FY2019 Community Health Needs Assessment

Cycle 3 (FY2019-FY2021)

North Kansas City Hospital

(FY2019-2021)

COMMUNITY HEALTH NEEDS ASSESSMENT

CONTENTS

INTRODUCTION

No single healthcare organization or provider truly can understand, or improve, the health of a community. Collaboration is key to both gaining meaningful insight about the community and to affecting sustainable long-term change within the community.

This reality was the spur for North Kansas City Hospital to become a founding member of the Northland Health Alliance in 2014. The NH Alliance brought healthcare stakeholders from across the community together around a shared goal of improving the health status and health outcomes of all Clay and Platte County, MO, residents.

As a first step in that effort, in 2015 North Kansas City Hospital and its fellow NH Alliance partners conducted an assessment of the health and well-being of citizens who live in, work in, or visit Kansas City's Northland community. The valuable insights generated by that shared community assessment encouraged North Kansas City Hospital and the NH Alliance to repeat the collaborative Community Health Needs Assessment in 2018.

In partnership with the other 10 Alliance organizations, North Kansas City Hospital gathered and analyzed qualitative and quantitative data about the community in order to broaden understanding about the health status of the Northland residents and gain insight into the factors influencing their health. Meeting IRS requirements was an important driver of this effort, but the hospital also viewed it more broadly as part of a community-wide effort to identify the most significant health gaps or challenges the community faces. As a community hospital, meeting the community's needs is one of North Kansas City Hospital's strategic pillars. Ultimately, the hospital's intention for this report is to provide an evidence-based framework hospital leadership and their community partners can use to make informed decisions about prioritizing health

needs and determining where to most effectively invest resources to address them. These priorities are the foundation of North Kansas City Hospital's FY 2019-2021 CHNA Implementation plans. These plans are designed to align hospital efforts with those of the Northland Health Alliance to address the most serious health issues impacting citizens.

MISSION
We provide hope and
healing to every life we touch.

Employer of Choice

Provider of Choice

Financial Stability

Community Needs

VISION Together, we will become legendary for our commitment to remarkable patient care.

VALUES Compassion | Teamwork | Respect
Accountability | Quality | Community

North
Kansas City
Hospital

NORTHLAND HEALTH ALLIANCE MEMBERS

Children's Mercy Hospital

Clay County Public Health Center

Excelsior Springs Hospital

Liberty Hospital

North Kansas City Hospital

Northland Healthcare Access

Platte County Health Department

Saint Luke's Hospital System

Samuel U. Rodgers Health Center

Signature Psychiatric Hospital

Tri-County Mental Health Services, Inc.

OUR HOSPITAL, OUR COMMUNITY

North Kansas City Hospital celebrated its 60th anniversary in March 2018. Since opening its doors in 1958 as an 80-bed hospital with 200 employees, it has grown to 451 beds, more than 3,000 employees, and a medical staff of 550 physicians representing 49 medical specialties.

Today, North Kansas City Hospital is the largest acute-care hospital in the Northland, an area comprised of communities that lie north of the Missouri River including all of Clay and Platte counties. It is also one of the four busiest acute-care hospitals in Kansas City. Through its Meritas Health subsidiary, the hospital is home to the largest network of physician practices in the Northland, with 135 physicians and advanced practitioners in 30 locations across the community. With healthcare services ranging from a Level III neonatal intensive care unit to home health and hospice care,

North Kansas City Hospital prides itself on providing a lifetime of care.

During the last three years, North Kansas City Hospital has celebrated many achievements:

- In 2018, the hospital earned Magnet® designation from the American Nurses Credentialing Center. Magnet is the highest achievement a hospital can receive for nursing excellence.

- The U.S. News and World Report 2018-19 Best Hospitals report rated

North Kansas City Hospital among high-performing hospitals in treating patients in two specialties: heart failure and knee replacement.

- The hospital opened three Wellness Corners, one inside the North Kansas City YMCA, one at the Zona Rosa Shopping Center, and a third in the Gladstone Community Center, extending its healthcare outreach deeper into the community. The Wellness Corners at the Northland YMCA and Gladstone Community Center are staffed by nurses who provided blood pressure and lipid/glucose screenings to more than 6,700 individuals between 2017 and spring of 2019. The Zona Rosa space is used to host classes and events promoting health and wellness.

- The NKCH Cardiology program was awarded a 2017 Platinum Performance Achievement Award by the American College of Cardiology NCDR ACTION Registry. NKCH was one of only 193 hospitals nationwide to be so recognized.

- The Home Health program was rated in the top 20% of all home health agencies in the nation, achieving a 2017 Best Superior Performer award from Strategic Healthcare Programs for superior performance in patient outcomes and satisfaction.

- In 2017, North Kansas City Hospital joined with Advent Health Shawnee Mission, University of Kansas Health System and independent physicians of the Kansas City Metropolitan Physician Association to found Centrus Health Kansas City, an innovative physician-led Clinically Integrated Network. Centrus Health Kansas City providers work collaboratively across the continuum of care to create solutions that improve quality and reduce costs by sharing data, technology and performance benchmarks.

HOSPITAL DEMOGRAPHICS AND DATA

In 2018, North Kansas City Hospital had more than 285,000 health encounters with patients from all counties in the Kansas City metropolitan area and beyond. Meritas Health providers saw almost 400,000 patients in their offices and clinics (Figure 1).

FIGURE 1:
TOTAL PATIENT ENCOUNTERS 2018

20,700*
Discharges

194,296
Outpatient visits

72,425
Emergency visits

395,558
Meritas Health office visits

*excludes newborn infants

Source: North Kansas City Hospital Utilization 2018-Encounter Level Volumes

NORTH KANSAS CITY HOSPITAL SERVICE AREA

Data examined regarding the geographic dispersion of the NKCH patient population was pulled from the Unique Patient Volumes from fiscal year 2018. Residents of Clay and Platte counties accounted for just under 70% of all the patients cared for at North Kansas City Hospital. Citizens from Jackson County accounted for about 20% of all patients, and residents from Ray County and Wyandotte County, KS, were the next most frequent users of hospital services (Figure 2). North Kansas City Hospital treated patients in smaller numbers from 15 other counties in Missouri during 2018. As these numbers suggest, due to its size and depth of specialties, the hospital draws patients from a large geographical area; however, it considers the counties of Clay, where the hospital is located, and Platte, as its Primary Service Area.
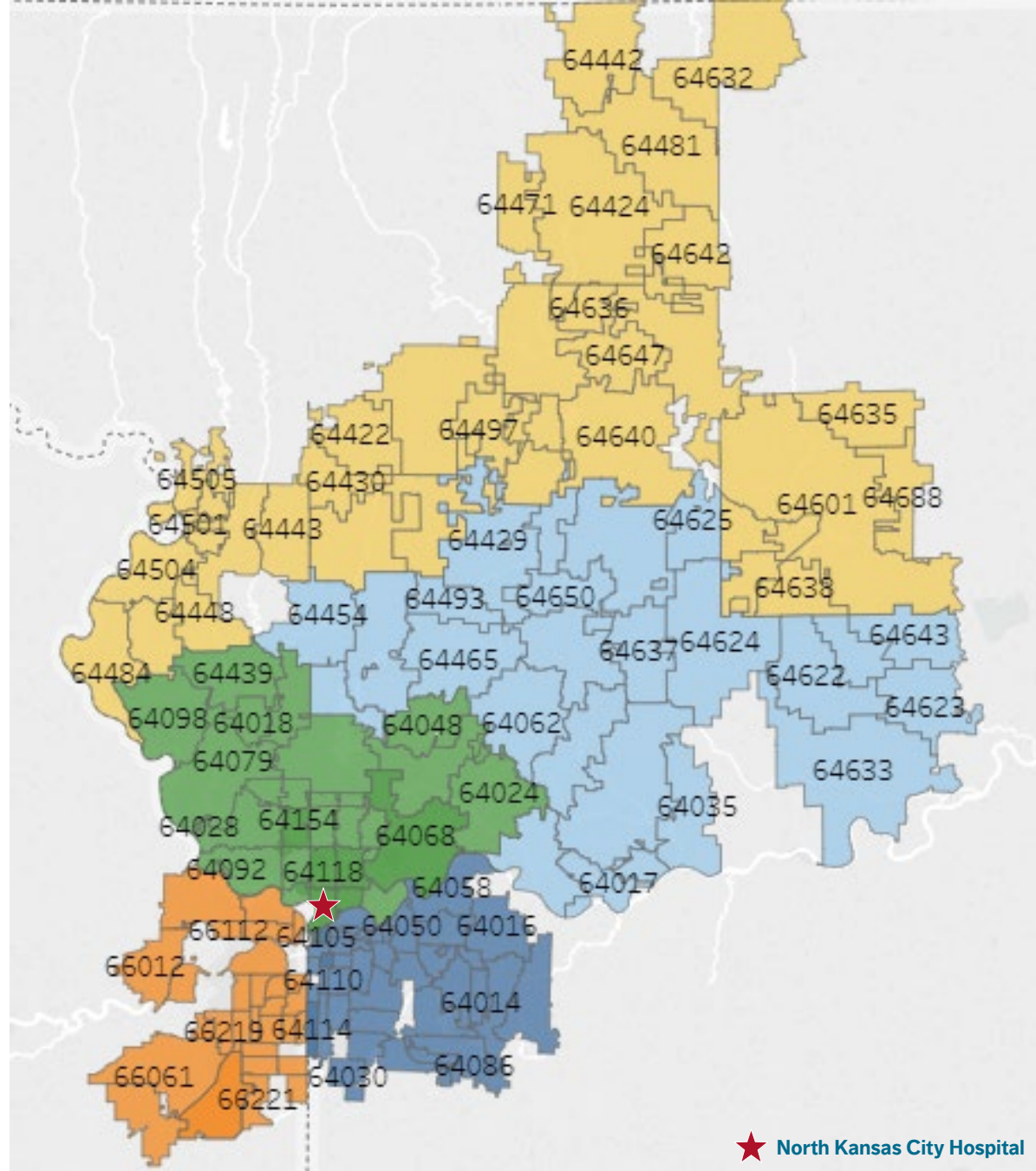
★ **North Kansas City Hospital**

■ Primary Service Area (Clay and Platte Counties)
■ Secondary Service Area North (Ray, Clinton, Caldwell and Carroll Counties)
■ Secondary Service Area South (selected areas of Jackson County)
■ Tertiary Service Area North (selected areas of Buchanan, Dekalb, Livingston, Harrison and Davies Counties)
■ Tertiary Service Area South (selected areas of Wyandotte and Johnsons Counties, KS)

FIGURE 2:

NKCH PATIENTS BY COUNTY 2018

INPATIENT

Clay (51%)
Platte (15%)
Jackson (17%)
Ray (4%)
Wyandotte, KS (1%)

HOSPITAL TOTAL

Clay (51%)
Platte (17%)
Jackson (19%)
Ray (3%)
Wyandotte, KS (2%)

OUTPATIENT

Clay (52%)
Platte (20%)
Jackson (13%)
Ray (3%)
Wyandotte, KS (1%)

MERITAS HEALTH CLINICS

Clay (51%)
Platte (20%)
Jackson (14%)
Ray (5%)
Wyandotte, KS (2%)

EMERGENCY DEPARTMENT

Clay (51%)
Platte (11%)
Jackson (28%)
Ray (2%)
Wyandotte, KS (2%)
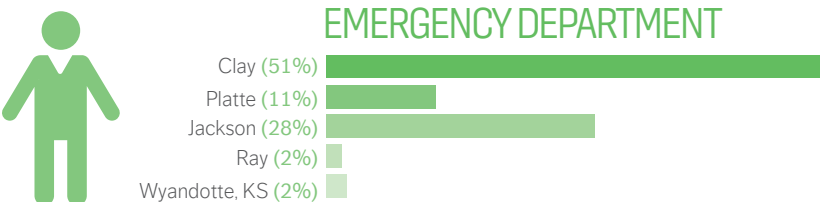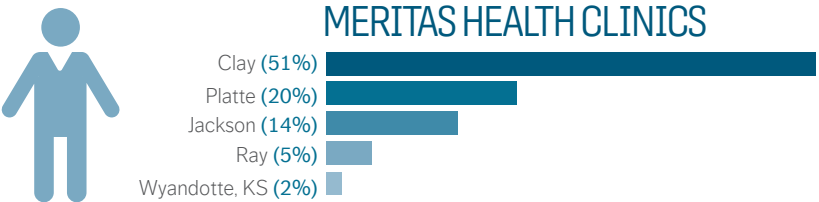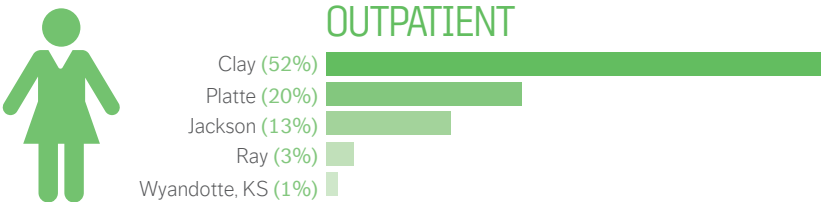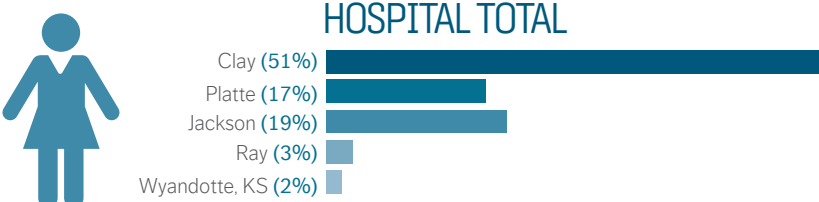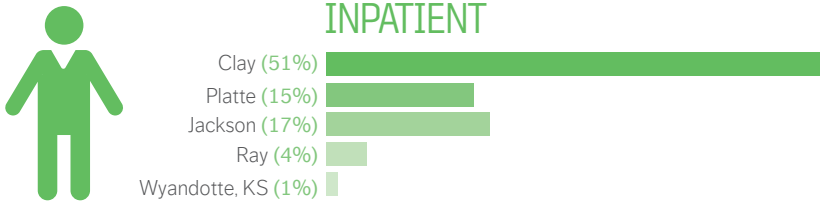
North Kansas City Hospital Utilization by County Report 2018

In 2018, patients at North Kansas City Hospital were predominately Caucasian (Figures 3, 3A). Females accounted for 60% of patients across all hospital services, Inpatient, Outpatient and Emergency Department (Figure 4). This aligns with hospital utilization trends across the Northland and nationally. Nearly half of all inpatient care at NKCH was paid for by Medicare. Commercial insurance coverage accounted for slightly more than one-third of inpatient care. More than half of outpatient care delivered through the hospital was paid for through commercial insurance, followed closely by Medicare. Slightly fewer than 3% of patients self-paid for outpatient care or used Medicaid. While the majority of Emergency Department patients used commercial insurance or Medicare, more than 15% of Emergency Department patients were self-pay and more than 14% paid for care using Medicaid. (Figure 5)

FIGURE 3:
2018 NKCH PATIENTS BY RACE

INPATIENT

90% CAUCASIAN

5% AFRICAN AMERICAN

3% OTHER

1% ASIAN

.6% UNKNOWN/ NOT GIVEN

.1% AMERICAN INDIAN/ ALASKAN

.2% HAWAIIAN/ PACIFIC ISLAND

OUTPATIENT

92% CAUCASIAN

4% AFRICAN AMERICAN

3% OTHER

1% ASIAN

.5% UNKNOWN/ NOT GIVEN

.1% AMERICAN INDIAN/ ALASKAN

.1% HAWAIIAN/ PACIFIC ISLAND

EMERGENCY DEPARTMENT

81% CAUCASIAN

12% AFRICAN AMERICAN

6% OTHER

1% ASIAN

.4% UNKNOWN/ NOT GIVEN

.2% AMERICAN INDIAN/ALASKAN

.3% HAWAIIAN/ PACIFIC ISLAND
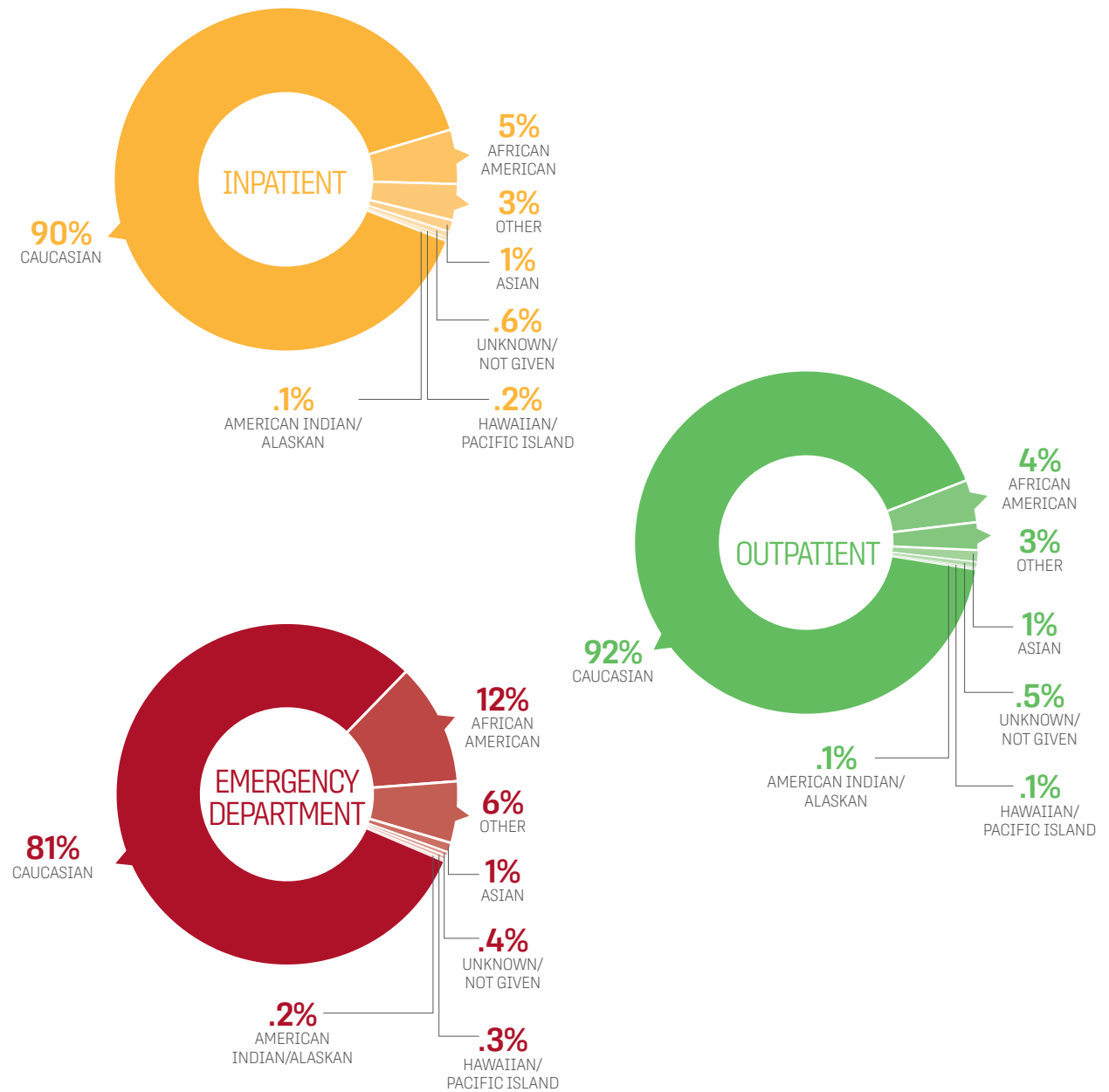
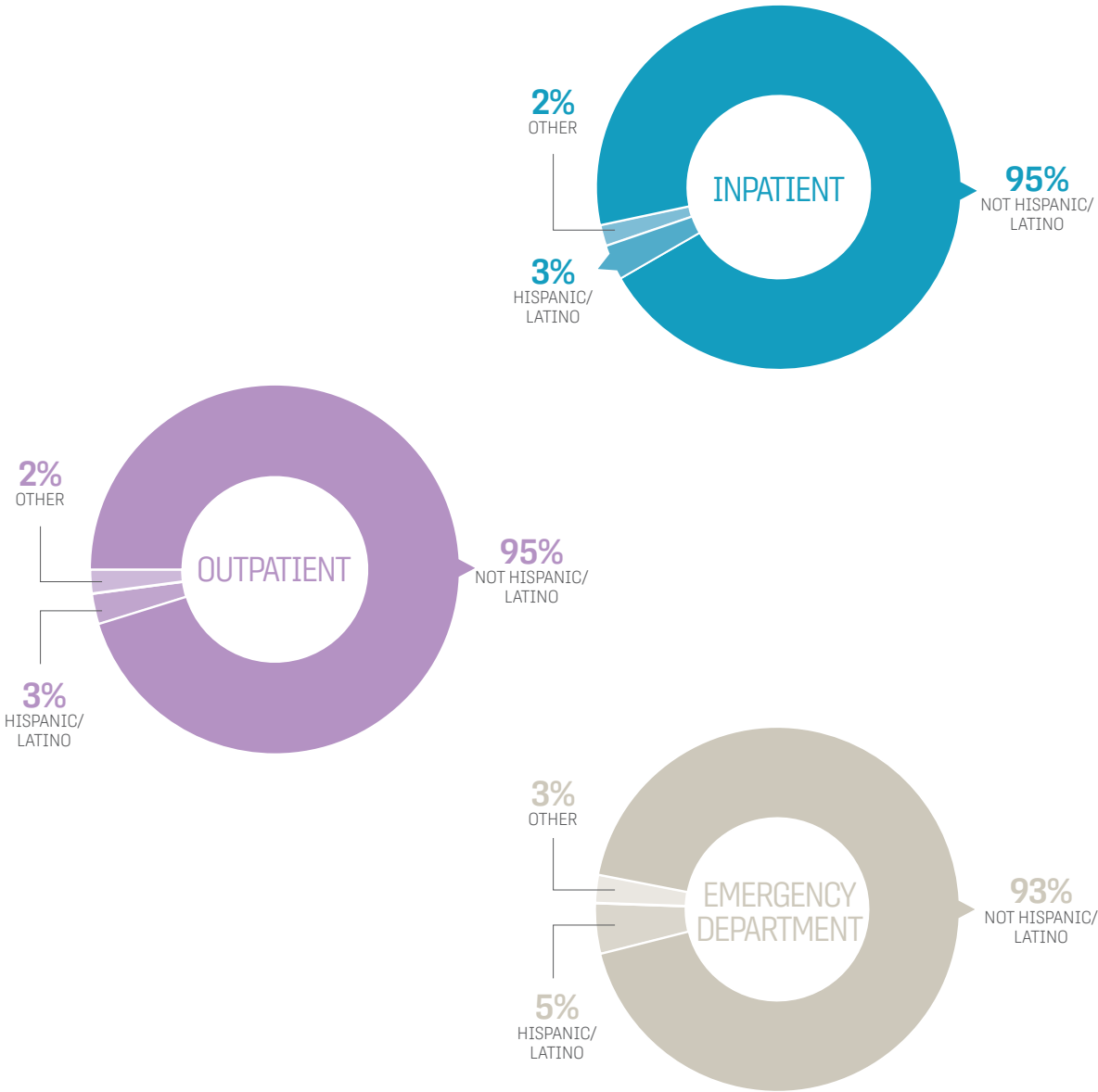*North Kansas City Hospital Patient Demographics Report 2018*

FIGURE 3A:

2018 NKCH PATIENTS BY ETHNICITY

INPATIENT

2% OTHER

3% HISPANIC/LATINO

95% NOT HISPANIC/LATINO

OUTPATIENT

2% OTHER

3% HISPANIC/LATINO

95% NOT HISPANIC/LATINO

EMERGENCY DEPARTMENT

3% OTHER

5% HISPANIC/LATINO

93% NOT HISPANIC/LATINO

North Kansas City Hospital Patient Demographics Report 2018

FIGURE 4:

2108 NKCH PATIENTS BY GENDER

MALE **39%**   FEMALE **61%**

North Kansas City Hospital Patient Demographics Report 2018

FIGURE 5:

2018 NKCH PAYOR SOURCE BY SERVICE

INPATIENT

- 49% MEDICARE
- 35% COMMERCIAL
- 11% MEDICAID
- 6% UNINSURED/SELF-PAY

OUTPATIENT

- 51% COMMERCIAL
- 44% MEDICARE
- 3% MEDICAID
- 3% UNINSURED/SELF-PAY

EMERGENCY DEPARTMENT

- 43% COMMERCIAL
- 27% MEDICARE
- 16% UNINSURED/SELF-PAY
- 14% MEDICAID
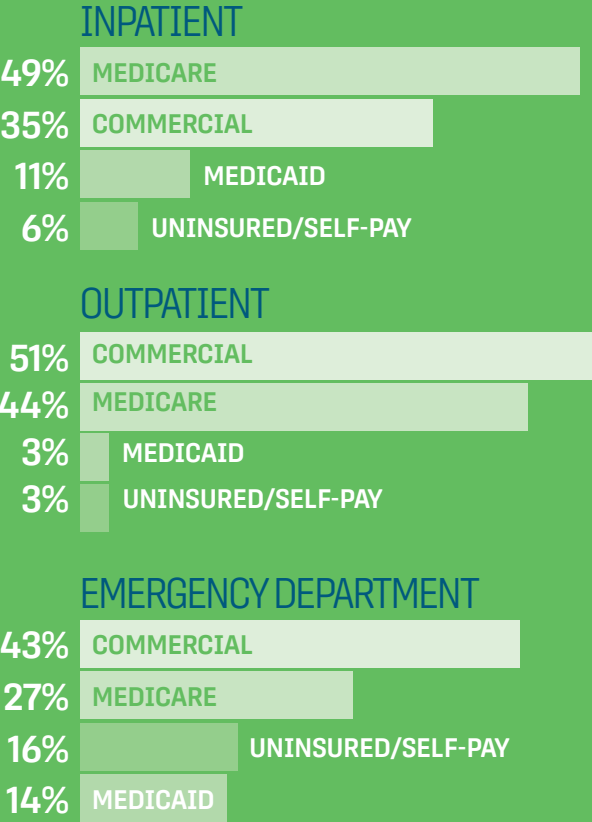
North Kansas City Hospital Patient Demographics Report 2018

COMMUNITY HEALTH NEEDS ASSESSMENT METHODOLOGY

Assessing the health of a community requires the systematic collection, aggregation and analysis of both qualitative and quantitative information across multiple indicators of health. To that end, North Kansas City Hospital and its Northland Health Alliance partners undertook a months-long collaborative process to gather data about the community. North Kansas City Hospital was a member of the data task force charged with reviewing, analyzing and drawing initial conclusions from this data. The data gathering process took three forms:

COMMUNITY HEALTH SURVEY AND COMMUNITY FORUMS

This effort involved gathering primary data through a Community Health Survey and through Community Forums hosted in multiple locations across the Northland. The goal of the survey and forums was to capture feedback from people who live in, work in, or visit Clay and/or Platte County about the following topics:

- The overall health and quality of life in the community

- The health problems they believe are most important

- The health behaviors that are having the greatest impact on the health of the community

- The greatest challenges to being healthy in the Northland

- Where they typically receive healthcare

- How they pay for healthcare

COMMUNITY HEALTH STATUS ASSESSMENT

The Community Health Needs Assessment report contains statistical analysis of community data gathered on nationally recognized health indicators. These include: Demographics, Social Determinants of Health, Behavioral Risk Factors, Behavioral and Mental Health, Maternal and Child Health, and Health Resource Availability/Access to Care. This section of the report presents data and analysis of the current health status of the Northland community. When available, data from Kansas City, MO; the state of Missouri; and the United States is also included in the tables to provide context for understanding the data from Clay and Platte counties. These data sets are intended to provide points of comparison

to deepen understanding and to reveal how health may vary among different people within the community. Additionally, where available and meaningful, this report includes data from the 2015 CHNA as an additional point of comparison. This information is included to highlight areas of improvement, points of regression, or to call attention to data that may serve as indicators of longer-term trends.

