



LIBERTY HOSPITAL

**Community Health
Needs Assessment**

Liberty Hospital 2018 Community Health Needs Assessment

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I. 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 effecting sustainable long-term change within the community. In keeping with its mission to work in partnership with the community to improve the health, safety and well-being of the patients it serves, Liberty Hospital joined its fellow members in the Northland Health Alliance (NH Alliance) to conduct an assessment of the health and well-being of citizens who live in, work in, or visit Kansas City's Northland community. The 2018 CHNA is the follow up to the Northland Health Alliance's first collaborative health assessment conducted in 2015.

Working together, the 11 Alliance members 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. As in 2015, the intention of this effort was to identify the most significant health gaps or challenges the community faces, and to provide an evidence-based framework the community can use to make informed decisions about prioritizing health needs and determining where to invest community resources to most effectively address them.

For Liberty Hospital the Community Health Needs Assessment provides an opportunity to see the patients it serves in the context of the broader community and expands understanding of the role the hospital plays in the overall health ecosystem. This report explores data about the patients and communities Liberty Hospital serves through both a hospital-specific and a community-wide lens. The health assessment creates sharpened awareness of community needs and priorities, positioning the hospital to more effectively plan short- and long-term responses, ensuring it has the appropriate healthcare services and programs in place, now and in the future, to meet the needs of the community.

The insights gained from this assessment will be used by hospital leadership to inform decision-making regarding the health priorities Liberty Hospital will focus on in the coming three years. Once defined, these priorities will be the foundation of Liberty Hospital's 2019-2021 Implementation Strategy. In creating this strategy, to be completed by Spring 2019, the hospital will seek opportunities to align the efforts it will advance with the goals of the collaborative Community Health Improvement Plan the Northland Health Care Alliance, its members and community partners, will be developing in 2019.

Work on the 2019-2021 Liberty Hospital Implementation Strategy has been initiated. Committees, made up of hospital leaders and staff with expertise in the selected health priorities, will be convened in early 2019 to begin developing strategies the hospital will advance over the next three years. Collectively the committees will create an Implementation Strategy that addresses the areas of need identified, outlines the actions the hospital will take to address them, delineates resource requirements, identifies the individuals/teams within the hospital who will lead the work, and defines the impact/progress measures that will be assessed to track effectiveness. Committee progress will be reported to the Board of Trustees and the final Implementation Strategy document will be presented for their review and approval in Spring 2019. As noted above, where appropriate these committees will work in collaboration with the hospital's partners in the community including the Northland Alliance.



The mission of Liberty Hospital is to work in partnership with our community to improve the health, safety and well-being of those we serve.

The Northland Health Alliance (NH Alliance) is dedicated to empowering the Northland public health system to improve the health status and health outcomes of all residents in the Northland.

The Northland Health Alliance was created in 2014 by local health organizations interested in improving the health and quality of life of residents in the Northland. In 2015 the Alliance conducted a Community Health Needs Assessment (CHNA) that brought together information from resident surveys, public health data, census reports, and hospital data and identified the most critical health problems in the Northland. Today, Northland Health Alliance members and partners work together to improve the health of the Northland.

NH Alliance Members
Clay County Public Health Center
Liberty Hospital
Northland Health Care Access
Saint Luke's North Hospital
Tri-County Mental Health Services, Inc.

Children's Mercy Hospital
Excelsior Springs Hospital
North Kansas City Hospital
Platte County Health Department
Samuel U. Rodgers Health Center
Signature Psychiatric Hospital

II. The Community Defined

The Northland, as locals refer to the area, has no official geographic designation yet people living there see it as a unique and distinctive community. The Northland is comprised of communities that lie north of the Missouri River and includes Clay and Platte Counties. About 50% of Northland residents live within the city limits of Kansas City, MO. The Northland is a mixture of urban, suburban and rural, and includes such diverse communities as Liberty, North Kansas City, Platte City, Weston, Kearney and Excelsior Springs. The Northland is one of the fastest-growing areas in Missouri. Between 2010 and 2015 Clay and Platte counties grew at a rate of 7.1% and 7.5% respectively and in 2015, the total population of Clay and Platte counties was just under 338,000 people

This report presents data and analysis of the current health status of the Northland community. Because statistical data is most meaningful when comparative information is available to provide context, the report presents data in distinct sets: Liberty Hospital, Clay County, Platte County, Kansas City, MO, Missouri, and the United States. 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.

NOTE: While Liberty Hospital serves the entire Northland, the majority of its patients come from six zip codes: 64068, 64060, 64024, 64157, 64062, 64119. For the purposes of this report, Liberty Hospital-specific data reflects analysis of patient data from these six zip codes.

III. Community Health Needs Assessment Methodology

Assessing the health of a community requires the systematic collection, aggregation, and analysis of qualitative and quantitative information across multiple indicators of health. To that end the Northland Health Alliance and its members undertook a months-long process to gather data about the community.

One of the greatest benefits of a collaborative Community Health Needs Assessment is the ability to engage multiple partners in data gathering and analysis. To support this effort Alliance members appointed staff to serve on a Data Task Force. This group, chaired by Danielle Roethler of Clay County Public Health Center, was charged with:

- Identifying and gaining consensus around what data would be gathered and examined,
- Establishing the timeline and structure for data analysis,
- Developing community survey and community forum tools/approaches,
- Evaluating and transcribing key results into data tables,
- Drawing conclusions about what the data means.

Liberty Hospital, like all Alliance members, provided data to support the assessment effort including information on patient demographics and hospital utilization. Data analysis was conducted by Epidemiologists and Epidemiology Specialists at Clay County Public Health Center and Platte County Health Department.

DATA TASK FORCE PARTICIPANTS

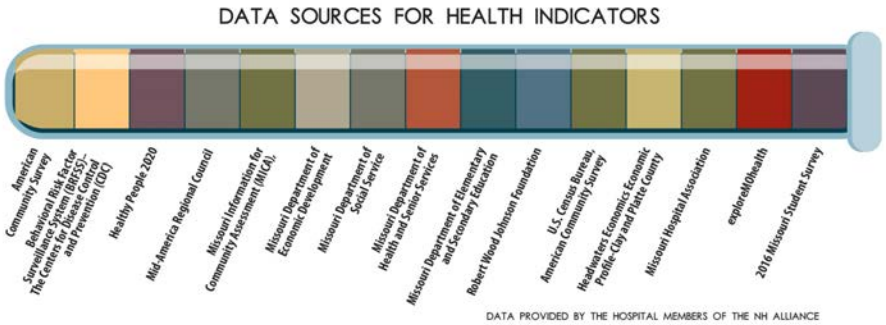


A. Primary Data: Community Survey

Members of the Liberty Hospital team worked as part of the Data Task Force to develop a community survey designed to capture feedback from people who live in, work in, or visit Clay and/or Platte County. The stated goal of the Data Task Force was to gather input from as large and diverse a segment of the community as possible. The survey was made available online by all members of the Alliance and promoted through their social media. Paper copies of the survey, in both English and Spanish, also were distributed throughout the community. Online and paper versions of the survey were available from August 7-September 14, 2018. Insights gained from this community feedback are embedded throughout this report.

B. Secondary Data

This 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, and Maternal and Child Health, Health Resource Availability/Access to Care, and questions regarding Quality of Life in the community, gathered through surveys.



Through data provided by the hospital members of the NH Alliance, the report also takes a detailed look at the utilization of hospital inpatient and emergency room services. Where possible, this data is reported by county, city, and/or zip code. By sharing this data, the hospitals have added a new level of understanding about the community’s health status, revealing highly targeted information about where health disparities or significant health issues exist in the Northland.

HOSPITAL MEMBERS OF THE NH ALLIANCE HOSPITAL INPATIENT AND EMERGENCY ROOM SERVICES



IV. Community Survey: Capturing the Voice of the Liberty Hospital Community

Taking time to gather feedback from the people who live, work or visit a community is essential to assessing its health and well-being. Liberty Hospital and its fellow Northland Healthcare Alliance partners worked collaboratively to develop and share a community survey to capture feedback from residents of Clay and Platte Counties. (Survey Instrument can be found in Appendix 1) The goal of the survey was to provide community context to illuminate the data gathered through the data-driven Community Health Status Assessment. This context will support consensus building around key health issues and priorities.

The survey asked participants to:

- Rate the overall health and quality of life in the community
- Identify:
 - o the health problems they believe are most important;
 - o the health behaviors that are having the greatest impact on the health of the community; and,
 - o the greatest challenges to being healthy in the Northland.
- Share:
 - o where they typically receive healthcare; and,
 - o how they pay for it.

This report presents analysis of 537 survey responses received from the six zip codes home to the majority of Liberty Hospital patients (64068, 64060, 64024, 64157, 64062, 64119) and compares them to analysis of the results of all survey respondents. The comparison reveals interesting differences in perception of community health.

A. Survey Respondent Demographics

Respondents to the health survey were more likely to be female (75% of all survey respondents, 83% from Liberty Hospital zip codes), to fall in the 25-44 year age range (33.5% of all respondents, 34.4% of Liberty Hospital zip code) and to be white (84% of all respondents, 92% of respondents from Liberty Hospital zip code area.)

More than 60% of all respondents and 70% from the Liberty Hospital catchment area are married and have a college degree or higher. More than a quarter of the Liberty Hospital respondents reported an annual income of over \$100,000, slightly under a quarter of respondents from the community as a whole reported a similar annual income. The majority of respondents are employed full time (53.9% Northland, 62.4% Liberty Hospital zip codes).

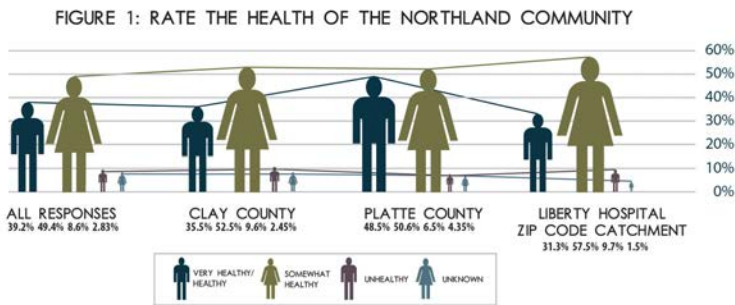
The majority respondents do not have children under 18 living in the household (56.8% Northland, 55.5% Liberty Hospital zip code.) Families with children living in the home accounted for 43% of Northland households, and 45% of Liberty Hospital zip codes).

It is important to acknowledge that the demographics of those who responded to the community health status assessment survey are not representative of the Northland community as a whole, and in particular the low income, racial and ethnic minority, and aging populations most likely to be underserved by health and wellness services. Liberty Hospital and its partners in the Northland Health Alliance made concerted effort to engage citizens across the community in the survey.

Survey links were sent out via each organization’s communications network, and paper surveys were provided at health department clinics and offices, health care clinics, and via nonprofit groups. The Alliance Data Task Force acknowledged that future efforts to gather feedback from underserved populations will require explicit and focused outreach. To ensure this gap in community feedback was filled with actionable information, the Data Task Force invested considerable effort in gathering and analyzing data related to social indicators of health, behavioral risk factors, chronic disease risk and mortality rates, and maternal and child health to ensure this Community Health Needs Assessment includes a clear picture of the health status of underserved communities in the Northland.

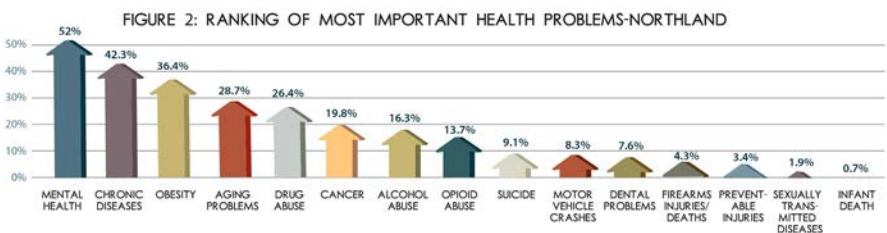
B. Survey Results

About half of the respondents to the Northland Community Health Assessment survey rated the health of the Northland as Somewhat Healthy. However, looking at survey data by county and by Liberty Hospital zip code catchment area reveals differing perspectives on just how healthy citizens think the community is. Nearly 60% of those from the Liberty Hospital catchment area rate the community as Somewhat Healthy, and under one-third rate it as Very Healthy/Healthy (Figure 1)



The results of the Northland Community Health Assessment survey largely align with data reported through the Missouri Department of Health and Senior Services 2016 County Level Survey. In that survey 18% of Clay County respondents and 11% of Platte County respondents reported being in fair or poor health. In Clay County, survey respondents reported experiencing an average of 3.6 days of poor health in the last 30 days. In Platte County survey respondents reported experiencing an average of 2 days of poor health in the last 30 days.

When asked what the three most important health problems in the community are, 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 2) 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.

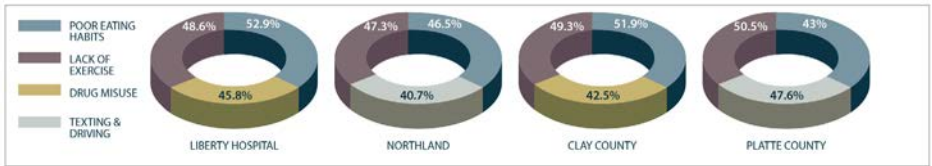


Those in the Liberty Hospital catchment area rated Mental Health as the number one health problem at a significantly higher rate than respondents across the community as a whole. (Figure 3)



The survey revealed nuanced differences of opinion about the health behaviors having the greatest impact on overall health in the Northland community. Poor eating habits, lack of exercise, and drug misuse were the behaviors cited most frequently by those in the Liberty Hospital catchment area and in Clay County as a whole. Platte County respondents mirrored the assessment of respondents across the community, rating lack of exercise, poor eating habits, and texting and driving as the most impactful behaviors on health. (Figure 4)

FIGURE 4: RANKING OF TOP 3 HEALTH BEHAVIORS WITH THE GREATEST IMPACT ON OVERALL COMMUNITY HEALTH



Alcohol misuse, opioid misuse, and tobacco use were the next most frequently cited behaviors impacting health across all survey respondents.

