

# LEAVENWORTH COUNTY COMMUNITY HEALTH NEEDS ASSESSMENT

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Conducted on behalf of:  
Cushing Memorial Hospital  
Saint Luke's Health System

Authors:  
Patrick McCraney  
Jay Mooney  
Kayla Schuster  
Jacob Wayman

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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 Leavenworth County through identifying any areas of need. Second, is to satisfy both state and federal requirements by surveying the county for any needs. To assess the needs of Leavenworth County we used a number of secondary resources including the U.S. Census Bureau, *County Health Rankings*, Leavenworth County Development Corporation, and the Kansas Department of Health and Environment (KDHE). Along with the secondary data analysis, healthcare service providers and important stakeholders in the community were interviewed to gather their perspective on the needs of the community.

Secondary data analysis provided a picture of social demographics, economics, and contributing health factors for Leavenworth County. According to the U.S. Census Bureau, Leavenworth County has a total estimated population of 76,227 in 2010. This is an 11 percent increase from 2000. The majority of the population is between ages 25-54. Future changes in population mix will prove to present challenges. By the year 2030, the Hispanic population is expected to increase by 45 percent creating unique challenges to the current healthcare system.

Economic factors of a community often correlate with access to healthcare. Leavenworth County fairs better in median household income than the state, measuring at \$60,218 compared to the state median of \$50,174. Leavenworth County has a unique make-up of worker class with a larger portion of government workers than both the state and national levels. 23.6 percent of Leavenworth's labor force is comprised of government employees ensuring that at least this portion of the population will be offered health insurance.

Despite ranking 19<sup>th</sup> in overall health outcomes, analysis of secondary data reveals several negative trending health factors of Leavenworth County. Leavenworth County experiences higher than state average hypertension, obesity, and diabetes rates. These poor trends in healthcare factors ultimately lead to higher rates of premature death, a leading indicator of overall health in a community.

Interviews with local healthcare providers indicated that Leavenworth County lacks in specialist providers, safety net clinics, and quality urgent care clinics. The lack of specialty providers is alleviated by the proximity to Kansas City but results in a portion of the population leaving the community for healthcare services.

In conclusion, Leavenworth County ranks well in terms of healthcare outcomes. However, several negative trends in healthcare factors could inevitably have a harmful effect on the county's health outcomes in the future.

# INTRODUCTION

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## BACKGROUND & PURPOSE

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On behalf of Saint Luke's Health System and Cushing Memorial Hospital, students attending the Health Policy and Management department at the University of Kansas Medical Center have completed this community health needs assessment to identify the health needs of Leavenworth County. The original assessment was prepared in May 2011 by Brett Kollars, Michael Ritter, Sinnamon Spurlin, and Amanda Winkelman. Our team has updated the document to include new mandates that have been released by the Internal Revenue Service over the past year.

The community health needs assessment has three goals:

1. To improve the health of the community's residents by identifying the areas of need and providing Saint Luke's Health System and Cushing Memorial Hospital with such information. We hope this community health needs assessment can serve as a tool for Saint Luke's Health System and Cushing Memorial Hospital in their efforts to support the community.
2. To satisfy the requirements at both the state and federal level by surveying the community for unmet health needs.
3. Develop and implement a strategy to address the identified priority health issues that are defined within this community health needs assessment.

*Note:* Data was gathered for this assessment from various sources including local public health departments, hospitals, military establishments, and numerous third party resources. While this assessment provides an insight into the needs of the community, it is by no means a conclusive assessment; surveying the community's needs should be a continuous process and another such assessment will be completed three years from now.

## METHODOLOGY

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A health profile of Leavenworth County was developed from a variety of secondary data sources including but not limited to the U.S. Census Bureau, *County Health Rankings*, U.S. Social Security Administration, The State of Kansas Department of Health and Environment, Centers for Disease Control, The Annie E. Casey Foundation, The Kansas State University Extension Office, and the Leavenworth County Development Corporation. The data is organized into broad health vulnerabilities and related health indicators of the county. The data provides a number of comparisons to the state and national level in order to give insight as to how Leavenworth County stands in community health.

The community perspectives on health were gathered through interviews with key stakeholders of the healthcare community. Stakeholders were asked to describe the current healthcare state of Leavenworth County and explain any vulnerability in the healthcare services provided. It is understood there are implications of having Fort Leavenworth in the county, but given time and

resource constraints, this data could not be analyzed separately. Rather, it is included in the overall demographic information as it pertains to the county as a whole.

## COMMUNITY HEALTH NEEDS ASSESSMENT

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Community Health Needs Assessment:

1. “...the regular and systematic collection, assembly, analysis, and communication of information on the health of the community, including statistics on health status, community health needs, and epidemiologic and other studies of health problems” (Friedman & Parrish, 2009).
2. “A dynamic process undertaken to identify the health problems and goals of the community, to enable the community-wide establishment of health priorities, and to facilitate collaborative action planning directed at improving community health status and quality of life involving multiple sectors of the community” (Myers & Stoto 2004).

The community benefit is a term that has evolved over time to describe hospitals’ efforts in demonstrating community commitment, involvement, and contribution. It includes programs or activities that provide treatment and/or promote health in response to identified unmet health needs of the community. Benefit categories include: charity care, government sponsored indigent health care, unpaid cost of public programs, Medicaid, State Children Health Insurance Programs (SCHIP), programs for the medically indigent, programs relating to the organization’s mission, programs addressing unmet community health need, meeting a need that otherwise would be provided by a government or another non-profit organization, and targeting the underserved or disenfranchised population (American College of Healthcare Executives, 2011).

## I. LEAVENWORTH COUNTY KANSAS DEMOGRAPHICS

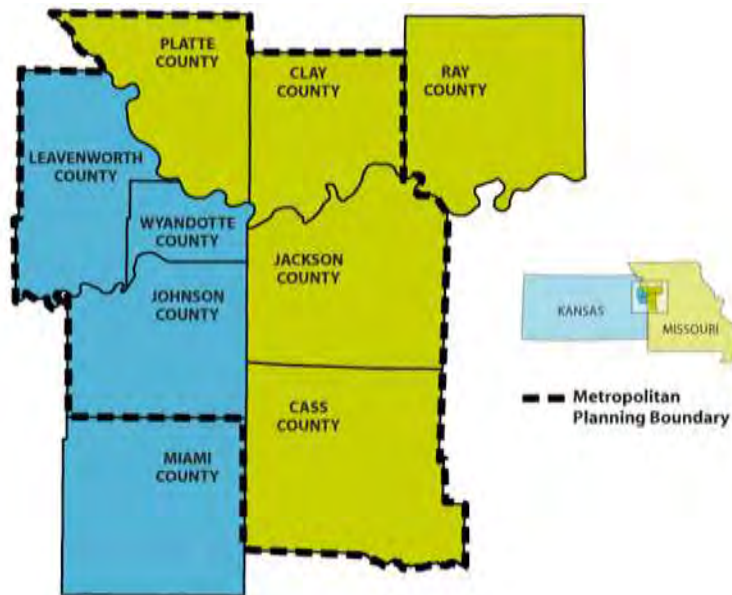
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The following section details Leavenworth County demographic information using a number of secondary sources including U.S. Census Bureau and *County Health Rankings*.

### GEOGRAPHY

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Located in northeastern Kansas, Leavenworth County sits adjacent to the Missouri border. According to the U.S. Census Bureau, the county encompasses 463.27 square miles. The county boundaries sit amid the western and eastern hills along the Missouri River and the rolling prairie of western and southwestern Kansas.

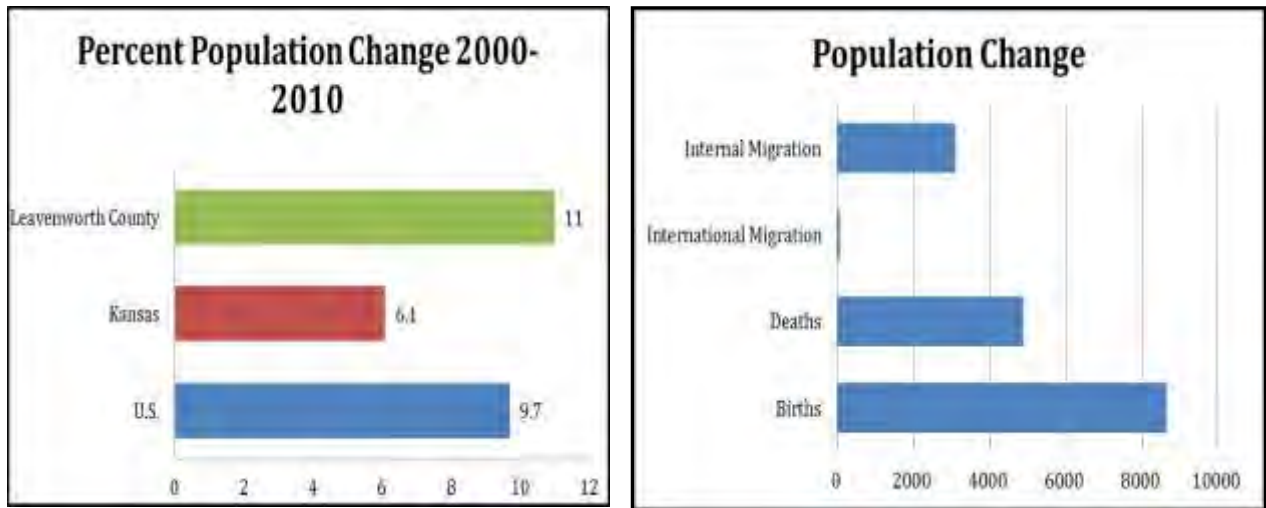




## POPULATION

Population size, composition, and migration are linked to a host of variables that shift as social and economic conditions evolve. Leavenworth County population trends reveal an increase on par with national trends and nearly doubling the percentage increase of the State of Kansas from 2000 to 2010.

POPULATION CHANGE – FIGURE 1.1

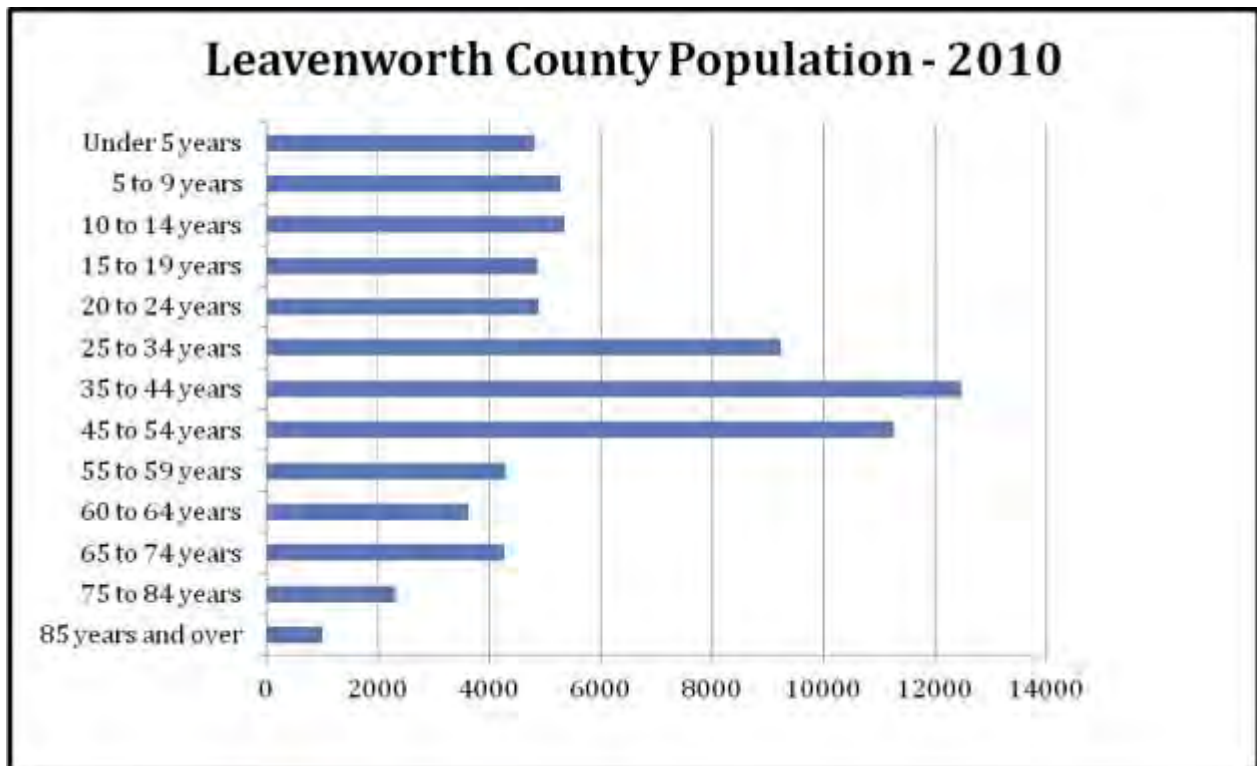


Source: U.S. Census Bureau

## DISCUSSION

According to the U.S. Census Bureau, Leavenworth County's population in 2010 was estimated to be 76,227, an 11 percent increase from 68,691 individuals in 2000. Leavenworth County represents the sixth largest county in Kansas and is part of the Kansas City Metropolitan Area.

Population growth in Leavenworth County and other Kansas Metropolitan area counties may be a result of significant movement of people from rural western areas to eastern areas of the state. Other factors accounting for the fluidity of the population may be due to nearby development. Growth in Wyandotte County contributes to the increasing population changes of the county as well.



