2010	2011-2015	2016-2020	
Under 18	18.2%	17.1%	12.2%	
Related children under 18 years	17.7%	16.6%	11.8%	
18 to 64 years	12.0%	12.1%	10.3%	
65 +	7.5%	7.8%	7.8%	

Source: American Community Survey (1-year estimates, 2010. 5-year estimates, 2011-2015, 2016-2020. Table S1701).









Employment Status

According to the <u>Center for Global Policy Solutions</u> (2017), employment fragility is at the center of racial disparities in wealth in the United States. Unemployment referred to individuals who were 16 and older, able to work and had actively searched for a job in the past four weeks but did not have a job.

Unemployment - key disparities in Nebraska: 2016-2020

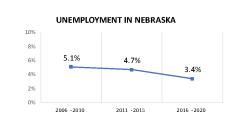
- Unemployment rates in Nebraska continue to be one of the lowest in the nation at 3.4 percent.
- From 2016-2020, American Indians reported the highest percentage of unemployed individuals at 12.8%, a percentage 4.4 times greater than that of Whites at 2.9%.
- The unemployment rate for African Americans (8.3%) was 2.9 times greater than that of Whites and the Hispanic (5.5%) unemployment rate was nearly twice as high as that of Whites.
- Among minority groups, Asians reported the lowest percentage of unemployed individuals at 4.1%, followed by Hispanics at 5.5%.
- Unemployment rates among females was 0.2 percent lower when compared to males (2.8% vs. 3.0%, respectively).

Trends Unemployment:

- From 2006-2010 to 2016-2020, the unemployment rate in Nebraska decreased 1.7 percent (from 5.1% to 3.4%, respectively).
- African American and American Indian populations experienced a substantial decrease in the percentage of unemployed individuals from 2006-2010 to 2016- 2020 (-6.7%, and -5.8%, respectively).
- From 2006-2010 to 2016-2020, unemployment rates among females were 0.1 0.4 percent lower when compared to males.
- From 2006-2010 to 2016-2020, the unemployment rate for the 20 to 24 years old age group decreased 3.4 percent (from 8.8% to 5.4%, respectively), the greatest decrease among all age groups.

UNEMPLOYMENT				
Nebraska				
	2006-2010	2011-2015	2016-2020	
	5.1%	4.7%	3.4%	

Source: American Community Survey (5-year estimates, 2006-2010, 2011-2015, 2016-2020. Table S2301).



Race/Ethnicity 2006-2010 2011-2015 2016-2020 AI/AN 18.6% 17.5% 12.8% Asian 5.0% 4.7% 4.1% Black 11.2% 8.3% 15.0% White 4.4% 4.1% 2.9% 7.9% 8.8% 5.5% Hispanic

Source: American Community Survey (5-year estimates, 2006-2010, 2011-2015, 2016-2020. Table S2301).

	UNEMPLOYMENT: RACE/ETHNICITY				
→	-AI/ANAsiar	n Black W	/hite Hispanic		
20%					
10%	*	*	*		
0%	2006 - 2010	2011 - 2015	2016 -2020		

 Gender

 2006-2010
 2011-2015
 2016-2020

 Female
 4.3%
 4.1%
 2.8%

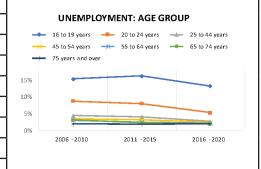
 Male
 4.7%
 4.2%
 3.0%

Source: American Community Survey (5-year estimates, 2006-2010, 2011-2015, 2016-2020. Table S2301).

UEMPLOYMENT: GENDER				
	-	-FemaleMale	2	
6% 4%	4.7%	4.2%	3.0%	
2%	4.3%	4.1%	2.8%	
0%	2006 -2010	2011 -2015	2016 - 2020	

Age Group 2006-2010 2011-2015 2016-2020 16 to 19 years 15.5% 16.4% 13.4% 5.4% 20 to 24 years 8.8% 8.1% 25 to 44 years 4.5% 4.1% 2.8% 45 to 54 years 3.5% 3.3% 2.5% 55 to 64 years 2.5% 2.2% 3.1% 65 to 74 years 3.2% 2.3% 2.0% 75+ 2.0% 1.9% 2.1%

Source: American Community Survey (5-year estimates, 2006-2010, 2011-2015, 2016-2020. Table S2301).



Marital Status

Married individuals are generally healthier than those that are unmarried, and the children of married couples also tend to be healthier (<u>Gallegher et al, 2000</u>). Studies have found that marriage improves certain mental health outcomes, shortens hospital stays, reduces number of doctor visits and nursing home admissions, lowers some health care costs, and increases the likelihood of having health insurance coverage (<u>USDHHS, 2007</u>).

Marital Status - key disparities in Nebraska: 2016-2020

- African Americans had the lowest proportion of married individuals at 30.9%, which was almost half that of the White population.
- American Indians also had a lower proportion of married individuals at 34.3%. The Asian population reported the highest proportion of married individuals at 57.4% from 2016-2020.

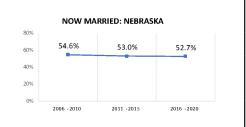
Trends Marital Status:

- Between 2006-2010 and 2016-2020, the percentage of married individuals decreased 1.9 percent in Nebraska (from 54.6% to 52.7%, respectively), a trend that has been similar at the national level.
- Between 2006-2010 and 2016-2020, the percentage of married individuals slightly decreased for Asian and Hispanic populations. However, American Indian and African American populations reported an increase of 2.7 and 2.4 percentage points, respectively.
- Between 2006-2010 and 2016-2020, males decreased 2.4 percent (from 55.9% to 53.5%, respectively), and married females decreased 1.4 percent (from 53.3% to 51.9%, respectively) during the same time period.
- Between 2006-2010 and 2016-2020, the 20 to 34 years old age group experienced a 4.0 percent decrease of being married (from 40.9% to 36.9%, respectively), the greatest decrease among all age groups with the exception of the 65 years old and older age group that experienced a 1.8 percent increase of being married (from 57.5% to 59.3%, respectively).

MARITAL STATUS (NOW MARRIED - NOT SEPARATED)

Nebras	ka	
2006-2010	2011-2015	2016-2020
54.6%	53.0%	52.7%

Source: American Community Survey (5-year estimates, 2006-2010, 2011-2015, 2016-2020. Table S1201).





Source: American Community Survey (5-year estimates, 2006-2010, 2011-2015, 2016-2020. Table S1201).

	NOW MARRIED: RACE/ETHNICITY				
-	-AI/ANAsiar	n → Black → W	hite 		
80%					
60%					
40%	*	*	*		
20%			•		
0%	2006 2010	2011 2015	2016 2020		
	2006 -2010	2011 -2015	2016 -2020		

Gender				
	2006-2010	2011-2015	2016-2020	
Female	53.3%	51.9%	51.9%	
Male	55.9%	54.2%	53.5%	

Source: American Community Survey (5-year estimates, 2006-2010, 2011-2015, 2016-2020. Table S1201).

	NOW M	ARRIED: GENDE	R
	-	FemaleMale	
80%			
60%	55.9%	54.2%	53.5%
40%	53.3%	51.9%	51.9%
20%			
0%	2006 -2010	2011 -2015	2016 -2020

Age Group				
	2006-2010	2011-2015	2016-2020	
15 to 19 years	1.3%	0.8%	1.0%	
20 to 34 years	40.9%	37.9%	36.9%	
35 to 44 years	69.9%	68.5%	67.8%	
45 to 54 years	70.9%	67.9%	68.4%	
55 to 64 years	72.7%	70.3%	68.8%	
65 +	57.5%	58.7%	59.3%	

Source: American Community Survey (5-year estimates, 2006-2010, 2011-2015, 2016-2020. Table S1201).



Education

Education is positively associated with health. Individuals with higher educational attainment live longer and are generally healthier than those with fewer years of schooling.

Education - key disparities in Nebraska: 2016-2020

- Overall, 32.5 percent of Nebraskans have completed a bachelor's degree or higher.
- American Indians (12.6%) and Hispanics (13.1%) were the least likely to have completed a bachelor's degree.
- Almost two-fifths of the Hispanic population (37.9%) had less than high school education.
- In Nebraska, Asians (46.2%) reported the highest proportion of individuals with a bachelor's degree or more.
- Females are more likely to have completed a bachelor's degree or higher than males (34.0% vs. 30.9%, respectively).
- The 35 to 44 years old age group has the highest percentage of bachelor's degrees or higher among all age groups (38.8%).

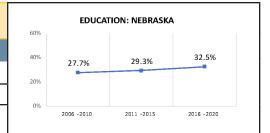
Trends Education:

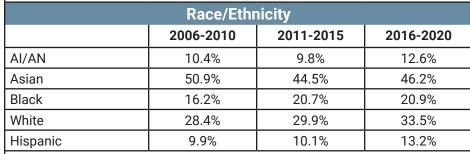
- From 2006-2010 to 2016-2020, Nebraskans with a bachelor's degree or higher increased 4.8 percent.
- The Hispanic population reported the highest percentage of individuals with less than high school education among all races/ethnicities between 2006-2010 to 2016-2020.
- From 2006-2010 to 2016-2020, all minority groups, with the exception of the Asian population, experienced an increase in the percentage of individuals with bachelor's degrees or higher.
- The African American population experienced the greatest percentage increase among minority groups having bachelor's degree or higher.
- The Asian population continues to experience the highest percentage of individuals with a bachelor's degree or higher among all races/ethnicities.
- From 2006-2010 to 2016-2020, females having a bachelor's degree or higher increased 6.6 percent (from 27.4% to 34.0%, respectively), and males having a bachelor's degree or higher increased 3.0 percent during the same time period (from 27.9% to 30.9%, respectively).
- From 2006-2010 to 2016-2020, the 65 years old and older age group with a bachelor's degree or higher increased 9.2 percent (from 16.4% to 25.6%, respectively), the greatest increase compared to all age groups.

EDUCATION (BACHELOR'S DEGREE OR HIGHER)

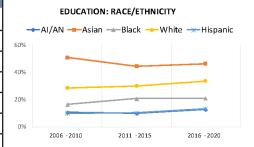
Nebraska					
	2006-2010 2011-2015 2016-2020				
25 years old and over	27.7%	29.3%	32.5%		

Source: American Community Survey (5-year estimates, 2006-2010, 2011-2015, 2016-2020. Table S1501).





Source: American Community Survey (5-year estimates, 2006-2010, 2011-2015, 2016-2020. Table S1501).



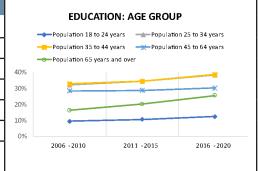
Gender				
	2006-2010	2011-2015	2016-2020	
Female	27.4%	29.8%	34.0%	
Male	27.9%	28.7%	30.9%	

Source: American Community Survey (5-year estimates, 2006-2010, 2011-2015, 2016-2020. Table S1501).

EDUCATION: GENDER						
→ Female → Male						
40%	27.9%	29.8%	34.0%			
20%	27.4%	28.7%	30.9%			
0%	2006 -2010	2011 - 2015	2016 -2020			

Age Group					
	2006-2010	2011-2015	2016-2020		
18 to 24 years	9.6%	10.6%	12.5%		
25 to 34 years	32.3%	34.8%	38.5%		
35 to 44 years	32.9%	34.5%	38.8%		
45 to 64 years	28.6%	28.9%	30.4%		
65 +	16.4%	20.3%	25.6%		

Source: American Community Survey (5-year estimates, 2006-2010, 2011-2015, 2016-2020. Table S1501).



Access to Care

Access to high-quality health care is the foundation for eliminating health disparities and increasing quality of life. Fortunately, many health problems that were once untreatable now have better outcomes or are even preventable due to advances in technology and treatment (NE DHHS, 2007).

To realize the benefits of these advances, patients must not only be able to gain entry to the healthcare system, but also have access to a location where such services are provided. Another obstacle for many includes finding culturally and linguistically appropriate services where patients feel secure and can develop relationships based on trust and communication (Agency for Health Care Research and Quality, 2021).

In recent years, major changes in the structure of the U.S. healthcare system, increasing costs, and government program reforms have adversely affected health care consumers, particularly vulnerable and atrisk populations. Additional barriers to healthcare among minorities can include lack of transportation, lack of knowledge of where to obtain care or when to seek care, language, cultural barriers, and discrimination. These barriers make it difficult to gain access to even the most basic health services, resulting in disproportionate increases in the incidence of disease, disability, and early death.

No Personal Physician

Including various specialties in the medical profession, primary care physicians provide direct care and, as necessary, counsel the patient in the appropriate use of specialized and advanced treatment options. Individuals with a medical home are more likely to have routine medical visits and health screenings (NIH, 2015).

No Personal Physician - key disparities in Nebraska: 2016-2020

- In Nebraska, 20.4 percent of adults reported having no personal physician.
- Over two-fifths (44%) of the Hispanic population reported not having a personal physician, compared to 18.6% of Whites.
- One-third (33.3%) of American Indians reported not having a personal physician, 1.8 times higher when compared to Whites.
- Asians (19.5%) and African Americans (19.2%) reported similar proportions of individuals with no personal physician.
- Adult males (26.7%) were almost twice more likely than adult females (14.3%) to report having no personal physician.
- The 25 to 34 years old age group reported the highest percentage of not having a personal physician (35.6%) among all age groups.

Trends Education:

- From 2006-2010 to 2016-2020, the percentage of Nebraskans not having a personal physician increased 5.6 percent, from 14.8 percent to 20.4 percent, respectively.
- From 2006-2010 to 2016-2020, the percentage of American Indians with no access to a personal physician increased from 23.5% to 33.3%, and the Hispanic population increased from 35.1% to 44%.
- From 2006-2010 to 2016-2020, the percentage of females not having a personal physician increased 4.4 percent (from 9.9% to 14.3%), and for males increased 6.8 percent (from 19.9% to 26.7%, respectively).
- From 2006-2010 to 2016-2020, the 25 to 34 years old age group reported an 11.6 percent increase of not having a personal physician (from 24.0% to 35.6%, respectively), the greatest increase among all age groups.

NO PERSONAL PHYSICIAN

Nebras		
2006-2010	2011-2015	2016-2020
14.8%	19.2%	20.4%

Source: BRFSS 2006-2010, BRFSS 2011-2015: https://nccd.cdc.gov/weat.

BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS

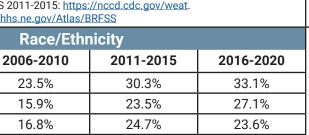
AI/AN

Asian

Black

White

Hispanic



Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020).

13.8%

35.1%

17.1% 17.9% 39.8% 43.9%

DIVISION OF PUBLIC Health. NE DHHS. BRFSS 2016-2020: https://atlas-dnns.ne.gov/Atlas/BRFSS			
Gender			
	2006-2010	2011-2015	2016-2020
Female	9.9%	12.9%	14.3%
Male	19.9%	25.8%	26.7%

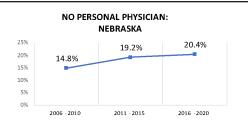
Source: BRFSS 2006-2010, BRFSS 2011-2015: https://nccd.cdc.gov/weat.

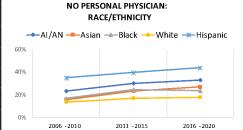
BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS

Age Group			
	2006-2010	2011-2015	2016-2020
18 to 24 years	29.5%	33.6%	35.3%
25 to 34 years	24.0%	33.7%	35.6%
35 to 44 years	15.4%	22.5%	25.8%
45 to 54 years	11.2%	15.4%	16.3%
55 to 64 years	7.4%	9.5%	10.7%
65 +	4.4%	4.9%	5.4%

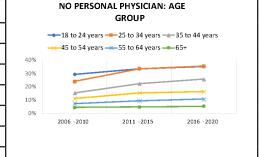
Source: BRFSS 2006-2010, BRFSS 2011-2015: https://nccd.cdc.gov/weat.

BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS









No Health Insurance

Lack of a health care plan or inadequate insurance coverage prevents many people from getting needed care because they are financially unable to pay for services without the help of insurance. Individuals with health insurance are generally more likely to have a primary care provider and to have received appropriate preventative care, such as early prenatal care, immunizations, or health screenings.

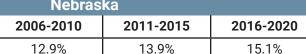
No Health Insurance - key disparities in Nebraska: 2016-2020

- In Nebraska, 15.1 percent of individuals between the ages of 18 and 64 reported that they did not have health care coverage.
- Half (49.9%) of Hispanics did not have health care coverage, compared to 9.6% of Whites.
- One-third (32.7%) of American Indians did not have health coverage, 3.4 times higher when compared to Whites.
- Nearly one-fifth of African Americans did not have health coverage, 2.5 times higher when compared to Whites.
- 16.3 percent of adult males reported not having any kind of health care coverage, compared to 14 percent of adult females.
- The 25 to 34 years old age group reported the highest percent of not having any kind of health insurance (19.7%) among all age groups.

Trends No Health Insurance:

- From 2006-2011 to 2016-2020, the percentage of Nebraskans reporting no health insurance increased 2.2 percent, from 12.9 percent to 15.1 percent, respectively.
- From 2006-2010 to 2016-2020, the percentage of American Indian and African American populations without health insurance decreased slightly and increased slightly for the Hispanic population.
- The Asian population without health insurance experienced the greatest decrease among all groups, from 17.3% in 2006-2010 to 3.6% in 2016-2020.
- From 2006-2010 to 2016-2020, females reported a 1.9 percent increase of not having health insurance (from 12.1% to 14.0%, respectively), and males reported an increase of 2.5 percent for not having health insurance (from 13.8% to 16.3%, respectively).
- From 2006-2010 to 2016-2020, the 18 to 24 years old age group reported a decrease in not having health coverage of 13.2 percent (from 31.2% to 18%), the greatest increase among all age groups.

N	O HEALTH	INSURANC	E
	Nebr	aska	



Source: BRFSS 2006-2010, BRFSS 2011-2015: https://nccd.cdc.gov/weat.

BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS



Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020). Division of Public Health. NE DHHS. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS

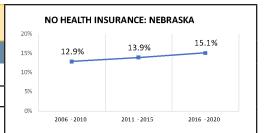
Gender			
	2006-2010	2011-2015	2016-2020
Female	12.1%	12.1%	14.0%
Male	13.8%	15.8%	16.3%

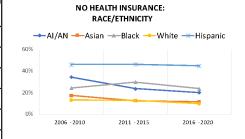
Source: BRFSS 2006-2010, BRFSS 2011-2015: https://nccd.cdc.gov/weat.

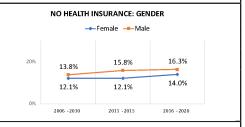
BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS

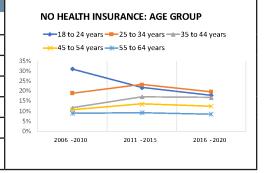
Age Group			
	2006-2010	2011-2015	2016-2020
18 to 24 years	31.2%	21.9%	18.0%
25 to 34 years	19.0%	23.3%	19.7%
35 to 44 years	11.7%	17.2%	16.9%
45 to 54 years	10.8%	13.6%	12.5%
55 to 64 years	9.0%	9.3%	8.6%

Source: BRFSS 2006-2010, BRFSS 2011-2015: https://nccd.cdc.gov/weat. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS









Unable to See a Physician Due to Cost

For people with no insurance and limited financial resources, the decision to see a doctor is often a financial choice rather than a medical one. Even when health benefits are available, they may not be sufficient to ensure access to needed health care services. Persons with health insurance may still be confronted with significant financial hardships in paying for or obtaining health services or products.

Unable to See a Doctor Due to Cost - key disparities in Nebraska: 2016-2020

- In Nebraska, 11.5% of adults reported being unable to see a doctor due to cost in the past year.
- Almost one-fifth (19.9%) of Hispanics reported being unable to see a physician due to cost, compared to only 8% of Whites.
- African Americans (17.1%) and American Indians (17%) reported similar proportions of individuals who were unable to see a doctor due to cost.
- Of adult females, 13.1% were unable to see a doctor due to cost, compared to only 9.4% of adult males.
- The 25 to 34 years old age group was the most likely (16.7%) not to see a physician due to cost compared to all age groups.

Trends Unable to See a Doctor Due to Cost:

- From 2011-2015 to 2016-2020, the percentage of Nebraskans unable to see a doctor due to cost decreased 0.8 percent, from 12.3 percent to 11.5 percent, respectively.
- From 2006-2010 to 2016-2020, the percentage of individuals unable to see a physician due to cost stayed the same or decreased slightly among all groups.
- From 2006-2010 to 2016-2020, females were between 3.5 3.7 percent more likely not see a doctor due to cost compared to males.
- From 2006-2010 to 2016-2020, the 25 to 34 years old age group were the most likely not to see a doctor due to cost compared to all age groups.

UNABLE TO SEE PHYSICIAN DUE TO COST

Nebraska			
2006-2010	2011-2015	2016-2020	
10.1%	12.3%	11.5%	

Source: BRFSS 2006-2010, BRFSS 2011-2015, and BRFSS 2016-2020:

https://nccd.cdc.gov/weat.



Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020). Division of Public Health. NE DHHS. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS

Gender				
2006-2010 2011-2015 2016-2020				
Female	12.2%	14.0%	13.1%	
Male	8.5%	10.5%	9.4%	

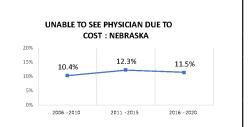
Source: BRFSS 2006-2010, BRFSS 2011-2015, and BRFSS 2016-2020:

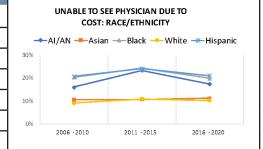
https://nccd.cdc.gov/weat.

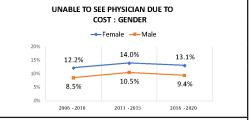
Age Group			
	2006-2010	2011-2015	2016-2020
18 to 24 years	14.5%	14.4%	13.1%
25 to 34 years	15.3%	18.0%	16.7%
35 to 44 years	11.6%	16.1%	13.8%
45 to 54 years	10.5%	13.2%	13.3%
55 to 64 years	8.2%	10.1%	11.1%
65 +	3.0%	3.6%	3.6%

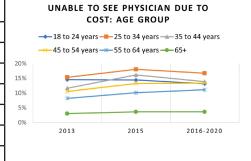
Source: BRFSS 2006-2010, BRFSS 2011-2015, and BRFSS 2016-2020:

https://nccd.cdc.gov/weat.









