

THE STATE OF CHILDREN'S HEALTH: 2019 COMMUNITY HEALTH ASSESSMENT FOR THE KANSAS CITY REGION

Acknowledgements:

This report was prepared by with contributions from members of the Children's Mercy Kansas City Community Health Needs Assessment Advisory Committee and the Strategic Planning Department. A special thanks to the Children's Mercy Communications and Marketing staff for the report's design and production. Jordan Carlson, PhD, Denise Dowd, MD, MPH, Robin Shook, PhD and Sarah Soden, MD provided valuable feedback. None of this would be possible without the guidance and support from the Children's Mercy leadership. Finally, we are grateful to all of those who participated in the surveys and the community conversations. Their contributions make this report possible. Without them, we would not be able to fulfill our ultimate purpose, which is to use information about our population to shape present and future child health programs, policies and research that will improve the health of all children in the Kansas City region, and beyond.

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Suggested Citation:

The State of Children's Health: 2019 Community Health Assessment for the Kansas City Region, Children's Mercy Hospital Kansas, Overland Park, KS, 2019

Electronic Access:

This publication and the charts within can be accessed electronically at

Written Comments:

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**CHILDREN'S MERCY
HOSPITAL KANSAS**

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Background

Overview of Children's Mercy Hospital Kansas

Children's Mercy Hospital Kansas is a free-standing community children's hospital that serves a growing breadth of pediatric diagnoses for children from birth through 21 years of age. In 1997, Children's Mercy opened Children's Mercy South (now known as Children's Mercy Hospital Kansas), in Overland Park, Kansas. It was, and is, the only pediatric hospital in the state of Kansas.

Purpose of the Assessment

The State of Children's Health: 2019 Community Health Assessment for the Kansas City Region (2019 CHA) provides a comprehensive look into the health status of children and adolescents in the Kansas City region. The goals of the assessment are:

- To examine the current health status of children and identify unmet health needs in the Children's Mercy leading service area — Clay and Jackson counties in Missouri and Johnson and Wyandotte counties in Kansas.
- To identify the current health priorities — as well as new and emerging health concerns — among children and families within the larger social context of their community
- To explore community strengths, resources and gaps in services in order to guide future programming, funding and policy strategic priorities for Children's Mercy.
- To provide community health advocates and providers insights into the health and well-being of the Kansas City region's children and families.

To conduct this assessment, Children's Mercy contracted with Professional Research Consultants, Inc. (PRC).

Community Definition

The study area for the 2019 CHNA includes each of the residential zip codes principally associated with Clay and Jackson counties in Missouri, and Johnson and Wyandotte counties in Kansas. The definition of community was based on patient origination. From July 1, 2017 through June 30, 2018, 69.7% of all encounters at Children's Mercy were from the four counties illustrated in the following map. For the purpose of this study, this area is called the "Total Service Area" (TSA).

FIGURE 1: COMMUNITY HEALTH ASSESSMENT SERVICE AREA, 2019

Methods

The 2019 CHA incorporates data from quantitative and qualitative sources. Quantitative sources include primary research (the 2018 PRC Child & Adolescent

Health Survey-Kansas City version) and secondary research (vital statistics and other existing health-related data). Qualitative sources include primary research gathered through an online survey and focus groups. The following describes each of these tools in more detail.

PRC Child & Adolescent Health Survey: The PRC Child & Adolescent Health Survey-Kansas City is a random digit dial phone survey (landlines and cell phones) of adult parents and caregivers of children ages 0-18 years implemented from Oct-Nov 2018. The survey was offered in English and Spanish. The survey questionnaire and methodology are modeled after a similar survey PRC conducted in Kansas City three years earlier. The final survey instrument used for this study was developed by Children's Mercy and PRC and is similar to the previous surveys used in the region, allowing for data trending.