Source: U.S. Census Bureau

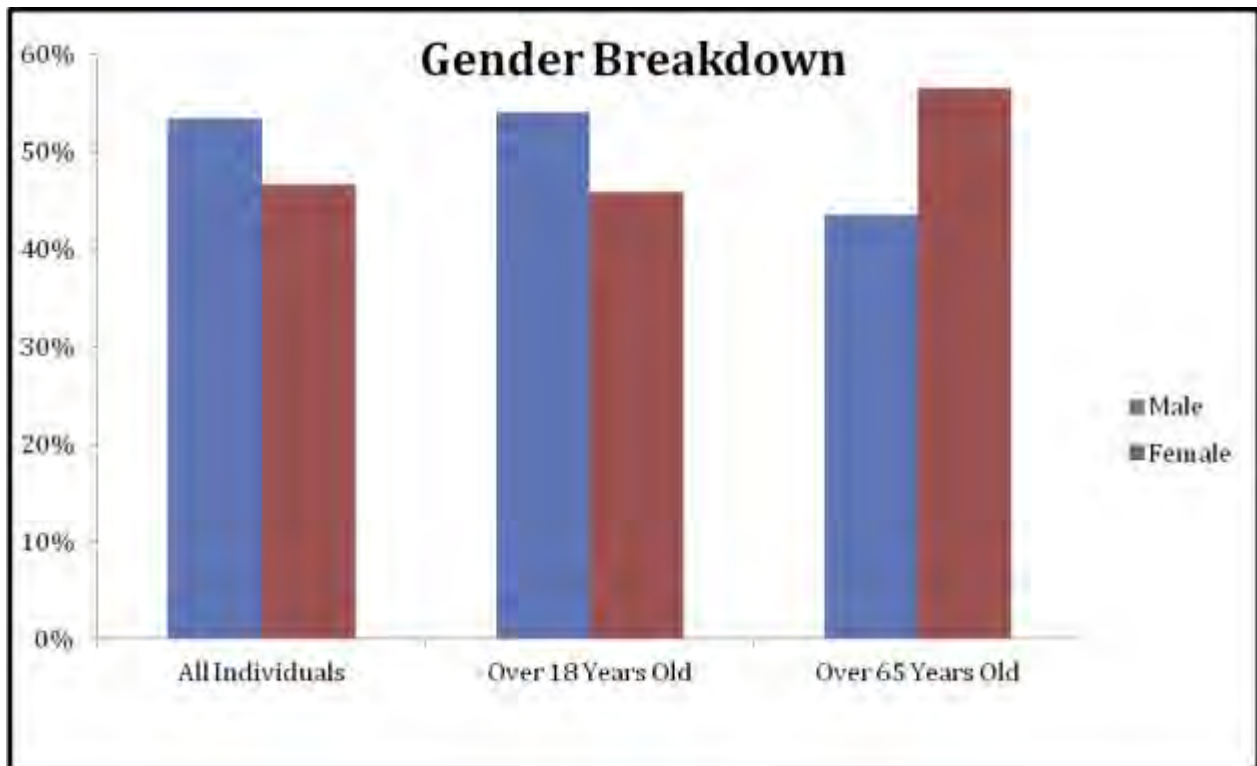
#### DISCUSSION

Figure 1.2 shows a break down by age for Leavenworth County. Individuals between 25 and 54 years of age make up almost half of Leavenworth County’s population, with 44.8 percent. 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 years old represent 21 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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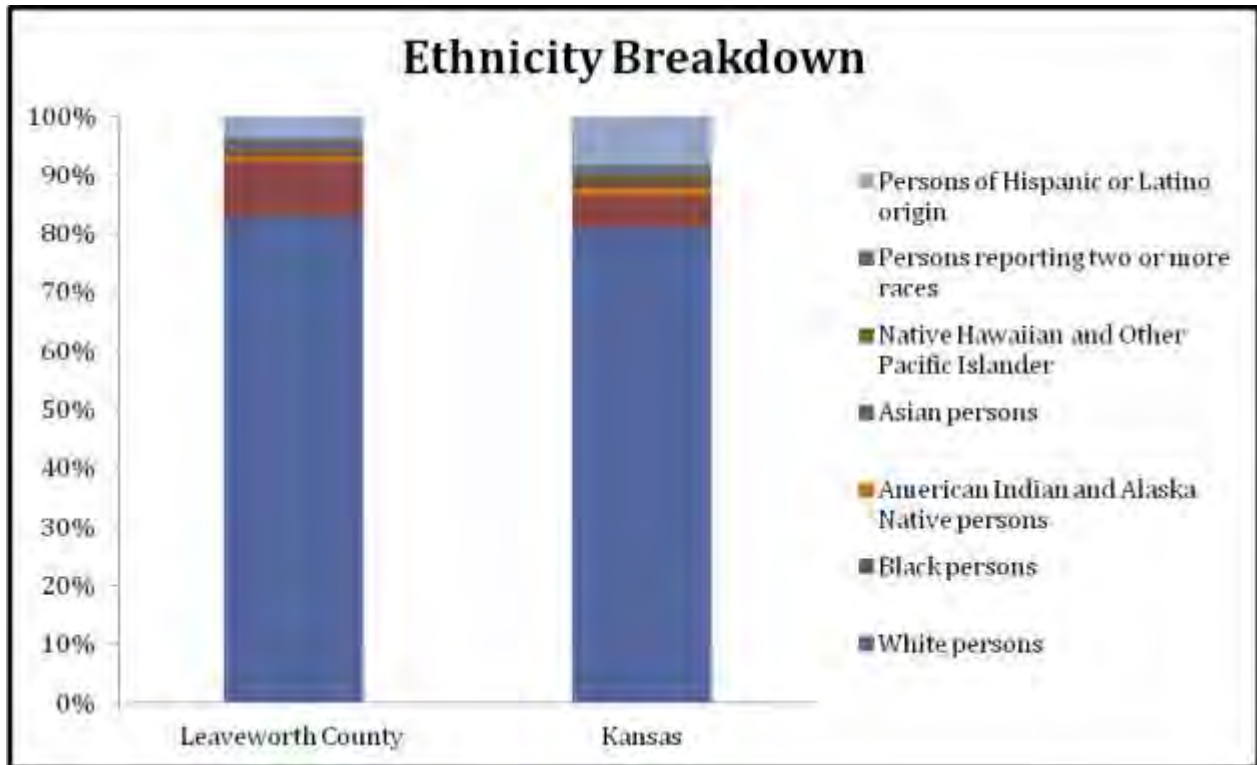


Source: U.S. Census Bureau

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. Although Leavenworth County has a higher level of males compared to females under the age of 65, women live longer and will require more services to fulfill their health care needs.

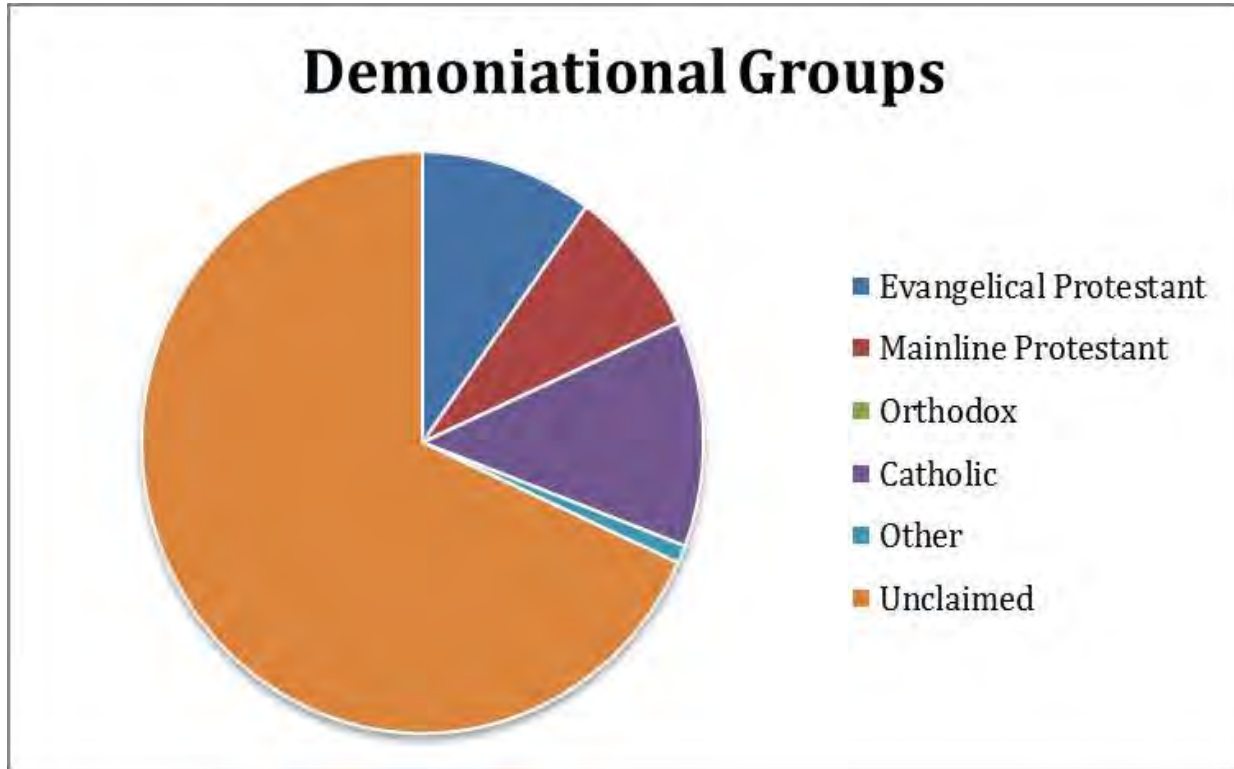
ETHNICITY BREAKDOWNS (2009) – FIGURE 1.4



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 Leavenworth County. 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.



Source: Powell, Shahabi,& Thoresen (2003)

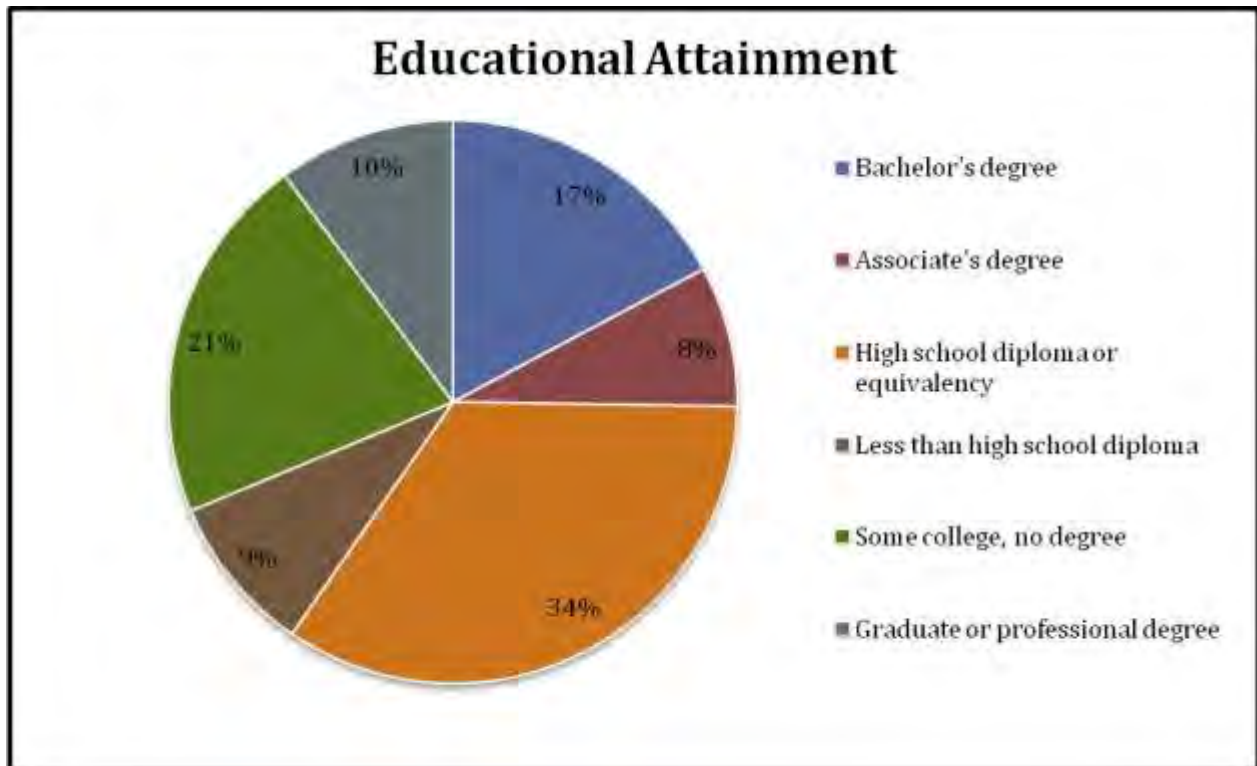
#### DISCUSSION

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

DISCUSSION

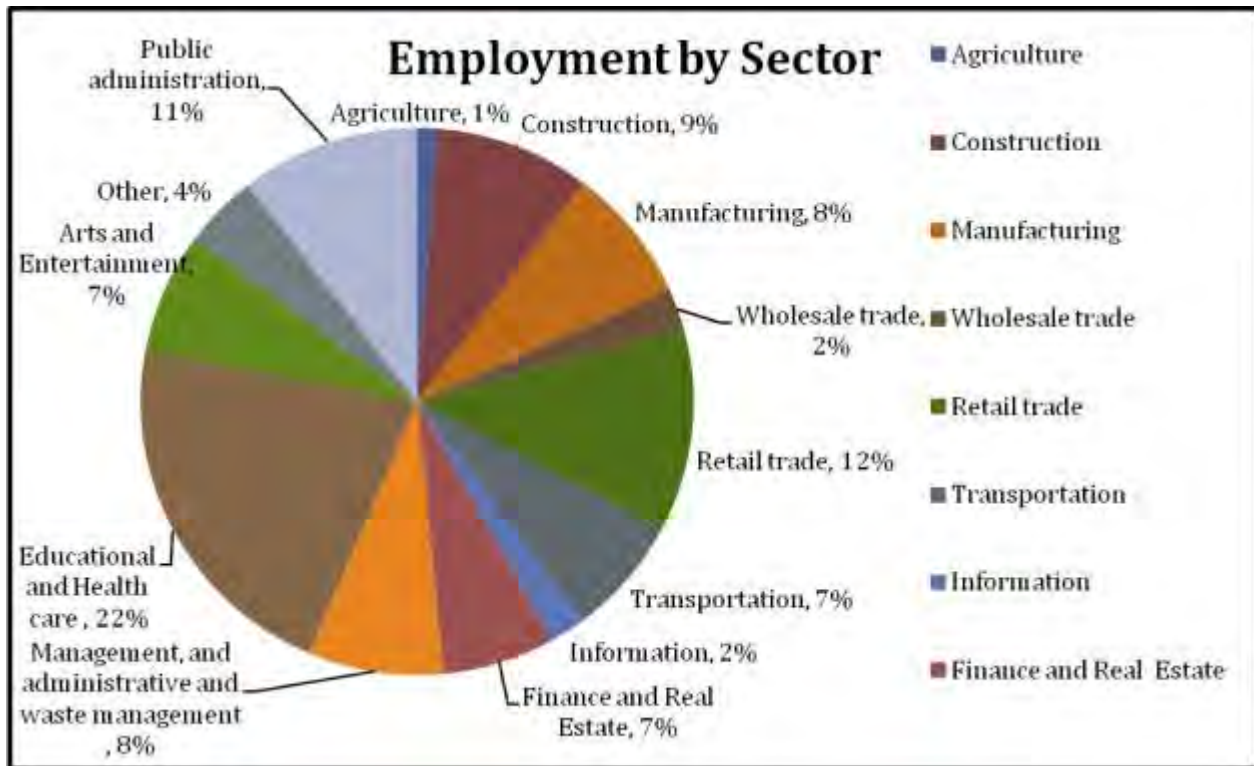
Studies have shown that college graduates generally tend to be healthier than non-college graduates. Lower levels of educational attainment decrease the potential for higher income levels and occupation advancement, ultimately resulting in poorer levels of health.

