

# GRUNDY COUNTY COMMUNITY HEALTH NEEDS ASSESSMENT

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Conducted on behalf of:

Wright Memorial Hospital

Saint Luke's Health System

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[saintlukeshealthsystem.org](http://saintlukeshealthsystem.org)

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## EXECUTIVE SUMMARY

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The purpose of the community health needs assessment is twofold. First, the primary aim is to improve the overall health of Grundy County through identifying any areas of need. Second, is to satisfy both state and federal requirements by engaging key stakeholders in the county for their input on health vulnerabilities. To assess the needs of Grundy County this assessment uses a number of secondary resources including; the U.S. Census Bureau, *County Health Rankings*, Missouri Department of Health and Senior Services, and the Missouri Hospital Association. Along with the secondary data analysis, input was gathered from healthcare service providers and important stakeholders in the community.

Secondary data analysis provided a picture of social demographics, economics, and contributing health factors for Grundy County. According to the most recent U.S. Census Bureau data, Grundy County has a total estimated population of 10,261 in 2010. This is a 1.6 percent decrease from 2000. Roughly 40 percent of the population falls between the ages of 35-64 which also represents the largest group of healthcare consumers. Future changes in the population mix will present unique challenges for Grundy County.

Economic factors of a community often correlate with access to healthcare. In terms of economic status, Grundy County is healthy in relation to the rest of Missouri and the United States, but it does have a higher percentage of families below the poverty level. Analyzing the various classes of workers gives an idea as to the availability of health insurance to the labor force. Figure 4.2 shows that Grundy County has a slightly lower percentage of government workers than either the state or national levels and has a higher portion of self-employed workers.

Grundy County ranked 21<sup>st</sup> out of 115 counties in overall health outcomes though analysis of secondary data reveals several negative trending health factors. Grundy County experiences higher than average rates of smoking, high blood pressure, and lack of exercise compared to the state of Missouri. These poor trends in healthcare factors ultimately lead to higher rates of premature death, a leading indicator of overall health in a community.

Discussions with local healthcare providers indicated that Grundy County lacks in specialist providers, primary care providers, and prevention services. The lack of specialty providers is partially alleviated by the proximity to Kansas City, but results in a portion of the population leaving the community for healthcare services.

In conclusion, the negative trends in healthcare factors will inevitably have a harmful effect on the county's health outcomes in the future. The information provided in this assessment should be used as a tool for Wright Memorial Hospital and community stakeholders when deciding the next step in community health. The health of Grundy County is strong but also should expect to confront challenges caused by negative trends in health factors and a changing population mix. It will be important that the community address these challenges and make decisions based on community needs moving forward.

## INTRODUCTION

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### BACKGROUND & PURPOSE

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The Community Health Needs Assessment (CHNA) is a unique document that will enable Saint Luke's Health System and specifically Wright Memorial Hospital (WMH) to better serve patients and the community. The assessment will be conducted by a student from the Health Management and Informatics Department at the University of Missouri-Columbia. The CHNA will identify the different health needs and outcomes that occur in WMH's primary service area. A preliminary template for this assessment was prepared for Saint Luke's Health System on May 2012 by Patrick McCraney, Jay Mooney, Kayla Schuster, and Jacob Wayman. The original document was restructured to take account of the new guidelines imposed by the Internal Revenue Service and the particular health needs of Grundy County.

The community health needs assessment will achieve four distinct goals:

1. Maintain adherence to the Patient Protection and Affordable Care Act assessment requirements; and also Internal Revenue Service Section 501(r) mandates.
2. Identify vulnerable populations within Grundy County and the most urgent health needs for those populations.
3. Look for collaborative solutions through services provided by Wright Memorial Hospital and other community outreach programs.
4. To capture the opinion of community stakeholders including; independent healthcare professionals, Grundy County Health Department officials, Wright Memorial Hospital employees, and additional members of the community.

*Disclaimer:* The information and data for this assessment was collected from various sources including U.S. Census Bureau, County Health Departments, Missouri Hospital Association, Missouri Department of Health and Senior Services, Missouri Information for Community Assessment, and various other local and state agencies. The data collected through these agencies are by no means exhaustive and future research needs to be conducted in order to ensure the most accurate and up to date representation of Grundy County.

### METHODOLOGY

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Wright Memorial Hospital's CHNA will be constructed using the following sources: U.S. Census Bureau, Grundy County Health Department, Missouri Hospital Association, Missouri Department of Health and Senior Services, Missouri Information for Community Assessment, and *County Health Rankings*. Data will also be obtained from Wright Memorial Hospital, Saint Luke's Health System, and partnering agencies.

In WMH's primary service area there exist several health related vulnerabilities and indicators that will be used to represent the status of the county as compared to national and state benchmarks.

The CHNA will organize, construct, and accurately represent the comparisons in a manner that will allow the community to understand where their county is positioned in terms of health.

Key stakeholder discussions were undertaken to ascertain the health vulnerabilities and indicators of WMH's primary service area. Stakeholders were selected from the following groups; independent healthcare professionals, County Health Department officials, Wright Memorial Hospital employees, and other members of the community.

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## COMMUNITY HEALTH NEEDS ASSESSMENT

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The Internal Revenue Service in conjunction with the Patient Protection and Affordable Care Act has outlined several guidelines that dictate how the CHNA will be organized and are indicated below:

1. "...The CHNA must (1) take into account input from persons who represent the broad interests of the community served by the hospital facility, including those with special knowledge of or expertise in public health and (2) be made widely available to the public" (Internal Revenue Service, Section 501(r)(3)(B)).
2. "...May be based on current information collected by a public health agency or non-profit organizations and may be conducted together with one or more organizations, including related organizations" (Joint Committee on Taxation, *Technical Explanation of the Revenue Provisions of the "Reconciliation Act of 2010," as amended, in combination with the "Patient Protection and Affordable Care Act"* (JCX-18-10), at 81, March 21, 2010).
3. "...requires hospital organizations to include in their annual information return (*i.e.*, Form 990) a description of how the organization is addressing the needs identified in each CHNA conducted under section 501(r)(3) and a description of any needs that are not being addressed, along with the reasons why the needs are not being addressed" (Internal Revenue Service, Section 6033(b)(15)(A)).

Wright Memorial Hospital must meet all of the above criteria in order to remain in compliance with IRS and ACA mandates and maintain its not-for-profit status.

Wright Memorial Hospital must also demonstrate community benefit in order to enjoy the not-for-profit designation, which it does through a variety of services and donations to the community. According to Lyon software, community benefit is defined as "a planned, managed, organized, and measured approach to health care organizations' participation in meeting identified community health and health-related needs" (Lyon software, 2011). WMH utilizes a program offered by Lyon called Community Benefit Inventory for Social Accountability (CBISA). This program is the mechanism that allows WMH to track quantitatively, the actual amount of benefit provided to the community. The opportunity to help those who need it most is something that WMH prides itself in, and similarly the Saint Luke's Health System has made stewardship one of the system's core values. The service that WMH provides as a part of community benefit is vital to the well-being of underserved populations and include; community health improvement services, community health education, community based clinical services, healthcare support services, and financial in-kind contributions.

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## I. GRUNDY COUNTY KEY DEMOGRAPHICS

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Using the U.S. Census Bureau and County Health Rankings websites, key demographical information about Grundy County has been compiled and is displayed below:

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### GEOGRAPHY

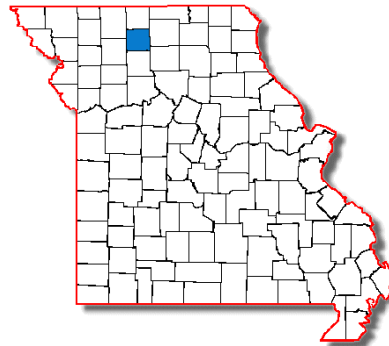
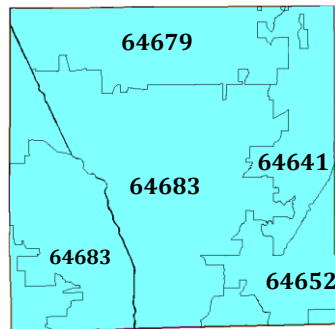
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Grundy County is designated as the service area for the purposes of the community health needs assessment due to the availability of data and because it is the county where the majority patients for Wright Memorial Hospital reside. Wright Memorial Hospital is a critical access hospital located in Trenton, Missouri. We offer a wide range of essential health care services including respiratory care, emergency services, inpatient and outpatient surgery, specialty clinics and more.

As the seat of Grundy County, WMH is dedicated to providing the finest healthcare to residents of Trenton and surrounding areas. As a part of Saint Luke's Health System of Kansas City, WMH is dedicated to serving the healthcare needs of the people of the region and with a new facility having opened in April 2011; WMH has the foundation to continue to build its service profile.

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## Grundy County



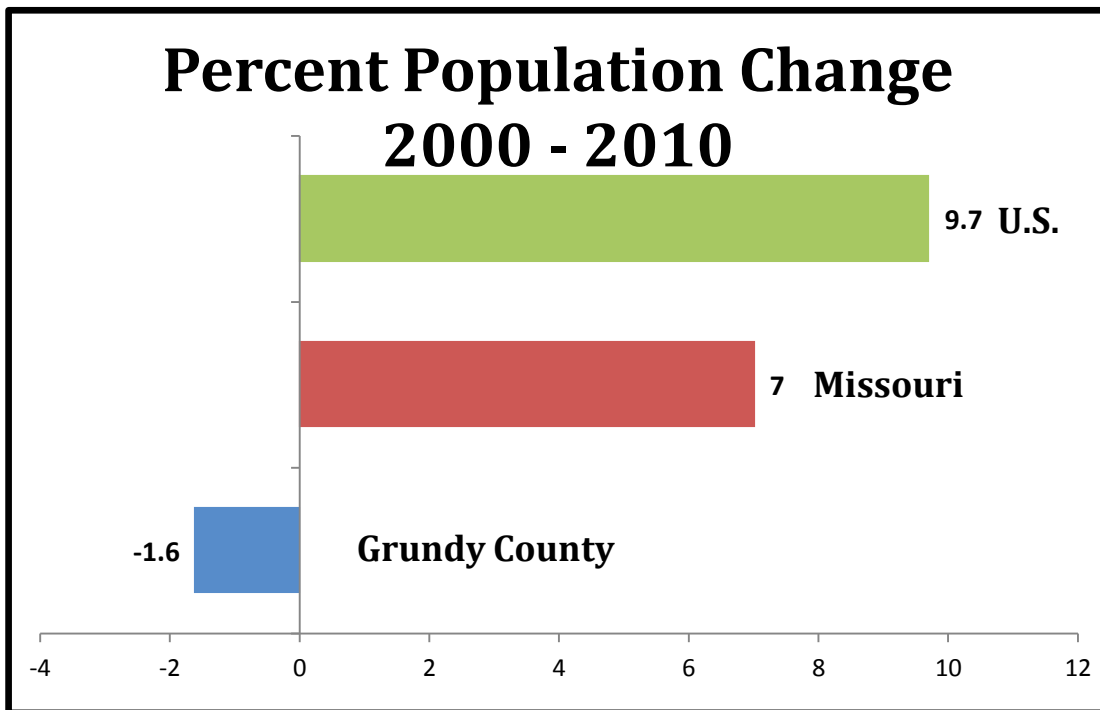
Zip	City	County
64641	Galt	Grundy
64652	Laredo	Grundy
64679	Spickard	Grundy
64683	Trenton	Grundy



## POPULATION

Population size, composition, and migration are linked to a host of variables that shift as social and economic conditions evolve. Grundy County population trends reveal a decrease in total population from 2000-2010.

POPULATION CHANGE – FIGURE 1.1



Source: U.S. Census Bureau

## DISCUSSION

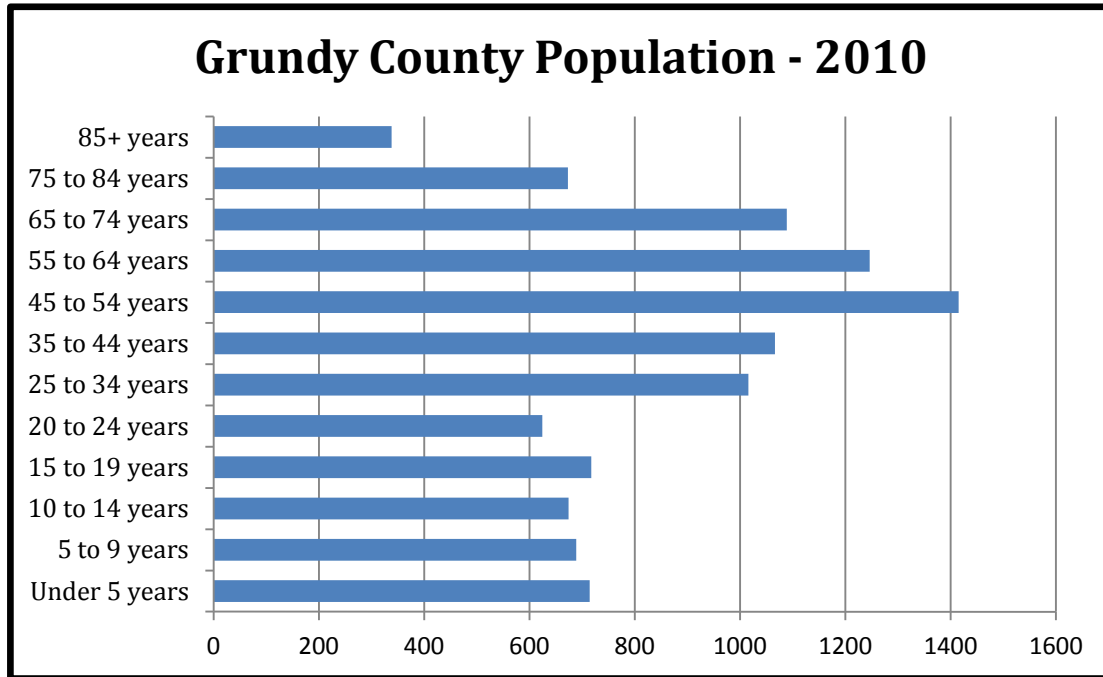
Using data obtained from the U.S. Census Bureau we can see that the total population of WMH's primary service area has decreased by 1.6 percent or roughly 171 people from 2000-2010 to 10,261 people. The population change for the entire state of Missouri on the other hand increased roughly 7 percent to 5,988,927 people.