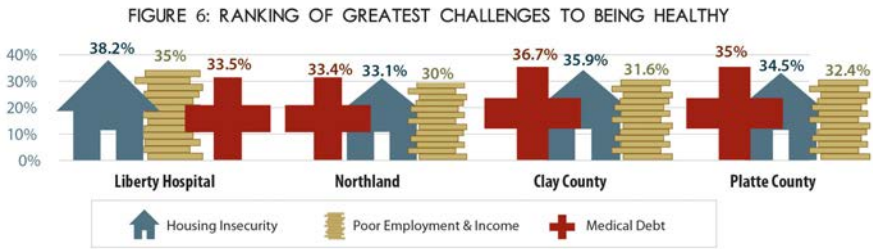
Respondents to the community survey were asked to select the top three challenges to being healthy from a list of 14 different factors. While medical debt, housing insecurity, and employment and income issues were selected as the top three challenges, they were closely followed by access to healthcare, transportation issues, utility needs and food insecurity and hunger. Note: (Figure 5)

30% Employment and income 33.4% Medical debt 33.1% Housing insecurity 26.5% Access to healthcare 25.3% Transportation issues 25.2% Utility needs 22.6% Food insecurity/hunger 14.6% Education 13.2% Violence 12.5% Crime 10.4% Homelessness 5.9% Discrimination 4.6% Human trafficking

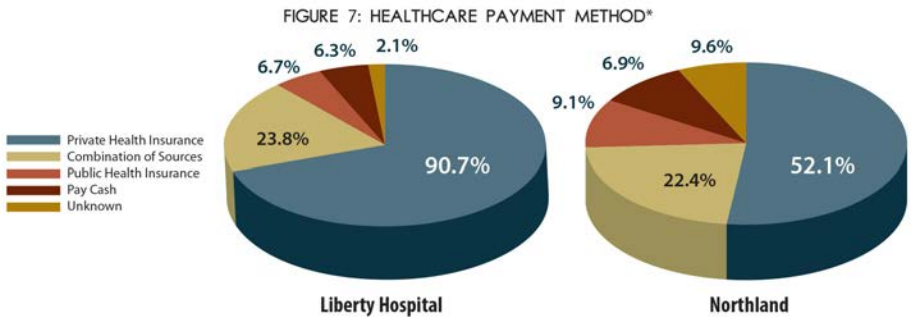
FIGURE 5: RANKING OF GREATEST CHALLENGES TO BEING HEALTHY IN THE NORTHLAND



Analysis of survey responses by Northland community again revealed nuanced differences. While medical debt was ranked as the number one challenge to being healthy by the Northland community as a whole and by respondents from Clay and Platte Counties, respondents residing within the Liberty Hospital zip code area rated it as the third greatest challenge, ranking housing security as the number one challenge. (Figure 6)



While just over half of all survey respondents reported having private health insurance, 91% of respondents from the Liberty Hospital zip codes reported having private health insurance. More than 20% of all respondents reported using a combination of sources (private insurance, public insurance, paying cash for services) to cover healthcare costs. (Figure 7) More than three-quarters of all respondents, and over 80% of respondents from the Liberty Hospital catchment area, reported they primarily receive healthcare from a primary care physician.



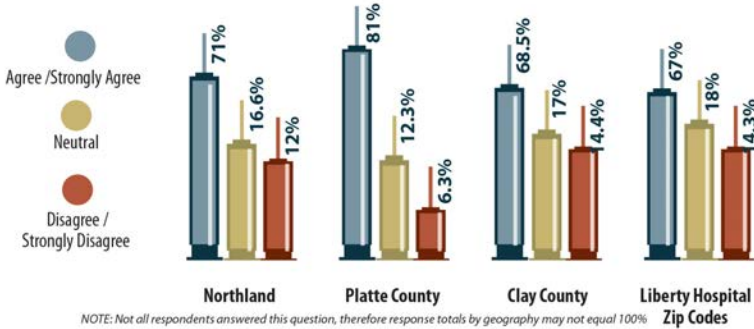
It is worth taking a moment to reflect on the demographics of survey respondents, their level of insurance coverage, and the top challenges they identified to being healthy. The typical respondent was a white female, with a college degree, an income of \$100,000 or more, and who had health insurance. 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 is having on fellow citizens; it also could suggest that spiraling costs for healthcare are having a significant negative impact on patients at every income level. This is an issue that bears watching.

Quality of Life

The majority of respondents to the Community Health Assessment 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). The level of satisfaction varied by geography. Those from the Liberty Hospital

zip codes ranked their agreement with the statement the lowest (67%) while those from Platte County ranked their agreement with the statement the highest (81%). Respondents from Clay County were the most likely to disagree/strongly disagree with the statement (14.4%), and just under 20% of respondents from the Liberty Hospital catchment area reported being neutral on the statement. (Figure 8)

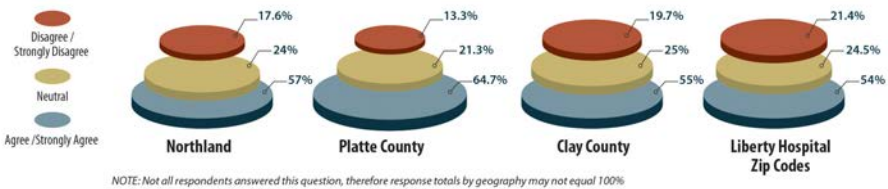
FIGURE 8: SATISFACTION WITH QUALITY OF LIFE



Survey respondents from the Liberty Hospital zip codes and from Clay County as a whole were more likely to disagree/strongly disagree with the statement that the community has enough health and wellness activities to meet my needs. (18.4% Liberty Hospital, 18.3% Clay County). About 65% of all respondents agreed the community has enough housing choices to fit my needs. Respondents from the Liberty Hospital zip codes were the most likely to disagree with this statement, 18.3% of the total compared to 14.5% in Platte County and 15.7% in the Northland as a whole.

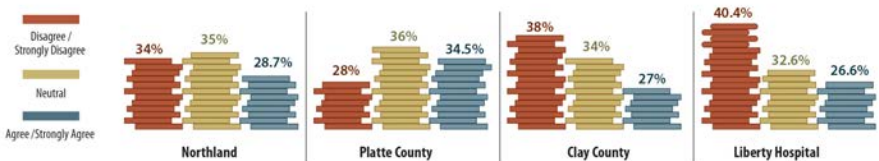
Just over 50% of Liberty Hospital respondents agreed that the community is a good place to grow old, the lowest percentage of agreement among all the groups, while 20% disagreed or strongly disagreed with the statement, and another 25% were neutral. (Figure 9)

FIGURE 9: COMMUNITY IS A GOOD PLACE TO GROW OLD



Less than a third of all survey respondents agreed that there is enough access to medical care for residents with low income in the community. Over 40% of respondents from Liberty Hospital zip codes disagreed or strongly disagreed with this statement. (Figure 10)

FIGURE 10: ENOUGH MEDICAL CARE ACCESS FOR LOW INCOME



V. Health Indicators: Demographics & Social Indicators of Health

The answer to the question, “How healthy is our community?” is deeply intertwined with questions about what the community looks like--its demographics and socioeconomic. Exploration of the community’s population--age, race, ethnicity, gender, and geographic distribution--can help deepen understanding of current health issues and provide a solid foundation on which to build future plans. Examining socioeconomic indicators including educational attainment, employment status and household income provides insight into everything from health literacy to barriers to health care access. The following section presents an analysis of demographic and socioeconomic data about the Northland. This contextual information is essential for both thoughtful analysis of a community’s health status and for the development of health improvement plans to address identified priorities and gaps.

A. Population Statistics

According to 2016 census data, the Northland was home to just under 338,000 people, with 98,653 living in Platte County and 239,085 Clay County. Between 2010 and 2015 the counties grew by more than 7%. (Figure 11). While the majority of residents in both counties live in urban communities, about 16% of Clay County residents and 10% of Platte County residents, a quarter of all Northland citizens live in rural areas. (Figure 12). 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 be growing 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.

FIGURE 11: TOTAL POPULATION GROWTH 2010-2015

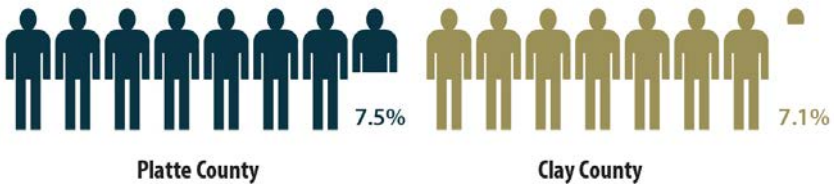
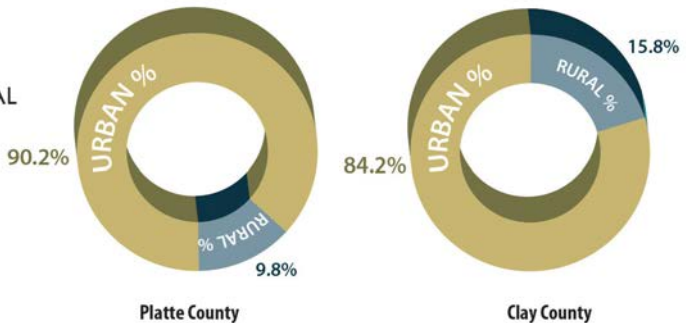


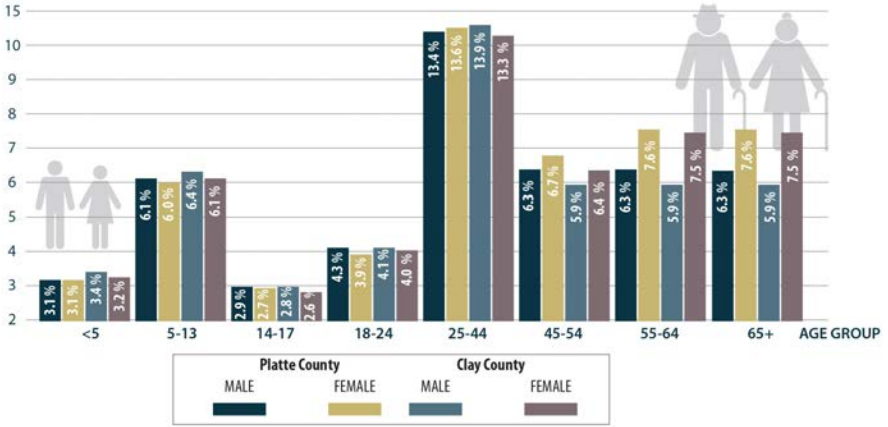
FIGURE 12: URBAN AND RURAL POPULATION



B. Gender/Age Statistics

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 13)

FIGURE 13: 2016 CENSUS ESTIMATES: AGE & GENDER
*AMERICAN COMMUNITY SURVEY 2016 ESTIMATE



As is the case across America, the size of the senior population--those age 65 and over--is growing rapidly in Northland communities. 2016 Census estimates place the total percentage of older residents living in Platte County at 14% and at 13.4% in Clay County. In 2010, the figure was 11% in both counties. (Figure 14) Census data estimates indicate the population of individuals age 65 and over will double in the US during the next three decades. The Mid-America Regional Council's 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 timeframe. (Figure 15)

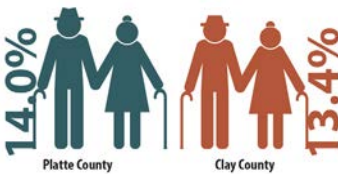
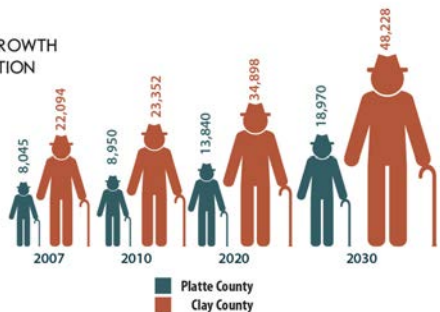


FIGURE 14: PERCENTAGE OF POPULATION OVER 65

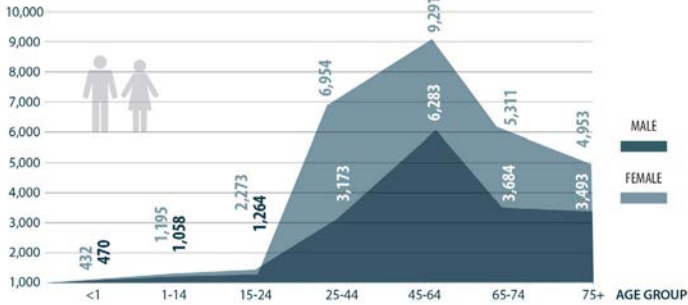
FIGURE 15: PROJECTIONS FOR GROWTH IN SENIOR POPULATION



C. Liberty Hospital Demographics

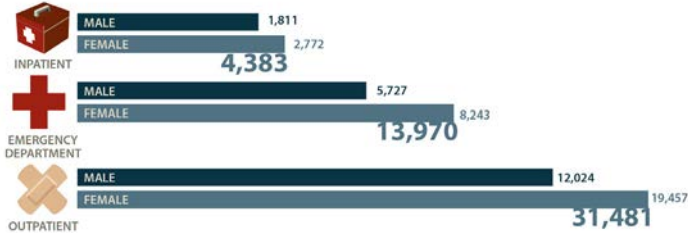
Patient demographics at Liberty Hospital do not mirror the general demographic breakdown in the Northland. Looking across the total number of patient visits---inpatient, outpatient and Emergency Department---between June 1, 2017-May 31, 2018, the most frequent users of hospital services were women, who accounted for 61% of all patient visits. While men and women between the ages of 45 and 64 account for approximately 25% of the Northland population, they were the most frequent users of hospital services, accounting for 31% of all hospital visits. Women accounted for 59% of visits in this age group. (Figure 16)

FIGURE 16: LIBERTY HOSPITAL PATIENT AGE/GENDER-TOTALS



Examination of hospital utilization by service reveals women comprised 58% of inpatient stays, 59% of Emergency Department visits, and 61% of outpatient visits. (Figure 17) People age 75 and up accounted for largest percentage of those receiving inpatient care (24%). People in the 45-64 age category (23%) followed closely by people in the 45-64 age category (23%). People in the 45-64 age category also accounted for 35% of all outpatient visits. Those age 25-44 accounted for the largest share of Emergency Department visits, accounting for 32% of the total.

FIGURE 17: HOSPITAL SERVICE UTILIZATION BY GENDER



The predominance of female patients at Liberty Hospital aligns with national statistics on health-care utilization and gender. A 2014 article examining health spending trends by age and gender published in the Health Affairs Journal revealed that women, who make up just over 50% of the US population, accounted for 56% of all healthcare spending in 2010. This is about 25% more than per capita spending for males on healthcare. An article in the Journal of Family Practice suggested the differences in healthcare utilization may be associated with reproductive biology and conditions specific to gender, higher rates of morbidity in women than in men, differences in health perceptions and the reporting of symptoms and illnesses, or a greater likelihood that women seek help for prevention and illness.

D. Diversity Statistics: Race/Ethnicity

Clay and Platte Counties are home to a predominately white population. However, comparison of Census data between 2010 and the 2016 makes clear the demographics of Northland communities are changing.

Patient demographics at Liberty Hospital do not mirror the general demographic breakdown (Figure 18). In Clay County, the white population remained steady while the African American population grew by 1.3% and the Hispanic population grew just under 1%. Both the Asian and Native American population showed slight decreases. In Platte County, 2016 Census estimates indicate the white population in the county decreased by about one-half percent, while both the African American and Hispanic populations grew by 1%. Platte County's Asian population decreased by half a percent and the Native American population remained steady during the same time period.