Perceived Health Status

Perceived health status measures how an individual views his or her health – excellent, very good, good, fair, or poor. Individuals who are poor or uninsured are more likely to report being in fair or poor health and have higher rates of hospitalization and mortality compared to those who report excellent or good health. The perceived health status indicator is useful in making broad trends across populations that allow for diverse conditions (<u>US Office of Disease Prevention and Health Promotion</u>, 2016).

Perceived Health Status - key disparities in Nebraska: 2016-2020

- 13.9 percent of Nebraskans perceived that their health was fair or poor.
- Hispanics experienced the highest percentage (27.2%) of individuals who perceived their health status as fair or poor. This percentage was 2.4 times greater than that of Whites (11.4%).
- Asians saw the lowest percentage (10.1%) of any population who perceived their health status as fair or poor.
- Females were more likely to report that their health was fair, or poor, compared to males (14.6% vs. 13.1%, respectively).
- The 65 years old and older age group reported the highest percentage for their health as fair or poor among all age groups.

Trends Perceived Health Status (fair or poor): 2006-2010 to 2016-2020:

- From 2006-2010 to 2016-2020, the percentage of individuals who perceived their health status as fair or poor increased slightly among all groups.
- From 2011-2015 to 2016-2020, Native Americans improved their general health fair or poor 3.6 percent, from 26.2 percent to 22.6 percent, the greatest among all races/ethnicities.
- From 2011-2015 to 2016-2020, females perceived that their general health fair or poor worsened 0.7 percent (from 13.9% to 14.6%, respectively), and males improved their perception of having general health fair or poor 0.9 percent (from 14.0% to 13.1%, respectively).
- From 2011-2015 to 2016-2020, the 65 years old and older age group reported 1.0 percent improvement in their perception of having general health fair or poor (from 21.5% to 20.5%, respectively), the greatest improvement among all age groups.

PERCEIVED HEALTH STATUS: General health fair or poor

Nebras	ka	
2006-2010	2011-2015	2016-2020
12.4%	14.0%	13.9%

Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020). Division of Public Health. NE DHHS. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS. General health fair or poor, Adults 18 and older, by Race/Ethnicity, Age-Adjusted.

nearth fair of pool, Addito To and older, by Nace, Ethinotty, Age Adjusted.				
Race/Ethnicity				
	2006-2010	2011-2015	2016-2020	
AI/AN	22.9%	26.2%	22.6%	
Asian	9.1%	10.3%	10.1%	
Black	19.0%	23.6%	22.2%	
White	10.9%	11.4%	11.4%	
Hispanic	25.2%	29.5%	27.2%	

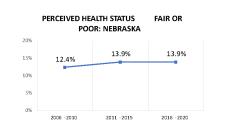
Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020). Division of Public Health. NE DHHS. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS

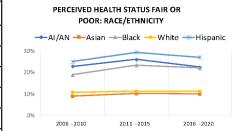
Gender			
	2006-2010	2011-2015	2016-2020
Female	12.5%	13.9%	14.6%
Male	12.2%	14.0%	13.1%

Source: BRFSS 2006-2010, BRFSS 2011-2015: https://nccd.cdc.gov/weat BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS

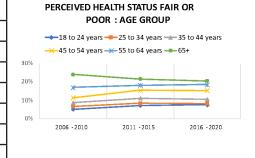
Age Group			
	2006-2010	2011-2015	2016-2020
18 to 24 years	5.1%	7.1%	7.6%
25 to 34 years	6.6%	8.3%	8.2%
35 to 44 years	8.7%	11.1%	10.5%
45 to 54 years	11.4%	15.4%	15.3%
55 to 64 years	17.0%	18.1%	18.6%
65 +	24.0%	21.5%	20.5%

Source: BRFSS 2006-2010, BRFSS 2011-2015: https://nccd.cdc.gov/weat BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS









Coronary Heart Disease

Heart disease is the leading cause of death for both men and women in the United States. Coronary heart disease is the most common type of heart disease, killing over 380,000 people annually (<u>CDC, 2022</u>).

Coronary Heart Disease - key disparities in Nebraska: 2016-2020

- 5.7 percent of Nebraskans reported that they ever had coronary heart disease.
- American Indians experienced the highest percentage (9.2%) of individuals diagnosed with coronary heart disease by a health professional, compared to Whites (4.9%).
- African Americans (5.9%) were moderately more likely than Whites (4.9%) to have ever been diagnosed with coronary heart disease.
- Hispanics (4.4%) and Asians (2.4%) were less likely than Whites to report having ever had coronary heart disease.
- Males (6.9%) were 1.6 times more likely than females (4.4%) to have ever had coronary heart disease.
- The 65 years old and older age group reported the highest prevalence of ever having coronary heart disease. The 55 to 64 years old age group were 1.9 times more likely to have ever had coronary heart disease compared to the 45 to 54 years old age group.

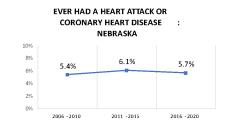
Trends Coronary Heart Disease:

- From 2011-2015 to 2016-2020, the prevalence of coronary heart disease decreased 0.4 percent among Nebraskans.
- From 2006-2010 to 2016-2020, the prevalence of coronary heart disease increased among American Indians, African Americans, and Hispanics, and decreased among the Asian population.
- From 2011-2015 to 2016-2020, the prevalence of coronary heart disease decreased 0.8 percent among males and decreased 0.2% among females.
- From 2011-2015 to 2016-2020, the prevalence of coronary heart disease decreased 1.9 percent among the 65 years old and older age group, the greatest decrease among all age groups.

PREVALENCE OF CORONARY HEART DISEASE

Nebraska					
2006-2010	2011-2015	2016-2020			
5.4%	6.1%	5.7%			

Source: BRFSS 2006-2010. Region VII Heart Disease Disparities Report. P. 27. Link. BRFSS 2011-2015. Nebraska Health Disparities Report. P. 135. Link. BRFSS 2016-2020. https://atlas-dhhs. ne.gov/Atlas/BRFSS. Ever told they had a heart attack or coronary heart disease, Adults 18 and older, by Race/Ethnicity, Age-Adjusted.



	Race/Ethnicity			
	2006-2010	2016-2020		
AI/AN	9.9%	9.6%	9.2%	
Asian	6.3%	4.9%	2.4%	
Black	4.4%	6.6%	5.9%	
White	5.3%	5.4%	4.9%	
Hispanic	5.6%	5.8%	4.4%	

Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020). Division of Public Health. NE DHHS. Link. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS

	RACE/ETHNICITY						
_	→ AI/AN → Asian → Black → White → Hispanic						
10%		ė.					
0%	2006 -2010	2011 -2015	2016 -2020				

EVER HAD A HEART ATTACK OR CODONADY HEADT DISEASE!

Gender 2011 2011-2015 2016-2020 Female 4.5% 4.6% 4.4% 7.5% 7.7% Male 6.9%

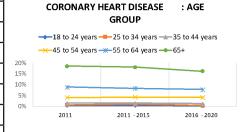
Source: BRFSS 2011 (single year). https://atlas-dhhs.ne.gov/Atlas/BRFSS BRFSS 2011-2015. Nebraska Health Disparities Report. (2020). P. 139. Link. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS

(ORONARY HE	ART DISEASE	: GENDER
	-	-FemaleMale	2
10%	7.5%	7.7%	6.9%
5%	4.5%	4.6%	4.4%
0%	2011	2011 -2015	2016 - 2020

EVER HAD A HEART ATTACK OR

Age Group				
	2011	2011-2015	2016-2020	
18 to 24 years	0.5%	0.5%	0.3%	
25 to 34 years	0.7%	1.1%	0.4%	
35 to 44 years	1.5%	1.6%	1.3%	
45 to 54 years	4.1%	4.4%	4.2%	
55 to 64 years	9.0%	8.4%	7.9%	
65 +	18.7%	18.2%	16.3%	

Source: BRFSS 2011 (single year): https://atlas-dhhs.ne.gov/Atlas/BRFSS BRFSS 2011-2015: https://nccd.cdc.gov/weat. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS



EVER HAD A HEART ATTACK OR

Stroke

Stroke is the fifth leading cause of death in the United States and is a major cause of adult disability. Approximately 800,000 people in the nation have a stroke each year (CDC, 2022).

Stroke - key disparities in Nebraska: 2016-2020

- Overall, 2.7% of Nebraskans reported having ever had a stroke.
- American Indians (6.6%) were nearly 3 times more likely to report having ever had a stroke compared to Whites (2.3%).
- African Americans (4.7%) were 2 times more likely to report having ever had a stroke, compared to Whites.
- The Hispanic population (1.8%) was the least likely to report having ever had a stroke, followed by the White population (2.3%), and then by the Asian population (2.4%).
- Females reported a higher prevalence of stroke when compared to males (2.7% vs. 2.4%, respectively).
- The 65 years old and older age group reported the highest prevalence of stroke among all age groups (7.4%).

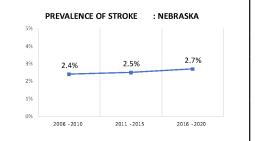
Trends Prevalence of Stroke:

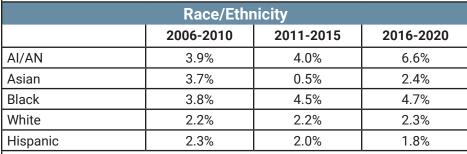
- From 2006-2010 to 2016-2020, the prevalence of stroke among adult Nebraskans increased 0.3 percent, from 2.4 percent to 2.7 percent.
- From 2006-2010 to 2016-2020, the prevalence of stroke increased among American Indians and African Americans and decreased among the Asian and Hispanic populations.
- From 2011-2015 to 2016-2020, the prevalence of stroke among females increased 0.3 percent (from 2.6% to 2.9%), and the prevalence of stroke among males increased 0.1% (from 2.5% to 2.6%).
- From 2011-2015 to 2016-2020, slight increases in stroke prevalence were reported in all age groups, but the 35 to 45 years old age group reported a decrease in stroke prevalence (from 1.2% to 1.0%).

PREVALENCE OF STROKE

Nebraska				
2006-2010	2011-2015	2016-2020		
2.4%	2.5%	2.7%		

Source: BRFSS 2006-2010. Nebraska Health Disparities Report. 2015. P. 265. Link. BRFSS 2011-2015. Nebraska Health Disparities Report. 2020. P. 143. Link. BRFSS 2016-2020. https://atlas-dhhs.ne.gov/Atlas/BRFSS. Ever told they had a stroke, Adults 18 and older.



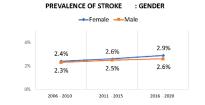


Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020). Division of Public Health. NE DHHS. Link. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS

	PREVALENCE OF STROKE: RACE/ETHNICITY				
-	–AI/AN ––Asiar	n Black W	hite Hispanic		
8%					
6%					
4%					
2%	*	-	*		
0%					
	2006 -2010	2011 - 2015	2016 - 2020		

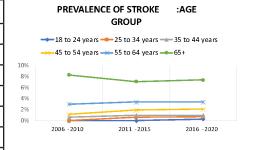
Gender				
2006-2010 2011-2015 2016-202				
Female	2.8%	2.6%	2.9%	
Male	2.4%	2.5%	2.6%	

Source: BRFSS 2006-2010: https://nccd.cdc.gov/weat. BRFSS 2011-2015. Nebraska Health Disparities Report. 2020. P. 143. <u>Link</u>. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS



Age Group				
	2006-2010	2011-2015	2016-2020	
18 to 24 years	0.4%	0.1%	0.3%	
25 to 34 years	0.7%	0.6%	0.7%	
35 to 44 years	0.9%	1.2%	1.0%	
45 to 54 years	1.6%	1.9%	2.1%	
55 to 64 years	3.9%	3.2%	3.4%	
65 +	7.7%	7.1%	7.4%	

Source: BRFSS 2006-2010 & 2011-2015: https://nccd.cdc.gov/weat. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS



Diabetes

Diabetes is a chronic disease, characterized by high levels of glucose in the blood. Diabetes can be caused by the resistance to or creation of too little insulin, a hormone produced to control blood sugar. Diabetes is the 7th leading cause of death in the United States (CDC, 2022).

Diabetes - key disparities in Nebraska: 2016-2020

- In Nebraska, 9.7% of adults reported having ever been diagnosed with diabetes.
- American Indians (19.3%) were 2.4 times more likely than Whites (8.2%) to report having ever been diagnosed with diabetes.
- African Americans (16.3%), Hispanics (13.4%), and Asians (13.2%) were more likely to report having ever been diagnosed with diabetes than Whites (8.2%).
- Nebraska males (10.1%) were more likely to have ever been diagnosed with diabetes, compared to Nebraska females (9.3%).

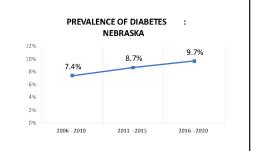
Trends Prevalence of Diabetes:

- Prevalence of diabetes increased 2.3 percent among Nebraska adults from 7.4 percent in 2006-2010 to 9.7% in 2016-2020.
- From 2006-2010 to 2016-2020, the prevalence of diabetes increased among American Indian, African American, and Asian populations, and decreased slightly among the Hispanic populations.
- Female diabetes prevalence increased 2.3 percent between 2006-2010 and 2016-2020, compared to a 2.1 percent increase among males during the same time period.
- The 45 to 54 years old age group reported a 2.9 percent increase in diabetes prevalence between 2006-2010 and 2016-2020, from 7.0 percent to 9.9 percent, the greatest increase among all age groups.

PREVALENCE OF DIABETES

Nebraska				
2006-2010	2011-2015	2016-2020		
7.4%	8.7%	9.7%		

Source: BRFSS 2006-2010. Nebraska Health Disparities Report. 2015. P. 124. Link. BRFSS 2011-2015. Nebraska Health Disparities Report. 2020. P. 147. Link. BRFSS 2016-2020. https://atlas-dhhs.ne.gov/Atlas/BRFSS. Ever told they have diabetes (excluding pregnancy), Adults 18 and older.



Race/Ethnicity 2006-2010 2011-2015 2016-2020 AI/AN 13.0% 15.8% 19.3% Asian 8.6% 7.8% 13.2% Black 12.7% 13.7% 16.3% White 6.7% 7.6% 8.2% Hispanic 13.8% 12.7% 13.4%

Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020). Division of Public Health. NE DHHS. Link. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS

	RACE/ETHNICITY						
-	→ AI/AN - Asian → Black → White → Hispanic						
20%							
16%		-					
12%		*	Wi Constitution				
8%							
4%	_						
0%							
	2006 -2010	2011 -2015	2016 -2020				

PREVALENCE OF DIABETES:

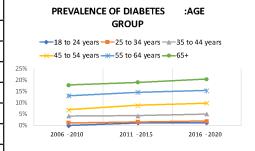
Gender				
2006-2010 2011-2015 2016-2020				
Female	7.2%	8.3%	9.3%	
Male	7.8%	9.1%	10.1%	

 $\textbf{Source:} \ BRFSS \ 2006-2010 \ \& \ 2011-2015: \ \underline{https://nccd.cdc.gov/weat}. \ BRFSS \ 2016-2020: \ \underline{https://atlas-dhhs.ne.gov/Atlas/BRFSS}$

	PREVALENCE (OF DIABETES	: GENDER			
	→ Female → Male					
12%			10.1%			
10%	7.8%	9.1%				
8%		-	9.3%			
6%	7.2%	8.3%				
4%						
2%						
0%						
	2006 -2010	2011 - 2015	2016 - 2020			

Age Group				
	2006-2010	2011-2015	2016-2020	
18 to 24 years	*	1.2%	1.2%	
25 to 34 years	1.2%	1.6%	1.9%	
35 to 44 years	4.2%	4.3%	5.1%	
45 to 54 years	7.0%	8.9%	9.9%	
55 to 64 years	13.2%	14.7%	15.5%	
65 +	17.8%	19.0%	20.5%	

Source: BRFSS 2006-2010 & 2011-2015: https://nccd.cdc.gov/weat. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS *Estimate not available if the unweighted sample size for the denominator was < 50 or the Relative Standard Error (RSE) is > 0.3.



Heavy Drinking

Heavy drinking is defined as the average consumption of more than 7 drinks per week for women and more than 14 drinks per week for men in the past year. Drinking excessive alcohol for an extended period can result in high blood pressure, heart disease, stroke, certain cancers, weakening of the immune system, and mental health problems (CDC, 2022).

Heavy Drinking - key disparities in Nebraska: 2016-2020

- Approximately 7% of adults in Nebraska reported heavy drinking in the past 30 days.
- Of all minority populations, American Indians (7%) reported the highest percentage of heavy drinking in the past 30 days.
- All minority populations in Nebraska reported a lower percentage of heavy drinking when compared to Whites (7.7%). American Indians: 7%; African Americans: 4.4%; Asians: 4.3%; and Hispanics: 4%.
- Males (8.0%) were more likely than females (5.8%) to report heavy drinking in the past 30 days.
- The 25 to 34 years old age group reported the highest heavy drinking among all age groups (8.4%), followed by the 35 to 44 years old age group (8.2%).

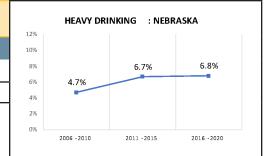
Trends Heavy Drinking:

- Adult Nebraskans reported a slight increase in heavy drinking between 2011-2015 and 2016-2020, from 6.7 percent to 6.8 percent.
- From 2006-2010 to 2016-2020, heavy drinking decreased among the American Indian population from 9.5% to 7.7%, and increased among African American, Asian, and Hispanic populations.
- The American Indian population is the only group that experienced a decrease in heavy drinking compared to other races/ethnicities.
- Both genders reported an increase in heavy drinking between 2011-2015 and 2016-2020. Female heavy drinking increased 0.2 percent (from 5.6% to 5.8%), and male heavy drinking increased 0.1 percent (from 7.9% to 8.0%).

HEAVY DRINKING

Nebras		
2006-2010	2011-2015	2016-2020
4.7%	6.7%	6.8%

Source: BRFSS 2006-2010. Health Status of Native Americans in Nebraska. 2012. 2013. P. 43. Link. BRFSS 2011-2015. Nebraska Health Disparities Report. 2020. P. 201. Link. BRFSS 2016-2020. https://atlas-dhhs.ne.gov/Atlas/BRFSS. Heavy drinking in past 30 days, Adults 18 and older.



Race/Ethnicity 2006-2010 2011-2015 2016-2020 AI/AN 9.5% 6.7% 7.0% 3.7% Asian 2.3% 4.3% Black 3.5% 6.0% 4.4% White 4.8% 7.2% 7.7% 2.5% 4.1% 4.0% Hispanic

Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020). Division of Public Health. NE DHHS. <u>Link</u>. BRFSS 2016-2020: <u>https://atlas-dhhs.ne.gov/Atlas/BRFSS</u>

	HEAVY DRINKING: RACE/ETHNICITY				
+	AI/AN ——Asian	ı → Black → Wh	nite 		
12%					
8%					
4%		×	*		
0%	2006 -2010	2011 - 2015	2016 -2020		

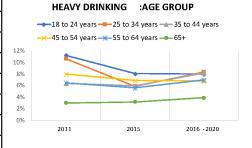
Gender					
2011 2011-2015 2016-2020					
Female	5.9%	5.6%	5.8%		
Male	9.2%	7.9%	8.0%		

Source: BRFSS 2006-2010 & 2011-2015: https://nccd.cdc.gov/weat. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS

	HEAVY D	RINKING : GEN	IDER
	-	–Female ––Male	;
12%			
10%	9.2%	7.9%	8.0%
8%			-
6%	•		-
4%	5.9%	5.6%	5.8%
2%			
0%			
	2011	2011 -2015	2016 - 2020

Age Group				
	2011	2015	2016-2020	
18 to 24 years	11.3%	8.1%	8.0%	
25 to 34 years	10.7%	5.9%	8.4%	
35 to 44 years	6.4%	6.0%	8.2%	
45 to 54 years	8.0%	6.9%	6.8%	
55 to 64 years	6.5%	5.6%	7.0%	
65+	3.0%	3.2%	3.9%	

Source: BRFSS 2006-2010 & 2011-2015: https://nccd.cdc.gov/weat. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS *Estimate not available if the unweighted sample size for the denominator was < 50 or the Relative Standard Error (RSE) is > 0.3.



Binge Drinking

The Centers for Disease Control and Prevention (CDC) defines binge drinking as consuming 5 or more drinks on an occasion for men or 4 or more drinks on an occasion for women (CDC, 2022).

Binge Drinking - key disparities in Nebraska: 2016-2020

- 21.6 percent of adults in Nebraska reported binge drinking in the past 30 days.
- Of all minority populations, American Indians (18.7%) reported the highest percentage of heavy drinking in the past 30 days.
- All minority populations in Nebraska reported a lower percentage of binge drinking when compared to Whites (23.8%). American Indians: 18.7%; Asians: 17.3%; Hispanics: 16.1%; and African Americans: 13.3%.
- Males (27.0%) were almost twice as likely as females (14.5%) to report binge drinking in the past 30 days.
- The 25 to 34 years old age group reported the highest percentage of binge drinking compared to the rest of the age groups (31.2%), statistics that have been consistent since 2006-2010.

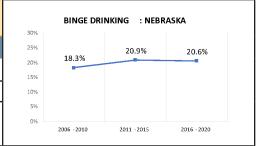
Trends Binge Drinking:

- Binge drinking among adult Nebraskans slightly decreased and stabilized between 2011-2015 and 2016-2020 (20.9% vs. 20.6%, respectively) but it's still higher when compared to 2006-2010 (18.3%).
- From 2006-2010 to 2016-2020, binge drinking decreased among the American Indian and African American populations and increased among Asian and Hispanic populations.
- From 2006-2010 to 2016-2020, binge drinking among minority groups was lower compared to the White population.
- Both genders reported a slight decrease in binge drinking for 2016-2020 compared to 2011-2015. Female binge drinking decreased 0.2 percent (from 14.7% to 14.5%), and male binge drinking decreased 0.4 percent (from 27.4% to 27.0%).

BINGE DRINKING

Nebras		
2006-2010	2011-2015	2016-2020
18.3%	20.9%	20.6%

Source: BRFSS 2006-2010. Nebraska Health Disparity Report. 2015. P. 267. <u>Link.</u> BRFSS 2011-2015. Nebraska Health Disparities Report. 2020. P. 203. <u>Link.</u> BRFSS 2016-2020. <u>https://atlas-dhhs.ne.gov/Atlas/BRFSS</u>. Binge drank in past 30 days, Adults 18 and older.