Leavenworth County has a high school diploma rate of 91.2 percent, compared to the United States 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 %
32,811	30,346	2,465	7.5%

EMPLOYMENT BY SECTOR – FIGURE 1.6



Source: U.S. Census Bureau

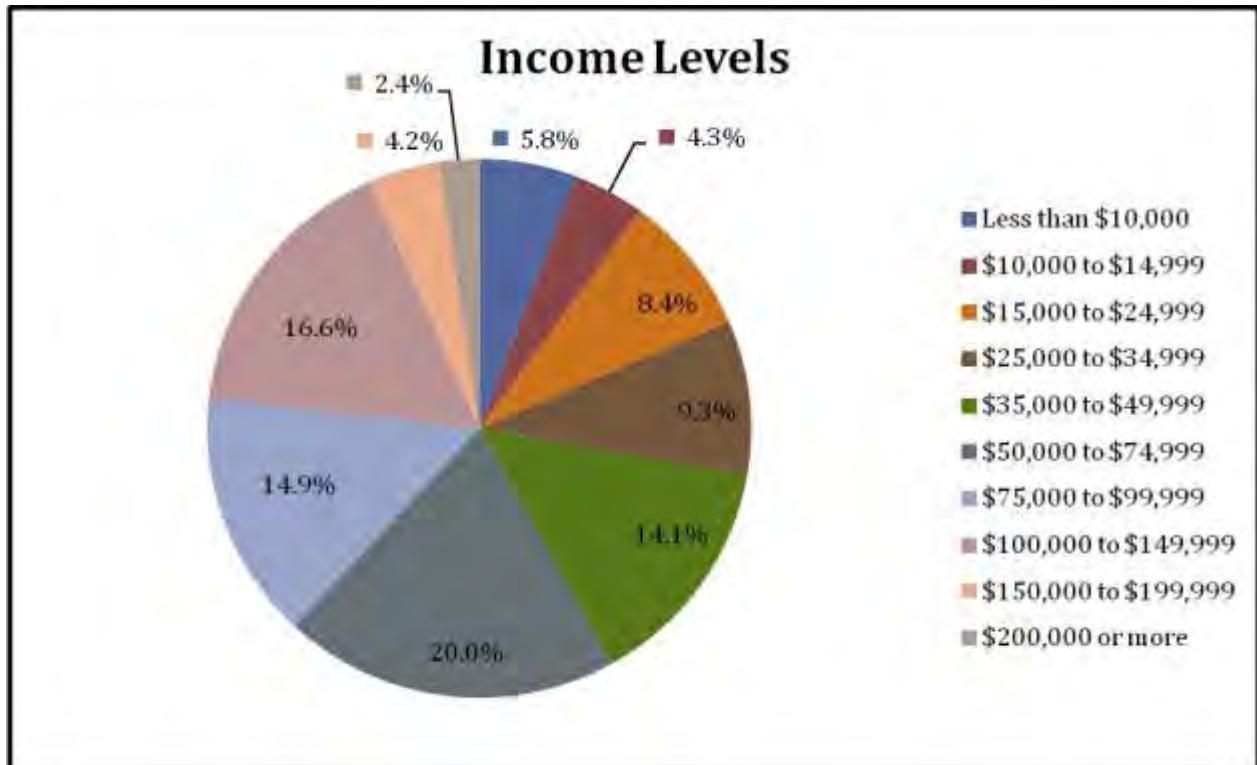
### DISCUSSION

In 2008, Leavenworth County’s civilian labor force had an unemployment rate of 5.4 percent or 2,465 unemployed individuals. Although unemployment rates rose significantly in 2009, Leavenworth County’s unemployment rate has stayed below the national average. In June 2010, Leavenworth County’s unemployment rate was 7.5 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: U.S. Census Bureau

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. Leavenworth County is well above average in its mean household income of \$59,515 compared to the U.S. mean household income of \$49,777; however, there were still approximately 8.3 percent of the households living at or below poverty in 2008.



## II. SECONDARY DATA ANALYSIS

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The following section details the analysis of data retrieved from secondary sources such as the Kansas Department of Health and Environment (KDHE), 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 Leavenworth 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 measures 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 measure provides an estimate of the total number of years that were not lived by an individual by death, and within the United States, is based on a limit of 75 years. The YPLL measurement allows communities to target resources to high-risk areas and further investigate causes of death if trends become noted. It is illustrated in Figure 2.1.

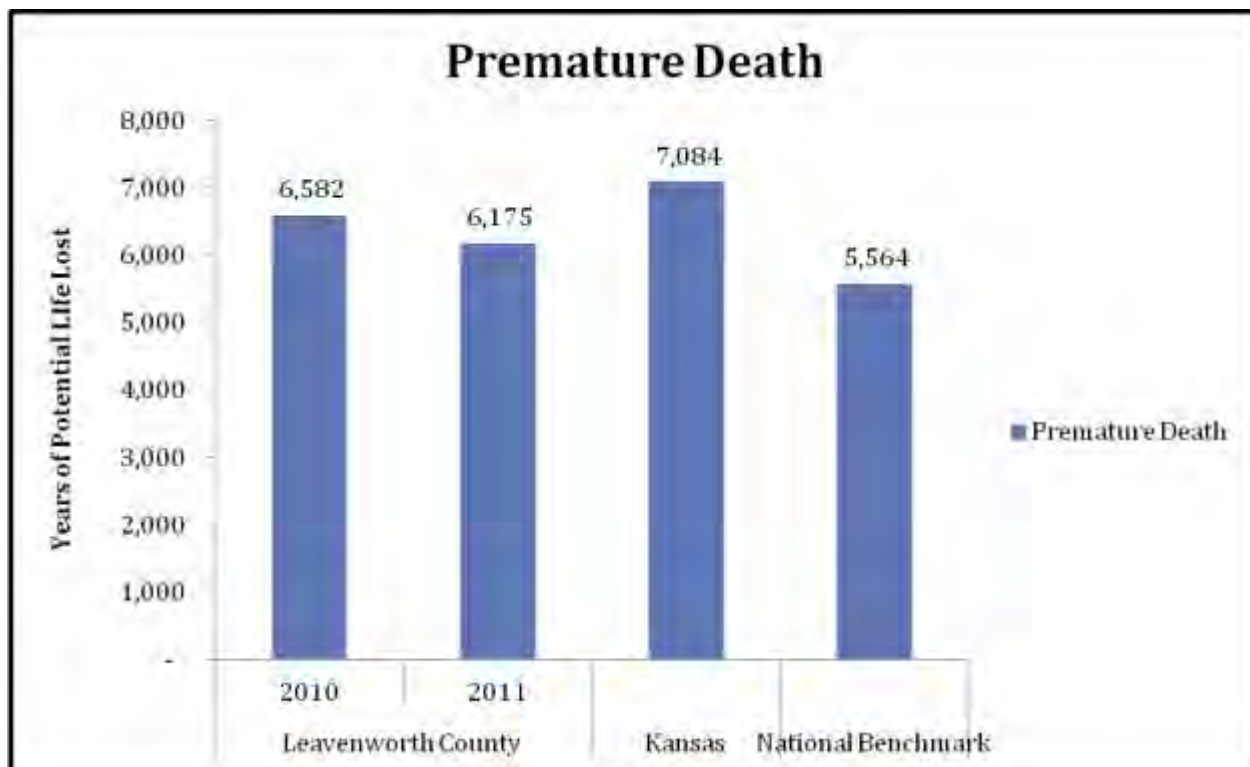
Self-assessed health status is another useful measure of a population. It measures and scores the individual perception of health. Ranking from excellent, very good, good, fair, or poor, self-addressed health status not only measures an individual population, but it allows for easy comparison to other 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 measure the number of days in the past 30 days that individuals rated their physical or mental health as not good.

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

## HEALTH OUTCOMES

MORTALITY – FIGURE 2.1



Source: <http://www.countyhealthrankings.org/kansas/leavenworth/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 Leavenworth County. Premature death is represented by the years of potential life lost before age 75 (YPLL-75) and Leavenworth County ranks 14<sup>th</sup> out of 98 counties in Kansas that reported this data.

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MORBIDITY MEASURES – FIGURE 2.2

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	Leavenworth County		Kansas	National Benchmark
	2010	2011		
<b>Poor or fair health<sup>1</sup></b>	11%	12%	13%	10%
<b>Poor physical health days<sup>2</sup></b>	2.7	2.9	2.9	2.6
<b>Low birth weight<sup>3</sup></b>	7.4%	7.5%	7.2%	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> Leavenworth County has experienced a slight increase in all three indicators listed from 2010 to 2011, so the trend should be noted. In addition, the county is slightly higher than the national benchmark; however, it remains lower than the state of Kansas in each of the respective categories. There is currently no cause for alarm in any of these three categories, but a continued upward trend might necessitate closer attention.

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> Again, Leavenworth County experienced a slight increase for this measure. Currently, it is slightly above the Kansas average and well above the national benchmark. There may be some resources lacking that could be used to improve this figure.

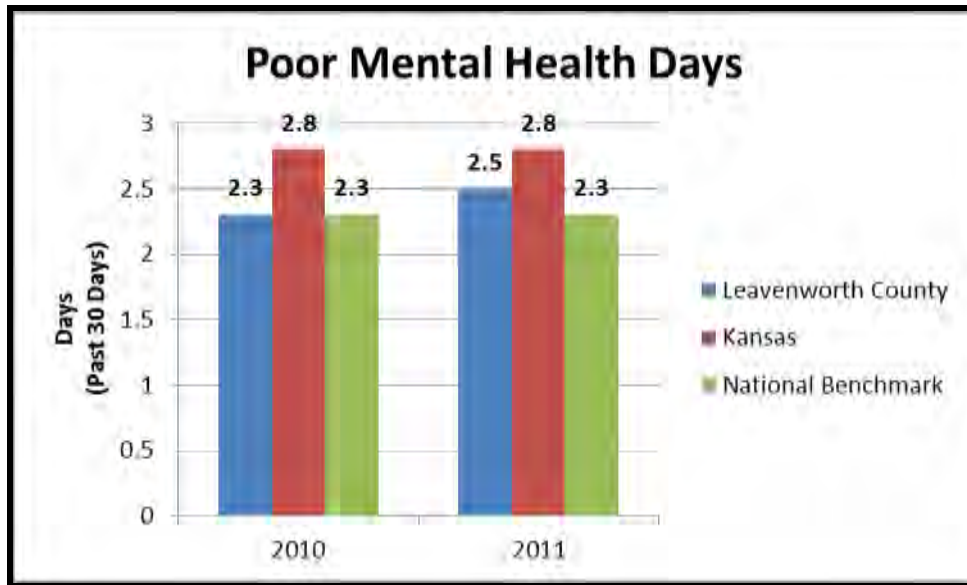
For the overall morbidity measures, Leavenworth County ranked 47<sup>th</sup> out of the 98 counties evaluated. The primary reason for a lower rating in this category can be attributed to a higher than average number of low birth weights. This indicator carries more weight since it is of more importance than the other indicators. The county ranks in the top 25 percent (14 of 98) for health outcomes (mortality and morbidity) in the state of Kansas, 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?” Source: <http://www.countyhealthrankings.org/kansas/leavenworth/2>

<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?” Source: <http://www.countyhealthrankings.org/kansas/leavenworth/36>

<sup>3</sup> Source: <http://www.countyhealthrankings.org/kansas/leavenworth/37>



Source: <http://www.countyhealthrankings.org/kansas/leavenworth>

#### 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, Leavenworth County continues to be below the Kansas benchmark and consistently steady with the National Benchmark. With a slight increase from 2010 to 2011 there is no initial need to place extreme focus on this measure, but it is a measurement that should be kept under review.

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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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	<b>Leavenworth County</b>	<b>Wyandotte County</b>	<b>Johnson County</b>	<b>Kansas</b>
<b>Mental Health Providers per Person</b>	<b>74,355:1</b>	<b>5,703:1</b>	<b>4,115:1</b>	<b>9,142:1</b>

Source: <http://www.countyhealthrankings.org/kansas/leavenworth/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 Leavenworth County is significantly lacking in mental health providers for their community compared to their neighboring counties. Additionally, within the state of Kansas, Leavenworth ranks 98<sup>th</sup> out of the 98 counties in access to mental health providers. 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>

Although Figure 2.4 does display a lack of mental health providers this figure may be inaccurate. Currently, Cushing Memorial offers behavioral services including a treatment program for psychiatric and substance abuse diagnoses and provides multidisciplinary mental health care to adult age patients. Cushing Memorial also staffs a fellowship-trained psychiatrist who specializes in addictive medicine. Adult patients living in the Leavenworth area who suffer from psychiatric and substance abuse issues can find help through Cushing Memorial Hospital's Dual Diagnosis and Awareness Recovery program.<sup>6</sup> There are other local mental health facilities located in the Leavenworth County and will be further discussed in Section III.