NORTHLAND HOSPITAL UTILIZATION

North Kansas City Hospital and fellow Alliance members Liberty Hospital and Saint Luke's Hospital System provided de-identified patient data to support the assessment effort, including information on patient demographics, and hospital and emergency department utilization. Data analysis was conducted by epidemiologists and epidemiology specialists at Clay County Public Health Center and Platte County Health Department.

DATA SOURCES FOR HEALTH INDICATORS:

American Community Survey

Behavioral Risk Factor Surveillance System (BRFSS)

Healthy People 2020

Mid-America Regional Council

Missouri County-Level Study

Missouri Information for Community Assessment (MICA)

Missouri Department of Economic Development

Missouri Department of Social Services

Missouri Department of Health and Senior Services

Missouri Department of Elementary and Secondary Education

Missouri Hospital Association

Missouri Student Survey

North Kansas City Hospital Demographic, Diagnostic, and Utilization data

Northland Health Alliance Community Health Survey & Forums

U.S. Department of Health and Human Services

Robert Wood Johnson Foundation

U.S. Census Bureau

NORTH KANSAS CITY HOSPITAL
CYCLE 3 INITIATIVES

The North Kansas City Hospital Community Health Needs Assessment Committee used the insights gained through analysis of the community health assessment data to inform consensus-building around the Cycle 3 Initiatives the hospital will address between 2019-2021.

As part of the process, the committee distilled 10 key health issues from the broader community assessment. These issues were then analyzed and scored using the following criteria:

- Magnitude/Scale of the problem, rated from 1 (low) to 10 (high).

- Severity of the problem in the community, rated from 1 (low) to 5 (high).

- NKCH internal assets to address the problem, rated from 1 (no/low assets) to 5 (many internal assets).

- Existing/promising approaches to addressing the problem, rated from 1 (no/few promising approaches) to 5 (many promising approaches).

- Addresses health disparities in the community, rated from 1 (no/low impact on disparities) to 5 (high impact on disparities).

- NKCH could leverage other resources to address the issue, rated from 1 (no/few other resources) to 5 (many additional resources).

- How highly the community as a whole prioritizes the issue, rated from 1 (lowest priority) to 10 (highest priority).

- How highly the issue aligns with other North Kansas City Hospital priorities, rated from 1 (lowest alignment) to 10 (highest alignment).

After extensive discussion, the NKCH Community Health Needs Assessment Committee presented the following Cycle 3 Initiatives to hospital leaders for review and approval.

NO. 1

INCREASE EXERCISE AND HEALTHY
EATING RESOURCES AND PROGRAMS
TO HELP REDUCE OBESITY IN THE
NORTHLAND.

RATIONALE

- Two-thirds of the Northland population is overweight or obese.

- Morbid obesity is the third-leading inpatient diagnosis for patients 45-64 at NKCH.

- While obesity is a problem for all races and ethnicities in Missouri, African American citizens have the highest obesity rate at nearly 40%.

- More than half of all patient encounters related to obesity at NKCH were for diagnosis of morbid obesity.

- 90% of Northland residents do not eat an adequate diet of fruits and vegetables daily.

- Nearly a quarter of Clay County residents and more than 20% of Platte County residents do not participate leisure time physical activity.

- Diabetes rates are on the rise in the Northland. Obesity and lack of physical activity are recognized risk factors for developing this chronic disease.

- Poor eating habits was ranked among the top three health behaviors with the greatest impact on overall community health by respondents to the Northland Community Health Survey.

- In 2016, about 14% of all residents in Clay and Platte counties were identified as being food insecure, defined by the U.S. Department of Agriculture as not having access at all times to enough food for an active, healthy life. Eighteen percent of Clay County children, and 17% of Platte County children were considered food insecure.

NO. 2

IMPROVE ACCESS TO CARE AND
IMPLEMENT SERVICES TO REDUCE
OPIOID DRUG OVERDOSES IN CLAY
AND PLATTE COUNTIES.

RATIONALE

- Opioid misuse resulted in nearly 1,200 ED visits among Northland residents between 2012-2016

- More than half of all respondents to the Northland Community Health Survey ranked mental health as the most important health problem in the community.

- Drug abuse and opioid abuse ranked among the top 10 health problems identified by the community in the Northland Community Health Survey.

- For uninsured patients and those with Medicaid coverage, mental health and substance abuse conditions were among the top five inpatient diagnoses.

- Depressive disorder ranked as the health issue with the greatest prevalence in both Clay and Platte counties in the 2016 County Level Study, occurring in 30% of the population in Platte County, and a quarter of the population in Clay County.

- Mental health conditions accounted for a large proportion of inpatient hospitalizations for patients age 15-24 years and 25-44 years.

- A 2017 study by the University of Southern California's Schaeffer Center for Health Policy and Economics estimated that in 2016 almost half a million adults in Missouri had experienced "serious psychological distress" in the past 12 months. The study further found these individuals were more likely to abuse or be dependent on alcohol or illicit drugs during the same time period.

NO. 3

IMPROVE AND INCREASE SERVICES TO BETTER MEET THE HEALTH NEEDS OF OUR AGING NORTHLAND POPULATION.

RATIONALE

- Nearly half of all inpatient visits and more than 40% of outpatient visits to North Kansas City Hospital are paid for by Medicare, demonstrating that the hospital is already playing an important role in meeting the healthcare needs of seniors in the community.

- The 2016 American Community Survey 1-Year Estimate placed the total percentage of older residents (aged 65 and older) living in Platte County at 13.8% and at 13.6% in Clay County.[1] In 2010, the figure was at just 11% in both counties.

- Using population figures beginning in 2007, the Mid-America Regional Council's (MARC) 2015 Regional Health Status Report predicts the senior population in the Kansas City metro area will grow by more than 100% by 2030, and that the senior population in Clay County will grow by nearly 120% and by more than 135% in Platte County in that same time frame.

- Adults age 65 and older are the most likely to be living with a disability. In Platte County, one-quarter of the senior population has some form of disability. In Clay County, nearly 40% of the senior population has a disability.

- Respondents to the Northland Community Health Survey ranked aging problems as the fourth most important health problem facing the community.

- Obesity-related encounters for seniors increased by 40% between 2016-2018.

- In 2016 and 2017, individuals age 65 and above accounted for about 60% of all patients admitted to North Kansas City Hospital for adverse reaction to opioids.

North Kansas City Hospital recognizes that reducing healthcare disparities is an important aspect of improving overall community healthcare outcomes. Therefore, as part of their work, the subcommittees have been charged with considering how social determinants of health such as race, ethnicity, geography, education and income may impact access to the resources, programs or health services they define during the planning process. Wherever possible, the plans and activities created will strive to lessen these disparities. The work to define the strategies, goals and tactics to advance the three initiatives will be guided by subcommittees comprised of hospital staff and leadership. (The Implementation Plans and list of committee members responsible for each of the Cycle 3 Initiatives can be found in the Appendix (99) of this report.)

CAPTURING THE VOICE OF THE NORTHLAND:
COMMUNITY SURVEY & FORUMS

COMMUNITY HEALTH SURVEY

Taking time to gather feedback from the people who live, work or visit a community is essential to assessing its health and well-being. To that end, survey links were sent out via each Alliance member's communications network (email, website, social media), and paper surveys were provided in English and Spanish at health department clinics and offices, healthcare clinics and via nonprofit groups. Online and paper versions of the survey were available from August 7-Sept. 15. More than 1,600 community members responded to the survey.

SURVEY RESPONDENT DEMOGRAPHICS

Respondents to the health survey were more likely to be female (75% of all survey respondents), and white (84% of respondents). More than 36% of respondents were between the ages of 45-64. Those in the 25-44-year-old age range accounted for 33.5% of responses.

The majority of respondents were married (61%) and have a college degree or higher (62%). The largest portion of respondents (23%) reported an annual household income of over $100,000. The majority of respondents (54%) reported being employed full-time. The next highest category came from those who indicated they are retired, 16% of the total. The majority of respondents (56.8%) indicated they did not have children under 18 living in the household.

SURVEY RESULTS

About half of the respondents to the Northland Community Health Survey rated the health of the Northland as Somewhat Healthy (Figure 6).

VERY HEALTHY/ HEALTHY **39%**

SOMEWHAT HEALTHY **49%**

UNHEALTHY VERY UNHEALTHY **9%**

UNKNOWN **3%**
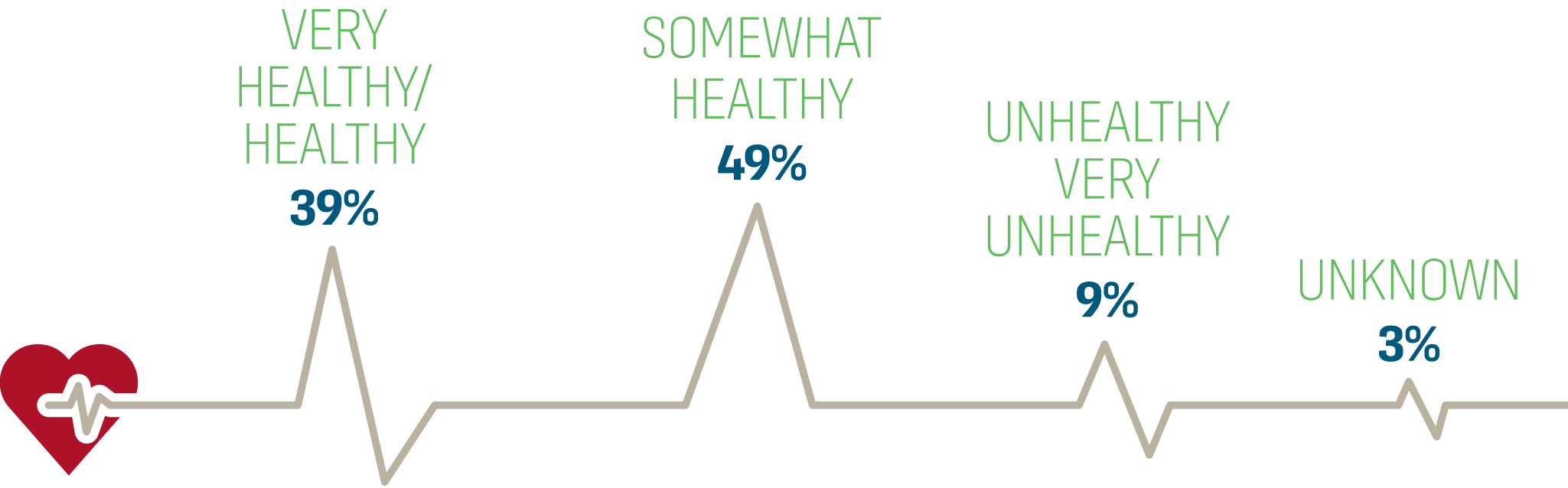
Source: Northland Community Health Survey, 2018

When asked what the three most important health problems in the community are, 2018 Northland Health Survey respondents identified 15 different issues, with the top three being Mental Health, Chronic Disease and Obesity. These issues were followed closely by aging problems and drug abuse (Figure 7). Mental health-related issues of drug abuse, alcohol abuse, opioid abuse and suicide all ranked among the top 10 health problems 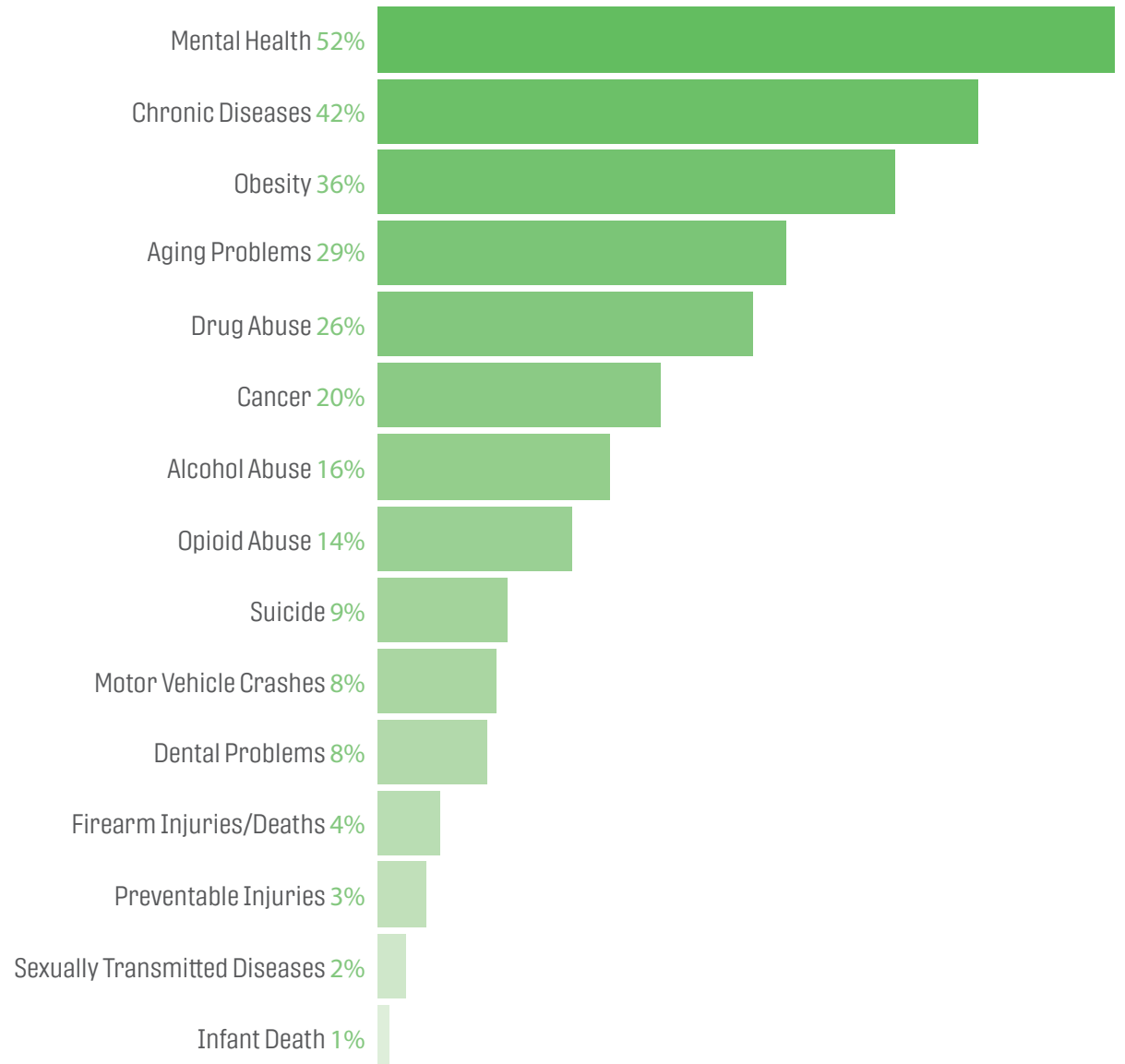identified by the community. These results were given particular weight by the North Kansas City Hospital CHNA Committee when evaluating and making recommendations regarding the Cycle 3 Initiatives.

FIGURE 7:

RANKING OF MOST IMPORTANT HEALTH PROBLEMS IN THE NORTHLAND COMMUNITY

Health Problem	Percentage
Mental Health	52%
Chronic Diseases	42%
Obesity	36%
Aging Problems	29%
Drug Abuse	26%
Cancer	20%
Alcohol Abuse	16%
Opioid Abuse	14%
Suicide	9%
Motor Vehicle Crashes	8%
Dental Problems	8%
Firearm Injuries/Deaths	4%
Preventable Injuries	3%
Sexually Transmitted Diseases	2%
Infant Death	1%

Respondents were asked to select the top three health problems. Therefore, the total percentage does not tally to 100%.
Source: Northland Community Health Survey, 2018

Lack of exercise, poor eating habits, and interestingly, texting and driving, were identified as the top three health behaviors having the greatest impact on the overall health of the community. Alcohol misuse, opioid misuse and tobacco use were the next most frequently cited behaviors impacting health across all survey respondents (Figure 8).

Medical debt, housing insecurity and employment and income issues were selected as the top three challenges to being healthy (Figure 9). These were followed by access to healthcare, transportation issues, utility needs, and food insecurity and hunger.

Just over half of all survey respondents reported having private health insurance and more than 20% of respondents reported using a combination of sources (private insurance, public insurance like Medicaid or Medicare, paying cash for services) to cover healthcare costs (Figure 10).
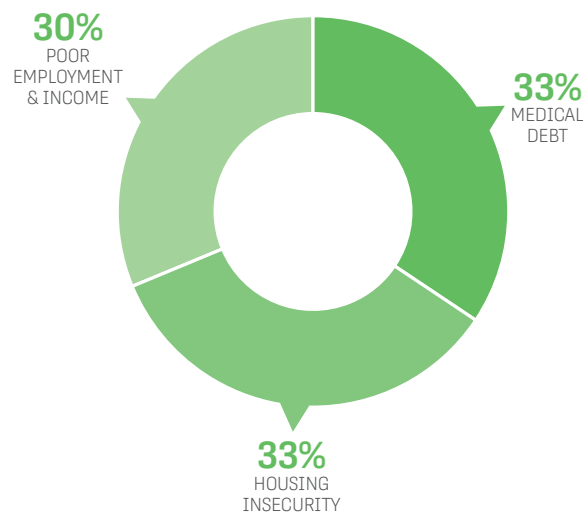
FIGURE 8:

RANKING OF TOP 3 HEALTH BEHAVIORS WITH THE GREATEST IMPACT ON OVERALL COMMUNITY HEALTH

41% TEXTING & DRIVING

47% LACK OF EXERCISE

47% POOR EATING HABITS

FIGURE 9:

RANKING OF GREATEST CHALLENGES TO BEING HEALTHY

30% POOR EMPLOYMENT & INCOME

33% MEDICAL DEBT

33% HOUSING INSECURITY

FIGURE 10:

HEALTHCARE PAYMENT METHOD

22% COMBINATION OF SOURCES

10% UNKNOWN

9% PUBLIC HEALTH INSURANCE

7% PAY CASH

52% PRIVATE HEALTH INSURANCE
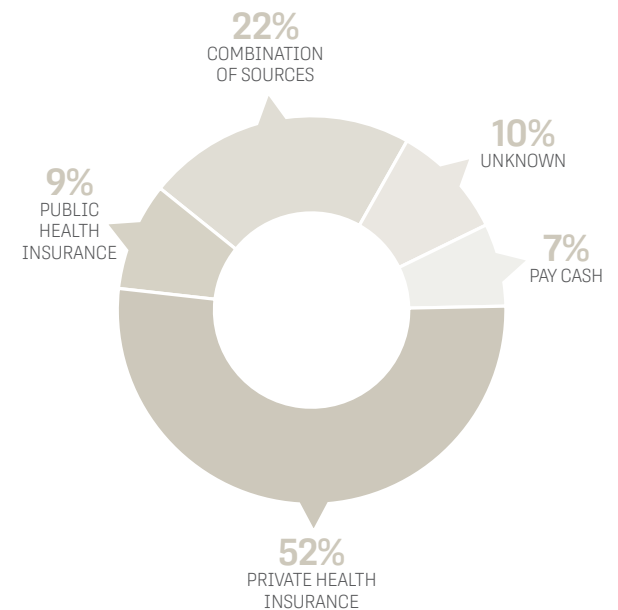
Respondents were asked to select the top three health behaviors. Therefore, the total percentage does not tally to 100%.
Source: Northland Community Health Survey, 2018

It is worth taking a moment to reflect on the demographics of survey respondents, their level of insurance coverage and the top challenges they identified to being healthy. Most respondents were white and female, and had a college degree, an annual household income of $100,000 or more and health insurance. Yet, medical debt was rated as one of the greatest challenges to being healthy. This suggests at least two possible interpretations: the community is deeply aware of the high cost of healthcare and the impact that it is having on fellow citizens, and/or spiraling costs for healthcare are having a significant negative impact on patients at every income level. This is an issue that bears watching.
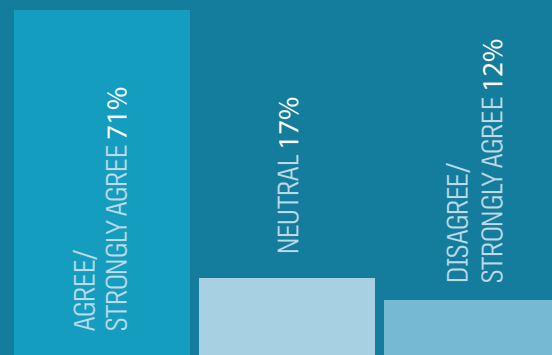
The majority of respondents to the 2018 Community Health Survey indicated they agreed or strongly agreed with the statement: I am satisfied with the quality of life in my community (well-being, safety, mental health, education, recreation) (Figure 11).

Looking more deeply at quality of life measures:

• Two-thirds of survey respondents agreed they were satisfied that the Northland offers enough housing choices to fit their needs.

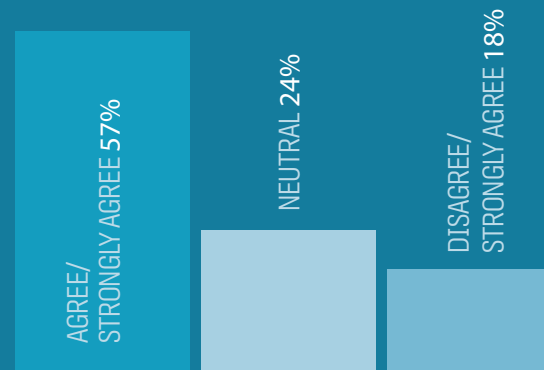• Over 80% said it was easy for them to get places in the community (e.g. grocery stores, work, doctor).

• Three-quarters agreed the community is a safe place to live and raise children.

• Only 61% of respondents agreed there are enough health and wellness activities to meet their needs.

Survey respondents largely agree the Northland is a good place to grow old (Figure 12).

Less than a third of all survey respondents agreed that there is enough access to medical care for low income residents in the community (Figure 13). This question received a high level of "Neutral" responses, which could suggest those taking the survey were unsure about how this issue is impacting their community.

It is important to acknowledge that low income, racial and ethnic minorities, and aging populations were underrepresented in the Northland Community Health Survey. To address this gap, Alliance members placed special focus on holding community forums in locations that would help ensure the voice of citizens in these underserved communities was captured. As the Northland Health Alliance continues its work to assess the health needs of the community, it will continue to develop new strategies with focused outreach to underserved populations.

FIGURE 11:
SATISFACTION WITH QUALITY OF LIFE

AGREE/STRONGLY AGREE 71%
NEUTRAL 17%
DISAGREE/STRONGLY AGREE 12%

FIGURE 12:
COMMUNITY IS A GOOD PLACE TO GROW OLD

AGREE/STRONGLY AGREE 57%
NEUTRAL 24%
DISAGREE/STRONGLY AGREE 18%

FIGURE 13:
ENOUGH MEDICAL CARE ACCESS FOR LOW INCOME POPULATIONS

AGREE/STRONGLY AGREE 29%
NEUTRAL 35%
DISAGREE/STRONGLY AGREE 34%
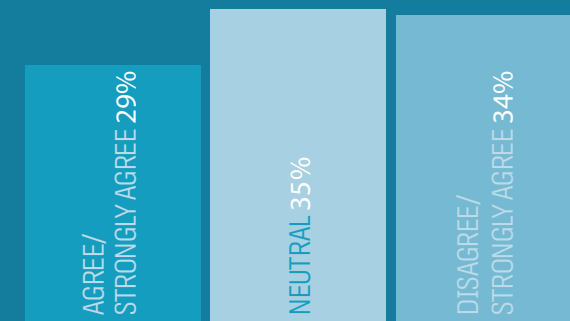
Not all respondents answered this question. Therefore, response totals by geography may not equal 100%.
Source: Northland Community Health Survey, 2018

COMMUNITY FORUMS

North Kansas City Hospital joined its fellow members in the Northland Health Alliance in hosting a community feedback forum. NKCH sponsored the forum at the Gladstone Health Fair in November 2018. Other forums were held in Excelsior Springs, at the Platte County Day of Hope event, and at the Northland Center for Advanced Professional Studies (NCAPS). These sessions captured opinions and ideas expressed by seniors, communities of color, high school students, and low-income individuals and families. The forum conversations were built around six of the questions asked as part of the community survey. While the demographics of the individuals and groups engaged in the community forums were different, common themes emerged across all of the discussions, especially around identification of the top health issues facing the community, and the most significant barriers to being healthy.

When asked to rate the health of the community, the majority of forum participants rated it as "Somewhat Healthy."

Issues such as obesity, smoking, lack of exercise, access to healthcare, limited transportation options, and what one group described as "a lack of will to be healthy," were reasons forum participants said influenced their rating of the community's health.

Opinions about the availability of health services varied widely among the different forum locations. Forum participants from Excelsior Springs were the least likely to agree that the community has all the health services they need. A strong majority of participants at the Gladstone Health Fair and Northland Center for Advanced Professional Studies agreed/strongly agreed these services are available.

Concerns about the availability of mental healthcare and substance abuse services were raised at every forum.

Mental and emotional health, drug abuse and obesity were the issues identified as the top health problems across all forums.

Participants at the Gladstone Health Fair and Excelsior Springs Housing Authority forums also listed aging problems and chronic disease among the top issues. NCAPS students and Platte County Day of Hope families identified suicide as one of the top five issues.

Economic issues were identified as the greatest barrier to being healthy across all of the forums.

Participants in all forums rated high cost of healthcare, medical debt and income as the top barriers to health in our community. While forum participants recognized the challenges the Northland community faces when it comes to being healthy, they were largely optimistic the community will be healthier 10 years from now.

COMMUNITY HEALTH STATUS

Members of the North Kansas City Hospital team served on the Northland Health Alliance Data Task Force that was charged with gathering and analyzing data related to the health status of the Northland community.

The group examined multiple health indicators:

- Demographic and Social Indicators
- Behavioral Risk Factors
- Chronic Disease
- Hospital Utilization-Inpatient and Emergency Department
- Maternal & Child Health
- Behavioral and Mental Health
- Access to Care

Results of this analysis, coupled with insights from the Community Health Survey and Community Health Forums, were the foundation used by the North Kansas City Hospital CHNA committees to create the hospital's Cycle 3 CHNA Initiatives. The following section presents an analysis of the health data gathered by the Northland Health Alliance, focusing particularly on the data and information NKCH used to inform the selection of these initiatives.