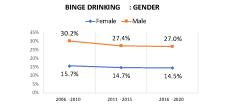


Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020). Division of Public Health. NE DHHS. <u>Link</u>. BRFSS 2016-2020: <u>https://atlas-dhhs.ne.gov/Atlas/BRFSS</u>

BINGE DRINKING: RACE/ETHNICITY						
-	→ AI/AN → Asian → Black → White → Hispanic					
30%						
25%						
20%	-					
15%		*				
10%	ж		_			
5%						
0%						
	2006 - 2010	2011 -2015	2016 -2020			

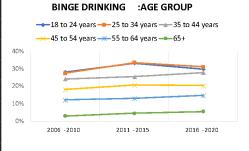
Gender					
2006-2010 2011-2015 2016-2020					
Female	12.6%	14.7%	14.5%		
Male	25.0%	27.4%	27.0%		

Source: BRFSS 2006-2010: https://nccd.cdc.gov/weat. BRFSS 2011-2015: Nebraska Health Disparities Report. 2020. P. 203. Link. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS



Age Group				
	2006-2010	2011-2015	2016-2020	
18 to 24 years	28.2%	33.3%	30.0%	
25 to 34 years	27.5%	33.7%	31.2%	
35 to 44 years	24.2%	25.5%	27.9%	
45 to 54 years	18.2%	20.7%	20.5%	
55 to 64 years	12.2%	13.0%	14.8%	
65 +	3.0%	4.5%	5.5%	

 $\begin{tabular}{ll} \textbf{Source:} BRFSS 2006-2010 \& 2011-2015: $https://nccd.cdc.gov/weat. \\ BRFSS 2016-2020: $https://atlas-dhhs.ne.gov/Atlas/BRFSS \end{tabular}$



Current Cigarette Smoking

Tobacco use has a large impact on an individual's health status and is the leading cause of preventable death in the United States. Smoking can cause cancer, heart disease, stroke, lung diseases, diabetes, and other diseases. Cigarette smoking causes more than 480,000 deaths yearly in the United States (CDC, 2022).

Current Cigarette Smoking - key disparities in Nebraska: 2016-2020

- In Nebraska, 15.4% of the population reported being current cigarette smokers.
- Over one-third of the American Indian population (35.8%) reported currently smoking cigarettes, compared to 15.8% of Whites. The African American population was also more likely to report currently smoking cigarettes at 21.9% when compared to Whites.
- The Asian population (9.8%) and the Hispanic population (13.1%) were less likely than Whites (15.8%) to report as current smokers.
- Males (16.1%) were two percent more likely to currently smoke cigarettes than females (14.1%).
- One out of five (20.2%) of the 25 to 34 years old age group are currently smoking, followed by the 35 to 45 years old age group (19.0%). The 65 years old and older age group reported the lowest percentage of being current cigarette smokers (8.0%).

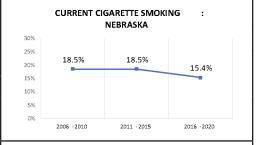
Trends Cigarette Smoking:

- Current cigarette smoking has decreased 3.1% in Nebraska since 2006-2010.
- From 2006-2010 to 2016-2020, cigarette smoking decreased among all minority groups in Nebraska.
- Cigarette smoking showed the greatest decrease among American Indians, from 43.7% for 2006-2010 to 35.8% for 2016-2020, a decrease of 7.9 percentage points.
- Current cigarette smoking decreased 4.1 percent since 2011-2015 among male adults and decreased 3.0 percent among female adults during the same time period.
- Current cigarette smoking decreased 8.0 percent since 2011-2015 among the 18 to 24 years old age group, the greatest decrease among all age groups. All age groups reported a decrease in cigarette smoking since 2011-2015.

CURRENT CIGARETTE SMOKING (%)

Nebras		
2006-2010	2011-2015	2016-2020
18.5%	18.5%	15.4%

Source: BRFSS 2006-2010. Nebraska Health Disparity Report. 2015. P. 256. <u>Link</u>. BRFSS 2011-2015. Nebraska Health Disparities Report. 2020. P. 206. <u>Link</u>. BRFSS 2016-2020. <u>https://atlas-dhhs.ne.gov/Atlas/BRFSS</u>. Current cigarette smoking, Adults 18 and older.



Race/Ethnicity			
	2006-2010	2011-2015	2016-2020
AI/AN	43.7%	37.9%	35.8%
Asian	10.7%	11.8%	9.8%
Black	23.7%	24.2%	21.9%
White	18.1%	19.0%	15.8%
Hispanic	16.8%	15.0%	13.1%

Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020). Division of Public Health. NE DHHS. <u>Link</u>. BRFSS 2016-2020: <u>https://atlas-dhhs.ne.gov/Atlas/BRFSS</u>

RACE/ETHNICITY						
→ AI/AN — Asian → Black → White → Hispanic						
30%						
25%						
20%						
15%	*	*				
10%						
5%						
0%	2006 -2010	2011 -2015	2016 -2020			

CURRENT CIGARETTE SMOKING

Gender					
2006-2010 2011-2015 2016-2020					
Female	16.3%	17.1%	14.1%		
Male	19.7%	20.2%	16.1%		

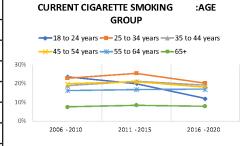
 $\textbf{Source:} \ \mathsf{BRFSS} \ 2006-2010 \ \& \ \mathsf{BRFSS} \ 2011-2015: \\ \underline{\mathsf{https://nccd.cdc.gov/weat}}. \\ \mathsf{BRFSS} \ 2016-2020: \\ \underline{\mathsf{https://atlas-dhhs.ne.gov/Atlas/BRFSS}}$

		GENDER	
	-	Female —Male	2
35%			
30%			
25%	19.7%	20.2%	
20%		_	16.1%
15%		17.1%	
10%	16.3%	17.1%	14.1%
5%			
0%			
	2006 -2010	2011 -2015	2016 -2020

CURRENT CIGARETTE SMOKING

Age Group			
	2006-2010	2011-2015	2016-2020
18 to 24 years	23.7%	20.0%	12.0%
25 to 34 years	22.9%	25.5%	20.2%
35 to 44 years	18.9%	21.2%	19.0%
45 to 54 years	19.8%	21.0%	18.1%
55 to 64 years	16.3%	16.8%	17.0%
65 +	7.6%	8.5%	8.0%

 $\textbf{Source:} \ \mathsf{BRFSS} \ 2006-2010 \& \ \mathsf{BRFSS} \ 2011-2015: \\ \underline{\mathsf{https://nccd.cdc.gov/weat.}} \\ \mathsf{BRFSS} \ 2016-2020: \\ \underline{\mathsf{https://atlas-dhhs.ne.gov/Atlas/BRFSS}} \\$



Physical Inactivity

Regular physical activity helps to improve health and can decrease the risk of numerous chronic diseases (CDC, 2022).

Physical Inactivity - key disparities in Nebraska: 2016-2020

- Nearly one-fourth (24%) of adults in Nebraska reported that they were not engaged in any leisure time physical activity in the past 30 days.
- Approximately two-fifths of the Hispanic population (38.4%) reported having no leisure-time physical activity in the past 30 days, compared to 20.8% of the White population.
- American Indians (32%), African Americans (29.9%), and Asians (25.6%) were all more likely than Whites (20.8%) to report having no leisure-time physical activity in the past 30 days.
- More adult females than males reported not engaging in any leisure-time physical activity in the past 30 days (24.6% vs. 23.3%, respectively).
- Adults 65 years old and older reported the highest percentage of physical inactivity in the past 30 days (31.3%), followed by the 55-64 years old age group (27.1%).

Trends Physical Inactivity:

- The percentage of Nebraska adults who were not engaged in any leisure-time activity in the past 30 days increased 1.1%, from 22.9 percent in 2006-2010 to 24 percent in 2016-2020.
- From 2006-2010 to 2016-2020, physical inactivity increased among American Indian, African American, and Asian populations, and decreased among African American individuals.
- From 2006-2010 to 2016-2020, the Hispanic population showed the highest percentage of physical inactivity among all groups.
- Physical inactivity among adult females increased 1.0 percent between 2011-2015 and 2016-2020 (from 23.6% to 24.6%, respectively), and decreased 0.7 percent for adult males during the same time period (from 24.0% to 23.3%, respectively).
- The 45 to 54 years old age group reported the highest increase in physical inactivity between 2011-2015 and 2016-2020 (+1.4%), followed by the 35 to 44 years old age group (+1.0%). The 25 to 34 years old age group reported a decrease of physical inactivity during the same time period (-1.0%), followed by the 65 years old and older age group (-0.7%).

PHYSICAL INACTIVITY				
Nebraska				
	2006-2010	2011-2015	2016-2020	
	23.7%	23.8%	24.0%	

Source: BRFSS 2006-2010: https://nccd.cdc.gov/weat. BRFSS 2011-2015: Nebraska Health Disparities Report. 2020. P. 211. Link. BRFSS 2016-2020. https://atlas-dhhs.ne.gov/Atlas/BRFSS. No leisure-time physical activity in past 30 days, Adults 18 and older.

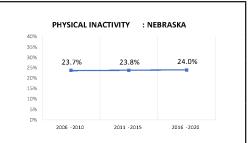
, , , , , , , , , , , , , , , , , , , ,				
Race/Ethnicity				
	2006-2010	2011-2015	2016-2020	
AI/AN	28.3%	30.8%	32.0%	
Asian	21.5%	23.6%	25.6%	
Black	35.2%	29.4%	29.9%	
White	21.6%	21.7%	20.8%	
Hispanic	35.4%	33.8%	38.4%	

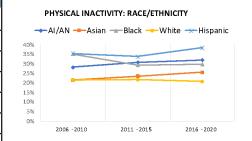
Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020). Division of Public Health. NE DHHS. <u>Link</u>. BRFSS 2016-2020: <u>https://atlas-dhhs.ne.gov/Atlas/BRFSS</u>

Gender					
	2006-2010 2011-2015 2016-202				
Female	24.8%	23.6%	24.6%		
Male	22.7%	24.0%	23.3%		

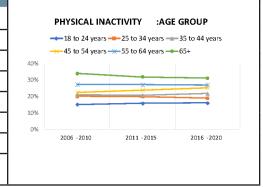
Source: BRFSS 2006-2010: https://nccd.cdc.gov/weat. BRFSS 2011-2015. Nebraska Health Disparities Report. 2020. P. 211. Link. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS

Age Group			
	2006-2010	2011-2015	2016-2020
18 to 24 years	15.1%	15.9%	16.1%
25 to 34 years	20.2%	20.0%	19.0%
35 to 44 years	21.1%	20.9%	21.9%
45 to 54 years	22.4%	24.0%	25.4%
55 to 64 years	27.4%	27.2%	27.1%
65 +	34.1%	32.0%	31.3%









Overweight or Obese Body Mass Index 25+

Body Mass Index (BMI) is an estimated measure of an adult's body fat, which is determined by the ratio of an individual's height and weight. Higher BMIs can indicate a higher risk of heart disease, high blood pressure, type 2 diabetes, and certain cancers. Individuals with a BMI of 25-29.9 are considered overweight, while individuals with a BMI of 30 or higher are considered obese.

Overweight or Obese (BMI 25+) - key disparities in Nebraska: 2016-2020

- 69 percent of Nebraskans were overweight.
- Almost three-fourths of the American Indian population (74.1%) was overweight or obese, compared to 68.4% of the White population. Hispanics (77.1%) and African Americans (72.6%) were more likely to be overweight or obese than Whites (68.4%).
- Asians (49.7%) were the least likely to be overweight or obese.
- Males (74.5%) were more likely to be overweight or obese, compared to females (63.2%).
- The 45 to 54 years old age group reported the highest percentage of being overweight or obese among all age groups (76.3%), followed by the 55 to 64 years old age group (76.1%).

Trends Overweight or Obese (BMI 25+):

- From 2006-2010 to 2016-2020, the percentage of overweight Nebraska adults increased 4.7 percent, from 64.3 percent to 69.0 percent.
- From 2006-2010 to 2016-2020, the percentage of people overweight increased among African American, Hispanic, and Asian populations, and decreased slightly among American Indians.
- From 2006-2010 to 2016-2020, the Asian population showed the lowest percentage of overweight individuals among all groups, but the percentage has increased over time, from 42.5% in 2006-2010 to 49.7% in 2016-2020.
- The percentage of overweight female Nebraskans increased 4.7 percent between 2011-2015 and 2016-2020 (from 58.5% to 63.2%), and the percentage of overweight male Nebraskans increased 1.6 percent during the same time period (from 72.9% to 74.5%).
- From 2011-2015 to 2016-2020, all age groups reported an increase in having a BMI of 25 or higher. The 25 to 34 years old age group reported the greatest increase (4.9%), followed by the 45 to 53 years old age group (4.2%).

Obese Body Mass Index 30+

Obesity is serious because it is associated with poorer mental health outcomes and reduced quality of life. In the United States and worldwide, obesity is also associated with the leading causes of death, including deaths from diabetes, heart disease, stroke, and some types of cancer (CDC, 2022).

Obese (BMI 30+) - key disparities in Nebraska: 2016-2020

- One-third of Nebraskans were obese at 33.4%.
- African Americans (41.8%) were the most likely population to be obese, compared to 32.9% of Whites.
- Both American Indians (40.2%) and Hispanics (36.2%) were more likely to be obese than Whites (32.9%).
- The Asian population (14.9%) was least likely to be obese.
- Males had a slightly higher percentage of obesity (33.7%) compared to females (33.1%).
- The 45 to 54 years old age group reported the highest percentage of obesity among all age groups (40.2%), followed by the 55 to 64 years old age group (39.8%).

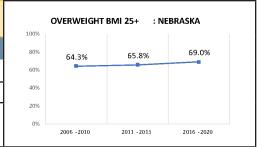
Trends Obese (BMI 30+):

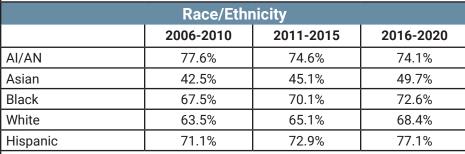
- Obesity among Nebraska adults continues to increase. From 2006-2010 to 2016-2020, obesity among Nebraska adults increased from 27.2 percent to 33.4 percent.
- From 2006-2010 to 2016-2020, the percentage of obesity decreased slightly among American Indians (from 41.7% to 40.2%), and increased among African American, Asian, and Hispanic populations.
- From 2006-2010 to 2016-2020, the Asian population showed the lowest percentage of obesity among all groups, but the percentage has increased over time, from 10.3% in 2006-2010 to 14.9% in 2016-2020.
- Obesity among female Nebraskans increased 4.6% between 2011-2015 and 2016-2020 (from 28.5% to 33.1%), and male Nebraskans reported a 2.9 percent increase in obesity during the same time period (from 30.8% to 33.7%).
- From 2011-2015 to 2016-2020, all age groups reported an increase in obesity. The 45 to 54 years old age group reported the greatest increase (5.9%), followed by the 65 years old and older age group (3.9%).

OVERWEIGHT BMI 25+ (%)

	Nebras		
I	2006-2010	2011-2015	2016-2020
Γ	64.3%	65.8%	69.0%

Source: BRFSS 2006-2010. Nebraska Health Disparity Report. 2015. P. 268. <u>Link.</u> BRFSS 2011-2015. Nebraska Health Disparities Report. 2020. P. 213. <u>Link.</u> BRFSS 2016-2020. <u>https://atlas-dhhs.ne.gov/Atlas/BRFSS</u>. Overweight or Obese (BMI=25+), Adults 18 and older.





Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020). Division of Public Health. NE DHHS. Link. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS

	RACE/ETHNICITY						
] -	→ AI/AN → Asian → Black → White → Hispanic						
80%							
40%	-						
0%	2006 -2010	2011 -2015	2016 -2020				

OVEDWEIGHT BMI 25+

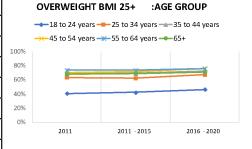
Gender				
2011 2011-2015 2016-2020				
Female	56.8%	58.5%	63.2%	
Male	72.8%	72.9%	74.5%	

Source: BRFSS 2011 (single year). https://atlas-dhhs.ne.gov/Atlas/BRFSS BRFSS 2011-2015. Nebraska Health Disparities Report. 2020. P. 213. Link. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS

	OVERWEIGH	T BMI 25+ : 6	SENDER
	-	Female ——Male	
100%			
80%	72.8%	72.9%	74.5%
60%			
40%	56.8%	58.5%	63.2%
20%			
0%			
	2011	2011 -2015	2016 -2020

Age Group				
	2011	2011-2015	2016-2020	
18 to 24 years	40.8%	42.7%	46.3%	
25 to 34 years	63.5%	62.5%	67.4%	
35 to 44 years	68.8%	69.6%	72.9%	
45 to 54 years	70.4%	72.1%	76.3%	
55 to 64 years	73.8%	73.7%	76.1%	
65 +	68.3%	69.1%	71.1%	

Source: BRFSS 2011(single year): https://atlas-dhhs.ne.gov/Atlas/BRFSS. BRFSS 2011-2015: https://atlas-dhhs.ne.gov/Atlas/BRFSS. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS.



Mentally Unwell

This measure was evaluated by asking 'Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days in the past 30 days was your mental health not good?' (Results are reported for those responding that mental health was not good on 14 or more of the past 30 days).

Mentally Unwell - key disparities in Nebraska: 2016-2020

- Just under 11% of Nebraskans reported being mentally unwell on 14 or more days in the past 30 days.
- American Indians (15.2%) reported the highest percentage of those being mentally unwell on 14 or more days in the past 30 days.
- Asians reported the lowest percentage of those being mentally unwell for 14 or more days in the past 30 days (6.2%), followed by Hispanics at 9.7%.
- African Americans reported that 12.6% of the population were mentally unwell for 14 or more days in the past 30 days; 1.5% higher than the percentage reported by Whites (11.1%).
- The percentage of female Nebraskans (13.4%) that reported being mentally unwell on 14 or more days in the past 30 days was higher than the percentage reported by the male Nebraskans (8.3%).

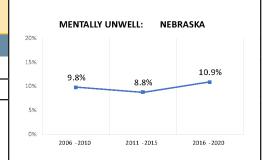
Trends Mentally Unwell:

- From 2006-2010 to 2016-2020, the percentage of mentally unwell Nebraskans increased from 9.8 percent to 10.9 percent, respectively.
- From 2006-2010 to 2016-2020, the percentage of people mentally unwell decreased among American Indian, African American, and Asian populations, and increased slightly among Hispanics.
- From 2006-2010 to 2016-2020, the American Indian population has shown the highest percentage of individuals mentally unwell among all groups, but the percentage has decreased over time, from 16.8% in 2006-2010 to 15.2% in 2016-2020.
- From 2011-2015 to 2016-2020, the percentage of female Nebraskans mentally unwell increased 2.8 percent, compared to an increase of 1.3 percent among male Nebraskans.
- Trends show that mentally unwell individuals have increased among all age groups since 2011.

MENTALLY UNWELL

Nebras		
2006-2010	2011-2015	2016-2020
9.8%	8.8%	10.9%

Source: BRFSS 2006-2010 (mental health was not good on 10 or more days in the past 30 days). Nebraska Health Disparity Report. 2015. P. 259. <u>Link</u>. BRFSS 2011-2015. Nebraska Health Disparities Report. 2020. P. 219. <u>Link</u>. BRFSS 2016-2020. https://atlas-dhhs.ne.gov/Atlas/BRFSS. Mental health was not good on 14 or more of the past 30 days (e.g., frequent mental distress), Adults 18 and older.



Race/Ethnicity			
	2006-2010	2011-2015	2016-2020
AI/AN	16.8%	15.6%	15.2%
Asian	8.5%	5.6%	6.2%
Black	13.1%	10.7%	12.6%
White	10.1%	8.8%	11.1%
Hispanic	9.1%	8.1%	9.7%

Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020). Division of Public Health. NE DHHS. <u>Link</u>. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS

	MENTALLY UNWELL: RACE/ETHNICITY				
→	-AI/AN -Asia	n 📥 Black 🔶 W	hite 		
20%					
15%	-				
10%	*		*		
5%		~			
0%					
	2006 -2010	2011 -2015	2016 - 2020		

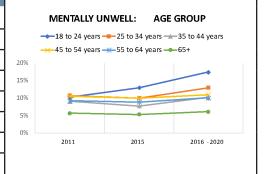
Gender				
2011 2011-2015 2016-2020				
Female	10.7%	10.6%	13.4%	
Male	7.7%	7.0%	8.3%	

Source: BRFSS 2011 (single year). https://atlas-dhhs.ne.gov/Atlas/BRFSS BRFSS 2011-2015. Nebraska Health Disparities Report. 2020. P. 219. Link. BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS



Age Group			
	2011	2011-2015	2016-2020
18 to 24 years	10.2%	13.0%	17.5%
25 to 34 years	10.7%	10.0%	13.0%
35 to 44 years	9.1%	7.7%	10.2%
45 to 54 years	10.6%	10.0%	11.0%
55 to 64 years	9.2%	8.9%	10.1%
65 +	5.7%	5.3%	6.1%

Source: BRFSS 2011 and 2015 (single year), and BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS



Physically Unwell

Respondents were asked, 'Thinking about your physical health, which includes physical illness and injury, for how many days in the past 30 days was your physical health not good?' (Results are reported for those responding that physical health was not good on 14 or more of the past 30 days).

Physically Unwell - key disparities in Nebraska: 2016-2020

- Nebraskans reported an average of 3.2 days being physically unwell in the past 30 days.
- American Indians (4.8 days) reported the highest average number of days being physically unwell on 14 or more days in the past 30 days.
- Asians reported the lowest average number of days (2.3 days) being physically unwell for 14 or more days in the past 30 days, followed by Whites at 3 days.
- African Americans reported an average of 4.5 days that were physically unwell for 14 or more
 days in the past 30 days; second-highest percentage compared to other populations. Hispanics
 reported an average of 3.2 days that were physically unwell for 14 or more days in the past
 30 days.
- Female Nebraskans reported a higher average number of days being physically unwell in the past 30 days compared to male Nebraskans (3.5 days vs. 2.9 days, respectively).
- The 55 to 64 years old age group reported the highest average number of days being physically unwell in the past 30 days compared to the rest of the age groups (4.5 days).