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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)

<sup>6</sup> Source: <https://www.saintlukeshealthsystem.org/service/cushing-memorial-hospital/behavioral-health>

## HEALTH FACTORS

### CLINICAL CARE – FIGURE 2.5

	Leavenworth County		Kansas	National Benchmark
	2010	2011		
<b>Uninsured adults<sup>7</sup></b>	9%	12%	16%	13%
<b>Primary care providers<sup>8</sup></b>	1535:1	1403:1	857:1	631:1
<b>Preventable hospital stays<sup>9</sup></b>	90	85	76	52
<b>Diabetic screening<sup>10</sup></b>	75%	73%	84%	89%
<b>Mammography screening<sup>11</sup></b>	N/A	54%	66%	74%

### DISCUSSION

The amount of uninsured adults in Leavenworth County is slightly lower in comparison to both Kansas 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 surprise in Figure 2.5 is the low number of primary care providers considering the county is not designated as a shortage area according to the Health Resources and Services Administration.<sup>12</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</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; it 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>7</sup> Estimated percent of the population under age 65 with no health insurance

Source: <http://www.countyhealthrankings.org/kansas/leavenworth/3>

<sup>8</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/kansas/leavenworth/4>

<sup>9</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/kansas/leavenworth/5>

<sup>10</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/kansas/leavenworth/7>

<sup>11</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/kansas/leavenworth/50>

<sup>12</sup> Source: <http://muafind.hrsa.gov/index.aspx>

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HEALTH BEHAVIORS – FIGURE 2.6

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	Leavenworth County		Kansas	National Benchmark
	2010	2011		
<b>Adult Smoking</b> <sup>13</sup>	21%	20%	19%	15%
<b>Adult obesity</b> <sup>14</sup>	28%	31%	29%	25%
<b>Excessive drinking</b> <sup>15</sup>	15%	15%	15%	8%
<b>Motor vehicle crash death rate</b> <sup>16</sup>	15	16	19	12
<b>Sexually transmitted infections</b> <sup>17</sup>	208	294	332	83
<b>Teen birth rate</b> <sup>18</sup>	34	33	42	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 (17,000 per year).<sup>13, 14</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 child developmental delay, illness, and mortality.<sup>16</sup>

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<sup>13</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/kansas/leavenworth/9>

<sup>14</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/kansas/leavenworth/3>

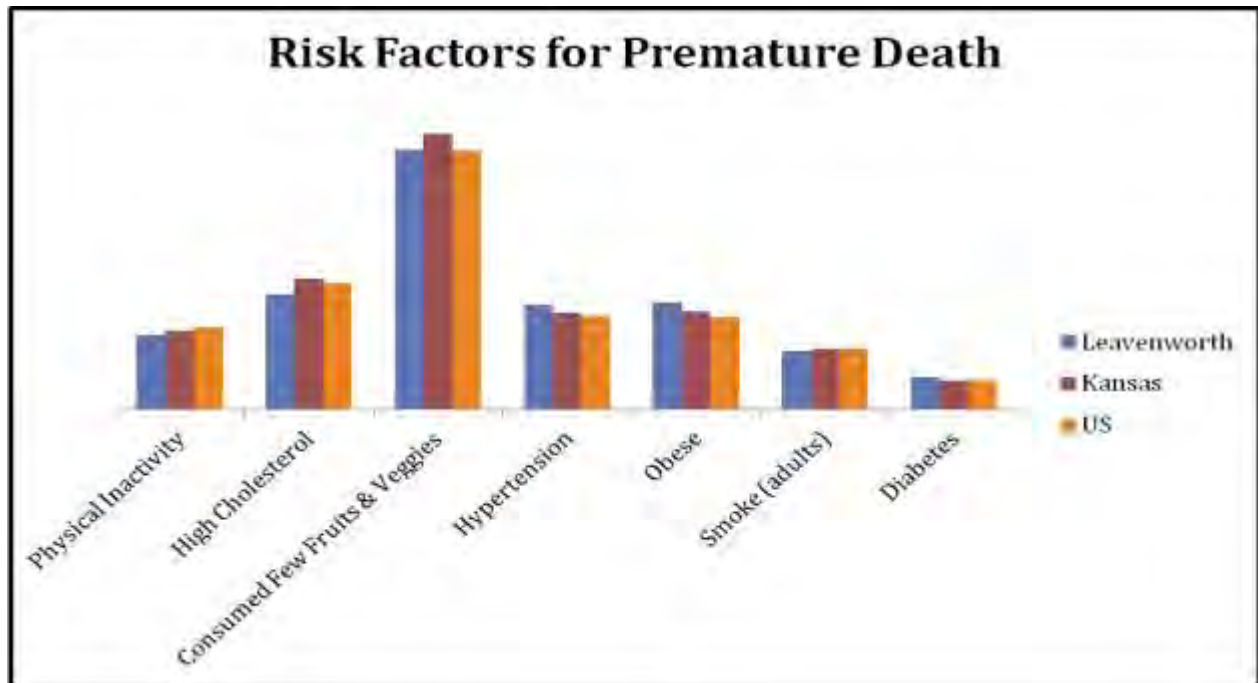
<sup>15</sup> The excessive drinking measure reflects the percent of the adult population that reports either binge drinking, defined as consuming more than 4 (women) or 5 (men) alcoholic beverages on a single occasion in the past 30 days, or heavy drinking, defined as drinking more than 1 (women) or 2 (men) drinks per day on average. *Source:* <http://www.countyhealthrankings.org/kansas/leavenworth/49>

<sup>16</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/kansas/leavenworth/39>

<sup>17</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/kansas/leavenworth/45>

<sup>18</sup> Teen births are reported as the number of births per 1,000 female population, ages 15-19. *Source:* <http://www.countyhealthrankings.org/kansas/leavenworth/14>

HEALTH BEHAVIORS – FIGURE 2.7



Footnotes: 19,20,21,22,23,24,25,

DISCUSSION

Figure 2.7 compares Leavenworth County to both Kansas and the U.S. for the risk factors that are known to be leading contributors to premature death. The findings from the data indicate that Leavenworth County ranked better in physical inactivity, high cholesterol, and adults that smoke. While improvements could be made in those areas they are not at unreasonable levels and should be considered the strength to the population health of Leavenworth County.

Obesity, diabetes, and hypertension rates are all worse off when compared to Kansas and the U.S., so they could be focused on improvement efforts. In addition, according to *County Health Rankings*, there is an extremely low level of access to healthy foods (including fruits and vegetables) at grocery stores, produce stands, and farmers’ markets. Only 43 percent of respondents indicated they have access compared to the national benchmark of 92 percent, which is a likely contributor to the poor marks for that category.

*\*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>19</sup> Physical Inactivity: During the past month, did you participate in any physical activities? Source: CDC. Behavioral Risk Factor Surveillance System, 2009.

<sup>20</sup> High Cholesterol: Adults who have had their blood cholesterol checked and have been told it was high. Source: CDC. Behavioral Risk Factor Surveillance System, 2009.

<sup>21</sup> Few Fruits and Vegetables: Adults who have consumed fruits and vegetables less than times per day. Source: CDC. Behavioral Risk Factor Surveillance System, 2009.

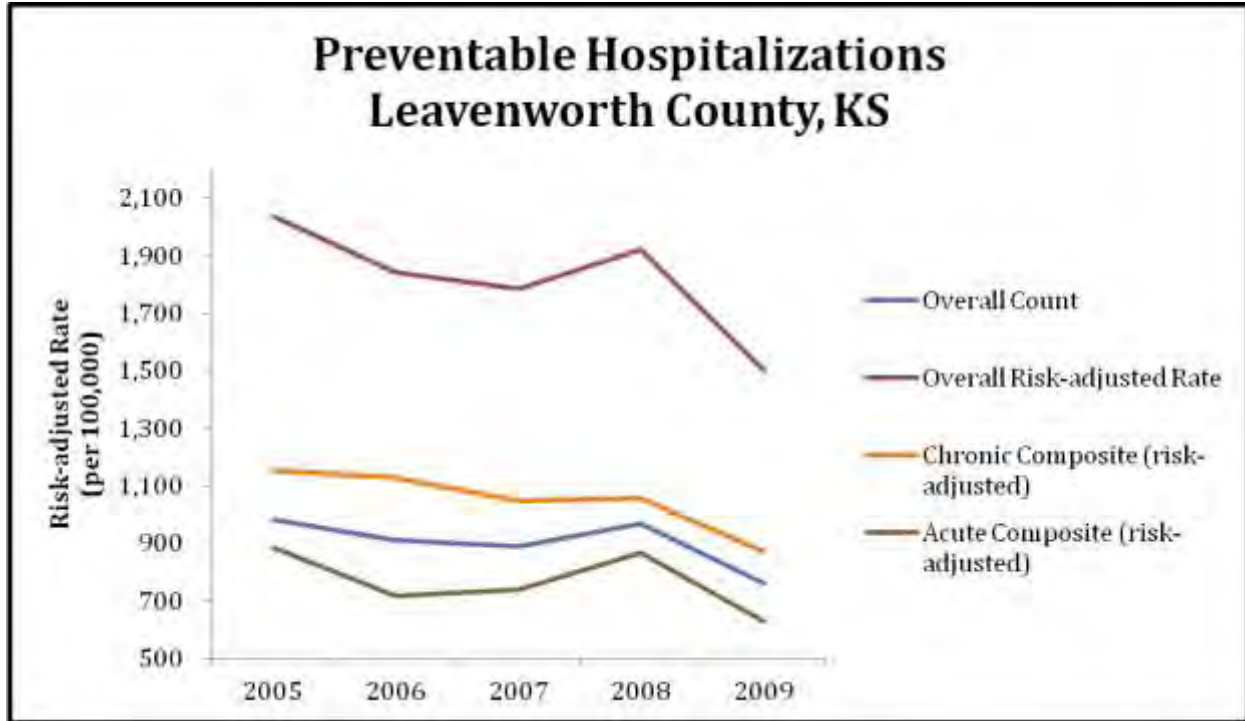
<sup>22</sup> Hypertension: Adults who have been told they have high blood pressure. Source: CDC. Behavioral Risk Factor Surveillance System, 2009.

<sup>23</sup> Obese: Weight classification by Body Mass Index (BMI). Source: CDC. Behavioral Risk Factor Surveillance System, 2009.

<sup>24</sup> Smoke (adults): Adults who are current smokers. Source: CDC. Behavioral Risk Factor Surveillance System, 2009.

<sup>25</sup> Diabetes: Have you ever been told by a doctor that you have diabetes? Source: CDC. Behavioral Risk Factor Surveillance System, 2009.





Footnotes: 26,27

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

#### DISCUSSION

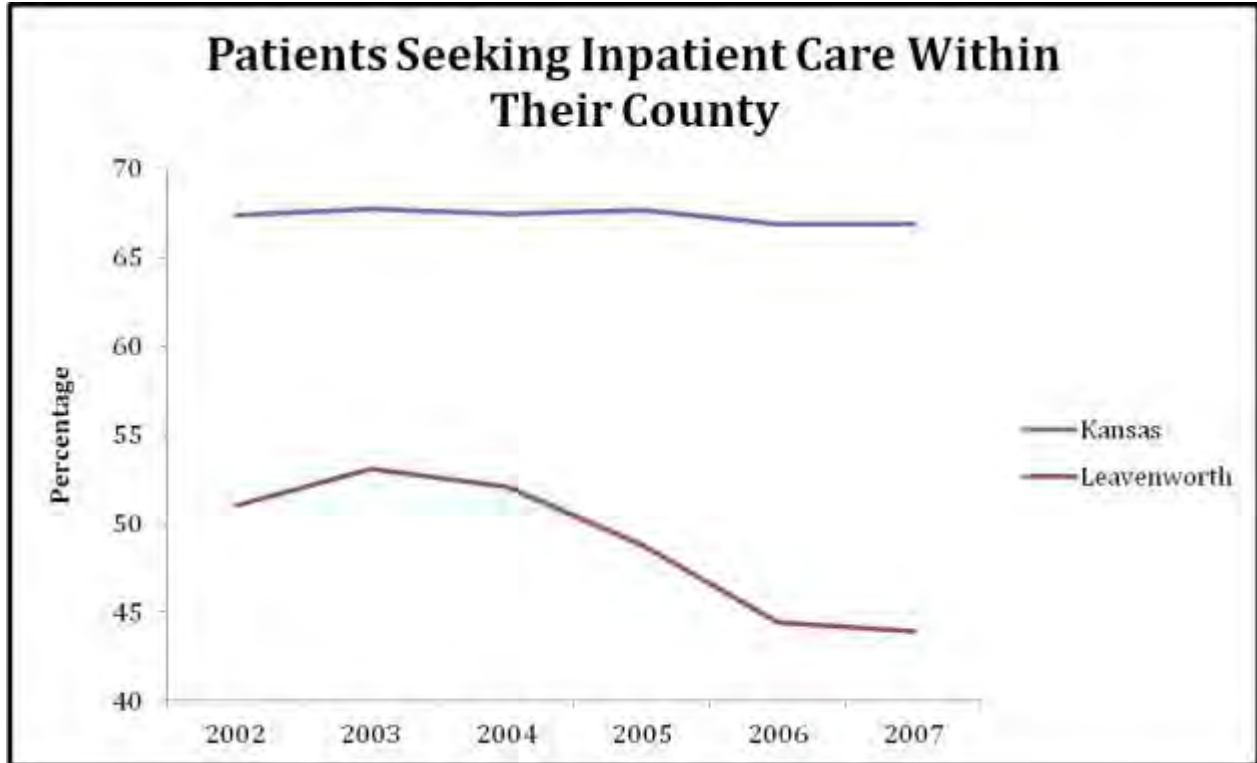
Preventable hospitalizations indicate a lack of high quality primary and preventive care and may pinpoint areas in the health care system where potential improvements can be made.<sup>28</sup> These hospitalizations may be avoided if clinicians effectively diagnose, treat, and educate patients; and, the patients are active participants in their care and adopt healthy behaviors.<sup>26</sup> Fortunately for Leavenworth County, the number is on the decline over the last several years in all areas, indicating that primary and preventive care may be improving for the region. The chronic and acute conditions that are detailed in the footnotes 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>29</sup>

<sup>26</sup> Chronic conditions include: diabetes (short-term and long-term complications and uncontrolled), perforated appendix, COPD, adult asthma, hypertension, CHF, and angina.

<sup>27</sup> Acute conditions include: dehydration, bacterial pneumonia, and urinary infection.