DEMOGRAPHIC AND SOCIAL INDICATORS

The answer to the question, "How healthy is our community?" is deeply intertwined with questions about what the community looks like—its demographics and socioeconomics. Exploration of the population served by North Kansas City Hospital—age, race, ethnicity, gender and geographic distribution—helps the hospital better understand current health issues and anticipate issues that may become prevalent in the future. Examining socioeconomic indicators including educational attainment, employment status and household income provides insight into everything from health literacy to barriers to healthcare access. Understanding the demographics and social indicators of health is also essential to identifying and addressing health disparities in the community the hospital serves.

POPULATION

According to 2016 census data, the Northland was home to just under 338,000 people, with 98,309 living in Platte County and 239,085 in Clay County. Between 2010-2016 the counties grew by more than 7% (Figure 14). While the majority of residents in both counties live in urban communities, about 10% of Clay County residents and 16% of Platte County residents live in rural areas (Figure 15). Research conducted by the Rural Assistance

Center in 2014 indicated rural residents are at higher risk for experiencing isolation, lower socioeconomic status, and higher rates of risky health behaviors than their urban and suburban counterparts. They are much more likely to have reduced access to healthcare. Population trends in Missouri and nationally suggest rural communities will continue to see their populations decline in the coming decades. As these communities grow smaller, national and state data also suggest they will grow older, with larger segments of their populations concentrated in older age brackets. Meeting the long-term health needs of aging residents living in areas with diminishing population and limited transportation options will require thoughtful monitoring and far-sighted planning by Northland leaders.

GENDER AND AGE

Both counties are home to slightly more women than men. Just over a quarter of the population in each county falls into the 25-44 age category. People age 45-64 account for another quarter of the total, and children age 14 and under account for just under 20% of the total population in each county (Figure 16).

As is the case across America, the size of the senior population—those age 65 and over—is growing rapidly in Northland communities. The 2016 American Community Survey 1-Year Estimate placed the total percentage of older residents (aged 65 and older) living in Platte County at 13.8% and at 13.6% in Clay County. In 2010, the figure was at just 11% in both counties. The Mid-America Regional Council's (MARC) 2015 Regional Health Status Report predicts the Kansas City metro area, and Clay and Platte counties in particular, will see exponential growth in this population.

Using population figures beginning in 2007, the MARC study suggests the senior population in the Kansas City metro area will grow by more than 100% by 2030, and that the senior population in Clay County will grow by nearly 120% and by more than 135% in Platte County in that same time frame.
(Figure 17)

FIGURE 14:
TOTAL POPULATION GROWTH 2010-2016

PLATTE COUNTY **10%**

CLAY COUNTY **7%**

FIGURE 15:
2010 RURAL/URBAN POPULATION

RURAL

10% CLAY
16% PLATTE

URBAN

90% CLAY
84% PLATTE
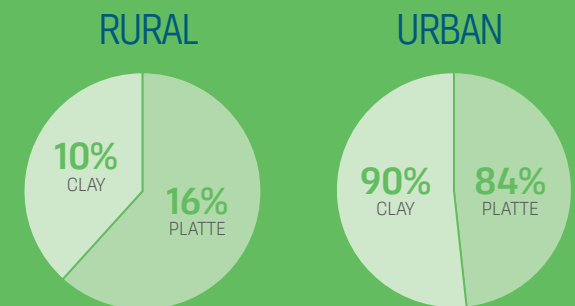
This anticipated growth in the size of the aging population in the Northland was a primary motivator for improving and increasing services to better meet the health needs of our aging Northland population, which is one of NKCH's Cycle 3 Initiatives.

FIGURE 16:

2016 CENSUS ESTIMATES: AGE & GENDER

◀ PLATTE COUNTY   CLAY COUNTY ▶

Platte County:
- 65+ (6%) ... (8%)
- 55-64 (6%) ... (7%)
- 45-54 (7%) ... (8%)
- 25-44 (13%) ... (13%)
- 18-24 (4%) ... (4%)
- 15-17 (2%) ... (3%)
- 5-14 (7%) ... (6%)
- <5 (3%) ... (3%)

Clay County:
- (7%) ... (6%) 65+
- (7%) ... (6%) 55-64
- (7%) ... (7%) 45-54
- (14%) ... (13%) 25-44
- (4%) ... (4%) 18-24
- (2%) ... (2%) 15-17
- (7%) ... (7%) 5-14
- (3%) ... (3%) <5
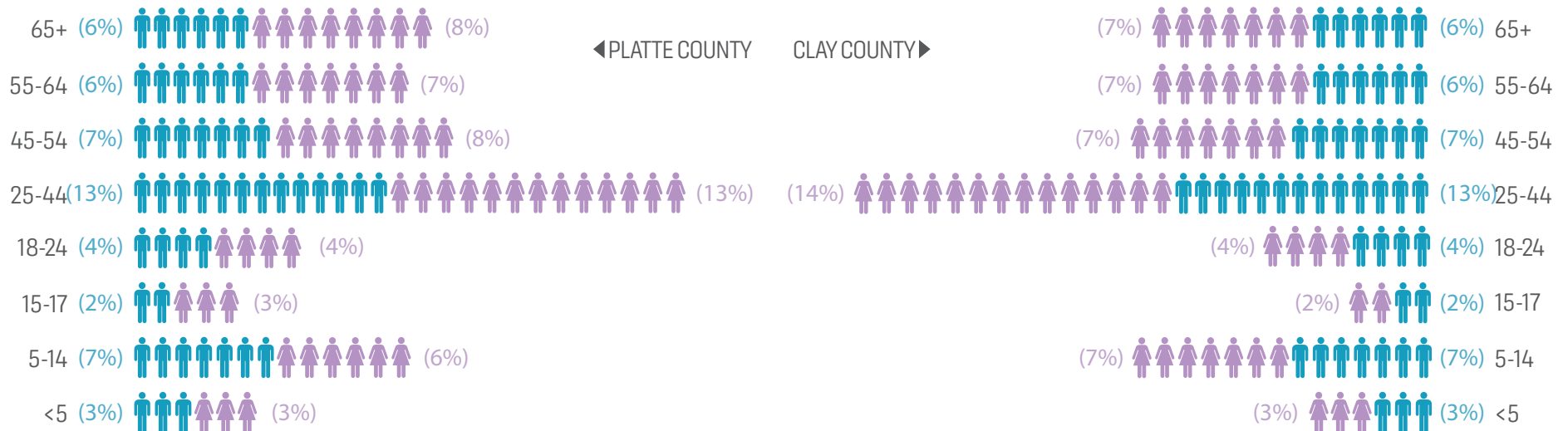
Source: U.S. Census Bureau, 2016

FIGURE 17:

PROJECTIONS FOR GROWTH IN SENIOR POPULATION (65+)

CLAY COUNTY ▶

22,094   23,352   34,898   48,228

PLATTE COUNTY ▶

8,045   8,950   13,840   18,970

2007   2010   2020   2030
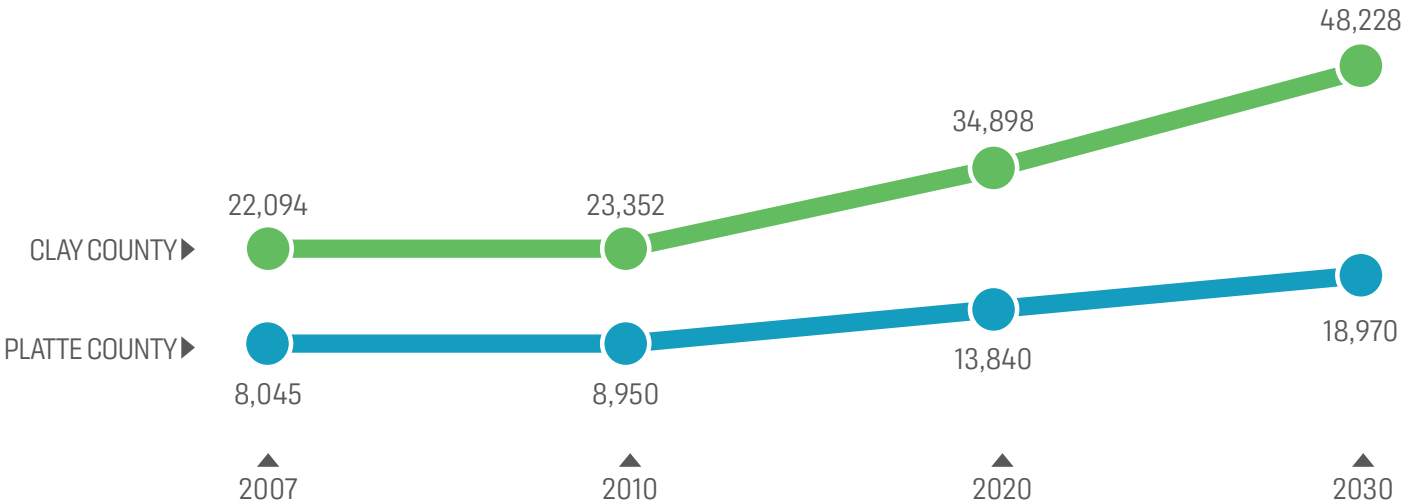
Source: MARC, 2015

RACE AND ETHNICITY

The majority of residents in Clay and Platte counties are white. However, comparison of census data from previous years indicates the demographics of Northland communities are changing and becoming more diverse. (Figure 18)

In Clay and Platte counties, the proportion of the population that is white decreased, while the proportion of the population that is African American and Hispanic grew by almost 1% each. Both the Asian and Native American populations showed slight increases in Clay County, while Platte County's Asian population remained steady and the Native American population grew slightly during the same time period.

The MARC 2015 Regional Health Assessment presented data showing racial and ethnic diversity is growing in the Kansas City metro, and in the Northland, at a faster rate than the national average.

While the metro area is less diverse overall than the national average, between 2000-2013, non-white populations grew by 37% in the Kansas City Metropolitan Statistical area compared to 32% in the US. During the same time period, non-white populations in Clay County grew by 113% and in Platte County by 96%.

A 2016 report published by the Kaiser Family Foundation, which includes research data from public agencies and healthcare organizations, suggests that health disparities experienced by racial and ethnic minorities have real impact on health outcomes and

FIGURE 18:

RACE/ETHNIC DISTRIBUTION: CENSUS DATA COMPARISON

PLATTE
2007-2011

88%	WHITE
6%	BLACK/AFRICAN AMERICAN
5%	HISPANIC/LATINO
3%	ASIAN
2%	2 OR MORE RACES
.4%	NATIVE AMERICAN/ALASKA NATIVE

2012-2016

87%	WHITE
7%	BLACK/AFRICAN AMERICAN
6%	HISPANIC/LATINO
3%	ASIAN
3%	2 OR MORE RACES
1%	NATIVE AMERICAN/ALASKA NATIVE
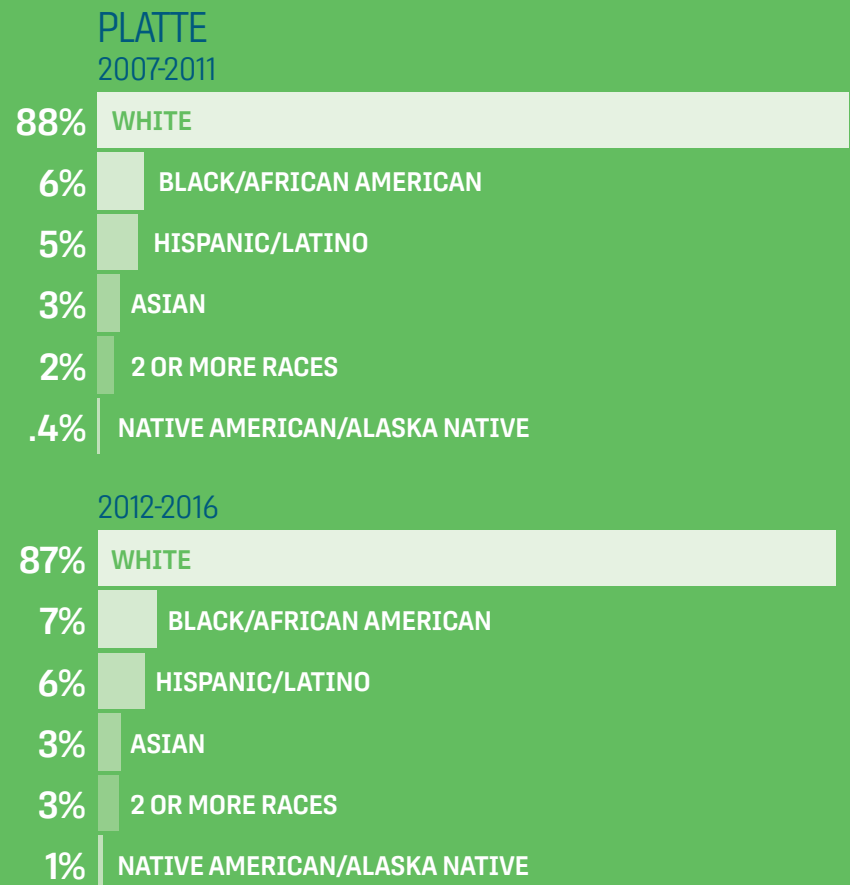
Source: U.S. Census Bureau, 2012-2016[9], 2007-2011

CLAY

2007-2011

89%	WHITE
6%	HISPANIC/LATINO
5%	BLACK/AFRICAN AMERICAN
3%	2 OR MORE RACES
2%	ASIAN
.1%	NATIVE AMERICAN/ALASKA NATIVE

2012-2016

87%	WHITE
7%	HISPANIC/LATINO
6%	BLACK/AFRICAN AMERICAN
4%	2 OR MORE RACES
2%	ASIAN
1%	NATIVE AMERICAN/ALASKA NATIVE
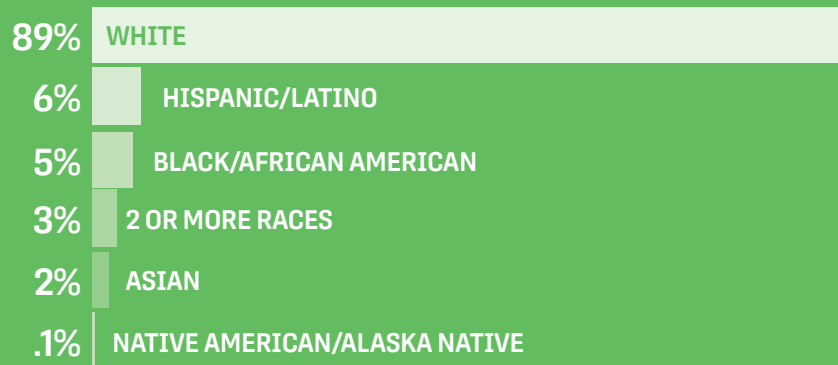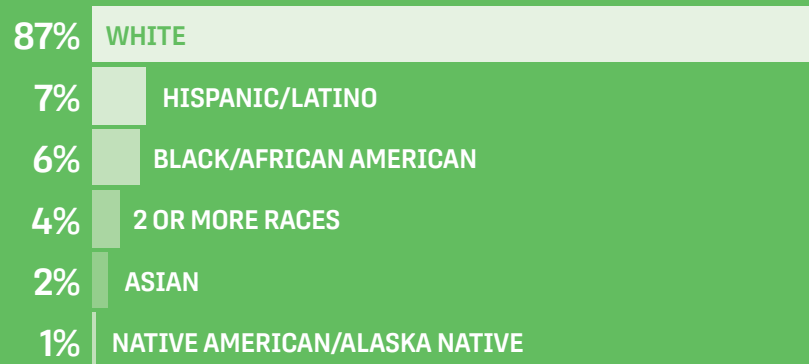
place enormous financial pressures on the healthcare system. The report, "Key Facts on Health and Healthcare by Race and Ethnicity," presented data on health disparities faced by communities of color. Among the main takeaways from the report:

- People of color face significant disparities in access to and utilization of healthcare. Non-elderly Asians, Hispanics, Blacks and American Indians and Alaska Natives encounter increased barriers to accessing care compared to Whites and have lower rates of healthcare utilization.

- Blacks and American Indians and Alaska Natives fare worse than Whites on the majority of examined measures of health status and outcomes. Findings for Hispanics are mixed, with them faring better than Whites on some measures and worse on others.

- Despite coverage gains under the ACA (Affordable Care Act), non-elderly Hispanics, Blacks, and American Indians and Alaska Natives remain significantly more likely than Whites to be uninsured. Overall, people of color account for more than half (55%) of the total 32.3 million non-elderly uninsured.

These disparities are not only having negative effects on the health and quality of life of minority communities, they have negative implications on the country's financial bottom line.

The Joint Center for Economic and Political Studies estimated that between 2003-2006, 30.6% of direct medical care expenditures for racial and ethnic minorities were excess costs stemming

from health inequalities. Eliminating health disparities for minorities would have reduced direct medical care expenditures by nearly $230 billion.
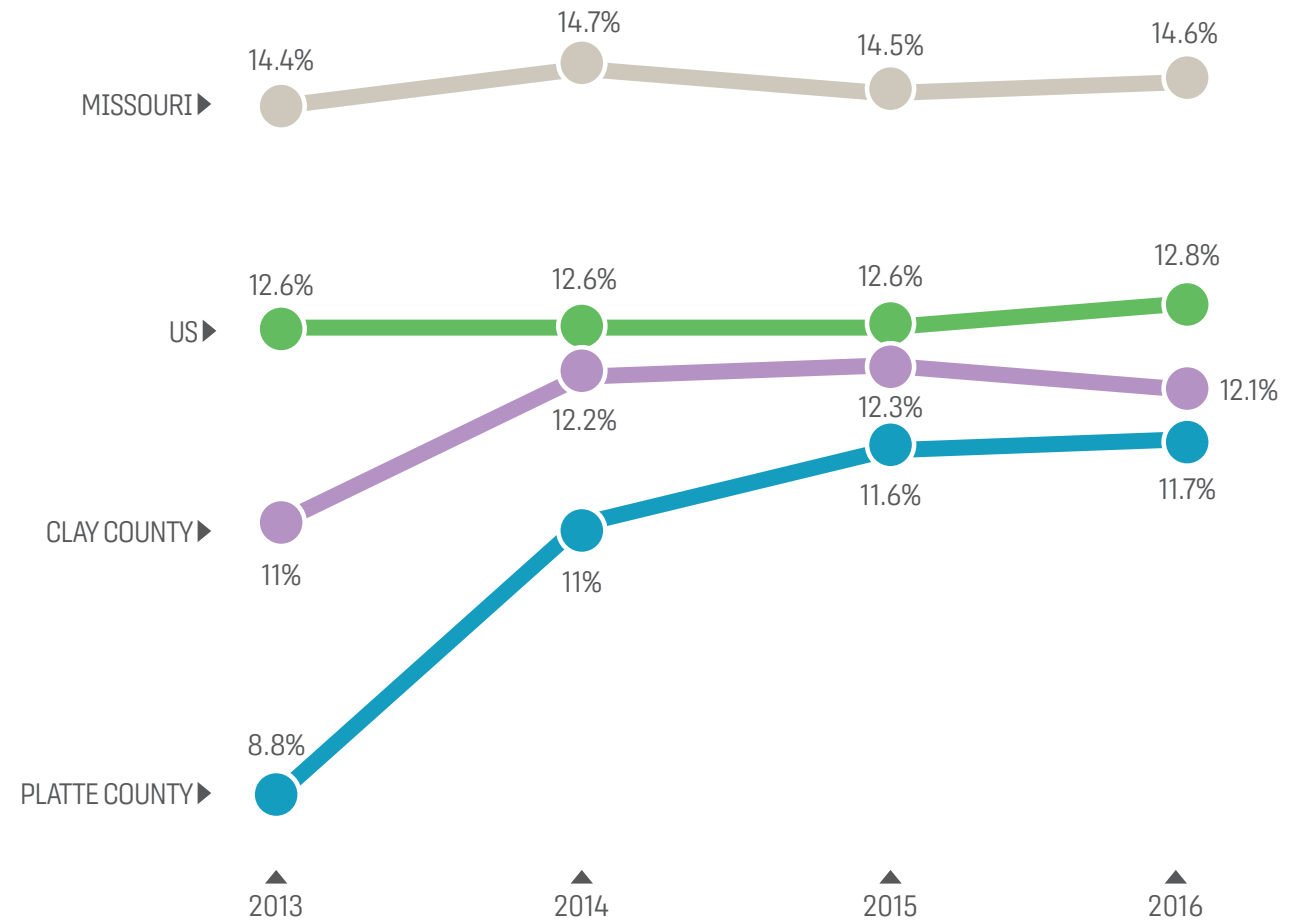
While still a small percentage of the Northland population as a whole, the growing size and visibility of citizens of color already has had ramifications on the cultural, social, economic and health dynamics in the community. The Northland Health Alliance recognizes that identifying, understanding and addressing health disparities experienced by communities of color is essential to ensuring that health organizations, and the community as a whole, develop programs and services that are both culturally competent and effective.

POPULATION WITH DISABILITY

As the population in the Northland grows, so too is the number of citizens living with a disability.

In 2016, more than 11% of the population in both Clay and Platte counties was living with a disability (Figure 19). Since 2013, Platte County has seen an overall increase in the

FIGURE 19:

POPULATION LIVING WITH A DISABILITY

MISSOURI ▶ 14.4% 14.7% 14.5% 14.6%

US ▶ 12.6% 12.6% 12.6% 12.8%

CLAY COUNTY ▶ 11% 12.2% 12.3% 12.1%

PLATTE COUNTY ▶ 8.8% 11% 11.6% 11.7%

2013   2014   2015   2016

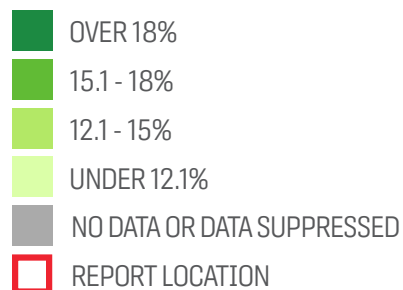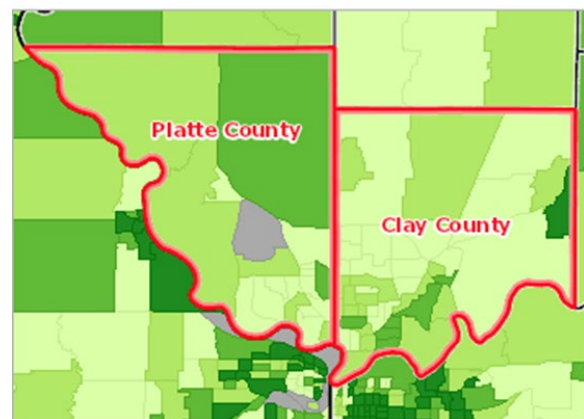*Source: U.S. Census, 2013, 2014, 2015, 2016*

number of citizens living with a disability, up nearly 3%.

In Clay County, the rate of citizens with a disability increased about 1% between 2013-2016.

FIGURE 20:
DISABLED POPULATION, PERCENT BY TRACT, ACS 2013-17

- OVER 18%
- 15.1 - 18%
- 12.1 - 15%
- UNDER 12.1%
- NO DATA OR DATA SUPPRESSED
- REPORT LOCATION

Mapping using U.S. Census data shows that communities in northeastern Platte County, around Excelsior Springs in Clay County, and in northern Kansas City neighborhoods in both counties have the highest rates of disability (Figure 20).

Adults age 65 and older are the most likely to be living with a disability.

FIGURE 21:
2016 POPULATION WITH ANY DISABILITY BY AGE GROUP, PERCENT OF AGE GROUP

CLAY ▶
◀ PLATTE

AGE 65+ (37%)
AGE 18-64 (10%)
UNDER AGE 18 (3%)
UNDER AGE 18 (4%)
AGE 18-64 (11%)
AGE 65+ (27%)

U.S. Census Bureau, 2016

In Platte County, one-quarter of the senior population has some form of disability. In Clay County, nearly 40% of the senior population has a disability. (Figure 21)

People with a disability frequently struggle to secure access to healthcare and reliable, affordable transportation, and face limited employment opportunities. Meeting the needs of these citizens poses challenges to communities and healthcare providers across the Northland.

CULTURAL DEMOGRAPHICS

The foreign-born population includes anyone who was not a U.S. citizen or a U.S. national at birth. It includes non-citizens as well as persons born outside the U.S. who have become naturalized citizens. The heated political and social environment has presented immigrant communities with a host of new challenges. Conversations about how to assimilate immigrant populations into the broader community are important to continue as the number of foreign-born residents in the Northland, while lower than the U.S. average, continues to grow (Figure 22).

About 2% of households in the Northland are considered linguistically isolated, meaning that no member of the household age 14 and over speaks English "very well," speaks only English at home, or speaks a language other than English at home. About 3% of the Northland population is considered to have limited English proficiency, meaning they live in a household in which individuals age 5 or older speak English less than "very well," or speak a language other than English at home. While the overall percentage of the households and population with limited English skills is low in the Northland, these indicators are important to track and address as the inability to speak English well creates serious barriers to healthcare access, to communicating effectively with healthcare providers, and to a patient's ability to understand and manage their health issues (Figure 23).

FIGURE 22:

PERCENT FOREIGN BORN 2013-2017

US	MO	CLAY	PLATTE
13%	4%	5%	6%
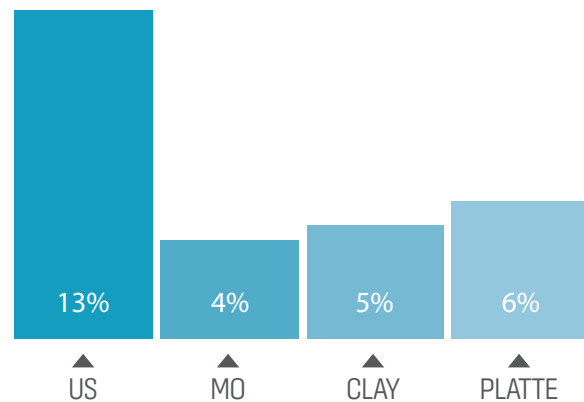
U.S. Census Bureau, 2013-2017

FIGURE 23:

HOUSEHOLDS/POPULATION WITH LIMITED ENGLISH PROFICIENCY (2013-2017)

	PLATTE	CLAY	MO	US
Linguistically Isolated Households	1.9%	1.5%	1.1%	4.5%
Limited English Proficiency	2.9%	2.7%	2.1%	8.5%

U.S. Census Bureau, 2013-2017

HEALTH INDICATOR: ECONOMICS

Income and health are intimately connected. It is well understood that those in the community who are richer and more educated live longer and have lower mortality and morbidity rates (proportion of sickness or specific disease) than their fellow citizens who are poorer and less-educated. Understanding the health of the Northland must be rooted in understanding the economic dynamics within the community.