Trends Physically Unwell:

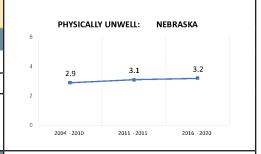
- From 2011-2015 to 2016-2020, the average number of days being physically unwell increased slightly for Nebraskans.
- From 2006-2010 to 2016-2020, the percentage of physically unwell individuals increased slightly among American Indian and African American populations and decreased slightly among Hispanics.
- From 2006-2010 to 2016-2020, the Asian population reported an average of 1.2 fewer days of feeling physically unwell, from 3.5 days in 2006-2010 to 2.3 days in 2016-2020, the greatest decrease in number of days among all groups.
- From 2011 to 2016-2020, the 65 years old and older age group was the only age group that reported a significant decrease in the average number of days being physically unwell.

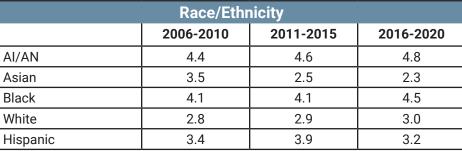
PHYSICALLY UNWELL (days)

Nebras	ka	
2004-2010	2011-2015	2016-2020
2.9	3.1	3.2

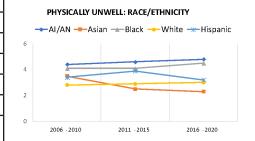
Source: BRFSS 2004-2010. County Health Rankings. 2012. <u>Link.</u> BRFSS 2011-2015: https://ncod.cdc.gov/weat/#/analysis. BRFSS 2016-2020. https://atlas-dhhs.ne.gov/Atlas/BRFSS.

Average number of days physical health was not good in past 30 days, Adults 18 and older.





Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020). Division of Public Health. NE DHHS. <u>Link</u>. BRFSS 2016-2020: <u>https://atlas-dhhs.ne.gov/Atlas/BRFSS</u>



Gender				
2011 2011-2015 2016-2020				
Female	3.4	3.5	3.5	
Male	2.9	2.8	2.9	

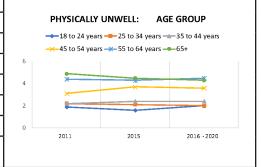
Source: BRFSS 2011 (single year): https://atlas-dhhs.ne.gov/Atlas/BRFSS.

BRFSS 2011-2015: https://nccd.cdc.gov/weat/#/analysis.BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS

	PHYSICAL	.LY UNWELL : G	ENDER
	-	←Female ← Male	2
6			
4	3.4	3.5	3.5
2	2.9	2.8	2.9
0	2011	2011 - 2015	2016 -2020

Age Group			
	2011	2011-2015	2016-2020
18 to 24 years	10.2%	13.0%	17.5%
25 to 34 years	10.7%	10.0%	13.0%
35 to 44 years	9.1%	7.7%	10.2%
45 to 54 years	10.6%	10.0%	11.0%
55 to 64 years	9.2%	8.9%	10.1%
65 +	5.7%	5.3%	6.1%

Source: BRFSS 2011 (single year) and 2015 (single year), and BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS



Depressive Disorder

Depressive disorders are often characterized by feelings of sadness and hopelessness, though individuals with a major depressive disorder may also experience loss of interest in activities, changes in weight or activity, insomnia, and difficulties concentrating. If not treated, individuals with depression face a higher risk of suicide, heart disease, and other mental disorders (CDC, 2022).

Depressive Disorder - key disparities in Nebraska: 2016-2020

- In Nebraska, 17.5 percent of the population reported having ever been diagnosed with depression.
- Nearly one-fourth of American Indians (23.3%) reported having ever been diagnosed with depression, compared to 18.7 percent of Whites.
- African Americans (15.9%) and Hispanics (12%) reported lower percentages of individuals who had ever been diagnosed with depression compared to Whites.
- Asians (5.3%) were least likely to report having ever been diagnosed with depression.
- The lifetime prevalence of depression is about two times higher among females (23.2%) compared to males (11.7%).
- The 18 to 24 years old age group reported the highest percentage of individuals who have ever been diagnosed with depression.

Trends Depressive Disorder:

- Between 2011-2014 and 2016-2020 the prevalence of diagnosed depression among Nebraska adults remained relatively stable (17.4% and 17.5%, respectively).
- From 2006-2010 to 2016-2020, the percentage of people with depressive disorders decreased substantially among American Indians, from 39.4% in 2006- 2010 to 23.3% in 2016-2020, a difference of 16.1 percentage points.
- From 2006-2010 to 2016-2020, African American and Asian populations experienced an increase in the percentage of people diagnosed with depressive disorders, while the Hispanic population diagnosed with depressive disorders decreased slightly.
- From 2011-2015 to 2016-2020, the percentage of female adults with depressive disorders increased 1.0 percent, while male adults reported a 0.7 percent decrease of depressive disorders during the same time period.
- From 2011 to 2016-2020, the percentage of depressive disorders increased the greatest among the 18 to 24 years old age group (from 14.4% to 21.9%, a 6.1% increase).

DEPRESSIVE DISORDER (%)

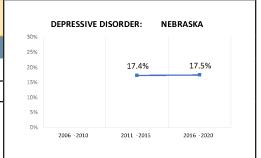
Nebraska		
2011	2011-2014	2016-2020
16.8%	17.4%	17.5%

Source: BRFSS 2011: https://atlas-dhhs.ne.gov/Atlas/BRFSS.

BRFSS 2011-2014: Nebraska Behavioral Health Needs Assessment, 2016 (p. 34). Link.

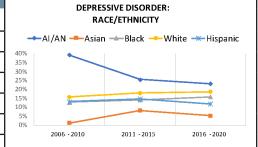
BRFSS 2016-2020. https://atlas-dhhs.ne.gov/Atlas/BRFSS.

Ever told they have depression, Adults 18 and older.



Race/Ethnicity 2006-2010 2011-2015 2016-2020 AI/AN 39.4% 25.6% 23.3% Asian 1.2% 8.3% 5.3% Black 13.0% 14.2% 15.9% White 15.8% 18.1% 18.7% 13.2% 14.8% 12.0% Hispanic

Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020). Division of Public Health. NE DHHS. <u>Link</u>. BRFSS 2016-2020: <u>https://atlas-dhhs.ne.gov/Atlas/BRFSS</u>



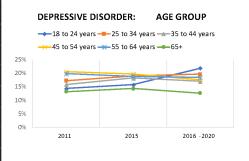
Gender			
	2011	2011-2015	2016-2020
Female	22.0%	22.2%	23.2%
Male	11.5%	12.4%	11.7%

Source: BRFSS 2011 (single year), BRFSS 2011-2015: Nebraska Health Disparities Report, 2020 (p. 217), and BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS

	→ Female Male		2
40%			
35%			
30%	22.0%	22.2%	23.2%
25%	22.0%	22.270	25.270
20%			
15%			
10% 5%	11.5%	12.4%	11.7%
0%	11.570		221770
U26	2011	2011 - 2015	2016 - 2020

Age Group			
	2011	2015	2016-2020
18 to 24 years	14.4%	15.8%	21.9%
25 to 34 years	17.3%	19.0%	19.7%
35 to 44 years	15.9%	18.3%	17.0%
45 to 54 years	20.6%	19.8%	17.7%
55 to 64 years	19.9%	18.9%	18.5%
65 +	13.2%	14.4%	12.7%

Source: BRFSS 2011 (single year) and 2015 (single year), and BRFSS 2016-2020: https://atlas-dhhs.ne.gov/Atlas/BRFSS



Summary of Highest Social Determinants of Health Disparities among Minorities

Household Income

Among minority groups, African Americans had the lowest median income at \$37,163 between 2016 and 2020.

Poverty

2016-2020, nearly one-fourth of American Indians (24.9%) lived below the poverty level.

Employment Status

From 2016-2020, American Indians reported the highest percentage of unemployed individuals at 12.8%, a percentage 4.4 times greater than that of Whites at 2.9%.

Marital Status

From 2016-2020, African Americans had the lowest proportion of married individuals at 30.9%, which was almost half that of the White population.

Education

The Hispanic population reported the highest percentage of individuals with less than high school education among all races/ethnicities between 2006-2010 to 2016-2020.

Personal Physician (Access to Care)

From 2016-2020, over two-fifths (44%) of the Hispanic population reported not having a personal physician, compared to 18.6% of Whites.

Health Insurance (Access to Care)

From 2016-2020, half (49.9%) of Hispanics did not have health care coverage, compared to 9.6% of Whites.

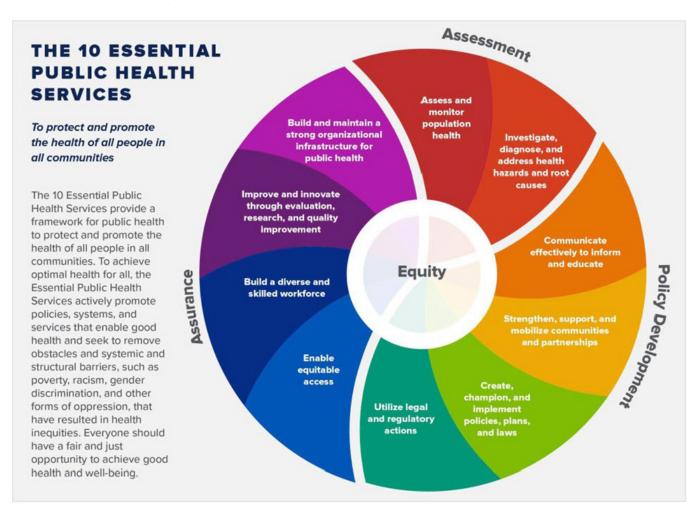
Medical Expenses (Access to care)

From 2016-2020, almost one-fifth (19.9%) of Hispanics reported being unable to see a physician due to cost, compared to only 8% of Whites.

Appendix

Statewide Public Health System Asset Inventory

SHIP planning will consider and build upon these existing assets, identified through the Nebraska State Public Health System Assessment. These assets include themes from the question: "What are the key assets in place in Nebraska that allow us to successfully meet the Essential Public Health Service?"; assets grouped by the ten Essential Public Health Services (ES); and the six functions of public health governance (National Association of Local Boards of Health (NALBOH)).



Statewide Public Health System Asset Inventory by Essential Public Health Services		
	Strong Regionalized Local Public Health System	
	Consistent Community Health Assessment	
ES 1 ssess and monitor population health	Collaborative Relationships	
status, factors that influence health, and community needs and assets.	Maintenance of Data	
	Electronic Lab Submission	
	Enhanced use of technology for data sharing	
	Strong Workforce	
ES 2 Investigate, diagnose, and address	Strong Academic Programs	
nealth problems and hazards affecting the population.	Strong Collaboration	
	Existing Assets and Addressing Gaps	
	Public Information Officers	
ES 3 Communicate effectively to inform and	Relationships with Media	
educate people about health, factors that influence it, and how to improve it.	Focus on Health Literacy	
	Key Relationships and Networks	
ES 4 Strengthen, support, and mobilize	Long Standing Collaboration and Relationships	
communities and partnerships to improve health.	Community Knowledge	
	Implementing Policy	
	Non-Profit Hospital Collaboration	
ES 5 Create, champion, and implement	Investment in Community Relationships	
policies, plans, and laws that impact health.	Strong Networks	
	Planning	
	Collaboration	

ES C	Strong State Licensure Procedures
ES 6 Utilize legal and regulatory actions designed to improve and protect	Local Health Departments Are Actively Engaged
the public's health.	Effective Adherence to Current Law and Procedures
	Strong Office of Rural Health
	Community Health Assessment Efforts
	Care coordination activities
	Shift to value-based payment models
ES 7	Medicaid Expansion
Assure an effective system that enables equitable access to the	Widespread adoption of telehealth
individual services and care needed to be healthy.	UNMC
	Strong relationships
	Several LHDs are using Community Health Workers (CHWs)
	Community Action Partnerships
	LHDs have great relationships
	Enhanced Formal Education and Training
50.0	Local Health Department (LHD) Accreditation
ES 8 Build and support a diverse and skilled	Workforce development planning
public health workforce.	Opportunities for Capacity Development and Learning
	UNMC College of Public Health

	UNMC
	Public health academic / practice relationships
ES 9	Performance Management
Improve and innovate public health functions through ongoing evaluation, research, and continuous quality improvement.	An existing foundation of QI training and efforts
	Accreditation
	Collaboration between DHHS and the LHDs on QI efforts
	Public health department staff exposed to or trained in quality improvement methods
	Committed Public Health System and Workers
ES 10 Build and maintain a strong	Talented Public Health Professionals
organizational infrastructure for public health.	Statewide association (NALHD)
	Nebraska's Regional Local Public Health System
NALBOH local governance	Local boards of health are engaged and provide good oversight
NALBOH state governance	No assets identified

Social Determinants & Health Disparities: A Comparative Analysis of Urban and Rural Populations in Nebraska

Introduction

Geography plays a significant role in health outcomes, with both urban and rural environments presenting unique challenges and opportunities. Some of the main ways that geography impacts health are:

Access to Healthcare Services: In rural areas, healthcare facilities can be sparse, distant, and may not offer a wide range of services. This can lead to delays in receiving care, difficulty in accessing specialist services, and increased travel time and costs. On the other hand, urban areas typically have better access to a variety of healthcare facilities, but overcrowding and long waiting times can still pose challenges (Jackson et al., 2013; Knudson et al., 2015; Zhao et al., 2019)

Healthcare Workforce: Rural areas often face a shortage of healthcare providers. This includes doctors and nurses, but also specialists, dentists, mental health providers, and others. Urban areas generally have a higher concentration of healthcare professionals but may still face shortages in underserved communities.

Social Determinants of Health: These include factors like income, education, employment, and social supports, which are often worse in rural areas due to economic challenges. Urban areas can also have significant disparities, particularly in neighborhoods with high poverty rates.

Environmental Health Risks: Rural areas often have limited access to municipal water treatment facilities, relying instead on wells or local water sources that may be contaminated with agricultural runoff, chemicals, or biological contaminants. This can lead to a higher incidence of waterborne diseases (e.g., cholera, typhoid fever, hepatitis A). (U.S. Environmental Protection Agency, n.d.)

Urban areas can also have significant environmental health risks, such as air pollution and lead exposure. Studies have shown urban-associated diseases (UADs), specifically associations between inflammatory, allergic, and infectious diseases of those living in urban communities (Flies et al., 2019).

Health Behaviors: Rural populations tend to have higher rates of risky health behaviors, such as smoking, lack of physical activity, and poor diet, leading to higher rates of chronic diseases (<u>Garcia et al., 2019</u>). Urban areas may offer more opportunities for healthy behaviors, like better access to fresh food and places to exercise, but this can vary greatly within urban areas.

Mental Health: Rural residents may experience higher levels of psychological distress due to isolation and lack of mental health services. Conversely, urban residents may face significant stress due to factors like overcrowding and noise, which can contribute to mental health issues.

Communicable Diseases: Urban areas, due to their high population density, may have higher rates of certain communicable diseases. The spread of diseases in rural areas can also be exacerbated by limited healthcare resources and infrastructure.

Key Findings

Health Conditions: Arthritis, high blood pressure, asthma, obesity, and overweight or obese were the top five most common health conditions across all geographic areas. Overweight or obese (BMI 25+) individuals was higher in Urban-Small and rural areas when compared to Urban-Large areas. The highest percentage of obesity (BMI 30+) was found in Urban-Small areas. According to the CDC, "people who have overweight or obesity, compared to those with healthy weight, are at increased risk for many serious diseases and health conditions." ¹

Health Coverage and Access to Care: No health coverage and lack of a personal doctor were higher in Urban-Small areas when compared to Urban-Large and rural areas. Urban-Small areas reported the lowest growth of behavioral health providers between 2010-2021 when compared to the rest of the geographic areas.

Mental and Physical Health: The general health status being fair or poor was highest in Urban-Small areas. Mental health was not good and depression prevalence rates were higher in Urban-Large and Urban-Small areas when compared to Rural areas. However, according to the CDC², Nebraska suicide rates in non-metro areas (rural) were higher when compared to metro areas (urban).

Substance Use: Smokeless tobacco use prevalence was higher in rural areas compared to urban areas. Alcohol use prevalence was highest in Urban-Large areas. Binge drinking and heavy drinking prevalence were higher in Urban-Large and Rural areas when compared to Urban-Small areas. Marijuana use was higher in Urban-Large areas when compared to the rest of the geographic areas. Opioid misuse prevalence was higher in Urban-Small areas when compared to the rest of the geographic areas.

Preventative Health Measures: Flu vaccination prevalence rates were higher in Urban-Large areas when compared to Urban-Small and Rural areas.

Accidents: Rural areas had the highest rate of falls, but Urban-Large areas reported the highest prevalence rates of injuries due to falls.

Socio-Economic Factors: The lowest population growth between 2010 and 2020 was in Rural areas and Urban-Small areas. The highest proportion of households with seniors aged 65 years old and older were found in Rural areas. Minority populations were least concentrated in rural areas and more concentrated in Urban-Large areas. The percentage of the population aged 18 years old and older with no high school diploma was highest in Urban-Small areas and lowest in Urban-Large areas. The proportion of people aged 25 years old and older with a bachelor's degree or higher was highest in Urban-Large areas and lowest in Rural areas.

This data indicates that health outcomes, substance use, and access to care vary across urban and rural environments, suggesting that targeted public health strategies would be beneficial. It also highlights the importance of social determinants of health, such as education and poverty status when it comes to health outcomes and behaviors. See <u>Appendix C</u> for summary of indicators by geographic areas and highlighted disparities.

¹ CDC. Healthy Weight, Nutrition, and Physical Activity. https://www.cdc.gov/healthyweight/effects/index.html

² CDC. WISQARS. <u>WISQARS Data Visualization (cdc.gov)</u>. Suicides per 100,000 persons (age-adjusted) for 2016-2020 combined years: Metro (12.9); Non-Metro (17.5); Nebraska (14.4).

Demography

Population (2020, projected 2030-2050) and Population Changes

According to the U.S. Decennial Census of 2020, there were 1,961,504 people in the State of Nebraska. 18.2% of them lived in rural counties (n = 357,849), 21.3% lived in Urban-Small counties (n = 418,567), and 60.4% lived in Urban-Large communities (n = 1,185,088). **Table 1** summarizes these results. Figure 1 shows the geographic classification of counties in Nebraska according to the Nebraska Department of Health and Human Services.

Table 1: Decennial Census count for Nebraska in 2020

Geography	2020 Population	% 2020 Population
Urban Large	1,185,088	60.4%
Urban Small	418,567	21.3%
Rural	357,849	18.2%
NEBRASKA	1,961,504	100%

Nebraska experienced a 7.4% percent change in population between 2010 and 2020, from 1,826,341 people to 1,961,504 people, respectively.

Data sources: 1) U.S. Census Bureau. Nebraska 2020 Census. 2) NE DHHS (2016)

Figure 1: Urban and Rural Counties in Nebraska

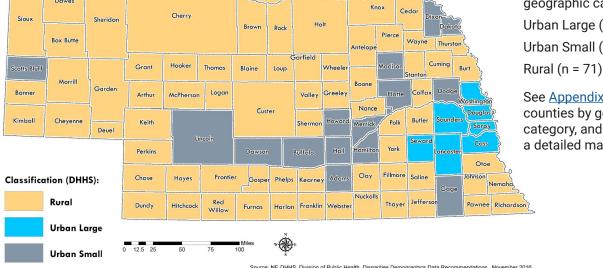


Number of counties by geographic category:

Urban Large (n = 7)

Urban Small (n = 15)

See Appendix A for list of counties by geographic category, and Appendix B for a detailed map.



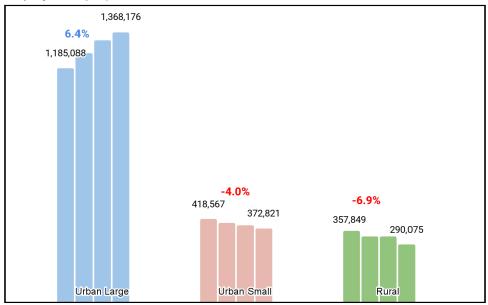
Source: NE DHHS, Division of Public Health, Disparities Demographics Data Recommendations, https://dhhs.ne.gov/Reports/Disparities%20Demographic%20Data%20Recommendations*

Data source: Nebraska Department of Health and Human Services. Disparities Demographic Data Recommendations (2016)

The Nebraska DHHS Disparities Demographic Data Recommendations (2016) on pages 7-9 states the impossibility of providing a universally applicable definition of county classification by population density. The recommendations suggest prioritizing flexibility over simplicity by using at least one of 2 separate categorization methods based on county and zip code. It is recommended to combine the basic categories in a way that meets the user's needs, and any application of this data should be explained for clarification. The terms urban-large, urban-small, and non-urban are designated with a county based geographic location on pages 12-13.

Figure 2 shows the changing population dynamics across different geographical areas in Nebraska, including projections up to the year 2050. The first bar, from left to right, for each geographic area corresponds to the decennial census population from 2020, and the following bars correspond to the projected populations in 2030, 2040, and 2050.

Figure 2: Current Population (2020), Population Projections (2030, 2040, 2050) and Percentage Change (2020-2050) by Geographic Area in Nebraska



Data source: Center for Public Affairs Research, University of Nebraska at Omaha 2015.

Nebraska County Population Projections: 2010 to 2050.

https://digitalcommons.unomaha.edu/cparpublications/258.

The following are key insights drawn from the chart:

Urban Large Growth: The Urban Large areas are projected to experience a growth in population over the decades, with an expected increase of 6.4% from 2020 to 2030. This growth trend continues through 2040 and 2050, indicating an ongoing trend of urbanization.

Rural and Urban Small Decline: Both Rural and Urban Small areas, are projected to experience a decrease in population. Rural areas are expected to experience the greatest decline, with a decrease of 6.9% from 2020 to 2030. The decline in population of these areas could be explained to factors like migration to larger cities, fewer job opportunities, or lower birth rates.

Total Population Growth: Despite the declines in Rural and Urban Small areas, the total population of Nebraska is projected to grow by 1.7% from 2020 to 2030. This is primarily driven by the substantial population growth in Urban Large areas.

Long Term Decline in Rural Areas: Looking at the longer-term projections, it's notable that the population of Rural areas continues to decline, from 357,849 in 2020 to projected 290,075 for 2050. A continued decline indicates that strategies will be needed to support these communities.

Urban Small Stabilizing: The Urban Small population appears to stabilize somewhat after 2030, with lesser declines projected for 2040 and 2050.

Urban Large Becoming Dominant: By 2050, the Urban Large areas will have significantly expanded those parts of Nebraska's population. These areas will become increasingly important for the state's economy, infrastructure needs, and public policy decisions.

