

SAINT LUKE'S COMMUNITY HEALTH NEEDS ASSESSMENT

2015

› Hedrick Medical Center



› **Contact us**

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 **Hedrick
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SAINT LUKE'S HEALTH SYSTEM

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Executive Summary

About Hedrick Medical Center

Hedrick Medical Center is committed to serving the Livingston County, Missouri community. The 25-bed critical access hospital offers 24-hour emergency services along with a wide range of state-of-the-art health care services including: Women's Center with 3-D mammography, a 24-hour Emergency Department, primary care clinics and specialty clinics, inpatient and outpatient rehabilitation care, a full-service maternity unit, inpatient and outpatient surgery, intensive care unit featuring eICU, diagnostic imaging capabilities including a state-of-the-art 64-slice CT scanner.

Hedrick Medical Center's Mission

Hedrick Medical Center is a member of Saint Luke's Health System. As a faith-based community hospital, Hedrick's mission is to enhance the physical, mental, and spiritual health of the patients it serves. As part of Saint Luke's, Hedrick partners with patients, physicians, payers, employees, and the communities it serves to provide healthcare services.

Hedrick Medical Center's Vision

The best place to get care. The best place to give care.

About Saint Luke's Health System

Hedrick Medical Center is part of the Saint Luke's Health System in Kansas City. The health system has 10 hospitals throughout the Kansas City region. The health system also includes home health, hospice, and behavioral health care, as well as multiple physician practices.

Community Health Needs Assessment Objectives

Hedrick Medical Center conducted its second Community Health Needs Assessment (CHNA) in order to better understand and serve the needs of the community. As part of the 2010 Affordable Care Act, all tax-exempt hospitals must complete a CHNA every three years. The CHNA addresses the health needs in the community and prioritizes the identified needs. The hospital is then responsible for completing an implementation strategy for the priority health needs identified.

Community Health Needs Assessment Summary

An effort to understand and create a healthier community requires collaboration and input from many community stakeholders. Through data research and key conversations in the Livingston County community, this CHNA pulls together community findings and addresses top health priorities to help improve community health over the next three years.

Community Health Needs

A wide range of primary and secondary data was used to identify three health priorities in Hedrick Medical Center's community.

Priority 1: Access to Care

- Access to care is a national and local priority focused on the need to better support the uninsured, underinsured, and health care service shortages.
- In Livingston County, 40% of the population is at or below 200% of the Federal Poverty Level (FPL) leaving services out of reach because of the cost of care.
- Without the proper access to care, individuals are more likely to experience multiple chronic health problems, disabilities, and a shorter life expectancy.

Priority 2: Increased Access to Physical Activity and Nutrition

- Livingston County demonstrated a need for increased physical activity and better access to healthy foods.
- In recent years, the numbers of both obese and overweight residents have continued to increase in Livingston County.
- Approximately 11% of the population in Livingston County has been diagnosed with diabetes. Nationally, diabetes accounts for about \$176 billion in annual medical expenses.
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Priority 3: Behavioral Health Care

- Mental health disorders are one of the leading causes of disability in the United States.
- Community stakeholders identified behavioral health care as an ongoing community health need in Livingston County.

Key Contributors

Hospital Leadership

Chief Executive Officer – Steve Schieber

Chief Financial Officer – Janet Buckman

Chief Nursing Officer – Catherine Hamilton, R.N., M.S.N.

Public Health Collaborations

Livingston County Health Center

Assessment Methodology

To prepare the CHNA, both primary sources and secondary data were compiled and analyzed. The CHNA team conducted multiple interviews with hospital leadership and community stakeholders to better understand the needs in the community. Secondary quantitative data was pulled and analyzed from multiple community and hospital sources to better understand the impact of each of the identified needs.

Primary Data

Primary data was collected by connecting with community stakeholders to discuss the needs of the Livingston County population. Stakeholders were chosen to represent broad interests of the community, including underserved populations. Stakeholders provided information, which was used to help identify and prioritize community needs.

Secondary Data

Secondary data was collected through multiple community resources. The most current data available was compiled and analyzed for key population health indicators.

Secondary Data Sources

- County Health Rankings
- National Institute of Mental Health
- Medicare's Hospital Compare
- Healthy People 2020
- Centers for Disease Control and Prevention
- Hospital Industry Data Institute (HIDI)
- Sg2 Nielsen Population and Demographic Data