EMPLOYMENT

Since the Northland Health Alliance conducted the 2015 Community Health Needs Assessment, the economy in the Northland—like the U.S. economy—has strengthened. In spring 2018, unemployment in the Northland stood around 3%, below Kansas City, state and national unemployment rates (Figure 24). A deeper look at the data reveals the economic upturn has not been experienced equally across the community.

The unemployment rate for African American residents was more than twice that of white residents in Platte County, and just under twice the rate in Clay County.

In Clay County, 7% of Hispanic citizens were unemployed, while in Platte County the unemployment rate for Hispanic citizens was slightly lower than that of white citizens (Figure 25).

FIGURE 24:

PERCENT UNEMPLOYED (APRIL 2018)

	PLATTE	CLAY	KC	MO	US
	2.6%	2.9%	3.6%	3.3%	3.7%

Source: Missouri Department of Economic Development, 2018

FIGURE 25:

UNEMPLOYMENT BY RACE/ETHNICITY 2012-2016

PLATTE

11%	BLACK/AFRICAN AMERICAN
7%	NATIVE AMERICAN/ALASKA NATIVE
7%	2 OR MORE RACES
6%	ASIAN
4%	WHITE
4%	HISPANIC/LATINO

CLAY

11%	2 OR MORE RACES
9%	BLACK/AFRICAN AMERICAN
8%	NATIVE AMERICAN/ALASKA NATIVE
7%	HISPANIC/LATINO
5%	WHITE
3%	ASIAN

KC

13%	NATIVE AMERICAN/ALASKA NATIVE
7%	HISPANIC/LATINO
7%	2 OR MORE RACES
5%	WHITE
5%	ASIAN
1%	BLACK/AFRICAN AMERICAN

MO

14%	BLACK/AFRICAN AMERICAN
11%	2 OR MORE RACES
10%	NATIVE AMERICAN/ALASKA NATIVE
9%	HISPANIC/LATINO
6%	WHITE
4%	ASIAN

US

14%	NATIVE AMERICAN/ALASKA NATIVE
13%	BLACK/AFRICAN AMERICAN
11%	2 OR MORE RACES
7%	HISPANIC/LATINO
6%	WHITE
6%	ASIAN

Source: U.S. Census Bureau, 2012-2016

INCOME

Clay and Platte counties experienced growth in both median income and per capita income between 2013-2016.

The median household income in Platte County grew 22% and in Clay County by 8%. Per capita income in both communities grew by double digits, 14.6% in Platte County and 13.3% in Clay County. While the median and per capita incomes are higher in Platte County than in Clay County, both counties have higher income levels than the state of Missouri or the nation (Figure 26).

FIGURE 26:
INCOME 2013 VS. 2016 (INFLATION ADJUSTED DOLLARS)

	2013 ▼	2016 ▼	2013 ▼	2016 ▼	2013 ▼	2016 ▼	2013 ▼	2016 ▼
Median Household Income	$63,438	$77,581	$60,541	$65,430	$46,931	$51,746	$52,250	$57,617
Per Capita Income	$33,452	$38,337	$27,937	$31,642	$27,937	$28,406	$25,384	$31,128
	▲ PLATTE		▲ CLAY		▲ MO		▲ US	

Source: U.S. Census Bureau, 2016, 2013

POVERTY LEVEL

The poverty threshold or Federal Poverty Level is set by the federal government annually based on size of household and annual income before taxes. Households making less than this set amount are considered to be living in poverty. In 2016, the FPL was $24,250 for a family of four.

National census data shows that women, people living with disabilities, single parent households, and racial and ethnic minorities are more likely to live in poverty. Data from Clay and Platte counties demonstrates these populations also are experiencing poverty rates at higher levels.

Individuals living in poverty face the greatest challenges to accessing needed healthcare, and are therefore more likely to experience health inequalities than other groups.

As employment and median household income have increased in the Northland, the overall percentage of individuals and families living at or below the federal poverty level has decreased. In 2013, about 11% of Clay County residents and just under 9% of Platte County residents were living below the poverty level. In 2016, those numbers had dropped to 8.9% in Clay County and 5.6% in Platte County (Figure 27).

Though poverty rates have been decreasing in the Northland as a whole, several population groups are still experiencing disparities in poverty. In particular, African American and Hispanic/Latino populations experience poverty at significantly higher rates than whites in both Clay and Platte counties. It is important to note that other racial populations in the Northland are too small to make conclusive statements about their poverty rates when compared to the white population (Figure 28).

FIGURE 27:

PERCENTAGE OF TOTAL PERSONS LIVING BELOW POVERTY LEVEL

	2013 ▼	2016 ▼	2013 ▼	2016 ▼	2013 ▼	2016 ▼
	9%	6%	11%	9%	16%	14%
	▲ PLATTE		▲ CLAY		▲ MO	

Source: U.S. Census Bureau, 2016, 2013

FIGURE 28:

FIGURE 28: PERCENTAGE OF PERSONS LIVING AT LESS THAN 100% OF POVERTY LEVEL BY RACE/ETHNICITY, 2012-2016

PLATTE

23%	BLACK/AFRICAN AMERICAN
20%	OTHER RACE
16%	HISPANIC/LATINO
14%	ASIAN
5%	WHITE
5%	NATIVE AMERICAN/ALASKA NATIVE
5%	2 OR MORE RACES
0%	NATIVE HAWAIIAN/OTHER PACIFIC ISLANDER

CLAY

56%	NATIVE HAWAIIAN/OTHER PACIFIC ISLANDER
27%	BLACK/AFRICAN AMERICAN
16%	HISPANIC/LATINO
14%	OTHER RACE
11%	2 OR MORE RACES
11%	NATIVE AMERICAN/ALASKA NATIVE
10%	ASIAN
7%	WHITE
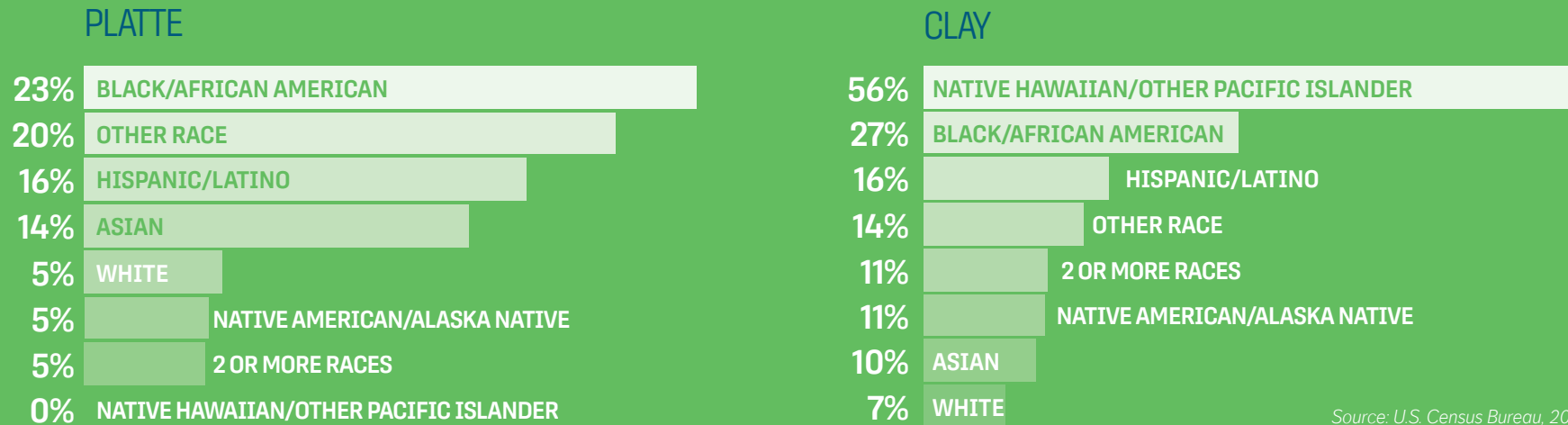
Source: U.S. Census Bureau, 2012-2016

The family dynamics and composition of a household also play a role in poverty.

About 10% of children under the age of 18 in Clay and Platte counties live in poverty. (Figure 29)

Families headed by single females experience higher poverty rates than married-couple families.

Nearly 20% of families headed by a single female live in poverty, compared to just 4% of married-couple families in Clay County and 2% of married-couple families in Platte County. (Figure 30)

FIGURE 29:

PERCENTAGE OF CHILDREN LIVING AT LESS THAN 100% OF POVERTY LEVEL, 2016

14% CLAY
6% PLATTE
19% MO
20% US
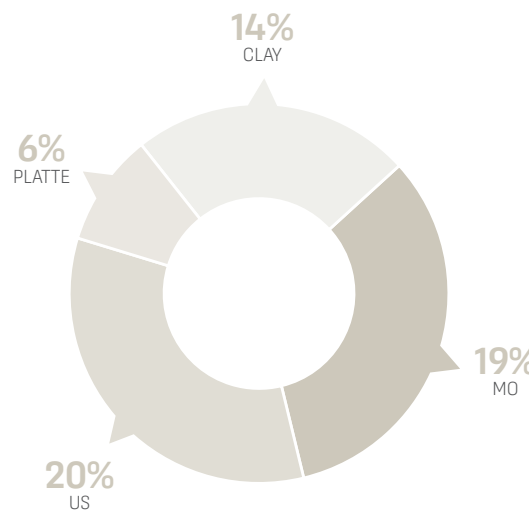
Source: U.S. Census Bureau, 2016

FIGURE 30:

PERCENTAGE OF FAMILIES LIVING AT LESS THAN 100% OF POVERTY LEVEL

	2013	2016	2013	2016
All Families	5%	4%	8%	6%
Married-Couple Families	2%	2%	5%	4%
Female Householder, no husband present	17%	18%	22%	19%
	PLATTE		CLAY	

Source: U.S. Census Bureau, 2013, 2016

FOOD INSECURITY

According to a 2016 Missouri Hunger Atlas compiled by the Interdisciplinary Center for Food Insecurity at the University of Missouri, residents in Clay and Platte counties spent about 13% of total income to meet basic household food needs.

About 14% of residents in both counties were identified as being food insecure, defined by the US Department of Agriculture as not having access at all times to enough food for an active, healthy life.

18% of Clay County children and 17% of Platte County children were considered food insecure.

About 7% of Clay and Platte residents were labeled as "very food uncertain," meaning the food intake of some household members was reduced and their normal eating patterns were disrupted because of the lack of money and other resources (Figure 31). The 2016 Hunger Atlas report estimated that Clay County food banks distributed nearly 3 million pounds of food and those in Platte County distributed just over 750,000 pounds.

Between 2013-2016, the percentage of children eligible for Free and Reduced-Price Lunch in Clay and Platte County schools remained steady—with more than one-third of students in Clay County and more than a quarter of students in Platte County eligible to participate in the program (Figure 32). According to a report published by the Food Research and Action Center, it appears many children in Missouri and the Northland, may be going hungry when school is not in session. While the Summer Food Service Program served more than 4.7 million meals across Missouri during 2017, only 9 of every 100 children eligible for free and reduced-price lunches participated. That ranks Missouri in the bottom 10, 42nd out of 50 states.

FIGURE 31:
PERCENT OF INDIVIDUALS WITH FOOD INSECURITY/UNCERTAINTY

	PLATTE	CLAY
Food uncertainty	14%	14%
Food uncertainty <18	17%	18%
Food uncertainty with hunger	7%	6%

Source: University of Missouri Interdisciplinary Center for Food Security, 2016

FIGURE 32:
PERCENTAGE OF STUDENTS ELIGIBLE FOR FREE AND REDUCED-PRICE LUNCH

	PLATTE	CLAY
2013	28%	36%
2016	27%	35%

Source: Missouri Department of Elementary and Secondary Education, 2013, 2016

HOUSING

Housing experts agree that a household is considered cost-burdened when 30% or more of its pre-taxed income is dedicated to housing. A large portion of renters in the Northland have a rent-to-income ratio well above that figure.

More than 40% of renters in Clay County and more than 35% of renters in Platte County have rental costs that absorb 30% or more of their monthly income.

While the issue is less pronounced for homeowners, more than 20% of homeowners in both counties have mortgages that absorb 30% or more of their monthly income. (Figure 33)

Housing costs are impacting a growing number of households in the Northland. Mapping reveals that the Northland neighborhoods most burdened by housing costs can be found in Kansas City-Parkville (64152), Kansas City-KCIA (64153), Platte City (64079) and Liberty (64068) ZIP codes.

FIGURE 33:

2012-2016 RENT AND MORTGAGE COST BURDENED HOUSEHOLDS

		PLATTE ▼	CLAY ▼
	Mortgage >30% of Household Income	22%	23%
	Rent >30% of Household Income	37%	40%

Source: U.S. Census Bureau, 2012-2016

EDUCATIONAL ATTAINMENT

There is a correlation between education and health status. The better educated a person is, the better health outcomes he or she is likely to enjoy, regardless of income, family background or labor market factors. Higher educational attainment has been linked to lower morbidity rates for acute and chronic diseases, lower mortality rates and higher life expectancy. Better educated individuals are less likely to smoke, drink excessively, be overweight or obese, or use illegal drugs. Consequently, they are also less likely to die from the most common acute and chronic diseases such as heart disease and diabetes.

During the 2015-2016 school year, the high school graduation rate was 95.7% for Clay County and 95.4% for Platte County. High school graduation rates for both counties are higher than the state of Missouri and the United States (Figure 34). While graduation rates for communities of color in the Northland generally

are higher than graduation rates in Kansas City and Missouri, they are lower than graduation rates for whites.

About 40% of Clay County residents hold associate's or bachelor's degrees, and 10% hold a graduate degree. In Platte County, nearly 50% of residents hold associate's or bachelor's degrees and more than 15% hold a graduate degree (Figure 35). As with high school graduation rates, the percentage of adults from communities of color who hold a bachelor's degree or higher is lower than the percentage of Northland whites who have attained these levels of education. The disparity is especially notable for African American and Hispanic citizens where only a quarter or fewer hold bachelor's degrees.

FIGURE 34:

HIGH SCHOOL GRADUATION RATE 2015-2016

PLATTE	CLAY	MO	US
▼	▼	▼	▼
95%	96%	91%	86%

Source: U.S. Department of Education, 2015-2016

FIGURE 35:

EDUCATIONAL ATTAINMENT (5-YEAR ESTIMATES 2012-2016)

PLATTE

5%	NO HIGH SCHOOL DEGREE
95%	HIGH SCHOOL GRADUATE
8%	ASSOCIATES DEGREE
40%	BACHELOR'S DEGREE OR HIGHER
16%	GRADUATE OR PROFESSIONAL

CLAY

7%	NO HIGH SCHOOL DEGREE
93%	HIGH SCHOOL GRADUATE
9%	ASSOCIATES DEGREE
32%	BACHELOR'S DEGREE OR HIGHER
10%	GRADUATE OR PROFESSIONAL
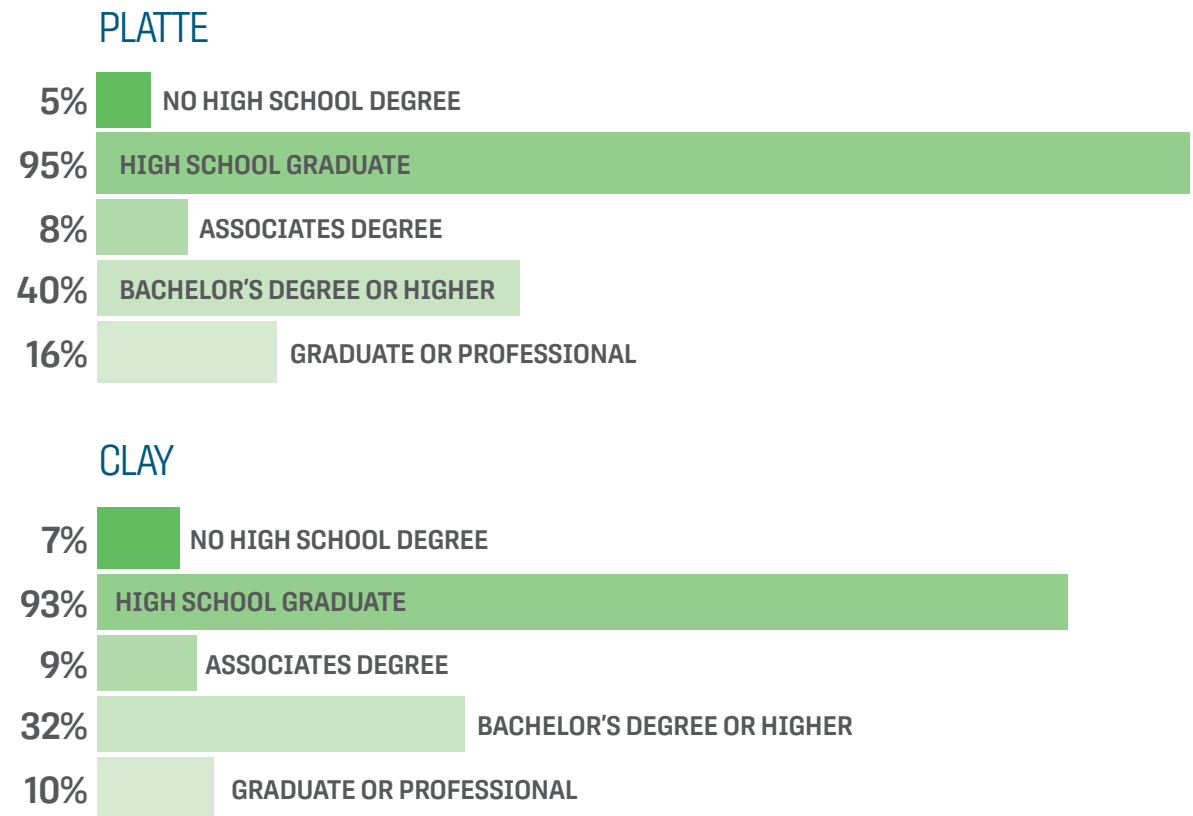
Source: U.S. Census Bureau, 2012-2016

HEALTH INDICATOR: BEHAVIORAL RISK FACTORS

NORTH KANSAS CITY HOSPITAL DATA

Data analysts at North Kansas City Hospital examined inpatient and outpatient data for patients from Clay and Platte counties from 2016-2018 to understand trends related to obesity. During that time frame the percentage of obesity-related encounters rose steadily (Figure 36).

Females were more likely to have an obesity-related encounter through inpatient or outpatient services than males. The ratio, 60% female, 40% male, aligned with the gender ratio noted in the hospital's general demographic overview in Section II of this report (Figure 37).

FIGURE 36:
OBESITY-RELATED ENCOUNTERS 2016-2018

7,114	7,905	8,309
2016	2017	2018
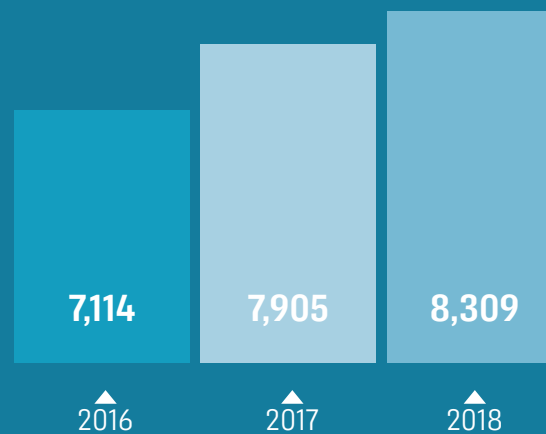
Source: NKCH Patient Demographics – Clay and Platte Counties

FIGURE 37:
OBESITY-RELATED ENCOUNTERS BY GENDER 2016-2018

(37%)	(38%)	(38%)
(63%)	(62%)	(62%)
2016	2017	2018
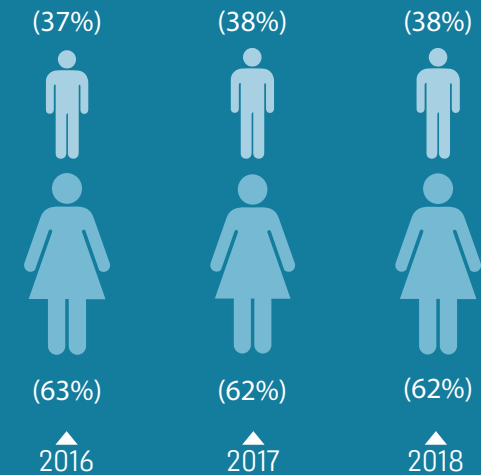
Source: NKCH Patient Demographics – Clay and Platte Counties

People ages 45-64 had the highest percentage of hospital encounters related to obesity overall, but the percentage declined slightly from 2016-2018. Seniors had the next highest percentage of obesity-related encounters. For this age group, though, the percentage of obesity-related encounters increased over the three-year period (Figure 38).

More than half of all patient encounters related to obesity were for diagnosis of morbid obesity, and more than 40% were for diagnosis of obesity (Figure 39).

FIGURE 38:
OBESITY-RELATED ENCOUNTERS BY AGE 2016-2018

Source: NKCH Patient Demographics – Clay and Platte Counties

FIGURE 39:
OBESITY-RELATED ENCOUNTERS BY DIAGNOSIS 2016-2018

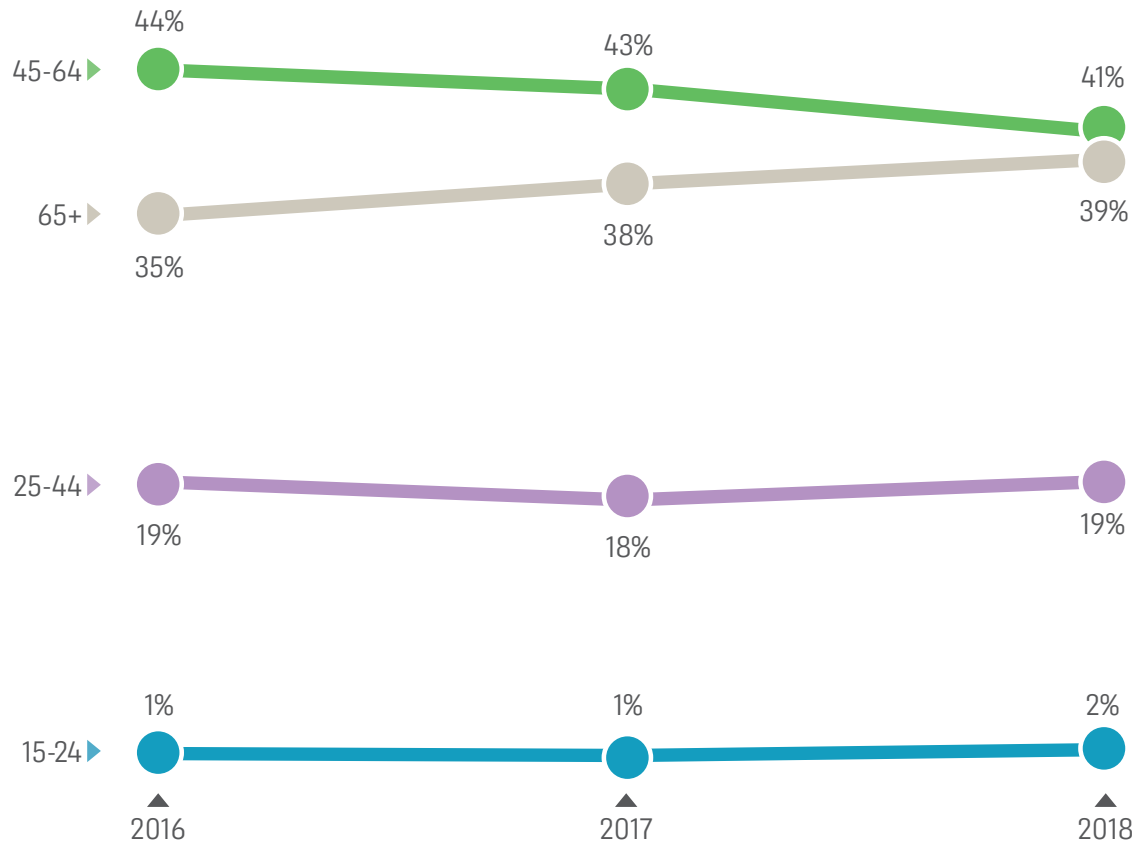|	2016 ▼	2017 ▼	2018 ▼
OVERWEIGHT	2%	2%	1%
OBESITY, UNSPECIFIED	46%	44%	44%
MORBID (SEVERE) OBESITY	52%	54%	54%

Missouri Department of Health and Senior Services, 2016

NUTRITION AND PHYSICAL ACTIVITY

It should be no surprise that chronic disease and obesity were ranked as two of the top three health problems in the Northland in the 2018 Northland Community Health Survey. Nearly two-thirds of the Northland population is overweight or obese. Overweight and obese adults have a higher weight than is considered healthy based on their height. Body Mass Index (BMI) is an indicator of body fatness and is a tool used to screen for overweight and obesity. Overweight adults have a BMI ranging from 25.0 to 29.9; obese adults have a BMI of 30 or more.

According to the Robert Wood Johnson Foundation report, "The State of Obesity," **Missouri has the 17th highest rate of adult obesity in America at 32.5%.**

Obesity has been rising at an alarming rate in the state, from 11.3% of the population in 1990 to 32.5% in 2017. In 2016, adults ages 45-64 had the highest obesity rate at 39%. One-third of adults ages 26-44 and 65+ were also considered obese. While obesity is a problem for all races and ethnicities in Missouri, African

American citizens have the highest obesity rate at nearly 40%. In 2016, the adult obesity rate was about 28% in Clay County and 26% in Platte County. In Clay County, over 37% of adults were considered overweight, and in Platte County over 35% of adults were considered overweight (Figure 40).

Addressing community concerns about chronic disease will require focus by healthcare providers and community organizations in the Northland on improving nutrition, physical activity and wellness.

Healthy eating and regular physical activity are important contributors to improving or maintaining health status. These healthy habits reduce the risk of both chronic disease and health conditions like obesity.

Nearly 90% of adults in the Northland do not eat an adequate diet of fruits and vegetables daily.

In the Northland, 88.2% of adults in Platte County and 89% of adults in Clay County report eating fewer than five servings of fruits and vegetable daily (Figure 41).

While many adults in the Northland participate in leisure-time physical activity, 21.5% of Platte County and 24% of Clay County residents report no leisure-time physical activity. (Figure 41)

These figures align with the data from the 2015 Northland Community Health Needs Assessment and suggest that efforts to engage non-active citizens in exercise or physical activity will require new thinking and approaches.

Even small increases in physical activity have been shown to pay rewards in improved health status and quality of life. The Journal of Clinical Psychiatry suggested exercise may be an effective, but neglected, intervention in mental healthcare. Aerobic exercise such as jogging, swimming, walking, gardening, dancing has been proven to reduce anxiety and depression. Exercise has also been shown to improve self-esteem, decrease social withdrawal and improve cognition. Mental health was rated as the number one health problem in the Northland by 2018 Northland Community Health Survey respondents. This study suggests getting people

up and moving has the potential to have a positive impact on the mental health status of the community.