This data underlines the ongoing shifts in population from rural and smaller urban areas to larger urban areas. These trends have significant implications for policy planning, infrastructure, public services, and economic development strategies in Nebraska.

Minority Population

Table 2 and **Figure 3** highlight a significant increase in the minority population across all geographic areas in Nebraska between 2010 and 2020.

The minority population in rural areas of Nebraska more than doubled from 6.9% in 2010 to 13.8% in 2020, reflecting a growth rate of 6.9%.

Urban small areas experienced the largest growth rate among the three categories. The minority population increased from 11.4% in 2010 to 24.7% in 2020, representing a growth of 13.3%.

Urban large areas saw an increase in the minority population as well, rising from 17.4% in 2010 to 27.3% in 2020, a growth rate of 10.0%.

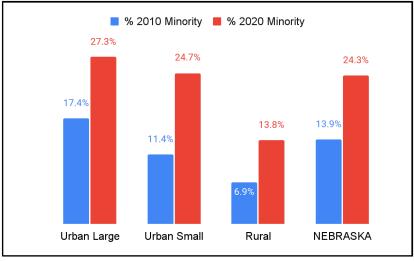
At the state level, the minority population increased by 10.4%, from 13.9% in 2010 to 24.3% in 2020. This aligns with the trends observed in the specific regions and shows a general increase in racial/ethnic diversity across Nebraska.

Table 2: Minority Population Growth in Nebraska by Geographic Areas from 2010 to 2020

Geography	2010 Minorities	2010 Population	% 2010 Minority	2020 Minorities	2020 Population	% 2020 Minority	2010-2020 % Difference
Urban Large	181,197	1,044,362	17.4%	323,930	1,185,088	27.3%	10.0%
Urban Small	46,822	410,021	11.4%	103,536	418,567	24.7%	13.3%
Rural	25,484	371,958	6.9%	49,351	357,849	13.8%	6.9%
NEBRASKA	253,503	1,826,341	13.9%	476,817	1,961,504	24.3%	10.4%

Data source: Population, All Minority, US Census Bureau 2020

Figure 3: Percentage of Minority Populations in Nebraska by Geographic Area (2010 vs 2020)



Data source: Population, All Minority, US Census Bureau 2020

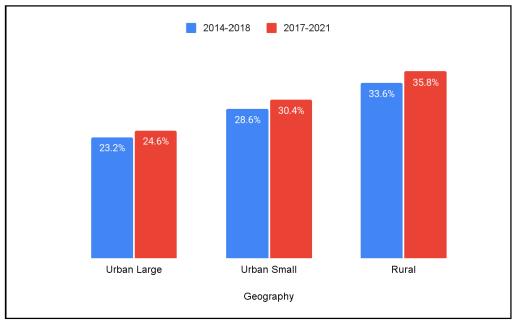
The minority population in Nebraska increased **1.8 times** during the time period from 13.9% in 2010 to 24.3% in 2020.

The minority population in Urban Small areas increased 2.2 times, 2.0 times in Rural areas, and 1.6 times in Urban-Large areas during the same time period.

Households with Seniors Age 65+

Figure 4 provides a comparison of senior citizen populations (aged 65 and older) in rural, urban small, and urban large settings across two time periods: 2014-2018 and 2017-2021.

Figure 4: Percentage Change in Households with Seniors (65+) in Rural and Urban Areas Between 2014-2018 and 2017-2021 in Nebraska



Data source: US Census Bureau, American Community Survey: 2014-2018 and 2017-21

The following insights can be drawn from the data:

Overall Growth: All three geographic areas showed an increase in the proportion of households with seniors aged 65+ from 2014-2018 to 2017-2021.

Rural Areas: Despite having a smaller total population, rural areas have a significantly higher percentage of senior citizens when compared to both types of urban areas. The increase in the percentage of seniors in rural areas was also the highest among the three categories, rising by 2.2 percentage points.

Urban Small vs Urban Large: The proportion of senior citizens was slightly higher in smaller urban areas compared to larger urban areas, both in 2014-2018 and in 2017-2021.

Decreasing Total Households in Rural Areas: The total number of households in rural areas decreased from 153,016 in 2014-2018 to 144,785 in 2017-2021, despite an increase in the number of senior citizens. This could indicate that younger populations are moving away from rural areas.

Increasing Total Households in Urban Large Areas: The total number of households in large urban areas increased from 436,530 in 2014-2018 to 458,727 in 2017-2021, along with an increase in the number of senior citizens. This could be due to factors such as urbanization or an increase in housing availability.

Stable Total Households in Urban Small Areas: The total number of households in small urban areas remained relatively stable across the two time periods, despite a small increase in the number of seniors.

This information is important for policymaking and resource allocation, as different geographic areas may have different needs in terms of senior care and services. For example, rural areas may need more resources for transportation and access to healthcare, while urban areas may need more affordable housing options for seniors.

Disabled population by geographic areas (2017-2021)

Overall, Nebraska's disabled population represents 11.8% of its total population. The percentage of the disabled population is highest in rural areas (14.0%), followed by urban small areas (13.2%), and urban large areas have the lowest proportion (10.6%). **Table 3.**

Table 3: Prevalence and Distribution of Disabled Population by Geographic Area in Nebraska

Geography	Disabled Population	Total Population	Disabled Population, Percent of Total Population
Urban-Large	122,470	1,157,653	10.6%
Urban-Small	54,503	413,248	13.2%
Rural	49,343	352,965	14.0%
NEBRASKA	226,316	1,923,866	11.8%

Data source: U.S. Census Bureau. ACS (2017-2021)

Disabled population age 18-64 by geographic areas (2017-2021)

The overall disability rate for the 18-64 age group across all areas of Nebraska was 9.8%. Urban-Small areas showed the highest percentage of disabled individuals (11.1%), followed by Rural (10.5%), and then by Urban-Large (9.1%) areas. **Table 4.**

Table 4: Proportion and Number of Disabled Individuals (Ages 18-64) by Geographic Area in Nebraska

Geography	Disabled Population Age 18-64	Total Population 18-64	Disabled Population, Percent of Age 18-64 Population
Urban-Large	64,383	709,298	9.1%
Urban-Small	26,510	238,499	11.1%
Rural	20,557	195,103	10.5%
NEBRASKA	111,450	1,142,900	9.8%

Data source: U.S. Census Bureau. ACS (2017-2021)

Social & Economic Factors

Research indicates that economic opportunity, especially having a job, is one of the most powerful predictors of good health, and that impacts on health are especially pronounced for people in or near poverty. (Braveman et al., 2018).

"Evidence links greater wealth with better health." (RWJF, 2018).

Children from low-income families experience higher mortality rates compared to those from more affluent backgrounds (Pascoe et al., 2016)

Poverty

People with lower socioeconomic status tend to have worse health outcomes. This is often linked to factors such as lack of access to quality healthcare, living in areas with poor air quality, and having jobs that don't provide health insurance or that are physically demanding (<u>Glymour, Avendano, & Kawach, 2014</u>).

In Nebraska, there were 195,455 individuals living in poverty out of a total population of 1,899,516 (ACS, 2017-2021). This translates to an overall poverty rate of 10.3%. Poverty was more prevalent in Urban Small areas, with a poverty rate of 11.3%, followed by rural areas (10.4%). Urban Large areas have the lowest poverty rate at 9.9%. **Table 5.**

Table 5: Percentage of persons living in poverty by geographic area in Nebraska (2017-2021)

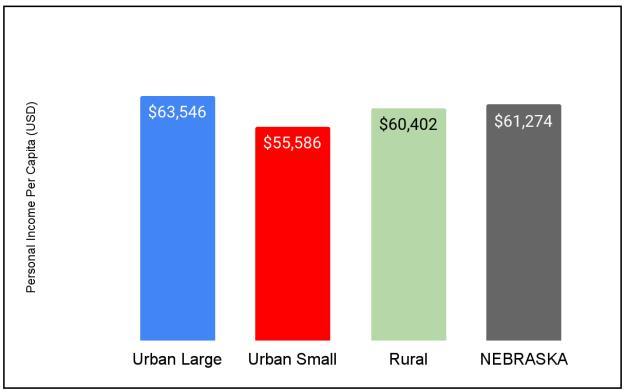
Geography	Population	Population in Poverty	Poverty %
Urban-Large	347,760	36,048	10.4%
Urban-Small	407,609	45,957	11.3%
Rural	1,144,147	113,450	9.9%
NEBRASKA	1,899,516	195,455	10.3%

Data source: U.S. Census Bureau. ACS (2017-2021)

Personal Income Per Capita¹

This measure of income is calculated as the total personal income of the residents of an area divided by the population of the area. Per capita personal income is often used as an indicator of consumers' purchasing power and of the economic well-being of the residents of an area. In Nebraska, Urban-Large residents had the highest per capita income in 2021 (\$63,546), followed by residents in Rural areas (\$60,402), and then by residents in Urban-Small areas (\$55,586). **Figure 5.**

Figure 5: Personal Income Per Capita (USD) by Geographic Areas in Nebraska



Data source: Information used in this figure was acquired from the US Bureau of Economic Analysis Regional Economic Accounts: Economic Profile (CA30).

¹ It is defined as the sum of wages and salaries, supplements to wages and salaries, proprietors' income with inventory valuation and capital consumption adjustments, rental income of persons with capital consumption adjustment, personal dividend income, personal interest income, and personal current transfer receipts, less contributions for government social insurance.

Education

Education is linked to increased life expectancy and reduced chronic disease rates, infant mortality, and other negative health outcomes. Quality preschool is important for healthy development, and has been associated with lifelong educational, economic and

Individuals with lower income and less education tend to have poorer health compared to their wealthier and better-educated counterparts. (Beckles & Truman, 2013).

health benefits. Compared to individuals with lower levels of education, adults who have attained higher education tend to lead healthier lives and have longer lifespans (Zajacova, A., & Lawrence, 2018). Even though overall health in the nation has improved in the last decades (Jemal et al., 2005; Martin, Schoeni, & Andreski, 2010), most of the improvements involved the most educated people. Marmot (2009) explains that the relationship between education and health in adulthood is causal, and that's why it's important to improve education for children, especially for those born to parents with low education levels.

Population Age 25+ with Bachelor's Degree or Higher Education Level

Following are the main findings regarding education attainment (bachelor's degree or higher) for people aged 25 years and older across different geographic areas in Nebraska:

The percentage of the population with a bachelor's degree or higher is highest in large urban areas (39.9%) and lowest in rural areas (22.5%). The overall state percentage (32.9%) is less than the percentage in large urban areas but higher than in small urban or rural areas. **Table 6.**

In Large-Urban areas, out of a total population of 756,831 people aged 25 years old and older, 301,729 have attained a bachelor's degree or higher. This represents 39.9% of the population in this age group, which is the highest percentage among all geographic areas.

In Small-Urban areas, out of 273,981 individuals aged 25 years old and older, 63,312 have attained a bachelor's degree or higher. This accounts for 23.1% of the population, which is lower than the large urban areas but slightly higher than rural areas.

In Rural areas, 55,134 out of 244,503 people aged 25 and over have obtained a bachelor's degree or higher, representing 22.5% of the population. This is the lowest percentage among the three geographic areas.

Looking at the entire state of Nebraska, out of a population of 1,275,315 people aged 25 years old and older, 420,175 have a bachelor's degree or higher, representing 32.9% of the population.

Table 6: Percentage of population aged 25 years old and older with a bachelor's degree or higher by geographic area in Nebraska

Geography	Population Age 25+	Bachelor Degree or Higher Education Level Population	Population Age 25+ (%)
Urban-Large	756,831	301,729	39.9%
Urban-Small	273,981	63,312	23.1%
Rural	244,503	55,134	22.5%
NEBRASKA	1,275,315	420,175	32.9%

Data source: U.S. Census Bureau. ACS (2017-2021)

Population Age 18+ with no High School Diploma

The following results are related to the educational level of individuals aged 18 years old and older across different geographical areas (Urban-Large, Urban-Small, and Rural) in Nebraska who do not have a high school diploma.

Disparities exist in high school education attainment across different geographical areas in Nebraska. The Urban-Small area has a significantly greater challenge regarding high school education attainment, while the Urban-Large area performs relatively better. **Table 7.**

The Urban-Large area has the lowest percentage (7.6%) of individuals aged 18 years old and older without a high school diploma, corresponding to 66,767 individuals.

The Urban-Small area has the highest percentage (11.2%) of people aged 18 and older without a high school diploma, corresponding to 34,850 individuals. This indicates a significantly higher education attainment gap in the Urban-Small area compared to the other two regions.

The Rural area has 9.0% of people aged 18 years old and older without a high school diploma, corresponding to 24,606 individuals.

Table 7. Percentage of population aged 18 years old and older without a high school diploma by geographic area in Nebraska

Geography	Population Age 18+	Pop. Age 18+ with No High School Diploma	Pct. of Pop. Age 18+
Urban-Large	879,834	66,767	7.6%
Urban-Small	311,942	34,850	11.2%
Rural	273,794	24,606	9.0%
NEBRASKA	1,465,570	126,223	8.6%

Data source: U.S. Census Bureau. ACS (2017-2021)

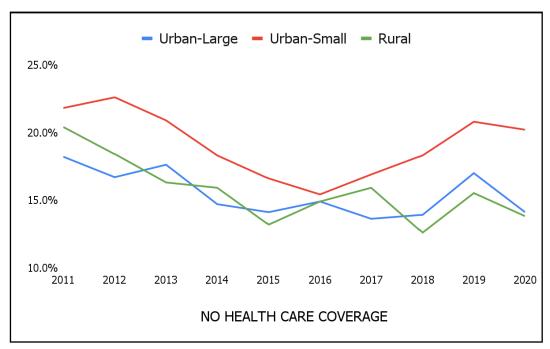
BRFSS data indicators

The following indicators, Access to Care, General Health Status and Quality of Life, Chronic disease, Health Behaviors, Nutrition, and Injury prevalence by geographic location (Rural, Urban-Large, and Urban-Small) in Nebraska were obtained from the <u>Atlas Dashboard</u> (BRFSS data set). Results are visualized by charts and tables. Key findings for each indicator are presented.

Access to Care

Health coverage has been associated with a decrease in mortality (e.g., cardiovascular mortality) (Miller, Johnson, & Wherry, 2019). Lack of access to healthcare can lead to delayed or inadequate treatment, which can worsen health conditions (Parolin & Lee, 2022; Wolfe, McDonald, & Holmes, 2020).

BRFSS data: No health care coverage, adults 18 and older by geographic areas: 2011-2020

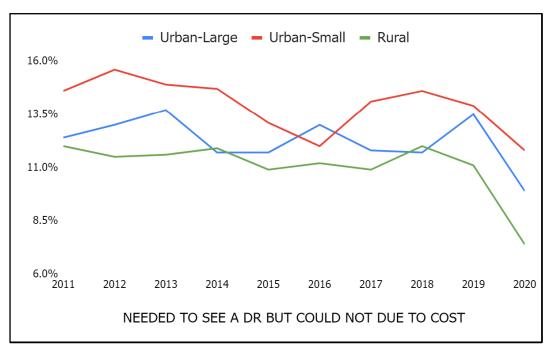


All three regions have experienced a general decrease in the percentage of people without health care coverage over the past decade, with some annual fluctuations. Despite these decreases, there were still a substantial proportion of the population in each of these regions without health care coverage as of 2020.

Urban-large and rural areas have experienced the most substantial overall decrease in health care coverage, while Urban-Small areas still retain the highest percentage of people without health care coverage.

NO HEALTH CARE COVERAGE	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	18.2%	16.7%	17.6%	14.7%	14.1%	14.9%	13.6%	13.9%	17.0%	14.1%	14.7%
Urban - Small	21.8%	22.6%	20.9%	18.3%	16.6%	15.4%	16.9%	18.3%	20.8%	20.2%	18.3%
Rural	20.4%	18.4%	16.3%	15.9%	13.2%	14.9%	15.9%	12.6%	15.5%	13.8%	14.5%

BRFSS data: Needed to see a doctor but could not due to cost in past year, adults 18 and older by geographic areas: 2011-2020

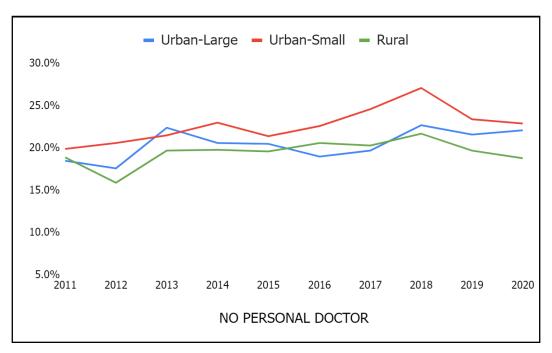


Across the decade, the percentage of people who needed to see a doctor but could not due to cost was generally higher in Urban-Small areas, followed by Urban-Large areas, with the Rural areas having the lowest percentages. Data indicates that the financial barrier to accessing healthcare somewhat decreased, especially in Rural areas. Cost remained a significant obstacle for a considerable percentage of people, particularly in Urban-Small areas.

The 2016-2020 combined years showed the smallest percentages of people unable to see a doctor due to cost was in Rural areas (10.5%), followed by Urban-Large areas (12.0%), the highest percentage was in Urban-Small areas (13.3%).

NEEDED TO SEE A DR. BUT COULD NOT DUE TO COST	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	12.4%	13.0%	13.7%	11.7%	11.7%	13.0%	11.8%	11.7%	13.5%	9.9%	12.0%
Urban - Small	14.6%	15.6%	14.9%	14.7%	13.1%	12.0%	14.1%	14.6%	13.9%	11.8%	13.3%
Rural	12.0%	11.5%	11.6%	11.9%	10.9%	11.2%	10.9%	12.0%	11.1%	7.4%	10.5%

BRFSS data: No personal doctor or health care provider, adults 18 and older by geographic areas: 2011-2020



The percentage of individuals without a personal doctor was highest in Urban-Small areas, reaching its peak in 2018 at 27.1%. Personal healthcare accessibility was most challenging in these areas.

From 2016 to 2020 combined years, the Urban-Large and Rural areas showed similar averages of individuals without a personal doctor (21.0% and 20.2% respectively), which were lower than the Urban-Small areas (24.1%).

NO PERSONAL DR.	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	18.5%	17.6%	22.4%	20.6%	20.5%	19.0%	19.7%	22.7%	21.6%	22.1%	21.0%
Urban - Small	19.9%	20.6%	21.5%	23.0%	21.4%	22.6%	24.6%	27.1%	23.4%	22.9%	24.1%
Rural	18.9%	15.9%	19.7%	19.8%	19.6%	20.6%	20.3%	21.7%	19.7%	18.8%	20.2%

Healthcare Workforce

Nursing Workforce by Geographic Areas in Nebraska (2021-2022)

Table 8 presents data on the nursing workforce in different geographic areas (urban large, urban small, rural) and for Nebraska as a whole. The nursing workforce is measured in terms of the total number of registered nurses (RN), advanced practice registered nurses (APRN), and licensed practical nurses (LPN), and the number of nurses per 100,000 people.

Table 8: Nursing (RN, APRN, LPN) workforce by geographic areas

Geography	Nebraska Population	Nebraska Nurse Population (RN+APRN+LPN)	Nebraska Nurses per 100K
Urban Large	1,185,088	15,967	1,347
Urban Small	418,567	5,589	1,335
Rural	357,849	3,493	976
Nebraska	1,961,504	25,049	1,277

Data sources: 2021 LPN Renewal Survey. 2022 RN/APRN Renewal Survey (Nebraska Center for Nursing - CFN. NE DHHS Licensure Unit). U.S. Census Bureau. Decennial Census (2020).

Nurse Per Capita: For the state of Nebraska, nurses per capita is 1,277 per 100,000 people. Urban Large and Urban Small areas have a higher number of nurses per capita (1,347 and 1,335 per 100,000 respectively) compared to Rural areas (976 per 100,000). Rural areas are facing the commonly observed lack of healthcare access, with fewer healthcare professionals per capita.

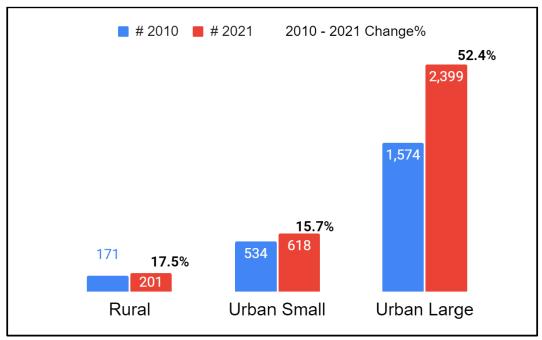
Total Nurse Population: The total number of nurses was highest in Urban-Large areas (15,967) and lowest in Rural areas (3,493). This reflects the overall higher population and greater availability of healthcare facilities in urban areas.

Data shows disparities in the distribution of the nursing workforce across different geographic locations, with rural areas facing a lower number of nurses per capita compared to urban areas. These analyses are crucial for healthcare policy and planning, and a need for strategies to attract more nursing professionals to rural areas, and to ensure equitable healthcare access across the state.

Behavioral Health Workforce¹

Figure 6 provides an overview of changes in the number of behavioral health providers across different geographic areas (rural, urban small, and urban large) in Nebraska from 2010 to 2021. The behavioral health workforce in Nebraska is tracked by UNMC, Behavioral Health Education Center of Nebraska (BHECN). Workforce data is available at the <u>Nebraska Behavioral Health</u> Workforce Dashboard.

Figure 6: Number and percent change of behavioral health providers between 2010 and 2020 by geographic area in Nebraska.



Data source: University of Nebraska Medical Center, Health Professions Tracking Service. Nebraska Behavioral Health Workforce Dashboard. https://app1.unmc.edu/publichealth/bhecn/

The following are findings based on the data:

Overall Growth: There was a significant increase in the number of behavioral health providers in all geographic areas. The total number of providers increased by 41.2% over the 11-year period, an overall positive trend in access to behavioral health services.

^{1 &}quot;88 of Nebraska's 93 counties are designated mental health shortage areas by the U.S. Health Resources and Services Administration" (HRSA). The Behavioral Health Education Center of Nebraska (BHECN). https://app1.unmc.edu/publichealth/bhecn/#/home

Urban-Large Growth: Urban-Large areas experienced the greatest increase, with a 52.4% increase in the number of behavioral health providers.