Community Analysis

Demographic Profile

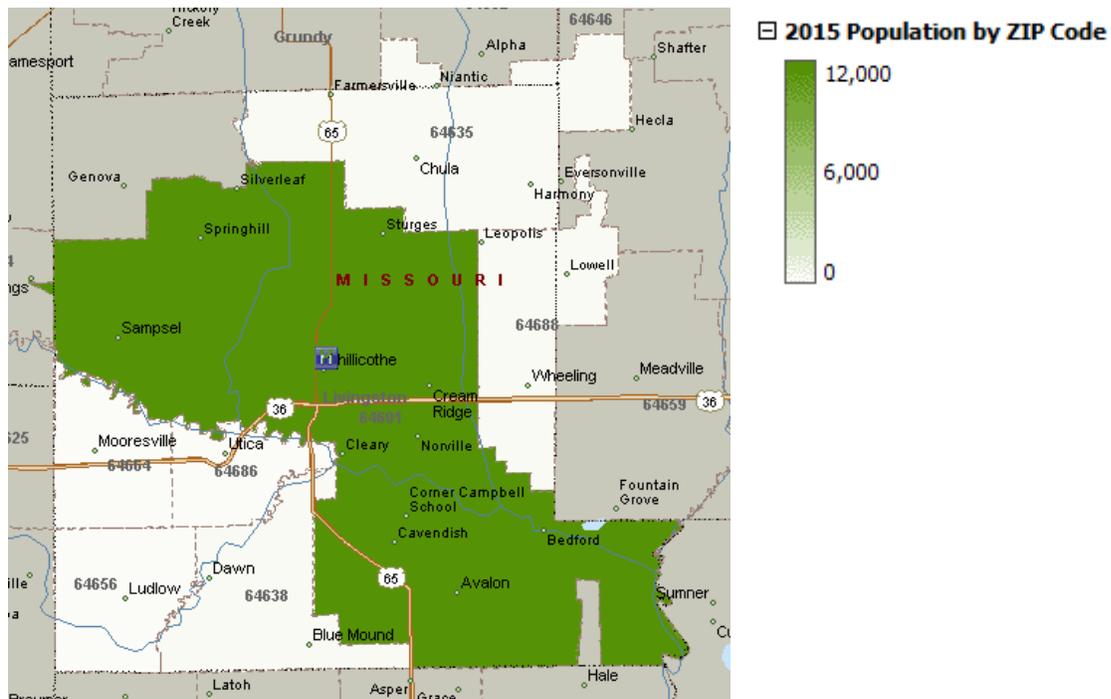
This section outlines the demographic profile for Hedrick Medical Center's defined community.

Geography

Hedrick Medical Center's community is defined as Livingston County, Missouri (see Figure 1).

Livingston County includes seven zip codes.

Figure 1: Hedrick Medical Center's Defined Community, Livingston County, Missouri



Livingston County

Livingston County is located on the northwestern portion of Missouri. The total land area is 539 square miles, with a population density of 28 persons per square mile. The county seat and largest city in Livingston County is Chillicothe, which is home to 9,515 people (2010 census).

Population Characteristics

As of 2015, the Livingston County population was 14,241. The age group 18 to 44 makes up the largest portion of the population at 34% or 4,838 people followed by the age group 45 to 64 at 25% or 3,609 people. The smallest age group is 65 and up at 20% of the population or 2,810 people.

Figure 2 : Livingston County Age Profile, 2015

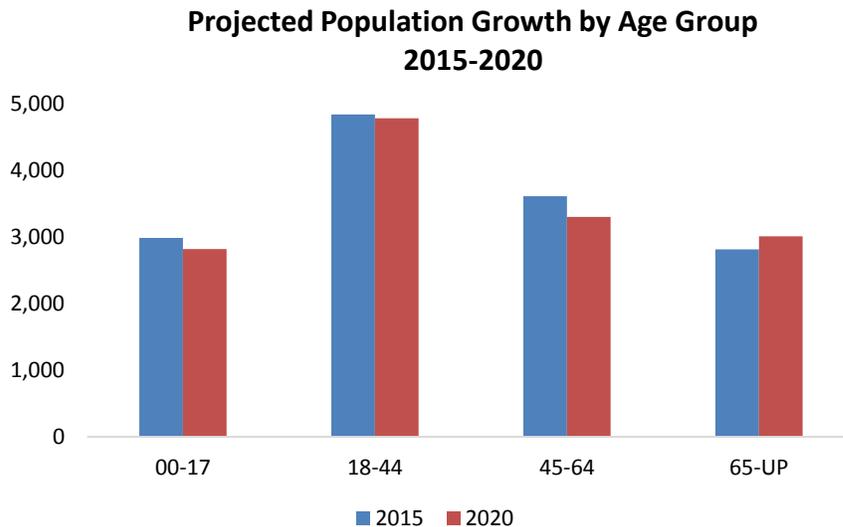
Age Group	2015	
	Population	% of Total
00-17	2,984	21%
18-44	4,838	34%
45-64	3,609	25%
65-UP	2,810	20%
Total	14,241	100%

*Source: Sg2 Population and Demographic Data

Population Growth

The Livingston County population is expected to decrease by 2.5% or 342 people in the next five years. In 2020, the 65 and up age is expected to increase by 7% or 199 people. As a result, the 65 and up age group is expected to account for 22% of the population in 2020. The age group 45 to 64 is expected to decrease by 9 %. The 18 to 44 age group will remain fairly steady and the 00 to 17 population will decrease slightly by 1%.

Figure 3: Projected Population Growth by Age Group, 2015-2020



*Source: Sg2 Population and Demographic Data

Gender Characteristics

Livingston County has a higher percentage of females to males at 55.8% (or 7,944 individuals) to 44.2% (or 6297 individuals). Based on population estimates, the female population is expected to decrease by 2% and the male population by 3% by 2020.

Ethnicity

The majority of the population in Livingston County is white (94.5% in 2015). The white population is expected to have a negative growth rate from 2015 to 2020 at -3.8%, but will still account for over 93% of the population in 2020. The black/African-American population is the next largest at 3.4% of the population, and has an an expected growth of 25.8% (or 124 individuals) from 2015 to 2020.

Figure 4: Projected Population Growth by Single Race 2015-2020

Single Race	2015		2020		Population Change	
	Population	% of Total	Population	% of Total		
White	13,385	94.5%	12,870	93.2%	-515	-3.8%
Black / African American	480	3.4%	604	4.4%	124	25.8%
Multiple Races	168	1.2%	160	1.2%	-8	-4.8%
Asian	61	0.4%	78	0.5%	17	27.8%
American Indian/AK Native	74	0.5%	94	0.7%	20	27%

*Source: Sg2 Population and Demographic Data

Education

In Livingston County, 87% of the population over 25 years of age has a high school diploma or higher. Of that group, 48% have at least a little college education and 28% have a professional, associate's, or bachelor's degree. Only about 12% of the population has not attained a high school diploma.

