# Table of Contents

Introduction 4

Process & Methods 5

Douglas County Profile and Demographics 9

Health Outcomes 11

Factors Contributing to Health 15

Access to health care services 18

Access to safe and affordable housing 21

Alcohol, tobacco and drugs 23

Child abuse and neglect 27

Discrimination 29

Healthy food access and food insecurity 31

Mental health 35

Physical inactivity 37

Poverty and jobs 39

Local public health system capacity 42

Local public health system assessment 42

Organizational assessment 46

APPENDICES (found at [http://ldchealth.org/CommunityHealthPlan](http://ldchealth.org/CommunityHealthPlan))

Local Public Health System Assessment Report

Community Health Issues Survey

Community Health Data Report

Organizational Assessment Report
Figures

Figure 1. Population growth of Lawrence and Douglas County

Figure 2. Population growth: Eudora, Baldwin City, Lecompton

Figure 3. Male life expectancy

Figure 4. Female life expectancy

Figure 5. Douglas County Life Expectancy

Figure 6. Types of unintentional injuries – Douglas County 1995-2014

Figure 7. Types of unintentional injuries 1995-2014

Figure 8. Percent of 6th, 8th, 10th and 12th graders who reported substance use within the past 20 days, 2014

Figure 9. Rates of documented child abuse and neglect for selected counties and Kansas

Figure 10. Percent of students approved for free or reduced priced lunches

Figure 11. USDA food deserts in Douglas County

Figure 12. Percent Poverty over time (2006-2010 and 2011-2015)

Figure 13. Summary of average EPHS performance scores

Figure 14. Percentage of participating organizations currently addressing each issue

Figure 15. Types of activities conducted to address issue

Figure 16. Percentage of clients/consumers affected by issue

Figure 17. Percentage of organizations indicating high levels of interest

Figure 18. Responses indicating level of effort organizations may be able to commit to specific activities in support of a community-wide effort to address the issue

Figure 19. Interest (size) and capacity ratings

Figure 20. Interest (size), capacity, and perception of problem
Tables

Table 1. List of participating organizations (organizational assessment)

Table 2. Leading causes of death by age group

Table 3. Binge drinking disparities (Kansas)

Table 4. Adult cigarette smoking disparities (Kansas)

Table 5. Disparities for adults not eating at least one fruit or vegetable per day (Kansas)

Table 6. Adults who have ever been diagnosed with depression

Table 8. Adults not participating in recommended aerobic and strengthening physical activity (Kansas)
Introduction

The purpose of a community health assessment (CHA) is to learn about the community. A CHA is intended to describe the health of the population, contributing factors to higher health risks or poorer health outcomes among identified populations, and community resources available to promote improved health status in the community. The development of a CHA involves the systematic collection and analysis of data and information to provide a sound basis for decision-making and action. This CHA is for the entire jurisdiction of Douglas County, Kansas. The effort has been led by a multidisciplinary steering committee comprised of representatives from across the county who oversaw development of this report with the intent to:

- educate and mobilize community members on public health issues,
- identify priorities and related policy solutions to improve health and health equity, and
- inform resource decisions that will enhance health of all county residents.

This CHA will serve as the foundation for a community health plan (CHP) developed with input from residents across the county with oversight from the CHA/CHP steering committee. All CHA and CHP documents can be found online at [http://ldchealth.org/CommunityHealthPlan](http://ldchealth.org/CommunityHealthPlan).

This CHA is based on a model of population health that recognizes that many factors can help make our community a healthier place to live, learn, work and play. In recent years, attention has shifted from individual behavior to the role of community factors – social, economic, and environmental conditions – as drivers of health. We now recognize that it is principally these larger, societal factors that are responsible for health inequity, the inherently unjust and avoidable differences seen in the health status within different populations.
Process & Methods

Process

The last Community Health Assessment (CHA) and Community Health Plan (CHP) were published in 2012 and the spring of 2013, respectively. The Roadmap to a Healthier Douglas County 2013-2018, the Douglas County Community Health Plan, was approved by each of the jurisdictions in the county (Douglas County and the cities of Baldwin City, Eudora, Lawrence and Lecompton) in 2013. There were five priorities selected in the 2013 plan including access to healthy food, access to health services, mental health, physical activity, and poverty and jobs. While substantial progress has been made in each of these areas, it is clear that substantial work remains. As such, these issues were all integrated into the various assessment methods utilized in the development of this report (although they were not given any specific priority over other issues).

In the spring of 2016 the Director of the Lawrence-Douglas County Health Department met with elected officials in all of the local jurisdictions to initiate a new assessment and planning process. Douglas County and each of the incorporated municipalities selected two representatives to a new steering committee. These representatives first met in June of 2016. They reviewed progress on the goals of the 2013 plan, discussed methods for the current cycle, and discussed how to invite other community members to participate on the steering committee in order to achieve broad-based, multi-sector oversight of the process. A staff team with participation from the health department, Lawrence Memorial Hospital and planners from the City of Lawrence and Douglas County was also assembled to manage the ongoing work necessary to complete this report.

Methods

The development of the assessment fell into three distinct phases. The first phase consisted of extensive data collection of both qualitative and quantitative data through three methods:

1) Local Public Health System Assessment (LPHSA). The assessment was the result of a one-day workshop with fifty-seven (57) local leaders who evaluated the local public health system using the National Public Health Performance Standards (NPHPS) instrument to examine the performance of our local public health system relative to ideal performance in each of the ten essential public health services. Analysis of the data collected during the workshop was conducted by the KU Center for Community Health and Development using software available through the Centers for Disease Control and Prevention (CDC).

2) Community Health Issues Survey. The survey was developed by the CHA/CHP Staff Team with 34 items reflecting community health issues and demographic questions. The survey was designed to be a self-administered instrument. English and Spanish versions were made available online and in print. A link to the online version was placed on the health department website and widely disseminated through social media and other means. Paper surveys were made available at more than 15 sites. In addition, staff attended community
events (e.g. recreation events, community festivals) or stationed themselves at high-traffic community sites (e.g. local libraries, recreation centers, food pantries) to solicit survey completion. A total of 2,033 Douglas County residents completed the survey. Surveys were analyzed using SPSS statistical software. Demographic questions were analyzed using descriptive statistics. Formulas were used to calculate strength and problem scores. Items with scores higher than one deviation from the mean were included in a final listing of relative strengths and problems.

3) Health Data Report. Selected statistics (secondary data) from national, state, county and local sources were compiled and analyzed by analysts at the health department. Data were collected that reflect the overall health of Douglas County residents, as well as the factors and conditions that are known to impact population health status. Some of the primary sources of data were the Behavioral Risk Factor Surveillance System (BRFSS), the Institute for Health Metrics and Evaluation, County Health Rankings, the Kansas Department of Health and Environment, the U.S. Census Bureau, Kansas Health Matters, Kansas Communities that Care, Kansas Information for Communities, and the Kansas Bureau of Investigation. Where possible, Douglas County data were compared over time and against appropriate state and national benchmarks including state data, national Healthy People 2020 goals, and Wisconsin Population Health Institute’s County Health Rankings.

The “phase one” data were presented to the CHA/CHP Steering Committee in January 2017. From this data, issues were identified that were “convergent” (multiple sources of data suggested that the issue was an issue of interest or concern) or that, while perhaps being highlighted by only one source, provided compelling evidence that the issue was important. A total of 15 issues were identified initially, and the Steering Committee then narrowed these to 9 issues that were further studied in phase two of the CHA. The issues selected were (not presented in any specific rank order of importance):

- Access to health care services
- Access to safe and affordable housing
- Alcohol, tobacco and drugs
- Child abuse and neglect
- Discrimination
- Healthy food access and food insecurity
- Mental health
- Physical activity
- Poverty & good-paying jobs

Three methodologies were employed in the second phase of analysis, including: (1) additional analysis of secondary data, (2) an organizational assessment and (3) a PhotoVoice project conducted by young artists (age 18-24) employed by Van Go Arts.
The organizational assessment focused on the nine issues chosen for additional consideration, and was undertaken in order to characterize the current context in which the issues are being addressed among key organizations in the community, as well as to describe the interest of these same organizations to address one or more of these issues through a community-wide effort. The assessment utilized a survey adapted from a tool used in El Paso County, Texas. The survey was administered online and sent to 90 community organizations. In some cases, organizations were large and complex enough that the survey was sent to (and in some cases completed by) different departments. In total, 45 organizations or departments (50% of the original sample) completed the survey. Descriptive statistics were prepared to describe the results of the survey. Table 1 displays the organizations that completed the survey.