Rural and Urban-Small Growth: Rural and Urban-Small areas also experienced growth in the number of providers, lower compared to Urban-Large areas (17.5% and 15.7% respectively). Despite the growth, the total number of providers in these areas is still significantly lower than in Urban Large areas.

Potential Urban-Rural Divide: While the percentage growth in Rural and Urban Small areas seems notable, it is crucial to acknowledge the urban-rural divide that seems to persist. In absolute terms, the Urban Large areas added 825 new providers from 2010 to 2021, whereas Rural and Urban Small areas added only 30 and 84 providers respectively. Data indicates that healthcare resources, specifically behavioral health providers, continue to be disproportionately allocated towards larger urban areas.

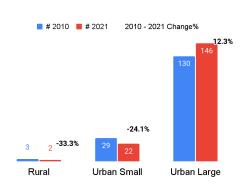
Overall, while growth in the number of behavioral health providers is positive, data highlights the need for continued efforts to ensure more equitable distribution of mental health resources across different geographic areas. It underscores the importance of policies and strategies aimed at enhancing behavioral health services in rural and small-urban areas.

Behavioral health workforce by specialty

The following charts show the number of behavioral health providers by specialty, and the percentage change between 2010 and 2021 by geographic area. Each chart is accompanied by a brief summary of main changes that occurred during that time period. The following behavioral health providers are described:

- PSYCHIATRISTS
- NURSE PRACTITIONERS
- PHYSICIAN ASSISTANTS
- PSYCHOLOGISTS
- LIMHPs: Licensed Independent Mental Health Practitioner
- LMHPs: Licensed Mental Health Practitioner
- LADCs: Licensed Drug and Alcohol Counselor

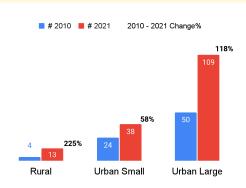
PSYCHIATRISTS



Findings

- The total number of psychiatrists across all geographic areas increased by only 4.9% over this 11-year period.
- The number of psychiatrists in Urban-Large areas increased by 12.3%, indicating that most of the growth in this profession occurred in larger urban areas.
- Both Rural and Urban-Small areas saw a decrease in the number of psychiatrists, with a drop of 33.3% and 24.1%, respectively.
- Data highlights potential mental health service gaps in rural and small urban areas, underscoring the need for policy attention and intervention.

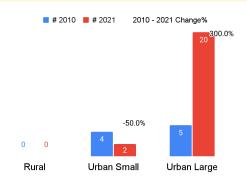
NURSE PRACTITIONERS



Findings

- The total number of nurse practitioners more than doubled across all areas, with a growth of 105.1% over the 11-year period.
- Rural areas saw the most significant increase in nurse practitioners, with an increase of 225%.
- The number of nurse practitioners in Urban-Large and Urban-Small areas also increased significantly, by 118% and 58.3% respectively. These increases, especially in Urban-Large areas, contribute substantially to the overall growth of nurse practitioners.

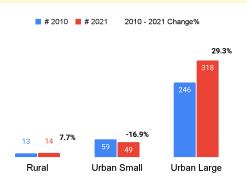
PHYSICIAN ASSISTANTS



Findings

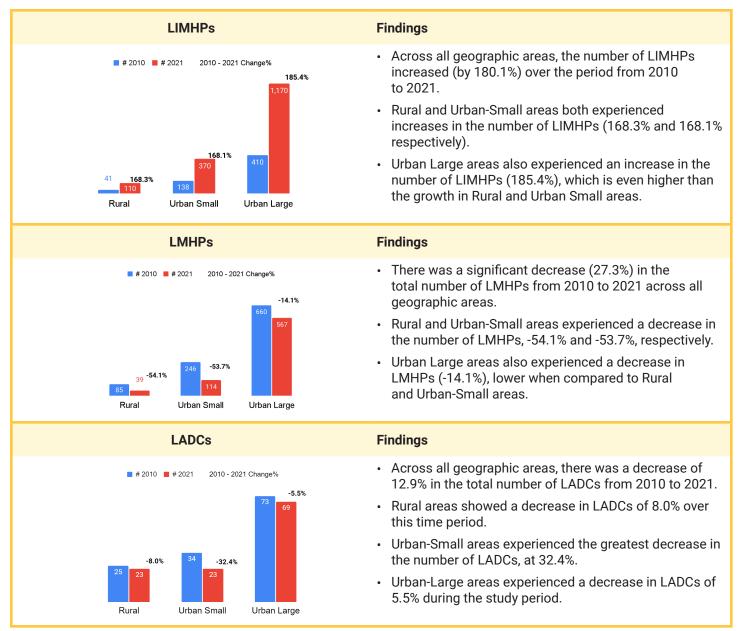
- The total number of physician assistants more than doubled over the period from 2010 to 2021, increasing by 144.4%.
- Urban-Large areas experienced a 300.0% increase in the number of physician assistants.
- The number of physician assistants in Urban-Small areas decreased by 50.0%.
- There were no physician assistants recorded in Rural areas in either 2010 or 2021.

PSYCHOLOGISTS



Findings

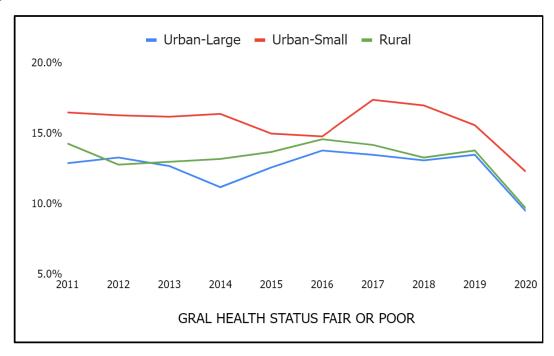
- The total number of psychologists across all geographic areas increased by 19.8% over the 11-year period.
- The number of psychologists in Urban-Large areas experienced an increase of 29.3%.
- There was a slight increase (7.7%) in the number of psychologists in rural areas. However, the actual numbers remain relatively small.
- Urban-Small areas experienced a decrease of 16.9% in the number of psychologists.



Data source: Nebraska Behavioral Health Workforce Dashboard (BHCEN). Datasets from 2011 to 2020.

General Health Status and Quality of Life

BRFSS data: General health fair or poor, adults 18 and older by geographic areas: 2011-2020



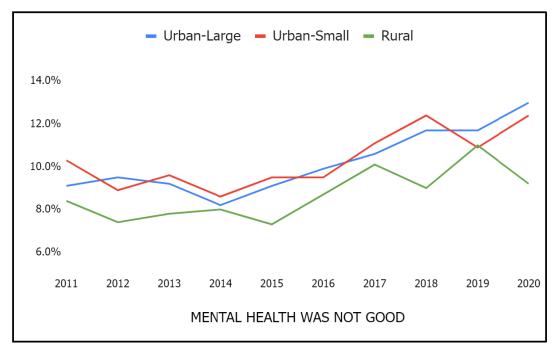
From 2011 to 2020, Urban-Small areas consistently reported the highest percentages of residents who rated their general health status as "Fair or Poor".

Combined average for the years 2016-2020 indicates that the highest percentage of residents rating their health as "Fair or Poor" resided in Urban-Small areas (15.4%), followed by Rural areas (13.1%), and then by Urban-Large areas (12.7%).

In the year 2020, all areas saw a decrease in the percentage of residents rating their health as "Fair or Poor," with Urban-Large and Rural areas having the lowest at 9.5% and 9.7% respectively.

GRAL HEALTH STATUS FAIR OR POOR	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	12.9%	13.3%	12.7%	11.2%	12.6%	13.8%	13.5%	13.1%	13.5%	9.5%	12.7%
Urban - Small	16.5%	16.3%	16.2%	16.4%	15.0%	14.8%	17.4%	17.0%	15.6%	12.3%	15.4%
Rural	14.3%	12.8%	13.0%	13.2%	13.7%	14.6%	14.2%	13.3%	13.8%	9.7%	13.1%

BRFSS data: Mental health was not good on 14 or more of the past 30 days, adults 18 and older by geographic areas: 2011-2020

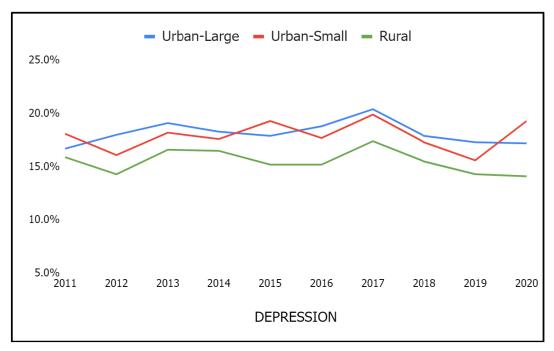


All geographic regions showed an overall increase for "Mental health was not good on 14 or more of the past 30 days" over the 2011-2020 decade. Urban-Large areas showed the highest average rate for "Mental health was not good on 14 or more of the past 30 days" over the 2016-2020 period (11.4%), closely followed by Urban-Small areas (11.2%). Rural areas had a lower rate, averaging at 9.6% for the same time period. Urban-Large areas reported the highest rate in 2020 (13.0%), showing an increase from 9.1% in 2011. The Urban-Small area also had a similar increase from 10.3% in 2011 to 12.4% in 2020.

The Rural area increased, from 8.4% in 2011 to 9.2% in 2020.

MENTAL HEALTH WAS NOT GOOD	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	9.1%	9.5%	9.2%	8.2%	9.1%	9.9%	10.6%	11.7%	11.7%	13.0%	11.4%
Urban - Small	10.3%	8.9%	9.6%	8.6%	9.5%	9.5%	11.1%	12.4%	10.9%	12.4%	11.2%
Rural	8.4%	7.4%	7.8%	8.0%	7.3%	8.7%	10.1%	9.0%	11.0%	9.2%	9.6%

BRFSS data: Ever told they have depression, adults 18 and older by geographic areas: 2011-2020



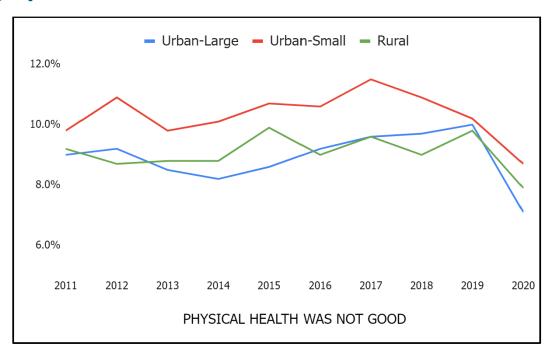
The Urban-Large areas had the highest average rate of individuals who have ever been told they have depression during the 2016-2020 period at 18.3%. This was followed by Urban-Small areas at 18.0%, while Rural areas had a lower rate of 15.3% during the same period.

In 2020, there was an increase in the rate for Urban-Small areas to 19.3%, up from 15.6% the previous year. Urban-Large areas remained relatively stable in 2020 at 17.2%. The rate for Rural areas decreased to 14.1%.

Data shows that individuals in urban areas, both Large and Small, were more likely to have been diagnosed with depression compared to those in Rural areas over the decade.

DEPRESSION	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	16.7%	18.0%	19.1%	18.3%	17.9%	18.8%	20.4%	17.9%	17.3%	17.2%	18.3%
Urban - Small	18.1%	16.1%	18.2%	17.6%	19.3%	17.7%	19.9%	17.3%	15.6%	19.3%	18.0%
Rural	15.9%	14.3%	16.6%	16.5%	15.2%	15.2%	17.4%	15.5%	14.3%	14.1%	15.3%

BRFSS data: Physical health was not good on 14 or more of the past 30 days (e.g., frequent physical distress), adults 18 and older by geographic areas: 2011-2020



Across the entire decade, Urban-Small areas consistently reported higher rates compared to Urban-Large and Rural areas.

In 2020, all areas reported a decrease in rates compared to the previous year. This was especially pronounced in Urban-Large areas which reported a decrease from 10.0% in 2019 to 7.1% in 2020. In 2020, both, Urban-Small and Rural areas reported a drop to 7.1% and 7.9%, respectively, which are some of the lowest rates over the decade for each area.

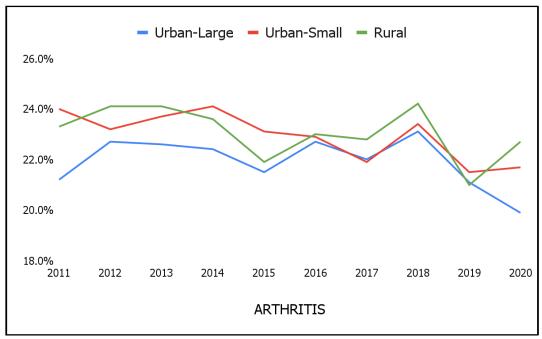
PHYSICAL HEALTH WAS NOT GOOD	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	9.0%	9.2%	8.5%	8.2%	8.6%	9.2%	9.6%	9.7%	10.0%	7.1%	9.1%
Urban - Small	9.8%	10.9%	9.8%	10.1%	10.7%	10.6%	11.5%	10.9%	10.2%	8.7%	10.4%
Rural	9.2%	8.7%	8.8%	8.8%	9.9%	9.0%	9.6%	9.0%	9.8%	7.9%	9.1%

Chronic Diseases by Geographic Areas in Nebraska

Chronic diseases — encompassing conditions such as heart disease, stroke, cancer, diabetes, obesity, and arthritis — are not only prevalent and costly, but they also rank among the most preventable diseases. Their influence on health outcomes affects both the quality and longevity of an individual's life.

Individuals living with chronic disease often confront emotional distress, stemming from the burdens of symptom management, financial strains of treatment, or the reality of disease progression. As a result, depression and anxiety are more prevalent among those with chronic illnesses.

BRFSS data: Ever told they have Arthritis, adults 18 and older by geographic areas: 2011-2020

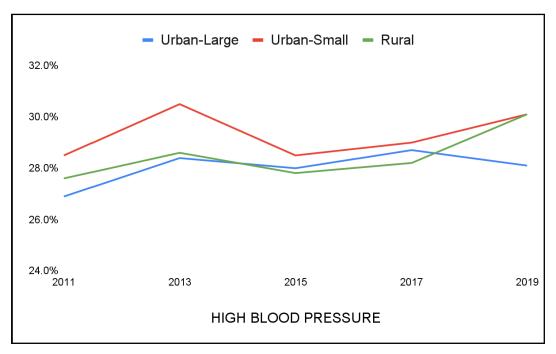


All geographic areas experienced some fluctuations in arthritis prevalence from 2011 to 2020. There was a pattern of higher prevalence in Urban-Small and Rural areas compared to Urban-Large areas. In 2020, arthritis prevalence was highest in Rural areas (22.7%), followed by Urban-Small (21.7%) and Urban-Large areas (19.9%).

The combined prevalence rates for 2016-2020 showed a similar pattern to the annual rates. The prevalence was highest in Rural areas (22.7%), followed by Urban-Small (22.2%), and Urban-Large areas (21.7%).

ARTHRITIS	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	21.2%	22.7%	22.6%	22.4%	21.5%	22.7%	22.0%	23.1%	21.1%	19.9%	21.7%
Urban - Small	24.0%	23.2%	23.7%	24.1%	23.1%	22.9%	21.9%	23.4%	21.5%	21.7%	22.2%
Rural	23.3%	24.1%	24.1%	23.6%	21.9%	23.0%	22.8%	24.2%	21.0%	22.7%	22.7%

BRFSS data: Ever told they have high blood pressure (excluding pregnancy), adults 18 and older by geographic areas: 2011-2013-2015-2017-2019



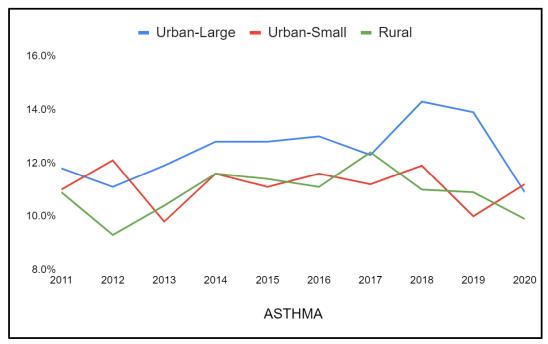
Urban-Small areas and Rural areas had higher rates of high blood pressure prevalence than Urban-Large areas throughout 2011-2019. Rates in Urban-Small areas and Rural areas were similar, especially in 2019. Rural areas had the lowest prevalence in 2011 and 2013, but the trend reversed by 2019, with Rural areas and Urban-Small areas having highest prevalence (30.1%).

High blood pressure prevalence increased over time across all geographic regions. Urban-Small areas consistently showed a higher prevalence.

Combined prevalence rates for 2015, 2017, and 2019 indicate that high blood pressure was slightly more prevalent in Urban-Small areas (29.2%) when compared to both Urban-Large (28.3%) and Rural areas (28.7%).

HIGH BLOOD PRESSURE	2011	2013	2015	2017	2019	2015 - 2017 - 2019
Urban - Large	26.9%	28.4%	28.0%	28.7%	28.1%	28.3%
Urban - Small	28.5%	30.5%	28.5%	29.0%	30.1%	29.2%
Rural	27.6%	28.6%	27.8%	28.2%	30.1%	28.7%

BRFSS data: Ever told they have asthma, adults 18 and older by geographic areas: 2011-2020



Throughout the entire period, Urban-Large areas had a higher prevalence of asthma compared to both Urban-Small and Rural areas. The exception was 2017 when Rural areas had the highest prevalence (12.4%). In Urban-Small areas, the prevalence of asthma was more stable compared to Urban-Large areas. The highest prevalence was in 2012 at 12.1%, and the lowest was in 2019 at 10.0%.

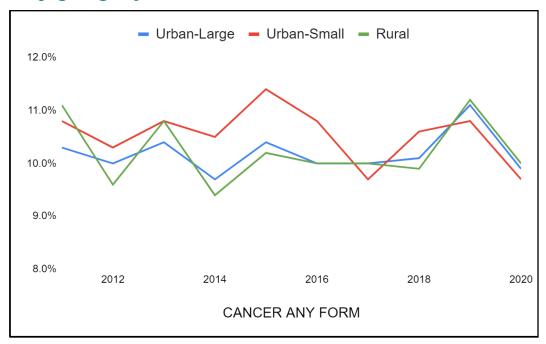
In Rural areas, the prevalence rates also fluctuated, with a peak in 2017 at 12.4% and the lowest in 2012 at 9.3%.

In 2020, all areas decreased in asthma prevalence. The greatest decrease occurred in Urban-Large areas, falling from 13.9% in 2019 to 10.9% in 2020.

Combined prevalence rates for 2016-2020 showed the highest prevalence of asthma in Urban-Large areas (12.9%), followed by Urban-Small (11.2%), and Rural areas (11.1%).

ASTHMA	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	11.8%	11.1%	11.9%	12.8%	12.8%	13.0%	12.3%	14.3%	13.9%	10.9%	12.9%
Urban - Small	11.0%	12.1%	9.8%	11.6%	11.1%	11.6%	11.2%	11.9%	10.0%	11.2%	11.2%
Rural	10.9%	9.3%	10.4%	11.6%	11.4%	11.1%	12.4%	11.0%	10.9%	9.9%	11.1%

BRFSS data: Ever told they have cancer (in any form), adults 18 and older by geographic areas: 2011-2020

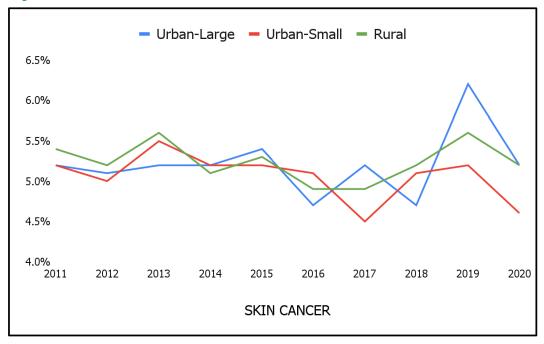


In 2020, all geographic areas had similar cancer (in any form) prevalence rates, ranging from 9.7% in Urban-Small to 9.9% in Urban-Large and 10.0% in Rural areas.

The combined cancer (in any form) prevalence rates for 2016-2020 combined years show similar cancer prevalence rates across all geographical areas, with Urban-Small areas slightly higher (10.3%) when compared to Urban-Large and Rural areas (both 10.2%).

CANCER ANY FORM	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	10.3%	10.0%	10.4%	9.7%	10.4%	10.0%	10.0%	10.1%	11.1%	9.9%	10.2%
Urban - Small	10.8%	10.3%	10.8%	10.5%	11.4%	10.8%	9.7%	10.6%	10.8%	9.7%	10.3%
Rural	11.1%	9.6%	10.8%	9.4%	10.2%	10.0%	10.0%	9.9%	11.2%	10.0%	10.2%

BRFSS data: Ever told they have skin cancer, adults 18 and older by geographic areas: 2011-2020



The highest single-year skin cancer prevalence during the time period was in Urban-Large areas in 2019 (6.2%).

Prevalence of skin cancer dropped in all areas from 2019 to 2020. In 2020, Urban-Large and Rural areas both had a prevalence rate of 5.2%, while Urban-Small had slightly lower at 4.6%.

In Urban-Large areas, the skin cancer prevalence rate remained close to 5.2% for most years, with a peak in 2019 at 6.2%.

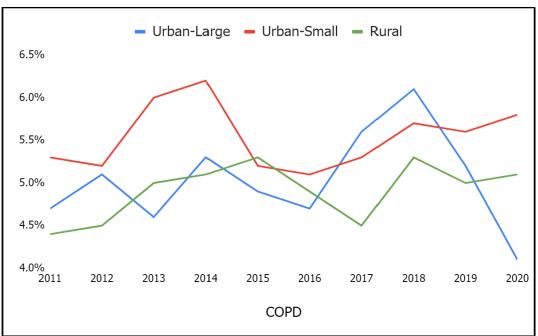
In Urban-Small areas, the skin cancer prevalence was also close to 5.2% for most of the time period, with a slight decrease to 4.5% in 2017 and 4.6% in 2020.

In Rural areas, the skin cancer prevalence rates ranged from 4.9% to 5.6%.

The skin cancer prevalence rates for combined years 2016-2020 were 5.6% for both Urban-Large and Rural areas, and Urban-Small was 4.9%.