The decrease in population could be attributed to a couple of factors including, but not limited to, proximity of major metropolitan areas, migration to surrounding counties, and decreased industry in Trenton.

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## POPULATION BY AGE – FIGURE 1.2

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Source: U.S. Census Bureau

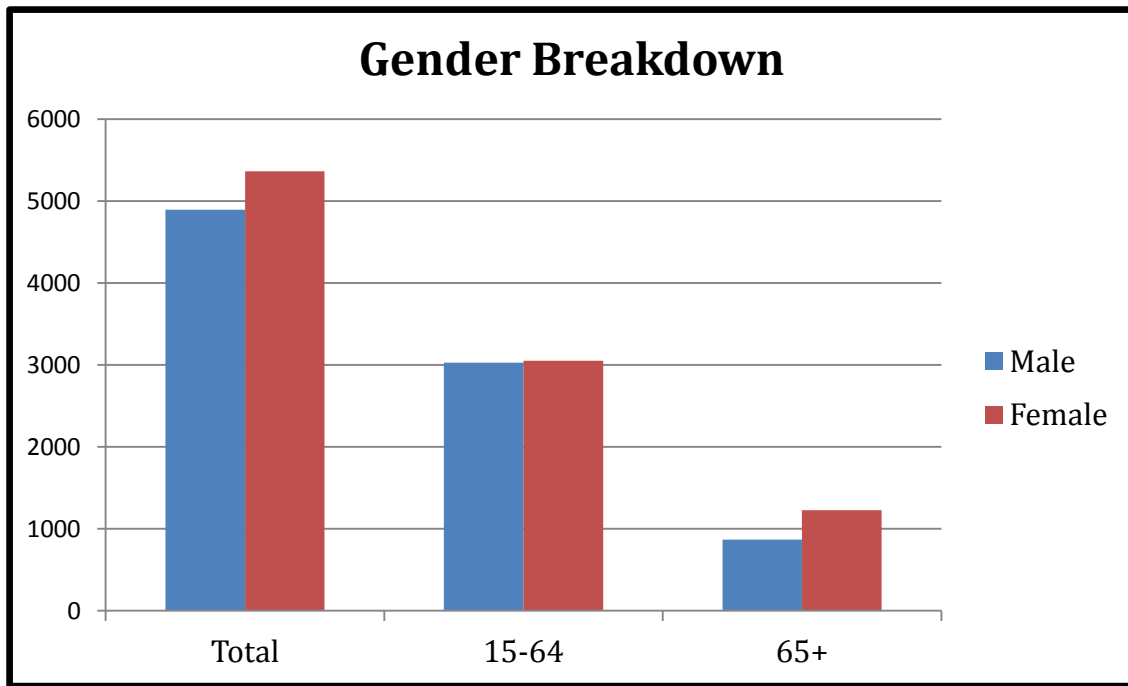
### DISCUSSION

Figure 1.2 shows a break down by age for Grundy County. Individuals between 35 and 64 years of age make up about 37 percent of Grundy County's population. The age of the population can determine the needs of the community, as it helps determine what types of health care services will be required now and in the future. Also important to note, individuals above 54 of age represent 32.7 percent of the population and require different needs in terms of healthcare services. Older adults will need health care services to treat chronic conditions like heart disease, arthritis, diabetes, high blood pressure, and respiratory disease. According to the Census Bureau reports, 80 percent of older Americans have at least one chronic health condition. Heart disease, cancer, and stroke are leading causes of death for this group of individuals.

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GENDER DIFFERENCES (2010) – FIGURE 1.3

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Source: U.S. Census Bureau

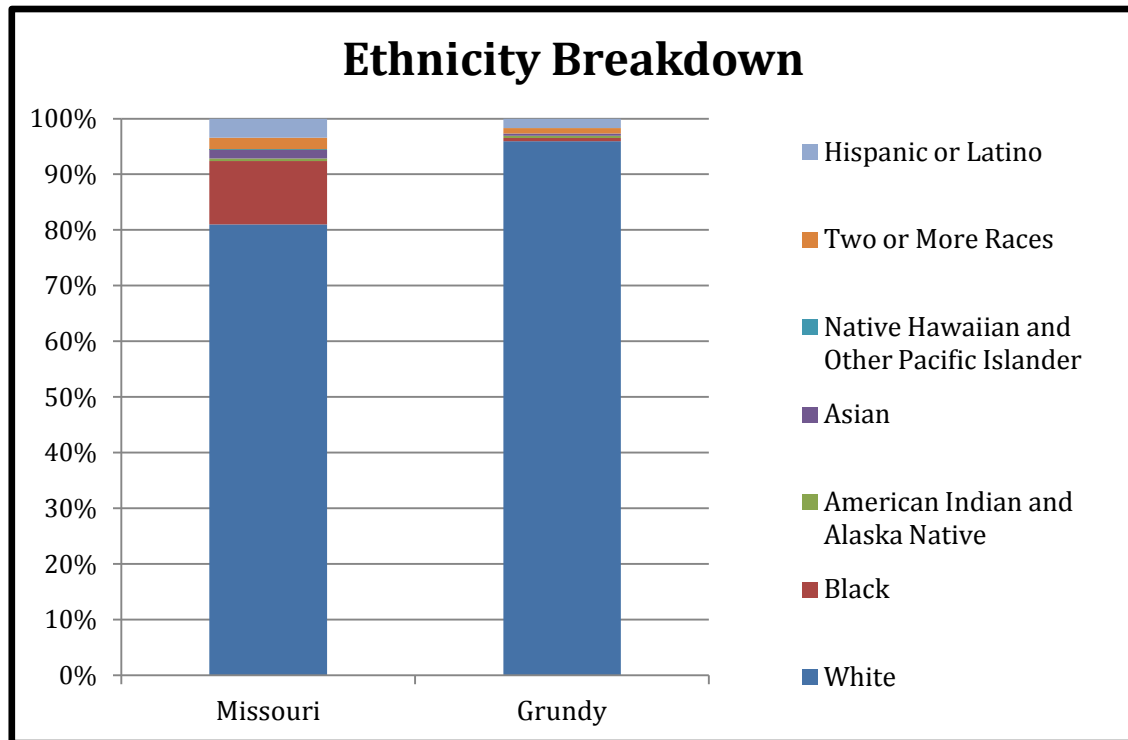
#### DISCUSSION

Findings determine that women have higher healthcare service utilization and higher associated charges than men. Although the appropriateness of these differences is not determined, these findings have implications for the needs of health care services provided in the community. Grundy County has a higher level of females compared to males from the age ranges of 15-64 and 65+. Women have a higher life expectancy and will require more services to fulfill their health care needs.

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ETHNICITY BREAKDOWNS (2010) – FIGURE 1.4

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Source: U.S. Census Bureau

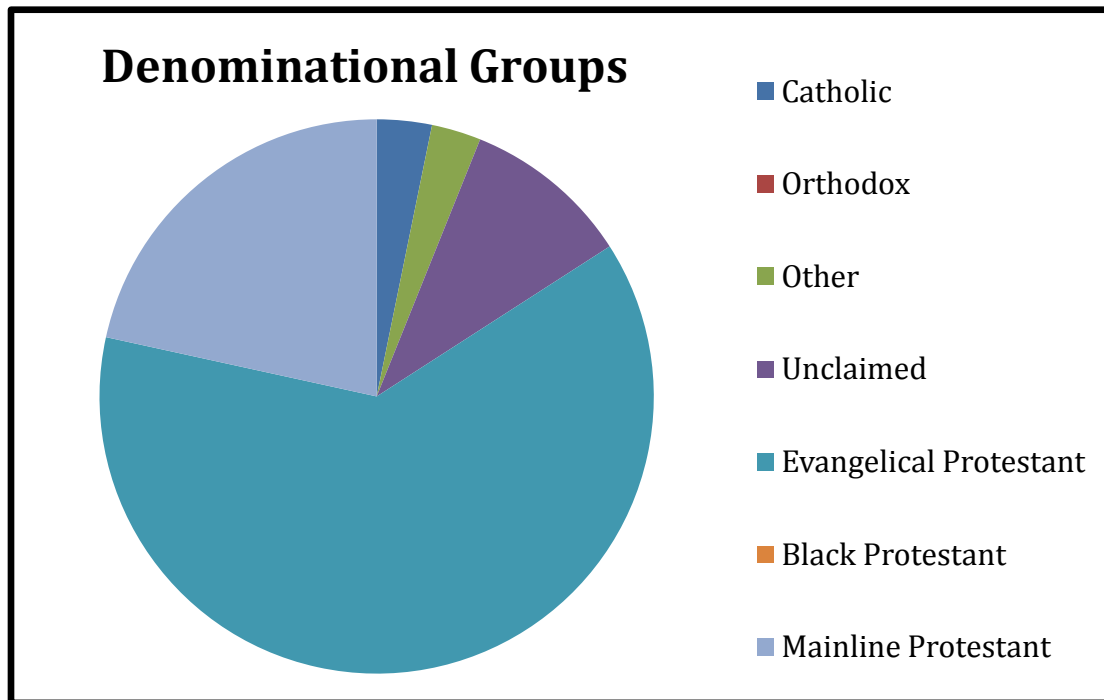
#### DISCUSSION

Ethnicity plays a role in assessing the health needs of the community. Cultural barriers may exist with individuals who do not speak English, which may keep them from seeking health care services due to health care professionals misunderstanding their needs. Figure 1.4 shows the distribution of ethnic groups within Grundy County as well as the state of Missouri. According to the Census Bureau, the Hispanic population is expected to grow 45 percent from 2010 to 2030, and 60 percent from 2030 to 2050. It is imperative to understand and address cultural barriers for this growing population.

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## RELIGION – FIGURE 1.5

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*Source:* The Association of Religion Data Archives (2010)

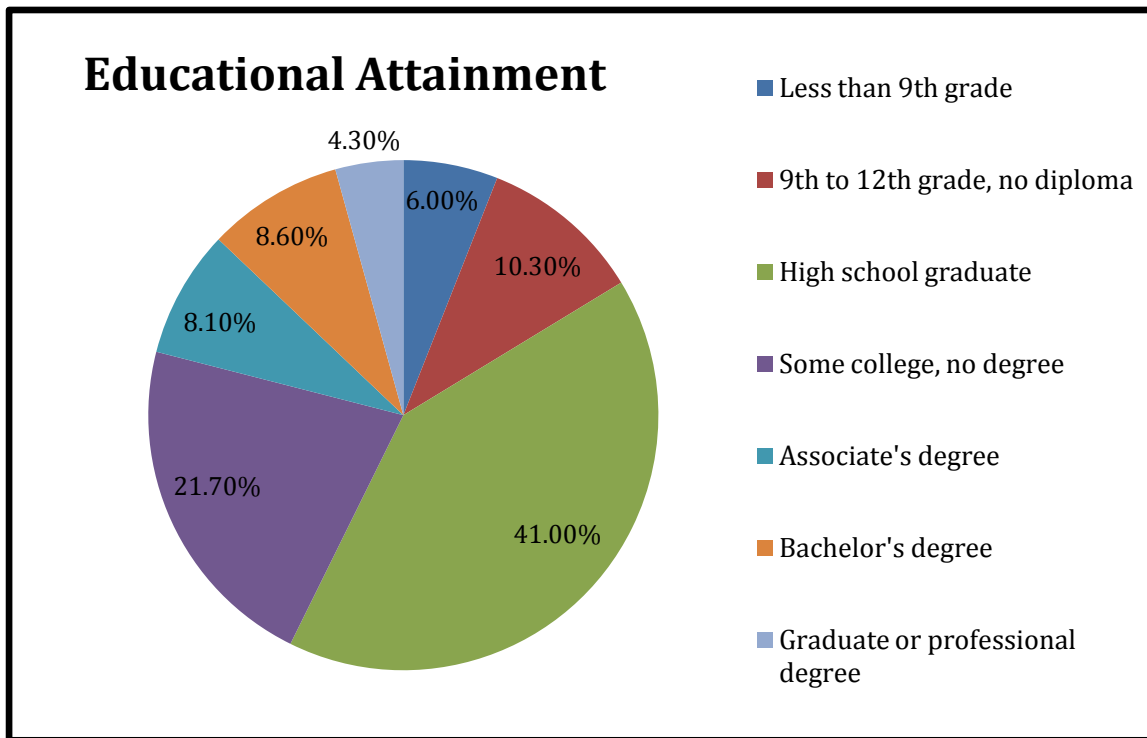
### DISCUSSION

Figure 1.5 represents the major religious stakeholders in Grundy County. Numerous researchers have devoted significant attention to understanding the link between health and personal religious beliefs and practices, to determine whether a correlation exists. Some studies indicate that people who belong to a denominational group tend to have better health, as a result of social support provided by the community members.