FIGURE 40:

PERCENTAGE OF NORTHLAND OVERWEIGHT/OBESE ADULTS

Source: Missouri Department of Health and Senior Services, 2016

FIGURE 41:

2016 ADULT FRUIT/VEGETABLE CONSUMPTION AND PHYSICAL ACTIVITY

		PLATTE ▼	CLAY ▼	MO ▼
	<5 Servings of Fruits/Vegetables Daily	88%	89%	88%
	No Leisure-Time Physical Activity	22%	24%	26%

Source: Missouri Department of Health and Senior Services, 2016

ALCOHOL, NICOTINE AND OTHER DRUG USE

Smoking is widely understood to be a behavior that has some of the most negative impacts on a person's health. While smoking rates in Missouri have declined, at 20.8% they continue to be well above the national rate. Adult smoking rates in Clay and Platte counties align closely with the state smoking rate, with Platte County slightly above the state rate and Clay County slightly below it. E-cigarette use in the Northland is a growing concern and is drawing focused attention to identify and track trends in usage (Figure 42).

According to data gathered through the United Health Foundation's America's Health Rankings Annual Report, there are significant disparities in tobacco use in Missouri.

Those with less than a high school diploma, who earn less than $25,000 annually, and who are from a community of color, especially Native Americans and multi-racial individuals, are more likely to smoke.

FIGURE 42:

CURRENT SMOKER/E-CIGARETTE/SMOKELESS TOBACCO USE

PLATTE ▶ 21%
◀ CLAY 20%

PLATTE ▶ 4%
◀ CLAY 5%

PLATTE ▶ 6%
◀ CLAY 4%

CURRENT SMOKER   E-CIGARETTE USE   SMOKELESS TOBACCO USE
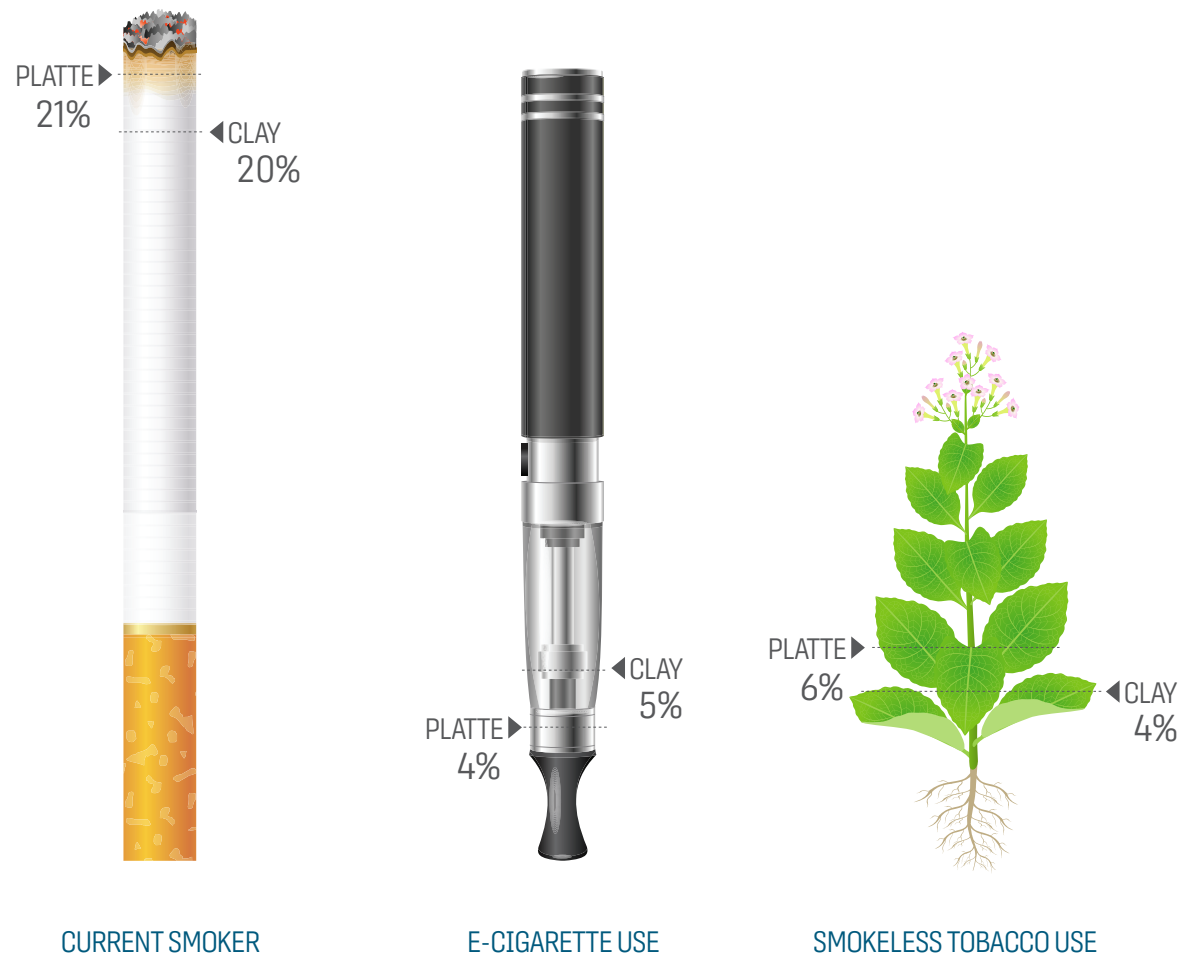
Source: Missouri Department of Health and Senior Services, 2016

FIGURE 43:

2016 DRINKING RATES IN ADULTS 18+

BINGE DRINKING ▶
25%

BINGE DRINKING ▶
18%

◀ HEAVY DRINKING
13%

◀ HEAVY DRINKING
8%

BINGE DRINKING ▶
18%

◀ HEAVY DRINKING
7%

PLATTE

CLAY

MO

Source: Missouri Department of Health and Senior Services, 2016
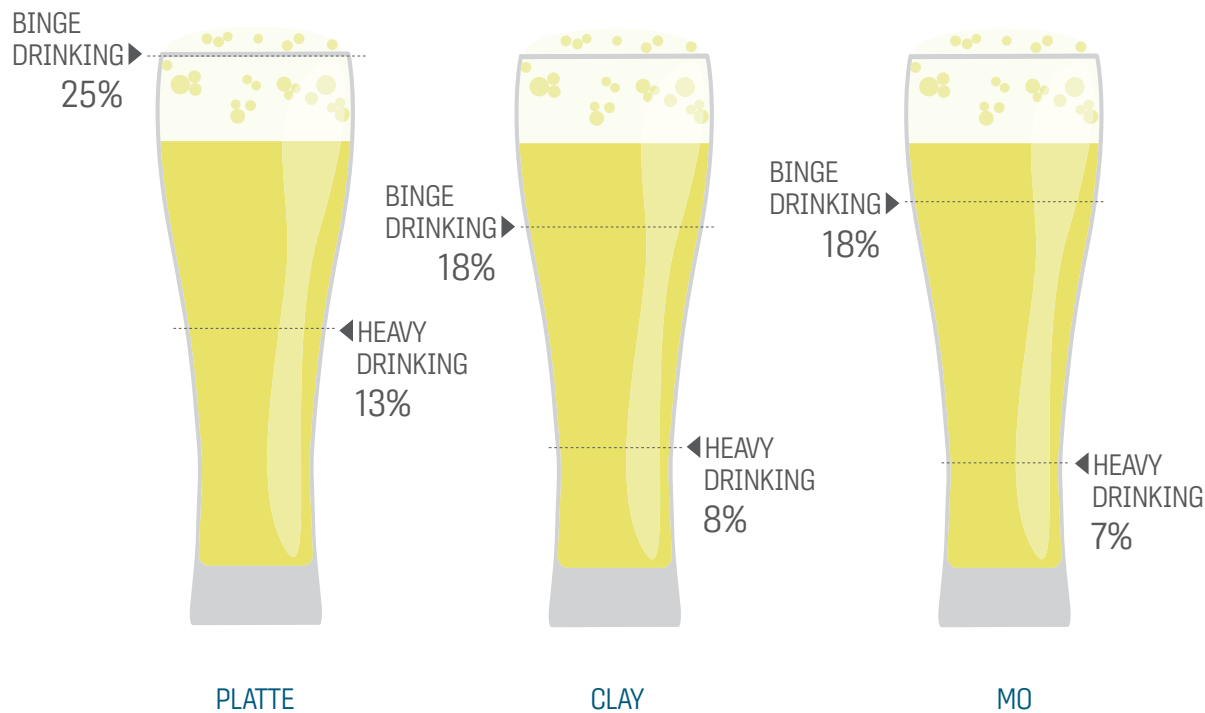
Binge drinking is defined as men who report consuming five or more drinks during a single occasion in the past 30 days or women who report consuming four or more drinks during a single occasion in the past 30 days. Heavy drinking is defined as males who consume more than two drinks per day or women who report more than one drink per day.

In a recent survey, rates of binge drinking and heavy drinking were higher in Platte County than in Clay County and Missouri as a whole.

A quarter of Platte County and 18% of Clay County residents reported binge drinking in 2016; and 13% of Platte County adults and 8% of Clay County adults reported drinking heavily in the past 30 days (Figure 43).

The Missouri Department of Mental Health administers the Missouri Student Survey to students in 6th-12th grades. The survey is intended to gain insight into a number of issues affecting the health and wellbeing of Missouri school children. For this report, the Northland Health Alliance Data Task Force gathered results from the last four Missouri Student Surveys, from 2012-2018, in order to examine substance use trends.

The number of students reporting that they smoke cigarettes or use chew declined in both counties between 2012 -2018.

In Platte County, under 3% of students reported using cigarettes, down from over 8% in 2012. Similar numbers and declines were reported in Clay County, with cigarette use rates down to slightly over 3% in 2018 from over 8% in 2012.

E-cigarette use increased in both counties between 2014-2018, jumping from about 7% of students reporting use in 2014 to over 11% of students saying they had used an e-cigarette in the past 30 days in 2018.

New smoking prevention programs focusing on e-cigarette use may be needed (Figures 44).

FIGURE 44:

MISSOURI STUDENT SURVEY COUNTY LEVEL TRENDS 2012-2018

	PLATTE				CLAY			
	2012	2014	2016	2018	2012	2014	2016	2018
Used **cigarettes** in past 30 days	9%	5%	4%	3%	8%	5%	5%	3%
Used **chew** in past 30 days	4%	3%	2%	1%	5%	3%	3%	2%
Used **electronic cigarettes** in past 30 days	N/A	6%	7%	12%	N/A	8%	8%	11%
Used **alcohol** in past 30 days	18%	12%	13%	11%	16%	12%	12%	10%
Used **marijuana** in past 30 days	10%	7%	8%	7%	8%	6%	7%	6%
Used **Rx not prescribed for you** by a doctor in past 30 days	5%	8%	8%	7%	5%	3%	8%	9%

Source: Missouri Department of Mental Health, 2012, 2014, 2016, 2018

HEALTH INDICATOR: CHRONIC DISEASE

Chronic diseases like heart disease, stroke, cancer and diabetes claim the lives of nearly 7 out of every 10 Missourians annually. These diseases cause the most deaths, but they are also the most preventable.

The Missouri Foundation for Health and the Missouri Hospital Association established a partnership to create exploreMOhealth, an online resource providing ZIP code-level exploration of community health. The tool aggregates hospital discharge data from the Missouri Hospital Association, the Missouri Department of Health and Senior Services 2016 County-Level Study, and U.S. Census data and applies it to the County Health Rankings model of population health.

The exploreMOhealth resource provides both an overview of health status at the county level and detailed insight into health issues at the ZIP code level. In the Northland, chronic diseases account for four out of the top five health issues affecting Clay and Platte County citizens.

Clay County citizens experience diabetes, asthma, cancer and coronary heart disease at slightly higher rates than Missouri. Platte County citizens are more likely to experience mental disorder than both those living in neighboring Clay County and Missouri.
(Figure 45)

FIGURE 45:

PREVALENCE OF CLAY AND PLATTE COUNTY TOP HEALTH ISSUES: 2016

	PLATTE ▼	CLAY ▼	MO ▼
MENTAL DISORDER	29%	24%	23%
DIABETES	9%	13%	11%
ASTHMA	7%	11%	10%
CANCER	8%	11%	10%
COPD	6%	7%	9%
HEART DISEASE	4%	5%	5%

Source: Missouri Hospital Association, 2014-2016

TOP HEALTH ISSUES BY ZIP CODE

A person's ZIP code can be more predictive of their health than their genetic code. To illuminate health status at this level, the Missouri ZIP Health Rankings Project looked at health factors and health outcomes in 958 Missouri ZIP codes and ranked the results from No. 1-Best to No. 958-Worst. Understanding where the healthiest and least healthy ZIP codes are within a county is crucial to identifying communities of highest need and can be used to inform planning for targeted health interventions.

The data in the following tables reveals that ZIP codes 64116, 64117 and 64150, communities neighboring North Kansas City Hospital, rank in the bottom four in Clay and Platte counties for overall health outcomes.

(Figures 46 and 47)

FIGURE 46:

CLAY COUNTY BOTTOM-RANKED ZIP CODES (OUT OF 958 ZIP CODES)

North Kansas City Hospital neighboring ZIP codes highlighted

ZIP CODE ▼	COMMUNITY ▼	STATEWIDE RANKING ▼
64024	Excelsior Springs	638
64117	**KC/KC North**	**612**
64116	**KC-North KC**	**419**
64048	Holt	247

Ranking by ZIP code; 1 = Best
Source: Missouri Hospital Association, 2014-2016

FIGURE 47:

PLATTE COUNTY BOTTOM-RANKED ZIP CODES (OUT OF 958 ZIP CODES)

North Kansas City Hospital neighboring ZIP codes highlighted

ZIP CODE ▼	COMMUNITY ▼	STATEWIDE RANKING ▼
64150	**Riverside**	**581**
64439	Dearborn	278
64163	Ferrelview	207
64444	Edgerton	155

Ranking by ZIP code; 1=Best
Source: Missouri Hospital Association, 2014-2016

CHRONIC DISEASE HOSPITAL DIAGNOSIS RATES BY ZIP CODE

ZIP code-level analysis reveals which neighborhoods/communities within each county experience the highest diagnosis rates of chronic diseases. In Clay County, citizens living in the Excelsior Springs 64024 ZIP code have the highest diagnosis rates of heart disease, diabetes and COPD, and also have the highest rates of smoking and hypertension. They also have high rates of stroke or other cerebrovascular diagnosis. This ZIP code ranks in the bottom quarter of all Missouri ZIP codes for heart disease, diabetes, asthma and COPD (Figures 48 and 49).

Clay County ZIP codes 64116 and 64117, located near North Kansas City Hospital, have high rates of diagnosis for asthma, cancer and mental disorder. ZIP code 64117 also has high prevalence of smoking, obesity and hypertension. Zip code 64118 (Gladstone) also has higher rates of asthma and cancer.

FIGURE 48:

CLAY COUNTY CHRONIC DISEASE DIAGNOSIS RATES: LOWEST RANKING ZIP CODES, STATEWIDE RANK, RATE PER 1,000

North Kansas City Hospital neighboring ZIP codes highlighted

ZIP CODE ▼	COMMUNITY ▼	HEART DISEASE ▼	DIABETES ▼	COPD ▼	ASTHMA ▼	CANCER ▼	MENTAL DISORDER ▼
64024	Excelsior Springs	Rate: 384.8 Rank: 766	Rate: 256.4 Rank: 768	Rate: 114.2 Rank: 742	Rate: 68.3 Rank: 787		Rate: 67.0 Rank: 735
64116	**KC-KC North**	**Rate: 255.4 Rank: 449**	**Rate: 176.6 Rank: 467**	**Rate: 70.9 Rank: 399**	**Rate: 81.7 Rank: 846**	**Rate: 24.5 Rank: 817**	**Rate: 73.0 Rank: 765**
64048	Holt	Rate: 254.2 Rank: 445	1Rate: 163.4 Rank: 399				
64117	**KC/North KC**			**Rate: 82.9 Rank: 510**	**Rate: 103.8 Rank: 895**		**Rate: 73.3 Rank: 766**
64068	Liberty	Rate: 234.0 Rank: 366					
64118	**Gladstone**		**Rate: 157.4 Rank: 366**		**Rate: 66.3 Rank: 771**	**Rate: 19.3 Rank: 695**	
64161	Birmingham			Rate: 90.8 Rank: 588		Rate: 58.3 Rank: 946	
64156	KC -Staley					Rate: 21.4 Rank: 756	
64165	KC-Woodland Creek						Rate: 67.0 Rank: 734

Source: Missouri Hospital Association, 2014-2016

FIGURE 49:

CLAY COUNTY CHRONIC DISEASE RISK FACTORS: LOWEST RANKING ZIP CODES, STATEWIDE RANK, RATE PER 1,000

North Kansas City Hospital neighboring ZIP codes highlighted

ZIP CODE ▼	COMMUNITY ▼	SMOKING ▼	OBESITY ▼	HYPERTENSION ▼
64024	Excelsior Springs	Rate: 326.0 Rank: 856	Rate: 80.0 Rank: 840	Rate: 431.5 Rank: 788
64117	**KC/North KC**	**Rate: 303.6 Rank: 820**	**Rate: 109.7 Rank: 913**	Rate: 310.0 Rank: 540
64161	Birmingham	Rate: 294.7 Rank: 800		
64116	**KC-KC North**	**Rate: 285.5 Rank: 787**	**Rate: 94.2 Rank: 893**	**Rate: 319.4 Rank: 550**
64118	KC-Oakwood Park		Rate: 81.7 Rank: 849	
64048	Holt			Rate: 298.0 Rank: 489

Source: Missouri Hospital Association, 2014-2016

In Platte County, North Kansas City Hospital neighbor ZIP code 64150 (Riverside) ranks in the bottom 20% of Missouri ZIP codes for asthma, smoking and obesity.

ZIP code 64163 in Ferrelview also has high rates of asthma and ranks in the bottom 10% of ZIP codes for diagnosed smoking and obesity. Additionally, four ZIP codes in Platte County rank in the bottom 10% of all Missouri ZIP codes for cancer diagnoses. ZIP codes ranking in the bottom 20% of Missouri ZIP codes for a diagnosed mental disorder include Platte City (64079) and Dearborn (64439). Overall, Riverside, Dearborn, Edgerton and Weston ZIP codes consistently rank in the bottom of Platte County ZIP codes for multiple chronic disease diagnosis rates and their related diagnoses (Figures 50 and 51).

FIGURE 50:

PLATTE COUNTY CHRONIC DISEASE DIAGNOSIS RATES: LOWEST RANKING ZIP CODES, STATEWIDE RANK, RATE PER 1,000

North Kansas City Hospital neighboring ZIP codes highlighted

ZIP CODE	COMMUNITY	HEART DISEASE	DIABETES	COPD	ASTHMA	CANCER	DEPRESSIVE DISORDER
66439	Dearborn	Rate: 305.5 Rank: 628	Rate: 190.7 Rank: 531	Rate: 90.0 Rank: 580			Rate: 79.8 Rank: 786
64098	Weston	Rate: 287.5 Rank: 567		Rate: 79.7 Rank: 477	Rate: 48.0 Rank: 563	Rate: 29.2 Rank: 873	
64444	Edgerton	Rate: 255.7 Rank: 453	Rate: 229.2 Rank: 689	Rate: 68.6 Rank: 379		Rate: 35.5 Rank: 906	
64150	**Riverside**	**Rate: 230.3 Rank: 347**	**Rate: 180.3 Rank: 483**	**Rate: 77.7 Rank: 452**	**Rate: 66.0 Rank: 767**		
64018	Camden Point		Rate: 187.0 Rank: 511				Rate: 68.4 Rank: 747
64163	KC- Ferrelview NE				Rate: 65.8 Rank: 765	Rate: 55.3 Rank: 945	
64151	KC-Lake Waukomis				Rate: 46.6 Rank: 538		
64152	KC-Parkville					Rate: 25.2 Rank: 831	
64079	Platte City						Rate: 81.8 Rank: 797

Source: Missouri Hospital Association, 2014-2016

FIGURE 51:

PLATTE COUNTY CHRONIC DISEASE RISK FACTORS:
BOTTOM ZIP CODES, STATEWIDE RANK, RATE PER 1,000

North Kansas City Hospital neighboring ZIP codes highlighted

ZIP CODE ▼	COMMUNITY ▼	SMOKING ▼	OBESITY ▼	HYPERTENSION ▼
64164	KC-Ferrelview	Rate: 374 Rank: 898	Rate: 83 Rank: 854	
64150	**Riverside**	**Rate: 301.5 Rank: 812**	**Rate: 77.6 Rank: 732**	
66439	Dearborn	Rate: 213.4 Rank: 625	Rate: 67.4 Rank: 732	Rate: 357.7 Rank: 648
64444	Edgerton	Rate: 229.7 Rank: 645	Rate: 66.8 Rank: 721	Rate: 301.0 Rank: 503
64098	Weston	Rate: 225.0 Rank: 578		Rate: 351.0 Rank: 635
64018	Camden Point			Rate: 286.3 Rank: 542

Source: Missouri Hospital Association, 2014-2016

While ZIP code-level data provides important insights into the community, it is important to note that there are limitations to this data. This ZIP code-level diagnosis data is provided by the Missouri Hospital Association and is based on hospital discharges occurring between fiscal years 2014-2016 (October 1, 2013-September 30, 2016). Only diagnoses made during this time frame in the Missouri hospital system are included in the analysis. Diagnoses made at outpatient clinics outside the hospital system or in other states are not included.

Additionally, diagnosis rates are counted for each visit and not for each individual. Because of this, the same person may be counted more than once if they have multiple visits with the same diagnosis. Finally, some ZIP codes have very small population sizes. In particular, ZIP codes 64018, 64163 and 64164 in Platte County, and ZIP codes 64048 and 64161 in Clay County have populations of under 1,000 residents, according to the 2010 census. Due to these small population sizes, diagnoses rates for these ZIP codes may be unstable and results should be interpreted with caution.

CHRONIC DISEASE MORTALITY RATES

In addition to looking at chronic disease diagnoses, it is helpful to also review chronic disease mortality (death) rates. In Clay and Platte counties, the mortality rates for heart disease, cancer and COPD are lower than the state (Figure 52).

FIGURE 52:

2016 CHRONIC DISEASE MORTALITY RATES (MORTALITY PER 100,000 OF POPULATION)

	PLATTE ▼	CLAY ▼	MO ▼
HEART DISEASE	137.7	143.5	192.0
CANCER	131.4	160.2	166.9
COPD	51.8	40.8	52.1
DIABETES	21.1	16.5	20.1

Missouri Department of Health and Senior Services, 2016

HEALTH INDICATOR: MOTHER & CHILD

Having a healthy pregnancy is one of the best ways to promote a healthy birth and to ensure the health of the mother. A review of 2017 data showed the majority of expectant mothers in the Northland began care in the first trimester of pregnancy. However, a deeper look at the data reveals disparities in prenatal care by race and ethnicity.

African American and Hispanic mothers were less likely to begin prenatal care during the first trimester of pregnancy than white mothers. In Platte County, white women began prenatal care during the first trimester at a much higher rate than African American mothers or Hispanic women did. Similar differences were found in Clay County, with white women beginning first trimester care at higher rates than African American and Hispanic women.

(Figures 53 and 54)

FIGURE 53:

PERCENTAGE OF LIVE BIRTHS IN 2017 WHERE MOTHER BEGAN PRENATAL CARE IN FIRST TRIMESTER, BY RACE

	PLATTE ▼	CLAY ▼
White	79%	77%
African American	54%	58%
All Races	75%	74%

Source: Department of Health and Senior Services, 2017

FIGURE 54:

PERCENTAGE OF LIVE BIRTHS IN 2017 WHERE MOTHER BEGAN PRENATAL CARE IN FIRST TRIMESTER, BY ETHNICITY

	PLATTE ▼	CLAY ▼
Not Hispanic or Latino	75%	75%
Hispanic or Latino	66%	62%

Source: Department of Health and Senior Services, 2017

The Kotelchuck Adequacy of Prenatal Care Utilization Index is a national standard for quantifying the prenatal care received by women. Under this index, adequate prenatal care is defined as:

- Care that is begun by the fourth month of pregnancy
- A mother who receives 80%-109% of healthcare visits recommended by the American College of Obstetricians and Gynecologists from the time prenatal care begins until the time of delivery

Inadequate prenatal care is defined as:

- Care begun in the fifth month or later or no prenatal care at all
- A mother who receives less than 50% of the recommended healthcare visits by the time of delivery

A review of data on adequate prenatal care based on the Kotelchuck Index reveals health disparities for Northland mothers.

African American and Hispanic women in the Northland were more likely to receive inadequate prenatal care than white women. (Figures 55 and 56)

Low birth weight is a leading cause of neonatal mortality (death before 28 days of age). The rate of low weight births in the Northland is less than the rate in state of Missouri, 8.7/100 births in 2017 (Figure 57).

FIGURE 55:

PERCENTAGE OF LIVE BIRTHS IN 2017 WHERE MOTHER DID NOT RECEIVE ADEQUATE PRENATAL CARE (KOTELCHUCK INDEX), BY RACE

	PLATTE ▼	CLAY ▼
White	10%	12%
African American	24%	26%
All Races	13%	14%

Source: Department of Health and Senior Services, 2017

FIGURE 56:

PERCENTAGE OF LIVE BIRTHS IN 2017 WHERE MOTHER DID NOT RECEIVE ADEQUATE PRENATAL CARE (KOTELCHUCK INDEX), BY ETHNICITY

	PLATTE ▼	CLAY ▼
Not Hispanic or Latino	13%	14%
Hispanic or Latino	23%*	24%

*Rate is unreliable, numerator less than 20
Source: Department of Health and Senior Services, 2017

FIGURE 57:

PERCENTAGE OF BIRTHS IN 2017, BY BIRTH WEIGHT

	PLATTE ▼	CLAY ▼
Very Low (less than 1,500 g)	1%*	1%
Low (less than 2,500 g)	8%	7%
Normal (2,500-4,499 g)	91%	92%
High (greater than 4,499 g)	1%*	1%

*Indicates rate is unreliable; numerator less than 20
Source: Department of Health and Senior Services, 2017

Data analyzed from 2007-2017 places infant mortality rates in the Northland below that of the state of Missouri (Figure 58). While it is not possible to break the data down by race or ethnicity at this time because of unreliability due to low numbers, infant mortality is a data point the Northland Health Alliance Data Task Force will continue to monitor closely.

FIGURE 58:

INFANT MORTALITY RATES PER 1,000 LIVE BIRTHS (2007-2017)

	PLATTE ▼	CLAY ▼	MO ▼
Neonatal Deaths Death before 28 days of age	3.4	3.5	4.3
Perinatal Deaths Fetal deaths (gestational age of 20 or more weeks) or death immediately after birth	7.4	8.3	10
Post-Neonatal Deaths Death after 28 days of life and before one year of age	1.9	1.9	2.4
Infant Deaths Total deaths of infants born alive and dying before one year of age	5.3	5.3	6.7

*Source: Department of Health and Senior Services, 2017*

NORTH KANSAS CITY HOSPITAL DATA

North Kansas City Hospital uses the total number of prenatal visits a woman receives and data about when she starts prenatal care to assess the adequacy of prenatal care for mothers who deliver infants there. The hospital identifies women who received fewer than eight prenatal visits and who started care after 16 weeks of pregnancy as having received inadequate care.