SKIN CANCER	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	5.2%	5.1%	5.2%	5.2%	5.4%	4.7%	5.2%	4.7%	6.2%	5.2%	5.2%
Urban - Small	5.2%	5.0%	5.5%	5.2%	5.2%	5.1%	4.5%	5.1%	5.2%	4.6%	4.9%
Rural	5.4%	5.2%	5.6%	5.1%	5.3%	4.9%	4.9%	5.2%	5.6%	5.2%	5.2%

BRFSS data: Ever told they have COPD, adults 18 and older by geographic areas: 2011-2020



Over the entire period, the highest COPD prevalence rates were observed in Urban-Small areas, followed by Urban-Large, and then Rural areas.

In Urban-Large areas, the COPD prevalence rate fluctuated between 4.1% and 6.1%.

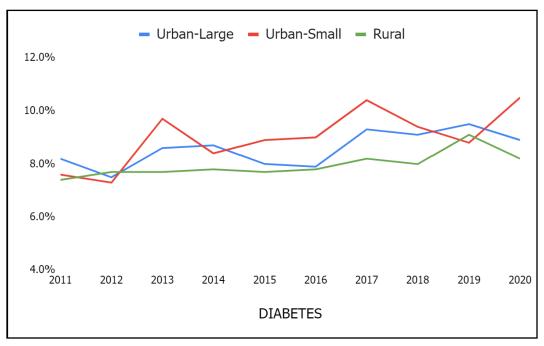
In Urban-Small areas, the COPD prevalence rate varied from 5.1% to 6.2%.

Rural areas had COPD prevalence rates ranging from 4.4% to 5.3%.

The combined COPD prevalence rates from 2016-2020 show that Urban-Small areas had the highest COPD prevalence rate at 5.7%, followed by Urban-Large at 5.3% and Rural at 4.9%.

COPD	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	4.7%	5.1%	4.6%	5.3%	4.9%	4.7%	5.6%	6.1%	5.2%	4.1%	5.3%
Urban - Small	5.3%	5.2%	6.0%	6.2%	5.2%	5.1%	5.3%	5.7%	5.6%	5.8%	5.7%
Rural	4.4%	4.5%	5.0%	5.1%	5.3%	4.9%	4.5%	5.3%	5.0%	5.1%	4.9%

BRFSS data: Ever told they have diabetes, adults 18 and older by geographic areas: 2011-2020



In all geographical areas, there was a general trend of increasing diabetes prevalence rates over the time period.

In Urban-Large areas, diabetes prevalence rates increased over the time period, with the lowest of 7.5% in 2012, and the highest of 9.5% in 2019.

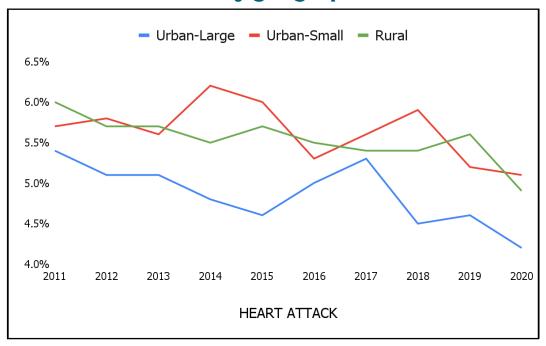
In Urban-Small areas, the diabetes prevalence rate increased to 10.5% in 2020, the highest in all categories over the time period.

In Rural areas, the diabetes prevalence rate remained stable (between 7.4% to 7.8%) until 2016 and increased to 9.1% in 2019.

Urban-Small areas had the highest average diabetes prevalence rate at 9.6%, followed by Urban-Large at 9.0%, and Rural at 8.3% for the 2016-2020 combined years.

DIABETES	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	8.2%	7.5%	8.6%	8.7%	8.0%	7.9%	9.3%	9.1%	9.5%	8.9%	9.0%
Urban - Small	7.6%	7.3%	9.7%	8.4%	8.9%	9.0%	10.4%	9.4%	8.8%	10.5%	9.6%
Rural	7.4%	7.7%	7.7%	7.8%	7.7%	7.8%	8.2%	8.0%	9.1%	8.2%	8.3%

BRFSS data: Ever told they had a heart attack or coronary heart disease, adults 18 and older by geographic areas: 2011-2020



Data shows that the prevalence rate of heart attacks or coronary heart disease decreased across all geographic areas from 2011 to 2020.

Overall, both Urban-Small and Rural areas showed higher heart attack or coronary heart disease prevalence rates when compared to Urban-Large areas during the 2016-2020 combined years (5.4% vs. 4.7%, respectively).

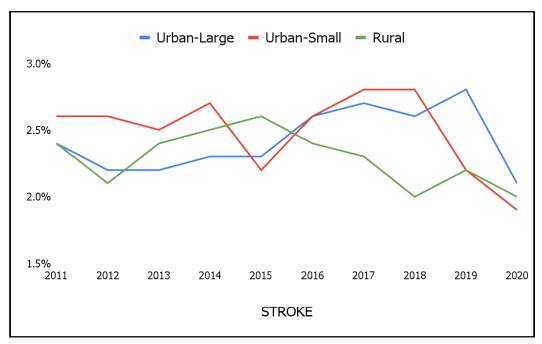
In Urban-Large areas, the prevalence rate of heart attack or coronary heart disease decreased over the time period, from 5.4% in 2011 to 4.2% in 2020.

In Urban-Small areas, the prevalence rate of heart attack or coronary heart disease increased in 2014 to 6.2% and decreased to 5.1% in 2020.

In Rural areas, the heart attack or coronary heart disease prevalence rate stayed between 5.4% and 6.0% during the study period.

HEART ATTACK	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	5.4%	5.1%	5.1%	4.8%	4.6%	5.0%	5.3%	4.5%	4.6%	4.2%	4.7%
Urban - Small	5.7%	5.8%	5.6%	6.2%	6.0%	5.3%	5.6%	5.9%	5.2%	5.1%	5.4%
Rural	6.0%	5.7%	5.7%	5.5%	5.7%	5.5%	5.4%	5.4%	5.6%	4.9%	5.4%

BRFSS data: Ever told they had a stroke, adults 18 and older by geographic areas: 2011-2020



Urban-Small areas had higher stroke prevalence rates when compared to the rest of the geographic areas, although they experienced a notable decrease by 2020.

From 2016 to 2020, the stroke prevalence rate decreased in all areas. In Urban-Small areas the stroke prevalence rate decreased from 2.8% to 1.9%. Rural areas decreased from 2.4% to 2.0% in the same period, and Urban-Large areas decreased from 2.6% to 2.1%

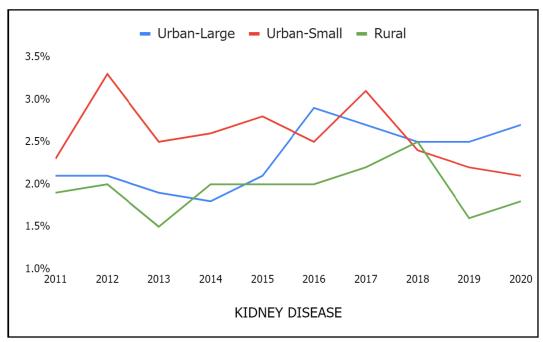
In Urban-Large areas, the stroke prevalence rate increased from 2.4% in 2011 to 2.6% in 2016, and increased to 2.8% in 2019, then decreased to 2.1% in 2020.

In Rural areas, the stroke prevalence rate fluctuated between 2.0% and 2.6% throughout the time period. In 2015, the stroke prevalence rate in Rural areas decreased from 2.6% in 2015 to 2.0% in 2020.

For the years 2016-2020, Urban-Large areas showed the highest average stroke prevalence rate of 2.6%, followed by Urban-Small and Rural areas, which had average rates of 2.4% and 2.2%, respectively.

STROKE	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	2.4%	2.2%	2.2%	2.3%	2.3%	2.6%	2.7%	2.6%	2.8%	2.1%	2.6%
Urban - Small	2.6%	2.6%	2.5%	2.7%	2.2%	2.6%	2.8%	2.8%	2.2%	1.9%	2.4%
Rural	2.4%	2.1%	2.4%	2.5%	2.6%	2.4%	2.3%	2.0%	2.2%	2.0%	2.2%

BRFSS data: Ever told they have kidney disease, adults 18 and older by geographic areas: 2011-2020



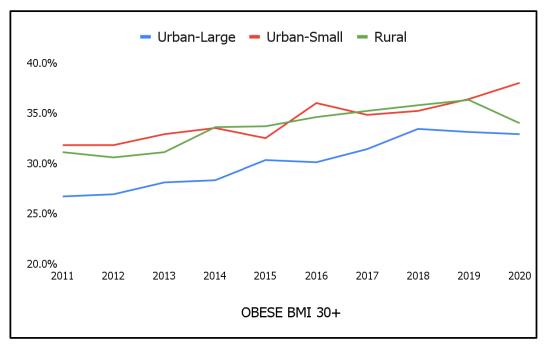
Kidney disease prevalence rates in Urban-Large areas increased from 2.1% in 2011 to 2.7% in 2020. In Urban-Small areas, kidney disease prevalence rates decreased during the latter half of the time period, from 2.5% in 2016 to 2.1% in 2020.

In Rural areas, kidney disease prevalence rates slightly decreased during the time period, from 1.9% in 2011 to 1.8% in 2020.

Comparing the geographic areas, Urban-Large areas showed the highest average kidney disease prevalence rate (2.7%) for the years 2016-2020. Urban-Small areas had the second highest average rate (2.5%), and Rural areas had the lowest average rate (2.0%) for the same time period.

KIDNEY DISEASE	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	2.1%	2.1%	1.9%	1.8%	2.1%	2.9%	2.7%	2.5%	2.5%	2.7%	2.7%
Urban - Small	2.3%	3.3%	2.5%	2.6%	2.8%	2.5%	3.1%	2.4%	2.2%	2.1%	2.5%
Rural	1.9%	2.0%	1.5%	2.0%	2.0%	2.0%	2.2%	2.5%	1.6%	1.8%	2.0%

BRFSS data: Obese (BMI = 30+), adults 18 and older by geographic areas: 2011-2020



Obesity prevalence rates increased across all three geographic areas between 2011 to 2020.

The highest obesity prevalence rates among the three geographic areas were in Urban-Small areas, increasing from 31.8% in 2011 to 38.0% in 2020, with an average of 36.1% for the 2016-2020 combined years.

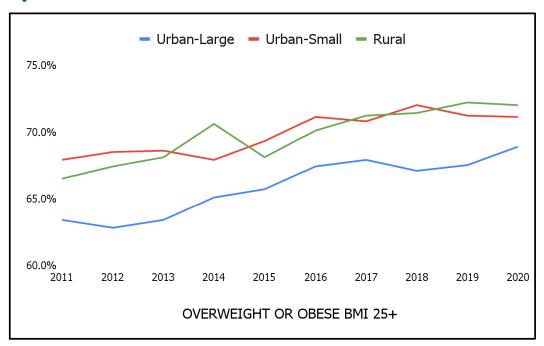
Urban-Large areas showed an increase in obesity prevalence rates from 26.7% in 2011 to 32.9% in 2020. The average obesity prevalence rate for the 2016-2020 combined years was 32.2%.

Rural area obesity prevalence rates increased from 31.1% in 2011 to 34.0% in 2020, with the highest (36.3%) observed in 2019. The average obesity prevalence rate for combined years 2016-2020 was 35.2%.

Comparing averages for the geographic areas from 2016 to 2020, Urban-Small areas showed the highest obesity prevalence rate at 36.1%, followed by Rural areas at 35.2%, and Urban-Large areas at 32.2%.

OBESE BMI 30+	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	26.7%	26.9%	28.1%	28.3%	30.3%	30.1%	31.4%	33.4%	33.1%	32.9%	32.2%
Urban - Small	31.8%	31.8%	32.9%	33.5%	32.5%	36.0%	34.8%	35.2%	36.4%	38.0%	36.1%
Rural	31.1%	30.6%	31.1%	33.6%	33.7%	34.6%	35.2%	35.8%	36.3%	34.0%	35.2%

BRFSS data: Overweight or Obese (BMI = 25+), adults 18 and older by geographic areas: 2011-2020



Overweight or obese prevalence rates increased consistently in all three geographic areas for the 2011 to 2020 time period.

In Urban-Small areas, the prevalence rate of being overweight or obese increased from 67.9% in 2011 to 71.1% in 2020.

In Urban-Large areas, the prevalence rate of being overweight or obese increased from 63.4% in 2011 to 68.9% in 2020.

In Rural areas, the prevalence rate of being overweight or obese increased from 66.5% in 2011 to 72.0% in 2020. The average rate for combined years 2016-2020 was 71.4%.

Comparing the 2016-2020 combined years across all areas, Urban-Small and Rural areas showed similar prevalence rates (71.2% and 71.4%, respectively), which were higher than the prevalence rate in Urban-Large areas (67.7%).

OVERWEIGHT OR OBESE BMI 25+	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	63.4%	62.8%	63.4%	65.1%	65.7%	67.4%	67.9%	67.1%	67.5%	68.9%	67.7%
Urban - Small	67.9%	68.5%	68.6%	67.9%	69.3%	71.1%	70.8%	72.0%	71.2%	71.1%	71.2%
Rural	66.5%	67.4%	68.1%	70.6%	68.1%	70.1%	71.2%	71.4%	72.2%	72.0%	71.4%

Health Behaviors

Health behaviors encompass a range of actions that individuals, families, or communities undertake which have an impact on their health, either positively or negatively. They include lifestyle choices such as diet, physical activity, sleep, hygiene, and substance use, among others. For example, a balanced diet and regular exercise are beneficial health behaviors that can help prevent chronic diseases such as obesity, diabetes, and heart disease. Conversely, health-damaging behaviors could include substance abuse, tobacco smoking, or living a sedentary lifestyle.

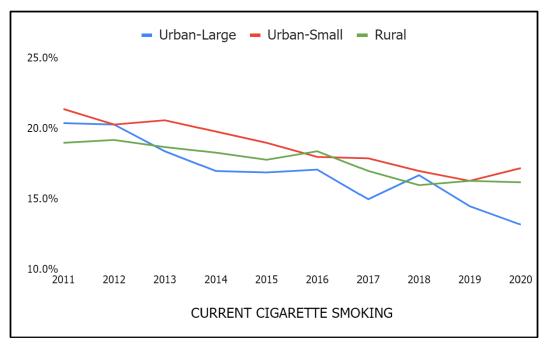
Health behaviors are largely influenced by the socio-ecological environment. Choices available in the places where people live, learn, work, and engage in recreational activities significantly shape health behaviors. This idea is rooted in the socio-ecological model of health, which emphasizes the interaction between, and interdependence of, factors within and across all levels of a health problem.

For instance, living in a neighborhood with ample green spaces, accessible gyms, and healthy food options might encourage individuals to exercise more and eat healthily. Conversely, residing in a "food desert" where fast food outlets outnumber supermarkets, or living in unsafe neighborhoods where outdoor physical activity is risky, may contribute to unhealthy diet choices and sedentary behaviors. Similarly, workplaces that encourage regular breaks and offer stress management resources can positively influence health behaviors.

Health behaviors are also heavily influenced by cultural, economic, and social factors. Cultural norms and beliefs can shape dietary habits, attitudes towards physical activity, and perceptions of health and illness. Economic status impacts the ability to afford health-promoting resources like nutritious food, gym memberships, and preventive health care. Social factors, such as the level of social support and community engagement, can also influence health behaviors.

Health behaviors are complex and multifaceted, influenced by individual decisions and a variety of external factors. Understanding these behaviors and their determinants can help towards developing effective strategies to promote healthier choices and improve public health outcomes.

BRFSS data: Current cigarette smoking, adults 18 and older by geographic areas: 2011-2020



All geographic areas showed a decrease in cigarette smoking prevalence across the time period. In Urban-Large areas, cigarette smoking prevalence decreased consistently from 20.4% in 2011 to 13.2% in 2020. The average rate for the 2016-2020 period was 15.3%.

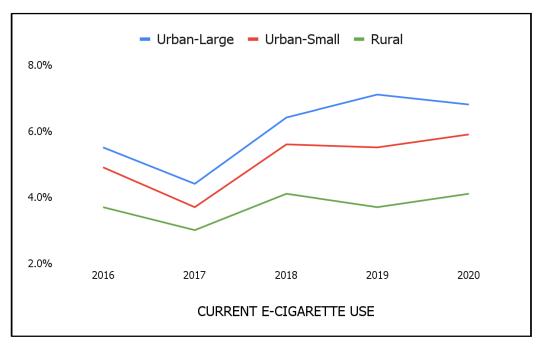
Urban-Small areas cigarette smoking prevalence rate was 21.4% in 2011, slightly higher than the other areas, and it decreased to 17.2% by 2020. The average cigarette smoking prevalence for 2016-2020 was 17.3%.

In Rural areas, the cigarette smoking prevalence rate decreased from 19.0% in 2011 to 16.2% in 2020. The average prevalence rate for 2016-2020 was 16.8%.

Comparing the averages for 2016-2020 combined years, Urban-Large areas showed the greatest decrease in smoking prevalence (15.3%) compared to Urban-Small and Rural areas (17.3% and 16.8%, respectively).

CIGARETTE SMOKING	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	20.4%	20.3%	18.4%	17.0%	16.9%	17.1%	15.0%	16.7%	14.5%	13.2%	15.3%
Urban - Small	21.4%	20.3%	20.6%	19.8%	19.0%	18.0%	17.9%	17.0%	16.3%	17.2%	17.3%
Rural	19.0%	19.2%	18.7%	18.3%	17.8%	18.4%	17.0%	16.0%	16.3%	16.2%	16.8%

BRFSS data: Current e-cigarette use, adults 18 and older by geographic areas: 2016-2020



Across all geographic areas, there was an upward trend in the prevalence of E-cigarette use over the time period. Urban-Large areas showed the highest average prevalence (6.0%), followed by Urban-Small (5.1%) and Rural areas (3.7%).

In Urban-Large areas, E-cigarette use prevalence increased from 5.5% in 2016 to 6.8% in 2020. It reached its highest point in 2019 at 7.1%. The average rate for the 2016-2020 period in Urban-Large areas was 6.0%.

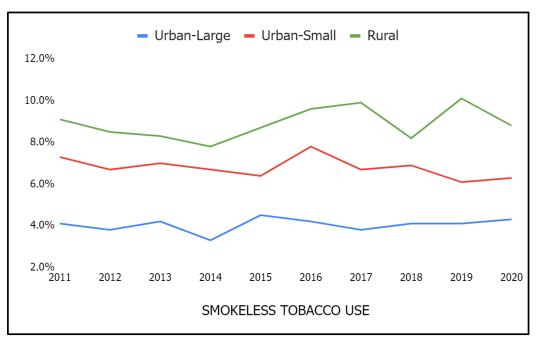
Urban-Small areas also showed a similar trend of increase in prevalence. However, the overall increase was less compared to Urban-Large areas. The rate started from 4.9% in 2016 and increased to 5.9% in 2020. The average prevalence for 2016-2020 was 5.1%.

In Rural areas, the prevalence of E-cigarette use was consistently lower than in urban areas. The rate increased slightly from 3.7% in 2016 to 4.1% in 2020. The average prevalence for the period 2016-2020 was 3.7%.

E-CIGARETTE USE	2016	2017	2018	2019	2020	2016-2020
Urban - Large	5.5%	4.4%	6.4%	7.1%	6.8%	6.0%
Urban - Small	4.9%	3.7%	5.6%	5.5%	5.9%	5.1%
Rural	3.7%	3.0%	4.1%	3.7%	4.1%	3.7%

Data source: Behavioral Risk Factor Surveillance System (BRFSS, 2016-2020).

BRFSS data: Current smokeless tobacco use, adults 18 and older by geographic areas: 2011-2020



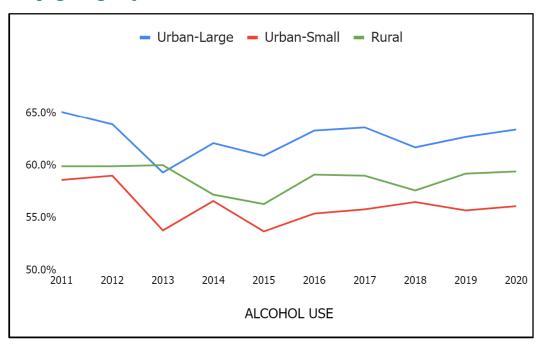
Between 2011 and 2020, Smokeless tobacco use in Rural areas remained consistently the highest among the three geographic areas. In 2011, the rate was 9.1%, peaking in 2019 at 10.1% before dropping to 8.8% in 2020. The average prevalence for the years 2016-2020 was 9.3%.

Urban-Small areas showed the second highest prevalence rates. The average prevalence for 2016-2020 was 6.8%.

Urban-Large areas had the lowest prevalence of smokeless tobacco use across all years. The average for the period of 2016-2020 was 4.1%.

SMOKELESS TOBACCO USE	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	4.1%	3.8%	4.2%	3.3%	4.5%	4.2%	3.8%	4.1%	4.1%	4.3%	4.1%
Urban - Small	7.3%	6.7%	7.0%	6.7%	6.4%	7.8%	6.7%	6.9%	6.1%	6.3%	6.8%
Rural	9.1%	8.5%	8.3%	7.8%	8.7%	9.6%	9.9%	8.2%	10.1%	8.8%	9.3%

BRFSS data: Any alcohol consumption in past 30 days, adults 18 and older by geographic areas: 2011-2020



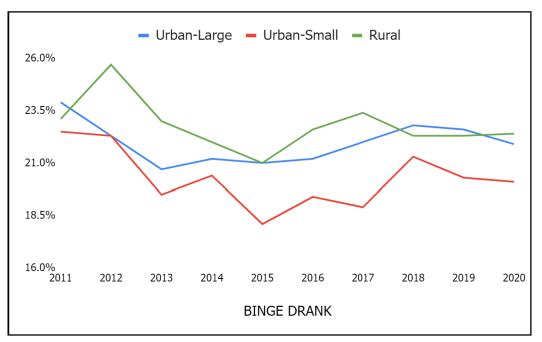
Urban-Large areas showed the highest rates of alcohol consumption across the time period. Average alcohol consumption prevalence for the 2016-2020 combined years was 62.9%.

Urban-Small areas had the lowest prevalence of alcohol use for the time period. Average alcohol consumption prevalence for the 2016-2020 combined years was 55.9%.

In Rural areas the average alcohol consumption prevalence for the 2016-2020 combined years was 58.9%.