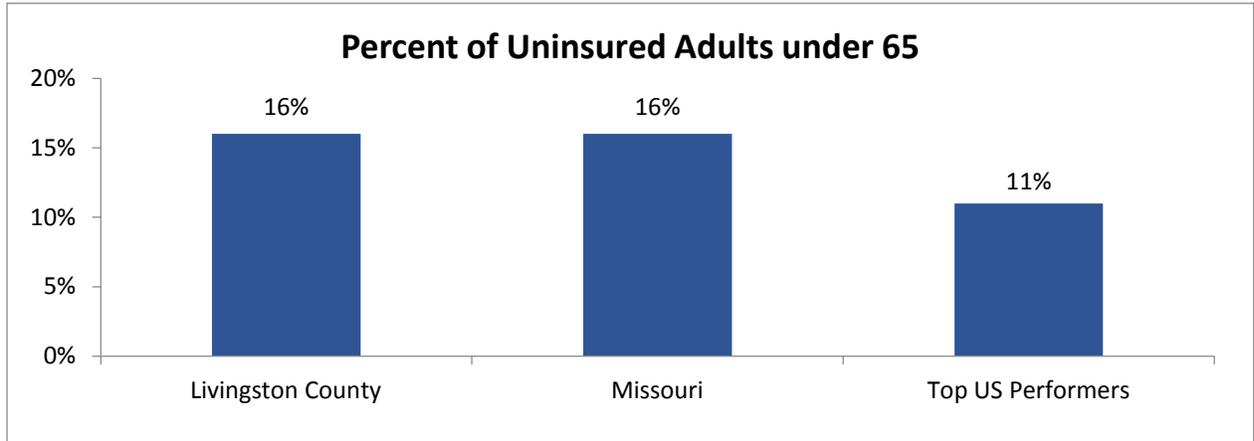
Employment

About 54% of the population above 16 years of age is employed in Livingston County. About 3% of the population is unemployed. The remaining 43% of the population aged 16 years or younger is considered to be out of the labor force.

Uninsured Population

In Livingston County, 84% of the adult population under age 65 has health insurance. With an uninsured rate of 16%, Livingston County is on par with the Missouri average but ranks far behind the top performing US counties.

Figure 5: Percent of Uninsured Adults under 65



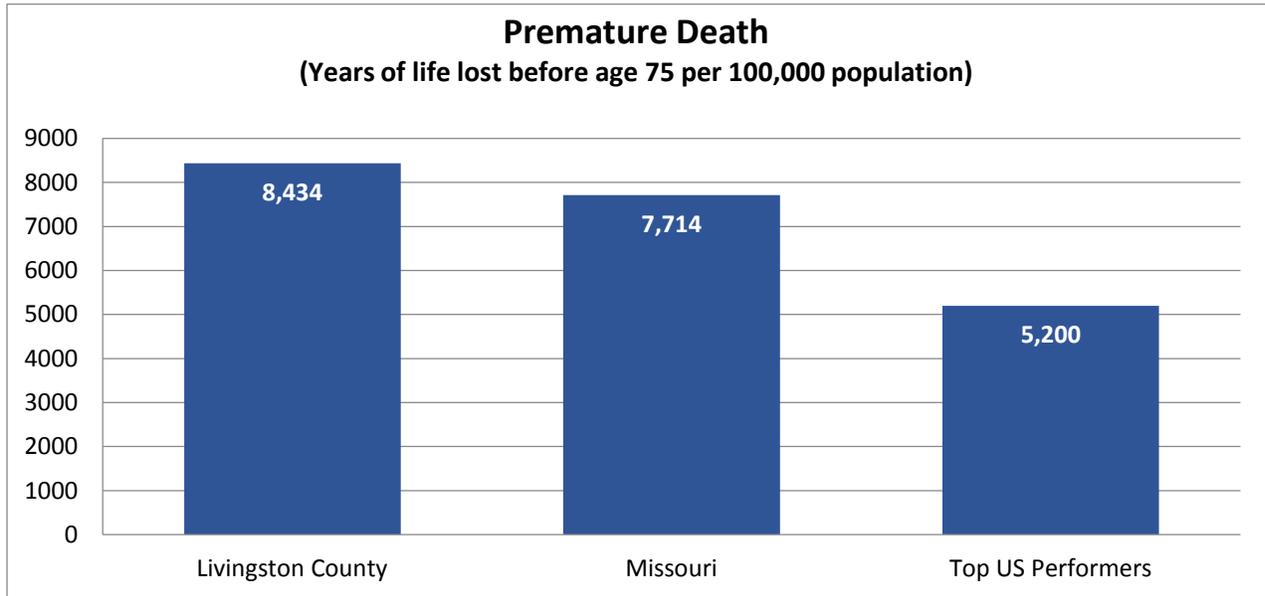
Health Status of the Population

The following section focuses on measures related to the health status of the population that is served by Hedrick Medical Center. The measures are specific to Livingston County, Missouri. The measures are compared against national and state averages or Healthy People 2020 goals in order to assess the specific health needs of the population of Livingston County.

Mortality

Mortality is a measure used to assess the overall health status of the population. Typically, the mortality rate is age-adjusted, which adequately describes the death rate in a population, but it fails to take into account the population health implications of premature deaths. Figure 6 below shows the premature death rate or years of potential life lost (YPLL) before age 75 per 100,000 population. The advantage of this specific type of mortality measure is that it focuses on the reasons for premature mortality in a population. The premature death measure avoids focusing on causes of death related to age. Livingston County has a premature death rate well above the U.S. 90th percentile of 5,200, and also above the state of Missouri rate of 7,714. This measure indicates that the health status of the population in Livingston County is inferior when compared to the state of Missouri and to the top performing U.S. counties.