The sample design consisted of a stratified random sample of 1,002 parents/caregivers of children under 18 years in the TSA, including 201 interviews were conducted in Clay County, Mo., 350 in Jackson County, Mo., 250 in Johnson County, Kan., and 201 in Wyandotte County, Kan. The interviews were weighted in proportion to the child population distribution. For statistical purposes, the maximum rate of error associated with a sample size of 1,002 respondents is ± 3.1 percent at the 95 percent level of confidence.

Survey respondents were adults 18 years and older who have children residing in the household for whom they are a health care decision-maker. For households with more than one child under 18 years, most questions were asked about a randomly selected child in the household, determined by which child has had the most recent birthday. This random selection process allows for the best representation of children by age and gender.

PRC strives to minimize bias by adjusting the results of a random sample to match the geographic distribution and demographic characteristics of the population surveyed (post-stratification), so as to eliminate any naturally occurring bias. Specifically, once the raw data are gathered, respondents are examined by key demographic characteristics (namely the child's gender, age, race/ethnicity and household poverty status) and a statistical application package applies weighting variables that produce a sample that more closely matches the population for these characteristics. Thus, while the integrity of each individual's responses is maintained, one respondent's responses may contribute to the whole the same weight as, for example, 1.1 respondents. Another respondent, whose child's demographic characteristics may have been slightly oversampled, may contribute the same weight as 0.9 respondents.

The sample design and the quality control procedures used in the data collection ensure that the sample is representative. Thus, the findings may be generalized to the total child and adolescent population of the TSA with a high degree of confidence.

Key Informant Online Survey: For the Key Informant Online Survey, Children's Mercy staff, with support from the Local Investment Support Corporation of Greater Kansas City (LISC), developed a list of invitees. The list of 299 included elected officials, physicians, other health professionals, social service providers, and business, neighborhood, housing and community leaders (see table below and Appendix 1 for additional information on participation).

Key informants were contacted by an email that provided a link to the survey. In all, 107 completed the survey. The survey asked key informants to rate the degree to which various children's health issues are a problem in their community, or to rate the degree to which various issues impact children's health. For each identified issue respondents provided detail on how to address the issue. Results of the ratings, as well as comments, are included throughout this report.

TABLE 1: Key Informant Online Survey Participation		
Key Informant Type	Number Invited	Number Participating
Physician	98	29
Public Health Representatives	20	5
Other Health Providers	31	11
Social Services Providers	54	22
Education	32	13
Community Leaders	64	27
Total	299	107

Community Conversations: More than 130 people participated in community meetings hosted by four community agencies (El Centro,

ReStart, The Family Conservancy and Urban Neighborhood Initiatives). We asked participants on what can best support the health and well-being of children and asked what other resources are needed to make things better.

Secondary Data Sources: Secondary data were obtained from the following sources (specific citations are included throughout the report):

- Centers for Disease Control & Prevention, Office of Public Health Science Services, Center for Surveillance, Epidemiology and Laboratory Services, Division of Health Informatics and Surveillance (DHIS) and the National Center for Health Statistics
- Children's Mercy Kansas City
- Community Commons
- Geolytics Demographic Estimates & Projections
- Kansas City Missouri Health Department of Health
- Kansas Department of Elementary and Secondary Education
- Kansas Department of Health and Environment: Children and Families, Prevention and Protection Services; Bureau of Epidemiology and Public Health Informatics
- Missouri Department of Elementary and Secondary Education
- Missouri Department of Health and Senior Services: Missouri Information for Community Assessment
- Missouri Hospital Industry Data
- U.S. Census Bureau: American Community Survey; Decennial Census; Population Estimates
- U.S. Department of Health & Human Services: Healthy People 2020

Benchmark Data:

- ***Trending.*** A similar survey was administered in 2012 and 2015 by PRC on behalf of Children's Mercy. Trending data, comparison to 2012 and 2015 results, are provided throughout this report whenever available.
- ***National Data.*** National survey data, provided in comparison charts, are taken from the 2018 PRC National Child & Adolescent Health Survey; the methodological approach for the national study is similar to that employed in this assessment, and these data may be generalized to the population of American children and youth with a high degree of confidence.
- ***Healthy People 2020.*** When available, comparisons were made to Healthy People 2020. Healthy People 2020 objectives provide evidence-based, 10-year national objectives for improving the

health of all Americans.