<table>
<thead>
<tr>
<th>Table 1. List of participating organizations (Organizational Assessment)</th>
</tr>
</thead>
</table>
| - Baldwin City Chamber of Commerce  
- Ballard Community Services, Inc.  
- Bert Nash Center  
- Catholic Charities  
- City of Lawrence  
- DCCCA, Inc.  
- Douglas County Dental Clinic  
- Douglas County Visiting Nurses Association  
- Douglas County, Kansas  
- Eckan  
- Eudora Chamber of Commerce  
- Eudora Parks and Recreation Department  
- Family Promise of Lawrence  
- First Baptist Church  
- Harvesters--The Community Food Network  
- Haskell Indian Health Center  
- Haskell Indian Nations University  
- Headquarters  
- Health Care Access  
- Heartland Community Health Center  
- Independence, Inc.  
- K-State Research and Extension - Douglas County  
- KU Child and Family Services Clinic  
- Lawrence Branch NAACP  
- Lawrence Community Shelter  
- Lawrence Douglas County Housing Authority  
- Lawrence Douglas County Metropolitan Planning Organization  
- Lawrence Farmers' Market  
- Lawrence Interdenominational Nutrition Kitchen  
- Lawrence Memorial Hospital  
- Senior Resource Center for Douglas County  
- ST Luke AME Church  
- StopGap, Inc  
- Success By 6 Coalition of Douglas County  
- Sunrise Project  
- Tenants to Homeowners, Inc.  
- The Chamber of Lawrence, Kansas  
- The KU Center for Sexuality and Gender Diversity  
- The Sexual Trauma & Abuse Care Center  
- Trinity In-Home Care  
- USD 497 Lawrence Public Schools  
- Van Go, Inc  
- Willow Domestic Violence Center |

Ten Van Go artists participated in the PhotoVoice project. Staff from Lawrence-Douglas County Health Department and the KU Center for Community Health and Development met with these artists and described the methodology of the community health assessment. The artists were asked to use photography to highlight conditions that influence health in Douglas County. After completing the photography assignment, participants identified themes and captions for the more than 130 photos.
taken. Participants curated the photos and selected photos that reflected their understanding the identified health issues. Individual artists described the significance of their photos in their own words.

Full copies of all of the reports, which are considered formal Appendices of this assessment, are available online at http://ldchealth.org/CommunityHealthPlan.
Douglas County Profile and Demographics

Douglas County lies in northeastern Kansas, just west of Johnson County and east of Shawnee County, where Topeka, the state capital is located. Douglas County is the 5th smallest county in Kansas by land area, but the 5th most populous county. Douglas County is home to four incorporated communities: Lawrence (the county seat), Baldwin City, Eudora and Lecompton. There are also 15 unincorporated communities. The county is divided into nine townships including Clinton, Eudora (includes incorporated Eudora), Grant, Kanwaka, Lecompton (includes incorporated Lecompton), Marion, Palmyra (includes incorporated Baldwin City), Wakarusa, and Willow Springs.

In 2016, Douglas County had an estimated 119,440 people, an increase of almost 9,000 since the 2010 census. The county is about 7 times more densely populated than Kansas as a whole. Population growth is Douglas County has been increasing over time since 1940, but the rate of increase has decreased since 2000. Figure 1 shows that the growth of Lawrence roughly mirrors the growth of Douglas County over time. Figure 2 shows that the pattern of growth for Baldwin City, Eudora and Lecompton is slightly different. Compared to the other municipalities, Lecompton has substantially fewer people and there has been limited growth. Prior to 1980, Baldwin City had more people than Eudora, but since this time, Eudora’s growth rate has been dramatic, increasing by more than 40% each decade from 1990 to 2010. Outside of Lawrence, the largest percentage of the County’s population is actually found in unincorporated Douglas County (an estimated 7,915 in 2016).

Figure 1. Population Growth of Lawrence and Douglas County
Source: The University of Kansas Institute for Policy & Social Research, U.S. Census, City of Lawrence

![Figure 1. Population Growth of Lawrence and Douglas County](image-url)
Douglas County is home to four institutions of higher learning including Baker University, Haskell Indian Nations University, the University of Kansas, and the Dwayne Peaslee Technical Training Center (which offers coursework through three Kansas-based community colleges). According to the Census, almost ¼ (23.4%) of the population is enrolled in higher education. Not surprisingly then, Douglas County has a high percentage of the population 25 years old and older with a college or graduate/professional degree (49.1%). The median age of 28.8 and median household income of $50,939 (in 2015 inflation-adjusted dollars) are lower for Douglas County than for Kansas and the U.S. and may be partially due to the number of students in the County. While Douglas County is a relatively young community, comparing 2006-2010 and 2011-2015 ACS estimates the population over 65 years old has increased slightly from 8.8% to 10.1% of the population.

According to the Census, 84% of residents are White, 4% Black, 4.4% Asian, 2.3% American Indian/Alaskan Native, 0.6% some other race, and 4.4% are two or more races. Of those age 5 and over, 10.3% spoke a language other than English at home, and 6.9% are foreign born.
Health Outcomes

An overarching goal in conducting a CHA is to understand the health of the community. On the whole, key indicators collected for this CHA suggests that the health of residents of Douglas County compares favorably with other communities in Kansas and the United States. The number of Douglas County adults reporting fair or poor health status is lower in Douglas County (10.2%) than the state (15.7%). Other positive indicators for Douglas County include (these differences are all statistically significant):

**Prevalence of health conditions:**
- Adults with high blood cholesterol (26.3% Douglas County; 38.2% Kansas)
- Adults who report being diagnosed with hypertension (21.1% Douglas County; 31.6% Kansas)
- Adults who have had a heart attack (2.5% Douglas County; 4.0% for Kansas)
- Adults who have had a stroke (1.9% Douglas County; 3.0% Kansas)
- Adults who have chronic obstructive pulmonary disease, emphysema or chronic bronchitis (3.4% Douglas County; 6.2% Kansas)
- Adults diagnosed with diabetes (5.1% Douglas County; 9.7% Kansas)
- Adults considered obese (27.5% Douglas County; 34.2% Kansas)

**Mortality (death):**
- Age adjusted mortality rates/100,000 population for:
  - Heart disease (Douglas County - 138.8; Kansas - 156.4)
  - Stroke (Douglas County - 26.5; Kansas 38.2)
- Infant mortality rates (4.0 deaths per 1,000 live births Douglas; 6.2/1,000 Kansas)

An expected result of positive health outcomes is higher life expectancy, which is borne out by the data. The overall estimated life expectancy for Douglas County for 2010-2015 is 80.3 years. Compared with the U.S. and Kansas, Douglas County has had consistently higher male and female life expectancies over time (Figures 3 & 4).
While Douglas County has good health outcomes on many measures, the key underlying factors that drive health appear to be fundamentally the same as those experienced elsewhere in state and country as a whole. As is true nationwide, the most frequent causes of death in Douglas County are chronic diseases and injury, with the leading causes of death being cancer (leading cause), heart disease (2nd leading), chronic lower respiratory disease (3rd) and unintentional injury (4th), although other factors are important depending upon age group (see Table 2). Particularly noteworthy is the impact of suicide among the age groups 15-24 years (the second leading cause of death in that age group, contributing to 31% of deaths), and 25-44 years (also the second leading cause in that age group, contributing to 15% of deaths).
<table>
<thead>
<tr>
<th>Age Group</th>
<th>Total Deaths</th>
<th>Top Causes</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>3934</td>
<td>Cancer</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Heart Disease</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chronic lower respiratory diseases</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unintentional Injuries</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stroke (Cerebrovascular diseases)</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other/Various</td>
<td>41%</td>
</tr>
<tr>
<td>0-4</td>
<td>29</td>
<td>Conditions of perinatal period (early infancy)</td>
<td>41%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Birth defects</td>
<td>38%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Heart disease</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unintentional Injury</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other/Various</td>
<td>7%</td>
</tr>
<tr>
<td>5-14</td>
<td>8</td>
<td>Unintentional Injury</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cancer</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other/Various</td>
<td>25%</td>
</tr>
<tr>
<td>15-24</td>
<td>42</td>
<td>Unintentional Injuries</td>
<td>45%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Suicide</td>
<td>31%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Heart disease</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Homicide</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other/various</td>
<td>14%</td>
</tr>
<tr>
<td>25-44</td>
<td>199</td>
<td>Unintentional Injuries</td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Suicide</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cancer</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Heart disease</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chronic liver &amp; cirrhosis</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other/various</td>
<td>30%</td>
</tr>
<tr>
<td>45-64</td>
<td>714</td>
<td>Cancer</td>
<td>34%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Heart disease</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unintentional Injuries</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Suicide</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diabetes</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chronic liver disease &amp; cirrhosis</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other/various</td>
<td>29%</td>
</tr>
<tr>
<td>65-84</td>
<td>1442</td>
<td>Cancer</td>
<td>29%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Heart disease</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chronic lower respiratory diseases</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stroke (cerebrovascular disease)</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alzheimer’s disease</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unintentional Injuries</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other/various</td>
<td>32%</td>
</tr>
<tr>
<td>85+</td>
<td>1494</td>
<td>Heart disease</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cancer</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alzheimer’s disease</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stroke (Cerebrovascular disease)</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chronic lower respiratory diseases</td>
<td>6%</td>
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<tr>
<td></td>
<td></td>
<td>Unintentional Injuries</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other/various</td>
<td>41%</td>
</tr>
</tbody>
</table>
As is also true across the U.S., we are increasingly aware of the presence of health disparities at a local level. Using six years of death data from vital statistics, it was possible to uncover disparities in life expectancy at the census tract level. Figure 5 shows that the areas where the life expectancy does not differ from the county-wide average of 80.3 (the large yellow area), as well as those areas that are higher and lower than this average. The rural southwest portion of Douglas County (marked in green) has an average life expectancy higher than the mean, while several census tracts in East and North Lawrence have a lower mean life expectancy.
Factors Contributing to Health