The Mid-America Regional Council (MARC) 2015 Regional Health Assessment Report 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 and 2013, nonwhite populations grew by 37% in the Kansas City Metropolitan Statistical area compared to 32% in the US. During the same time period, nonwhite populations in Clay County grew by 113% and in Platte County by 96%. (Figure 19)

FIGURE 18: RACE/ETHNIC DISTRIBUTION: CENSUS DATA COMPARISON

*U.S. DEPARTMENT OF COMMERCE UNITED STATES CENSUS BUREAU AMERICAN FACT FINDER 2016 ESTIMATES
 **U.S. CENSUS 2010

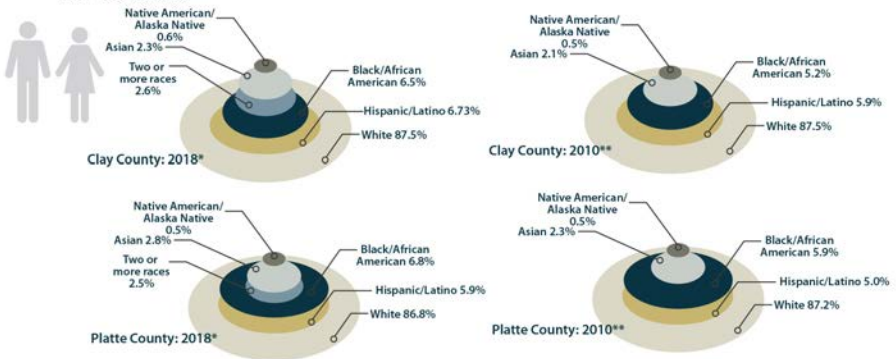
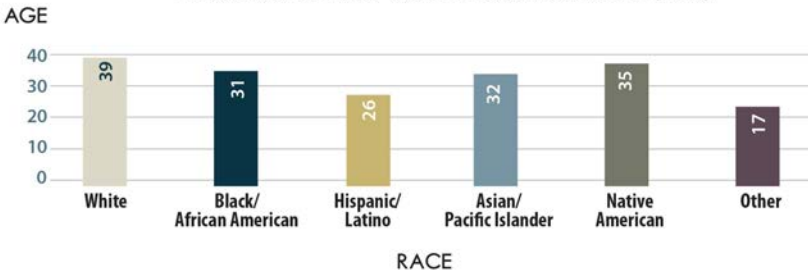


FIGURE 19: GROWTH IN NONWHITE POPULATION



The 2013 Equity Profile of the Kansas City Region, also completed by MARC, provides interesting insight in age demographics among different racial and ethnic groups. As was noted previously, the senior population in the metro area and the Northland is growing rapidly. The Equity Profile data makes clear the white population in the community is leading this growth. (Figure 20) Whites in the KC metro area have the highest median age, 39, while the median age in the Hispanic population is 26. In 2013, minorities accounted for 36% of the metro area population under age 18, and that number is expected to rise to more than 50% by 2040.)

FIGURE 20: MEDIAN AGE BY RACE/ETHNICITY (2013)



Extensive research done by public agencies and healthcare organizations makes clear that health disparities experienced by racial and ethnic minorities have real impact on health outcomes and place enormous financial pressures on the healthcare system. A 2016 report published in by the Kaiser Family Foundation, “Key Facts on Health and Healthcare by Race and Ethnicity”, presented hard data on health disparities faced by communities of color. Among the main takeaways from the research:

- People of color face significant disparities in access to and utilization of healthcare. Nonelderly 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), nonelderly 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 nonelderly uninsured.

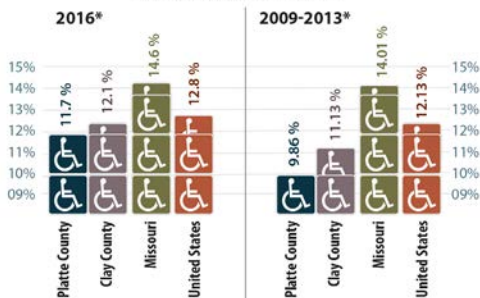
These disparities not only are having negative effects on the health and quality of life of minority communities, they have negative implications on the country’s financial bottom line. The Joint Center for Economic and Political Studies estimated that between 2003 and 2006, 30.6% of direct medical care 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. Identifying, understanding, and addressing health disparities experienced by communities of color only will become more important as the Northland continues to grow and evolve.

E. Population with a Disability

The number of citizens living with a disability in the Northland is growing. More than 10% of the population in both Clay and Platte County has a disability. (Figure 39) Those 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.

FIGURE 39: POPULATION LIVING WITH A DISABILITY
*AMERICAN COMMUNITY SURVEY



F. Cultural Demographics

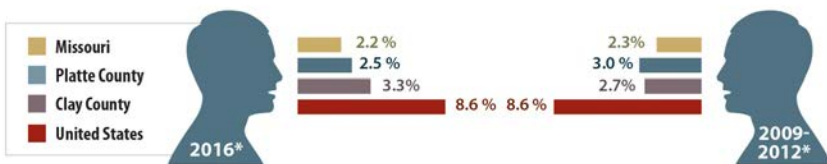
The heated political and social environment has presented immigrant communities with a host of new challenges. Conversations about how to assimilate immigrant populations into the broader community are important to continue as the number of foreign-born residents in the Northland is increasing. (Figure 40)

FIGURE 40: PERCENT FOREIGN BORN
*AMERICAN COMMUNITY SURVEY



For Liberty Hospital and other healthcare providers, understanding how to navigate differing cultural expectations about healthcare services is as important to patient care as is ensuring that medical and health information is translated correctly to non-English-speaking patients. (Figure 41) In 2016 Liberty Hospital provided translation services to patients who spoke six different languages including Spanish, Vietnamese, Arabic, French and German.

FIGURE 41: NON-ENGLISH SPEAKERS



VI. Health Indicator: Economics

Income and health are intimately connected. It is well understood that those in the community who are richer and more highly 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 therefore must be rooted in understanding the economic dynamics in play in the community.

A. 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 the spring of 2018, unemployment in the Northland stood at 3%, below city, state, and national unemployment rates. (Figure 21). 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.

Native American and multi-racial citizens also experienced unemployment at higher rates than white citizens in both counties. 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 22)

FIGURE 21: PERCENT UNEMPLOYED (APRIL 2018)
 *MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT

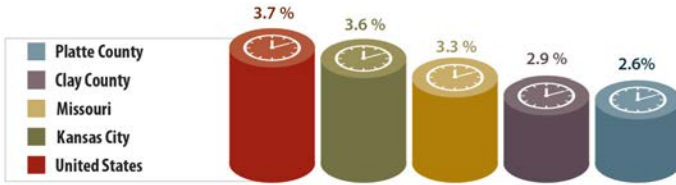
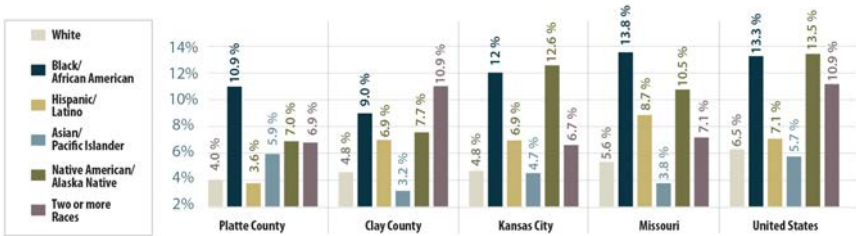
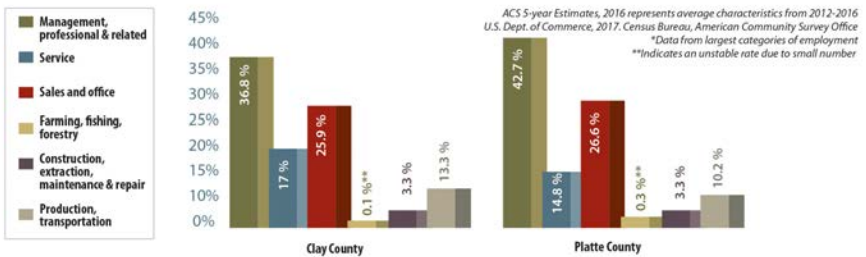


FIGURE 22: UNEMPLOYMENT BY RACE/ETHNICITY
 *ACS SURVEY 5 YEAR ESTIMATES-2012-2016



The largest segment of the population in the Northland is employed in management, professional and related industries. A large percentage of employees in both counties, 33.6% in Clay and 28.3% in Platte, work in the service industry, and in construction, production and transportation. These fields are viewed widely as being at greater risk for disruption through changes in the economy and advances in technology. (Figure 23)

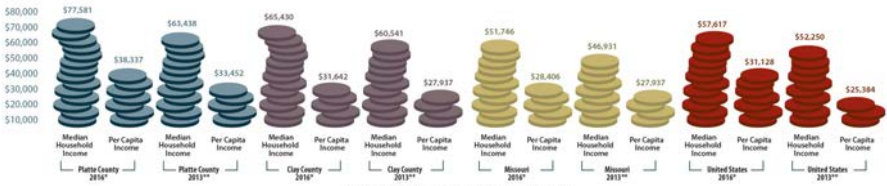
FIGURE 23: EMPLOYMENT BY INDUSTRY-% OF TOTAL



B. Income

Clay and Platte Counties experienced significant growth in both median income and per capita income between 2013 and 2016. The median household income in Platte County grew by more than 18% and in Clay County by 8%. Per capita income in both communities grew by double digits, 14.5% in Platte County and 13.2% in Clay County. (Figure 24) The median income in Platte County appears to be rising more rapidly than in Clay County. In 2013 Platte County's median income was \$7,000 higher than in Clay County. In 2016 the difference grew to \$12,000.

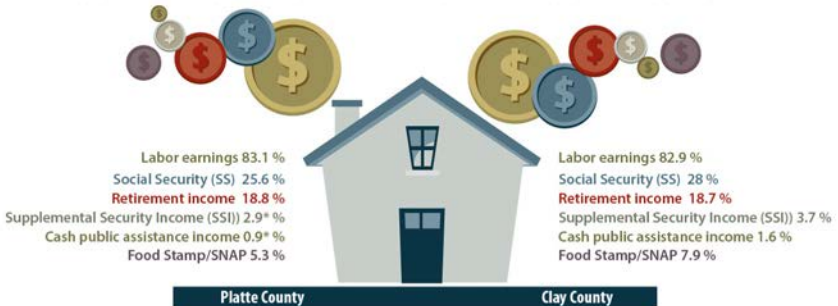
FIGURE 24: MEDIAN AND PER CAPITA INCOME COMPARISON



*American Community Survey, 2016, 1-year estimate
 **American Community Survey, County Health Rankings & Roadmaps 2015 Report

Native American and multi-racial citizens also experienced unemployment at higher rates than wThe majority of households in both counties receive income through employment. It is worth noting that nearly half of households in Clay County (47%) and 44% of households in Platte County receive income through Social Security and/or retirement income. (Figure 25) The mean income from Social Security is about \$20,000 in both counties. The mean retirement income is \$24,000 in Platte County, \$23,000 in Clay County. As the percentage of the senior population continues to grow in relation to the total population in the Northland, the growing percentage of citizens living on fixed or retirement incomes could have implications on issues ranging from economic development to healthcare and transportation

FIGURE 25: HOUSEHOLD EARNINGS BY INCOME SOURCE 2016

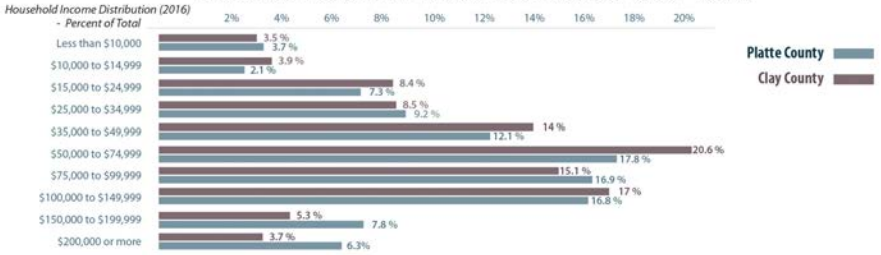


Total may be more than 100% due to households receiving more than 1 source of income
 U.S. Dept. of Commerce, 2017.

Census Bureau, American Community Survey Office
 *Indicates an unstable rate due to small number

In Clay County nearly 16% of households and 13% of households in Platte County have annual income of under \$25,000, placing them at or under the Federal Poverty Level. (Figure 26) Research on health outcomes makes clear that low income households have higher overall mortality rates and greater incidence of chronic disease than those with higher socio-economic status, a reality with obvious financial implications for healthcare providers and the community in general. Issues related to access to care, low educational attainment, language barriers, and disability frequently are complicating factors.

FIGURE 26: HOUSEHOLD INCOME DISTRIBUTION-% OF TOTAL

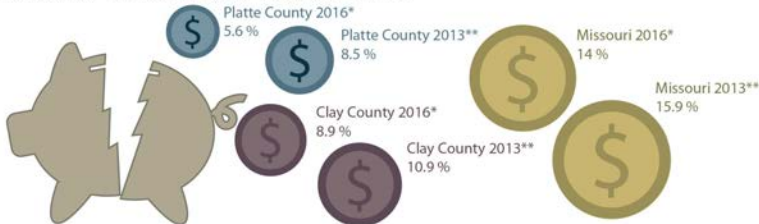


C. Poverty Level

The poverty threshold or Federal Poverty Level (FPL) is set by the Federal government annually using 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 year for which we have the most current census data on poverty, the FPL was \$24,250 for a family of four. (Note: 2018 Federal Poverty Level is \$25,100 for a family of four.) National Census data makes clear 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 than white citizens. Individuals living in poverty face the greatest challenges to accessing needed healthcare and, are therefore, more likely to experience health inequalities than other groups.