Figure 6: Premature Death Rate



Leading Causes of Death

It is important to identify the leading causes of death in a population in order to assess the health outcomes in the specific population. Identifying the leading causes of death also allows a community to develop programs or treatment options that address the needs of the population. The table below shows the top ten leading causes of death in Livingston County for years 2003 to 2013.

Figure 7: Leading Cause of Death

Leading Cause of Death Profile for Livingston County Residents		
	Number of Events	Age-Adjusted Rate (per 100,000)
Heart Disease	643	233.9
All Cancers (Malignant Neoplasms)	453	189.1
Lung Cancer	154	65.7
Chronic Lower Respiratory Disease	138	55.6
Stroke/Other Cerebrovascular Disease	126	43
All Injuries and Poisonings	118	67.9
Total Unintentional Injuries	90	50.8
Kidney Disease (Nephritis and Nephrosis)	64	22.9
Pneumonia and Influenza	63	21.7
Alzheimer’s Disease	52	16.8

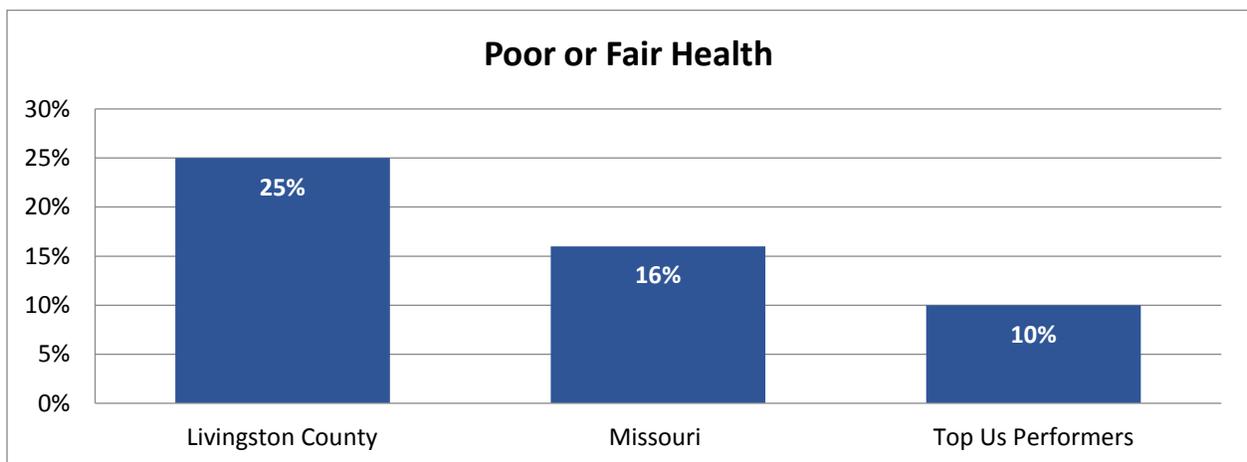
Morbidity

Morbidity measures are purported to measure the quality of life of individuals within a population. The goal of the measures is to focus on the impact that health status has on quality of life. The poor or fair health indicator is a self-reported measure of an individual's perception of their overall health. The poor physical and mental health days indicators are self-reported measures of days of work lost for health-related reasons and are shown as an average number of days lost per month in the table below. The last indicator is low birth weight. According to County Health Rankings, low birth weight is an important morbidity measure because it is indicative of maternal exposure to health risks, the current and future morbidity of the infant, and risk of premature mortality. The percentage of Livingston County residents who consider themselves to be in poor or fair health is much higher than the average Missouri county at 25%. Livingston County also ranks worse than the average Missouri county in the number of poor physical health days reported by residents. Overall, Livingston County ranks 64th out of the 114 counties on morbidity measures assessed in Missouri.

Figure 8: Morbidity Measures

Indicator	Livingston County	Missouri	90th Percentile
Poor Or Fair Health	25%	16%	10%
Poor Physical Health Days	4.5	3.7	2.5
Poor Mental Health Days	3.5	3.8	2.3
Low Birth Weight	6.7%	8.0%	5.9%

Figure 9: Poor or Fair Health Measure



Heart Disease

Heart disease is the leading cause of death in Livingston County. According to the CDC, heart disease is the leading cause of death among both men and women in the United States and accounts for about 610,000 deaths each year, or 1 in 4 deaths. This is a major health issue in the United States. In fact, its prevention, along with stroke, is one of the main objectives of Healthy People 2020 with a goal to "improve cardiovascular health and quality of life through prevention, detection, and treatment of risk factors for heart attack and stroke; early identification and treatment of heart attacks and strokes; and prevention of repeat cardiovascular events".

Figure 10: Heart Disease

Livingston County Chronic Disease Profile: Heart Disease	Number of Events	Age-Adjusted Rate (per 100,000)
Hospital Admissions (2008-2012)	1,413	135.5
ER Visits (2008-2012)	2,167	23.6
Deaths (2002-2012)	673	245.1

Cancer

Cancer is the second leading cause of death in both Livingston County and the United States after heart disease. In 2011, approximately 575,000 people died of cancer in the United States ("Centers for Disease," 2014). It is one of the biggest health concerns for the population. Among deaths from cancer, lung cancer made up the biggest percentage of cancer deaths in Livingston County from 2002 to 2012. The cancers with the highest death rates in Livingston County are listed in Figure 11.