As discussed earlier, the Douglas County Community Health Assessment is based on the recognition that there are many factors that contribute to health, and that there are many ways we can influence the overall health of county residents. In addition to demography (things like one’s sex, age, race, income, etc.), we know that health is greatly influenced by peoples’ behavior, the health care they utilize, the quality of the physical environment around them, and other aspects of the community where they live.

Behavioral Factors

It is well documented that individuals can achieve improved health status by participating in health seeking behaviors (healthy eating, physical activity, seat belt use, utilizing preventive health care services, for example) and avoiding risky behaviors such as excess use of alcohol, use tobacco and drugs, and some sexual behaviors.

Seat belt use in Douglas County is higher than Kansas, and did not emerge as an issue during this assessment. Use of alcohol, tobacco and drugs was cited as a concern by Health Issues Survey respondents in all areas of Douglas County outside of Lawrence, and was selected as one of nine issues for in-depth review by the CHA/CHP Steering Committee, so this subject will be covered in a separate section later in this document. Up-to-date immunizations were seen as a strength in the Issues Survey, although available data suggest that both children and adults are not fully immunized. Immunizations, physical activity and healthy eating will all be addressed later. Concerns regarding safe sexual practices emerged based on reported rates of chlamydia, a sexually transmitted infection. Chlamydia has shown an upward trend in Douglas County from 490 cases/100,000 population in 2012 to 560.1 cases/100,000 in 2015, and is more prevalent in Douglas County than the state as a whole (396.2 cases/100,000).

Adverse childhood experiences (ACEs) are related to negative health and well-being outcomes across the life course. The prevalence of selected ACEs for Douglas County adults include:

- Nearly 15% (14.8%) of adults were slapped, kicked, punched or beat up once or more than once during their childhood.
- 4.6% of adults were forced as a child to have sex with an adult or by someone at least 5 years older.
- As a child, nearly one in ten (8.8%) adults were touched sexually by an adult or someone more than 5 years older.
- As a child, nearly one-quarter (24.1%) of adults lived with someone who was depressed, mentally ill, or suicidal.
- More than 10 percent (12.1%) adults lived with someone who used illegal street drugs or who abused prescription medications.
- One in five (20.6%) of adults lived with someone who was a problem drinker or alcoholic during their childhood.
Clinical Factors

When people have access to and utilize preventive services such as prenatal care, dental services, immunizations, and primary care they tend to have better health outcomes. Access to preventive services (and health care more broadly) can be influenced by many factors including the number of health professionals in an area, their location, and affordability (which is greatly affected by whether or not one has health insurance). As mentioned earlier, respondents to the Health Issues Survey felt that a strength of the community was that children and adults were up to date on their immunizations. It is true that on some measures of preventive health Douglas County fares well, but in the section on access to health care that follows, some data will show areas where there is substantial room for improvement.

Another way of considering access is to assess the number of providers relative to the size of the population. The number of providers in Douglas County based on population size are relatively on par with state and national norms. The numbers of physicians, dentists, and psychiatrists per capita are not dramatically different than state or national benchmarks, although it is recognized that there are methodological shortcomings with these crude tools as a measure of health care access.

An area consistently cited as a problem by Douglas County residents is the availability of health insurance for all. This was cited as a concern in the Health Issues Survey regardless of where respondents lived, their income, or their race/ethnicity. Interestingly, however, Douglas County rates of insurance compare favorably to state and national norms. This will be examined in greater detail later in this report under Access to Care.

Environmental Factors

There is local recognition of the important role both the natural and man-made environment play in health, and growing recognition that changes in the environment (like climate change) will likely pose greater health risks in the future. Currently the World Health Organization estimates that 24% of global disease burden can be attributed to environmental factors (http://www.who.int/quantifying_ehimpacts/publications/preventingdisease.pdf). Douglas County residents, however, currently view the local environment as health-promoting. Respondents to the health issue survey felt like a strength of our community is that local air, water and soil are free from pollutants. They also see positives in the built environment. Two specific issues related to the built environment viewed as strengths were:

- “A wide variety of recreational opportunities are available and affordable for people of all ages and levels of physical mobility.”
- “Our community is walkable/ bikeable/ wheelable.”

Ensuring a healthy built environment is important to local jurisdictions, and there has been considerable work in the policy and programmatic domains in recent years to promote community progress in this area. While it was portrayed as an overall strength in the Health Issues Survey, data from the 2016 Citizens Survey (Lawrence only) found that only 26% of community residents felt safe navigating community intersections by bicycle. These findings suggest that the built environment is a complex issue, and that overall satisfaction in the Health Issues Survey may not fully demonstrate residents’ perception of all aspects of the local built environment.

The same may be true for other environmental factors as well. For example, while air, water and soil are generally viewed favorably in the Health Issues Survey, radon levels are a potential concern in
Douglas County. Radon is a radioactive, colorless, odorless, tasteless gas. It is naturally occurring and easily inhaled. The Environmental Protection Agency estimates that radon is the leading cause of lung cancer among non-smokers in the U.S. ([https://www.epa.gov/radon/health-risk-radon](https://www.epa.gov/radon/health-risk-radon)). In Douglas County, homes in every zip code have had levels of radon above what the State of Kansas considers an acceptable level (4.0 pCi/L). In fact, the average level of radon in Douglas County is 4.6 pCi/L.

Community Factors

As noted earlier in this report, in recent years increasing attention has been given to the role of community factors – those social and economic and conditions where people work, live and age – as important drivers of health. According to the World Health Organization, it is principally these larger societal, community factors that are responsible for health inequities – inherently unjust and avoidable differences in health status within different populations. Poor education, unemployment, poverty, adverse living conditions, and discrimination are recognized as key “social determinants of health.” Access to quality education and educational attainment are areas generally perceived as strengths in Douglas County. Respondents to the Health Issues Survey rated opportunities to receive high quality education or skills training as a strength and available statistics are positive:

- The percentage of people ≥25 years with a high school education or better has hovered around 95% in recent years, putting Douglas County among the highest performers (top 10 percentile) nationally;
- Almost half of Douglas County residents ≥25 years have a Bachelor’s degree or higher (compared to Kansas average of 31% or U.S. average of about 30%).

Data on other socioeconomic conditions in Douglas County, including poverty, jobs, housing and discrimination, will be addressed in more detail later in this report.

While we recognize that factors such as clinical, behavioral, environmental, and community interact in complex ways to influence the health of the population, there were nine specific issues that were of particular interest to the CHA/CHP Steering Committee. These issues were chosen given the frequency with they appeared in the results of the various tools used in this assessment, as well as prior knowledge of their importance to population health. The following sections provide a summary of data collected during this assessment for each of these nine issues:

- Access to health services (with emphasis on health insurance, utilization of preventive care services and clinical linkages)
- Access to affordable housing
- Alcohol, tobacco and drugs
- Child abuse & neglect
- Discrimination
- Healthy food access and food insecurity
- Mental health
- Physical activity
- Poverty & good-paying jobs
Access to Health Care Services

What is the problem and what contributes to the issue?
Access to health care services to assure physical, mental, and oral health care are important elements of personal wellness and community health. Access to health care is a broad concept that is related to availability, affordability and accessibility of services. Of particular concern is lack of access to basic care and primary care services (barriers to which are complex) and the lack of supports for navigating a complex health care system so that people utilize the most appropriate resources to help them achieve and maintain optimal health. There are both concerns, and cited strengths, as it relates to access to care in Douglas County.