Determining Significance

Differences noted in this report represent those determined to be significant. For survey-derived indicators (which are subject to sampling error), statistical significance is determined based on confidence intervals (at the 95 percent confidence level) using question-specific samples and response rates. For secondary data indicators (which do not carry sampling error, but might be subject to reporting error), “significance,” for the purpose of this report, is determined by a 5 percent variation from the comparative measure.

Information Gaps

While this assessment is comprehensive, it cannot measure all possible aspects of child/adolescent health in the community, nor can it adequately represent all possible populations of interest. It must be recognized that these information gaps might in some ways limit the ability to assess all of the community’s health needs.

In terms of content, this assessment was designed to provide a comprehensive and broad picture of the health of children and adolescents in the overall community. However, there are certainly a great number of health and community conditions that are not specifically addressed. Lastly, it is important to note that data were collected at one point in time, so findings, while directional and descriptive, should not be interpreted as definitive.

Community Social, Economic, and Physical Context

Demographic Characteristics

The four counties in the Children's Mercy service area house a total population of 1,650,983; of these close to 413,000 or just over 25% are children. Within the TSA, Wyandotte County has the greatest proportion of children under 18 and Jackson County has the smallest proportion, but largest in absolute number. Table 2 highlights the total population of each county and the % population age 0 – 19 years of age.

TABLE 2: Total Population (all Ages) and Percent Population Age 0 -19 years by County (2012-2016)		
County	Total Population	Percent (%) Population-Age 0-19 years
Clay County	233,135	25.6%
Jackson County	683,643	24.3%
Johnson County	572,428	26.0%
Wyandotte County	161,777	28.3%
TSA	1,650,983	25.5%

Sources: US Census Bureau American Community Survey 5-year estimates. Retrieved December 2018 from Community Commons at <http://www.chna.org>

As the overall child population of the TSA increased between 1980 and 2015, the make-up of that population was shifting. In 1980, black, Hispanic or other ethnicities comprised 21% of the region's under-18 populations; and in 2015, 36.4% of the region's under 18 population are minorities and that number is expected to rise to 45% by 2040.

TABLE 3: Population Under Age 18 by County and Ethnicity, 2015				
County	White*	Black*	Other*	Hispanic
Clay	46,991	3,666	7,287	5,433
Jackson	93,130	46,240	25,073	22,449
Johnson	120,450	7,202	17,549	15,883
Wyandotte	26,030	11,064	8,237	17,238

*NonHispanic

Source: US Census Bureau, American Community Survey, 5-year data, 2015-<http://www.census.gov/acs>.

Poverty, Income and Employment

TABLE 4: Key Informant Rating of Impact on Health: Income and Poverty

Issue	Major Impact	Moderate Impact	Minor Impact	No Impact at All
Poverty	95.2%	3.8%	1.0%	0.0%
Employment/Income	85.6%	14.4%	0.0%	0.0%

According to the 2017 census estimates, the TSA median family income was \$77,589; that is higher than the median family income for Missouri, Kansas and the U.S. Johnson County has twice the median family income of Wyandotte County.

A higher percentage of children under age 18 years live in poverty than the population as a whole. The percentage of children under age 18 who live in poverty has grown in every TSA country from 2000 to 2015 and is substantially higher in most counties.¹ The highest percentage of children living in poverty is in Wyandotte County (37.3%) followed by Jackson County (27.2%), Clay County (10.7%) and Johnson County (7.5%).