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## EDUCATIONAL LEVEL – FIGURE 1.5

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Source: U.S. Census Bureau Age 25+

### DISCUSSION

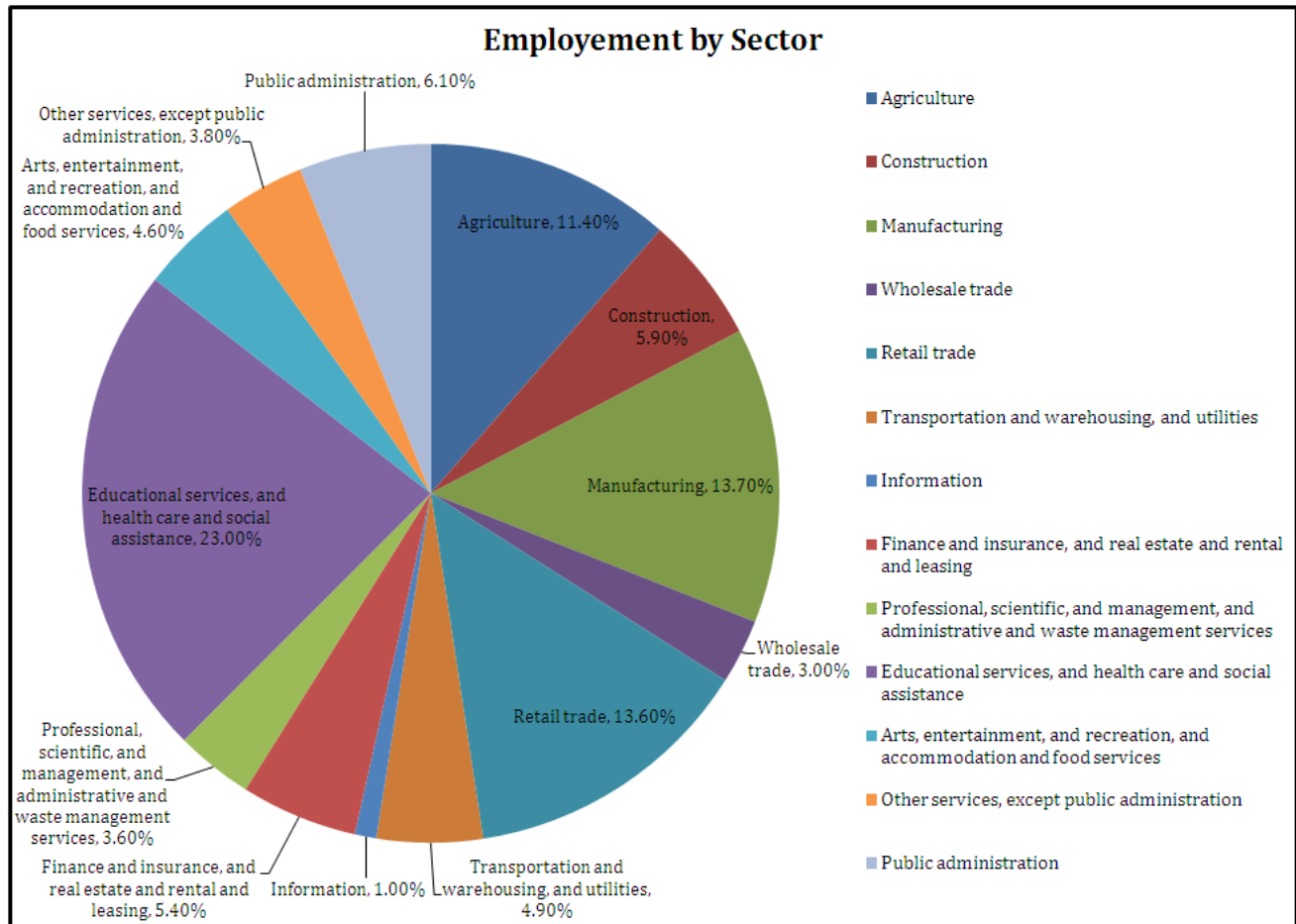
Studies have shown that college graduates generally tend to be healthier than non-college graduates. Lower levels of educational attainment decrease the potential for higher income levels and occupation advancement, ultimately resulting in poorer levels of health.

Grundy County has a high school diploma rate of 83.7 percent, compared to the overall U.S. rate of 86.7 percent. Education is important in helping people understand the consequences of poor food choices, lack of exercise, or lifestyle habits that can be detrimental to one's health.

## EMPLOYMENT STATUS

Civilian Labor Force	Employment	Unemployment	Unemployment %
4,973	4,566	407	5%

EMPLOYMENT BY SECTOR – FIGURE 1.6



Source: U.S. Census Bureau

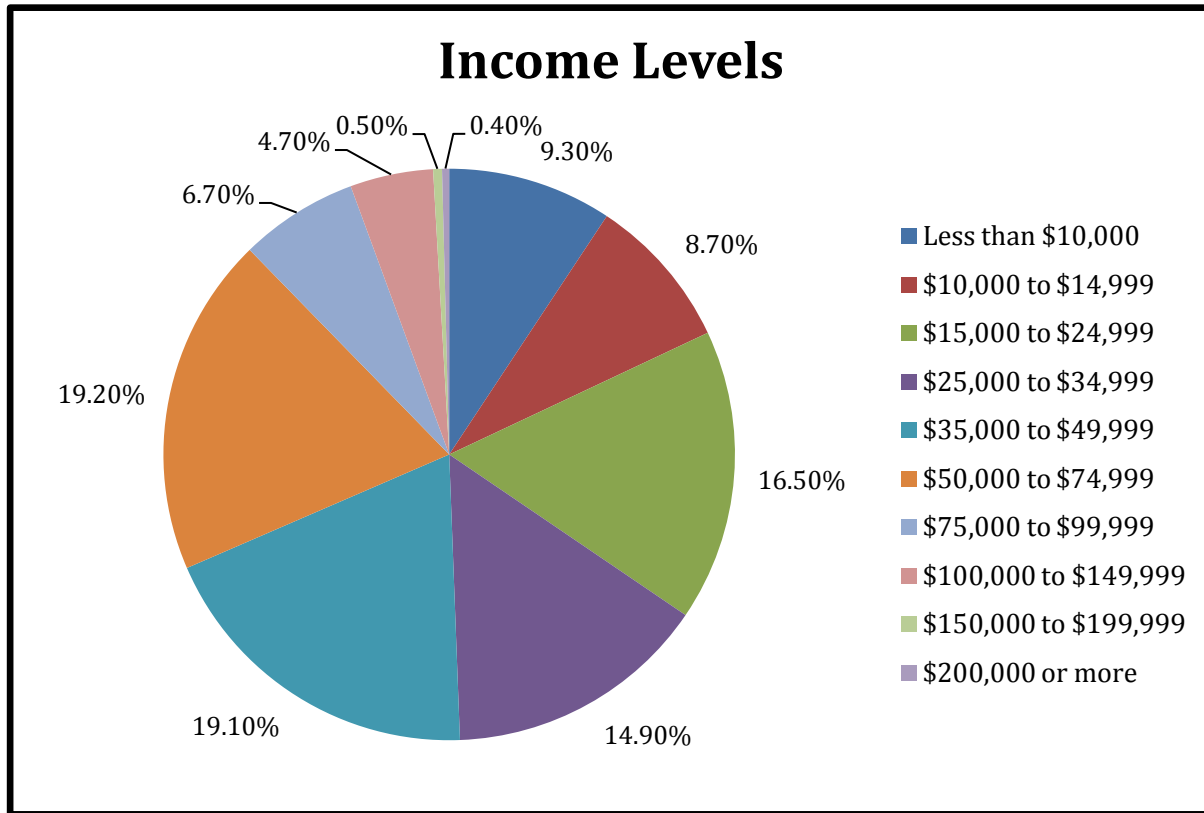
## DISCUSSION

In 2009, Grundy County's civilian labor force had an unemployment rate of 7.3 percent or 355 unemployed individuals. The Grundy County unemployment rate has decreased according to the latest Census data and has stayed well below the national average. In June 2010, Grundy County's unemployment rate was about 5 percent compared to a U.S. unemployment rate of 9.5 percent. Figure 1.6 details the employment by sector.

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INCOME LEVELS – FIGURE 1.7

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Source: 2010 U.S. Census Bureau Data for Households

#### DISCUSSION

The relationship between income and health is well-documented and can simply be stated as the higher the income the better the health of the individual (Reinstein, 2011). The ability to pay for healthcare services is the key to accessing health services resulting in better health outcomes of the individual. Grundy County is well below average in its mean family income of \$52,930 compared to the U.S. mean family income of \$82,446. There were still approximately 10.2 percent of the households living below the poverty level in 2010 compared to 10.1 percent for the U.S.



## II. SECONDARY DATA ANALYSIS

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The following section details the analysis of data retrieved from secondary sources such as the Missouri Department of Health and Senior Services, various U.S. health surveys, and previous community health needs assessments or reports. A wide range of health indicators, outcomes, and measures were reviewed and compared to a number of standards and benchmarks in order to determine the overall quality of population health for Grundy County.

### HEALTH MEASURES

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There are multiple mechanisms available to capture the health status of a population. The Office of Disease Prevention and Health Promotion (ODPHP), which manages the Healthy People 2020 initiative, has set forth several health indicators used to identify and measure a community's wellbeing.

The following describes several measures that are available to provide information on a specific population's health status.

Years of potential life lost (YPLL) is a summary measure indicating premature death. This formula provides an estimate of the total number of years that were not lived by an individual, and within the United States, is based on a limit of 75 years. The YPLL formula allows communities to target resources in high-risk areas and further investigate causes of death if trends become noted. It is illustrated in Figure 2.1.

Self-assessed health status is another useful tool for gauging the health status of a population. It measures and scores the individual perception of health. Ranking from excellent, very good, good, fair, or poor, self-addressed health status not only observes an individual population, but it also allows for easy comparison to other populations.

Mental and physical health perceptions extend the self-addressed health status by gathering data in separate questions in order to link quality of life measurement to the medical, mental, and behavioral health fields. Physically and mentally unhealthy days are a measurement of individuals whom in the past 30 day have rated their physical or mental health as not good.

Figures 2.2 and 2.3 provide additional details on Grundy County's self-assessed health status, physically healthy days, and mentally healthy days.

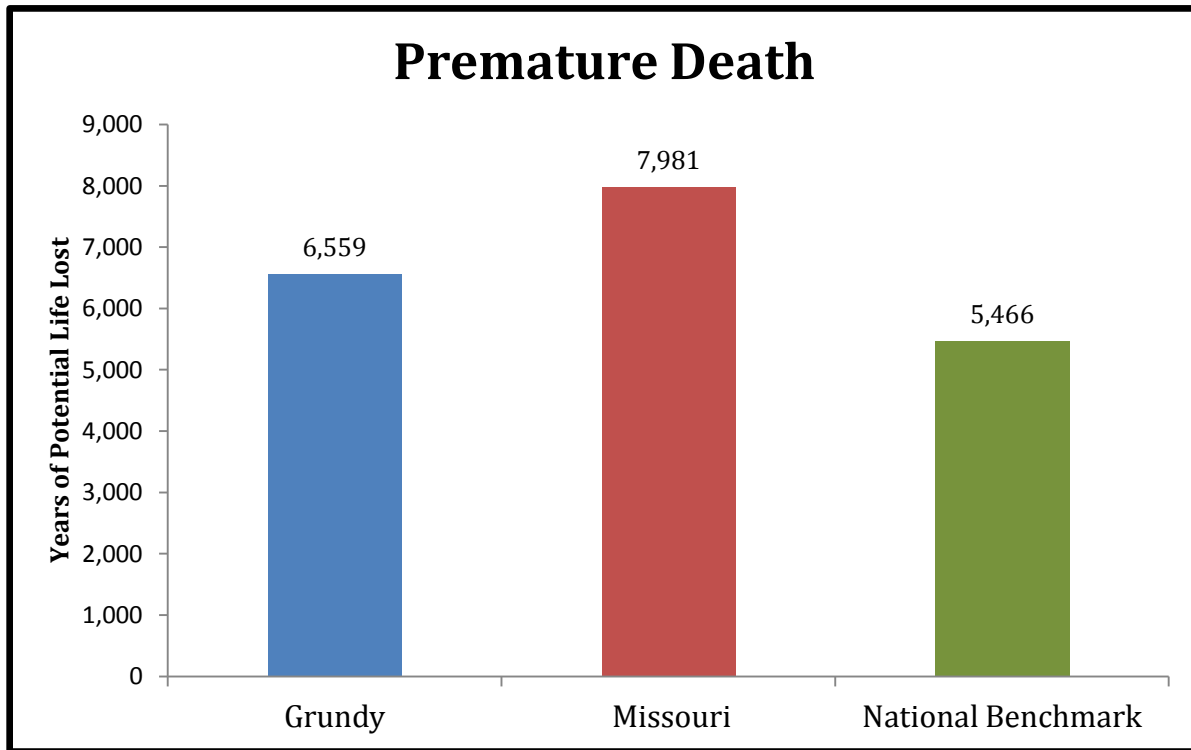
## HEALTH OUTCOMES

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MORTALITY – FIGURE 2.1

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Source: (2012) <http://www.countyhealthrankings.org/missouri/grundy/1>

### DISCUSSION

Since mortality is one of the leading indicators in determining the health of a population, it will provide a basic measure for the health of Grundy County. Premature death is represented by the years of potential life lost before age 75 (YPLL-75) and based off of rank from best to worst. Grundy County ranks 12<sup>th</sup> out of 111 counties in Missouri that reported this data.

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## MORBIDITY MEASURES – FIGURE 2.2

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	Grundy County		Missouri	National Benchmark
	2011	2012	2012	2012
<b>Poor or fair health<sup>1</sup></b>	19%	18%	16%	10%
<b>Poor physical health days<sup>2</sup></b>	4.5	4.1	3.6	2.6
<b>Low birth weight<sup>3</sup></b>	6.6%	7%	8.1%	6.0%

### DISCUSSION

Self-reported health measures, such as the first three in the table above, are often used to determine the overall health of a population and have been shown to be very reliable indicators of current health.<sup>123</sup> Grundy County has experienced a slight decrease in two of the three indicators listed from 2011 to 2012, so the trend should be noted. In addition, the county is higher than the national benchmark in every measure but, it remains lower than the state of Missouri in low infant birth weight.

Low birth weight, as defined by the World Health Organization, is the percent of live births in which the infant weighed less than 2,500 grams (5 lbs., 8 oz.). The measurement is representative of two factors: maternal exposure to health risks and an infant's current and future morbidity, as well as premature mortality risk. In addition, there are numerous health consequences that coincide with low birth weight.<sup>4</sup> Grundy County experienced a slight increase for this measure. Currently, it is below the Missouri average and above the national benchmark. There may be some resources lacking that could be used to improve this figure.

For the overall morbidity measures, Grundy County ranked 51<sup>st</sup> out of the 115 counties evaluated. The primary reason for a lower rating in this category can be attributed to a higher than average number of low birth weights. This indicator carries more weight since it is of more importance than the other indicators. The county ranks in the top 25 percent (21 of 115) for health outcomes (mortality and morbidity) in the state of Missouri, so while there is room to improve, there is no real cause for alarm in any of the evaluated outcomes data.

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<sup>1</sup> The percent of adult respondents who reported their health "fair" or "poor" when asked: "In general would you say your health is excellent, very good, good, fair, or poor?"