An overarching concern identified in the Health Issues Survey is health insurance. Respondents are concerned health insurance is not available for all in our community. However, overall in Douglas County the percentage of adults under age 65 without health insurance is decreasing and is lower (9.8% in 2015) than the 10.5% in Kansas as a whole (SAHIE). There were marked disparities in rates of insurance coverage, which will be discussed later.

Using the ACS PUMS dataset from 2014-2015 to better understand the dynamics of being uninsured we know that:

- Approximately 8,655 (85%) of the uninsured are adults 19-64 years old and 1,471 (15%) are children 0-18 years old. Very few seniors (65+ years old) are completely uninsured because they are eligible for Medicare.
- Nearly half (48.5%, or 713) of the uninsured children in Douglas County are eligible for Medicaid or CHIP and an additional 285 children lived in families eligible to purchase a Marketplace plan with subsidies.
- Approximately 3,327 (38.4%) qualify for subsidies on the marketplace. If Kansas had expanded Medicaid, approximately 3,594 (41.5%) of nonelderly uninsured adults age 19-64 in Douglas County would have been eligible for Medicaid.
- 41% of uninsured adults fall in the “Medicaid gap”
- 15% of uninsured are children. Almost half of these children are eligible for Medicaid/CHIP
- 10.7% of adults report not being able to see a doctor because of cost
- One out of three children are not fully immunized at 24 months.
- Adults are not fully immunized:
  - Two out of three adults >65 years are not immunized against pneumonia.
  - More than half of adults do not receive flu shots.

Key Facts:
- Approximately 10,000 (9.8%) residents are uninsured.
- 41% of uninsured adults fall in the “Medicaid gap”
- 15% of uninsured are children. Almost half of these children are eligible for Medicaid/CHIP
- 10.7% of adults report not being able to see a doctor because of cost
- One out of three children are not fully immunized at 24 months.
- Adults are not fully immunized:
  - Two out of three adults >65 years are not immunized against pneumonia.
  - More than half of adults do not receive flu shots.
In regard to utilization of preventive services, data are mixed. Data for utilization of prenatal care is a strength. More than 4 of 5 births in Douglas County (83.0%) are to mothers who received prenatal care in the first trimester. However, immunization rates in Douglas County for both young and old are not high compared to Kansas as a whole (somewhat at odds with the Health Issues Survey results that suggest up-to-date immunizations are a strength):

- Percent of infants fully immunized at 24 months. Less than 1 in 3 (62.9%) is fully immunized at this age, less than the state average of 70.6%;
- Percent of adults with a flu shot in the last 12 months. The percentage in Douglas County is 42.6% (the same as the state average);
- Percent of eligible adults having ever had a pneumonia shot. The percentage in Douglas County is 34.4%, close (but below) the state average of 35.3%.

Douglas County residents are also less likely to have a personal doctor or health care provider. Nearly 1 in 4 (24.7%) of Douglas County adults report not having a health care provider compared to 20.1% of residents in Kansas.

**Who is most affected?**

In Douglas County, there are documented disparities in health insurance rates and not having a personal doctor/health care provider based on age, education, and annual household income. In other words, adults are less likely to have health insurance or a health care provider if:

- They are younger (18-44 years old versus 45-64 years old)
- They have less education (high school graduates or less versus some college or college graduate)
- They have less income (household income less than $35,000 per year versus $35,000 or higher per year)

In addition, males, people without a disability and people without health insurance are less likely to have a personal doctor or health care provider.
Disparities for getting a flu shot include:

- Age (younger adults less likely than older adults)
- Income (Less than $35,000 less likely than ≥ $35,000)
- Tobacco use (current smoker less likely than non-smoker)

Adults who are less likely to have a personal doctor or health care professional include:

- Males
- 18-44 years old compared to 45-64 years old
- Lower income (<$35,000 a year) compared to $35,000 or higher a year
- Living without a disability
- Uninsured
Access to Safe and Affordable Housing

What is the problem and what contributes to the issue?
Housing affects many aspects of healthy living and well-being. Safe, affordable housing can:

- free up family resources for expenditures on things like education, healthy food, and quality health care;
- promote stability that reduces stress and associated negative health outcomes;
- limit exposure to environmental risks associated with substandard housing;
- potentially enable older adults and those with mobility limitations to remain in their homes.

However, when residents were asked about housing in the Community Health Issues Survey, the availability of safe and affordable housing was highlighted as a problem.

Housing quality is sometimes measured based on presence of complete kitchen and plumbing facilities. Most homes in Douglas County (whether renter or owner occupied) have these facilities. Overcrowding does not appear, in general, to be a major concern either. Using a standard Census measure of crowding – the percent of occupied housing units with more than 1.5 occupants per room – Douglas County is at 0.7% compared to 0.6 percent for Kansas and 1.0% for the U.S. One issue raised earlier that is another specific concern in relation to housing is radon gas, the second leading cause of lung cancer in the U.S. among nonsmokers. The average concentration of radon gas in Douglas County homes is higher than the rate generally considered safe by public health experts.

Affordability is a significant concern. In Douglas County families tend to spend more on housing than is true across the state. Over half (53.7%) of Douglas County renters spend 30% or more of their household income on rent. A Douglas County resident must earn $16.25/hour or $33,800 a year to afford a 2-bedroom apartment. Over 1 in 4 homeowners in Douglas County spend ≥30% of household income on housing. 44% of homeless Douglas County residents report having severe mental illness and 41% struggle with alcohol or drug abuse. Domestic abuse is a contributing factor for 21% of homeless residents.

Key Facts:
- 20,923 households in Douglas County (48% of households) are renters
- Over half of all renters in Douglas County (53.7%) spend ≥30% of household income on rent.
- A Douglas County resident must earn $16.25/hour or $33,800 a year to afford a 2-bedroom apartment.
- Over 1 in 4 homeowners in Douglas County spend ≥30% of household income on housing.
- 44% of homeless Douglas County residents report having severe mental illness and 41% struggle with alcohol or drug abuse.
- Domestic abuse is a contributing factor for 21% of homeless residents.
income on housing (compared to 44.8% for Kansas), and more than 1 in 4 (26.0%) of homeowners spend 30% or more of their income on housing. The relatively high burden of housing costs is of particularly concern in Douglas County, where home ownership rates are low (47.8%) compared to the state (60.2%).

Who is most affected?

According to the U.S. Department of Housing and Urban Development (HUD), a family with one full-time worker earning minimum wage cannot afford the local fair-market rent for a two-bedroom apartment anywhere in the United States. In Douglas County, it is estimated that a resident must earn $16.25/hour or $33,800 a year to afford a 2-bedroom apartment.

One of the most vulnerable groups are people who are homeless. These individuals do not have a permanent dwelling such as a house or an apartment and many times are unable to acquire and maintain a safe or adequate housing. According to the City of Lawrence, there were 206 households with 296 persons reported as being literally homeless (living on the streets, in cars, in emergency shelters, or transitional housing) in 2015. Of these, 216 (73%) were adults and 80 (27%) were children. The homeless are almost equally distributed among males and females. Fourteen individuals were identified as “homeless youth,” which means an individual under the age of 25 and living alone (unaccompanied) or as a single parent. Additionally, 14 households were identified as having a homeless veteran.

Poor health is both a cause and a result of homelessness. When the 216 homeless adults in Douglas County were asked about disabling conditions, 94 reported they had a severe mental illness, 88 indicated that they struggled with alcohol or drug abuse, and 46 said they were homeless as a result of domestic violence.

It should be noted that the City of Lawrence characterizes the homeless data as a “point-in-time snapshot” based on a count conducted locally every two years as required by the United States Department of Housing and Urban Development (HUD).
Alcohol, Tobacco and Drugs

What is the problem and what contributes to the issue?

The misuse of alcohol, tobacco and other drugs is costly to our society, contributing to increased unintentional injuries, crime, lost productivity, and higher health care costs. The use of alcohol, tobacco or other drugs by youth was cited as a concern in the Health Issues Survey in all areas of Douglas County except Lawrence. It was cited as a significant problem predominantly among higher income respondents ($75,000 and higher household income). It was also cited as a problem by American Indian/Alaska Natives.

While community concerns centered on youth, data show that the percentage of adults who are binge drinkers is considerably higher in Douglas County (24.4%) than in Kansas (15.6%), and the percentage of Douglas County adults considered heavy drinkers (7.7%) is also higher than Kansas (5.1%). Another troubling trend is the increasing rates of unintentional injuries in Douglas County, including accidental poisonings and exposure to noxious substances, which were once rare occurrences in Douglas County but are becoming more common. During 2010-2014, approximately half of the poisoning deaths in Douglas County were due to opioid overdoses. In fact, drug overdoses have surpassed motor vehicle crashes and falls as the leading cause of death due to unintentional injury (Figure 7).