<sup>28</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>29</sup> *Assessing the Health of Our Communities*. Missouri Hospital Association, 2010.



Source: Kansas Health Policy Authority: <http://www.khpa.ks.gov>

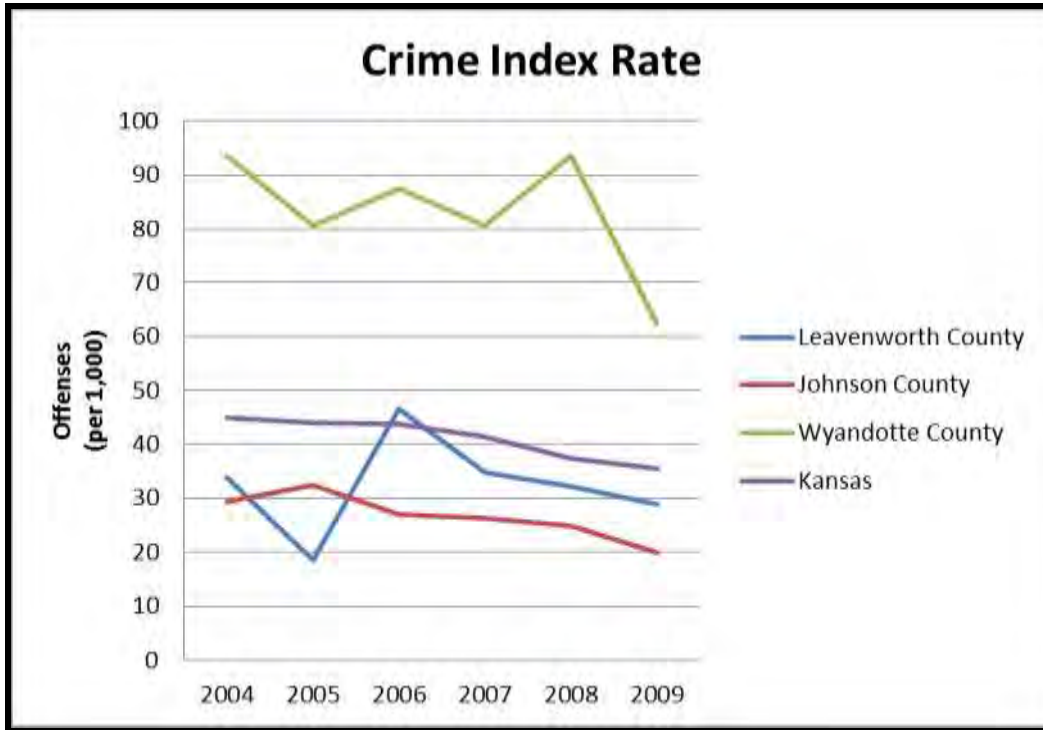
#### DISCUSSION

Figure 2.9 provides an interesting statistic based on several interviewees' responses that one of the problems was that emergency medical services (EMS) would transport patients out of the county to receive care at hospitals in Kansas City. The findings of the interviews will be summarized later in the writing. However, it was worth mentioning in this section as there appears to be unmet needs in the county that are generating an above normal amount of patients that seek care outside of the primary service area.

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HEALTH BEHAVIORS – FIGURE 2.10

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Source: KU Institute for Policy and Social Research: <http://www.ipsr.ku.edu/ksdata/ksah/>

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, aggravated assault/battery, burglary, theft, 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>30</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>31</sup> As seen in figure 2.10 we can see that Leavenworth County’s crime index spiked in 2006 with 46.5 offenses per 1,000 residents, but has decreased since and continues to be well below Wyandotte County’s figures. While Leavenworth County continues to be below the Kansas average, community safety is a major contributor to overall health and should be kept under close supervision.

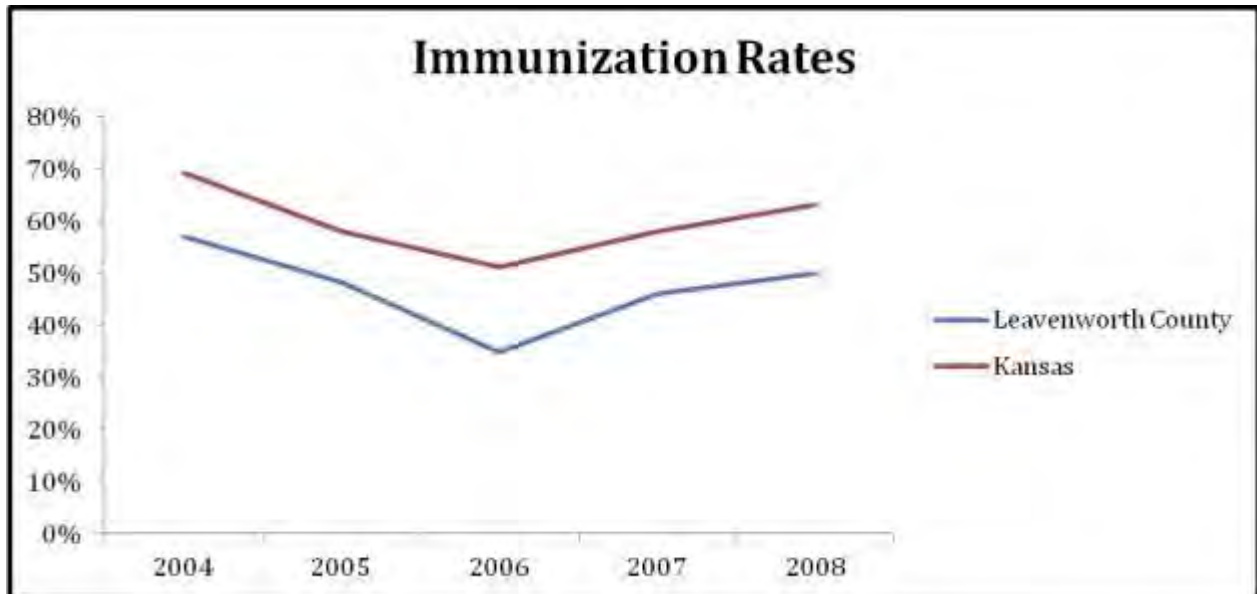
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<sup>30</sup> Health Factors and outcomes include: low birth weight, diet and exercise, and family and social support. Source: <http://www.countyhealthrankings.org/health-factors/community-safety>

<sup>31</sup> Source: <http://www.countyhealthrankings.org/health-factors/community-safety>

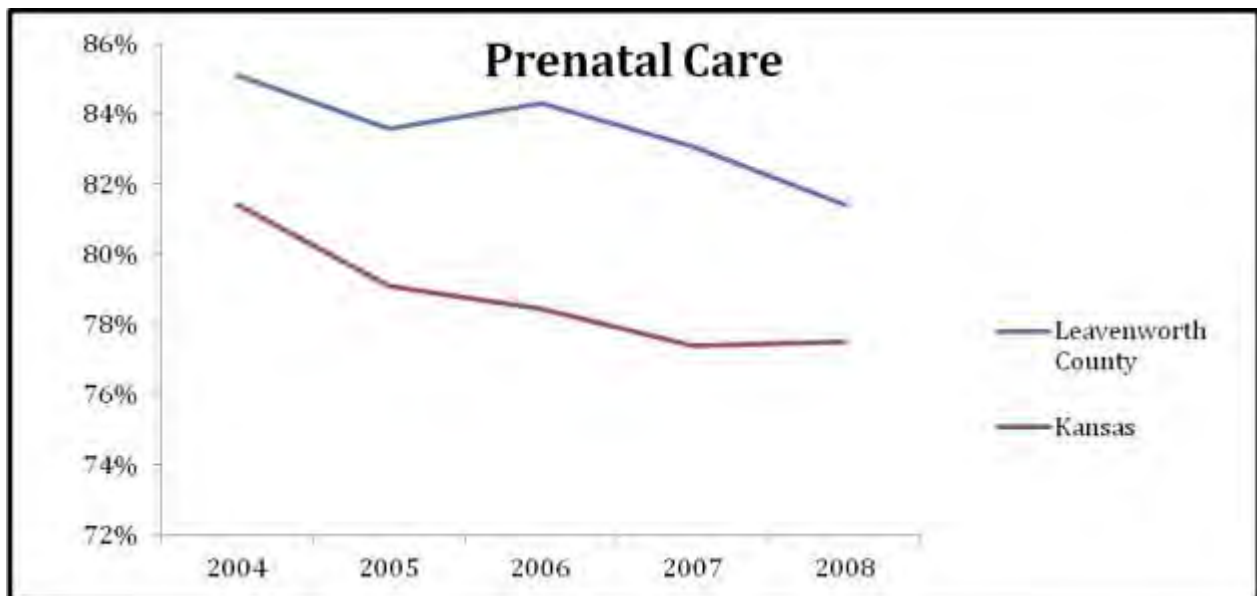
ADOLESCENT AND MATERNAL HEALTH

FIGURE 2.11



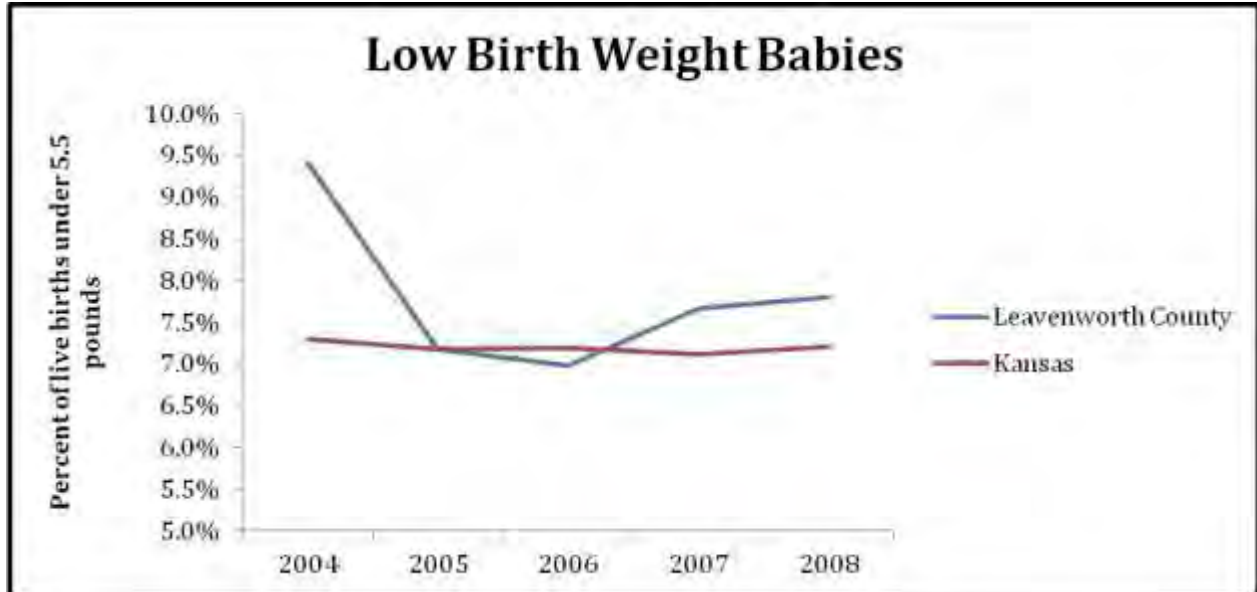
Percent of kindergarteners fully immunized of the 4:3:1:3:3 series by age two. *Source:* [www.kidscount.org](http://www.kidscount.org)

FIGURE 2.12



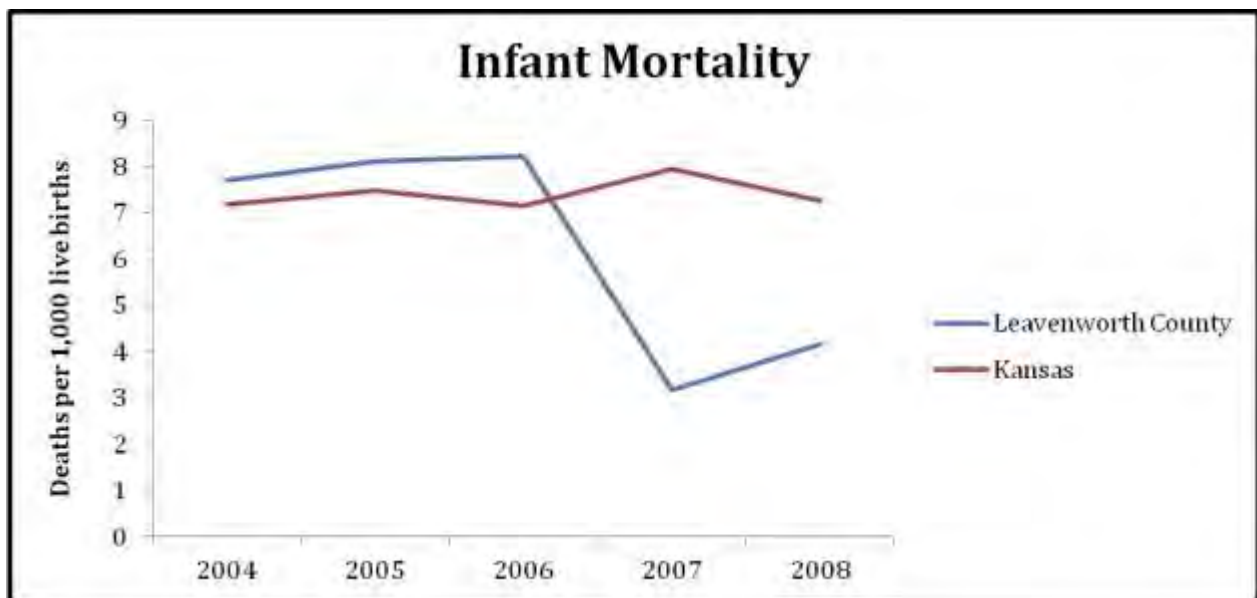
Percent of live births to mothers who received adequate or adequate-plus prenatal care. *Source:* [www.kidscount.org](http://www.kidscount.org)