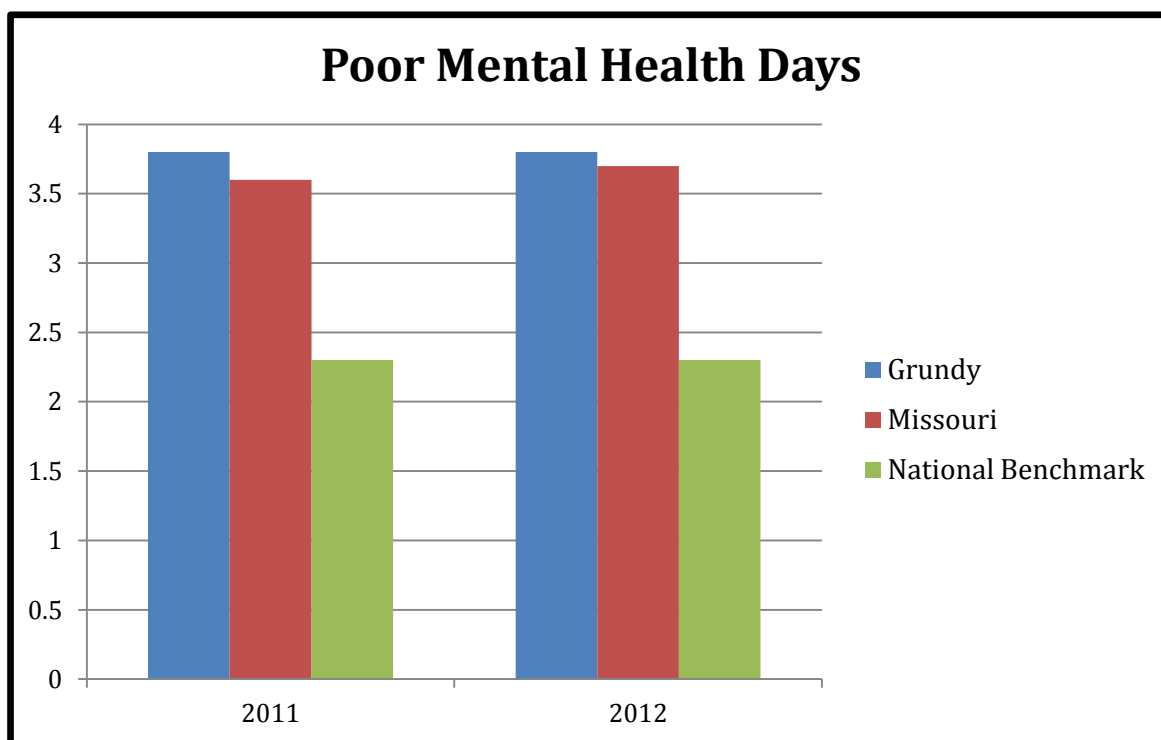
<sup>2</sup> The number of adults that responded "not good" when asked: "Thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?"

<sup>3</sup>Source: <http://www.countyhealthrankings.org/#app/missouri/2012/grundy/county/1/overall>

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## MORBIDITY MEASURES – FIGURE 2.3

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Source: <http://www.countyhealthrankings.org/missouri/grundy>

### DISCUSSION

Overall health is dependent upon both physical and mental well-being. By measuring the number of days an individual reports that their mental health is poor, represents an important facet of health-related quality of life. Identifying and understanding the health-related quality of life of the population helps the communities identify unmet health needs, assess health disparities among demographic and socioeconomic subpopulations, characterize the burden of disabilities and chronic diseases, and track population patterns and trends.<sup>4</sup>

As seen in Figure 2.3, Grundy County continues to be above the Missouri benchmark and well above the national benchmark. Even though the number of poor mental health days in Grundy County remained constant from 2011 to 2012, there is a need to focus on this measure because it is still elevated above both the Missouri and U.S. benchmarks.

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<sup>4</sup> Moriarty D, Zack M, Kobau R. The Centers for Disease Control and Prevention's Healthy Days Measures--population tracking of perceived physical and mental health over time. *Health Qual Life Outcomes*. 2003;1:37

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## MORBIDITY MEASURES – FIGURE 2.4

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	Livingston County	Grundy County	Missouri
<b>Mental Health Providers per Person</b>	<b>14,123:0</b>	<b>10,083:0</b>	<b>9,561:1</b>

Source: <http://www.countyhealthrankings.org/missouri/grundy/62>

### DISCUSSION

Mental health providers include; psychiatrists, clinical psychologists, clinical social workers, psychiatric nurse specialists, and marriage/family therapists who meet certain qualifications and certifications. According to Figure 2.4 Grundy County and other surrounding counties are significantly lacking in mental health providers for their community compared to the state of Missouri. With an increased number of soldiers returning from the Middle East, a majority of these individuals will be in need of mental health treatment because approximately 18.5 percent of returning service members meets the criteria of either PTSD or depression.<sup>5</sup>

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<sup>5</sup> Source: [http://www.rand.org/pubs/research\\_briefs/RB9336/index1.html](http://www.rand.org/pubs/research_briefs/RB9336/index1.html)

## HEALTH FACTORS

### CLINICAL CARE – FIGURE 2.5

	Grundy County		Missouri	National Benchmark
	2011	2012	2012	2012
<b>Uninsured adults<sup>6</sup></b>	18%	18%	15%	11%
<b>Primary care providers<sup>7</sup></b>	1260:1	1260:1	1015:1	631:1
<b>Preventable hospital stays<sup>8</sup></b>	109	121	75	49
<b>Diabetic screening<sup>9</sup></b>	73%	81%	84%	89%
<b>Mammography screening<sup>10</sup></b>	64%	59%	65%	74%

### DISCUSSION

The amount of uninsured adults in Grundy County is higher in comparison to both Missouri and the national benchmark. This indicates that the access to appropriate care should not be much of an issue for the county's residents. One aspect worth note in Figure 2.5 is the low number of primary care providers, which coincides with the county being designated a medically underserved area according to the Health Resources and Services Administration.<sup>11</sup> When it comes to accessing care, having providers available to give care is just as important as having the financial resources to seek out the care. Providers must be available to deliver preventive care to the community, and if necessary, provide referrals to specialists.<sup>6,7</sup>

A higher number of preventable hospital stays indicates that the outpatient care may not be sufficient for the community. In addition, this indicates there may be an overuse of the hospital as a primary source of care.<sup>7</sup> Diabetic screening, an indicator listed above, is the standard in assessing the management of diabetes. Screening provides an estimate of how well a patient is managing their condition and delaying or preventing complications.<sup>8</sup> Evidence suggest appropriate mammography screening can reduce breast cancer mortality and is a widely endorsed quality of care measure.<sup>9</sup>

<sup>6</sup> Estimated percent of the population under age 65 with no health insurance

Source: <http://www.countyhealthrankings.org/#app/missouri/2012/grundy/county/1/overall>

<sup>7</sup>Primary care providers include; practicing physicians specializing in general practice medicine, family medicine, internal medicine, pediatrics, and obstetrics/gynecology. The measure represents the population per one provider.

Source: <http://www.countyhealthrankings.org/#app/missouri/2012/grundy/county/1/overall>

<sup>8</sup>Preventable hospital stays are measured as the hospital discharge rate for ambulatory care-sensitive conditions per 1,000 Medicare enrollees. Source: <http://www.countyhealthrankings.org/#app/missouri/2012/grundy/county/1/overall>

<sup>9</sup>Diabetic screening is calculated as the percent of diabetic Medicare patients whose blood sugar control was screened in the past year using a test of their glycated hemoglobin (HbA1c) levels. Source:

<http://www.countyhealthrankings.org/#app/missouri/2012/grundy/county/1/overall>

<sup>10</sup>This measure represents the percent of female Medicare enrollees age 67-69 that had at least one mammogram over a two-year period.

Source: <http://www.countyhealthrankings.org/#app/missouri/2012/grundy/county/1/overall>

<sup>11</sup> Source: <http://muafind.hrsa.gov/index.aspx>

## HEALTH BEHAVIORS – FIGURE 2.6

	Grundy County		Missouri	National Benchmark
	2011	2012	2012	2012
<b>Adult Smoking</b> <sup>12</sup>	28%	28%	24%	14%
<b>Adult obesity</b> <sup>13</sup>	29%	29%	31%	25%
<b>Excessive drinking</b> <sup>14</sup>	11%	9%	17%	8%
<b>Motor vehicle crash death rate</b> <sup>15</sup>	39	28	19	12
<b>Sexually transmitted infections</b> <sup>16</sup>	306	227	438	84
<b>Teen birth rate</b> <sup>17</sup>	58	56	44	22

### DISCUSSION

Each year thousands of premature deaths occur primarily due to smoking, and it is identified as a contributing factor to multiple diseases such as cancer, cardiovascular disease, and respiratory conditions, to name a few. Alerting communities to the adverse effects of tobacco use can be valuable in assessing the needs for cessation programs or the effectiveness of existing ones.<sup>11</sup>

Adult obesity is becoming an epidemic in the U.S. and increases the risk for countless health conditions. Obesity is an energy imbalance due to a lack of physical activity combined with a poor diet. Obesity can ultimately lead to the following: coronary heart disease, type II diabetes, cancer, hypertension, stroke, gall bladder disorders, respiratory problems, and osteoarthritis.<sup>12</sup>

Excessive drinking is the third leading lifestyle-related cause of death in the U.S. annually. It is also a risk factor for a number of adverse health outcomes including: alcohol poisoning, hypertension, acute myocardial infarction, sexually transmitted infections, unintended pregnancy, fetal alcohol syndrome, sudden infant death syndrome, suicide, interpersonal violence, and motor vehicle crashes.<sup>16</sup>

Teen pregnancy is associated with poor prenatal care and pre-term delivery. Pregnant teens are more likely than older women to receive late or no prenatal care, have gestational hypertension and anemia, and achieve poor maternal weight gain. They are also more likely to have a pre-term delivery and low birth weight, increasing the risk of delayed child development, illness, and mortality.<sup>18</sup>

<sup>12</sup>The estimated percent of the adult population that currently smokes every day or “most days” and has smoked at least 100 cigarettes in their lifetime. *Source:* <http://www.countyhealthrankings.org/#app/missouri/2012/grundy/county/1/overall>

<sup>13</sup> The adult obesity measure represents the percent of the adult population (age 20 and older) that has a body mass index (BMI) greater than or equal to 30 kg/m2. *Source:* <http://www.countyhealthrankings.org/#app/missouri/2012/grundy/county/1/overall>

<sup>14</sup> The excessive drinking measure reflects the percent of the adult population that reports either binge drinking, defined as consuming more than 4 (women) or 5 (men) alcoholic beverages on a single occasion in the past 30 days, or heavy drinking, defined as drinking more than 1 (women) or 2 (men) drinks per day on average.

*Source:* <http://www.countyhealthrankings.org/#app/missouri/2012/grundy/county/1/overall>

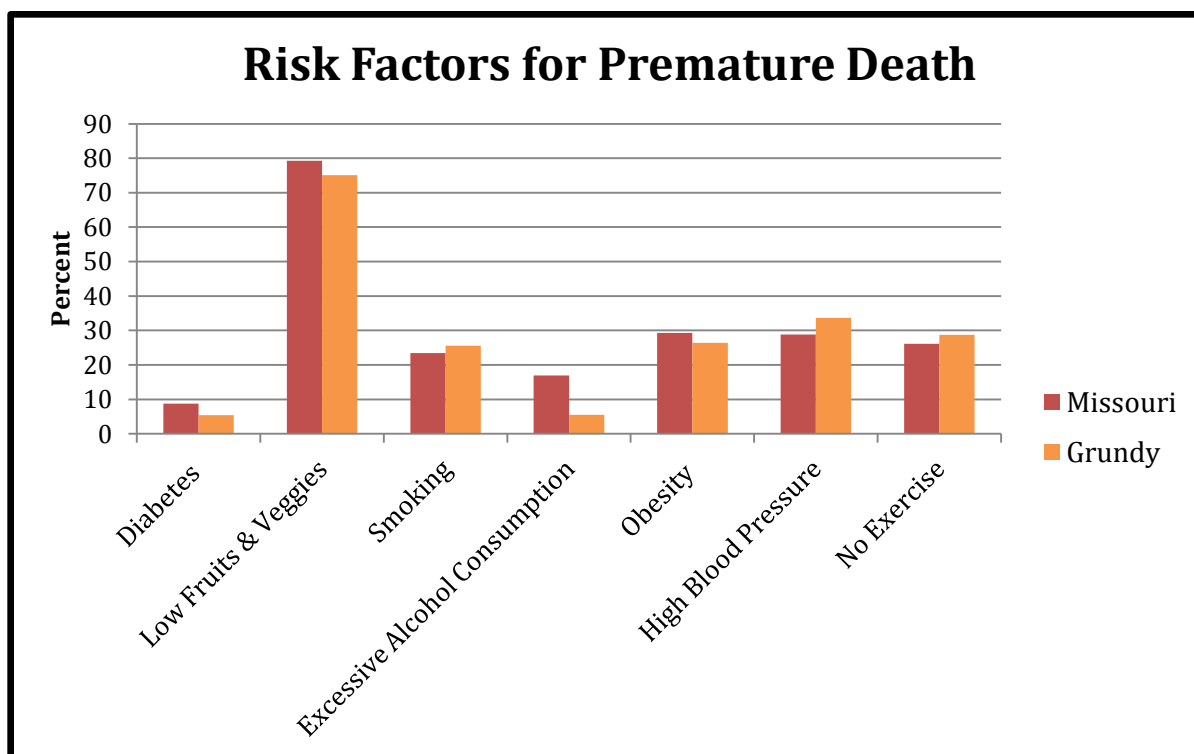
<sup>15</sup> Motor vehicle crash deaths are measured as the crude mortality rate per 100,000 population due to on- or off-road accidents involving a motor vehicle. *Source:* <http://www.countyhealthrankings.org/#app/missouri/2012/grundy/county/1/overall>

<sup>16</sup> The Sexually Transmitted Infection (STI) rate is measured as chlamydia incidence (the number of new cases reported) per 100,000 population. *Source:* <http://www.countyhealthrankings.org/#app/missouri/2012/grundy/county/1/overall>

<sup>17</sup> Teen births are reported as the number of births per 1,000 female population, ages 15-19.