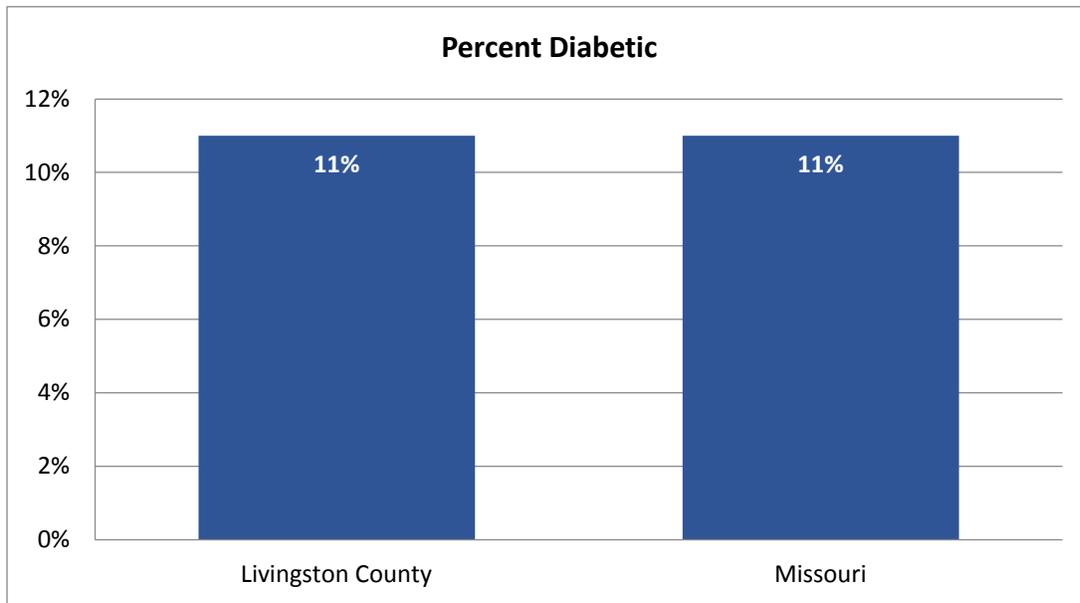
Figure 11: Cancer Deaths

Cancer (2002-2012)	Number of Events	Age-Adjusted Rate (per 100,000)
Lung Cancer	157	67.3
Colorectal Cancer	62	25.4
Colon and Rectum Cancer	59	24.1
Breast Cancer	29	12.0
Prostate Cancer	20	7.4

Diabetes

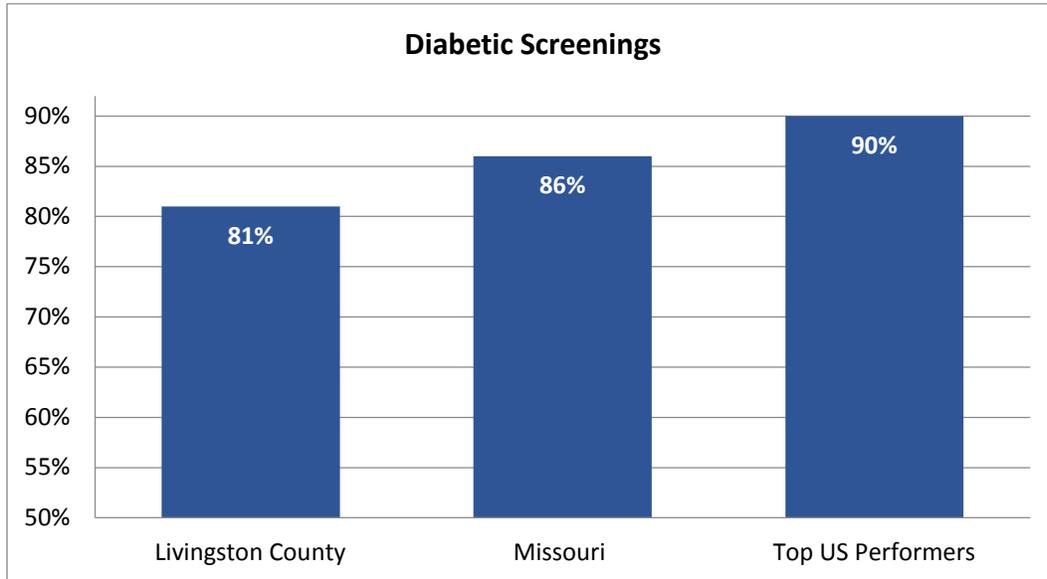
Diabetes impacts many Americans and is a primary health concern in the United States. According to Healthy People 2020 (2014), diabetes impacts approximately 26.3 million people in the United States and it lowers life expectancy by up to 15 years, increases the risk of heart disease by 2 to 4 times, and is the leading cause of kidney failure, lower limb amputations, and adult-onset blindness. Measuring the prevalence of diabetes in a population is important in assessing the overall health of the population. Livingston County is on par with the average Missouri county in this measure.

Figure 12: Diabetic Adults



Diabetic screenings are an important part of disease management. By regularly monitoring an individual's diabetes, poor health outcomes, and premature mortality can be avoided. The diabetic screening percentage below measures the percent of diabetic Medicare patients whose blood sugar control was screened in the past year. This is considered to be the standard of care for diabetes. Livingston County ranks lower than the average Missouri county in this measure, at 81%.