FIGURE 2: Children Living in Poverty Kansas City Region

In 2017, children who lived in families headed by a single mother were much more likely to be poor than their counterparts living in families headed by a married couple (41% and 8%, respectively).² Of all TSA families led by a single mother, 24.1% are living in poverty. Jackson County (at 26.3%) and especially Wyandotte County (at 36.3%) have considerably more families led by a single mother living below the federal poverty level than do Clay and Johnson counties (16.9% and 16.8%, respectively).³

“So many young families in my neighborhood are just trying to keep their heads above water. It’s hard for them to manage rent, car payments, childcare, food, clothing without getting behind each month. Too many children are without the necessities.” -Community Conversation participant
“Poverty impacts every aspect of health with respect to accessing healthcare, needed prescriptions, glasses, dentistry, shelter, and food.” Key Informant Survey, Social Service Provider

¹ www.marc2.org/healthdata, retrieved march 15, 2019

² <https://www.childtrends.org/indicators/children-in-poverty>, retrieved March 15, 2019

³ US Census Bureau American Community Survey 1-year estimates (2017), retrieved December 2018 from <http://factfinder.census.org>

Education

TABLE 5: Key Informant Rating of Impact on Health: Education				
Education Issue	Major Impact	Moderate Impact	Minor Impact	No Impact at All
Early Childhood Education	90.7%	8.4%	0.9%	0.0%
Education/Schools/Graduation	92.5%	7.5%	0.0%	0.0%
After-School Programs	57.0%	37.4%	5.6%	0.0%
Health Education	47.7%	44.9%	6.5%	0.9%

Key Informant respondents and Community Conversation participants see education as having a major impact on children's health. Concerns ranged from to literacy development to the high school dropout rates. In addition, participants mentioned the increased need for schools to provide behavior management, mental health and social services. Programs recommended included increasing the availability of STEM, robotics and coding and outside nature programs. Stakeholders indicated that access to quality early childhood is of upmost importance and affects the entire lifespan. One Key Informant advocated for a comprehensive literacy campaign for all children in greater Kansas City in order to decrease the "30-million-word gap".

Schools and school districts were recognized as important partners for health and community providers. Focus group participants viewed schools as the best institutions to reach children and adolescents with health education programs. Unfortunately, participants mention that there are a number of barriers to providing health education programs in schools, such as schools not having the time nor resources.

Housing and Transportation

TABLE 6: Key Informant Survey of Impact on Health: Housing and Transportation				
Issue	Major Impact	Moderate Impact	Minor Impact	No Impact at All
Housing	88.5%	11.5%	1.8%	0.0%
Transportation	33.7%	54.7%	10.5%	1.2%

Housing and transportation issues emerged as a concern among Key Informants and Community Conversation participants. Transportation was mentioned as a major barrier across the region in terms of accessing health care services.

"I know the bus schedules and routes very well, but I still have to walk about 15 minutes to the bus stop. It is just hard when I have to bring my children, especially when the weather is not good or if I have to get to a place in a hurry". -Community Conversation participant

Community Conversation participants shared that high housing costs are

consuming many families' incomes, leaving little to cover the cost of other basic needs, such as food and transportation. Households earning less than a living wage are at a risk for meeting the health needs of their family. When parents are spending a larger portion of their income on housing and transportation, many of their children's needs may go unmet.

Home Ownership

Close to three-fourths (72.5%) of surveyed TSA parents own their current residence. Ownership was lower in Jackson and Wyandotte Counties. TSA children are more likely to live in a home not owned by their parents and include younger children, black children, followed by Hispanic and "other" race children, and those in low or very low-income households.

Cost of Housing

Across the TSA 41.2% of parents "sometimes," "always" or "usually" worried about having the money to pay their rent or mortgage. This is higher in Jackson and Wyandotte Counties. Hispanic children, and those living in lower income households are more likely to have parents that worry about paying the rent or mortgage.

FIGURE 3: Frequency of Worry or Stress Over Paying Rent/Mortgage in the Past Year

Condition of Housing

PRC Survey results show that 44.3% of TSA children live in properties that were built before 1978. There was a correlation between more very low-income and low-income families living in older housing.