Between 2015-2018, the number of women who delivered infants at North Kansas City Hospital after receiving fewer than eight prenatal visits was unsettled. The number receiving an inadequate number of prenatal visits in 2015 was 12% but dropped to 7% in 2016. The rate increased to more than 12% in 2017 then dropped to less than 10% in 2018 (Figure 59).

FIGURE 59:

PERCENTAGE OF WOMEN RECEIVING FEWER THAN 8 PRENATAL VISITS

NKCH Deliveries
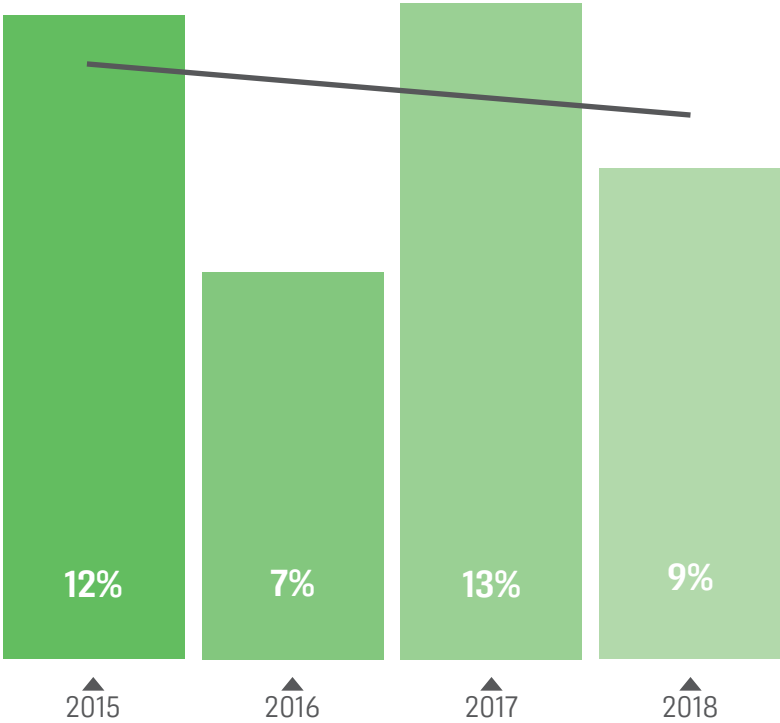
2015	2016	2017	2018
12%	7%	13%	9%

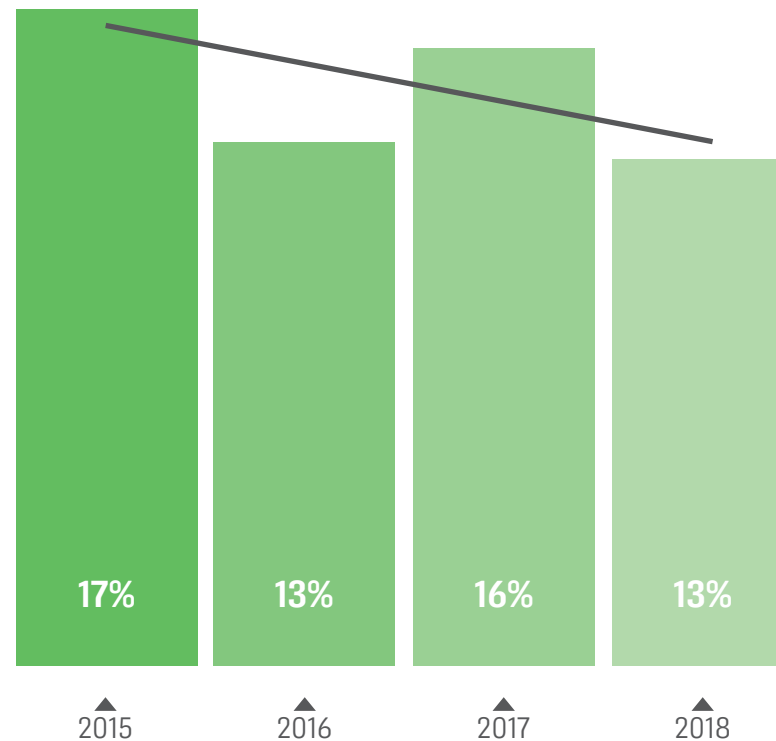*Source: North Kansas City Hospital Utilization Data 2018*

The number of women who delivered infants at North Kansas City Hospital who did not start prenatal care until after 16 weeks of pregnancy showed the same unsettled pattern as that for the number of prenatal visits.

In 2015, nearly 17% of the mothers who delivered at North Kansas City Hospital did not start care until after 16 weeks. The rate declined to 13% in 2016, increased to just under 16% in 2017, then dropped to 13% in 2018 (Figure 60).

In an effort to support increased access to prenatal care and improve the number of Northland women receiving adequate prenatal care, North Kansas City Hospital formed a partnership with Samuel U. Rodgers Health Center in January 2017 to open the Northland Prenatal and Pediatric Clinic.

Early analysis suggests NKCH is now delivering on average 12 expectant mothers per month who received their prenatal care through this clinic partnership. The hospital will continue to track trends in the two adequacy of care metrics with an eye toward demonstrating the positive health impact of this partnership.

FIGURE 60:

PERCENTAGE OF WOMEN WHO STARTED PRENATAL CARE AFTER 16 WEEKS OF PREGNANCY

| 17% | 13% | 16% | 13% |
| 2015 | 2016 | 2017 | 2018 |

Source: North Kansas City Hospital Utilization Data 2018

The number of non-white mothers delivering infants at North Kansas City Hospital increased 400% between 2015-2018. (Figure 61)

The largest growth in these patients came between 2016-2017 after NKCH signed a contract with Home State, Missouri's largest Medicaid management group.

Between 2015 and 2018, the number of mothers covered by Medicaid insurance delivering at NKCH increased by 68%.

Another increase in the number of mothers covered by Medicaid followed the launch of the partnership with Samuel U. Rodgers Health Center in 2017.

While the number of non-white mothers delivering infants at North Kansas City Hospital increased exponentially between 2014-2018, it is heartening to note that the percentage of non-white infants experiencing a stay in the Neonatal Intensive Care Unit (NICU) during that time frame decreased significantly. (Figure 62)

FIGURE 61:

GROWTH IN DELIVERIES OF NON-WHITE INFANTS, 2014-2018

2014	2015	2016	2017	2018
46	101	125	174	186
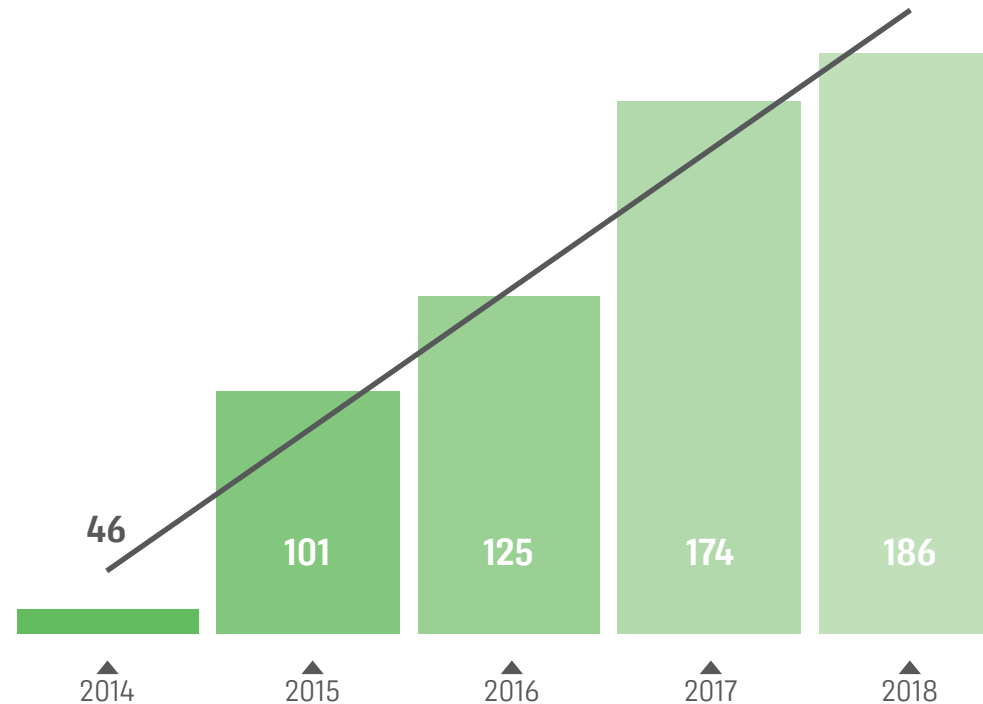
Source: North Kansas City Hospital Utilization Data 2018

North Kansas City Hospital will continue its partnership with Samuel U. Rodgers Health Center and to work in collaboration with the Clay and Platte County Health Departments and the Mother and Child Health Coalition to help ensure all Northland mothers and infants receive the care they need both before and after birth.

FIGURE 62:

PERCENTAGE OF NON-WHITE NEWBORNS ADMITTED TO THE NICU, 2014-2018

2014	2015	2016	2017	2018
28%	15%	9%	9%	7%
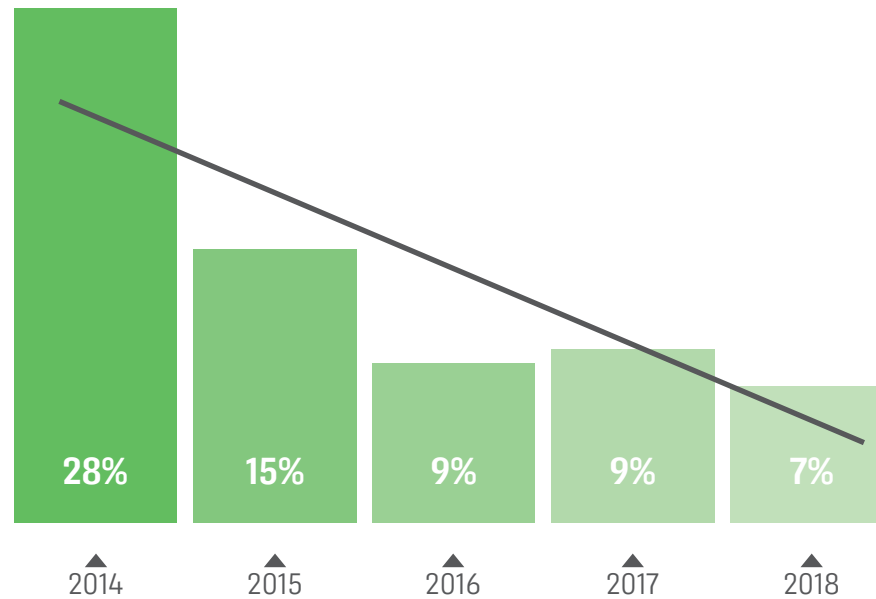
Source: North Kansas City Hospital Utilization Data 2018

HEALTH INDICATOR: HOSPITALIZATION RATES/DIAGNOSES

HOSPITALIZATIONS

Four of the major hospitals in the Northland—North Kansas City Hospital, Liberty Hospital, Saint Luke's Barry Road and Saint Luke's Smithville—provided the Northland Health Alliance Data Task Force with inpatient hospitalization data gathered between June 1, 2017-May 31, 2018. The data focused exclusively on patients over the age of 15 who resided in Clay or Platte counties.

During this defined time period, North Kansas City Hospital accounted for 59% of hospitalizations, Liberty Hospital for 20%, Saint Luke's Barry Road

for 19%, and Saint Luke's Smithville for 3%. Analysis of the data shows 75% of hospitalized patients in these four hospitals came from Clay County and 25% from Platte County. The gender distribution of inpatients was 60% female and 40% male, a trend that remained true across all age groups. The largest number of hospitalizations were for patients age 75 and above, closely followed by those ages 45-64 (Figure 63).

FIGURE 63:

PERCENTAGE OF HOSPITALIZATIONS BY AGE GROUPS, ALL HOSPITALS
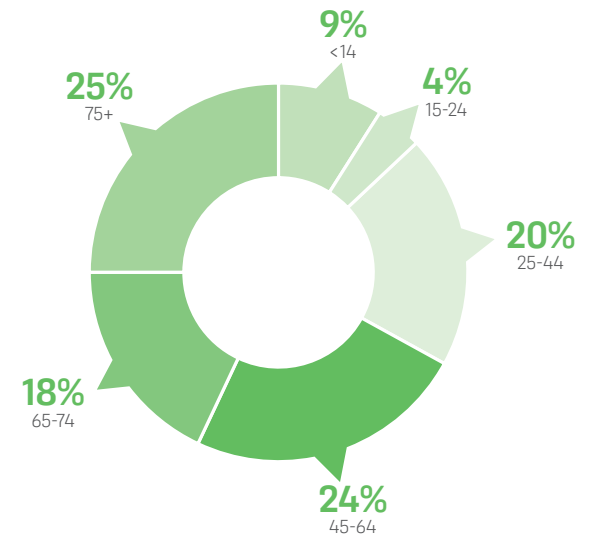
*Source: Northland Health Alliance, 2018*

NORTH KANSAS CITY HOSPITAL DATA

For the purposes of this report, North Kansas City Hospital examined hospitalization information from ICD-10 reporting related to top diagnoses for inpatient, emergency department and outpatient visits. The data examined was for patients from Clay and Platte counties who utilized hospital services in calendar year 2018.

Because the data sets used by the Northland Health Alliance and North Kansas City Hospital are based on different time frames and divide patient age groups differently, it is inappropriate to draw direct correlations or conclusions between them. They can, however, be examined as a means to understand broad health trends in the community.

The majority of patients hospitalized at North Kansas City Hospital in 2018 were age 65 or older. Those in the 45-64 age group accounted for about one-third of hospital admissions, while people ages 25-44 accounted for 20% of admissions (Figure 64).

FIGURE 64:
PERCENTAGE OF HOSPITALIZATIONS BY AGE GROUP
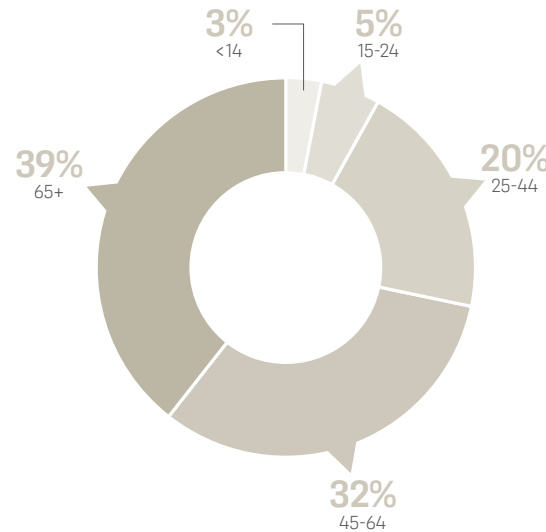
Source: North Kansas City Hospital Utilization Data 2018

Across all hospitals providing data to the NH Alliance, childbirth (vaginally or by cesarean section) was the leading primary diagnosis for inpatient hospitalizations in the Northland, accounting for nearly 40% of all inpatient diagnoses. Sepsis was the second most frequent diagnosis, and pneumonia was the third leading reason for hospitalization. Health issues related to chronic disease, hypertensive heart disease

with heart failure, and heart disease and chronic kidney disease were among the top 10 reasons for hospitalization (Figure 65).

FIGURE 65:
TOP DIAGNOSES FOR INPATIENT HOSPITALIZATIONS IN CLAY AND PLATTE COUNTIES

27%	BABY DELIVERY, VAGINALLY
15%	SEPSIS
11%	BABY DELIVERY, CESAREAN SECTION
8%	PNEUMONIA
7%	OSTEOARTHRITIS, RIGHT KNEE
7%	ACUTE KIDNEY FAILURE
6%	HYPERTENSIVE HEART DISEASE WITH HEART FAILURE
6%	OSTEOARTHRITIS, LEFT KNEE
6%	HEART DISEASE AND CHRONIC KIDNEY DISEASE
6%	MYOCARDIAL INFARCTION (HEART ATTACK)
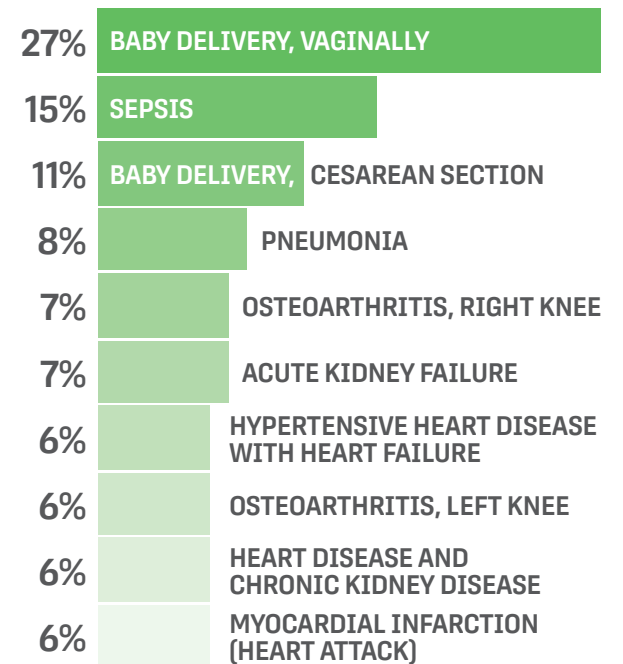
Source: Northland Health Alliance, 2018

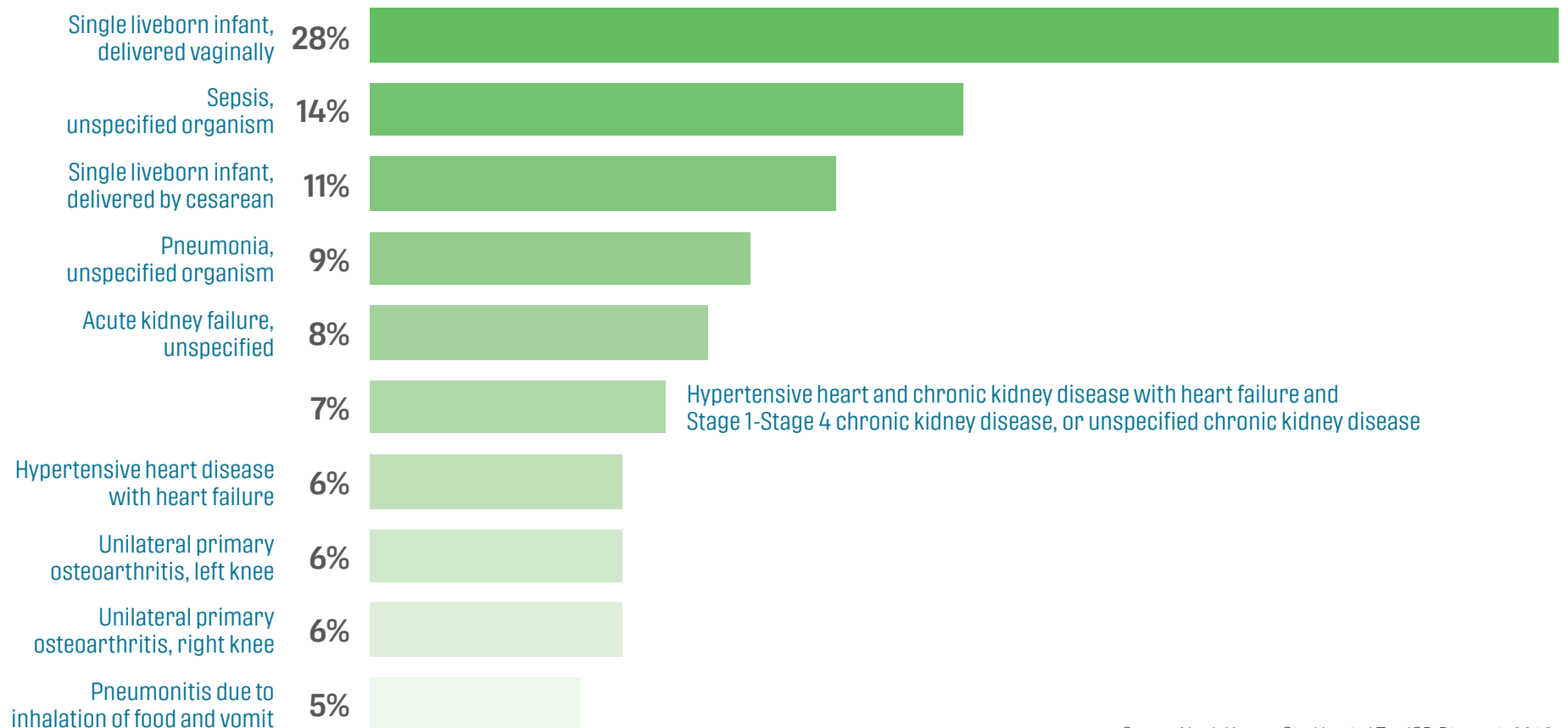Childbirth also accounted for nearly 40% of all inpatient hospitalizations at NKCH in 2018. Sepsis and pneumonia rounded out the top four diagnoses. Acute kidney failure, hypertensive heart disease and chronic kidney disease, and hypertensive heart disease with heart failure were among the top 10 most frequent diagnoses for hospitalized patients. (Figure 66)

FIGURE 66:

TOP DIAGNOSES FOR INPATIENT HOSPITALIZATIONS

Diagnosis	Percentage
Single liveborn infant, delivered vaginally	28%
Sepsis, unspecified organism	14%
Single liveborn infant, delivered by cesarean	11%
Pneumonia, unspecified organism	9%
Acute kidney failure, unspecified	8%
Hypertensive heart and chronic kidney disease with heart failure and Stage 1-Stage 4 chronic kidney disease, or unspecified chronic kidney disease	7%
Hypertensive heart disease with heart failure	6%
Unilateral primary osteoarthritis, left knee	6%
Unilateral primary osteoarthritis, right knee	6%
Pneumonitis due to inhalation of food and vomit	5%

Source: North Kansas City Hospital Top ICD Diagnosis 2018

Excluding diagnoses related to childbirth and examining the cause of hospitalization by age group provides interesting insight into the health issues causing the highest number of hospitalizations in the Northland.

Differences in cause of hospitalization can be found by age group in the Northland as a whole. Analysis by the NH Alliance Data Task Force found that among the 15-24-year-old age group, mental health conditions accounted for a large proportion of inpatient hospitalizations. Of the top 10 primary diagnosis codes for this age group, six

codes were for mental health concerns such as depression, bipolar disorder and schizoaffective disorder. The 25-44 age group also saw a large proportion of hospitalizations due to mental health concerns. In addition, acute conditions such as ketoacidosis due to diabetes, acute kidney failure or infection, appendicitis and sepsis accounted for some of the top primary diagnosis codes. The 25-44 age group was also the only age group with morbid obesity among the top five diagnoses for hospitalization (Figure 67).

In the 45-64 age group, sepsis was the most frequent primary diagnosis code for inpatient visits. This was also the top concern for the 65-74 age group and the 75 and over age group. Perhaps not surprisingly, chronic conditions such as heart disease, kidney failure, COPD and myocardial infarction were common diagnoses for inpatient visits in the 65-74 age cohort. For those 75 and over, chronic diseases and acute infections such as pneumonia and urinary tract infections were the most common primary diagnoses (Figure 67).

FIGURE 67:

NORTHLAND HOSPITALIZATION BY AGE GROUP: TOP DIAGNOSES (EXCLUDING CHILDBIRTH)

15-24 YEARS	25-44 YEARS	45-64 YEARS	65-74 YEARS	75+ YEARS
Major depressive disorder, recurrent	Major depressive disorder, recurrent	Sepsis	Sepsis	Sepsis
Type 1 diabetes with ketoacidosis	Sepsis	Osteoarthritis, right knee	Osteoarthritis, right knee	Heart disease and chronic kidney disease
Major depressive disorder, single episode	Type 1 diabetes with ketoacidosis	Osteoarthritis, left knee	Osteoarthritis, left knee	Heart disease with heart failure
Bipolar disorder	Morbid obesity	COPD with acute infection	Acute kidney failure	Pneumonia
Sepsis	Pneumonia	Myocardial infarction	Heart disease and chronic kidney disease	Acute kidney failure

Source: Northland Health Alliance, 2018

NORTH KANSAS CITY HOSPITAL DATA

Childbirth accounted for nearly 40% of all inpatient hospitalizations at NKCH in 2018. To understand the broader picture of health issues requiring hospitalization, data analysts at North Kansas City Hospital excluded diagnoses related to childbirth to create a Top 10 list of the next most frequent inpatient diagnoses.

Sepsis, the body's overwhelming and potentially life-threatening response to infection, was the leading diagnoses at North Kansas City Hospital in 2018 when diagnoses related to childbirth were excluded from the data set. Although representing only 3% of all inpatient diagnoses at the hospital, sepsis or sepsis-related diagnoses are the leading cause of death in the United States and the most common cause of death among critically ill patients in non-coronary intensive care units (ICUs). Most often, sepsis occurs in people who are hospitalized or who have recently been hospitalized and many have co-morbidities, the simultaneous presence of two chronic diseases or conditions.

Pneumonia, acute kidney failure, hypertensive heart and chronic kidney disease and hypertensive heart disease were the next most common reasons patients were hospitalized. Morbid obesity accounted for 1% of all inpatient hospital admissions and ranked No. 9 on the Top 10 Diagnoses list (Figure 68).

FIGURE 68:

TOP DIAGNOSES FOR INPATIENT HOSPITALIZATIONS 2018 (EXCLUDING CHILDBIRTH)

DIAGNOSIS	NUMBER OF DIAGNOSES	AS A % OF ALL INPATIENT DIAGNOSES N=11,828 patients	% OF TOP 10 INPATIENT DIAGNOSES
Sepsis, unspecified organism	412	3%	21%
Pneumonia, unspecified organism	244	2%	12%
Acute kidney failure, unspecified	230	2%	12%
Hypertensive heart and chronic kidney disease with heart failure and Stage 1-Stage 4 chronic kidney disease or unspecified kidney disease	199	2%	10%
Hypertensive heart disease with heart failure	181	2%	9%
Unilateral primary osteoarthritis, left knee	171	1%	9%
Unilateral primary osteoarthritis, right knee	163	1%	8%
Pneumonitis due to inhalation of food and vomit	136	1%	7%
Morbid (severe) obesity due to excess calories	120	1%	6%
Non-ST elevation (NSTEMI) myocardial infarction	116	1%	6%

*Source: North Kansas City Hospital Top ICD Diagnosis 2018*

NORTHLAND EMERGENCY ROOM UTILIZATION

The Northland Health Alliance Data Task Force also analyzed and summarized Emergency Department utilization data from four of the major hospitals in the Northland—North Kansas City Hospital (49.7%), Liberty Hospital (18.9%), Saint Luke's Barry Road (29.6%) and Saint Luke's Smithville (1.8%). As noted in the previous section, to ensure a Northland focus, the ED data presented in the following tables represents only patients who resided in Clay or Platte counties collected between June 1, 2017-May 31, 2018. Of the patients seen in the four hospital Emergency Departments, 74% resided in Clay County, 26% in Platte County.