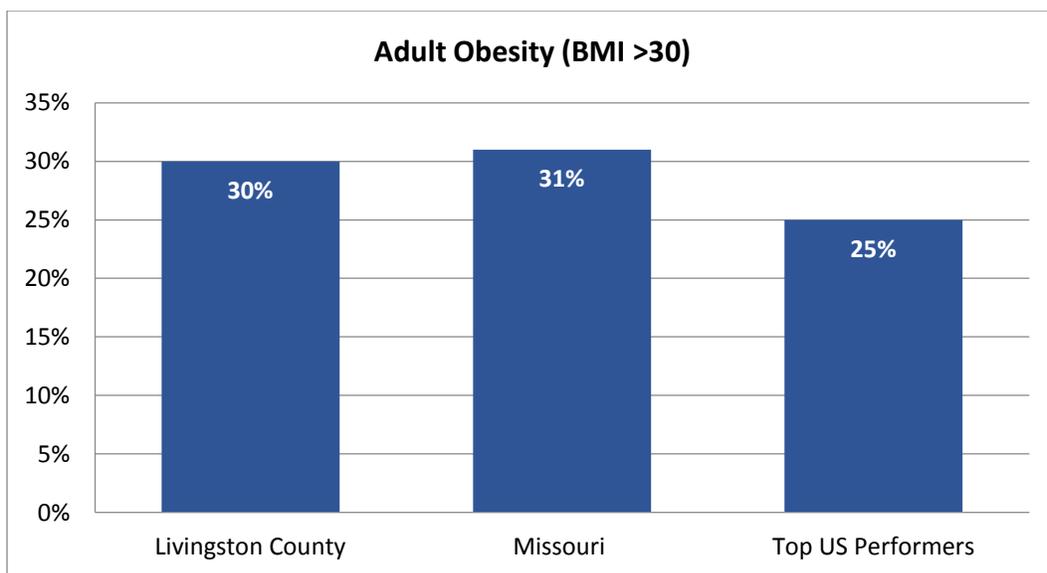
Figure 13: Diabetic Screening



Adult Obesity

Adult obesity is important because obesity increases the risk of many other health conditions. These conditions include type 2 diabetes, cancer, hypertension, heart disease, stroke, and more health conditions. Monitoring and improving obesity rates have the ability to have substantial impact on the health of a particular community. The percentage of obese adults in Livingston County is slightly lower than the average Missouri county at 30%.

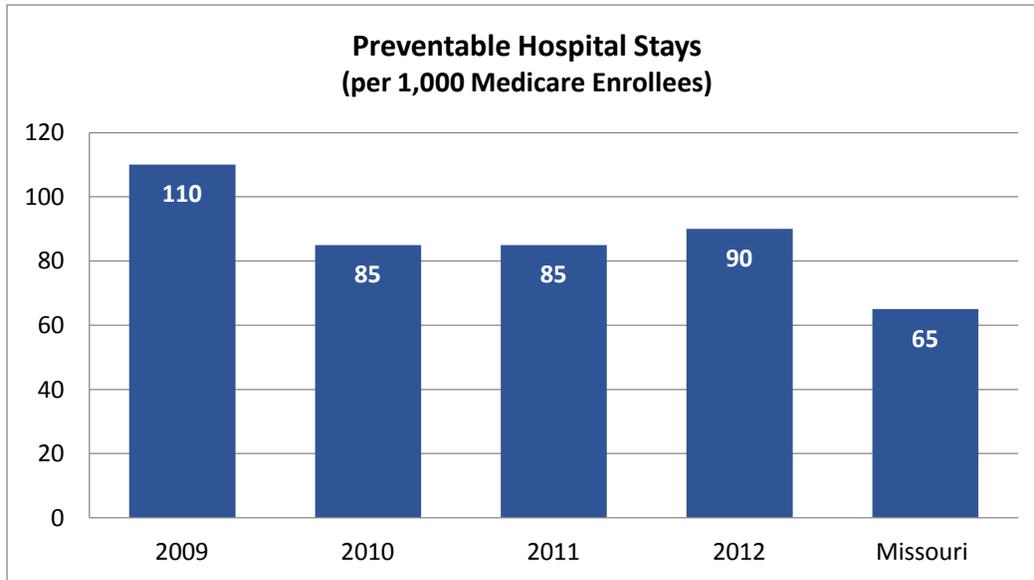
Figure 14: Percent of Adults with Obesity



Preventable Hospital Stays

Preventable hospital stays measures a community’s level of access to services. This includes access to primary care providers and the quality of the level of care being provided to a particular community. This measure not only indicates how well the care is being provided, but also assesses the potential overuse of a hospital as a primary source of care.

Figure 15: Preventable Hospital Stays



Mental Health

Mental health disorders are one of the leading causes of disability. Mental illness can have a profound impact on the health of a population. Managing mental illnesses is vital to ensure a community is able to function appropriately and positively impact society. According to the National Institute of Mental Health, almost 13 million people suffer from mental illness in a given year. Mental health and physical health are interconnected. A person with mental illness can suffer from many other health problems if their mental state is not in a positive place. Mental health is an area in need of attention to help ensure all members of society are functioning at their highest level and contributing to the overall benefit of society.

Figure 16: Mental Health Factors

	Livingston County	State Median	National (top 10%)
Access to Mental Health Providers	1,487:1	632:1	386:1
Poor Mental Health Days	3.5 Per 30 days	3.8 Per 30 days	2.3 Per 30 days

Health Behaviors

The behaviors of a particular community are essential to assessing the overall health of the population. People who do not adopt healthy behaviors are at an increased risk for other health problems. Human behaviors have a direct impact on health outcomes. A large percent of preventable deaths are attributed to risky behaviors such as smoking, unhealthy diets, and risky sexual behavior. There are a multitude of factors influencing a change in behavior, including structural, educational, and environmental factors.