*Source:* <http://www.countyhealthrankings.org/#app/missouri/2012/grundy/county/1/overall>

## HEALTH BEHAVIORS – FIGURE 2.7



Source: 18,19,20,21,22,23,24

### DISCUSSION

Figure 2.7 compares statewide data from 2003 to 2010 for the risk factors that are known to be leading contributors to premature death. The findings from the data indicate that Grundy County had a higher percentage of smoking, high blood pressure, and lack of exercise compared to the averages for the state of Missouri. While improvements could be made in those areas, they are not excessively higher than the state averages.

*\*Social and economic factors, while certainly one of the determinants of health, were not reviewed here since they will be covered elsewhere in the report.*

<sup>18</sup> Adults that report having diabetes. Source: [http://healthindicators.gov/Indicators/Diabetes-percent\\_125/National\\_0/Profile/Data](http://healthindicators.gov/Indicators/Diabetes-percent_125/National_0/Profile/Data)

<sup>19</sup> Adults that report fewer than 5 servings of fruits/vegetables per day. Source: [http://healthindicators.gov/Indicators/Few-fruitsvegetables-percent\\_121/National\\_0/Profile/Data](http://healthindicators.gov/Indicators/Few-fruitsvegetables-percent_121/National_0/Profile/Data)

<sup>20</sup> Adults that report high blood pressure. Source: [http://healthindicators.gov/Indicators/High-blood-pressure-percent\\_123/National\\_0/Profile/Data](http://healthindicators.gov/Indicators/High-blood-pressure-percent_123/National_0/Profile/Data)

<sup>21</sup> Adults 18 years and over that report BMI  $\geq 30$ . Source: [http://healthindicators.gov/Indicators/Obesity-adult-percent\\_15/National\\_0/Profile/Data](http://healthindicators.gov/Indicators/Obesity-adult-percent_15/National_0/Profile/Data)

<sup>22</sup> Adults 18 years and over that report currently smoking cigarettes. Source: [http://healthindicators.gov/Indicators/Smoking-adults-percent\\_13/National\\_0/Profile/Data](http://healthindicators.gov/Indicators/Smoking-adults-percent_13/National_0/Profile/Data)

<sup>23</sup> Adults that report no leisure-time exercise in past month. Source: [http://healthindicators.gov/Indicators/No-exercise-percent\\_120/Profile](http://healthindicators.gov/Indicators/No-exercise-percent_120/Profile)

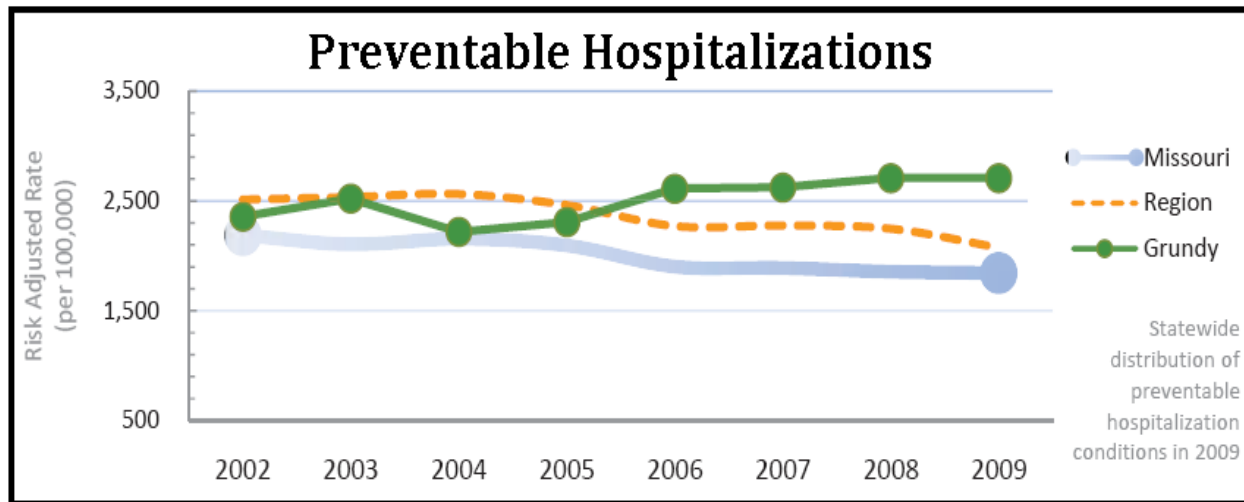
<sup>24</sup> Adults that report excessive drinking Source: [http://healthindicators.gov/Indicators/Alcohol-Excessive-drinking-percent\\_150/Profile](http://healthindicators.gov/Indicators/Alcohol-Excessive-drinking-percent_150/Profile)



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## HEALTH BEHAVIORS – FIGURE 2.8

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Source: Hospital Industry Data Institute discharge data, 2002-2009. Assessing the Health of Our Communities. Missouri Hospital Association, 2010.

### DISCUSSION

Preventable hospitalizations indicate a lack of high quality primary and preventive care and may pinpoint areas in the health care system where potential improvements can be made.<sup>25</sup> These hospitalizations may be avoided if clinicians effectively diagnose, treat, and educate patients; and, the patients are active participants in their care and adopt healthy behaviors.<sup>26</sup> Unfortunately for Grundy County, the number of preventable hospitalizations, has been increasing over the last several years in all areas, indicating that primary and preventive care may be declining for Grundy County. The chronic and acute conditions that are detailed in figure 2.9 are those that can most likely be effectively managed in an outpatient or primary care setting. Thus, when the numbers in these measures trend upward or remain too high, the opportunity may arise to identify opportunities that can prevent complications, reduce disease severity, control healthcare costs, and improve population health.<sup>26</sup>

<sup>25</sup> Kruzikas, D. T., Jiang, H. J., Remus, D., Barrett, M., Coffey, R., & Andrews, R. (2004). *Preventable hospitalizations: A window into primary and preventive care, 2000*. Rockville, MD: U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality.

<sup>26</sup> Assessing the Health of Our Communities. Missouri Hospital Association, 2010.

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HEALTH BEHAVIORS – FIGURE 2.9

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<b>County Count by Prevention Quality Indicators</b>			
	2004	2006	2008
<b><i>Chronic Conditions</i></b>			
Diabetes	9	11	6
Perforated appendix	3	1	3
COPD	54	51	64
Adult asthma	13	11	11
Hypertension	6	8	10
CHF	48	68	68
Angina	4	5	7
<b><i>Acute Conditions</i></b>			
Dehydration	13	18	18
Bacterial pneumonia	77	90	93
Urinary infection	27	34	38
Overall	251	296	316

*Source:* Hospital Industry Data Institute discharge data, 2004-2008. Assessing the Health of Our Communities. Missouri Hospital Association, 2010.

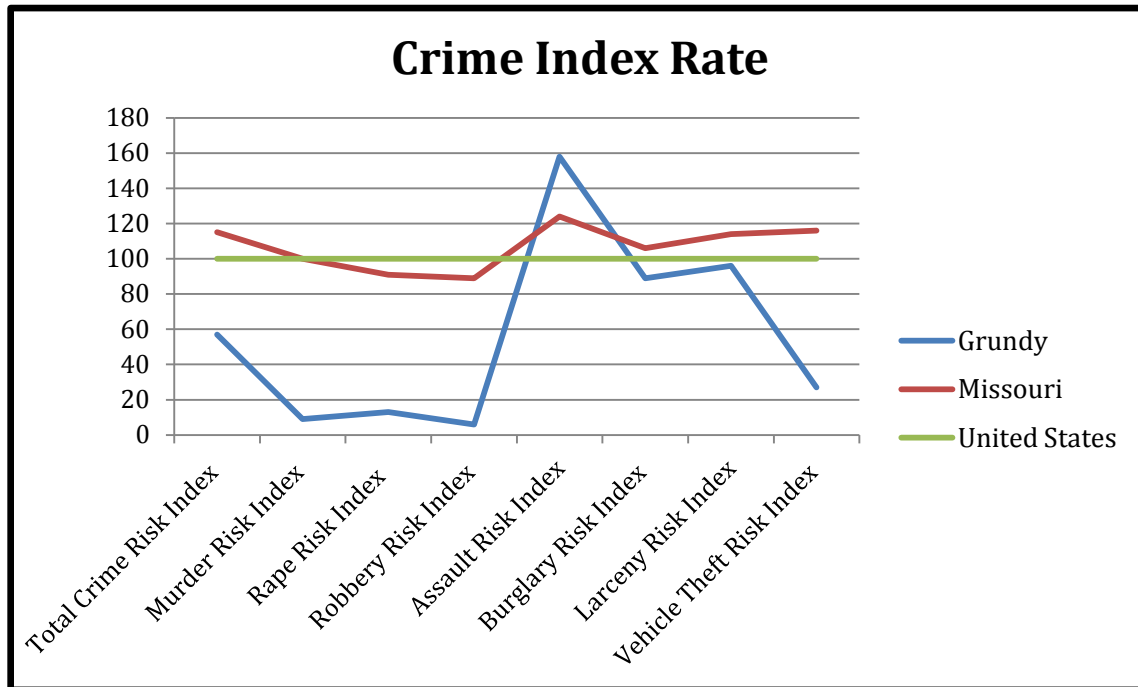
#### DISCUSSION

Figure 2.9 provides a snapshot of the different Chronic and Acute conditions that factor into the number of preventable hospitalizations. The data set is generated using indicators from 2004 to 2008. As you can see from the chart, Grundy County has fluctuated both positively and negatively in several areas. The overall number in 2008 is elevated compared to that of 2004 and further data needs to be released and compiled in order to determine if this is a continuing trend for Grundy County.

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## HEALTH BEHAVIORS – FIGURE 2.10

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Source: [http://www.clrsearch.com/Sitemap/Missouri/Grundy\\_County](http://www.clrsearch.com/Sitemap/Missouri/Grundy_County) (2010)

### DISCUSSION

The crime index offenses described in Figure 2.10 are a combined figure of seven individual crimes that make up the annual crime index per 1,000 residents. The seven crimes consist of murder, rape, robbery, assault, burglary, larceny, and motor vehicle theft. The crime index is a measure of the overall safety within a community and is a key issue because it impacts various other health factors and outcomes.<sup>27</sup> Violence against others is a major public health problem and accounts for 18,000 lives each year in the U.S. Exposure to community violence is shown to increase stress, smoking, and can be associated with substance abuse and risky sexual behavior.<sup>28</sup> As seen in figure 2.10 we can see that Grundy County's crime index for most indicators is well below both Missouri and U.S. indices. We can see from the graph however, that there exists a high level of assaults that take place in the county paired with reasonably high burglary and larceny indices compared to other counties in the region. While Grundy County continues to be below the average, community safety is a major contributor to overall health and should be kept under close supervision.

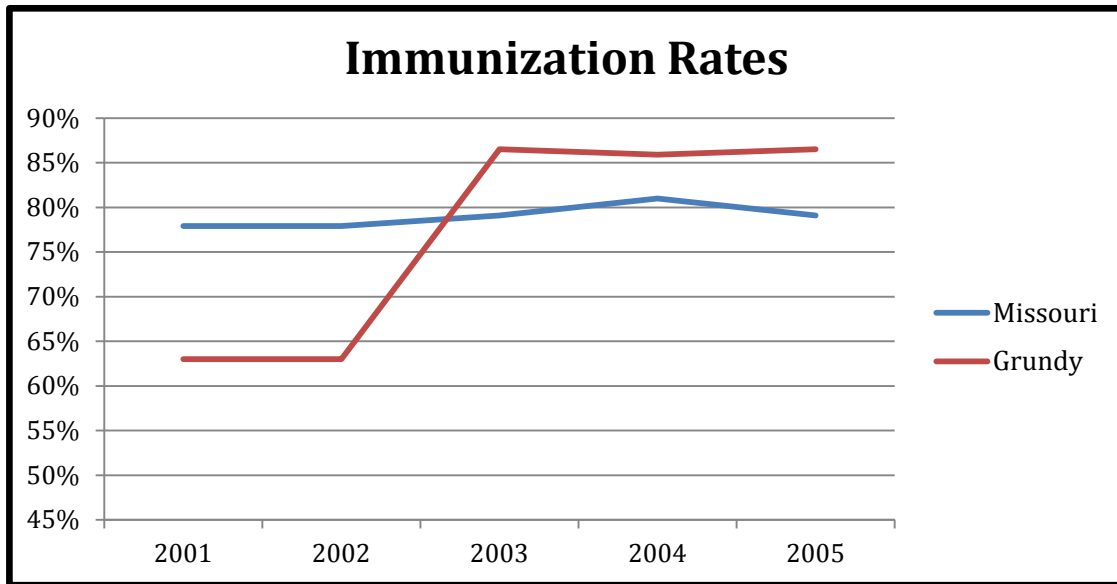
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<sup>27</sup> Health Factors and outcomes include: low birth weight, diet and exercise, and family and social support.  
Source: <http://www.countyhealthrankings.org/health-factors/community-safety>

<sup>28</sup> Source: <http://www.countyhealthrankings.org/health-factors/community-safety>