Key Facts:
- Alcohol is an issue in Douglas County:
  - Almost 1 in 4 adults are binge drinkers (KS 15.6%)
  - 7.7% are heavy drinkers (KS 5.1%)
- Drug overdoses have surpassed motor vehicle crashes and falls as the leading cause of unintentional injury death
- There are significant disparities in tobacco use:
  - 3x higher among those with frequent mental distress
  - Higher use among those with less education, less income, and the uninsured

“It could have been anyone who dropped it, and we walk past it everyday without saying anything.”
Photo credit: Alex Peppers
While tobacco use is lower in Douglas County than the state as a whole, and has declined in recent years, 14.6% of Douglas County residents smoke. This equates to over 16,000 individuals and represents a higher percentage than the U.S. Healthy People 2020 target of 12%.

Among youth, substances used most frequently in Douglas County (based on the Kansas Communities that Care survey examining substance abuse in the last 30 days) are alcohol, marijuana (one of the only substances where youth use is higher in Douglas County than the state), prescription drugs, and cigarettes (Figure 8). Youth use of traditional tobacco products like cigarettes have been dropping in Douglas County as well as across the state and nation. One emerging public health concern is electronic cigarette use among youth. Although there are no comparable reliable youth data (middle and high school students) in Douglas County from the Communities that Care survey, state-level youth e-cigarette use in the last 30 days is higher (5.4%) than cigarette use (3.5%).
Who is most affected?

There are consistent disparities in use of alcohol, tobacco and drugs across the nation that are reflected in Kansas data, which are presented here. Due to relatively small sample sizes of the BRFSS sample in Douglas County, there are fewer statistical differences found for local subpopulations. However, where there are differences in Douglas County, disparities are noted.

<table>
<thead>
<tr>
<th>Table 3. Binge drinking disparities-State of Kansas 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Significantly higher rates of binge drinking among:</strong></td>
</tr>
<tr>
<td>Males</td>
</tr>
<tr>
<td>Younger adults (18-44)**</td>
</tr>
<tr>
<td>Lower Annual income (less than $50,000)</td>
</tr>
<tr>
<td>Uninsured</td>
</tr>
<tr>
<td>Non-Hispanic whites*</td>
</tr>
<tr>
<td>Hispanic*</td>
</tr>
</tbody>
</table>

* Age-adjusted to U.S. 2000 standard population
** Douglas County Disparity
Table 4. Current cigarette smoking disparities-State of Kansas 2015

<table>
<thead>
<tr>
<th>Significantly higher rates of cigarette smoking among:</th>
<th>Compared to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males **</td>
<td>Females</td>
</tr>
<tr>
<td>Adults aged 64 years and younger</td>
<td>Adults 65 years old and older</td>
</tr>
<tr>
<td>African-Americans*</td>
<td>Whites</td>
</tr>
<tr>
<td>African-Americans &amp; Whites (non-Hispanics)*</td>
<td>Hispanics</td>
</tr>
<tr>
<td>Lower education</td>
<td>Higher education</td>
</tr>
<tr>
<td>Lower annual household income</td>
<td>Higher annual income ($50,000 or more)</td>
</tr>
<tr>
<td>Disability</td>
<td>Living without a disability</td>
</tr>
<tr>
<td>No Insurance</td>
<td>Insured</td>
</tr>
</tbody>
</table>

* Age-adjusted to U.S. 2000 standard population  
** Douglas County Disparity

The disparity attributed to mental distress is particularly notable in Douglas County. Among those who report suffering frequent mental distress, cigarette smoking is three times as high as among those without distress.
Child Abuse and Neglect

What is the problem and what are conditions that contribute to the issue?

Childhood trauma can have significant short and long-term impacts. Abuse and neglect – which can include physical abuse, emotional maltreatment, sexual abuse, deprivation of necessities, and medical neglect – puts children at greater risk for negative outcomes, although many children are resilient to maltreatment. In addition to this personal risk, children who experience abuse or neglect are more likely later in life, as adults, to abuse their children, creating an intergenerational cycle of abuse.

The Community Health Issues Survey revealed that Douglas County residents view abuse and neglect of children and youth as a local problem.

From 2011 to 2015, Douglas County investigated on average 777 children to determine whether or not they were victims of child maltreatment (3.78% of all Douglas County children). Of these investigations, on average, there are 57 distinct children per year who were determined to have suffered at least one type of maltreatment (e.g., physical abuse, psychological, sexual, neglect, etc.).

Rates of abuse and neglect have not followed a consistent trendline in Douglas County. Rates of child maltreatment in the county are similar to those for the state as a whole, and fall both above and below rates of larger metropolitan counties in Kansas (see Figure 9). It should be noted that, because Kansas requires a very high burden of proof to substantiate an allegation of child abuse and neglect (Child Maltreatment 2012 report), rates of child abuse and neglect have typically been lower in Kansas than in other states. The definition used in Kansas changed in 2016 (data not yet available), which is expected to result in higher reported rates. However, even under the older definition in Kansas, rates of child maltreatment have been higher than the Healthy People 2020 goal of 2.3 per 1,000.

Key Facts:
- There were 57 children identified as maltreatment victims in 2015. Types of maltreatment included physical (17), neglect (14), sexual (10), emotional (4), and other (28).
- Rates of documented child abuse and neglect were near the state average (almost 3 per 1,000 children) in 2015. The rate in Douglas County is between that of other metropolitan counties.
- Nationally, rates of maltreatment are highest among children 0-3 years of age, and fall with each age category. A child 0-3 years is 3x more likely to be victim of maltreatment as a child 16-17 years of age.
Who is most affected?

According to National statistics, the youngest children (younger than one) are the most vulnerable for child abuse. For states that report on alcohol abuse as a caretaker risk factor, 10.% of children who were substantiated victims of abuse or neglect and 5.5% of children who were investigated but did not fit criteria for victims of abuse or neglect (nonvictims) were reported with this caregiver risk factor. For reporting states, 25.4% of victims and 8.1% of nonvictims were reported with drug abuse as a caregiver risk factor. Domestic violence is another caregiver risk factor as this was reported for 25% of victims and 8.2% of nonvictims.

“Named child’s object left at Hobbs Park. The focus of this photo is the hidden narrative of how a named child’s object can be discarded.”

Photo credit: Donovan
Discrimination

What is the problem and what are conditions that contribute to the issue?

It is increasingly being recognized that there are individuals and groups of people in American society who have been the victim of discriminatory treatment through unequal selection and bias, both intentional and unintentional, by institutions and society as a whole. Research is also beginning to demonstrate that people discriminated against may suffer poor health outcomes, such as higher rates of certain chronic diseases, due to many factors such as barriers to care and the psychosocial stressors associated with the burden of discrimination.

When, as part of the Health Issues Survey, Douglas County residents were asked if “Our community values diversity, equity, and inclusion,” only white respondents to the survey saw this as a strength. African American respondents felt that people being treated fairly and without discrimination was a problem in Douglas County. In Lawrence “We value diversity, equity and inclusion,” was cited as a strength, but it was not a strength noted elsewhere in the county.

Unfortunately very little local data is available that directly measures discrimination. However, there is a significant body of research demonstrating that lifetime discrimination is linked to higher rates of chronic disease. Experts believe that psychosocial stressors associated with discrimination potentially have an effect on a number of human biological systems through multiple hormonal pathways.

Consistent trends in disparities among population groups tied to racial identity, education levels and income are identified in this report. While there is no way to make a direct tie to racism, the consistent patterns

Key Facts:

- Only White respondents felt that “our community values diversity, equity and inclusion” was a community strength
- African-Americans were concerned about people not being treated fairly and without discrimination
- Low-income respondents were concerned with the fairness of the criminal justice system
- Discrimination is a chronic stressor that can increase risk for ill health

“A poster on a wall advocates protest. A difference in society is made when common people band together. Social unrest and the silencing of protestors led to this poster. Protest should be encouraged and nurtured to reach the goal this poster aims for.”

Photo credit: Kyana
“Discrimination is at the heart of the BLM movement. While the accompanying “no=no” knife may be about consent, the imagery draws a connection to anti-violence. The act of ‘sticker vandalism’ and this imagery culminate in a silent demonstration of anti-discrimination in a non-violent way; and in direct opposition to media representation of the BLM movement.”

Photo credit: Anonymous
Healthy Food Access & Food Insecurity

What is the problem and what contributes to the issue?

Access to healthy food is a community factor that may influence health for some Douglas County residents. On the whole Douglas County residents appear to eat relatively healthy. For example, the percent of adults who report eating fruit or vegetables at least one time per day is higher than state figures. The percentage of Douglas County adults who eat fruit each day is 60.6% compared to the State (56.3%). Similarly, the percentage of Douglas County adults who eat vegetables each day is 81.3% compared to the State (77.7%).