FIGURE 2.13



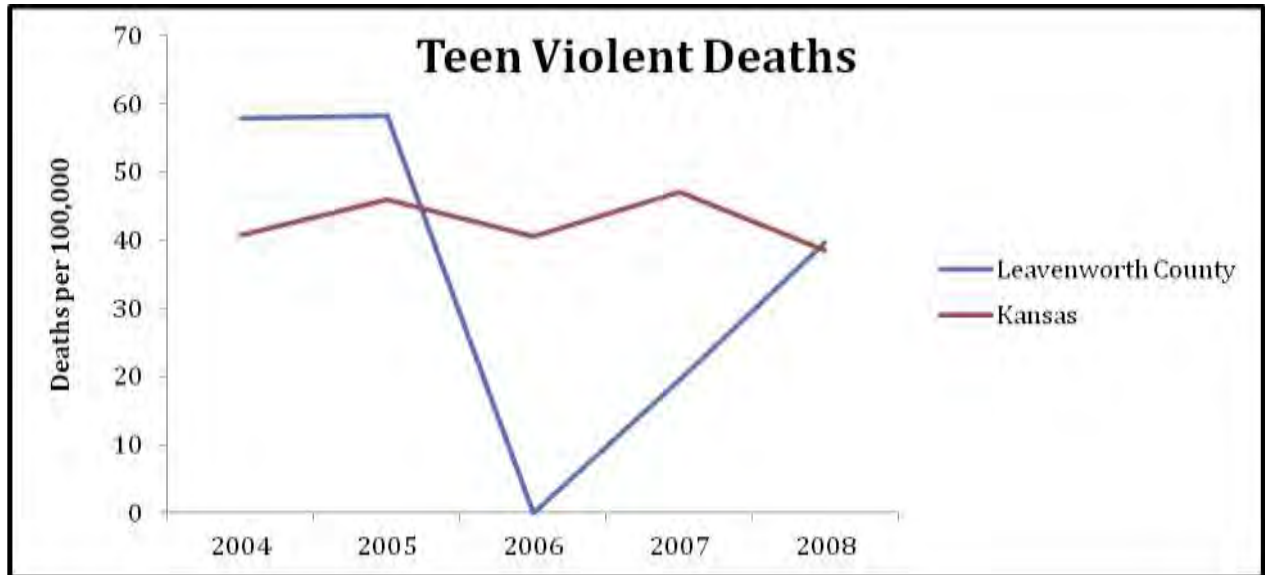
Percent of live births weighing under 5.5 lbs. *Source: [www.kidscount.org](http://www.kidscount.org)*

FIGURE 2.14



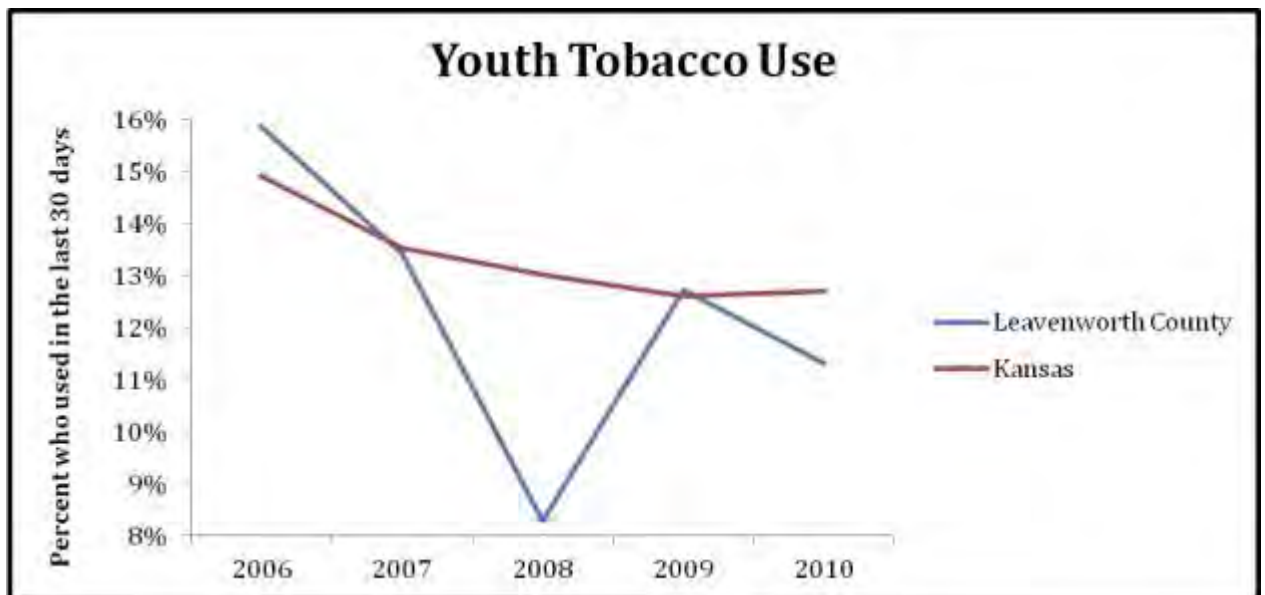
Number of deaths, under age 1, per 1,000 live births. *Source: [www.kidscount.org](http://www.kidscount.org)*

FIGURE 2.15



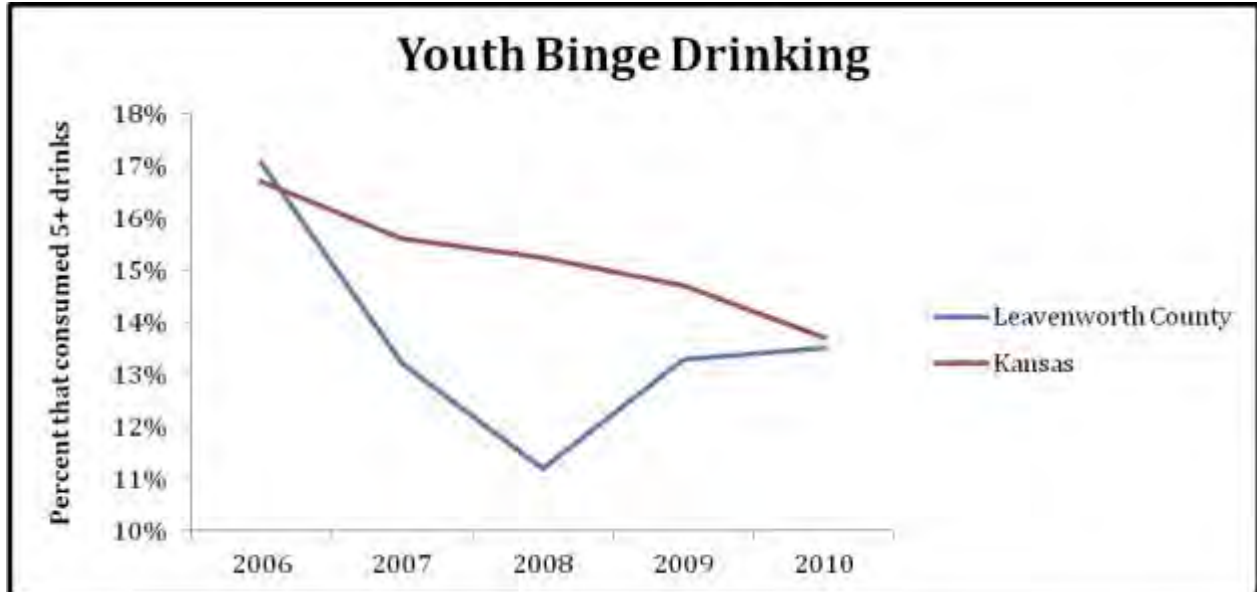
Number per 100,000 of 15- to 19-year-olds who died due to suicide, homicide, or motor vehicle accident. *Source: [www.kidscount.org](http://www.kidscount.org)*

FIGURE 2.16



Percent of 6th, 8th, 10th and 12th graders who reported using cigarettes or smokeless tobacco in the last 30 days. *Source: [www.kidscount.org](http://www.kidscount.org)*

FIGURE 2.17



Percent of 6th, 8th, 10th and 12th graders who reported having 5+ consecutive drinks on at least one occasion in the past two weeks. *Source:* [www.kidscount.org](http://www.kidscount.org)

#### DISCUSSION

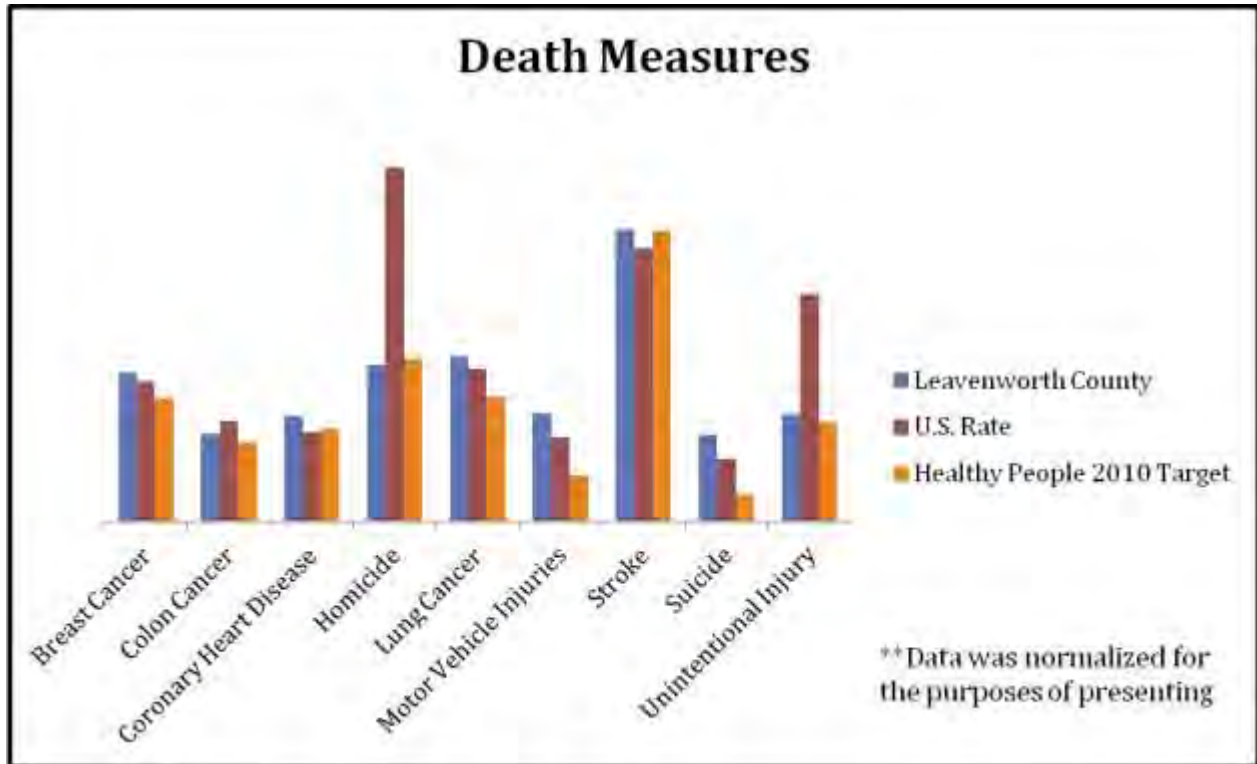
Figures 2.11 through 2.17 represent the population health for the youth of Leavenworth County. Similar to many other health indicators and factors, it is important to consider inputs into children's health to effectively target opportunities for improvement.<sup>32</sup> Many conclusions could be inferred from the data above, but the purpose is to highlight areas of marked deficiencies or needed improvements. Leavenworth County fares well in most of the reported measures, but a few points from the data include:

- Poor immunization rates in relation to the state of Kansas, however, with an upward trend.
- Prenatal care well above state levels, but is on a declining trend.
- Low birth weight measures, infant mortality, teen death rates, and binge drinking that have all recently dipped to acceptable levels, but at the same time are beginning to trend in the wrong direction.
- Youth tobacco use that experienced a recent increase into 2009, but has stabilized and started to decrease in the last year.

<sup>32</sup>Kansas Action for Children (2010). 2010 Kansas Kids Count Data. Retrieved April 23, 2011 from [http://www.kac.org/ftp/file/Publications/kidscount\\_report\\_2010.pdf](http://www.kac.org/ftp/file/Publications/kidscount_report_2010.pdf)

SUMMARY OF SECONDARY ANALYSIS

FIGURE 2.18



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

DISCUSSION

Figure 2.18 shows the causes of death for Leavenworth County in comparison to the U.S. and the Healthy People 2010 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 breast cancer, coronary heart disease, lung cancer, vehicle injuries, stroke, and suicide are all at levels higher in relation to the U.S. and the Healthy People 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.



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### III. CURRENT HEALTHCARE SERVICES AND FACILITIES

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#### HOSPITALS

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

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Cushing Memorial Hospital is a 74-bed; full service health care facility located at 711 Marshall in Leavenworth, Kansas with a medical staff comprised of 231 physicians. CMH is part of the Saint Luke’s Healthcare System based in Kansas City, Missouri. The services that are provided at Cushing include a 24-hour emergency department, maternity, gynecology, rehabilitation, orthopedic, radiology, including nuclear medicine, diabetes care, digital mammography, rehabilitation, interventional pain management, outpatient IV therapy, sleep studies and surgical services. They also have a number of ancillary services that are provided on-site or as part of the greater Saint Luke’s system that include home care and hospice, laboratory, cardiology services. The hospital also offers e-ICU services to allow local patients greater access to specialists and 24-hour care. Additionally, Cushing also offers behavioral health services including a 20-bed inpatient psychiatric unit.

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##### SAINT JOHN HOSPITAL – SISTERS OF CHARITY OF LEAVENWORTH HEALTH SYSTEM

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Saint John Hospital is located at 3500 South 4th Street in Leavenworth Kansas and is part of the not-for-profit Sisters of Charity of Leavenworth Health System (SCLHS) headquartered in Lenexa, Kansas. They are licensed for 76 beds, but staff only 36 with a medical staff comprised of 215 physicians. The service lines that are offered at Saint John include a 24-hour emergency department, maternity and gynecology, radiology (including nuclear medicine), rehabilitation, ambulatory care (including two outpatient surgery suites), and senior behavioral health services to include both inpatient and outpatient services. Additionally, St. John provides non-invasive cardiology services at the location transferring out some of the more complicated cases to Providence Medical Center in Kansas City, Kansas. Saint John also provides ancillary services such as laboratory, palliative care, and social services/case management.