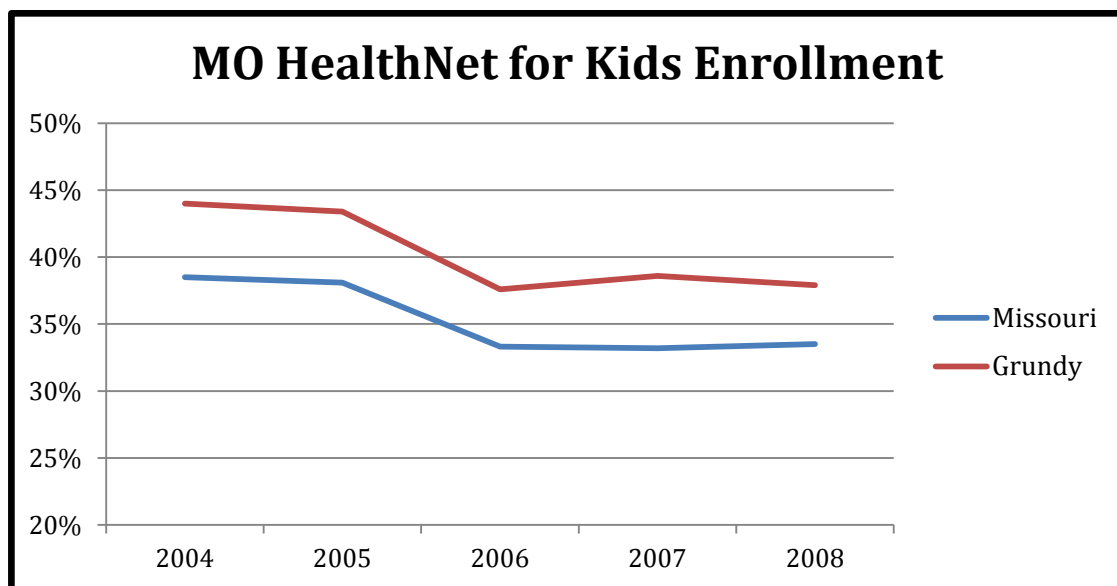
## ADOLESCENT, TEEN, AND INFANT HEALTH

FIGURE 2.11



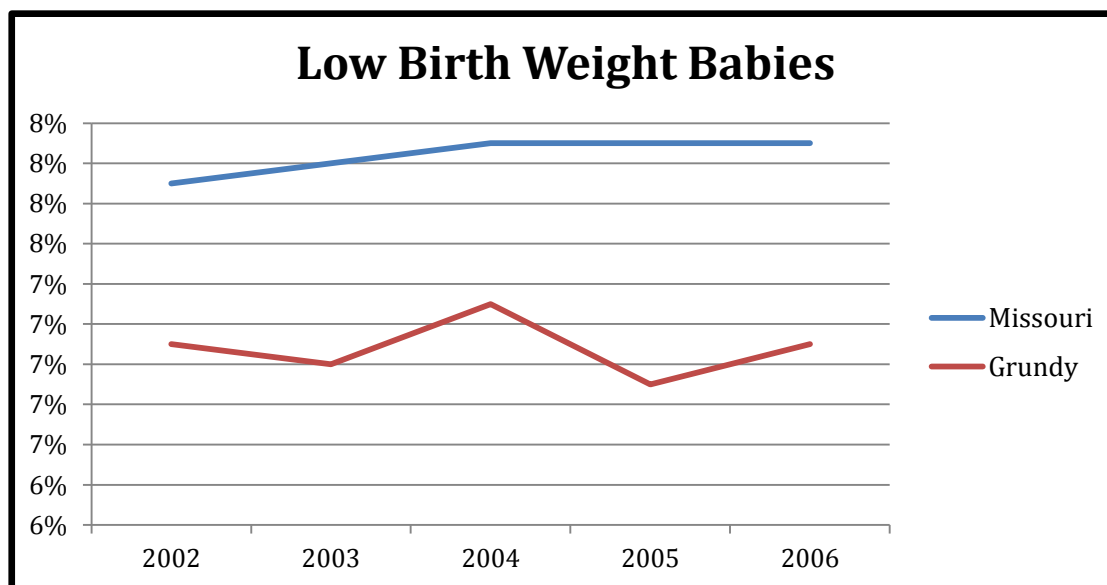
Percent of kindergarteners fully immunized of the 4:3:1:3:3 series by age two. *Source:* [www.kidscount.org](http://www.kidscount.org)

FIGURE 2.12



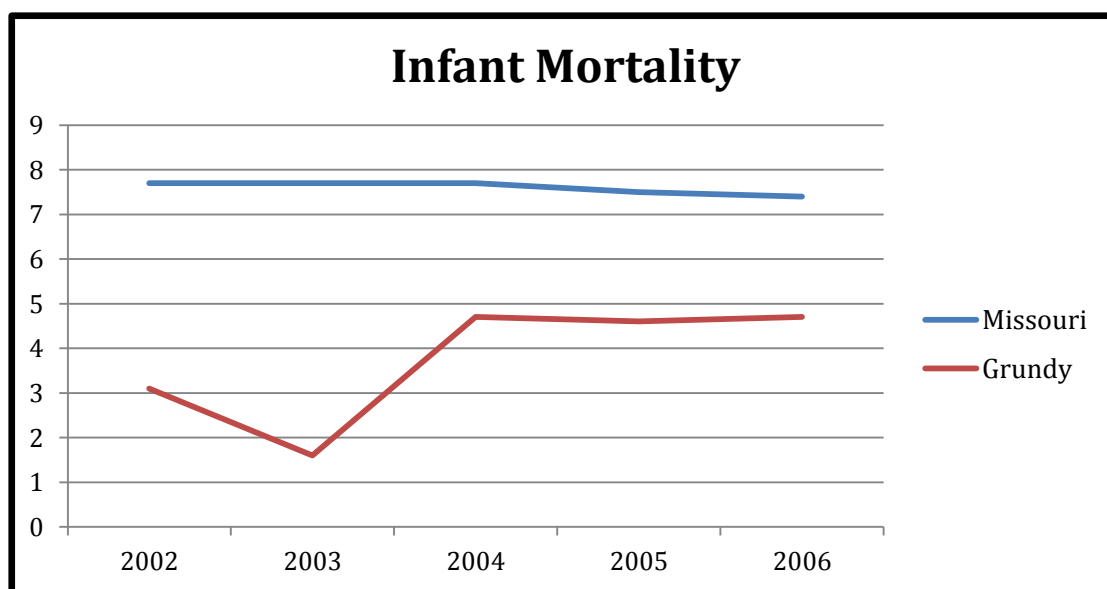
Percentages of children 18 and under that are from low-income families and enrolled in the Missouri Children's Health Insurance Program MO HealthNet for Kids. *Source:* [www.kidscount.org](http://www.kidscount.org)

FIGURE 2.13



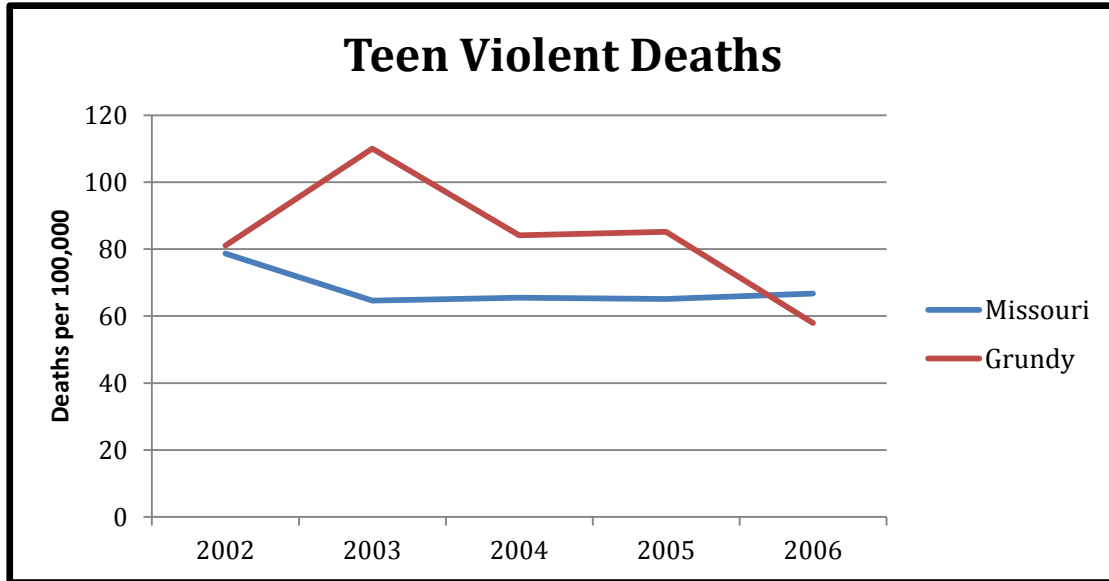
Percent of live births weighing under 5.5 lbs. Source: [www.kidscount.org](http://www.kidscount.org)

FIGURE 2.14



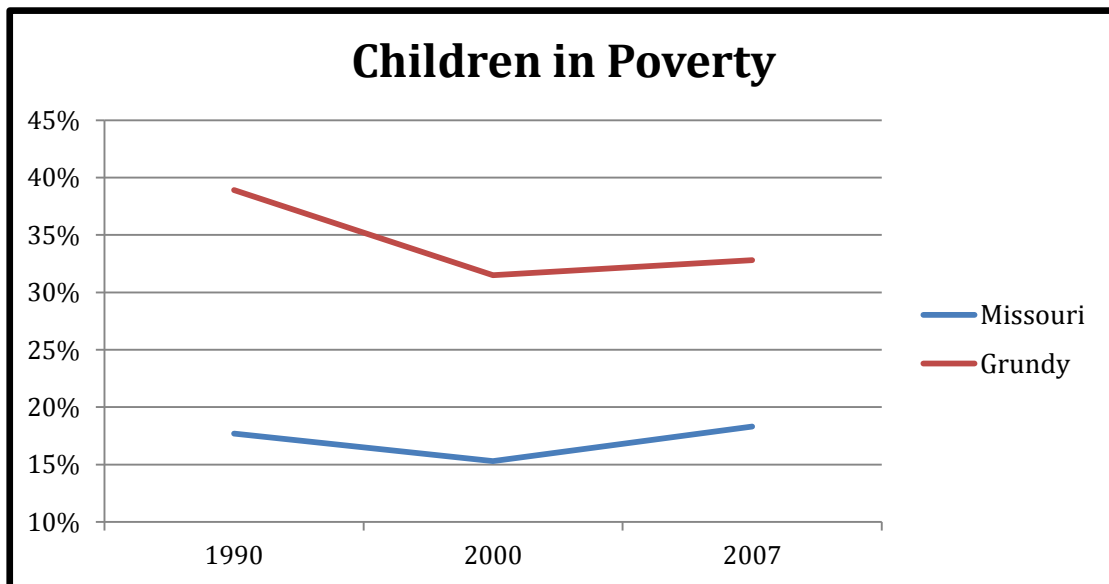
Number of deaths, under age 1, per 1,000 live births. Source: [www.kidscount.org](http://www.kidscount.org)

FIGURE 2.15



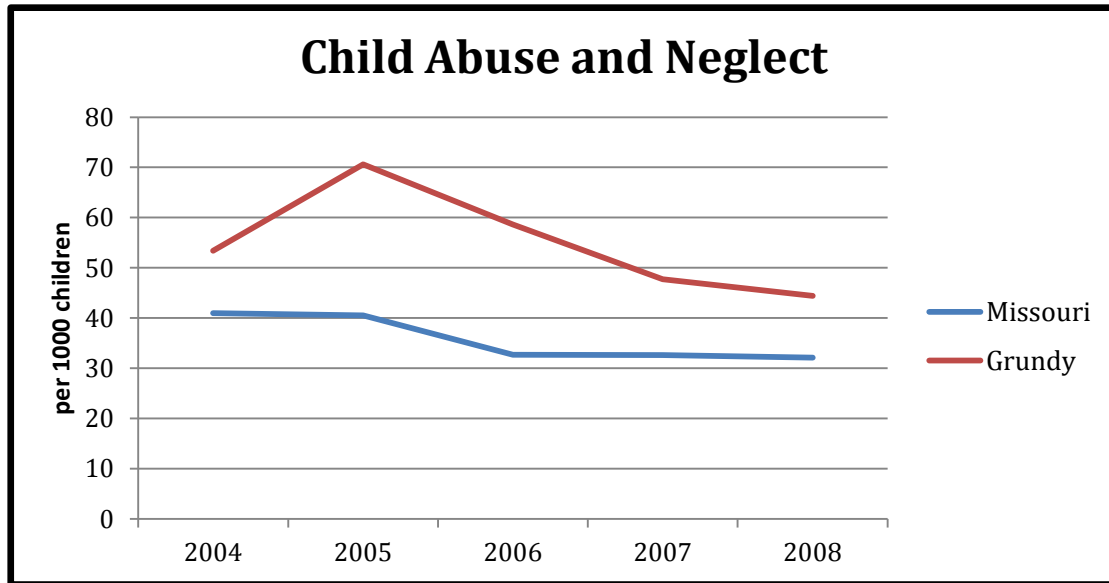
Number per 100,000 of 15- to 19-year-olds who died due to suicide, homicide, or motor vehicle accident. *Source:* [www.kidscount.org](http://www.kidscount.org)

FIGURE 2.16



Percentage of related children under age 18 who live in families with incomes below the U.S. poverty threshold. *Source:* [www.kidscount.org](http://www.kidscount.org)

FIGURE 2.17



Rate of child abuse victims from reports classified as "probable cause" indicating that child abuse or neglect has occurred. *Source:* [www.kidscount.org](http://www.kidscount.org)

#### DISCUSSION

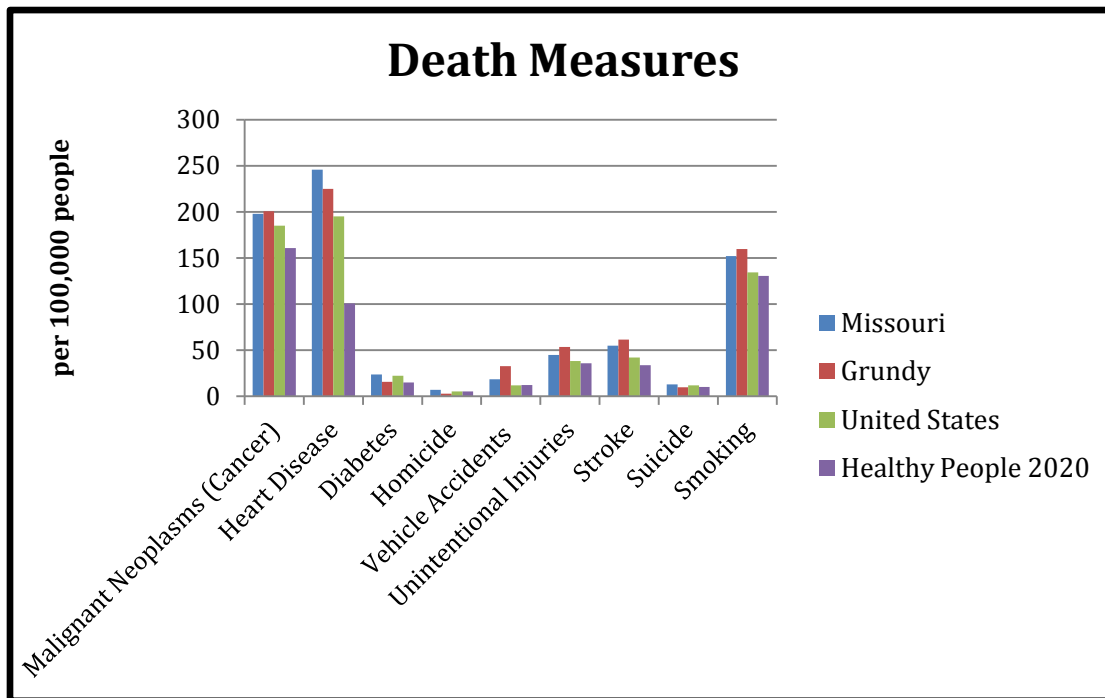
Figures 2.11 through 2.17 represent the population health for the youth of Grundy County. Similar to many other health indicators and factors, it is important to consider inputs into children's health to effectively target opportunities for improvement. Many conclusions could be inferred from the data above, but the purpose is to highlight areas of marked deficiencies or needed improvements. Grundy County fares well in most of the reported measures, but a few points from the data include:

- There are more children living within the U.S. poverty threshold in Grundy County then compared to the state of Missouri.
- The rate of child abuse and neglect is significantly higher for Grundy County even though there has been a drop from 2007-2008.