There is a strong “food culture” in Douglas County that recognizes the importance of access to good, healthy food. Douglas County was the first county in Kansas to create a Food Policy Council to promote the development of a strong, functional food system. However, Douglas County also has a high density of fast food restaurants, while at the same time having areas formally recognized as “food deserts” (which suggests a less than optimal and even distribution of grocery stores). As such, there may be barriers to accessing healthy foods, particularly for low-income populations, for whom cost and issues like transportation may be relevant. Several groups (Baldwin City residents, low-income residents, and individuals identifying as Latinx) did cite hunger as a problem in the Community Health Issues Survey.

**Food insecurity** is defined as the limited or uncertain availability of nutritionally adequate foods or uncertain ability to acquire these foods in socially acceptable ways. Lacking consistent access to food is related to hunger, weight gain, and premature death. The effects on developing children are of particular concern, as children in food-insecure homes are more likely to be hospitalized and more likely to develop health conditions such as anemia, obesity, and asthma.

Key Facts:

- 16.6% of households are food insecure – or have limited availability of nutritionally adequate foods.
- Over 11,000 people visited Just Food in 2016.
- Over one-third (35.2%) of students in public schools receive free/reduced-price meals (varying from 10% to almost 80%)
- Nearly one in four adults do not eat fruit daily; nearly one in five do not eat vegetables daily.
The percent of the population that experienced food insecurity at some point during the year remained virtually unchanged in Douglas County between 2011 and 2015, and the 2015 food insecurity rate of Douglas County of 16.6% was higher than the state average of 13.2%.

The Supplemental Nutrition Assistance Program (SNAP) is a nutrition assistance program, which provides a Kansas Benefit Card to eligible persons for use in purchasing food from local grocery stores. The number of individuals who received SNAP decreased from a monthly average of 8,177 in State Fiscal Year (SFY) 2014 to 6,932 in 2016. This may be due to several legislative changes during this time period including the change which limits the benefits for Able Bodied Adults without Dependents (ABAWDs) to three months in three years if they do not meet certain work requirements.

Who is most affected?

There are several ways to gain some understanding of populations who may experience barriers to food access, although these methods are primarily suggestive and not definitive. Data on the National School Lunch Program (NSLP), a federally assisted meal program in public and nonprofit private schools and residential child care institutions, shows there are marked disparities among Douglas County schools (Figure 10). The percent of students approved for free or reduced price lunches varies from a low of about 10% to almost 2 out of 3 students in some schools.

“The back stock of Just Food; seems to be a lot of free food for those in need. People have organized behind Just Foods to provide for others selflessly as we’re all connected to a person who could use more healthy food. Establishing more pantries like Just Foods could have enormous potential benefit.”

Photo credit: Sam Evans
Areas with **limited access to grocery stores and supermarkets** can pose a barrier to residents eating a healthy diet. The United States Department of Agriculture classifies areas as food deserts when they meet two criteria:

1. Low income, which is defined as having a poverty rate of 20% or greater, or a median family income less than or equal to 80% of the metropolitan area’s median family income.

2. Low access, which is defined as have the nearest supermarket, supercenter, or large grocery stores greater than a mile (for an urban area) or 10 miles (for a rural area) away for a significant number of people in the census tract (a third or more people in the tract, or at least 500 people).

There are two areas designated as food deserts in Lawrence by the USDA (Figure 11). The area in the southwest portion of the city has historically not been designated by the USDA. With a growing number of multi-unit housing properties in that section of town, it is likely that median incomes are lower there in the past, however. Designation of areas in North Lawrence and East Lawrence have existed for some time, and suggest there may be persistent food access issues for low-income residents in these areas.
When considering who is eating a healthy diet, BRFSS provides insight into disparities in food choices among groups.

**Notable group disparities for fruit and vegetable consumption in the State of Kansas** divide along the lines of gender, age, ethnicity, disability and insurance status (BRFSS 2015).

<table>
<thead>
<tr>
<th>Table 5. Disparities for adults not eating at least one fruit or vegetable per day</th>
<th>State of Kansas 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significantly higher percent of adults who do not consume at least one fruit or vegetable a day among:</td>
<td></td>
</tr>
<tr>
<td>Males**</td>
<td>Compared to</td>
</tr>
<tr>
<td>African-Americans*</td>
<td>Compared to</td>
</tr>
<tr>
<td>No college ***</td>
<td>Compared to</td>
</tr>
<tr>
<td>Lower annual household income</td>
<td>Compared to</td>
</tr>
<tr>
<td>No Insurance</td>
<td>Compared to</td>
</tr>
<tr>
<td>Disability</td>
<td>Compared to</td>
</tr>
</tbody>
</table>

* Age-adjusted to U.S. 2000 standard population
** Douglas County Disparity for fruit but not vegetables
*** Douglas County Disparity for vegetables but not fruits
Mental Health

What is the problem and what are conditions that contribute to the issue?

Mental health includes our emotional, psychological and social well-being. Mental well-being is inextricably linked to physical and overall health, and having good mental health enables individuals to cope with normal stresses of life and to contribute to their communities. Many of the leading causes of years lived with a disability are due to mental health conditions, and the costs associated with mental illness, including both expenditures incurred and loss of productivity, is substantial. According mental health the same degree of importance as physical health is essential to improve the overall health and well-being of our community.

The Health Issues Survey found that Douglas County residents feel like identification and treatment of mental health problems in Douglas County is an issue that needs to be addressed.

In terms of overall mental health status in Douglas County, data show that mental health issues are not uncommon. In the most recent BRFSS survey, the percent of adults who reported their mental health was not good on 14 or more days in the past 30 days was 8.6%, not statistically different from the state average of 9.7%. The percentage of adults who were ever diagnosed with a depressive disorder approached 1 in 4 people (23.2%), also not statistically different from the state average of 19.4%. Also, the number of hospital discharges with a mental health diagnoses per 1,000 children under the age of 18 was 4.2 (the state average is 3.4%). It is well-documented, in fact, that depression among children can begin quite early in childhood. In Douglas County, among 6th and 8th grade students, nearly 1 in 5 (19.8%) reported feeling so sad or hopeless every day for two weeks or more in a row that they stopped doing some of their usual activities.

Key Facts:

- Almost one in four (23.2%) Douglas County adults report they have been diagnosed with a depressive disorder (the state percentage is 19.4%).
- Almost 1 in 5 middle school children report feeling so sad or hopeless almost every day for two weeks in a row, or more, that they stopped doing some of their usual activities.
- From 2010-2015 in Douglas County suicide was the:
  - 8th leading cause of death
  - 2nd leading cause of death among 15-44 year olds
- The prevalence of cigarette smoking in Douglas County is nearly three times higher among adults with frequent mental distress compared to those without.

"Everyone has potential, but it could be lost."
Photo credit: Anonymous
The ratio of mental health providers to population appears adequate on paper, as there is one provider to every 350 residents in Douglas County compared to the state as a whole (one to every 550). However, this statistic is based on licensed practitioners regardless of whether they are providing care, so it does not account for practitioners engaged in academic, administrative or other non-clinical roles. Nationally, it is recognized that primary care providers furnish over half of all mental health treatment. At the same time, many mental health problems are not identified in primary care (estimates are as much as 50%), meaning many disorders are undiagnosed and therefore not properly treated before critical and time-sensitive interventions are needed. In Douglas County, a past study done by criminal justice consultants Huskey and Associates found that 18% of bookings into the county jail were people with serious mental illness. Very few of these individuals were convicted of violent offenses, but the data suggest more could be done to address prevention. The same is true of data around suicide. Poor mental health is a risk factor for suicide, which is one of the 10 leading causes of death in Douglas County and is the second leading cause of death in Douglas County for people 15-44 years or age and the fourth leading cause of death for 45-64 year olds. The age-adjusted suicide mortality rate in Douglas County is 16.3 per 100,000 population. This is similar too (but somewhat higher than) the state average of 15.0 per 100,000 and considerably higher than the national Healthy People 2020 target of 10.2 per 100,000 population.

Who is most affected?

Differences in rates of ever having been diagnosed in Kansas exist for gender, age, race/ethnicity, education, income and among those with a disability and lack of insurance.