Females were more likely to visit hospital emergency departments (59% of all visits) than men (41% of all visits). This was true for all age groups except for those under age 15, where males were seen for emergency treatment more frequently than females. The 25-44 age category accounted for the highest percentage of all ED visits (Figure 69).

FIGURE 69:

PERCENTAGE OF EMERGENCY DEPARTMENT VISITS BY AGE
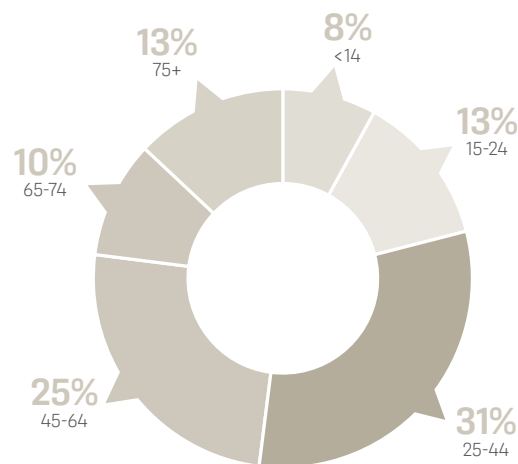
Source: Northland Health Alliance, 2018

As with inpatient hospitalizations, the primary diagnoses among ED visits varied by age as well. For children under the age of 15, respiratory diseases, symptoms of acute illness and head injuries were the top ED diagnoses. Influenza, upper respiratory infections, and viral infections were among the top five ED diagnoses for both children under the age of one and the 1-14 age group (Figure 70).

Mental health issues were the top primary diagnoses in ED visits for 15-24-year-olds in the Northland, with suicidal ideation and major depressive disorder leading the list.

Mental health conditions were not among the top five diagnoses for ED visits for any other age group (Figure 70).

Chest pain was the number one primary diagnosis for ED visits among people between the ages of 25-74. For those between age 25-64, headache, abdominal pain, and low back pain were the next most frequent primary diagnoses. Teeth disorders were the sixth most common diagnosis for patients in the 25-44-year-old age group. It did not appear among the top five diagnoses for any other age group (Figure 70).

In age groups over 45, additional diagnoses related to chronic diseases were found in the top five primary diagnoses codes for ED visits, including essential hypertension in all of these age groups. Infectious diagnoses such as pneumonia, sepsis and urinary tract infections were among the top five primary diagnoses for ED visits in patients over age 65 (Figure 70).

FIGURE 70:

TOP FIVE DIAGNOSES FOR EMERGENCY DEPARTMENT VISITS BY AGE GROUP

< 1 YEARS ▼	1-14 YEARS ▼	15-24 YEARS ▼	25-44 YEARS ▼	45-64 YEARS ▼	65-74 YEARS ▼	75+ YEARS ▼
Acute upper respiratory infection	Acute upper respiratory infection	Suicidal ideations	Chest pain	Chest pain	Chest pain	Urinary tract infection
Fever	Fever	Major depressive disorder, single episode	Headache	Other chest pain	Other chest pain	Sepsis
Vomiting	Influenza with respiratory manifestations	Abdominal pain	Abdominal pain	Headache	Sepsis	Chest pain
Cough	Acute obstructive laryngitis [croup]	Acute pharyngitis	Other chest pain	Abdominal pain	Syncope and collapse	Pneumonia
Unspecified head injury	Laceration without foreign body of other part of head	Headache	Low back pain	Low back pain	Pneumonia	Syncope and collapse

Source: Northland Health Alliance, 2018

The majority of patients paid for ED visits using commercial insurance, followed by Medicare. About 14% of patients were self-pay (Figure 71).

Notable differences in the reason for visiting the ED can be identified by examining a patient's payor source.

FIGURE 71:
PAYOR SOURCE

14% UNINSURED/SELF-PAY

16% MEDICAID

27% MEDICARE

42% COMMERCIAL INSURANCE
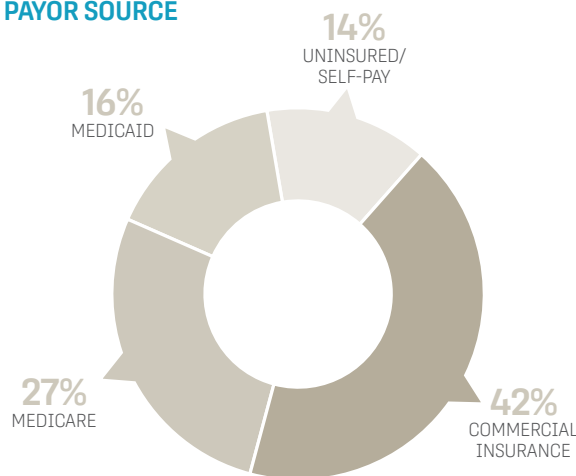
Source: North Kansas City Hospital Utilization Data 2018

For uninsured patients, disorders of the teeth and supporting structures was the second most frequent primary diagnoses for ED visits, behind chest pain.

This was not one of the top 10 primary diagnosis codes for any other payor group.

Chest pain was the top diagnosis for patients with Medicare or commercial insurance who visited an ED. Mental health conditions were among the top 10 primary diagnoses for an ED visit by those using Medicaid or who were uninsured/self-pay.

Suicidal ideation, a top 5 diagnosis for Medicaid and self-pay patients, does not show up in the top 10 diagnoses for those using Medicare or commercial insurance. Among self-pay patients, alcohol abuse with intoxication was among the top five diagnoses. Acute health issues such as upper respiratory infection, acute pharyngitis and headache rounded out the top five reasons a patient covered by Medicaid insurance visited an ED (Figure 72). Because these acute health conditions are often managed by primary care

providers, the data may suggest these patients face issues related to access to care. It is a topic that may bear further exploration.

NORTH KANSAS CITY HOSPITAL DATA

The most frequent users of the Emergency Department at North Kansas City Hospital in 2018 were adults. Approximately one-third of ED patients were in the 25-44-year-old age group. A quarter of patients were 45-64 years old. People age 65 and over accounted for slightly less than a quarter of the patients seen in the ED (Figure 73).

Chest pain was the No. one reason for a visit to the North Kansas City Hospital Emergency Department in 2018. Diagnoses related to pain, abdominal pain, low back pain and headache were among the top five diagnoses for Emergency Department patients. Suicidal ideation was the tenth most frequent cause for an Emergency Department visit (Figure 74).

FIGURE 72:

EMERGENCY DEPARTMENT PAYOR SOURCE BY DIAGNOSIS

COMMERCIAL INSURANCE ▼	MEDICARE ▼	MEDICAID ▼	UNINSURED/SELF-PAY ▼
Chest pain	Chest pain	Acute upper respiratory infection	Chest pain
Other chest pain	Other chest pain	Abdominal pain	Other specified disorders of teeth and supporting structures
Abdominal pain	Urinary tract infection	Suicidal ideations	Abdominal pain
Headache	Sepsis	Acute pharyngitis	Alcohol abuse with intoxication
Strain of muscle, fascia and tendon at neck level	Pneumonia	Headache	Acute bronchitis

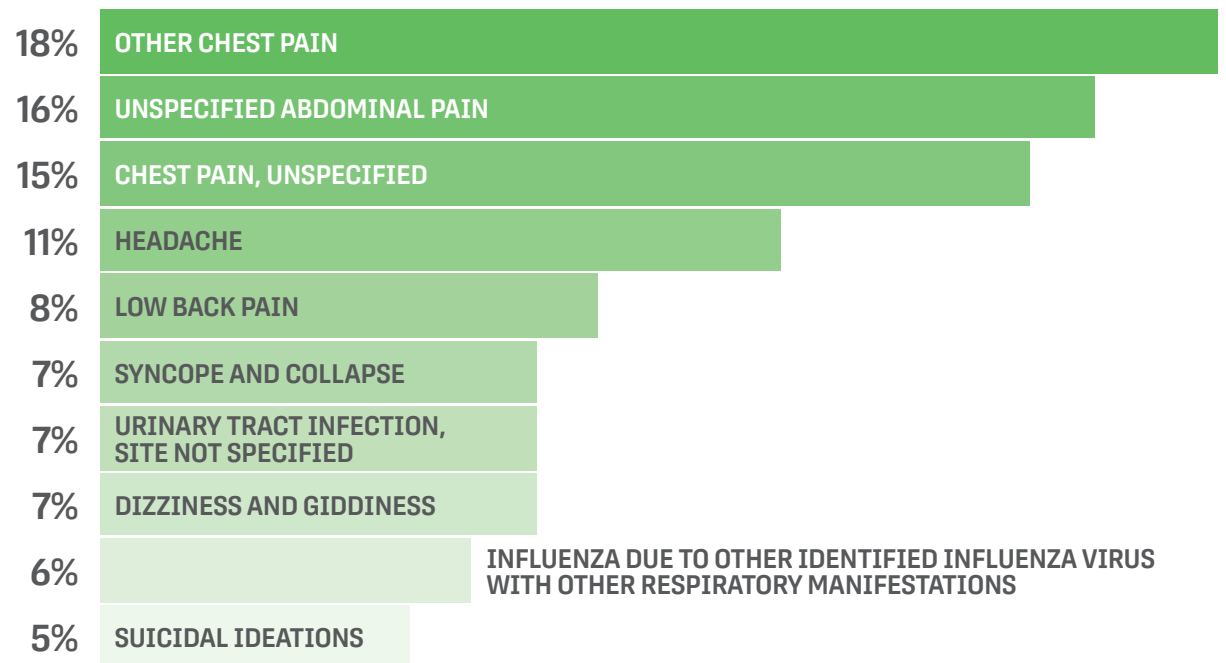*Source: Northland Health Alliance, 2018*

FIGURE 73:

PERCENTAGE OF NKCH 2018 EMERGENCY DEPARTMENT VISITS BY AGE

6% < 14
12% 15-24
23% 65+
26% 45-64
32% 25-44
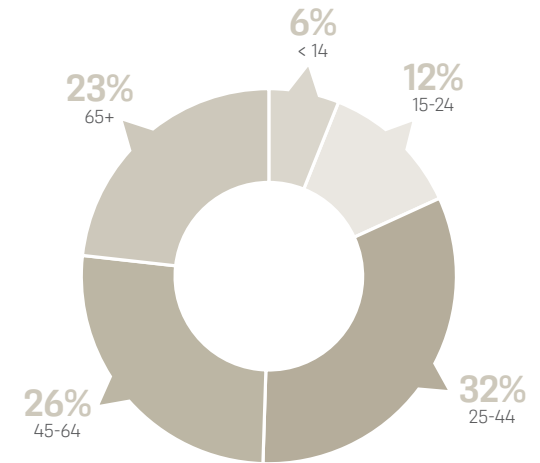
Source: North Kansas City Hospital Utilization Data 2018

For children age 14 and under, the most common reason for an Emergency Department visit was for an acute illness, fever, upper respiratory infection or influenza. In the 15-24-year-old age group mental health issues, suicidal ideation and major depressive disorder accounted for two of the top five Emergency Department diagnoses. For those age 25-44 and 45-64, pain was the primary cause for an ED visit. Chest pain, abdominal pain, headache and low back pain were the top five ED diagnoses for these age groups. Chest pain also was a primary driver for Emergency Department visits for those age 65 and over. This group was also most likely to come to the ED to address acute health issues including syncope and collapse, urinary tract infection, and dizziness (Figure 75).

FIGURE 74:

TOP DIAGNOSES FOR 2018 EMERGENCY DEPARTMENT VISITS

18%	OTHER CHEST PAIN
16%	UNSPECIFIED ABDOMINAL PAIN
15%	CHEST PAIN, UNSPECIFIED
11%	HEADACHE
8%	LOW BACK PAIN
7%	SYNCOPE AND COLLAPSE
7%	URINARY TRACT INFECTION, SITE NOT SPECIFIED
7%	DIZZINESS AND GIDDINESS
6%	INFLUENZA DUE TO OTHER IDENTIFIED INFLUENZA VIRUS WITH OTHER RESPIRATORY MANIFESTATIONS
5%	SUICIDAL IDEATIONS

Source: North Kansas City Hospital Utilization Data 2018

FIGURE 75:

NKCH TOP 5 DIAGNOSES FOR EMERGENCY DEPARTMENT VISITS BY AGE

| < 1 YEAR ▼	1-14 YEARS ▼	15-24 YEARS ▼	25-44 YEARS ▼	45-64 YEARS ▼	65+ YEARS ▼
Fever, unspecified	Influenza due to other identified influenza virus with other respiratory manifestations	Unspecified abdominal pain	Unspecified abdominal pain	Other chest pain	Other chest pain
Acute upper respiratory infection, unspecified	Fever, unspecified	Suicidal ideations	Other chest pain	Chest pain, unspecified	Chest pain, unspecified
Influenza due to other identified influenza virus with other respiratory manifestations	Acute upper respiratory infection, unspecified	Acute pharyngitis, unspecified	Chest pain, unspecified	Unspecified abdominal pain	Syncope and collapse
Encounter for examination and observation following transport accident	Acute pharyngitis, unspecified	Headache	Headache	Headache	Urinary tract infection, site not specified
Cough	Laceration without foreign body of other part of head, initial encounter	Major depressive disorder, single episode, unspecified	Low back pain	Low back pain	Dizziness and giddiness

Source: North Kansas City Hospital Utilization Data 2018

The majority of NKCH Emergency Department patients pay for their care using commercial insurance. The Emergency Department sees a higher number of uninsured/self-pay patients than hospital inpatients and outpatients. They account for 16% of all ED visits (Figure 76).

As noted in Figure 5 earlier in this report, in 2018 uninsured/self-pay patients accounted for 6% of all inpatients, and 3% of all outpatients.

Patients with commercial insurance or Medicare were most frequently seen in the Emergency Department for issues related to chest pain or other pain-related diagnoses. For patients with Medicaid, acute illness accounted for three of the top five ED diagnoses. Suicidal ideation was the third leading cause for an ED visit in this population. Disorders of the teeth and alcohol abuse with intoxication were two of the top five reasons uninsured patients visited the NKCH Emergency Department.

FIGURE 76:
ED PAYOR SOURCE

43%
COMMERCIAL INSURANCE

14%
MEDICAID

16%
UNINSURED/
SELF-PAY

27%
MEDICARE
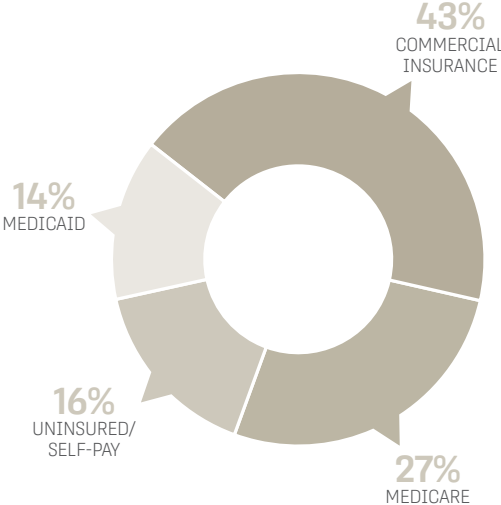
Source: North Kansas City Hospital Utilization Data 2018

FIGURE 77:

2018 EMERGENCY DEPARTMENT DIAGNOSIS BY PAYOR SOURCE

COMMERCIAL INSURANCE ▼	MEDICARE ▼	MEDICAID ▼	UNINSURED/SELF-PAY ▼
Other chest pain	Other chest pain	Unspecified abdominal pain	Unspecified abdominal pain
Chest pain, unspecified	Chest pain, unspecified	Acute pharyngitis, unspecified	Alcohol abuse with intoxication, unspecified
Unspecified abdominal pain	Syncope and collapse	Suicidal ideations	Chest pain, unspecified
Headache	Unspecified abdominal pain	Acute upper respiratory infection, unspecified	Other specified disorders of teeth and supporting structures
Low back pain	Urinary tract infection, site not specified	Influenza due to other identified influenza virus with other respiratory manifestations	Other chest pain

Source: North Kansas City Hospital Utilization Data 2018

HEALTH INDICATOR: BEHAVIORAL AND MENTAL HEALTH

A 2017 study by the University of Southern California's Schaeffer Center for Health Policy and Economics analyzed data from such sources as the National Institutes of Mental Health, National Association of State Mental Health Program Directors Research Institute, and the Healthcare Cost and Utilization Project to assess the current state of mental health in the U.S. and Missouri.

It estimated that in 2016 almost half a million adults in Missouri had experienced "Serious Psychological Distress" in the past 12 months.

Further, the study found these individuals were more likely to misuse or be dependent on alcohol or illicit drugs during the same time period.

The concerns the study raises about the state of mental health in Missouri align with the top health concerns identified in the 2018 Northland Community Health Survey:

Mental health was selected as one of the most important health problems facing the community by a majority of all survey respondents.

The community's perception of the size and scope of mental health issues citizens are experiencing is also supported by data from the 2016 County-Level Study.

The data reveals that, of the issues surveyed, depressive disorder is the health issue with the greatest prevalence in Clay and Platte counties. It occurs in nearly 30% of the population in Platte County and about a quarter of the population in Clay County.

Results from the Missouri Student Survey suggest that the number of students in 6th-12th grades who struggle with mental health issues is growing. Nearly a quarter of respondents to the 2018 survey said they felt sad often or always in the past month. More than 10% said they often or always felt hopeless about the future in the past month, and a third said they had difficulty concentrating on school work in the past month.

The 2018 figures are all higher than those reported in 2016. (Figure 78)

In response to the gap in care noted as part of a community health assessment, North Kansas City Hospital worked with Signature Psychiatric Hospital to open an inpatient and outpatient mental health facility on its hospital campus in December 2013.

Since Signature opened, North Kansas City Hospital has covered the cost of inpatient care at Signature for hundreds of uninsured patients who present at its Emergency Department and has worked in partnership with Signature to expand the size and scope of services offered. (For details about the impact this partnership is having on the community, see the Cycle 2 Implementation Impact Report, Mental Health Initiative.

FIGURE 78:

MISSOURI STUDENT SURVEY RESULTS: MENTAL AND BEHAVIORAL HEALTH

	PLATTE				CLAY			
	2012	2014	2016	2018	2012	2014	2016	2018
Was **very sad often or always** in past month	17%	19%	20%	24%	18%	19%	20%	24%
Felt hopeless about the future often or always in past month	11%	12%	12%	14%	11%	12%	12%	15%
Had difficulty concentrating on school work often or always in past month	24%	24%	26%	29%	23%	24%	27%	31%

Source: Missouri Department of Mental Health, 2014, 2015, 2016, 2018

SERVICES DATA

Tri-County Mental Health Services was established in 1990 to provide safety-net services in the areas of mental and behavioral health, and substance use disorders to residents living in Clay, Platte and Ray counties. Tri-County established a provider network to meet the diverse needs of clients living in urban, suburban and rural settings and today provides services to more than 8,000 people annually. To provide deeper insight into the mental and behavioral health issues occurring in the Northland, TCMHS shared general diagnostic data about Clay and Platte County citizens served between June 1, 2017-May 31, 2018 (Figure 79).

FIGURE 79:

TOP 10 MENTAL AND BEHAVIORAL HEALTH DIAGNOSES AT TCMHS

1 MAJOR DEPRESSIVE DISORDER, RECURRENT SEVERE WITHOUT PSYCHOTIC FEATURES

2 MAJOR DEPRESSIVE DISORDER, RECURRENT, MODERATE

3 POST-TRAUMATIC STRESS DISORDER, UNSPECIFIED

4 BIPOLAR DISORDER, UNSPECIFIED

5 BIPOLAR II DISORDER

6 GENERALIZED ANXIETY DISORDER

7 BIPOLAR DISORDER, CURRENT EPISODE DEPRESSED, SEVERE, WITHOUT PSYCHOTIC FEATURES

8 ATTENTION-DEFICIT HYPERACTIVITY DISORDER, UNSPECIFIED TYPE

9 DISRUPTIVE MOOD DYSREGULATION DISORDER

10 SCHIZOAFFECTIVE DISORDER, DEPRESSIVE TYPE

Source: Tri-County Mental Health Services 2016-2018 Report

SUICIDE

Statistics from the Centers for Disease Control and Prevention place Missouri's suicide rate in 2017 as 13th highest in the nation at 18.49/100,000, well above the U.S. rate of 14/100,000. Suicide was the 10th leading cause of death in the state.

Suicide rates in both Clay and Platte counties exceed the rate in the U.S. and the suicide rate in Platte County is higher than the rate in Missouri. (Figure 80)

According to the CDC, in 2015 suicide was the third most common cause of death among Missouri children and young adults (ages 10-24), the second most common cause of death among 25-34-year-olds, and the fourth most common cause of death among people ages 35-54. Most people who committed suicide in that year in Missouri were male (78%) and white (98%). The highest rate of suicide was among white males ages of 45-54 and 75+.

Results from the Missouri Student Survey underscore community concerns about mental health.

In 2018, more than 12% of Clay and Platte County students responding to the survey reported they had seriously considered suicide in the last 12 months. About 9% of students said they had planned suicide in the last 12 months and 5% said they had attempted it in the last 12 months.

The percentage of students who had seriously considered suicide increased in both counties between 2016-2018 (Figure 81).

Missouri also conducts a similar assessment with college students.

The 2016 Assessment of College Health Behaviors reported that almost 1 in 5 college students reported seriously considering suicide in the past year.

FIGURE 80:
2017 SUICIDE RATE PER 100,000 POPULATION

PLATTE	CLAY	KC	MO	US
▼	▼	▼	▼	▼
19.4	18.3	18.3	18.5	14

Source: Missouri Department of Health and Senior Services, 2017

FIGURE 81:

MISSOURI STUDENT SURVEY: COUNTY LEVEL TRENDS 2012-2018

	PLATTE				CLAY			
	2012	2014	2016	2018	2012	2014	2016	2018
Seriously considered suicide in last 12 months	12%	12%	12%	13%	12%	11%	12%	13%
Planned suicide in last 12 months	9%	9%	9%	9%	9%	8%	9%	9%
Attempted suicide in last 12 months	5%	6%	5%	5%	5%	5%	5%	5%

Source: Missouri Department of Mental Health, 2012 2014, 2016, 2018

OPIOID ABUSE

The fastest growing drug problem across the U.S. and Missouri is the misuse and abuse of opioid-based pain relievers. According to the Missouri Department of Health and Senior Services, one out of every 65 deaths in Missouri in 2017 were due to opioid overdose. Statewide, both heroin- and non-heroin opioid-involved overdose deaths were most frequent in the 25-34 age group in 2017, followed by 35-44 and 45-54 year-olds, suggesting that this epidemic is hitting young and middle-aged adults the hardest.

In the state of Missouri, the St. Louis region has the highest death rates and ED utilization rates due to opioid abuse. However, Northland residents have still been impacted by the opioid epidemic.

Over 100 Northland residents died due to opioid overdoses between 2013-2017. About 17% of these deaths were specifically due to heroin. (Figure 82)

Opioid misuse also resulted in nearly 1,200 ED visits among Northland residents between 2012-2016.

FIGURE 82:

OPIOID-RELATED MORTALITY RATES (RATE PER 100,000 POPULATION), 2013-2017
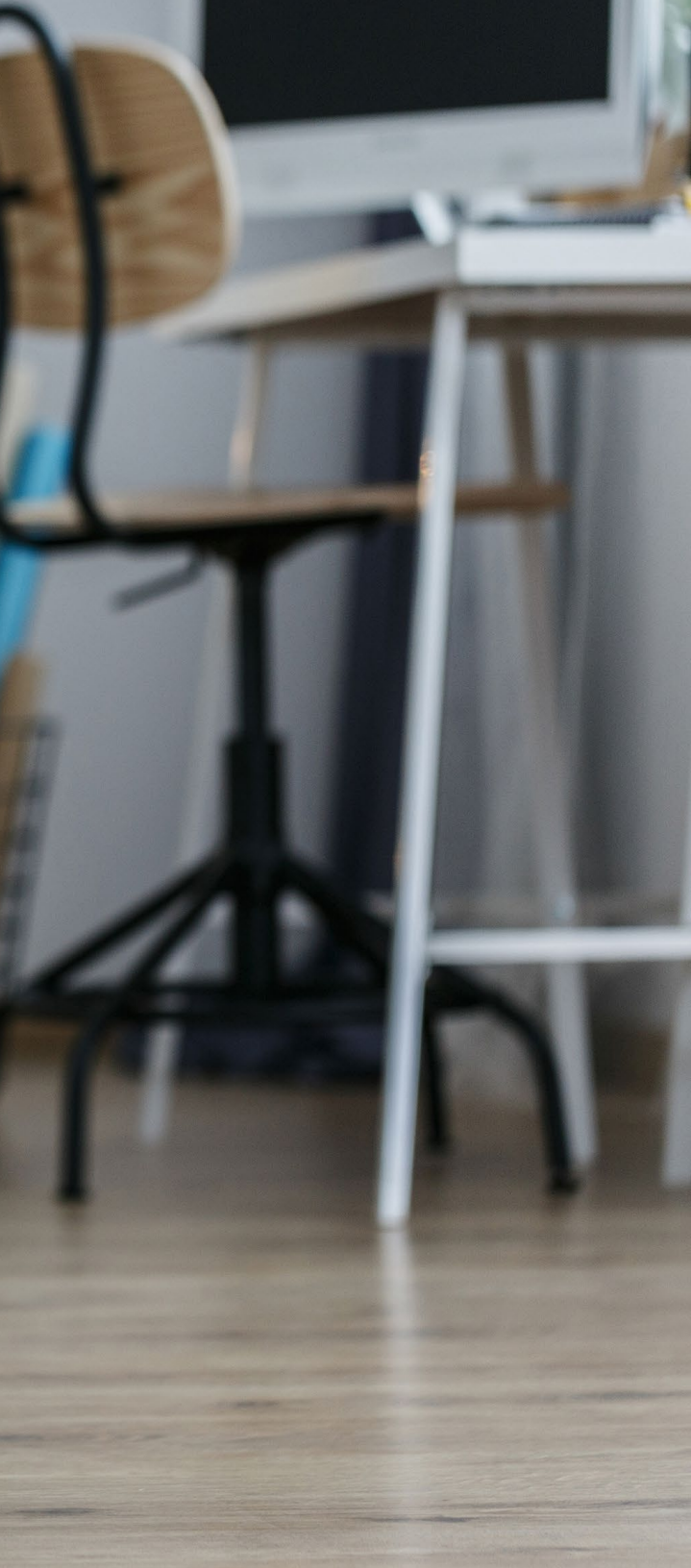
	PLATTE	CLAY
Deaths due to **opioid overdoses**	6.0	8.3
Deaths due to **heroin overdoses**	1.4*	1.3*

*Rate is unreliable, numerator less than 20
*Source: Missouri Department of Health and Senior Services, 2013-2017*

NORTH KANSAS CITY HOSPITAL DATA

For this report, North Kansas City Hospital examined the demographics of patients from Clay and Platte counties admitted or treated for opioid overdose or for adverse reaction to opioids. This latter data point was included because patients with a diagnosis of adverse reaction include those individuals who secure opioids from multiple providers and intentionally do not take them as prescribed, as well as those who may have accidentally taken them incorrectly. In order to better understand trends in opioid-related hospitalization the hospital's data analysts looked at patient demographic and diagnostic information over a three-year period, between 2016-2018.