"There is research that shows that high lead levels cause irreversible damage to development. We need urgent attention to this problem." Key Informant, Educator

In the TSA, 14.5% of children live in homes that have peeling paint on the interior or exterior. This is highest in Jackson and Wyandotte counties. Hispanic children are more likely to live in homes that have peeling paint.

Over 20% of children in the TSA live in a house in which signs of outdoor rodents have been spotted in the past six months. Recent signs of rodents in homes are most prevalent in Jackson and Wyandotte Counties.

Transience

Over 21% of families in the TSA reported moving residences at least once in the past year. This is an increase from the 2012 and 2015 (11.2% and 16.2%, respectively). Children 0-4 years old and those living in low-income households are more likely to have moved residences in the past year. By race, black children and Hispanic children have higher relocation rates than white or "other" children.

Figure 4: Moved Residences Past Year

“Housing insecurity and evictions creates family upheaval, causes children to move, erodes social networks, and affects connections to local health providers.” -Key Informant, Community/Business leader

During the 2017-18 school year, over 8,00 K-12 students in TSA school districts met the McKinney-Vento Homeless Education Act homeless definitionⁱ⁴. Table 7 lists the TSA districts with over 100 students meeting the McKinney-Vento definition, are located in all four of the region’s counties.

TABLE 7: Districts with Over 100 Students who Identify as Homeless* 2017-18 School Year	
District	# Student Homeless
Kansas City, Missouri	1,200
Independence	964
Kansas City, Kansas	942
Raytown	532
North Kansas City	514
Hickman Mills	482
Fort Osage	462
Olathe	427
Shawnee Mission	346
Hogan	326
Excelsior Springs	166
Turner	137
Lee’s Summit	125
Liberty	121
Center	119
Smithville	117
Blue Valley	112

Source: Kansas State Department of Education and Missouri Department of Elementary and Secondary Education; McKinney-Vento Homeless Education Assistance data.

Built Environment/Environmental Conditions

TABLE 8: Key Informant Survey of Impact on Health: Built Environment; Environmental Conditions; Crime and Violence				
Neighborhood/Community Issue	Major Problem	Moderate Problem	Minor Problem	No Problem at All
Built Environment	15.1%	54.8%	24.7%	0.0%
Environmental Conditions	23.5%	47.1%	25.9%	3.5%

⁴ See Notes to Reader in Appendix 3.

TABLE 8: Key Informant Survey of Impact on Health: Built Environment; Environmental Conditions; Crime and Violence				
Crime and Violence	77.9%	21.2%	1.0%	0.0%

Neighborhood Characteristics

Among survey respondents:

- 21.9% indicate that their neighborhood has no sidewalks or walking paths;
- 18.0% reported that there is usually litter or loose garbage on the street or sidewalk;
- 16.0% reported that there is poorly kept or rundown housing in their neighborhood;
- 9% reported that vandalism, such as broken windows and graffiti in their neighborhood.

All of these conditions were more frequently reported in Jackson County and Wyandotte County.

Between 2017, 8.9% of all the TSA housing properties (close to 80,000 properties) were vacant. Jackson and Wyandotte Counties have the highest number of vacant properties.

Community Conversation participants stated over and over how important it was for them to have places for their children to have neighborhoods here they could let their children go “out to play and to ride bikes.”

Neighborhood Safety

Close to 78% of Key Informants listed crime and violence as a “major problem” influencing the health and well-being of citizens. While most TSA families live in “extremely safe” or “quite safe” neighborhoods, 11.8 percent live in neighborhoods they consider only “slightly safe” or “not at all safe.” The prevalence of “slightly/not at all safe” responses was highest in Jackson and Wyandotte counties. Community Conversation participants spoke about how they would like to see more “community policing” and “stronger neighborhood” associations. Those participating in Jackson County conversations mentioned that they felt the “Shot Spotter”⁵ was a good addition to their neighborhoods and wanted more added.