<table>
<thead>
<tr>
<th>Table 6. Adults who have ever been diagnosed with depression</th>
<th>State of Kansas 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significantly higher rates of ever being diagnosed with depression among:</td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>Compared to</td>
</tr>
<tr>
<td>Adults aged 25 to 64 years old</td>
<td>Compared to</td>
</tr>
<tr>
<td>Non-Hispanic Whites or other/multi-race*</td>
<td>Compared to</td>
</tr>
<tr>
<td>Not college graduates</td>
<td>Compared to</td>
</tr>
<tr>
<td>Lower annual household income</td>
<td>Compared to</td>
</tr>
<tr>
<td>Disability**</td>
<td>Compared to</td>
</tr>
<tr>
<td>No Insurance</td>
<td>Compared to</td>
</tr>
</tbody>
</table>

* Age-adjusted to U.S. 2000 standard population
** Douglas County Disparity
Physical Activity

What is the problem and what contributes to the issue?

The health benefits of physical activity have been extensively documented, and include disease prevention, cardiovascular health, improved cognitive function, and reduction in risk and improved prognosis for many of the leading causes of death. Given what is known about the importance and benefits of activity, public health promotion efforts in recent years have increasingly focused on increasing physical activity in both the general population as well as targeted at-risk populations to combat the growing prevalence of sedentary-related diseases.

Physical activity guidelines from the Centers for Disease Control and Prevention recommends that adults engage in at least 2 hours and 30 minutes per week of moderate-intensity, or 1 hour and 15 minutes of vigorous-intensity (or any combination thereof) aerobic exercise, and additionally work out all major muscle groups two or more days per week to fully meet physical activity recommendations.

- 22.2% of adults in Douglas County meet the aerobic and strengthening guidelines, which is better than the state at 19.3% (Douglas County also meets the Healthy People 2020 target of 20.1%).
- 13.7% of adults in Douglas County meet the strength guidelines only which is better than the state at 9.7%.

However, as it relates to aerobic activity, which has the greatest potential benefit to chronic disease risk reduction, the population of Douglas County – like the state and nation as a whole – is relatively sedentary. Less than 1 in 3 Douglas County adults (29.0%) meet aerobic guidelines for physical activity (similar to the statewide average of 30.7%) and one in five adults report not participating in any physical activity (other than their job) in the past 30 days.

Health benefits can be gained from moderately intense activity, such as walking or biking, so many communities are focusing on policy, environmental and program approaches to increase integrating these forms of activity into daily routines. In Douglas County there is a relatively high percentage of workers age 16 and over who get to work by walking compared to the state (5.1% during the time period 2011-2015, compared to 2.4% for the state). In Lawrence, which has an active Safe Routes to School program, data have been collected on children walking and biking to school. Rates are fairly comparable to national averages, and have increased from 14.6% to 16.2% from Fall 2014 to Fall 2016.
As noted earlier in the discussion about environment, Douglas County residents do believe the local built environment promotes physical activity. Two specific issues related to the built environment viewed as strengths in the Community Health Issues Survey were:

- “A wide variety of recreational opportunities are available and affordable for people of all ages and levels of physical mobility. “
- “Our community is walkable/bikeable/wheelable.”

This is not to say that there are not also some concerns. For example, the 2015 Citizens Survey (Lawrence only) that found that only 26% of community residents felt safe navigating community intersections on bicycle. People’s perceptions of the built environment are complex, and the extent to which the built environment influences people’s actual behavior is still only partially understood. It is recognized however, that physical attributes of a neighborhood, like the presence of well-maintained sidewalks, does have an impact on rates of activity in an area.

**Who is most affected?**

In Kansas, there are gender, age, race/ethnicity, education, and income disparities for participating in the recommended amount of physical activity (aerobic and strength training). In addition those with a disability and with no insurance are less likely to get the recommended amount of physical activity.

<table>
<thead>
<tr>
<th>Table 7. Adults not participating in recommended aerobic and strengthening physical activity</th>
<th>State of Kansas 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Significantly less likely to participate in recommended strength training and aerobic exercise among:</strong></td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>Compared to</td>
</tr>
<tr>
<td>Adults aged 25 years and older</td>
<td>Compared to</td>
</tr>
<tr>
<td>Hispanics and non-Hispanic African-Americans*</td>
<td>Compared to</td>
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<tr>
<td>Lower education**</td>
<td>Compared to</td>
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<tr>
<td>Lower annual household income</td>
<td>Compared to</td>
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<tr>
<td>Disability</td>
<td>Compared to</td>
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<tr>
<td>No Insurance</td>
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* Age-adjusted to U.S. 2000 standard population
** Douglas County Disparity
Poverty and Good-Paying Jobs

Evidence from all over the world clearly demonstrates a powerful but complex linkage between poverty and poor health. In the last thirty years income equality has increased dramatically in the United States, and income mobility has decreased. This suggests that addressing the health inequalities highlighted throughout this report represents extraordinarily difficult work. The Douglas County workgroup that met in 2013 as part of the last 5-year CHA/CHP process met to develop goals and strategies to encourage the creation and retention of good-paying jobs that pay enough to sustain families. This group recognized the need to guide efforts to improve education and training opportunities to prepare people for good-paying jobs, and promoting the kind of community supports that support individuals looking for – and trying to maintain – gainful employment. While progress has been made on many fronts, residents of the county still see poverty and good-paying jobs as one of the greatest challenges to good health (Community Health Issues Survey).

Data on poverty show that the percent of people living below the federal poverty level is higher than the state (19.4% versus 12.9%). However, these data are greatly impacted by the presence of significant numbers of college students, and when college students are factored out, poverty rates in Douglas County fall to 11.6% (State 12.1%). It is important to note that when students are factored out, poverty rates have increased in Douglas County (Figure 12).

In Douglas County, of children under 18, 13.8% live at or below the federal poverty level. Of those 18-64 years old, 22.4% live in poverty (some of these individuals may be students). Of those 65 years and over, 6.2% are in poverty.

Fortunately, unemployment has been falling in Douglas County, and the local unemployment rate of 6.0% for the aggregate time period 2011-2015 is lower than the national rate of 8.3%. This rate appears to continue to drop and for 2014 was estimated at 4.1%.

Another positive characteristic of Douglas County is relatively high rates of education. The percentage of county residents with a high school degree or higher (94.9%) and with a college bachelor’s degree or higher (49.15) are higher than state or national numbers. However, this has not translated into higher median household income. The 2015 median income of $50,939 is somewhat lower than that in Kansas ($52,505).
Figure 12. Percent Poverty over time 2006-2010 and 2011-2015
(Source ACS excluding students)

“These photos convey the stark contrast in ability to feel hopeful between people with money, class, privilege, and people who are living with the homeless. This mural is in an alley that often offers shade to homeless people asking for money. Hope relies on our current situation and can aid in mental healing. Assisting each other in achieving our individual goals is how we allow hope to homeless people and people living with disabilities”

Photo credit: Kyana and Jax
Who is most affected?

Data from Douglas County on disparities is confounded in the State of Kansas, there appear to be disparities by race when looking at the population living at or under the federal poverty level. Using this metric, 12% of Whites live in poverty, 25.4% of African-Americans are in poverty, 21.2% of American Indian/Alaska Native, and 15.3% of Asians are in poverty.

When looking at ethnicity, in Kansas, 25.3% of people who are Hispanic or Latino live at or below the federal poverty level, while 10.6% of White, not Hispanic or Latino live at or below the federal poverty level.

Education also appears to be a factor for being at or under the federal poverty level in Kansas. For people 25 years old and older, 23.8% of those who did not graduate from high school are in poverty, 12.6% of those with a high school education are in poverty, 9.4% of those with some college are in poverty, and 3.5% of those with a bachelor’s degree or higher live in poverty.

In Kansas, for people 16-64 years old, 3% of those with a full-time job year-round job are in poverty, 21.6% of those who worked less than full-time are in poverty, while 29.5% of those who did not work are in poverty.

For those in a family household in Kansas, 11.1% are at or below the federal poverty level, while 25.2% of those in other living arrangements are in poverty. Approximately, 33% of female householders with no husband present are in poverty, while 5.8% of married-couple families are in poverty.
Public Health System Capacity

In addition to working to understand conditions contributing to health in Douglas County, a principal interest of this work is to understand the capacity of the public health system to monitor health status and take appropriate steps given available information to address public health concerns. This CHA examines existing public health system capacity in two ways. In the first phase of the CHA, key stakeholders were invited to participate in a public health system self-assessment, using the National Public Health Performance Standards (NPHPS) instrument, which consists of a series of questions about each of the 10 nationally-recognized Essential Public Health Service (EPHS) and related standards for each of these EPHS. Fifty seven community leaders participated in a one-day workshop to rate each EPHS for the local public health system (broadly defined, not as the health department, but the local system as a whole) and related standards. They were also asked to synthesize strengths, weakness and opportunities for improvement based on the discussion of the performance of each EPHS in the local public health system. The second tool used was an organizational assessment survey. This survey was developed for the second phase of data analysis and was distributed to organizations in the community who globally represent the broad public health care system. They were asked specific questions around the nine community health factors that have been described in detail earlier in the report. Representatives of forty five organizations completed the survey, and those results are shared below.