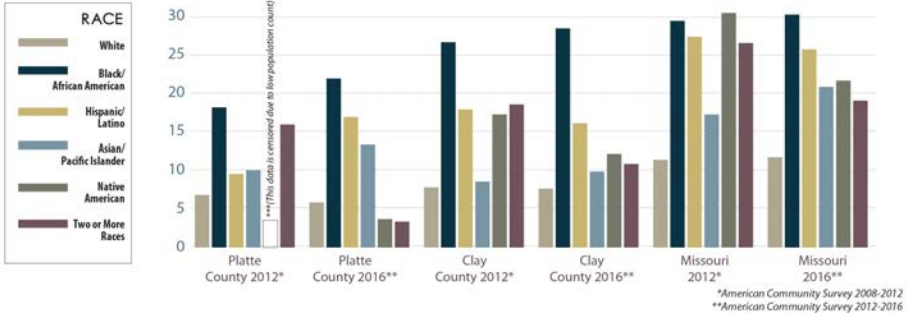
As employment and median household income has increased in the Northland, the overall percentage of individuals and families living at or below the federal poverty level decreased. In 2013 11% of Clay County residents and just under 9% of Platte County residents were living below the poverty level. In 2016 those numbers had dropped to 8.9% in Clay County and 5.6% in Platte County, significant improvements. (Figure 27) The data makes clear however, that the “rising tide has not lifted all boats.” The percentage of African American individuals living below the poverty line in Clay and Platte Counties actually increased between 2012 and 2016. More than a quarter of African American citizens in Clay County and nearly 23% in Platte County are living in poverty. During that timeframe the number of Hispanic individuals living in poverty increased significantly in Platte County from 10% to more than 16% but decreased in Clay County. (Figure 28)

FIGURE 27 TOTAL BELOW POVERTY LEVEL



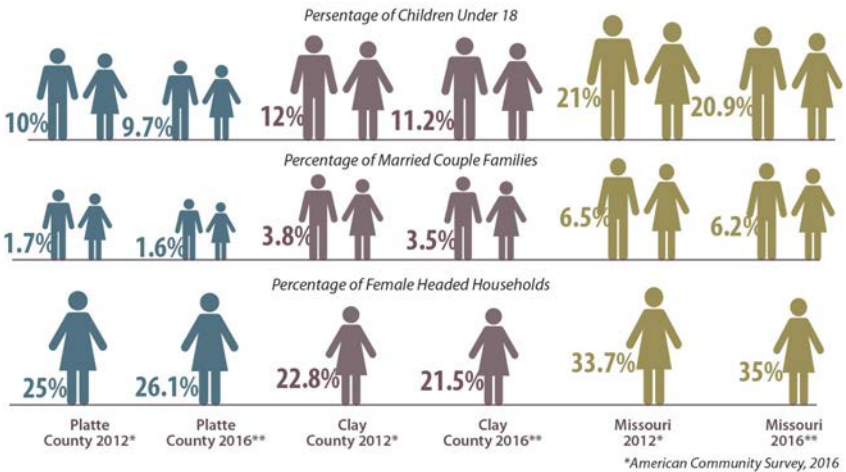
*ACS 5-year Estimates, 2016 represents average characteristics from 2012-2016 U.S. Dept. of Commerce, 2017. Census Bureau, American Community Survey Office

FIGURE 28: PERCENTAGE OF PERSONS LIVING IN POVERTY BY RACE/ETHNICITY



Between 2012 and 2016 the Northland experienced an uptick in the number of children living at less than 100% of poverty. In 2016, 10% of children under the age of 18 in Platte County and 12% of those in Clay County lived below 100% of poverty. U.S. Census data show that households headed by females, and especially those led by women of color, are more likely to live in poverty than other US households. In 2016, a quarter of female-headed households in Platte County and more than 20% in Clay County lived below 100% of poverty. (Figure 29)

FIGURE 29: PERCENTAGE OF CHILDREN AND FAMILIES LIVING AT LESS THAN 100% OF POVERTY LEVEL



D. 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% 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 30) In 2016 the 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.

FIGURE 30: PERCENT OF INDIVIDUALS WITH FOOD UNCERTAINTY



Between 2013 and 2016 the percentage of children eligible for Free and Reduced Price Lunch in Clay and Platte County schools remained steady--more than one-third of students in Clay County and more than a quarter of students in Platte County. On a positive note, the percentage of eligible students showed decreases in both counties. (Figure 31)



FIGURE 31: PERCENTAGE OF STUDENTS ELIGIBLE FOR FREE AND REDUCED PRICE LUNCH

E. Housing

Housing experts agree the desired ratio of housing expense to before tax income is 30%. 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 32) Housing costs are impacting a growing number of households in the Northland. In 2013, households paying more than 30% of their monthly income for housing stood at 29% in Platte County and 26.5% in Clay County. This is a trend moving in the wrong direction.

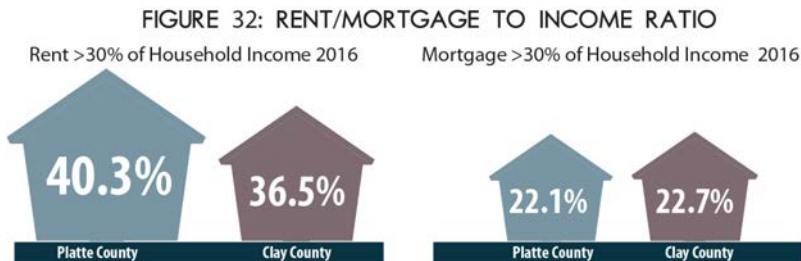
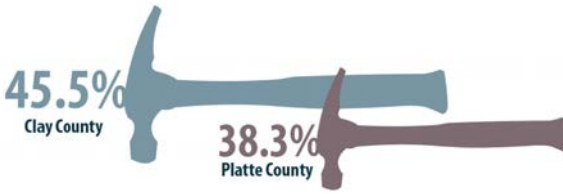


FIGURE 32: RENT/MORTGAGE TO INCOME RATIO

The housing stock in the Northland is aging. Nearly half of all homes in Clay County were built before 1980; the figure is just under 40% in Platte County. Older homes can present health threats ranging from lead paint (homes built before 1978), to lead plumbing (pipes installed before 1986), to asbestos (found in homes built before the late 70s), or mold (found in older, less well-sealed homes).

Older homes also require consistent, ongoing maintenance and inevitably face structural issues and the need for major updates/repairs. These aging homes present major health and financial challenges to the growing number older homeowners trying to age in place, as well as to low income families seeking safe, affordable housing. (Figure 33)

FIGURE 33: PERCENTAGE OF HOME BUILT BEFORE 1980

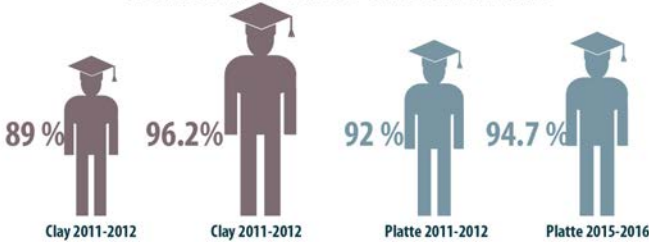


F. Educational Attainment

Research draws a clear 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, to drink a lot, to be overweight or obese, or to use illegal drugs and consequently are also less likely to die from the most common acute and chronic diseases such as heart disease and diabetes.

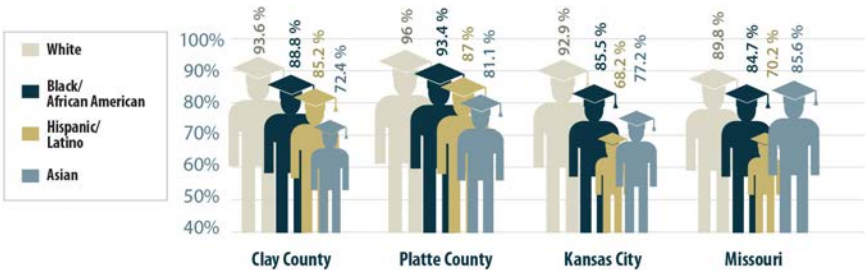
In Clay County the high school graduation rate improved by 7% to over 96% from 2011-12 school year to the 2015-2016 school year. The graduation rate in Platte County also improved, from 92% to 94.7%. (Figure 34)

FIGURE 34: HIGH SCHOOL GRADUATION RATE



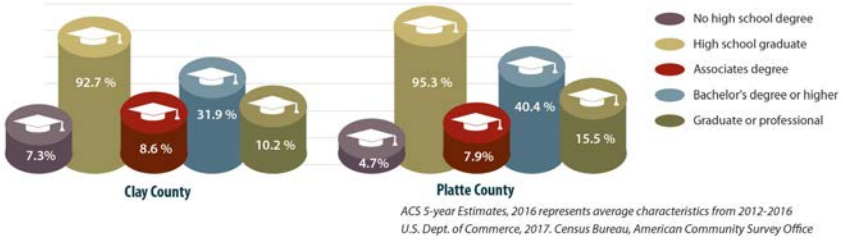
While graduation rates for communities of color in the Northland generally are higher than graduation rates in Kansas City and Missouri, they are lower than graduation rates for whites. Northland adults from communities of color, especially those living in Clay County, are less likely to have a high school degree. (Figure 35)

FIGURE 35: HIGH SCHOOL GRADUATE OR HIGHER BY RACE/ETHNICITY



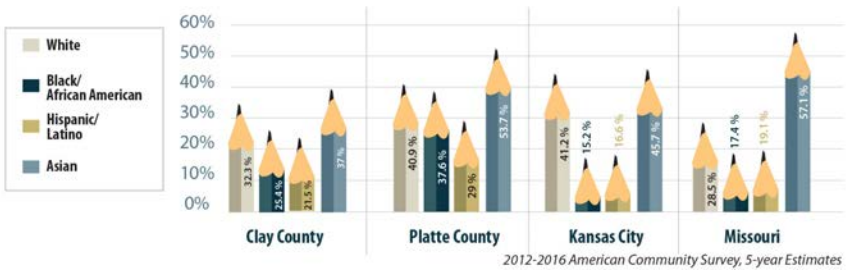
About 40% of Clay County residents hold associate's or bachelor's degrees, and 10% hold a graduate degree. In Platte County, nearly 50% of residents hold associate's or bachelor's degrees and more than 15% hold a graduate degree. (Figure 36).

FIGURE 36: EDUCATIONAL ATTAINMENT



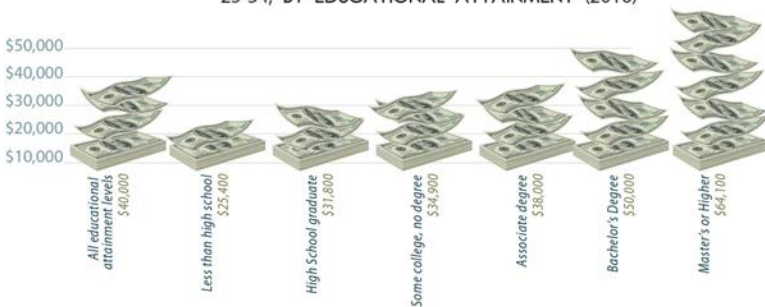
As with high school graduation rates, the percentage of adults from communities of color who hold a bachelor's degree or higher is lower than the percentage of Northland whites who have attained these levels of education. (Figure 37) The disparity is especially notable for African American and Hispanic citizens.

FIGURE 37: BACHELOR'S DEGREE OR HIGHER BY RACE/ETHNICITY



Educational attainment also is strongly correlated with income in the United States. As the nature of the U.S. economy has changed, those with only a high school diploma have experienced a growing gap in earnings potential between themselves and those with higher academic credentials. (Figure 38) This ever-widening gap is sending a message that a high school diploma no longer is enough to ensure economic security

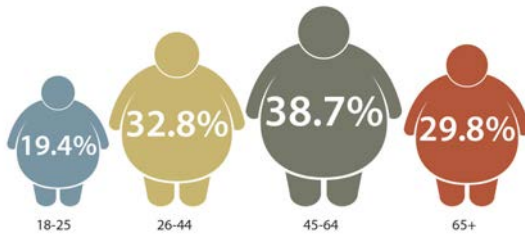
FIGURE 38: NATIONAL MEDIAN ANNUAL EARNINGS, FULL-TIME WORKERS, 25-34, BY EDUCATIONAL ATTAINMENT (2016)



VII. Health Indicator: Behavioral Risk Factors

It should be no surprise that people living in the Liberty Hospital catchment area ranked Chronic Disease and Obesity as the two of the three top health problems in the Northland. Nearly two-thirds of the Northland population is overweight or obese. Only one in 10 is eating an adequate number of servings of fruits and vegetables every day, and one in five do not engage in any kind of leisure-time physical activity. According to the Robert Wood Johnson Foundation report, “The 2018 State of Obesity in America,” Missouri has the 17th highest rate of adult obesity (BMI of 30 or more) 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 23.9% in 2014, to 30% of the population in 2011, Missourians steadily have been growing larger. Adults age 45-64 have the highest obesity rate at 39%. One-third of adults ages 26-44 and 65+ are also considered obese. (Figure 42) While obesity is a problem for all races and ethnicities in Missouri, African American citizens have the highest obesity rate at nearly 40%.

FIGURE 42: OBESITY RATE BY AGE IN MISSOURI



The obesity rate in both Clay and Platte County is lower than that in Missouri, 28.4% in Clay, and 26% in Platte. The percentage of citizens considered overweight in Clay County is higher than that of both Platte County and Missouri as a whole. (Figure 43)

FIGURE 43: PERCENTAGE OF NORTHLAND OVERWEIGHT/OBESE ADULTS

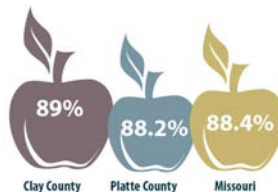


Addressing community concerns about chronic disease will require Liberty Hospital and all healthcare providers and organizations in the Northland to place significant focus improving nutrition, physical activity and wellness.

Healthy eating and regular physical activity are important contributors to improving or maintaining health status. These health habits reduce the risk of both chronic disease and health conditions like obesity. The Behavioral Risk Factor Surveillance System (BRFSS) assesses the quality of the American diet by tracking the consumption of fruits and vegetables. Adults with diets that include five servings of fruit and vegetables a day are considered to have an adequate diet. Nearly 90% of adults in the Northland do not eat an adequate diet of fruits and vegetables daily. (Figure 44)

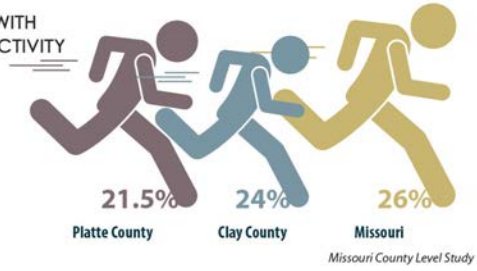
FIGURE 44: ADULTS EATING FEWER THAN 5 SERVINGS OF FRUITS/VEGETABLES DAILY 2016

Missouri County Level Study



While many adults in the Northland are participating in leisure-time physical activity, between 20% and 25% of the population is getting no leisure-time physical activity. (Figure 45)

FIGURE 45: PERCENTAGE WITH NO LEISURE-TIME PHYSICAL ACTIVITY



Even small increases in physical activity have been shown to pay rewards in improved health status and quality of life. Research cited in a 2006 article published in the Primary Care Companion to the Journal of Clinical Psychiatry suggested exercise may be an effective but neglected intervention in mental healthcare. Aerobic exercise (e.g. jogging, swimming, walking, gardening, dancing) has been proven to reduce anxiety and depression. Exercise has been shown to alleviate symptoms such as low self-esteem and social withdrawal, improve cognition and contribute to improved health status for a population vulnerable to chronic disease associated with sedentary behavior and medication side effects.