*Note: The most current published data has been used to produce the charts and figures represented in this section.*

## SUMMARY OF SECONDARY ANALYSIS

FIGURE 2.18



Source: U.S. Department of Health and Human Services (2009). Community Health Status Report: Grundy County, MO. <http://www.communityhealth.hhs.gov>

### DISCUSSION

Figure 2.18 shows the causes of death for Grundy County in comparison to the U.S., Missouri, and the Healthy People 2020 target. The causes of death listed, while not avoidable, are certainly those that can potentially be manipulated by incorporating the proper policies and giving people the tools to effectively manage population health. The data show that malignant neoplasm, unintentional injuries, vehicle accidents, stroke, and smoking are all at levels higher in relation to the U.S., Missouri and the Healthy People 2020 target. Cause of death is a good measure of how effectively the needs of the community are being met and how well public officials and the healthcare industry are managing the topics covered throughout this section. The final recommendations and analysis will be discussed in a later section.



### III. CURRENT HEALTHCARE SERVICES AND FACILITIES

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#### HOSPITALS

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##### WRIGHT MEMORIAL HOSPITAL – SAINT LUKE’S HEALTH SYSTEM

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Wright Memorial Hospital is a critical access hospital located in Trenton, Missouri. Wright offers a wide range of essential health care services including respiratory care, emergency services, inpatient and outpatient surgery, specialty clinics and more.

As the seat of Grundy County, WMH is dedicated to providing the finest healthcare to residents of Trenton and surrounding areas. As a part of Saint Luke’s Health System of Kansas City, WMH is dedicated to serving the healthcare needs of the people of the region and with a new facility having opened in April 2011; WMH has the foundation to continue to build its service profile.

##### HEDRICK MEDICAL CENTER – SAINT LUKE’S HEALTH SYSTEM

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Hedrick Medical Center is located at 100 Central Street in Chillicothe Missouri and is part of the Saint Luke’s Health System headquartered in Kansas City, Missouri. HMC is a 25 bed critical access which provides a full range of services. These services include; diabetes center, emergency services, laboratory services, maternity, pain management, radiology, short-term rehab, sleep disorders, spiritual wellness, surgical services, medical surgical, intensive care unit, specialty services, and tele-medicine.

#### SAFETY NET CLINICS

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##### GRUNDY COUNTY HEALTH DEPARTMENT

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The Grundy County Health Department is located at 1716 Lincoln Street in Trenton, MO and offers a variety of services. The following list of services was taken from their website:

...The Grundy County Health Department provides family and community services, health screenings and education, environmental services, and vital records. Most of our services are not income based and are available to all Grundy County residents. We provide the following services; Immunizations, WIC, Well-Child Clinic, Newborn Home Visits, Lead Screening, Breastfeeding, Support, Car Seat Checks, Health Education, Daycare Consultation, Diabetes Program, Health Screenings, Worksite Wellness, TB testing, Adult Immunizations, Environmental Services, Communicable Disease Investigation & Surveillance, and Emergency Preparedness...

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## ADDITIONAL HEALTHCARE INSTITUTIONS

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### WRIGHT MEMORIAL PHYSICIANS GROUP

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Wright Memorial Physicians Group is a family practice physicians' group located in Trenton, MO and is part Wright Memorial Hospital and Saint Luke's Health System. They currently employ three doctors and four nurse practitioner. Their office is located at 189 Iowa Boulevard in Trenton, Missouri. Their office hours are Monday-Tuesday from 7:30am-7pm and Wednesday-Friday from 7:30am-5pm.

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### SAINT LUKE'S HOME CARE AND HOSPICE

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Saint Luke's Home Care and Hospice is located at 893 Fairway in Chillicothe, Missouri and provides a full range of services for end-of-life care. For more than 30 years, Saint Luke's Home Care and Hospice has set the standard for quality, compassionate services in the region. In fact, Saint Luke's Home Care and Hospice and Wright Memorial Hospital earned the Primaris Quality Award. Saint Luke's specially trained nurses, therapists and other staff use the latest technology and treatment advances to deliver high-quality care to patients in the comfort of their own homes.

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### WRIGHT MEMORIAL JAMESTOWN CLINIC

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Wright Memorial Jamesport is a family practice physicians' group located in Jamesport, Missouri and is part of Wright Memorial Hospital and Saint Luke's Health System. They currently employ three doctors and two nurse practitioners. Their office is located at 301 2<sup>nd</sup> Street in Jamesport, Missouri. Their office hours are 8:30am – 4:30pm, Monday-Thursday.

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### ASSISTED LIVING AND ADULT CARE HOMES

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There are currently five assisted living or adult care homes for the residents of Grundy County that provide a variety of services that cater specifically to the elderly population living in the county:

Bristol Manner of Trenton  
Sunnyview Nursing Home  
Premier Residential Care

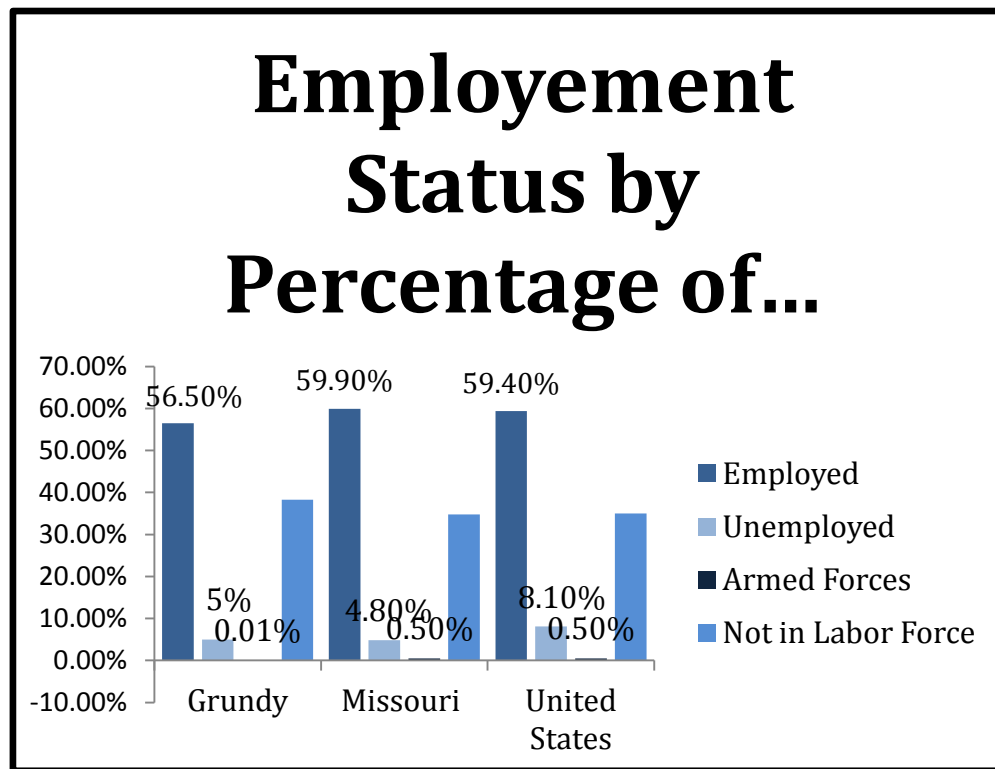
Premier Home Health Care  
Eastview Manor Care Center

## IV. GRUNDY COUNTY ECONOMIC PROFILE

The following section details the analysis of economic data retrieved from the Census Bureau. The economic welfare of individuals and the community often correlates with health status. Thus, it is important to understand the economic status of Grundy County. A wide range of economic characteristics were reviewed and compared to both the state of Missouri and National Benchmarks in order to determine the economic profile of Grundy County.

### EMPLOYMENT STATS

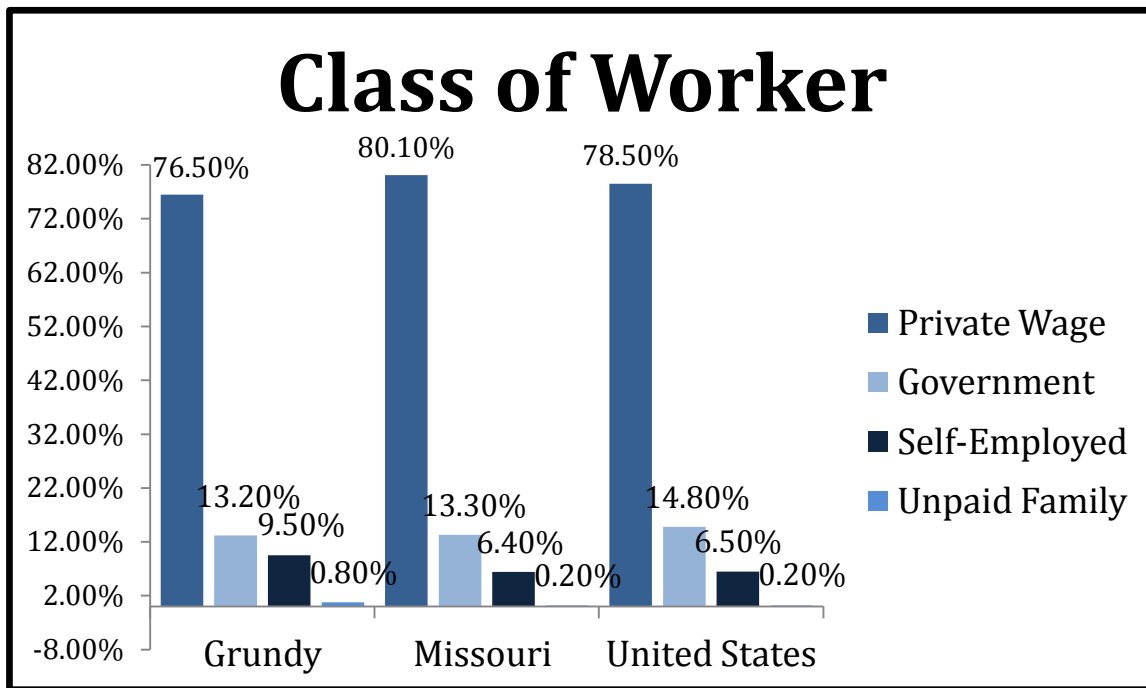
EMPLOYMENT STATUS – FIGURE 4.1



#### DISCUSSION

Figure 4.1 describes the employment status of Grundy County as it compares to both Missouri and national figures using the latest census data. The figure shows that Grundy County is below both state and national levels of employment. Related to the lower levels of employment, Grundy County also has a higher percent of the population not in the labor force. While not as many individuals are employed, Grundy County has a lower unemployment rate than the national level.

CLASS OF WORKER – FIGURE 4.2



#### DISCUSSION

The various types of worker classes present different opportunities for health insurance to individuals. Understanding the different types of worker classes in Grundy can provide a picture of the available health insurance options for the community. Figure 4.2 shows that Grundy County has a slightly lower percentage of government workers than either the state or national levels and has a higher portion of self-employed workers.

#### INCOME STATISTICS

FAMILIES BELOW FEDERAL POVERTY LEVEL – FIGURE 4.3

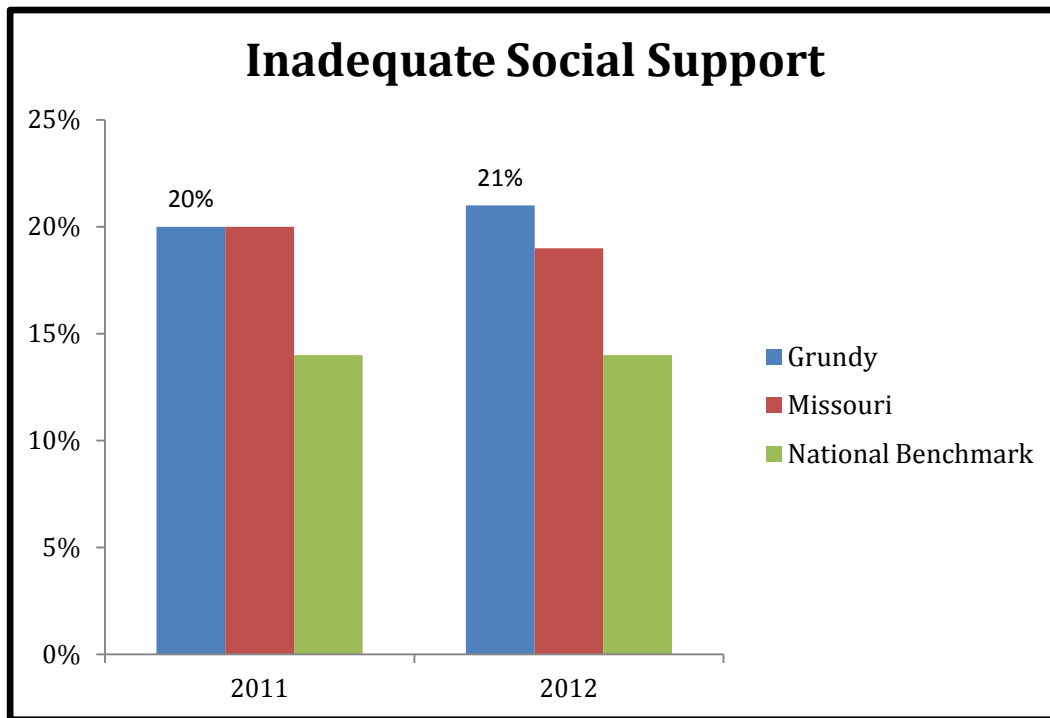
	Grundy County	Missouri	United States
<b>Percent of Families Below Federal Poverty Level</b>	10.2%	10%	10.1%

#### DISCUSSION

Conversely to the median household income, families below the federal poverty level (FPL) often have less access to healthcare. Families that fall below the FPL must be provided with additional, more affordable services by the county to maintain a healthy status. Understanding the percentage of families that fall below the FPL gives insight as to how many additional services must be provided. According to figure 4.3, Grundy County has a slightly higher percentage of families below the FPL than both the state of Missouri and the U.S. as a whole. The county must continue providing available services to those below the FPL.