Local Public Health System Assessment

Figure 12 displays the scores for each of the 10 EPHS. Overall the average score across all EPHS was 63.7%, falling within the rating category of a significant level of activities met. In total, the range of scores received by EPHS was from 37.4% (moderate) to 89.6% (optimal). No EPHS were scored at the minimal or no activity level. Of all 10 EPHS, three were scored at the optimal level:

- EPHS 2: Diagnose and investigate health problems and health hazards;

![Figure 13. Summary of Average EPHS Performance Scores]
• EPHS 5: Develop policies and plans that support individual and community health efforts; and
• EPHS 6: Enforce laws and regulations that protect and ensure safety.

Conversely, three EPHS were scored at the moderate level:

• EPHS 7: Link people to needed personal health services and assure the provision of health care when otherwise unavailable;
• EPHS 8: Assure a competent public and personal health care workforce; and,
• EPHS 9: Evaluate effectiveness, accessibility, and quality of personal and population-based health services.

No aspects of the local public health system were seen as operating at a minimal level, suggesting overall satisfaction among community leaders. However, there is now a potential opportunity to examine weaknesses and suggested improvement opportunities in the three lowest-scoring Essential Services and chart a path forward. Below are the highlights of the discussion around these three Essential Services.

Essential Service 7 is aimed at assuring the local public health system provides these activities:

• Ensuring effective entry for socially disadvantaged and other vulnerable persons into a coordinated system of clinical care.
• Providing culturally and linguistically appropriate materials and staff to ensure linkage to services for special population groups.
• Ensuring ongoing care management.
• Ensuring transportation services.
• Orchestrating targeted health education/promotion/disease prevention to vulnerable population groups.

Attendees represented the following sectors: at-large community members, health care, philanthropy, and schools/education.

Findings
Strengths
• Trauma-informed care (justice matters, trauma-smart) moving into the schools with care that will take trauma into account.
• Trinity in home care and VNA provides supportive services that will help keep people in their homes. They work with the majority of Medicaid Waiver folks. Agencies that are funded by Health Gold Dollars meet more than quarterly.
• Lots of expertise in this community about how to do a lot with a little funding.

Weaknesses
• Spanish speaking community well covered, but Arabic language is more difficult with 20 dialects—have a list of people who are bilingual who can help, but still limited.
• Need more understanding of other cultures so that there is more acceptance of traditional medical practices as long as they don’t hurt the child.
• Need to have more information about people who need to sign up for Medicaid and where to send people.
**Suggested Improvement Opportunities**

- Develop a better understanding the role of effective outreach. There is a lot of information about what is needed but need to know more about effective outreach.

**Essential Service 8 is aimed at assuring the local public health system provides these activities:**

- Educating, training, and assessing personnel (including volunteers and other lay community health workers) to meet community needs for public and personal health services.
- Establishing efficient processes for professionals to acquire licensure.
- Adopting continuous quality improvement and lifelong learning programs.
- Establishing active partnerships with professional training programs to ensure community-relevant learning experiences for all students.
- Continuing education in management and leadership development programs for those charged with administrative/executive roles.

Attendees represented the following sectors: business/ Chamber of Commerce, health care, philanthropy, and schools/ education.

**Findings**

**Strengths**

- Health Department does assessment every 2 years
- Licensing required across all boards. Most sectors do have job descriptions tied to core competencies.
- Academic Health Department.
- AmeriCorps volunteers well trained
- Increased mental health aid training among police department
- LiveWell Coalition
- Community Health Assessment has increased a shared vision at the county level.

**Weaknesses**

- No sufficient wages for healthcare workers and understanding of all fields in healthcare
- Non-profit sector does not have well defined job descriptions or annual evaluations.
- Cultural competency training
- LiveWell is not diverse and there are time constraints with work

**Suggested Improvement Opportunities**

- Incorporate assessment of Local Public Health System work force
- Develop mentoring system for the healthcare system
- Improve recruitment for leadership roles and more diverse leaders.
- Organize functional exercises of communicable disease at community level

**Essential Service 9 is aimed at assuring the local public health system provides these activities:**

- Assessing program effectiveness through monitoring and evaluating implementation, outcomes, and effect.
- Providing information necessary for allocating resources and reshaping programs.
Attendees represented the following sectors: health care, mental health organizations, non-profit, philanthropy, and university/research.

**Findings**

**Strengths**
- The Lawrence community wants a healthy school system, education on nutrition, physical activity, and healthy behaviors.
- United Way monthly meeting is great collaboration.
- There is community data collected on social determinants of health (e.g. insurance, transportation, access).
- Sexual education collaboration with the Health Department at county level with staff
- LiveWell stronger due to Community Health Assessment 5 years ago.
- Equity lens implemented

**Weaknesses**
- County level data is not at real-time, limited for programming at sub-levels.
- Data sets are limited when not mandatory
- No community health system in place
- No diversity
- Hard to communicate due to work constraint.

**Suggested Improvement Opportunities**
- Try new modes in ways of collecting data.
- Add research component to programming in correction system.
- Use results from evaluation process to improve the Local Public Health System.
- Improve education on health literacy in school system.
Organizational Assessment

Organizations were initially asked to describe their current work to address the nine key community health issues that have been the principal focus of this report. Figure 14 displays the proportion of organizations that indicated that they are currently working to address the nine issues. More than half (51.1%) of the organizations indicated they address mental health. Just less than half (48.9%) selected hunger or access to healthy foods. Conversely, only 28.9% indicated they work to address discrimination. Representatives of organizations also indicated the types of activities conducted by their organization to address each issue. Figure 15 provides the percentage of organizations that indicated they engage in a specific type of work to address each issue.
Across all issues, most organizations indicated they engage in partnership development or coalition building, as well as communication and education. The least prevalent activity conducted by organizations addressing these issues was contributing capital or financial resources.

Figure 16 contains information about the extent to which organizations’ clients or consumers are affected or influence each issue. In general, there was substantial variability between issues regarding the extent to which consumers are affected by each issue. For organizations addressing discrimination and poverty as part of their work, the issues affected more than half of their clients or consumers. Conversely, over half of
organizations who address child abuse or neglect as one of the areas of their work reported the issue affected 25% or fewer clients or consumers.

The second set of questions asked respondents to characterize the extent to which organizations would be interested in addressing these issues in the future. Figure 17 displays the percentage of organizations (n=45) who indicated high levels of interest in participating in a community-wide effort to address these issues in the future. More than 70% of participating organizations indicated high levels of interest in addressing the issue of mental health through a community-wide effort. More than half of the participating organizations selected preventive care, hunger/access to healthy foods, discrimination, housing, and child abuse/neglect as issues they would address through community-wide efforts in the future.

Participating organizations were also asked to describe a) the types of activities they could offer in future efforts and b) the amount of effort that could be devoted to each. Figure 18 displays the percentage of responding organizations that indicated specific levels of effort. Figure 19 combines information about the level of interest that organizations conveyed, and the level of effort across tasks they may be willing to commit to a community-wide effort to address the issue. In this figure the y-axis provides an overall score for level of effort across all of the possible activities. Higher scores relate to higher capacity. Level of interest was standardized across all nine issues to create separation across issues. Level of interest can be interpreted by the size of the data point (larger point reflects larger interest), as well as position across the x-axis (larger interest is on the right hand side of the figure).

Figure 20 displays similar information, but introduces data taken from the issue survey to understand issues status according to relative problem. In Figure 20, the standardized level of interest is reflected in size of the data point (larger point reflects larger interest in addressing through a community-wide effort). The y-axis provides an overall score for level of effort across all possible activities, in which higher scores reflect higher capacity. Lastly, the x-axis reflects standardized problem scores derived from the issue survey administered in phase one of the community health assessment. Larger problem scores indicate more of a problem.
Figure 18. Responses indicating level of effort organizations may be able to commit to specific activities in support of a community-wide effort to address the issue

Alcohol, tobacco, or other drugs (n=27)

- Partnership development, etc.
- Data collection
- Capitol & financial
- Policy development & support
- Communication & education
- Personal health services

Access to health care (n=32)

- Partnership development, etc.
- Data collection
- Capitol & financial
- Policy development & support
- Communication & education
- Personal health services

Poverty/ Jobs (n=32)

- Partnership development, etc.
- Data collection
- Capitol & financial
- Policy development & support
- Communication & education
- Personal health services

Affordable housing (n=31)

- Partnership development, etc.
- Data collection
- Capitol & financial
- Policy development & support
- Communication & education
- Personal health services
Figure 19. Interest (size) and Capacity Ratings

Figure 20. Interest (size), Capacity, Perception of problem