Mental health was rated as the number one health problem in the Northland by respondents to the community health assessment survey. The data suggests getting people up and moving has the potential to have positive impact on the mental health status of the community.

According to data gathered through the United Health Foundation’s America’s Health Rankings Annual Report, while the smoking rate in Missouri does appear to be declining, from 25% in 2012 to 22.1% in 2017, it is still well above the US rate, 17.1% in 2017. The smoking rates in Clay and Platte Counties align closely with the state smoking rate. E-cigarette use in the Northland is a growing concern and is drawing focused attention to identify and track trends in usage. (Figure 46)

FIGURE 46: CURRENT SMOKER/E-CIGARETTE USE



FIGURE 47: 2017 SMOKING RATES BY GENDER (PERCENTAGE OF ADULTS)



The United Health Foundation report identified 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 significantly more likely to smoke. The following graphs look at smoking through the lens of gender, race/ethnicity, age, education and income level. (Figures 47, 48, 49, 50)

FIGURE 48: 2017 SMOKING RATE BY RACE/ETHNICITY (PERCENTAGE OF ADULTS)



FIGURE 49: 2017 SMOKING RATE BY EDUCATIONAL ATTAINMENT (PERCENTAGE OF ADULTS)

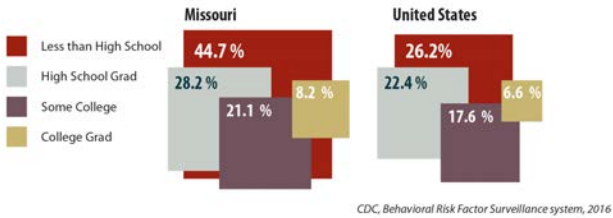
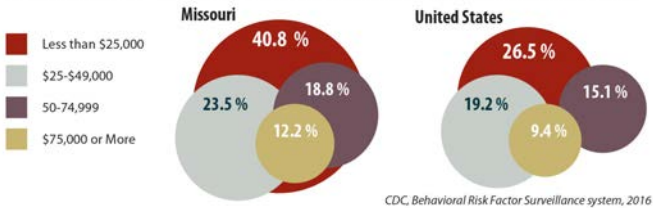


FIGURE 50: 2017 SMOKING RATE BY INCOME (PERCENTAGE OF ADULTS)



Binge drinking rates, 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, showed a sharp increase in Platte County but largely held steady in Clay County since the 2015 Community Health Assessment. (Figure 51). In 2016, 13% of Platte County adults reported drinking heavily in the past 30 days, 8% of Clay County adults did, while just 7% of Missouri adults overall did.

FIGURE 51: BINGE DRINKING RATES



2016 Missouri County Level Study

The Missouri Department of Mental Health administers the Missouri Student Survey to students in 6th through 12th grade in even number years. The survey is intended to gain insight into a number of issues affecting the health and wellbeing of Missouri school children, including substance use and abuse.

One of the most startling results of the survey is what it reveals about the use of electronic cigarettes. More than 10% of students participating in the survey in Clay and Platte County school districts reported using electronic cigarettes in the past 30 days—more than twice the number of students using tobacco. As a percentage of population, this use of e-cigarettes by students far exceeds the rate of adults using e-cigarettes, suggesting the community may need serious focus on smoking prevention programs related to e-cigarettes. A similar percentage of students reported drinking alcohol in the past 30 days. (Figure 52)

FIGURE 52: 2018 MISSOURI STUDENT SURVEY RESULTS



VII. Health Indicator: Chronic Disease

Chronic diseases like heart disease, stroke, cancer and diabetes claim the lives of nearly seven out of every 10 Missourians annually. These diseases are the most deadly, 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 and census-based data and applies them 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 neighborhood 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 higher rates than the state as a whole. (Figure 53) Platte County citizens are significantly more likely to experience depressive disorder than both those living in neighboring Clay County and the state as a whole. (Figure 54)

FIGURE 53: CLAY COUNTY TOP HEALTH ISSUES

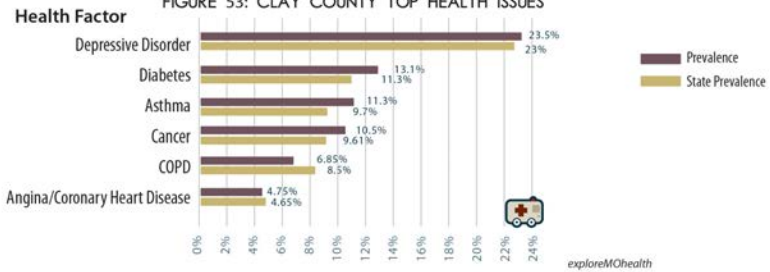
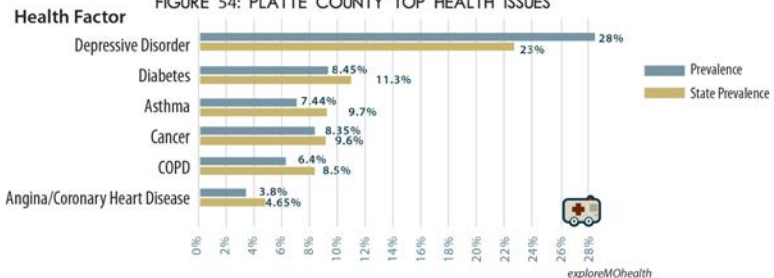


FIGURE 54: PLATTE COUNTY TOP HEALTH ISSUES



A. Liberty Hospital Zip Codes Analysis: Top Health Issues

The exploreMOhealth website suggests that a person's zip code can be more predictive of the health than their genetic code. To illuminate health status at this neighborhood level, the Missouri Zip Health Rankings Project looked at health factors and health outcomes in all 958 Missouri zip codes and ranked the results from #1-Best to #958-Worst. Understanding disease prevalence at this level helps define the communities of highest need and can be used to inform planning for targeted health interventions.

Zip level analysis reveals that four of the six zip codes in the Liberty Hospital catchment area being analyzed for this report experience chronic disease at significantly higher rates than the rest of the Northland and the state as a whole.

- Zip code 64024, located in Excelsior Springs, ranks in the bottom quarter of all Missouri zip codes for heart disease (766 out of 958), diabetes (768 out of 958), asthma (787 out of 958), and COPD (752 out of 958). Citizens living in this zip code are also more likely to suffer a stroke (636 out of 958) and to smoke (638 out of 958).
- Zip code 64068, located in Liberty, is among the top five areas in the county for prevalence of heart disease (366 out of 958) and stroke (242 out of 958).
- People living in zip code 64119, the Maple Park area of Kansas City, are among the top five areas in the county for prevalence of a diagnosis of obesity (790 out of 958).

B. Chronic Disease Mortality Rates

Mortality rates in several categories of chronic disease in the Northland show declines between 2012 and 2016 but significant increases in others. While deaths from cancer have not shown any steady trend in either direction, the current available rates for both counties in 2016 are much lower than what they were for each of the past five years. Cancer remains the leading cause of death in Clay County, where residents die from cancer at a significantly higher rate than Platte County residents. (Figure 55) African American residents in Clay County experience an even higher cancer mortality rate, 167/100,000.

- Annual mortality from heart disease in Clay County was lower in 2016 compared to 2012, but up significantly in Platte County, higher by nearly 20%.
- Mortality from COPD followed a similar trend line, showing a lower 2016 mortality rate in Clay County, but in Platte County the mortality rate was 50% higher in 2016.
- Mortality from diabetes were higher in both counties in 2016, up slightly in Clay County (4%) but 36% higher in Platte County.

FIGURE 55: CHRONIC DISEASE MORTALITY RATE 2012-2016 COMPARISON
(*MORTALITY PER 100,000 OF POPULATION)

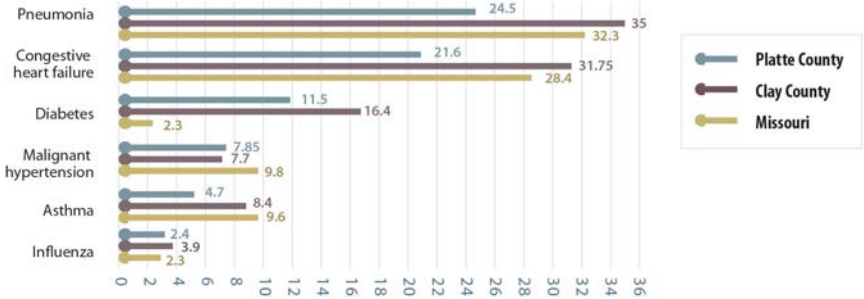


VII. Health Indicator: Hospitalization Rates/Diagnoses

Chronic Disease remains a primary cause for hospitalization in the Northland. Congestive heart failure, diabetes and hypertension were among the leading causes of hospitalization in 2015 for both Clay and Platte Counties. Pneumonia sent more people to the hospital than any of these chronic conditions, and influenza landed a large number of citizens in the hospital as well. (Figure 56)

(Figure 56) Like chronic disease, these acute illnesses can be prevented, or the effects minimized, by taking personal action, in this case, by getting vaccinated. There is work to be done on this issue in the Northland. In 2016 nearly 60% of seniors (age 65+) in Platte County and nearly 50% of seniors in Clay County did not receive a flu vaccination. A quarter of seniors in Clay, and 16% of seniors in Platte did not receive a pneumonia vaccine.

FIGURE 56 HOSPITALIZATIONS NUMBER AND RATE (RATE PER 10,000 OF POPULATION)



A. Liberty Hospital Admissions Data

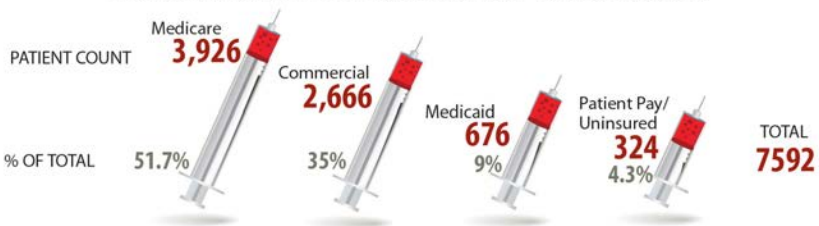
Chronic disease related issues--hypertension, Chronic Obstructive Pulmonary Disease, and heart disease--were among the top nine reasons for patient admissions at Liberty Hospital. Pneumonia and influenza ranked as numbers three and four on the list. Pregnancy and delivery of term infants was the number one reason for patient admissions. (Figure 57) Women accounted for nearly 60% of all hospital admissions, with the largest share coming from those ages 25-44, which aligns with the hospital's high rate of obstetric care. Men accounted for just over 40% of patient admissions, with most of these patients falling into the 45-64 age range.

Figure 57: Top Reasons for Admission to Liberty Hospital

1. Pregnancy and delivery of term infants
2. Essential hypertension
3. Pneumonia
4. Influenza
5. Acute kidney failure
6. Chronic-obstructive pulmonary disease
7. Heart disease
8. Dehydration
9. Anemia

The most common source of payment for inpatient care was Medicare, followed by commercial insurance. (Figure 58)

FIGURE 58: LIBERTY HOSPITAL INPATIENT PAYOR SOURCE



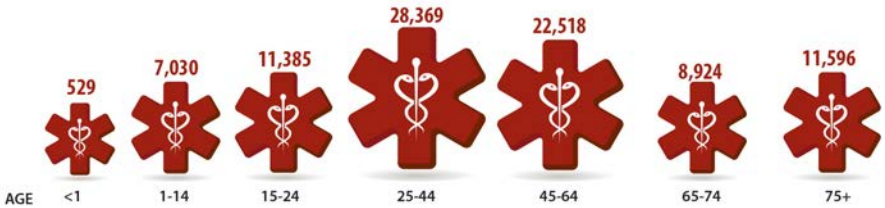
B. Northland Emergency Room Utilization

For the 2018 Community Health Needs Assessment four hospitals serving the Northland: Liberty Hospital, North Kansas City Hospital, St. Luke's North Hospital-Barry Road, St. Luke's North-Smithville, agreed to gather and share data about emergency room utilization between June 1, 2017 and May 31, 2018. The analysis provides insight into who is visiting hospital Emergency Departments and what health issues are most often sending them there.

Patient Demographics

Women were twice as likely to visit Emergency Departments for care than men (53,299 to 37,051) People in the 25-44 age category were the most frequent users of Emergency Department care followed by those age 45-64. (Figure 59)

FIGURE 59: NORTHLAND EMERGENCY DEPARTMENT VISITS BY AGE



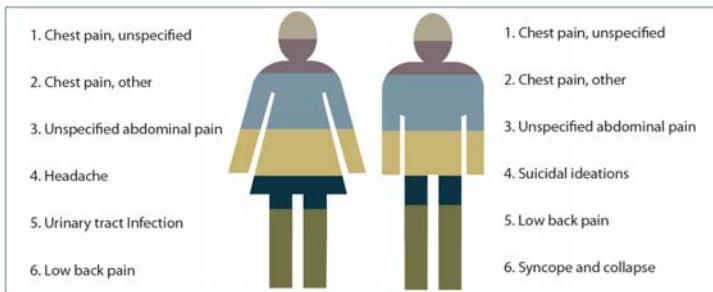
N

Northland Top Emergency Department Diagnoses

Chest pain was the top diagnosis for both male and female patients seen in Northland Emergency Departments from June 1, 2017-May 31, 2018. Abdominal pain was the next most frequent diagnosis for males and females as well. Looking at the Northland as a whole, acute bronchitis, nausea and vomiting, influenza, gastroenteritis, acute upper respiratory infections and pneumonia were also major causes of trips to the emergency rooms. Suicidal ideation was the 13th most common diagnosis for an Emergency Room visit, and major depressive disorder was the 20th most common diagnosis.

Examining diagnoses by gender, women were more likely to visit Emergency Departments for headache or urinary tract infections, men were more likely to visit for suicidal ideations or low back pain. (Figure 60)

FIGURE 60: TOP 6 EMERGENCY DEPARTMENT DIAGNOSES BY GENDER



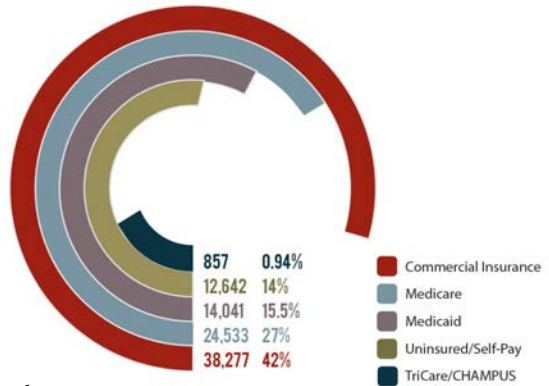
Notable differences in the reason for visiting the Emergency Department can be seen by payor source.