ALCOHOL USE	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	65.1%	63.9%	59.3%	62.1%	60.9%	63.3%	63.6%	61.7%	62.7%	63.4%	62.9%
Urban - Small	58.6%	59.0%	53.8%	56.6%	53.7%	55.4%	55.8%	56.5%	55.7%	56.1%	55.9%
Rural	59.9%	59.9%	60.0%	57.2%	56.3%	59.1%	59.0%	57.6%	59.2%	59.4%	58.9%

BRFSS data: Binge drank in past 30 days, adults 18 and older by geographic areas: 2011-2020



Data shows that binge drinking was most prevalent in Rural areas, followed by Urban-Large areas, with the lowest rates in Urban-Small areas.

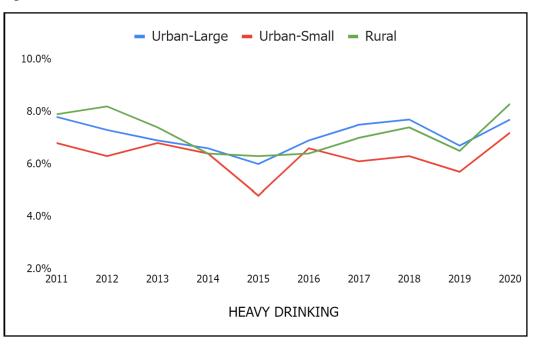
Rural areas binge drinking prevalence for the 2016-2020 combined years was 22.6%.

Urban-Large areas binge drinking prevalence for the 2016-2020 combined years was 22.1%.

Urban-Small areas had the lowest prevalence of binge drinking over the study period. The average binge drinking prevalence for the 2016-2020 combined years was 20.0%.

BINGE DRANK	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	23.9%	22.3%	20.7%	21.2%	21.0%	21.2%	22.0%	22.8%	22.6%	21.9%	22.1%
Urban - Small	22.5%	22.3%	19.5%	20.4%	18.1%	19.4%	18.9%	21.3%	20.3%	20.1%	20.0%
Rural	23.1%	25.7%	23.0%	22.0%	21.0%	22.6%	23.4%	22.3%	22.3%	22.4%	22.6%

BRFSS data: Heavy drinking in past 30 days, adults 18 and older by geographic areas: 2011-2020



Data shows that heavy drinking was most prevalent in Urban-Large areas, followed by Rural areas, and then Urban-Small areas.

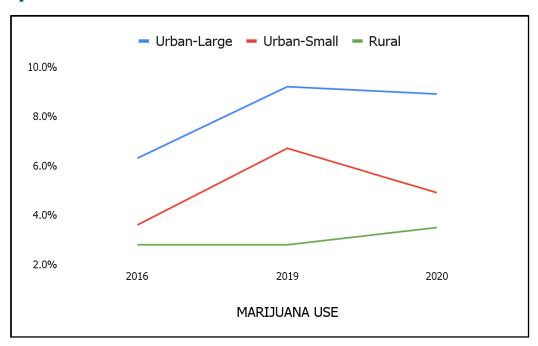
Urban-Large areas showed a heavy drinking prevalence for the 2016-2020 combined years at 7.3%.

The Rural areas showed a heavy drinking prevalence for the 2016-2020 combined years at 7.1%.

Urban-Small areas had the lowest prevalence of heavy drinking over the time period. The average prevalence for the 2016-2020 combined years was 6.4%.

HEAVY DRINKING	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	7.8%	7.3%	6.9%	6.6%	6.0%	6.9%	7.5%	7.7%	6.7%	7.7%	7.3%
Urban - Small	6.8%	6.3%	6.8%	6.4%	4.8%	6.6%	6.1%	6.3%	5.7%	7.2%	6.4%
Rural	7.9%	8.2%	7.4%	6.4%	6.3%	6.4%	7.0%	7.4%	6.5%	8.3%	7.1%

BRFSS data: Used marijuana in past 30 days, adults 18 and older by geographic areas: 2016, 2019-2020



Marijuana use increased in all areas from 2016 to 2020, with the most significant increase in Urban-Large areas and the least in Rural areas.

In Urban-Large areas marijuana use prevalence increased from 6.3% in 2016 to 8.9% in 2020. The average marijuana use prevalence for the 2016-2019-2020 combined years was 8.1%.

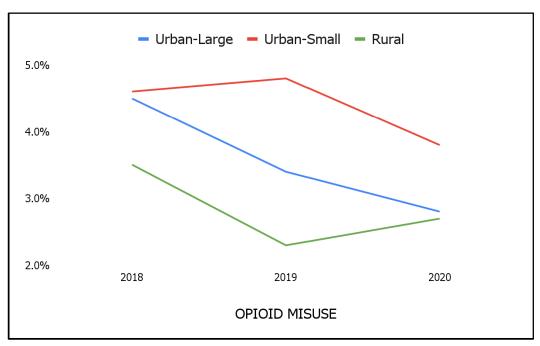
Urban-Small areas reported an increase in marijuana use, from 3.6% in 2016 to 4.9% in 2020. The average marijuana use prevalence for the 2016-2019-2020 combined years was 5.0%.

Rural areas had the lowest prevalence of marijuana use. The average marijuana use prevalence for the 2016-2019-2020 combined years was 3.0%.

MARIJUANA USE	2016	2019	2020	2016-2020
Urban - Large	6.9%	6.7%	7.7%	7.3%
Urban - Small	6.6%	5.7%	7.2%	6.4%
Rural	6.4%	6.5%	8.3%	7.1%

Data source: Behavioral Risk Factor Surveillance System (BRFSS, 2011-2020).

BRFSS data: Opioid misuse past year, adults 18 and older by geographic areas: 2018-2020



There was a general trend of decreasing opioid misuse from 2018 to 2020 across all geographical areas.

The prevalence of opioid misuse decreased in Urban-Large areas, from 4.5% in 2018 to 2.8% in 2020. The average opioid misuse prevalence for the 2018-2020 combined years was 3.6%.

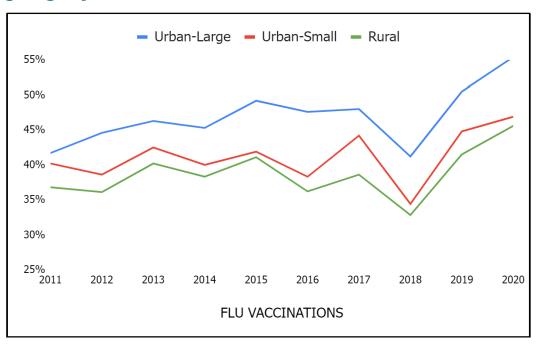
The prevalence of opioid misuse in Urban-Small areas increased from 4.6% in 2018 to 4.8% in 2019, followed by a decrease to 3.8% in 2020. The average opioid misuse prevalence for the 2018-2020 combined years was 4.3%.

Rural areas prevalence of opioid misuse decreased from 3.5% in 2018 to 2.7% in 2020. The average opioid misuse prevalence for the 2018-2020 combined years was 2.8%.

OPIOID MISUSE	2018	2019	2020	2018-2020
Urban - Large	4.5%	3.4%	2.8%	3.6%
Urban - Small	4.6%	4.8%	3.8%	4.3%
Rural	3.5%	2.3%	2.7%	2.8%

Data source: Behavioral Risk Factor Surveillance System (BRFSS, 2011-2020).

BRFSS data: Had a flu vaccination in past year, adults 18 and older by geographic areas: 2011-2020



Flu vaccination increased from 2011 to 2020 across all geographical areas. Overall, flu vaccination rate was highest in Urban-Large areas (48.6%) and lowest in rural areas (38.8%) during the study period.

Flu vaccinations in Urban-Large areas increased from 41.7% in 2011 to 55.4% in 2020. The lowest rate was in 2018 at 41.2%, while the highest rate was in 2020 at 55.4%. The average vaccination rate for the 2016-2020 combined years was 48.6%.

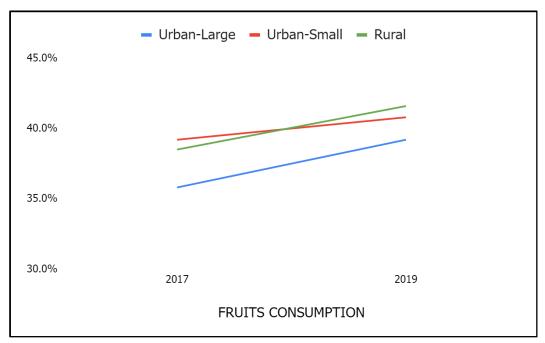
Urban-Small areas flu vaccination prevalence was the lowest in 2018 at 34.4% and highest in 2020 at 46.9%. The average for the 2016-2020 combined years was 41.7%.

Rural areas flu vaccination prevalence increased from 36.8% in 2011 to 45.6% in 2020, with some fluctuations in between. The average prevalence for the 2011-2020 combined years was 38.8%.

FLU VACCINATIONS	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2016-2020
Urban - Large	41.70%	44.6%	46.3%	45.3%	49.2%	47.6%	48.0%	41.2%	50.5%	55.4%	48.6%
Urban - Small	40.2%	38.6%	42.5%	40.0%	41.9%	38.3%	44.2%	34.4%	44.8%	46.9%	41.7%
Rural	36.8%	36.1%	40.2%	38.3%	41.1%	36.2%	38.6%	32.8%	41.5%	45.6%	38.8%

Nutrition

BRFSS data: Consumed fruits less than 1 time per day, Adults 18 and older by geographic areas: 2017, 2019



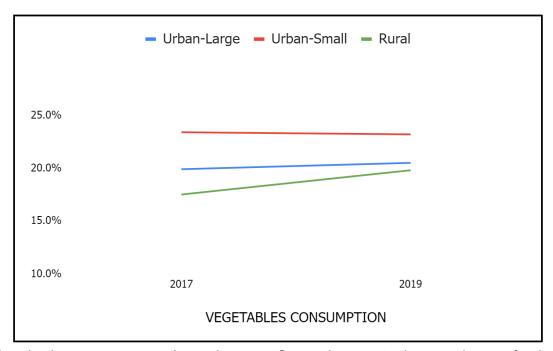
Data shows the prevalence of low fruit consumption increased across all geographic areas from 2017 to 2019.

Urban-Small (40%) and Rural (40%) areas showed a higher prevalence of individuals who consumed fruits less than 1 time per day, compared to Urban-Large areas (37.5%) during the 2017-2019 combined years.

FRUITS CONSUMPTION	2017	2019	2017-2019
Urban - Large	48.0%	50.5%	48.6%
Urban - Small	44.2%	44.8%	41.7%
Rural	38.6%	41.5%	38.8%

Data source: Behavioral Risk Factor Surveillance System (BRFSS, 2011-2020).

BRFSS data: Consumed vegetables less than 1 time per day, Adults 18 and older by geographic areas: 2017, 2019



Urban Small and Urban-Large areas showed no significant changes in the prevalence of individuals consuming vegetables less than once per day between 2017 and 2019, while rural areas showed an increase during the same time period.

Rural areas had the lowest vegetable consumption prevalence in 2017 at 17.5%, but it increased to 19.8% in 2019.

Urban-Large areas showed a slight increase in vegetable consumption prevalence, from 19.9% in 2017 to 20.5% in 2019.

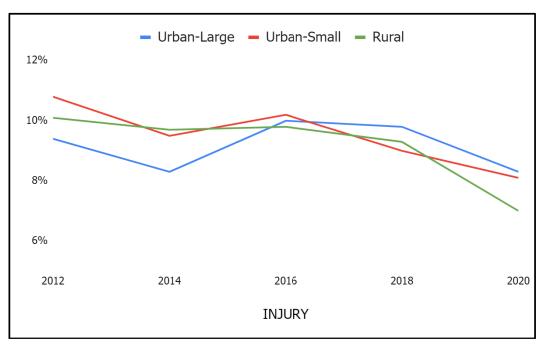
Urban-Small areas showed the highest prevalence of individuals consuming vegetables less than 1 time per day, with a prevalence of 23.4% in 2017 and 23.2% in 2019. Average prevalence during 2017-2019 combined years was 23.3%, higher when compared to 20.2% for Urban-Large areas, and 18.6% for rural areas.

VEGETABLES CONSUMPTION	2017	2019	2017-2019
Urban - Large	19.9%	20.5%	20.2%
Urban - Small	23.4%	23.2%	23.3%
Rural	17.5%	19.8%	18.6%

Data source: Behavioral Risk Factor Surveillance System (BRFSS, 2011-2020).

Injury

BRFSS data: Injured due to fall in past year, adults 45 and older, by geographic areas: 2012, 2014, 2016, 2018, 2020



Overall, fall-related injury prevalence rates decreased across all geographic areas from 2012 to 2020.

In Urban-Large areas, the prevalence rate of injuries due to falls decreased from 9.4% in 2012 to 8.3% in 2020. The average prevalence rate for 2016, 2018, 2020 combined years was 9.4%.

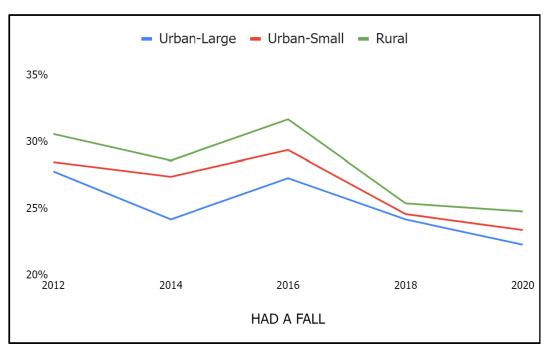
The prevalence rate of injuries due to falls in Urban-Small areas decreased from 10.8% in 2012 to 8.1% in 2020. The average prevalence rate for 2016, 2018, 2020 combined years was 9.1%.

The prevalence rate of injuries due to falls in Rural areas decreased from 10.1% in 2012 to 7.0% in 2020 (the lowest prevalence rate reported among all geographic areas during the study period). The average prevalence rate for 2016, 2018, 2020 combined years was 8.8%.

INJURY	2012	2014	2016	2018	2020	2016-2020
Urban - Large	9.4%	8.3%	10.0%	9.8%	8.3%	9.4%
Urban - Small	10.8%	9.5%	10.2%	9.0%	8.1%	9.1%
Rural	10.1%	9.7%	9.8%	9.3%	7.0%	8.8%

Data source: Behavioral Risk Factor Surveillance System (BRFSS, 2011-2020).

BRFSS data: Had a fall in past year, adults 45 and older, by geographic areas: 2012, 2014, 2016, 2018, 2020



Data shows a decrease in the prevalence rate of falls across all geographic areas from 2012 to 2020.

The prevalence rate of falls was highest in rural areas and lowest in Urban-Large areas during the time period.

For Urban-Large areas, the prevalence rate of falls decreased from 27.8% in 2012 to 22.3% in 2020. The average fall prevalence rate for 2016, 2018, and 2020 combined years was 24.6%.

For Urban-Small areas, the prevalence rate of falls decreased from 28.5% in 2012 to 23.4% in 2020. The average prevalence rate for 2016, 2018, and 2020 combined years was 25.8%.

For Rural areas, the prevalence rate of falls decreased from 30.6% in 2012 to 24.8% in 2020. The average prevalence rate for 2016, 2018, and 2020 combined years was 27.5%.

HAD A FALL	2012	2014	2016	2018	2020	2016-2020
Urban - Large	27.8%	24.2%	27.3%	24.2%	22.3%	24.6%
Urban - Small	28.5%	27.4%	29.4%	24.6%	23.4%	25.8%
Rural	30.6%	28.6%	31.7%	25.4%	24.8%	27.5%

Data source: Behavioral Risk Factor Surveillance System (BRFSS, 2011-2020).

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Appendix

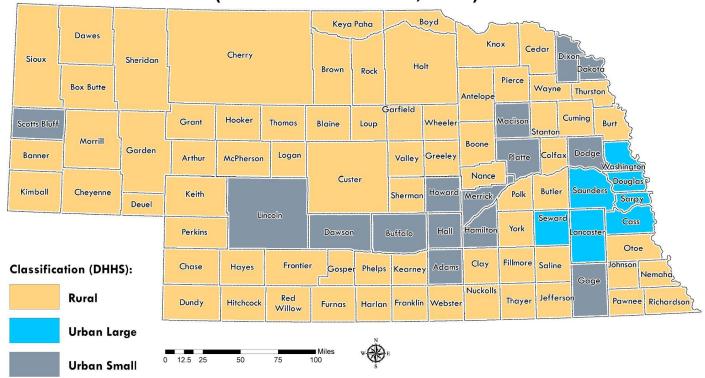
A. List of counties by geographic areas

Urban Large (n = 7):	Urban Small (n = 15):	Rural (n = 71):				
Cass	Adams	Antelope	Colfax	Harlan	Morrill	Sherman
Douglas	Buffalo	Arthur	Cuming	Hayes	Nance	Sioux
Lancaster	Dakota	Banner	Custer	Hitchcock	Nemaha	Stanton
Sarpy	Dawson	Blaine	Dawes	Holt	Nuckolls	Thayer
Saunders	Dixon	Boone	Deuel	Hooker	Otoe	Thomas
Seward	Dodge	Box Butte	Dundy	Jefferson	Pawnee	Thurston
Washington	Gage	Boyd	Fillmore	Johnson	Perkins	Valley
	Hall	Brown	Franklin	Kearney	Phelps	Wayne
	Hamilton	Burt	Frontier	Keith	Pierce	Webster
	Howard	Butler	Furnas	Keya Paha	Polk	Wheeler
	Lincoln	Cedar	Garden	Kimball	Red Willow	York
	Madison	Chase	Garfield	Knox	Richardson	
	Merrick	Cherry	Gosper	Logan	Rock	
	Platte	Cheyenne	Grant	Loup	Saline	
	Scotts Bluff	Clay	Greeley	McPherson	Sheridan	

Data source: Nebraska Department of Health and Human Services. Disparities Demographic Data Recommendations (2016).

B. Map - Urban-Large, Urban-Small, and Rural Counties of Nebraska

Urban (Large & Small) and Rural Counties in Nebraska (DHHS Classification, 2016)



Source: NE DHHS. Division of Public Health. Disparities Demographics Data Recommendations. November 2016. https://dhhs.ne.gov/Reports/Disparities%20Demographic%20Data%20Recommendations%20-%202016.pdf

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C. Indicators and disparities by geographic areas

In the state	Geography	/ (disparities high	Value	0				
Indicators	Urban-Large	Urban-Small	Rural	Years	Source			
Chronic Diseases								
Arthritis	21.7%	22.2%	22.7%	2016-2020	BRFSS			
High Blood Pressure	28.3%	29.2%	28.7%	2015, 2017, 2019	BRFSS			
Asthma	12.9%	11.2%	11.1%	2016-2020	BRFSS			
Cancer Any Form	10.2%	10.3%	10.2%	2016-2020	BRFSS			
Skin Cancer	5.2%	4.9%	5.2%	2016-2020	BRFSS			
COPD	5.3%	5.7%	4.9%	2016-2020	BRFSS			
Kidney Disease	2.7%	2.5%	2.0%	2016-2020	BRFSS			
Diabetes	9.0%	9.6%	8.3%	2016-2020	BRFSS			
Heart Attack	4.7%	5.4%	5.4%	2016-2020	BRFSS			
Stroke	2.6%	2.4%	2.2%	2016-2020	BRFSS			
Obese (BMI = 30+)	32.2%	36.1%	35.2%	2016-2020	BRFSS			
Overweight or Obese (BMI = 25+)	67.7%	71.2%	71.4%	2016-2020	BRFSS			
	Health Care Access							
No Health Coverage	14.7%	18.3%	14.5%	2016-2020	BRFSS			
Needed to See a Dr. but Could Not Due to Cost	12.0%	13.3%	10.5%	2016-2020	BRFSS			
No Personal Dr.	21.0%	24.1%	20.2%	2016-2020	BRFSS			
Nursing workforce (RNs, APRNs, & LPNs)	1,347 per 100K	1,335 per 100K	976 per 100K	2021-2022	CFN			
Behavioral Health Provider (% Change 2010-2021)	52.4%	15.7%	17.5%	2010-2021	BHCEN			
Quality of Life								
Oral Health Status Fair or Poor	12.7%	15.4%	13.1%	2016-2020	BRFSS			
Mental Health Was Not Good	11.4%	11.2%	9.6%	2016-2020	BRFSS			
Physical Health Was Not Good	9.1%	10.4%	9.1%	2016-2020	BRFSS			
Depression	18.3%	18.0%	15.3%	2016-2020	BRFSS			
Behavioral Health								
Cigarette Smoking	15.3%	17.3%	16.8%	2011-2020	BRFSS			
E-Cigarette Use	6.0%	5.1%	3.7%	2016-2020	BRFSS			
Smokeless Tobacco Use	4.1%	6.8%	9.3%	2011-2020	BRFSS			
Alcohol Use	62.9%	55.9%	58.9%	2011-2020	BRFSS			
Binge Drank	22.1%	20.0%	22.6%	2011-2020	BRFSS			
Heavy Drinking	7.3%	6.4%	7.1%	2016, 2019-2020	BRFSS			
Marijuana Use	8.1%	5.0%	3.0%	2016, 2019-2020	BRFSS			
Opioid Misuse	3.6%	4.3%	2.8%	2018-2020	BRFSS			

Indicators	Geography	y (disparities h	Years	Course				
indicators	Urban-Large	Urban-Small	Rural	Years	Source			
Vaccinations								
Flu Vaccinations	48.6%	41.7%	38.8%	2011-2020	BRFSS			
Nutrition								
Consumed Fruits	37.5%	40.0%	40.0%	2017-2019	BRFSS			
Consumed Vegetables	20.2%	23.3%	18.6%	2017-2019	BRFSS			
Injury								
Injured Due to a Fall	9.4%	9.1%	8.8%	2012, 2014, 2016, 2018, 2020	BRFSS			
Had A Fall	24.6%	25.8%	27.5%	2012, 2014, 2016, 2018, 2020	BRFSS			
Socioeconomic								
Population Growth (2010-2020)	6.4%	-4.0%	-6.9%					
Households with Seniors Age 65+	24.6%	30.4%	35.8%	2017-2021	ACS			
Minorities	27.3%	24.7%	13.8%	2017-2021	ACS			
Poverty	10.4%	11.3%	9.9%	2017-2021	ACS			
Pop. Age 18+ With No High School Diploma	7.6%	11.2%	9.0%	2017-2021	ACS			
Pop. Age 25+ Bachelor Degree Or Higher Education	39.9%	23.1%	22.5%	2017-2021	ACS			

ACS: American Community Survey **BHCEN:** The Behavioral Health Education Center of Nebraska. University of Nebraska Medical Center

BRFSS: Behavioral Risk Factor Surveillance System

CFN: Nebraska Center for Nursing

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