## LOCAL FACTORS AFFECTING HEALTH

### FAMILY AND SOCIAL SUPPORT – FIGURE 4.4



Source: <http://www.countyhealthrankings.org/missouri/grundy>

#### DISCUSSION

Family and social support is defined as the quality of relationships among family members, friends, colleagues, and acquaintances, as well as community involvement. Research shows that poor family and social support is associated with increased morbidity and early mortality. By understanding the percentage of socially isolated individuals within a community may provide a more complete perspective on a community's collective health profile, which could be due to a poor community network. Unfortunately, Grundy County lies above the national benchmark in 2011 and above the state and national benchmarks in 2012.

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**PHYSICAL ENVIRONMENT – FIGURE 4.5**

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	<b>Grundy County</b>		<b>Missouri</b>		<b>National Benchmark</b>	
	<b>2010</b>	<b>2011</b>	<b>2010</b>	<b>2011</b>	<b>2010</b>	<b>2011</b>
<b>Air pollution-ozone days<sup>29</sup></b>	0	0	1	7	0	0
<b>Access to Healthy Foods<sup>30</sup></b>	50%	75%	35%	47%	54%	92%
<b>Access to Recreational Facilities<sup>31</sup></b>	N/A	N/A	N/A	10	N/A	17

**DISCUSSION**

According to Figure 4.5, Grundy County is below the national benchmark for their access to healthy foods and also potentially access to recreational facilities. Each environmental relationship has its own direct impact on the health of a population. Through the presented measurements it shows not only that Grundy County, but also the state of Missouri is below the national benchmarks in terms of creating a healthy environment. Although the air pollution-ozone days are equal to the national benchmark, there is a significant difference being presented in terms of access to healthy food and insufficient data about access to recreational facilities.

Adequate environmental air quality is a prerequisite for good health and can be detrimental to the very young, the elderly, and those with chronic health conditions. In addition, ambient air pollution can have many substantial negative health consequences. Among these at risk populations are those with decreased lung function, chronic bronchitis, asthma, and other adverse pulmonary effects. Grundy County is sitting below the Missouri average indicating good overall air quality, but this should always be an environmental factor to keep an eye on.

With obesity rates continuing to rise, there should be an interest in looking at local food and recreational facilities in the local environment. The variety, price, and availability of healthy foods in the local environment can play a role in whether those foods are consumed. In addition, access to recreational facilities, can influence individuals' and communities' choices to engage in physical activity.<sup>32</sup>

For the overall physical environment measures, Grundy County ranks 69<sup>th</sup> out of 115 counties evaluated, and the measures are significantly distant from the national benchmark. With the majority of the physical environment measures being altered by access to healthy foods and recreational facilities there is a substantial need to place focus on increasing access to these areas.

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<sup>29</sup> Number of days in 2006 that air quality was unhealthy due to ozone.

Source: <http://www.countyhealthrankings.org/missouri/grundy/29>

<sup>30</sup> Access to healthy foods is measured as the percent of zip codes in a county with a healthy food outlet.

Source: <http://www.countyhealthrankings.org/missouri/grundy/30>

<sup>31</sup> Number of recreational facilities per 100,000 population in a given county.

Source: <http://www.countyhealthrankings.org/missouri/grundy/68>

<sup>32</sup> Source: <http://www.countyhealthrankings.org/health-factors/built-environment>

## V. EXPERT OPINION OF HEALTHCARE PARTNERS & STAKEHOLDERS IN THE COMMUNITY

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This section will discuss areas of weakness as identified by key health care service providers or community members in Grundy County. Community stakeholders were contacted either in-person or over-the-phone and include hospital executives, representatives from community organizations, and individuals:

Gary Jordan  
Chief Executive Officer  
Wright Memorial Hospital

Elizabeth Gibson  
Director  
Grundy County Health Department

Molly Long  
Community Health Educator  
Grundy County Health Department

Sherry Searcy, R.N.  
Community Health Nurse  
Grundy County Health Department

Lisa Ward  
Administrator  
Eastview Manor Care Center

Patty Kirk  
Support Staff  
Grundy County Learning Center

Jamie West  
Adult Protective and Community Supervisor  
Missouri Division of Senior and Disability Services

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### PUBLIC OPINION

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The interviews were focused on distinguishing the unmet healthcare and public health needs within the Grundy County area. Throughout these interviews, our team did not ask anyone to participate as an official spokesperson for their organization. The interviews provide us with a fairly accurate representation of the community, and serves as a starting point for discussing perspectives from an individual or community level. The Grundy County Health Department hosts a monthly meeting called the Human Services Committee; this excerpt was taken directly from a publication distributed by the committee:

[The Human Services Committee] is a forum to:

- share common needs, issues, and concerns
- determine common needs
- identify unmet needs for information sharing regarding members work and activities
- identify ways to better inform the public on human service issues
- identify and produce shared in-service training/workshops/seminars
- produce workshops of interest and use to the general public
- develop and maintain human service directory for county
- select an area of need and attempt to meet that need through present programs or added services

Primarily information was gathered through interviews and focused on distinguishing the critical healthcare and public health needs within the Grundy County area. After the interviews with the key stakeholders we discovered that there is a consensus among the group about the perceived health care needs for Grundy County. The access to health care was identified by most of the

stakeholders. Lack of access was attributed to not having enough primary care physicians and lack of specialty care for both the insured and uninsured. Resources are over-extended when there is a need to get patients to a provider of services that is not available in Grundy County. Lack of programs targeting preventive services and education for lifestyle choices and chronic illness especially in relation to smoking and obesity was also an issue. In summarizing, the Human Services Committee and the key stakeholder interviews are a fair representation of the Grundy County community. The most pressing health needs discussed by the committee are included below.

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## PRIMARY NEEDS IDENTIFIED BY THE GRUNDY COUNTY COMMUNITY

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### ADULT OBESITY

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Adult obesity is becoming an epidemic in the U.S. and increases the risk for countless health conditions. Obesity is an energy imbalance due to a lack of physical activity combined with a poor diet. Obesity can ultimately lead to the following: coronary heart disease, type II diabetes, cancer, hypertension, stroke, gall bladder disorders, respiratory problems, and osteoarthritis.<sup>12</sup>

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### ADULT SMOKING

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Each year thousands of premature deaths occur primarily due to smoking and it is identified as a contributing factor to multiple diseases such as cancer, cardiovascular disease, and respiratory conditions, to name a few. Alerting communities to the adverse effects of tobacco use can be valuable in assessing the needs for cessation programs or the effectiveness of existing ones.<sup>11</sup>

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### A LACK OF ACCESS TO MENTAL HEALTH PROVIDERS AND SERVICES

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As seen in Figure 2.3, Grundy County continues to be above the Missouri benchmark and well above the national benchmark in regard to the number of poor mental health days reported. With a steady rate from 2011 to 2012, there is a need to focus on this measure because of its elevated position above both the Missouri and U.S. benchmarks. Mental health providers include; psychiatrists, clinical psychologists, clinical social workers, psychiatric nurse specialists, and marriage/family therapists who meet certain qualifications and certifications. According to Figure 2.4 Grundy County is significantly lacking in mental health providers for their community compared to the state of Missouri. Additionally, within the state of Missouri, Grundy ranks 68<sup>th</sup> out of the 115 counties in access to mental health providers.

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### CHILDREN IN POVERTY

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The health of the youth population is vital to the future health of the overall population. Studies have shown that there exists a strong correlation between childhood obesity and adult obesity. There are also key indications that obesity is more prevalent among the lower socioeconomic population. Grundy County has a higher percentage of families living at or below the federal poverty level as indicated in Figures 2.16 and 4.3. In order to secure the future health of the county, initiative must be taken to counteract the high amount of children in poverty.



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## A LACK OF PRIMARY CARE ACCESS AND PHYSICIANS

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Grundy County is facing a shortage in primary care services. Primary care shortages are usually seen in Missouri's less populated counties where doctors, dentists, and other providers are likely to be few and far between. Since primary care providers often act as the first point of consultation for patients, primary care often plays a central role in the local community. Without any other resources, patients within the community often seek services from the hospital as a main source of primary care.

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## PREVENTABLE HOSPITALIZATIONS

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*County Health Rankings* also identified preventable hospitalizations as a health vulnerability for Grundy County. When conducting the key stakeholder interviews none of the individuals questioned identified this as a vulnerability. One key component that could be inflating the numbers in this measure was the overuse of Wright Memorial as a main source of care.

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## ADDRESSING COMMUNITY NEEDS AND IMPLEMENTATION PLAN

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Wright Memorial Hospital is either addressing or in the process of addressing every community health need listed above. One of the core values of the Saint Luke's Health System and Wright Memorial Hospital is Stewardship, and with that value is the responsibility to look after the needs of the community. The following plan includes initiatives that Wright Memorial Hospital is engaged in to address the most urgent needs of the Grundy County community.

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### ADDRESSING ADULT OBESITY

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Wright Memorial Hospital is currently utilizing the services of an Endocrinologist and increasing the amount of patients seen through the endocrinology Tele-health clinic. The hospital is also employing a registered dietician to provide services for patients and providing community education on nutritional services.

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### ADDRESSING ADULT SMOKING

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The process for developing a pulmonology Tele-health clinic is complete. New Tele-health equipment was recently purchased and pulmonology services are already being provided to patients through Tele-medicine and on site visits. Patients are seen by the same specialty pulmonologist group that works at Saint Luke's on the Plaza right here in Grundy County through the innovative use of Tele-medicine.

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### INCREASING ACCESS TO MENTAL HEALTH PROVIDERS AND SERVICES

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Wright Memorial Hospital currently employs a Psychiatric Mental Health Clinical Nurse Specialist (PMHCNS) who comes to Wright via Tele-health program once a month to treat patients with mental health needs. In addition to the monthly visits the specialist is also creating specific days to see new patients only.

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### HELPING CHILDREN IN POVERTY

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Aside from providing medical care to indigent populations in Grundy County, Wright Memorial Hospital also provides community health improvement services, financial and in-kind contributions, and community benefit operations. One such contribution was towards the Backpack Buddies program with Wright contributing items for the backpack. In addition, Wright sponsors a raffle to help support the Backpack Buddies program and participates in item collection for the local food pantry.

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### A LACK OF PRIMARY CARE ACCESS AND PHYSICIANS

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A shortage of primary care physicians is always an issue in rural America and Wright Memorial Hospital is striving to improve access for county residents. One such way that Wright is achieving this is by increasing the Tele-health services offered as well as the capacity of certain specialties in the specialty clinic. The other is by continually recruiting family practice physicians and nurse practitioners to the area to provide inpatient consults.

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## PREVENTABLE HOSPITALIZATIONS

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In order to decrease the amount of preventable hospitalizations in Grundy County education is critical for at risk populations. One way that Wright Memorial Hospital is trying to achieve this aim is through engagement and sponsorship of community education events. One such event involves Cardiovascular Consultants providing instruction on cardiac disease and prevention techniques.

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## VI. CONCLUSION

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Overall, this assessment suggests that the health services within Grundy County are sufficient to serve the residents in the county. Our findings did indicate some vulnerability in healthcare services provided to the community and some opportunities for improvement in healthcare factors.

The social demographics of Grundy County are a precursor to several future healthcare needs of the community. Any cultural barriers to providing healthcare for non-English speaking residents will need to be addressed. The Hispanic population in Grundy County is expected to increase and will further stress any cultural barriers that presently exist. The Saint Luke's Health System and Wright Memorial Hospital already has policies and procedures in place to facilitate non-English speaking patients and patient families through the use of their language line.

Also indicated by social determinants of Grundy County is the overall unemployment outlook. While unemployment rates for Grundy County remain lower than national averages, making sure they remain that way is vital to the community health status. Unemployment is a large factor contributing to individuals lacking the financial capability to access healthcare. Increasing rates of unemployment will raise the need for community health centers and additional safety-net clinics in the county.

In terms of economic status, Grundy County is healthy in relation to the rest of Missouri and the United States but it does have a slightly higher percentage of families below the poverty level. Analyzing the various classes of workers gives an idea as to the availability of health insurance to the labor force. Grundy County has a slightly lower percentage of government workers than both Missouri and the United States. Having a high number of federal employees would ensure that a significant portion of the population is offered health insurance through the federal system.

Grundy County ranks 21<sup>st</sup> in health outcomes according to *County Health Rankings* and 50<sup>th</sup> in health factors for the state of Missouri. Negative trends in adult obesity, smoking, and physical inactivity are all higher than national averages and contribute to an increasing premature death rate for the county. Also contributing to higher premature death rates are motor vehicle crashes and sexually transmitted diseases. Community-based prevention programs that address excessive smoking and obesity in the community are warranted.

After speaking with community healthcare service providers, several weaknesses in the provision of services to the community were revealed. One of the weaknesses that falls below acceptable levels is the number of primary care providers per number of the population as indicated in Figure 2.5. Wright Memorial Hospital is attempting to recruit and retain primary care providers in order to address the shortage in the community. It is indicated that a large number of preventable hospitalizations are still occurring in the county, so if primary care services can be strengthened it would likely offset those events and reduce the burden on the county's emergency departments.

The information provided in this assessment should be used as a tool to community stakeholders when deciding the next step in community health. The health of Grundy County is strong but also should expect to confront challenges caused by negative trends in health factors and a changing population mix. It will be important that the community address these challenges and make decisions based on community needs moving forward.

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