For uninsured patients, disorders of the teeth and supporting structures was the second most frequent diagnosis, just slightly behind that of chest pain. Alcohol abuse was the fourth most common diagnosis for this population, and suicidal ideation was the seventh most common diagnosis. Suicidal ideation was the fourth most common diagnosis for those paying by Medicaid.

D. Northland Emergency Department Payor Source

The majority of patients paid for Emergency Department visits using commercial insurance, followed by Medicare. 14% of patients were self-pay. (Figure 61)

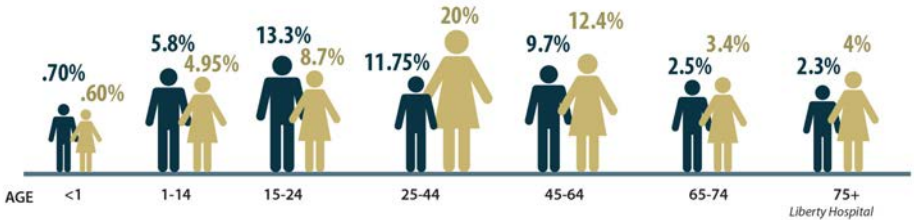
FIGURE 61: PAYOR SOURCE



C. Liberty Hospital Emergency Department Demographics

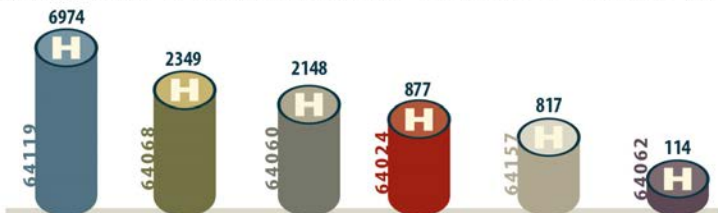
During this timeframe, the Liberty Hospital Emergency Department saw 25,533 patients, 54% of whom were female. Among women, those age 25-44 accounted for 20% of the patient total. Among male patients, young men age 15-24 were the most frequent users of Emergency Department care, accounting for 13.3% of the total, followed closely by men age 25-44 who accounted for just under 12% of all visits. (Figure 62)

FIGURE 62: PERCENTAGE OF LIBERTY HOSPITAL ED PATIENTS BY AGE & GENDER



Analysis of the six zip codes in the Liberty Hospital catchment area being tracked for the report reveals that the majority of Emergency Department visits came from patients living in zip code 64119 and the fewest from those living in zip code 66042. (Figure 63)

FIGURE 63: LIBERTY HOSPITAL EMERGENCY DEPARTMENT VISITS BY ZIP CODE



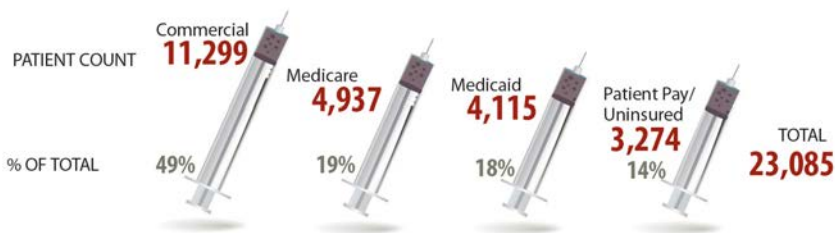
Like other Northland hospitals, chest pain was the most common diagnosis for patients seen in the Liberty Hospital Emergency Department. Low back pain, urinary tract infection, unspecified chest pain, and muscle strain were in the top five diagnoses. (Figure 64)

Figure 64: Top Emergency Department Diagnoses

1. Chest pain, other
2. Low back pain
3. Urinary tract infection
4. Chest pain, unspecified
5. Strain of muscle fascia and tendon at neck level
6. Noninfective gastroenteritis and colitis, unspecified
7. Chronic pain, other
8. Headache
9. Right lower quadrant pain
10. Acute bronchitis, unspecified
11. Influenza
12. Essential hypertension
13. Epigastric pain
14. Migraine

The majority of visits to the Liberty Hospital Emergency Department were paid for using commercial insurance. As was the case with other Northland hospitals, about 14% of emergency department visits were paid for by individual patients. (Figure 65)

FIGURE 65: LIBERTY HOSPITAL EMERGENCY DEPARTMENT PAYOR SOURCE



IX. Health Indicator Dental Health

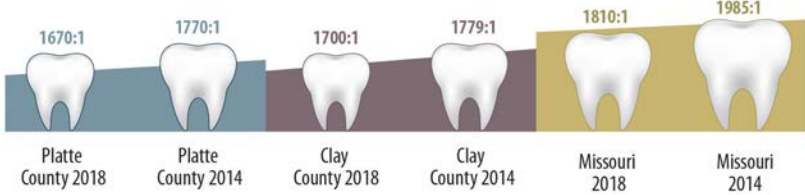
According to an article published by the Mayo Clinic, studies suggest that oral bacteria and the inflammation associated with periodontitis, a severe form of gum disease, might play a role in some diseases. Endocarditis is an infection of the inner lining of the heart. It is caused by bacteria or germs traveling from another part of the body, such as the mouth, that attach to damaged areas in the heart. Research also links cardiovascular disease to the inflammation and infections that oral bacteria can cause. Periodontitis has been linked to premature birth and low birth weight. As the inter-connection between oral health and physical health becomes more and more apparent, public health discussions about how to meet community needs are growing.

In 2016, nearly a quarter of adults in Clay and Platte Counties reported they had not had a recent dental exam. A quarter of adults in Clay County and 20% of adults in Platte County reported they could not get the dental care they needed.

School-based dental screenings in Clay County revealed that 11% of children screened had untreated dental decay; just under 10% had a history of “rampant” dental caries—meaning cavities on 7 or more teeth. Just 22% of the schoolchildren screened in Clay County had dental sealants.

Healthy People 2020 sets a goal for the desired ratio of licensed dentists to total population at 1230 to 1. Both Clay and Platte Counties are above that goal, but both show improvement in these ratios since the 2015 Community Health Needs Assessment report. (Figure 66)

FIGURE 66: DENTIST TO POPULATION RATIO 2014-2018 COMPARISON



Robert Wood Johnson Foundation
MO County Health Rankings

For low income families, one of the greatest challenges to receiving dental care is finding a dentist who will accept MO HealthNet. In Clay and Platte Counties MO HealthNet providers predominately are available through public health or charitable organizations including Clay County Public Health Center, Samuel U. Rodgers Health Center, and Miles of Smiles Portable Dental Program. For those with transportation, Kansas City Free Health Clinic, Swope Health Services and the UMKC School of Dentistry are options.

X. Health Indicator: Maternal and Child Health

Having a healthy pregnancy is one of the best ways to promote a healthy birth and to ensure the health of the mother. The majority of Northland mothers (80%) meet the standard for receiving adequate prenatal care, defined as care that is begun by the fourth month of pregnancy and participation in 80-109% of recommended healthcare visits. This leaves about 20% of Northland mothers who do not receive adequate care, meaning they start care late, do not attend all recommended visits with a healthcare provider, or receive no prenatal care at all.

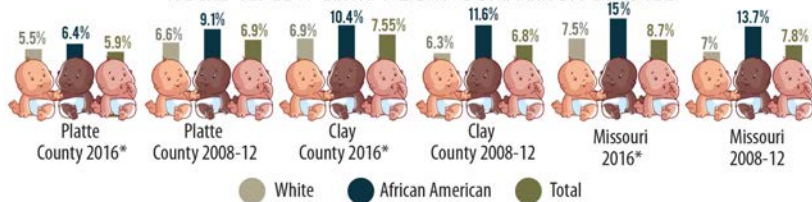
While the number of Northland mothers who receive no prenatal care is low, the numbers have edged up slightly since the 2015 Community Health Assessment. African American mothers are more likely not to receive any prenatal care than white mothers, especially in Platte County. (Figure 67) Three-quarters of white mothers entered prenatal care in the first trimester of their pregnancies in both counties. In Platte County, only 50% of African American mothers entered prenatal care in the first trimester. In Clay County 60% of black mothers did so.

FIGURE 67: NO PRENATAL CARE 2012-2016 COMPARISON BY RACE



Low birth weight is a leading cause of neonatal mortality (death before 28 days of age). Nationally the rate of low birth weight is higher among black women than for women of other racial/ethnic groups. That disparity holds true in the Northland, but the numbers show improvement for African American mothers since the 2015 Community Health Assessment report. (Figure 68)

FIGURE 68: LOW BIRTH WEIGHT COMPARISON BY RACE



Missouri Department of Health and Senior Services, Community Data Profiles, Infant Health

Infant mortality is correlated to the pre-pregnancy health status of the mother, influenced by her access to pre-natal care, and by behavioral factors such as use of drugs or alcohol, smoking, etc. that negatively impact both the pregnancy and the long-term health of a child. Neonatal mortality rates largely remained steady in the Northland and in Missouri as a whole since the 2015 Community Health Needs Assessment report. The exception is for African American mothers in Platte County where the neonatal mortality rate increased significantly, from 7.2/1000 to 8.78/1000. (Figure 69)

FIGURE 69: NEONATAL MORTALITY RATES BY RACE



The teen birth rate in the Northland is low, less than half a percent in both Clay and Platte Counties. In Platte County, 13.5% of young mothers (teens up to age 20) had a repeat birth in 2016, and nearly 20% of these young mothers in Clay County did so.

XI. 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 abuse 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 aligns with the top health concerns identified in the Northland Community Health Assessment survey:

- Nearly 90% of respondents to the community health assessment survey living in the Liberty Hospital zip code area rated mental health as the top health problem in the community.
- Mental health was selected as the most important health problem 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 supported by data from the exploreMOhealth data tracker which reveals that depressive disorder (also called clinical depression, a mood disorder causing persistent feelings of sadness and loss of interest and affecting how individuals think and behave) 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.

Access to mental health treatment is a large and growing problem. Nationally, nearly 30% of people who experienced "Serious Psychological Distress" reported an unmet need for mental health care. Of those who did not receive mental health treatment, more than 40% said it was because they could not afford it. The issue of providing care, and especially outpatient mental healthcare, continues to be challenging in some parts of the Northland. While Clay County's designation as a Health Professional Shortage Area for mental health was withdrawn in July of 2018, Platte County continues to be critically underserved.

The cost of caring for those with serious mental health issues is an economic burden on the state. In 2014, adults with a serious mental illness (primary diagnosis of schizophrenia, bipolar disorder or major depressive disorder) spent a combined total of nearly 250,000 days in the hospital. Hospital charges in Missouri for patients admitted for serious mental illness ranged from \$12,000-\$31,000 per stay, totaling more than half a billion dollars in 2014. The USC report estimated the economic burden on Missouri of direct and indirect costs (productivity losses, income losses, quality-of-life losses) associated with schizophrenia, bipolar disorder and major depressive disorder in adults totals more than \$6 billion.

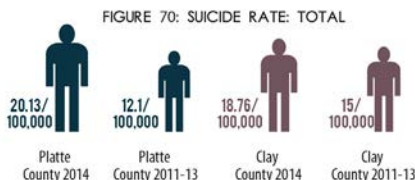
Mental and Behavioral Health at Liberty Hospital

The 2016 Community Health Needs Assessment identified mental and behavioral health as one of the top three health priorities in the Northland community. Among the issues the assessment revealed was the shortage of psychiatric beds and treatment available in the community. To address this significant health need, Liberty Hospital partnered with Signature Psychiatric Hospital to open an inpatient mental health and dual diagnosis (mental health and substance use crisis stabilization) unit on March 26, 2018. The unit began with 12 beds and has since expanded to 35 beds. Since opening, the unit has admitted and cared for over 700 patients; 502 adults and 209 geriatric patients. Signature also offers adolescents, adults and senior adults access to outpatient treatment and support programs on the Liberty Hospital campus.

A. Suicide

Statistics from the Centers for Disease Control place Missouri's suicide rate in 2016 as 13th highest in the nation at 18.4/100,000, well above the US rate of 13.5/100,000. More detailed data from 2015 indicates suicide was the 10th leading cause of death in the state but 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. According to data from the Centers for Disease Control, 73% of those who die by suicide in Missouri are white males with the highest rate among white males ages of 45-54 and 75+.

Suicide rates in both Clay and Platte counties exceed the rate in Missouri overall and are significantly higher than the rates reported in the 2015 Community Health Needs Assessment. (Figure 70)



Approximately 7,000 Missourians were treated in emergency rooms or hospitalized for attempts at intentional self-harm in 2014. The majority of these attempts (84%) involved poison or drug/alcohol overdose.

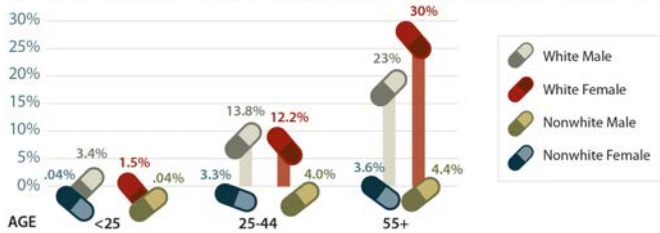
A report of data gathered through the 2016 Missouri Student Survey of middle and high school students showed:

- 1 in 8 middle school students seriously considered suicide in the past year;
- 1 in 6 high school students and 1 in 5 college students seriously considered it; and
- Suicidal thoughts were highest among students in 8th and 9th grades.

B. Opioid Abuse

The fastest growing drug problem across the U.S. and Missouri is the misuse and abuse of opioid-based pain relievers. Data presented in a 2017 report by the Missouri Hospital Association suggests this epidemic is hitting the middle-aged white population the hardest. In 2016, white males age 55 and over accounted for 23% of all opioid-related overdose deaths in Missouri hospitals, and white females in the same age category accounted for 30%. 50% of hospital patients who died from an opioid-related overdose were Medicare recipients. White citizens age 55-84 make up 30% of Missouri's populations but accounted for 19% of opioid deaths in 2016. Those age 25-54 make up 41% of the state's population but accounted for 59% of overdose deaths. (Figure 71)

FIGURE 71: OPIOID-RELATED OVERDOSE HOSPITAL DEATHS BY AGE, GENDER, RACE FY 2016



Missouri Hospital Association

Opioid abuse is impacting both the old and the young. The number of infants born suffering from opioid withdrawal has grown steadily since the early 2000s. The five-year statewide rate for children born with NAS (Neonatal Abstinence Syndrome) was 6.16/1000 births. During that period Clay County had a rate of 4.25 NAS births/1000, and Platte County 4.79 NAS births/1000. According to the Missouri Hospital Association, anecdotal reports suggest that NAS is an under-coded diagnosis, so the state and county rates of occurrence may actually be higher.