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#### SAFETY NET CLINICS

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##### SAINT VINCENT – SISTERS OF CHARITY OF LEAVENWORTH HEALTH SYSTEM

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Saint Vincent, located at 818 North 7<sup>th</sup> Street in Leavenworth, Kansas, is also part of the Sisters of Charity of Leavenworth Health System and is the only safety net clinic in the area. Their services are restricted for uninsured and low-income patients with no ability to pay for healthcare. The services delivered at Saint Vincent include primary care, medication assistance, chronic disease management, and specialty referrals if necessary.

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## LEAVENWORTH COUNTY HEALTH DEPARTMENT

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The health department for Leavenworth County is located at 500 Eisenhower Road in Leavenworth, Kansas. The department provides very basic level preventive health services that include immunizations, family planning and pregnancy testing, sexually transmitted disease testing, a well-child clinic, screening services for cholesterol and blood pressure, and physical examinations, as well as daycare licensing and registering.

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## GOVERNMENT AND DEPARTMENT OF DEFENSE HEALTH CARE FACILITIES

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### DWIGHT D. EISENHOWER VA MEDICAL CENTER – DEPARTMENT OF VETERANS AFFAIRS EASTERN KANSAS HEALTH CARE SYSTEM

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The Eisenhower VA Medical Center is located at 4104 4<sup>th</sup> Street Traffic-way in Leavenworth, Kansas. The closed member facility is part of the Eastern Kansas Department of Veterans Affairs Health Care System which provides health care services for veterans only in 39 counties across Kansas and Missouri. Services available to veterans include geriatrics and extended care, mental health services, pharmacy, primary care, and social work. Specialty care includes surgical specialties as well as neurology, radiology, oncology, audiology, and a sleep lab. As of 2009, there were 9,028 veterans residing in Leavenworth County.

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### MUNSON ARMY HEALTH CENTER – UNITED STATES ARMY MEDICAL DEPARTMENT

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Munson Army Health Center is located within Fort Leavenworth, a United States Army Post, at 550 Pope Avenue, Fort Leavenworth, Kansas. It provides health care for military members and their families who serve on or are attached to Fort Leavenworth. Available services include primary care, behavioral health, orthopedics, pharmacy and laboratory services, general surgery, physical therapy, optometry, radiology, and a women's health unit. The health center does not have an emergency department and service members requiring emergency services obtain care off of the post at Saint Vincent or Cushing Memorial Hospital's emergency department. As of September 2010, active duty members and their families living on-base numbered 7,942 while another 6,117 service members and dependents lived off-base in the surrounding communities.

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## BEHAVIORAL AND MENTAL HEALTH CARE PROVIDERS AND FACILITIES

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### THE GUIDANCE CENTER

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The Guidance Center is a not-for-profit behavioral health agency located at 500 Limit Street in Leavenworth, Kansas. It offers a number of outpatient mental health services and inpatient referral or release services for individuals (adults and children), families, and businesses in Leavenworth, Atchison, and Jefferson counties. They offer a sliding fee scale for individuals who have no other way to pay for care. Outpatient services offered included traditional mental health counseling, therapeutic intervention services, emergency services, and psychiatry coverage for psychiatric assessments and medication management.

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## INTEGRATED BEHAVIORAL TECHNOLOGIES, INCORPORATED

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Integrated Behavioral Technologies, Inc. is a non-profit organization located at 304 West Street in Tonganoxie, Kansas. While offering services on a number of disorders and difficulties, it primarily focuses its services towards children and families affected by an Autism Spectrum Disorder, including diagnosis of autism and Asperger's syndrome. Services include behavioral consulting, in-home care providers, parent and caregiver training, and assessment services. They also offer a sliding fee scale for direct payers.

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## ADDITIONAL HEALTHCARE INSTITUTIONS

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There are currently four adult care homes with a total of 208 licensed beds for the residents of Leavenworth County that include:

- Country Care in Easton, Kansas with 50 licensed beds;
- Golden Living Center in Lansing, Kansas with 60 licensed beds;
- Medicalodges Leavenworth in Leavenworth, Kansas with 80 licensed beds, and;
- Tonganoxie Nursing Center in Tonganoxie, Kansas with 90 licensed beds.

In addition to the adult care homes, there are three assisted living facilities totaling 128 beds, those include:

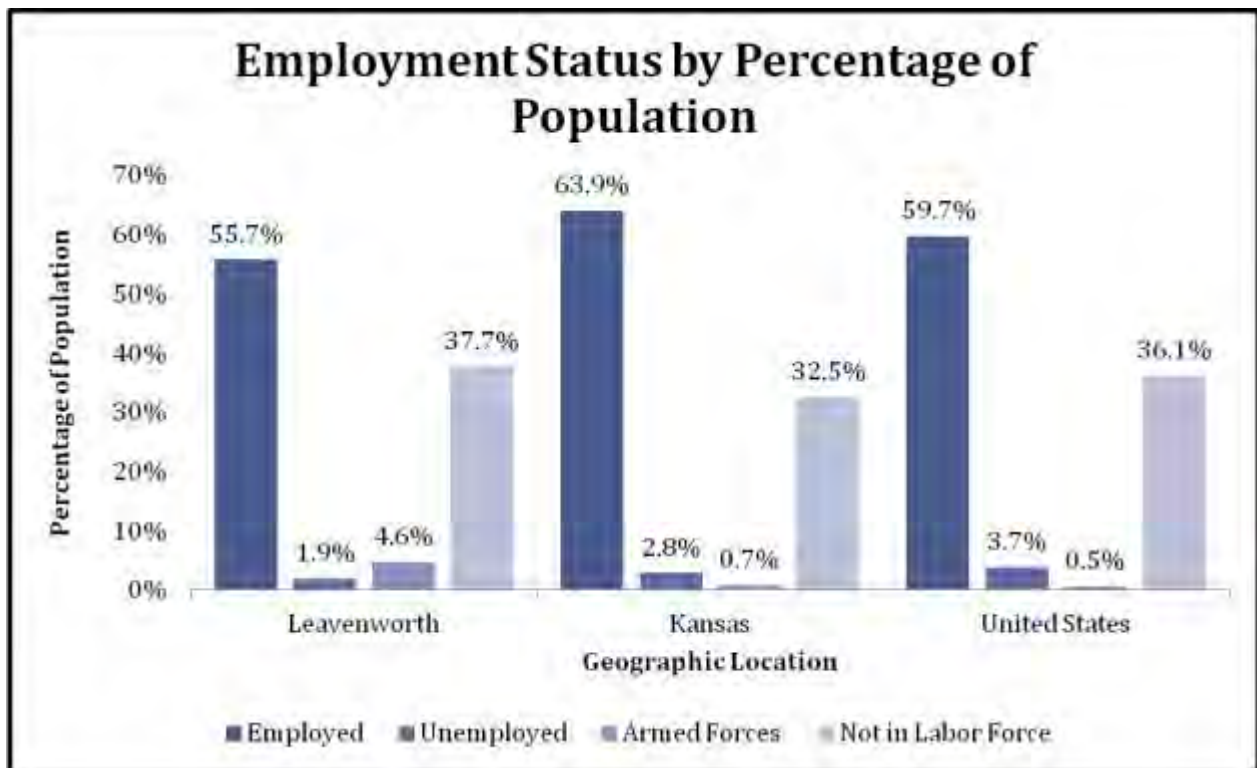
- Twin Oaks Assisted Living in Lansing, Kansas with 32 licensed beds;
- The Homestead of Leavenworth in Leavenworth, Kansas with 46 licensed beds, and;
- Vintage Park at Tonganoxie in Tonganoxie, Kansas with 50 licensed beds.

## IV. LEAVENWORTH COUNTY ECONOMIC PROFILE

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

### EMPLOYMENT STATS

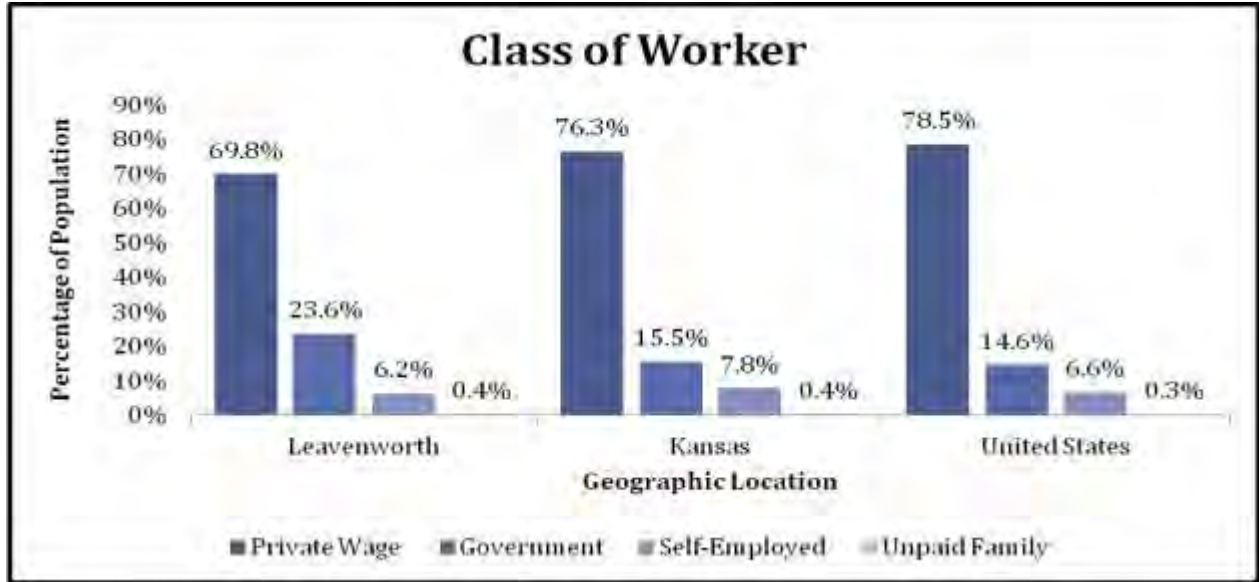
EMPLOYMENT STATUS – FIGURE 4.1



### DISCUSSION

Figure 4.1 describes the employment status of Leavenworth County in 2011 as it compares to both Kansas and national figures. The figure shows that Leavenworth County is below both state and national levels of employment levels. Related to the lower levels of employment, Leavenworth County also has a higher percent of the population not in the labor force. While not as many individuals are employed, Leavenworth County has a lower unemployment rate than both the state and national level. Leavenworth County, home of Fort Leavenworth, has a much higher percentage of armed forces than either the state or national levels.

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 Leavenworth can provide a picture of the available health insurance options for the community. Figure 4.2 shows that Leavenworth County has a much larger percentage of government workers than either the state or national levels and conversely, has a lower portion of private wage-workers.

INCOME STATISTICS

FAMILIES BELOW FEDERAL POVERTY LEVEL – FIGURE 4.3

	Leavenworth County	Kansas	United States
<b>Percent of Families Below Federal Poverty Level</b>	18%	24%	27%

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, Leavenworth County has a lower percentage of families below the FPL than both the state of Kansas and the U.S. as a whole. Regardless the percentage in relation to other standards, the county must continue providing available services to those below the FPL.

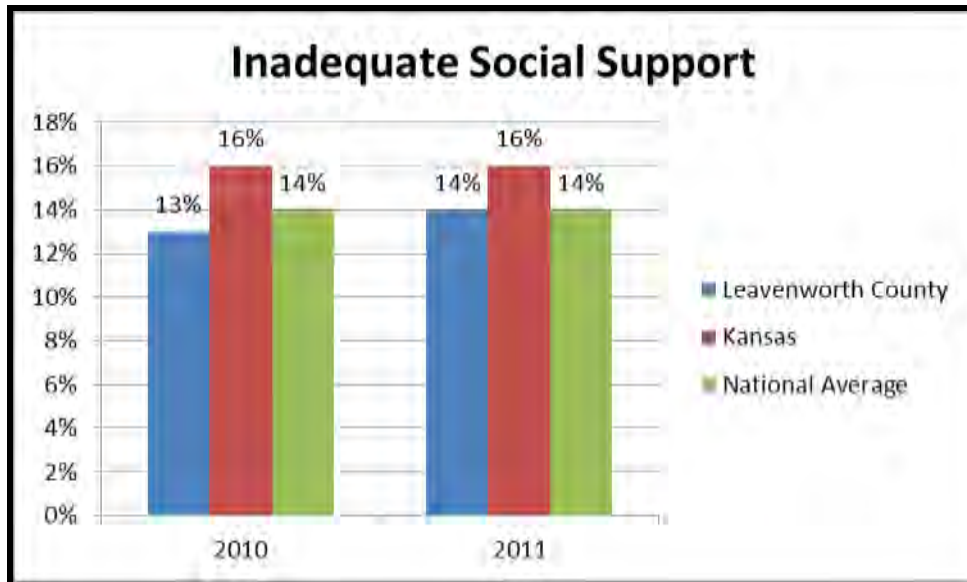
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## LOCAL FACTORS AFFECTING HEALTH

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FAMILY AND SOCIAL SUPPORT – FIGURE 4.4

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Source: <http://www.countyhealthrankings.org/kansas/leavenworth>

### DISCUSSION

Family and social support is defined as the quality of relationships among family members and with 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.

Fortunately, Leavenworth County lies below the National Average and equally compares to the state of Kansas. While the percentage of individuals is relatively low Leavenworth County ranked 69<sup>th</sup> in 2010 and 47<sup>th</sup> in 2011 among all 98 counties in Kansas, so there may be a need to further research the available community networks available within Leavenworth County.

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PHYSICAL ENVIRONMENT – FIGURE 4.5

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	Leavenworth County		Kansas		National Benchmark	
	2010	2011	2010	2011	2010	2011
<b>Air pollution-ozone days<sup>33</sup></b>	8	3	0	2	0	0
<b>Access to Healthy Foods<sup>34</sup></b>	43%	43%	35%	43%	50%	92%
<b>Access to Recreational Facilities<sup>35</sup></b>	N/A	7	N/A	10	N/A	17

DISCUSSION

According to Figure 4.5 Leavenworth County is well above the National Benchmark for their Physical Environment as depicted by the *County Health Rankings*. Each environmental relationship has its own direct impact on the health of a population. Through the presented measurements it shows not only that Leavenworth County but also the state of Kansas are above the National Benchmark in terms of creating a healthy environment. Although the Air Pollution-Ozone Days is above the National Benchmark there is not a need to address this issue immediately. On the other hand with significant difference being presented in terms of Access to Healthy Food and Recreational Facilities, there is an immediate need to address these issues.