In 2016-2017, males and females were admitted to NKCH for opioid overdose at roughly equal rates. However, in 2018, the percentage of males admitted for opioid overdose increased to nearly 60% of the total (Figure 83).
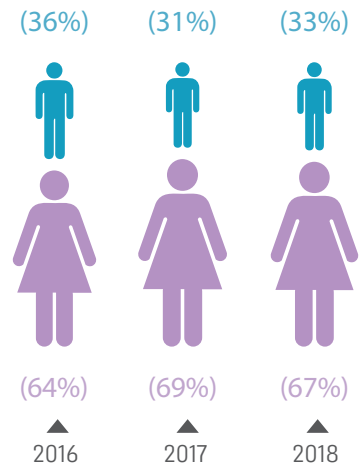
Patients admitted for adverse reaction to opioids were far more likely to be female, nearly 70% in both 2017 and 2018 (Figure 84).

FIGURE 83:
OPIOID OVERDOSES BY GENDER 2016-2018

(47%)　(50%)　(57%)

(53%)　(50%)　(43%)

2016　2017　2018
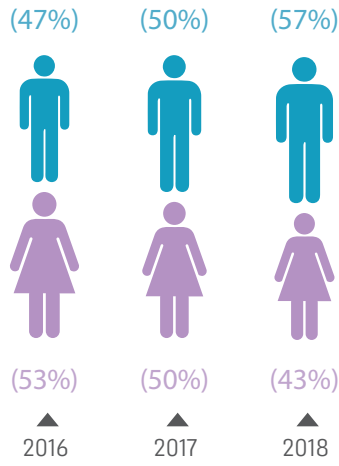
Source: NKCH Patient Demographics – Opioids – Clay and Platte Counties

FIGURE 84:
OPIOID ADVERSE REACTION BY GENDER 2016-2018

(36%)　(31%)　(33%)

(64%)　(69%)　(67%)

2016　2017　2018

Source: NKCH Patient Demographics – Opioids – Clay and Platte Counties

Individuals in the 25-44 age range were the most likely to be admitted to North Kansas City Hospital for opioid overdose. They accounted for 32% of all patients admitted for overdose in 2016. The percentage increased to 37% in 2017 and jumped to 48% in 2018. The number of admissions for patients in the 45-64 age group declined steadily during the period from a high of 33% of all overdose patients in 2016 to 19% in 2018. The number of seniors admitted for overdose declined slightly over the three years (Figure 85).

FIGURE 85:
### PERCENTAGE OF OPIOID OVERDOSES BY AGE
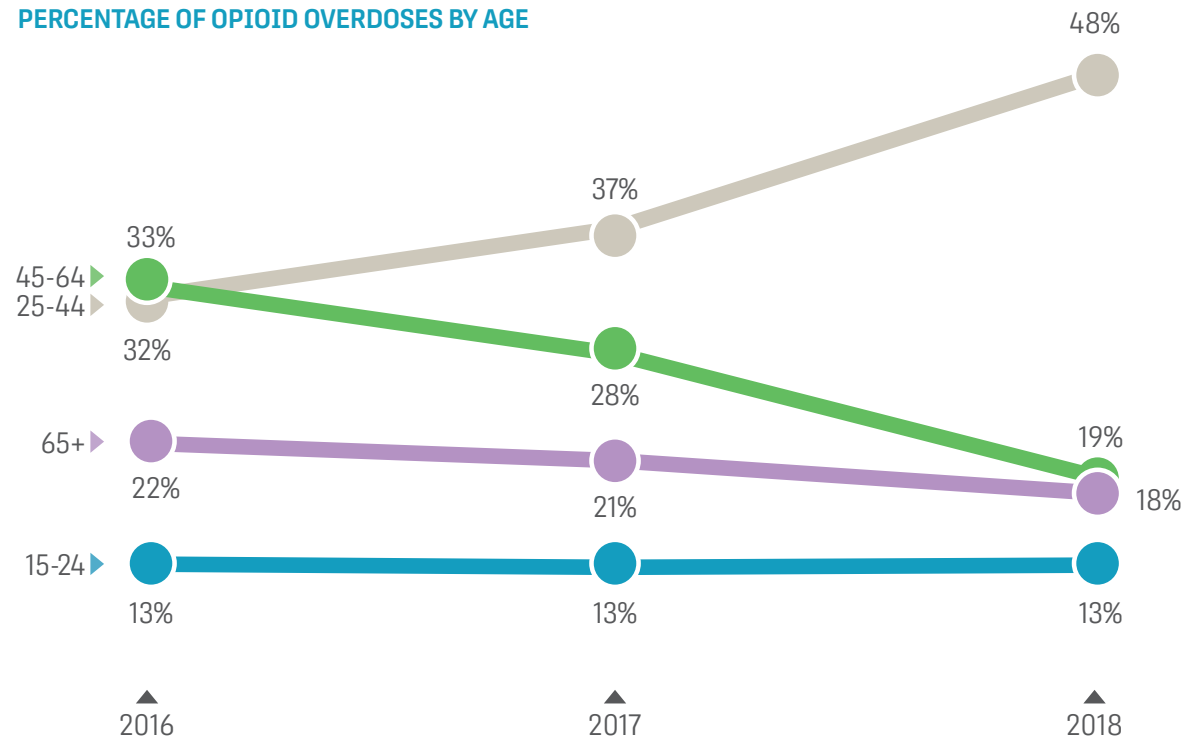
Source: NKCH Patient Demographics–Opioids–Clay and Platte Counties

The numbers looked quite different for patients admitted for adverse reaction to opioids. In 2016 and 2017, individuals age 65 and above accounted for about 60% of all patients admitted to North Kansas City Hospital for adverse reaction. The number dropped to 54% in 2018, but this age group was still far more likely to be admitted for this issue than any other (Figure 88). Research by the U.S. Department of Health and Human Services Agency for Healthcare Research and Quality determined that in 2015 and 2016, on average, nearly 4 million seniors filled four or more opioid prescriptions. Nearly 10 million filled at least one opioid prescription in those years. This data suggests overuse and misuse of opioids among seniors, intentional or accidental, is a growing issue in the United States.

The number of patients age 45-64 admitted for adverse reaction dropped slightly between 2016-2017 but increased again in 2018. While patients age 15-24 account for a small number of those admitted for adverse reaction to opioids, the percentage increased between 2017-2018 (Figure 86).

FIGURE 86:

PERCENTAGE OF PATIENTS ADMITTED FOR ADVERSE REACTION TO OPIOIDS BY AGE
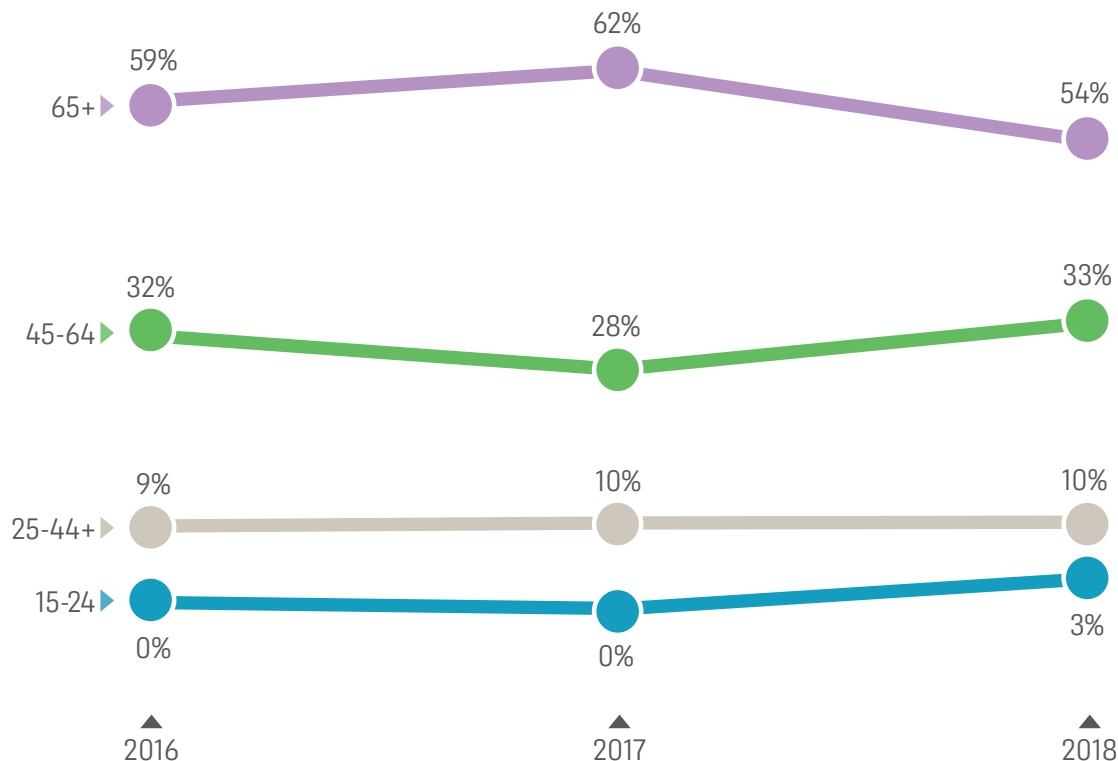
Source: North Kansas City Hospital Utilization Data 2018

HEALTH INDICATOR: ACCESS TO CARE

When assessing the health of a community the U.S. Office of Disease Prevention and Health Promotion examines the topic of access to care using three lenses:

- The percentage of the population with access to insurance coverage
- The availability of/access to actual health services (having and using an ongoing source of care)
- The timeliness of care received (care can be delivered quickly after a need is recognized)

These factors are critical because access to comprehensive, quality healthcare services is integral to promoting and maintaining health, preventing and managing disease, reducing unnecessary disability and premature death, and achieving health equity for all Americans.

Data gathered for this report suggest access to health insurance, high health costs and the limited availability of some healthcare services could be playing a role in the health status of the Northland.

THE UNINSURED

The number of uninsured residents living in Clay and Platte counties dropped between 2012-2016, from 12% in Clay and 8% in Platte County in 2012 to under 7% in both counties in 2016. (Figure 87)

Analysis of American Community Survey data conducted by the Henry J. Kaiser Foundation found that the number of uninsured non-elderly people decreased from over 44 million in 2013 (the year before the major coverage provisions of the Affordable Care Act went into effect) to just below 27 million in 2016. This national data may also suggest that the drop in uninsured residents in the Northland is attributable to increased access to healthcare available through the Affordable Care Act.

Despite the overall decrease in uninsured rates, disparities exist in coverage.

In both counties, adult males, and particularly middle age men (50-64) living within 138% of the poverty-level are uninsured at higher rates than in Missouri generally.

In Missouri, people of color are uninsured at higher rates than white citizens. African American and Hispanic/Latino citizens in Missouri are also uninsured at higher rates than the national average (Figure 88). As health insurance laws, Medicaid expansion and ACA enrollment policies/processes continue to change, it will be important to monitor these statistics to track changes in coming years.

HEALTH RESOURCE AVAILABILITY

A more disturbing trend is the number of Northland respondents to the Missouri Department of Health and Senior Services 2016 County-Level Study who said they did not get needed medical or dental care due to cost in the last 12 months.

Half of all Clay County survey respondents, and approximately 40% of those from Platte County, said they did not get care because of cost.

Lack of transportation prevented 12% of Platte County residents from getting needed care. A sizable percentage of residents in both counties do not have a regular doctor, an important relationship that can help ensure patients have access to comprehensive and integrated health services (Figure 89).

FIGURE 87:
UNINSURED RESIDENTS BY COUNTY 2012-2016

	PLATTE ▼	CLAY ▼
2012	8%	12%
2013	10%	11%
2014	8%	9%
2015	8%	9%
2016	5%	7%

Source: U.S. Census Bureau, 2012, 2013, 2014, 2015, 2016

FIGURE 88:
UNINSURED POPULATION BY RACE AND ETHNICITY (5-YEAR ESTIMATES 2012-2016)

	MO ▼	US ▼
White	10%	8%
African American	16%	14%
Hispanic/Latino	24%	23%

Source: U.S. Census Bureau, 2012-2016

FIGURE 89:
DID NOT GET CARE BY COUNTY: 2016

	PLATTE ▼	CLAY ▼
Did not get needed **medical care**	22%	20%
Did not get needed **dental care**	20%	25%
Did not get needed medical care **due to cost**	39%	52%
Does not have a **regular doctor**	16%	16%

Source: Missouri Department of Health and Senior Services, 2016

PHYSICIAN-TO-PATIENT RATIO

Ensuring citizens having access to care, and in particular to care from a primary care provider, plays an essential role in improving health outcomes in a community. The Healthy People 2020 plan established by the Office of Disease Prevention and Health Promotion calls for communities to work to achieve a ratio of 1,030-to-1 for licensed primary care physicians (general practice, family practice, internal, OB-GYN and pediatrics). Neither Clay nor Platte County currently meets this ratio; however, **the physician-to-total population ratio in both counties improved in 2018 compared to 2014, meaning there are more physicians available to meet the needs of a growing Northland population.** (Figure 90)

The correlation between poverty and access to healthcare is strong. Low income individuals are less likely to have access to medical and preventive services. As a consequence, they are more likely to develop multiple illnesses, become disabled and to die early.

FIGURE 90:

PHYSICIAN-TO-TOTAL POPULATION RATIO 2014-2018 COMPARISON

	PLATTE ▼	CLAY ▼	MO ▼
2014	1420:1	1656:1	1455:1
2018	1200:1	1480:1	1420:1

Source: Robert Wood Johnson Foundation, 2014, 2018

MEDICAID COVERAGE

Determining the number of people covered by Medicaid is challenging as the number of recipients and the number eligible for coverage fluctuates month to month. The most recent numbers available from the U.S. Census Bureau American Community Survey indicate that children age 6-17 were the largest age group with Medicaid/means-tested coverage in Clay County (8,874 children) and Platte County (2,041 children). One-third of Medicaid recipients in both counties fell into this age group. The next most frequently covered age group was children up to age 6, accounting for a quarter of all recipients in both counties (Clay: 6,043 children; Platte: 1,083 children). Men age 25-34 were the least likely to have coverage in Clay County, accounting for 0.8% of all recipients (190 individuals). In Platte County men age 45-54 were the least likely to have coverage, with no recipients falling into this age category in 2016. The American Community Survey 1- year estimate of Medicaid coverage tallies to 6,987 total individuals in Platte County, and 24,841 total individuals in Clay County.

A search of the MO HealthNet (Missouri Medicaid) Provider List revealed that as of November 2018, Clay County had 86 general or family practice physicians (MDs or DOs) who accepted MO HealthNet patients. The list for Platte County totaled 49 physicians. (Note: A number of these physicians accepted patients at more than one office location). These numbers reflect an increase from 2014 when 61 general/family practice physicians in Clay County and 27 in Platte County accepted MO HealthNet patients. Access to care frequently remains a challenge for these patients. In addition, just because a physician's name appears on the list does not mean they will accept a new patient. Participating physicians often establish a set number of patient slots for MO HealthNet clients, and when those slots are filled the practice does not accept new patients.

CONCLUSION

The data gathered for the 2018 Northland Health Alliance Community Health Needs Assessment, which provides the foundation for this North Kansas City Hospital report, revealed important insights about chronic disease and behavioral risk factors at the ZIP code level.

The data pinpointed pockets of the community served by the hospital that face significant health challenges and have some of the state's poorest health outcomes. It examined mental and behavioral health issues through numerous lenses: from demographics, to inpatient and emergency department utilization, to self-reported levels of suicidal ideation; revealing disturbing trends for both youth and middle-aged citizens. The analysis of community demographics deepened the hospital's understanding of the changing face of the Northland and raised questions about the income, education, and health disparities being experienced by communities of color, and the health challenges faced by an aging population. Finally, the data revealed that the economics of healthcare are an issue, not just for low- and moderate-income

citizens, but for residents earning $100,000 or more, too.

Using the data from the NH Alliance report, and incorporating data about the patients that walk through its doors every day, North Kansas City Hospital created a Community Health Needs Assessment that advances knowledge about the current state of health in the Northland, and more specifically about the health needs and gaps being experienced by the people living within its service area. More importantly, these insights help the hospital define its role in the Northland health ecosystem, supporting informed discussion and decision-making about where it can best invest its human, financial, and social resources to improve the health of the people and community it serves.

The 2018 Community Health Assessment led the Northland Health Alliance to reaffirm Access to Care, Mental and Behavioral Health, and Chronic Disease as notable health priorities to be addressed by the community during the next three years. The health assessment report also emphasized that even as these broad priorities remain pertinent, the information and insights gained through this effort must be used to develop new approaches for addressing the community's most significant health issues.

The Cycle 3 Initiatives selected by North Kansas City Hospital are:

- **Increase exercise and healthy eating resources and programs to help**

reduce obesity in the Northland

- **Improve access to care and implement services to reduce opioid drug overdoses in Clay and Platte counties**

- **Improve and increase services to better meet the health needs of our aging Northland population**

These initiatives align with and extend the reach of the priorities identified by Northland Health Alliance. North Kansas City Hospital will continue to work with its fellow Northland Health Alliance partners, as well as with government agencies, schools, faith-based organizations, the business community, nonprofit entities, and citizen "champions" of health, to create a healthier Northland.

Improving the health of the community requires thoughtful, collaborative work to craft and implement strategies that can make inroads on the interconnected and highly complex health issues facing the community. North Kansas City Hospital is committed to being part of the solution.

APPENDIX

CYCLE 3 CHNA INITIATIVE 1:
REDUCE OBESITY

CHNA SUB-COMMITTEE CO-CHAIRS

Sue Condon
Director, Rehab Services & Physical Therapy
North Kansas City Hospital

Michelle Lane
Sr. Director, Corporate & Community Health
North Kansas City Hospital

SUB-COMMITTEE MEMBERS

Courtney Klahn
*Director, Food &
Nutrition Services*
NKCH

Tina Weaver
Associate Director
NKC YMCA

Linda Borders
Manager
Gladstone Community
Center

Rosemary Salerno
Vice President
City Market

Jana Longwith
*Director, Community
Health & Wellness*
NKCH

Jill Sartain
*Supervisor, Community
Fitness*
NKCH

**Samantha
Scott, RD, LD**
*Dietitian & Wellness
Expert*
Hy-Vee Gladstone

Chris Evans
Executive Director
Feed Northland Kids

April Anderson
Wellness Specialist
North Kansas City
School District

Taryn Glidewell
*Nutrition Services
Manager*
Harvesters

Danielle Roethler
*Community
Development Specialist*
Clay County Public
Health

TBD
Kearney Culinary
Academy

**Denise Sullivan or Amy
Vance**
*Field Specialist in
Nutrition and Health*
Platte County University
of MO Extension

**Craig Volland &
Ben Kjelshus**
Founders
Kansas City Food Circle-
Community Supported
Agriculture (CSA)

TBD
Meals on Wheels/
Northland Shepard's
Center

*Representatives from other organizations identified as
tactics further develop*

PRIMARY GOAL:

To increase exercise and healthy eating resources to help reduce obesity in the Northland

OBJECTIVE 1

Create easily accessible healthy-eating resources in the Northland to improve access and consumption of healthy foods.

STRATEGIES

- Identify partner that offers healthy to-go meals on hospital campus and/or community locations; explore "mass meal prep" options for weekly or daily meals

- Support local vegetable and fruit gardens through collaboration with churches, schools and community groups located at public facilities, community parks and common areas throughout the Northland

- Develop healthy cooking videos that focus on easy food preparation; distribute through hospital and community digital channels

MEASUREMENTS

- Assess number of affordable, healthy to-go meal options in Northland locations, barriers to utilization

- If implemented, track sales for new to-go option locations in the Northland or central delivery sites

- Track number and location of gardens developed in Northland annually and progress of any community gardens

- Track number of "clicks" on healthy cooking videos

- Track participants at classes and cooking demonstrations

TACTICS
TBD by Committee

OBJECTIVE 2

Identify and collaborate with fitness resources and activities in the Northland to increase exercise participation and motivation to exercise

STRATEGIES

- Develop exercise videos to allow for "in home/ at work" exercise and distribute through hospital and community channels.

- Explore the feasibility of developing a community group to provide a new "social circle" that revolves around a fitness program that includes not only workout classes, but offers a healthy eating lounge and social activities that include scheduled bike trail rides, golf outings, ballroom dancing and other activities geared at bringing people of all abilities together.

- Help create a fitness path/trail that connects the Northland communities to the hospital campus.

- Explore the feasibility of developing an online wellness portal for the social circle and/or community. See Objective 3.

MEASUREMENTS

- Number of "clicks" (users of online videos)

- Number of members in new social circle if implemented

- Number of participants utilizing the online wellness portal

- Number of people utilizing identified walking trails/ paths

TACTICS

TBD by Committee

OBJECTIVE 3

Create or promote a Weight Management portal in the Northland to foster Body Mass Index reduction and weight maintenance support

STRATEGY

- Create or support an existing weight management portal for daily tracking and diet/fitness health resources (link other two strategies into this portal)

MEASUREMENTS

- Number of participants attending portal events such as support groups, educational offerings

- Trend BMI of participants at the start of the program and quarterly thereafter using weigh ins with height

- Track Passport Portal Enrolled Subscribers

- Monitor Passport Portal Utilization ("clicks" per day)

- Track "clicks" for online counseling usage

TACTICS

TBD by Committee

CYCLE 3 INITIATIVE 2:
REDUCE OPIOID OVERDOSES

CHNA SUB-COMMITTEE CO-CHAIRS

Lori Rodgers
Sr. Director, Critical Care Services
North Kansas City Hospital

Michelle Lane
Sr. Director, Corporate & Community Health
North Kansas City Hospital

SUB-COMMITTEE MEMBERS

Dr. Doug Ham
Emergency Department Medical Director
NKCH

James Stewart, MD
Chief Medical Officer
NKCH

Sarah Oakley
Vice President & Chief Nursing Officer
NKCH

Randee Gannon
Vice President, Marketing & Community Wellness
NKCH

Jonathan Boese
Practice Manager
Commcare

Shawn Billings or Tiffany Bowman
EPICC Program
Missouri Hospital Association

TBD
Community Liaison
Kansas City Police Department

Lori Wheelhouse
Tricare Mental Health

Lauren Moyer
VP, Clinical Services
KC - Assessment & Triage Center/ Rediscover

Megan Musselman
Pharmacist Manager
NKCH

Stacy Kearns
Nursing Director-ED
NKCH

Cameron Simcox
Chief
KCFD

Roger Wagoner
Chief
North Kansas City Fire/ EMS

Tracy Cheney
EMS Chief
Gladstone Fire Department/EMS

Sandra Henshaw
Executive Director
Northland CAPS Program

Joni Graff
Nursing Education Specialist
NKCH

Lisa St. Aubyn
CEO
Signature Psychiatric Hospital

Kar Woo
President
Artists Helping the Homeless

PRIMARY GOAL:

Improve access to care and implement services to reduce opioid drug overdoses in Clay and Platte counties

OBJECTIVE 1

Reduce the rate of ED visits due to opioid overdoses/deaths

STRATEGIES

- Implement Engaging Patients in Care Coordination (EPICC) program at NKCH

- Offer naloxone training to first-responders, school nurses, public health staff and lay persons in the community

- Establish emergency department prescribing policies, along with assessment for risk behavior and treatment referral and coordination with primary care to reduce opioid misuse and abuse

- Provide adequate training on pain modalities for members of the healthcare team. Encourage prescribers to follow opioid prescribing guidelines to reduce (a) number of patients receiving opioids, (b) number of prescriptions written, (c) number of pills prescribed, and (d) daily dosages/MMEs – when clinically appropriate

- Reduce non-urgent emergency services by developing and implementing a protocol with local Emergency Medical Services (EMS) personnel to make real-time referrals to community organizations; identify and work with the top 25 EMS users; and intervene at local "hot spots" where there is significant EMS activity

MEASUREMENTS

- Measure rate of opioid overdoses and deaths in the ED
- Number of EPICC Recovery Coach referrals
- Number of patients who follow up with OP substance use treatment
- Number of patients receiving opioid prescriptions from the Emergency Department, to include number of pills prescribed and daily dosages/MMEs – when clinically appropriate

TACTICS

TBD by Committee

OBJECTIVE 2

Implement community education on opioid substance use disorder and increase awareness of available resources

STRATEGY

- Provide two community education events/speakers annually on the topic of opioid substance use disorder and community resources

MEASUREMENTS

- Number of participants at community education events

TACTICS

TBD by Committee

CYCLE 3 INITIATIVE 3:
SERVE OUR AGING POPULATION

CHNA SUB-COMMITTEE CO-CHAIRS

Michelle Lane
Sr. Director, Corporate & Community Health
North Kansas City Hospital

Darla Easley
Sr. Director, Case Management
North Kansas City Hospital

SUB-COMMITTEE MEMBERS

Paige Robbins
Senior Program Coordinator
City of Gladstone

Kelli Votypka
Parks and Recreation Director
City of North Kansas City

Tina Uridge
Director
Clay County Senior Services

Kelly Creek
Site Coordinator
Platte County Senior Services

Dr. Belshe
Medical Director, Case Management
NKCH

James Stewart, MD
Vice President & Chief Medical Officer
NKCH

Greg Frohna
Director, Spiritual Care & Guest Services
NKCH

Jana Longwith
Director, Community Health & Wellness
NKCH

Stephanie French
Social Worker
NKCH

Linda Borders
Director
Gladstone Community Center

Tina Weaver
Executive Director
NKC YMCA

Ellen Hoyt
Meals on Wheels Coordinator
NKCH

Kim Nakahodo
Assistant City Administrator
North Kansas City, MO

PRIMARY GOAL:

Improve and increase services to better meet the health needs of our aging Northland population

OBJECTIVE 1

Create models of care that combine safe discharge with at-home monitoring and access to treatment through community-based facilities to prevent hospitalizations by helping them manage chronic conditions and avoid complications.

STRATEGIES

- Work with home health agencies to develop additional programs that are focused on the specific needs of the aging population
- Increase access to primary care by exploring different delivery models with community partners
- Expand opportunities for social engagement for those at risk of isolation

MEASUREMENTS

- Monitor number of readmissions for targeted population
- Trend the number of patients utilizing home health services
- Monitor nursing documentation for education provided utilizing the teach-back method
- Monitor the number of attendees to social engagements offered

TACTICS

TBD by Committee

OBJECTIVE 2

Implement programming to address the need for expanded caregiver support services and programing

STRATEGIES

- Provide support and resources for those actively caring for their aging family members in the Northland

- Create a recognizable spokesperson and/or go-to organization for aging issues

- Provide accurate online information on what resources are available for older adults

MEASUREMENTS

- Number of participants utilizing respite care

- Track attendance to community programs by caregivers

- Monitor the traffic on the newly-created online resource page

TACTICS

TBD by Committee

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Where your care is personal.