Figure 17: Health Behaviors

	Livingston County	State Median	Top US Performers
Adult Smoking	20%	23%	14%
Food Environment Index (out of 10)	7.4	7.0	8.4
Physical Inactivity (adults over 20 reporting no leisure physical activity)	30%	26%	20%
Teen Pregnancy Rate (per 1,000 15-19 year old females)	55	40	20
Sexually Transmitted Infections (Chlamydia, Per 100,000 population)	333	462	138

Access to Care

Access to Primary Care Physicians

Primary care physicians include M.D.'s and D.O.'s under the age of 75. Primary care specialties include general practice medicine, family medicine, internal medicine, and pediatrics. This measure indicates not only financial access but also physical access to providers. The goal of increased access to primary care physicians is to reduce utilization of unnecessary services. There has been clear evidence of unnecessary utilization associated with specialist visits. An appropriate availability of primary care physicians is essential in order to provide referrals to appropriate levels of care for patients. Appropriate access to primary care can help reduce the hospital readmission rates as well because patients receive the right care at the right time. The Healthy People 2020 initiative for adults with health insurance and children with health insurance is 100%.

Figure 18: Access to Care

	Livingston County	Missouri	Top US Performers
Primary Care Physician Ratio	1,367:1	1,439:1	1,045:1
Mental Health Physician Ratio	1,487:1	632:1	386:1
Dentists	1,652:1	1,920:1	1,377:1
Uninsured Adults (Adults under 65 without health insurance)	16%	16%	11%
Uninsured Children	8%	7%	-
Health Care Costs (Average price adjusted Medicare reimbursements per enrollee)	\$10,136	\$9,627	-

National Priorities

Healthy People 2020

The Healthy People 2020 initiative identifies 10-year national objectives to improve the health of the United States population. According to the United States Department of Health and Human Services, the mission of Healthy People 2020 is to strive to:

- Identify nationwide health improvement priorities.
- Increase public awareness and understanding of the determinants of health, disease, and disability and the opportunities for progress.
- Provide measurable objectives and goals that are applicable at the national, state, and local levels.
- Engage multiple sectors to take actions to strengthen policies and improve practices that are driven by the best available evidence and knowledge.
- Identify critical research, evaluation, and data collection needs.

This mission is achieved through the development of Leading Health Indicators (LHIs). The United States Department of Health and Human Services developed an LHI framework that analyzes both determinants of health and health disparities and health across the life stages. The Healthy People 2020 LHIs include the following:

- Access to health services
- Clinical preventive services
- Environmental quality
- Injury and violence
- Maternal, infant, and child health
- Mental health
- Nutrition, physical activity, and obesity
- Oral health
- Reproductive and sexual health
- Social determinants
- Substance abuse
- Tobacco

Summary of Findings

Community Health Needs

Priority 1: Access to Care

Overview

Access to care is a national and local priority. Insufficient access to health services can be caused by many different issues including: lack of insurance, underinsurance, primary care provider availability, provider quality, and costs of care. Access to primary care providers and/or a health center has a major impact on individual health. Adequate access to both primary and specialty care is of even more importance to individuals with chronic conditions such as cancer and heart disease. Individuals with access to care are more likely to receive preventive care that improves quality of life and helps detect and manage chronic conditions.

Prevalence

In Livingston County, 80% of adults and 92% of children have health insurance. Healthy People 2020 has a goal of 100% health insurance coverage for adults and children.

Poverty rates in Livingston County are also an area of concern because of the financial costs of health care. Many individuals will forego medical care if they are unable to afford services. In 2013, 17.8% of the population or 2,441 persons in Livingston County were at or below the Federal Poverty Level. Another indicator of overall numbers of individuals that are struggling financially is to look at the population at or below 200% the FPL. In 2013, 40.8% were at 200% of the FPL in Livingston County, or 5,598. This indicator is relevant because poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status.

Impact

Access to primary care providers and available health facilities has a major impact on individual health. People without access to health insurance are less likely to receive routine checkups and preventive health care, exacerbating chronic or untreated illnesses and increasing the overall costs to the health system. Regular and reliable access to care can prevent disease, detect illness, increase quality of life, and increase life expectancy.

Priority 2: Increased Access to Physical Activity and Nutrition

Overview

Livingston County demonstrated a need for increased physical activity and nutrition for the community as a whole. Physical activity and nutrition play a vital role in the overall health of members of a community, and Livingston County demonstrated a need to improve on a few areas in order to help improve the health of the population in the future. The county as a whole has failed to improve on measures such as obesity, physical inactivity, and diabetes.

Prevalence

Physical Activity/Nutrition – The chart below shows the physical activity indicators as well as the nutrition factors for Livingston County in comparison to the state median value. These values demonstrate some needs for Livingston County in terms of availability of health food options for the members of the community.