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 including decreased lung function, chronic bronchitis, asthma, and other adverse pulmonary effects. In addition, With Leavenworth County sitting slightly above the Kansas average, this may 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>36</sup>

For the overall physical environment measures, Leavenworth County ranks 78<sup>th</sup> out of 98 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>33</sup> Number of days in 2006 that air quality was unhealthy due to ozone.  
Source: <http://www.countyhealthrankings.org/kansas/leavenworth/29>

<sup>34</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/kansas/leavenworth/30>

<sup>35</sup> Number of recreational facilities per 100,000 population in a given county  
Source: <http://www.countyhealthrankings.org/kansas/leavenworth/68>

<sup>36</sup> Source: <http://www.countyhealthrankings.org/health-factors/built-environment>

## 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 in Leavenworth County. In-person interviews and over-the-phone interviews were conducted with hospital executives and representatives from community organizations; they include:

Ron Baker  
Chief Executive Officer  
Cushing Memorial Hospital

Col. David Bitterman  
Commander  
Munson Army Health Center

Brenda Brister, RN  
Director of Nursing  
Leavenworth County Health Department

Briana Cavinaw  
Clinic Manager  
Saint Vincent's Clinic

Linda DeLozier, RHIA  
Chief Quality Officer  
Cushing Memorial Hospital

Randy House  
Vice President, Health Informatics  
Saint Luke's Health System

Major Julie Lee  
Chief, Preventive Medicine  
Munson Army Health Center

Jackie Martin  
Controller  
Cushing Memorial Hospital

Jamie Miller, MICT  
Director  
Leavenworth County Emergency Medical Services &  
Leavenworth County Health Department

The interviews were focused on distinguishing the unmet healthcare and public health needs within the Leavenworth County area. Throughout these interviews, our team did not ask anyone to participate as an official spokesperson for their organization.

Our team generated a set of questions in an effort to elicit answers from community stakeholders that would identify community health needs in Leavenworth County. The questions are as follows:

- From your perspective what do you think the health needs of Leavenworth County are?
- Do you feel there are any unmet health needs? If so, please describe.
- Do you think anyone is addressing these issues? If not, who should?
- What is your recommendation for meeting these needs?

After interviewing the stakeholders we discovered that there is a consensus among the group about the perceived health care needs for Leavenworth County. The access to health care was identified by most of the interviewees. 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 Leavenworth County. Lack of programs targeting preventive services and education for lifestyle choices and chronic illness was also an issue. An aging population and the possible mandate to have health insurance will increase the need for healthcare services, and this issue will have to be addressed. The sections below discuss the services available in greater detail.



## PRIMARY WEAKNESSES OF THE LEAVENWORTH COUNTY HEALTH CARE SYSTEM

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### A LACK OF SAFETY NET CLINICS

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At this point in time, there is only one safety-net clinic operating within the Leavenworth County community, Saint Vincent Clinic. Safety-net clinics treat patients who are of low-income status and uninsured. Due to limited operating hours and an increasing migrant population, patients seeking primary and preventive treatment from Saint Vincent Clinic often find themselves on the waiting list for a couple of weeks. The lack of safety-net clinics in this community impacts the volume of uninsured patients seeking treatment in the emergency departments of the two hospitals operating in Leavenworth County.

### A LACK OF URGENT CARE CLINICS

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There is a lack of urgent care clinics in the Leavenworth County area. Urgent care clinics deliver ambulatory medical care outside of a hospital emergency department, usually on an unscheduled, walk-in basis. Urgent care centers are primarily used to treat patients who have an injury or illness that requires immediate care but is not serious enough to warrant a visit to an emergency room. Unfortunately, emergency departments are often over-utilized by patients seeking this type of care.

### A LACK OF PUBLIC TRANSPORTATION

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Currently, there is not a public transportation system in operation within the Leavenworth County area. In most urban and semi-urban cities, public transport is used to ensure that all members of society are able to travel; including: the young, the old, the poor, those with medical conditions, and people banned from driving. Patients who reside in Leavenworth County who are without independent mobility must make travel arrangements in advance. A lack of public transportation is a major barrier impeding residents from accessing health care services within the community.

### A LACK OF SPECIALISTS

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There are several specialty service lines that are not offered by hospitals operating in the Leavenworth County area. Regularly, Leavenworth County Emergency Medical Services have to transport patients outside of the county to be treated by hospitals who offer specialty services in the Kansas City metropolitan area. The specialties most often utilized in the Kansas City metropolitan area by Leavenworth County residents include: cardiac catheterization labs, burn and trauma units and stroke centers. In addition, the Leavenworth County area does not have a facility offering nephrology or pulmonology services.

### A LACK OF PRIMARY CARE ACCESS AND PHYSICIANS

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Leavenworth County is facing a shortage in primary care services. Primary care shortages are usually seen in Kansas' 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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## DIFFICULTY RECRUITING HEALTHCARE PROVIDERS

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Health care organizations located within Leavenworth County often struggle to recruit health care providers and medical staff to work in their facilities. Unfortunately, health care providers seek positions at hospitals and other organizations located within the Kansas City metropolitan area instead. It is easy for larger cities to recruit professionals for obvious reasons; they offer: a better selection of schools, more sources of entertainment, better career opportunities for spouses and more convenience, in general.

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## FORT LEAVENWORTH

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Munson Army Health Center offers soldiers a medical home model with referral services to health care in Leavenworth County if necessary. Colonel Bitterman and Major Lee stressed the importance of preventive services and the need for behavioral health services within the county. They stressed the importance of preventing disease and injury and said that prevention will help to reduce the need for access and reduce the use of resources in treating illnesses. Major Lee stated that the newly created Wellness Center on Fort Leavenworth will focus on primary preventive services would help to educate people about lifestyle choices. Their other concern is that the need for behavioral health for soldiers has drastically risen and will continue to rise with the ongoing conflicts our nation faces. Colonel Bitterman feels that the capacity for these services does not meet the demand both on and off the military post. He discussed the results of a joint VA and Department of Defense study that concluded there is a need and that the issue is viable. He stated that the project is awaiting funding approval.

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## PUBLIC OPINION

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Our team interviewed four members of the community for their opinion on the health needs in Leavenworth County. Obviously, this is not a complete representation of the community, but it serves as a starting point for discussing perspectives from an individual or community level. The four people interviewed have health insurance, so access to service is not limited in this situation. The interviewees range in age from 45 to early 70's. They all have children. The questions asked are as follows:

- Do you and your family seek all of your healthcare needs within Leavenworth County? If not, why?
- Are you and your family covered by health insurance? If yes, is the insurance sponsored by the government (i.e. Medicare or Medicaid)?
- Do you know of anyone that has to seek care outside of Leavenworth County? If so, why?
- If you or a loved one had a serious medical condition that was not immediately life threatening would you feel comfortable being treated by the healthcare system in Leavenworth County? If not, why?
- Do you feel that there are enough primary care physicians in Leavenworth County?
- In your opinion are the healthcare services in Leavenworth County adequate to treat patients with:
  - Diabetes (Yes, No, Unsure)
  - High Blood Pressure (Yes, No, Unsure)
  - High Cholesterol (Yes, No, Unsure)

- Obesity (Yes, No, Unsure)
  - Mental Health Issues (Yes, No, Unsure)
- In your opinion are there any health needs not being addressed by the health care services in Leavenworth County?

In summarizing the four participants' answers, they all have sought care or were referred outside of Leavenworth County for specialty services. All four know people that have received care outside of Leavenworth County as well. Interestingly, they were split on the question regarding a serious medical condition. Two would be comfortable with being cared for by the services in Leavenworth County and the other two would seek care in the Kansas City area. Additionally, two respondents felt like there is sufficient numbers of primary care physicians while two stated disagreed, citing a lack of primary care providers.

It was a mixed report on the answers to the specific health issues, with one reporting that they seek care from a cardiologist outside of the county. Although each person has a primary care physician in Leavenworth County, the consensus appeared that an overall lack of specialty physicians is an issue for Leavenworth County. Again, this is not a representation of the entire community. Due to limited resources we were not able to concentrate on entire population surveys or to conduct focus group sessions to gain information.

## CONCLUSION

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Overall, this assessment suggests that the health services within Leavenworth County are comprehensive and sufficient to serve the residents in the county. However, our findings indicated several vulnerabilities in healthcare services provided to the community and unfavorable trends in healthcare factors.

The social demographics of Leavenworth 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 Leavenworth County is expected to rapidly increase and will further stress any cultural barriers that presently exist.

Also indicated by social determinants of Leavenworth County is a negative trend noticed in unemployment rates. While unemployment rates for Leavenworth County remain lower than national averages, the trend is moving closer to the median. 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, Leavenworth County is healthy in relation to the rest of Kansas and the United States. Analyzing the various classes of workers gives an idea as to the availability of health insurance to the labor force. Leavenworth County boasts a large number of government workers and individuals in the armed forces. Having a high number of federal employees ensures that a large portion of the population will be offered health insurance through the federal system.

Economic data also indicates a higher than average median household income. Household income is often an indicator of access to healthcare and a factor of overall health. According to *County Health Rankings*, Leavenworth County has a median household income of \$59,515 compared to the state average of \$49,777. Further supporting the above-average economic state of Leavenworth County are statistics showing percent of families below federal poverty level that are lower than both state and national medians.

Although Leavenworth County ranks 19<sup>th</sup> in health outcomes according to *County Health Rankings*, the county is falling behind in health factors ranking just 42<sup>nd</sup> in the state. Negative trends in adult obesity, hypertension, and diabetes are higher than national averages and contribute to an increasing premature death rate for the county. Also contributing to the premature death rate are higher rates of adult smoking, excessive drinking, and sexually transmitted diseases.

The health of youth in Leavenworth County will have a significant impact on healthcare measurements in the future. Measurements including low birth weight, infant mortality, and teen death rates have reached tolerable levels, yet they are also trending in a negative direction. After speaking with community healthcare service providers, several weaknesses in the provision of services to the community were revealed. With the rate of uninsured adults increasing, it is important to have more than one safety-net clinic available for residents. The lack of safety-net clinics or urgent care centers results in abuse of emergency room services as uninsured individuals seek non-emergent care at the emergency room due to the lack of alternative options.

Another area that falls below acceptable levels is the number of primary care providers per member of the population as indicated in Figure 2.5. 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 from happening and reduce the burden on the county's emergency departments.

Leavenworth County's proximity to Kansas City creates a number of unique weaknesses and strengths. First, the attraction of Kansas City often lures providers, making it difficult for Leavenworth County to recruit providers. Kansas City also boasts a strong healthcare influence creating a misperception of lower quality healthcare in Leavenworth County. This misperception leads to a portion of the population believing that in order to receive quality healthcare they must travel to Kansas City. This takes a number of possible patients outside the community.

Another stressor on the health of Leavenworth County is the lack of specialty providers. While the lack of local specialists could make for a deficiency in specialty care for the community, it is one aspect that the proximity to Kansas City alleviates. With Kansas City offering a number of specialty services Leavenworth County is relieved from the pressures of these hard to recruit positions. In particular a lack of oncology and cardiac catheterization services seems to be creating a deficiency that prompts many of the residents to seek care outside of the community. Although there are some efforts to address the mental health needs of the community, further attention is necessary for inpatient and outpatient mental health services for soldiers on and off post stationed at Fort Leavenworth.

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 Leavenworth 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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## ABOUT THE AUTHORS

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Below is a brief introduction to the authors and Faculty Advisor of this Community Health Needs Assessment conducted on behalf of Cushing Memorial Hospital.

### **Patrick McCraney**

Patrick McCraney has an undergraduate degree in Respiratory Therapy at the University of Kansas Medical Center. After gaining 10 years of clinical practice experience as a Registered Respiratory Therapist, Patrick transitioned into the role of a case manager. He is currently the Director of Case Management at Kindred Hospital in Kansas City. This upcoming May, Patrick will receive a Master's of Health Services Administration from the University of Kansas Medical Center, Department of Health Policy and Management.

### **Jay Mooney**

Jay Mooney has an undergraduate degree in Management and Human Resources from Park University. He served two decades in the Marines, gaining exposure to a multitude of jobs, including human resources. He will receive a Master's in Health Service Administration from the University of Kansas Medical Center, Department of Health Policy and Management this May and begin an Administrative Fellowship with the Eastern Kansas VA Health Care System.

### **Kayla Schuster**

Kayla Schuster has an undergraduate degree in Human Nutrition with a concentration in Public Health Nutrition from Kansas State University and will receive a Master's of Health Services Administration from the University of Kansas Medical Center, Department of Health Policy and Management. Previous work experience includes nutritional consultation and case management

services at the largest AIDS service organization in the state of Nevada. She currently works as a Contract Coordinator in Managed Care Operations at the University of Kansas Hospital in Kansas City.

### **Jacob Wayman**

Jacob Wayman, has an undergraduate degree in Health Services Management from Wichita State University, and is currently a second year graduate student pursuing a Master's of Health Services Administration at the University of Kansas Medical Center, Department of Health Policy and Management. His professional experience encompasses physician relations, patient experience and patient satisfaction, human resources, and patient-centered medical homes.

### **Robert S. Bonney, MBA, MHA, JD, FACHE- Research Assistant Professor**

Mr. Bonney is currently senior vice president for the Saint Luke's Health System in Kansas City, Missouri. He has more than 30 years of senior health care management experience in large hospitals, large health systems and managed care organizations. Bonney holds masters' degrees in both business administration and health services management from the University of Missouri – Columbia and a law degree, summa cum laude, from the Michigan State Law School (formerly Detroit College of Law).

He is a prolific author and has held faculty positions at several universities including the University of Missouri – Columbia and the Harvard School of Public Health.

A sought after speaker, Mr. Bonney has extensive experience teaching health care executives, managers and physicians, having served as a faculty member for organizations such as the American College of Healthcare Executives, the Healthcare Financial Management Association and the Medical Group Management Association. Mr. Bonney is board certified in healthcare management and a Fellow of the American College of Healthcare Executives.

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