XII. Health Indicator: Access to Care

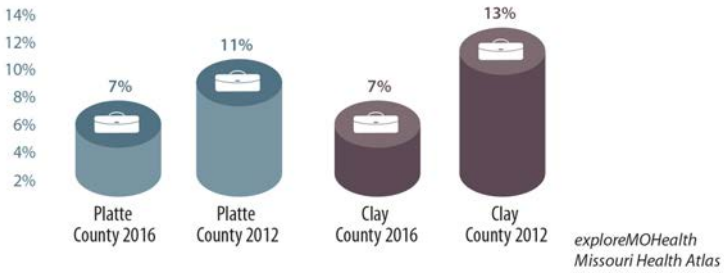
When assessing the health of a community the US Office of Disease Prevention and Health Promotion examines the topic of access to care using three lenses: the percentage of the population with access to insurance coverage, the availability of/access to actual health services (having a using and ongoing source of care), and the timeliness of care received (care can be delivered quickly after a need is recognized). These factors are critical because access to comprehensive, quality health care 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 health care services could be playing a role in the health status of the Northland.

A. The Uninsured

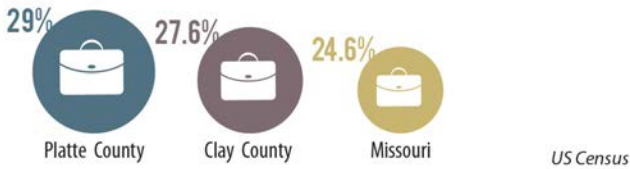
The number of uninsured residents living in Clay and Platte Counties dropped between 2012 and 2016, likely thanks to the Affordable Care Act. (Figure 72)

FIGURE 72: UNINSURED RESIDENTS BY COUNTY 2012-2016 COMPARISON



In both counties, adult males, and particularly middle age men (50-64) living within 138% of poverty are uninsured at higher rates than in Missouri generally. (Figure 73) As health insurance laws, Medicaid expansion, and ACA enrollment policies/processes continue to change it will be important to monitor this statistic to see whether or how it changes in the coming years.

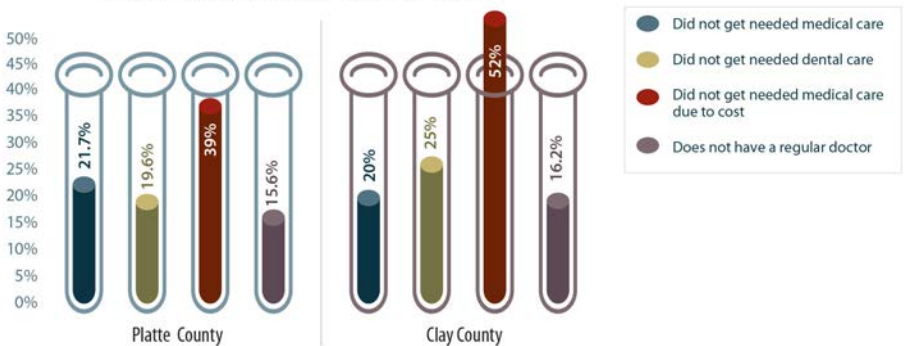
FIGURE 73: UNINSURED MALES 50-64 LIVING WITH 138% OF POVERTY



B. 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 Survey who said they did not get needed medical or dental care or did not get needed medical care due to cost, in the last 12 months. (Figure 74) 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 sizeable 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 74: DID NOT GET CARE BY COUNTY



C. Insights from the Northland Community Health Survey

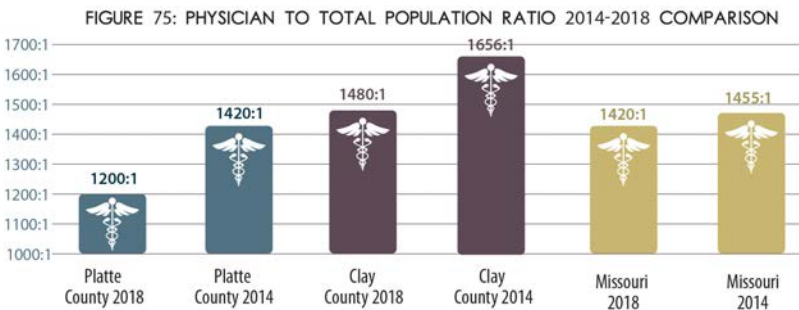
The majority of respondents to the Northland Community Health Survey reported being satisfied with the health care available in the community for themselves and their families. (65.7% Liberty Hospital, 69% Northland). But the survey revealed some interesting insights about access to care using the lens of the top three health problems in the community as an analytical framework.

The survey asked respondents if there was a time in the past three years when you needed to see a doctor but couldn't because of cost. A quarter of those respondents who selected Mental Health as a top health concern in the Northland indicated they had skipped medical care because of cost. Of those who identified chronic disease as a top health issue, 23% said they had skipped medical care because of cost, as did 20% of those who selected obesity as a top three health problem.

Similar numbers can be seen in relation to prescription medication. The survey asked respondents if there was a time in the last three years when you needed to purchase a prescription medication but couldn't because of cost. Looking across the top three health problems identified in the survey, 27% of those who selected mental health, 25% of those who selected chronic disease, and 20% of those who selected obesity indicated they had not purchased a prescription due to cost. Clearly, health care costs are influencing health care decisions for a significant number of Northland citizens.

D. Physician to Patient Ratios

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, but the physician to total population ratio in both counties is in lower 2018 than in 2015 Community Health Needs Assessment Report, meaning there are more physicians available to meet the needs of a growing Northland population. (Figure 74)



Robert Wood Johnson Foundation

The correlation between poverty and access to health care is strong. The poor are less likely to have access to high-quality medical care – or any medical care at all – and less likely to have access to preventive services. As a consequence, they are more likely to develop multiple illnesses, become disabled, and to die early.

E. 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 are for 2016. In that year, children age 6-17 were the largest age group with Medicaid/means-tested coverage in Clay County (8874 children) and Platte County (2556 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: 6043 children; Platte: 2025 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 0 recipients falling into this age category in 2016. The American Community Survey one year estimate of Medicaid coverage tallies to 7,915 individuals in Platte County, 24,881 individuals in Clay County.

A search of the MoHealthNet provider list disclosed that as of November 2018, Clay County had 86 general or family practice physicians (MDs or DOs) who accepted MoHealthNet 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 MoHealthNet patients. Access to care frequently remains a challenge for these patients. As the MoHealthNet Provider Search page indicates, 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 MoHealthNet clients, and when those slots are filled, the practice does not accept new patients.

Liberty Hospital Support for Uninsured/Underinsured Patients

Through its partnership with the Liberty Hospital Foundation, between 2016 and 2018 Liberty Hospital provided over a quarter million dollars in medication assistance to uninsured/underinsured patients. (Figure 76) Between June 2016 and June 2018, that partnership also ensured that more than 1000 patients were helped through financial support for transportation, durable medical equipment, health visit co-pays, dialysis treatment, interpreters for non-English speakers, and by filling requests from Women's Imaging and Cardiac and Pulmonary Rehabilitation to help them better support these patients.



XIII. Summary and Identification of Key Strategic Issues

The 2015 Northland Community Health Needs Assessment identified three key issues impacting the health of the Northland community:

- Access to Care
- Mental Health
- Chronic Disease

While members of the Northland Health Care Alliance continue to analyze data from the 2018 community health status assessment, it seems safe to predict that the health issues identified in 2015 will continue to demand focused attention by hospitals, public health officials, health care providers, and the community as a whole in the coming three years.

The following is a summary of some of the highlight findings from the 2018 Community Health Needs Assessment. Liberty Hospital will use this information to deepen the understanding of hospital leadership and staff about the current state of health in the Northland, and more specifically, to provide insight into the health needs and gaps being experienced by the patient community. This knowledge is essential to the critical decisions the hospital will make regarding where to most effectively invest its resources to address health priorities. The hospital team will create and publish a 2019–2021 Implementation Strategy, aligned where feasible and appropriate, with the collaborative Community Health Improvement Plan the Northland Health Care Alliance, its members and partners, will develop in 2019.

The Northland and Liberty Hospital Community Perspective

Responses to the Northland Community Health Status survey revealed:

- The three most important health issues identified by the community are:
 - Mental Health
 - Chronic Disease
 - Obesity

The next most commonly cited issues were Aging Problems and Drug Abuse.

- The Liberty Hospital zip code catchment area rated Mental Health as the number one health problem at a significantly higher rate than respondents across the community as a whole
- Health behaviors, which frequently have direct correlation to both poor physical and mental health, are having an impact on the overall health in the Northland community. Poor eating habits, lack of exercise, and drug misuse were the negative health behaviors cited most frequently by community survey respondents.
- The community identified the top challenges to being healthy as
 - Medical debt
 - Housing insecurity
 - Poor employment and income

These were followed closely by access to healthcare and transportation issues.

- Access to care is a concern. Less than a third of all survey respondents agreed that there is enough access to medical care for residents with low income in the community
- Just over 50% of Liberty Hospital survey respondents agreed that the community is a good place to grow old, the lowest percentage of agreement among all the Northland regions examined through the survey.

Suicide, drug use, and mental health issues are becoming more prevalent in the Northland

- Suicide rates in both Clay and Platte counties exceed the rate in Missouri overall and are significantly higher than the rates reported in the 2015 Community Health Needs Assessment.
- In 2016, white males age 55 and over accounted for 23% of all opioid-related overdose deaths in Missouri hospitals, and white females in the same age category accounted for 30%.
- 50% of hospital patients who died from an opioid-related overdose were Medicare recipients. White citizens age 55-84 make up 30% of Missouri's populations but accounted for 19% of opioid deaths in 2016. Those age 25-54 make up 41% of the state's population but accounted for 59% of overdose deaths.
- According to data gathered through the 2016 Missouri Student Survey, in Clay and Platte Counties, 1 in 8 middle school students seriously considered suicide in the past year, as did 1 in 6 high school students, and 1 in 5 college students.

- 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.

Chronic disease, and the health behaviors that contribute to it, continue to be a serious concern.

- The obesity rate is 28.4% in Clay County, and 26% in Platte County, and more than one-third of residents in both counties is considered overweight.
- 90% of Northland residents do not eat an adequate diet of fruits and vegetables and about a quarter of them get no leisure-time physical activity
- The smoking rate in Clay and Platte Counties (21% and 19.5% respectively), above the U.S. rate of 17%.
- More than 10% of students participating in the Missouri Student Survey in Clay and Platte County school districts reported using electronic cigarettes in the past 30 days—more than twice the number of students using tobacco.
- 10% of students reported using alcohol in the past 30 days.
- Clay County citizens experience diabetes, asthma, cancer and coronary heart disease at higher rates than the state as a whole.
- Four of the six zip codes in the Liberty Hospital catchment area analyzed for this report experience chronic disease at significantly higher rates than the rest of the Northland and the state as a whole.
- Mortality rates in several categories of chronic disease in the Northland showed declines between 2012 and 2016; Platte County showed significant increases for heart disease, COPD and diabetes.
- Chronic disease related issues--hypertension, Chronic Obstructive Pulmonary Disease, and heart disease--were among the top nine reasons for patient admissions at Liberty Hospital.

Access to care creates challenges across the community but especially for low income residents and communities of color

- Half of all Community Health Status Survey respondents from Clay County, and approximately 40% of those from Platte County, said they did not get needed health care because of cost in the past year.
- A quarter of adults in Clay County and 20% of adults in Platte County reported they could not get the dental care they needed.
- The neonatal mortality rate for African American mothers in Platte County increased significantly, from 7.2/1000 to 8.78/1000.
- In Platte County, only 50% of African American mothers entered prenatal care in the first trimester. In Clay County 60% of black mothers did so.
- 20% of Northland mothers do not receive adequate prenatal care, meaning they start care late, do not attend all recommended visits with a healthcare provider, or receive no prenatal care at all.
- Adult males, and particularly middle age men (50-64) living within 138% of poverty are uninsured at higher rates than in the Northland than in Missouri generally.
- For uninsured patients, disorders of the teeth and supporting structures was the second most frequent reason they visited a Northland emergency room, just slightly behind the most common reason, chest pain.

The face and economy of the Northland community is changing

- A 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 timeframe.

- Between 2000 and 2013, nonwhite populations grew by 37% in the Kansas City Metropolitan Statistical area compared to 32% in the US. During the same time period, nonwhite populations in Clay County grew by 113% and in Platte County by 96%.
- The percentage of African American individuals living below the poverty line in Clay and Platte Counties actually increased between 2012 and 2016. More than a quarter of African American citizens in Clay County and nearly 23% in Platte County are living in poverty.
- The unemployment rate for African American residents is more than twice that of white residents in Platte County, and just under twice the rate in Clay County. Native American and multi-racial citizens also experience unemployment at higher rates than white citizens in both counties.
- In 2016, 10% of children under the age of 18 in Platte County and 12 % of those in Clay County lived below 100% of poverty.
- In 2016, a quarter of female-headed households in Platte County and more than 20% in Clay County lived below 100% of poverty.
- 18% of Clay County children, and 17% of Platte County children were considered food insecure.
- 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. More than 20% of homeowners in both counties have mortgages that absorb 30% or more of their monthly income.

Improving the health of Northland citizens will require thoughtful, collaborative work to craft and implement strategies that can make inroads on the interconnected and highly complex health issues facing the community. Liberty Hospital is committed to engaging with a wide range of organizations including public health systems, government agencies, schools, faith-based organizations, the business community, nonprofit entities, as well as citizen “champions” of health, to create a healthier Northland.

XIV. 2016–2018 Liberty Hospital Action Plan Implementation Summary

Following the completion of the 2015 Community Health Needs Assessment, Liberty Hospital joined with its fellow members in the Northland Health Care Alliance to create and implement a comprehensive plan to improve the health of the Northland. This plan, built around the three critical health priorities identified in the health needs assessment, identified specific strategies and tactics to be undertaken by NH Alliance members and their partners in the community (government agencies, law enforcement, school districts, business entities, and nonprofit organizations).

The following is an overview of the efforts advanced by Liberty Hospital to in 2016-2018 to address these priorities.

Community Health Priority 1: Access to Care: Improve the health of individuals and influence positive health outcomes in the community as a whole by expanding access to care.

Liberty Hospital 2016-2018 Efforts:

- Donated \$500,000 in charity care to Northland Health Care Access, a nonprofit organization dedicated to providing uninsured or under-insured residents access to primary care and specialty providers.
- Partnered with the Liberty Hospital Foundation to provide assistance to cover patient costs for medication. In 2016, the program supported 64 patients and covered \$72,196 in medication costs. In 2017, the program doubled the number of patients supported to 134 and covering \$84,699 in medication costs. Through November of

2018, the program has supported 154 patients and covered \$116,266 in medication costs.