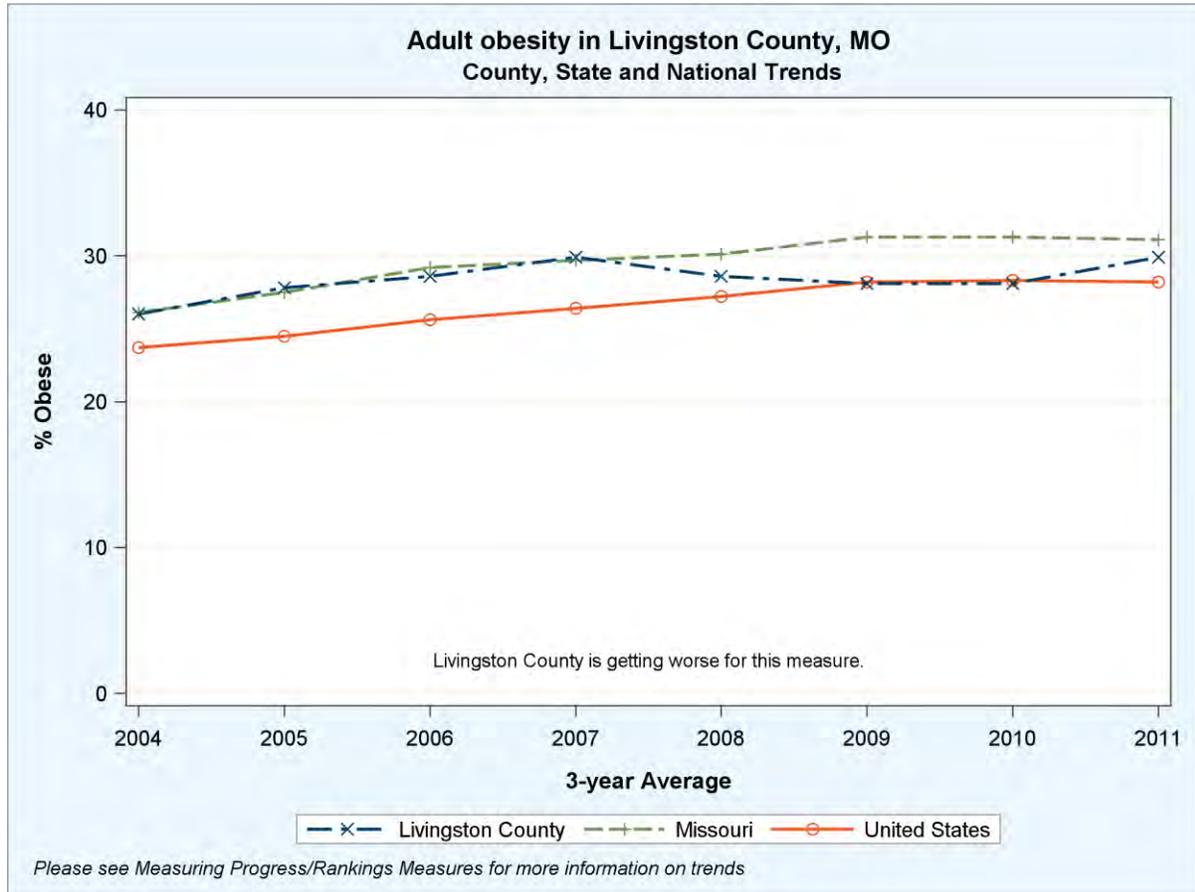
Figure 19: Physical Activity and Nutrition Factors

Indicator	Livingston County	State Median	To US Performers
Physical Inactivity	30%	26%	20%
Access to Exercise Opportunities (population who live close to park/rec facility)	65%	77%	92%
Food Insecurity (percent of population)	16%	17%	-
Limited Access to Health Foods	3%	6%	-
Food Environment Index	7.4	7.0	8.4

Diabetes – In Livingston County 11% of adults over the age of 18 have been diagnosed with diabetes. While this is on par with the Missouri average, the risk of getting diabetes can increase as physical inactivity and nutrition statistics become worse. Diabetes is impacted by many other factors including diet and physical activity, which is why this is a health need for Livingston County.

Obesity/Overweight – In Livingston County the percent of adults who are obese (BMI > 30) and adults who are overweight have both been increasing over time. Figure 20 shows a trend line in which the percentage of obese adults in Livingston County is increasing while the state and national percentages are decreasing.

Figure 20: Adult Obesity Trends



Impact

Physical Activity/Nutrition – Decreased physical activity has been related to several disease conditions such as type 2 diabetes, hypertension, cardiovascular disease, cancer, stroke, and premature mortality. Nutrition is imperative to maintaining a healthy community as well. Food insecurity and low access to healthy food will leave the community at an increased risk for adopting unhealthy lifestyle choices and lacking proper nutrition on a daily basis. People who live further away from grocery stores are more likely to choose to eat at fast food restaurants, which can lead to higher incidences of obesity and obesity-related health problems. Physical exercise and proper nutrition are both imperative in order to help improve the health of the community as a whole.

Diabetes – Poor nutrition and a lack of physical activity can lead to diabetes. Diabetes is the 11th leading cause of death in Livingston County, and ranks in the top ten of leading causes of death nationally. Diabetes can lead to many other medical complications including blindness, end-stage renal disease, and possible amputation.

Obesity/Overweight - Adult obesity is important because obesity increases the risk of many other health conditions. These conditions include type 2 diabetes, cancer, hypertension, heart disease, and stroke. Monitoring and decreasing obesity rates can have substantial positive impact on the health of a particular community.

Priority 3: Behavioral Health Care

Overview

Behavioral health care is a term which refers to a continuum of services for individuals at risk of, or suffering from, mental, behavioral, or addictive disorders. These disorders are health conditions characterized by alterations in thinking, mood, or behavior (or some combination thereof), and associated with distress and/or impaired functioning. These disorders cause a host of problems that may include personal distress, impaired functioning and disability, pain, or death.

Prevalence

The burden of mental illness is among the highest of all diseases, with roughly one-fourth of adults and one-fifth of children having a mental health disorder in the past year.

Primary data sources identified behavioral health needs as high priority for the community. Additionally, behavioral health was identified as a common secondary diagnosis to multiple acute episodes at Hedrick Medical Center.

Impact

Unfortunately, comorbidity between mental and medical conditions is the rule rather than the exception. One nationally representative epidemiological survey shows 68% of people with a diagnosed mental disorder report having at least one general medical disorder and 29% of people with a medical disorder had a comorbid mental health. Data from analyses of medicaid claims indicate that more than half of disabled Medicaid enrollees with psychiatric conditions also had claims for diabetes, heart disease or pulmonary disease, substantially higher than rates of these illnesses among persons without psychiatric conditions (Druss and Walker, 2011). Consequently, the impact of the need for more behavioral health care affects the biomedical needs of the Livingston County community as well.