- Partnered with the Liberty Hospital Foundation to support the needs of uninsured/under-insured patients by providing:
 - o transportation
 - o Student Health Assistance through Liberty School District (provides co-pays and medication assistance for uninsured students with acute health conditions.)
 - o DME equipment
 - o co-pays for visits to Samuel U. Rodgers Health clinics
 - o Clothes Closet
 - o dialysis treatments
 - o language interpretation
 - o met special needs for Cardiac and Pulmonary Rehabilitation and Women's Imaging
 - o Total patients served = 296 patients in 2016, 497 patients in 2017, and 217 patients between January and June 2018.
- Covered 100% of diabetes medications and supplies for Liberty Hospital employees to underwrite the financial drain of these out of pocket costs.
- Established walk-in women's imaging center/walk-in mammography appointments to ensure quick, easy access to vital health screenings. Between 2016 and 2018, the Center provided this life-saving screening to 14,299 women.
- Provided calcium screenings-no appointment, low fee
- Established a Patient/Family Advocacy Council to provide the community an opportunity to have a voice in Liberty Hospital's policies and care practices.

Community Health Priority 2: Behavioral Health: Promote and support mental and emotional well-being for all Northland citizens.

Liberty Hospital 2016-2018 Efforts:

- Partnered with Signature Psychiatric Hospital to add 36 beds inpatient mental health and dual diagnosis treatment (both mental health and substance use crisis stabilization) for adults and senior adults.
- Added a staff psychiatrist to the provide 24/7 mental health assessments
- Conducted extensive training with Emergency Department staff on identifying, managing, and treating patients with behavioral health issues.
- Trained all hospital employees on how to respond to patients with escalating behaviors.
- Added a suicide assessment to the EMR system and trained Emergency Department staff and primary care physicians on its use.
- Added substance abuse clinics to all hospital clinics.
- Participated in the Tri-County Mental Health Consortium to identify and address ongoing issues around mental health treatment and access to care.
- Collaborated with and law enforcement agencies and emergency responders to share issues and concerns regarding the management of mental health patients, their safety, and the safety of hospital staff serving them.

Community Health Priority 2: Behavioral Health: Promote and support mental and emotional well-being for all Northland citizens.

Liberty Hospital 2016-2018 Efforts:

- Partnered with Signature Psychiatric Hospital to open an inpatient mental health and dual diagnosis treatment (both mental health and substance use crisis stabilization) unit for adults and senior adults in March 2018. Since that time, more than 700 adult and geriatric patients have received in-patient care.
- Added a staff psychiatrist to the provide 24/7 mental health assessments
- Conducted “Handle with Care” training for all Emergency Department physicians and staff on creating and maintaining a safer, more caring environment through prevention actions that decrease the need for restraint. The program taught health providers how to identify signs of escalating behavior in a patient and techniques for de-escalating a situation before it went too far and restraints were needed. Ongoing education on de-escalation techniques continues during Grand Rounds.
- Added a suicide assessment to the EMR system and trained Emergency Department staff and primary care physicians on its use.
- Added substance abuse clinics to all hospital clinics.
- Established the Opioid Stewardship Committee in 2018 to foster discussion of opioid usage across multiple health care disciplines within the hospital and to identify best practices for prescribing and managing opioid use by patients.
- Distributed opioid education materials through Liberty Hospital clinics and will launch an updated patient and staff opioid education program in February 2019.
- Participated in the Tri-County Mental Health Consortium to identify and address ongoing issues around mental health treatment and access to care.
- Collaborated with and law enforcement agencies and emergency responders to share issues and concerns regarding the management of mental health patients, their safety, and the safety of hospital staff serving them.
- Partnered with the Clay County’s Sheriff’s office to publicize and host two National Drug Take Back Day events in 2018. The hospital hosted a FaceBook Live event to promote the event and placed ads in local publications.

Community Health Priority 3: Chronic Disease: Improve the overall health of the Northland Community through advancing healthy lifestyles, thus decreasing the incidence of our highest chronic disease rankings.

Liberty Hospital 2016-2018 Efforts:

- Developed and opened Norterre, a community health living center where young families, active adults and seniors can live, heal and play together.
 - o The Aurora Health and Wellness Center offers a pool, running track, workout facilities, and fitness and wellness classes for all ages.
 - Yoga, aerobics, and conditioning classes have increased by 300% since opening.
 - o Rehabilitation services include inpatient suites and customized rehabilitation programs for people transitioning between hospital and home.
 - o Senior Living options include The Laurel, which provides assisted living and memory care services, and The Estoria, skilled nursing community.
- Established a weekly Dr. WalkWell program. Participants do a blood pressure and weight check prior to each walk.
- Partnered with the Liberty Hospital Foundation to host the Liberty Half Marathon each spring to promote exercise, health and wellness in the community. In 2018, 2057 runners and walkers participated in the event.
- Hosted annual Wellness Fairs, drawing participants from across the community.



2018 Community Health Survey

The Northland Health Alliance is seeking your input on the health and well-being of the Northland community. You have been selected to take this survey because you live in, work in, or visit Clay or Platte counties. The results of this survey will help the Northland Health Alliance, comprised of local health departments, hospitals, and mental health organizations, identify pressing issues affecting the Northland. Your opinion is important to us. Your responses will be kept anonymous.

Please think of the past 3 years when answering the following questions. This survey is also available online at:

<https://www.surveymonkey.com/r/2018NorthlandHealth>

(1) Please indicate when you are in the Northland. Select all that apply.

- I live in Clay County
- I live in Platte County
- I work in Clay or Platte counties
- I visit Clay or Platte counties (for restaurants, entertainment, to visit friends and family, etc.)
- I NEVER spend any time in the Northland.
- Other (please specify) _____

(2) How would you rate the health of the Northland community?

- Very Unhealthy
- Unhealthy
- Somewhat Healthy
- Healthy
- Very Healthy

Children in Household

(3) How many children are living in your home under the age of 18 years old?

- 0
- 1
- 2
- 3
- 4
- 5
- 6 or more

(4) Please select the age range of each child in your home who is under the age of 18. After you have selected an age from each child in your home, move on to question 5. If you have no children in your home, move to question 10 on at the top of page 2.

- | | | | |
|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Age of child 1: | Age of child 2: | Age of child 3: | Age of child 4: |
| <input type="checkbox"/> 0-35 months | <input type="checkbox"/> 0-35 months | <input type="checkbox"/> 0-35 months | <input type="checkbox"/> 0-35 months |
| <input type="checkbox"/> 3-5 years | <input type="checkbox"/> 3-5 years | <input type="checkbox"/> 3-5 years | <input type="checkbox"/> 3-5 years |
| <input type="checkbox"/> 6-12 years | <input type="checkbox"/> 6-12 years | <input type="checkbox"/> 6-12 years | <input type="checkbox"/> 6-12 years |
| <input type="checkbox"/> 13-17 years | <input type="checkbox"/> 13-17 years | <input type="checkbox"/> 13-17 years | <input type="checkbox"/> 13-17 years |

- Age of child 5:**
- 0-35 months
 - 3-5 years
 - 6-12 years
 - 13-17 years
- Age of child 6:**
- 0-35 months
 - 3-5 years
 - 6-12 years
 - 13-17 years
- Please list the ages of any additional children in your home:**
- _____

(5) Has a child in your household been told by a doctor that they have one of the following conditions:

- Asthma
- Diabetes
- Overweight or obesity

- Yes
- No

(6) If a child in your household has asthma, how many times during the past 12 months did you visit an emergency room because of asthma?

(7) Has a child in your household used any of the following:

- Alcohol
- Drugs
- Tobacco

- Yes
- No

(8) Has a child in your household become pregnant?

- Yes
- No

(9) Is any child in your household in fair-to-poor health?

- Yes
- No

Please indicate your level of agreement with the following statements. Think of you and your family when answering the following questions.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
(10) I am satisfied with the quality of life in my community (think about well-being, safety, physical and mental health, education, and recreation).					
(11) It is easy for me to get to places (ex: grocery stores, doctor, work, etc.)					
(12) I have enough housing choices to fit my needs in my community (consider size, location, cost, etc.).					
(13) I feel my community is a safe place to live and raise children (consider crime, schools, etc.).					
(14) I feel satisfied with public health services in my community (food safety, disease prevention, birth certificates, immunizations, etc.).					
(15) My community has enough health and wellness activities to meet my needs.					
(16) My community is a good place to grow old (consider senior housing, transportation to medical service, shopping, senior day care, etc.).					
(17) There is enough access to medical care for residents with low income in my community.					
(18) I am satisfied with the health care available in my community for me and my family.					

Northland Health Problems

(19) Select the 3 most important health problems in the Northland community. Please mark no more than 3.

- | | |
|---|---|
| <input type="checkbox"/> Aging problems (ex: arthritis, hearing/vision loss, osteoporosis, etc.) | <input type="checkbox"/> Mental/emotional health problems (ex: depression, anxiety) |
| <input type="checkbox"/> Alcohol abuse/alcoholism | <input type="checkbox"/> Motor vehicle crash injuries |
| <input type="checkbox"/> Cancer | <input type="checkbox"/> Obesity |
| <input type="checkbox"/> Chronic disease (ex: diabetes, heart disease, stroke, high blood pressure, respiratory/lung disease) | <input type="checkbox"/> Opioid abuse |
| <input type="checkbox"/> Dental problems | <input type="checkbox"/> Preventable injuries |
| <input type="checkbox"/> Drug abuse (illicit drug use) | <input type="checkbox"/> Sexually transmitted diseases (ex: HIV/AIDS, syphilis, gonorrhoea) |
| <input type="checkbox"/> Firearm related injury | <input type="checkbox"/> Suicide |
| <input type="checkbox"/> Infant death | <input type="checkbox"/> Other (please specify) |
| <input type="checkbox"/> Infectious disease (ex: hepatitis, TB, seasonal flu) | _____ |

Northland Health Behaviors

(20) Select the 3 most important health behaviors that have the greatest impact on overall Northland community health. Please mark no more than 3.

- | | | |
|---|--|---|
| <input type="checkbox"/> Alcohol misuse | <input type="checkbox"/> Not getting vaccines/shots to prevent disease | <input type="checkbox"/> Texting/cell phone use while driving |
| <input type="checkbox"/> Drug misuse | <input type="checkbox"/> Not using seat belts or child safety seats | <input type="checkbox"/> Tobacco use |
| <input type="checkbox"/> E-cigarette/vape use | <input type="checkbox"/> Opioid misuse | <input type="checkbox"/> Unsafe sex |
| <input type="checkbox"/> Lack of exercise | <input type="checkbox"/> Poor eating habits | <input type="checkbox"/> Other (please specify) _____ |

Challenges to Being Healthy in the Northland

(21) Select the 3 factors that you see as the greatest challenges to being healthy in the Northland community. Please mark no more than 3.

- | | |
|--|--|
| <input type="checkbox"/> Access to health care | <input type="checkbox"/> Housing insecurity (trouble paying rent, overcrowding, moving frequently, living with relatives, etc.) |
| <input type="checkbox"/> Crime | <input type="checkbox"/> Human trafficking |
| <input type="checkbox"/> Discrimination (ex: age, gender, gender identity, immigration status, sexual orientation, racial, etc.) | <input type="checkbox"/> Medical debt |
| <input type="checkbox"/> Education (not having access to school or training that helps gain employment) | <input type="checkbox"/> Transportation issues |
| <input type="checkbox"/> Employment and income (not having the ability to get or keep a job) | <input type="checkbox"/> Utility needs (not having enough money to pay electric/gas/water/etc. bills) |
| <input type="checkbox"/> Food insecurity/hunger (not having reliable access to enough affordable nutritious food) | <input type="checkbox"/> Violence (ex: bullying, child abuse/neglect, domestic violence, rape/sexual assault, school violence, etc.) |
| <input type="checkbox"/> Homelessness | <input type="checkbox"/> Other (please specify) _____ |

Access to Health Care

(22) I have my own doctor I see when I am sick.

- Yes
 No

(23) I have access to the medical specialists I need.

- Yes
 No
 I have not had any need for a medical specialist

(24) How do you pay for your health care? Select all that apply.

- Pay cash
 Veteran Administration
 Indian Health Services
 Medicaid
 Medicare
 Health Insurance (private insurance, employer paid health insurance, market place, PPO, HMO, etc.)
 Other (please specify) _____

(25) Where do you primarily receive healthcare services? (only select 1)

- Local Health Department
 Urgent Care
 Emergency Room
 Primary Care Doctor
 Quick Care Clinics (located in grocery stores pharmacies)
 Other (please specify) _____

(26) Was there a time in the past 3 years when you needed to see a doctor but couldn't because of cost?

- Yes
 No
 I didn't need medical care in the past 3 years

(27) Was there a time in the past 3 years when you needed to purchase prescription medication but couldn't because of cost?

- Yes
 No
 I didn't need prescription medication in past 3 years

(28) Where do you get your health information? Select all that apply.

- | | |
|---|---|
| <input type="checkbox"/> Health care provider (ex: doctor, nurse dentist) | <input type="checkbox"/> Health or fitness magazine |
| <input type="checkbox"/> Social media | <input type="checkbox"/> Newspapers |
| <input type="checkbox"/> Internet search (ex: WebMD, Google, etc.) | <input type="checkbox"/> Friends |
| <input type="checkbox"/> Educational program or newsletter sponsored by health department of hospital | <input type="checkbox"/> Other (please specify) _____ |
| <input type="checkbox"/> Family | |

Where do you live?

Zip Code: _____ **City:** _____ **County:** _____

Demographic Information

What is your age?

- Under 18
- 18-24
- 25-44
- 45-54
- 55-64
- 65+

Gender

- Male
- Female
- Prefer to self-describe (please specify) _____

Which of these groups would you say best represents your race?

- White
- Black/African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or other Pacific Islander
- Multi-race
- Other (please specify) _____

Are you Hispanic of Latino?

- Yes
- No

How many people are currently living in your household (including yourself)?

- 1
- 2
- 3
- 4
- 5 or more

Primary language spoken at home:

Marital status:

- Married/living together
- Divorced
- Never married
- Separated
- Widowed
- Other (please specify) _____

Your highest education level:

- Less than high school graduate
- High school diploma or GED
- College degree or higher
- Other (please specify) _____

Current employment status:

- Employed full-time
- Employed part-time
- Retired
- Unemployed, seeking work
- Unemployed, NOT seeking work
- Other (please specify) _____

Household Income:

- Less than \$19,000
- \$20,000 to \$29,000
- \$30,000 to \$49,000
- \$50,000 to \$74,000
- \$75,000 to \$100,000
- Over \$100,000

Thank you for your response!

This survey can be mailed to:
Clay County Public Health Center
Attn: Danielle Roethler
800 Haines Drive
Liberty, MO 64068

Or scanned and emailed to: droethler@clayhealth.com

By Friday September 14, 2018