The survey of TSA families asked about the Adverse Childhood Experiences (ACEs) for the index child. Close to 11% of families reported that the child had

⁵ Shot Spotter is a crime fighting tool. It is cutting edge technology with the ability to pinpoint the location of gunshots in real time. The Kansas Missouri Police Department has placed Shot Spotters in neighborhoods across Kansas City.

experienced “Parental Domestic Violence” and 9.0% experienced “Neighborhood Violence.” Data from the Kansas City Star reports that in 2018 there were 208 Homicides across the TSA area.⁶

“Children exposed to violence, in particular gun violence, are at increased risk for developing anxiety, depression, bullying behaviors, and suicidal thoughts. Zip codes where violent crimes occur at the highest rates are also zip codes where many children live.” Key Informant, Health Provider

An analysis of Children’s Mercy Emergency Department data reveals that there were over 188 fatal and nonfatal firearm injuries seen from 2016 – 2018. Over 45 were classified as “Intentional Assaults.” Figure 4 presents this data and specifies the rates by county, age, gender and ethnicity.

Figure 5: Firearm Injuries-Fatal and Nonfatal

Just over 12% of parents reported that their child missed one or more days in the past year because the child felt unsafe at school or on the way to/from school. Given that close to 46% of children living in the TSA side the school bus/van (37.2%), walk to school (5.7%) or take public transportation (3.0%) safe neighborhoods with sidewalks and crosswalks become very important.

⁶ Kansas City Star, January 2019

Health and Health Conditions

Top Health Issues

Parents were asked to indicate what they felt was the number one health issue facing infants and children in their community. Parents named one health issue for each of the following age groups: 0–5 years; 6–11 years; and 12–17 years. The question was open-ended.

Colds/flu was identified as the top health issue for infants and children 0-5 years old and children 6–11 years old. For adolescents 12-17 years old, mental health, specifically depression and suicide, was identified as the top health issue.

TABLE 9: Parents' Response of the Number One Issue Facing Children in the Kansas City Region, by Age Group In Order of Priority			
Age	0-5 Years of Age	6-11 Years of Age	12- 17 Years of Age
Top Health Issue	Colds/Flu	Colds/Flu	Mental Health (Depression, Suicide)
	Obesity/Nutrition/Exercise	Obesity/Nutrition/Exercise	Colds/Flu
	Vaccinations	Mental health	Obesity/Nutrition/Exercise
	Asthma	ADD/ADHD	Illegal Drugs
	Respiratory Issues		STDs

Availability of Resources to Address Health Issues. Respondents were asked to identify their perceptions of the community's availability of resources to address the identified number-one concern. Respondents reporting colds/flu as the number one health issue for infants, children and adolescents largely perceive existing community resources as sufficient or more than sufficient.

Community resources that are available for obesity/nutrition/exercise issues are generally seen as insufficient or unavailable by the respondents who chose the issue as the number-one health issue for children 6-11 and age 12 -17 years old. Findings suggest the same for those reporting mental health as the number-one concern for adolescents.

Health Status

Most TSA parents rate their child's overall health as "excellent" (44.2%) or "very good" (34.6%). More children in Wyandotte County are reported to be in fair or poor health. Children in lower income households and Black and Hispanic children more often reported.

Activity Limitations

A total of 15.3% of TSA children are limited or prevented in some way in their

ability to do things most children of the same age can do because of a medical, behavioral or other health conditions. There is a higher prevalence of activity limitations among boys, children under 5 years old, children living in very low-income households and Hispanic children.

Prescriptions

A total of 37.2 % of TSA children have a condition that requires prescription medication(s) (not counting vitamins). Those more likely to have a condition that requires prescription medication include boys, children under 5 years old, Hispanic children and those of Other races.

Special Therapy

A total of 15.6 percent of TSA children have a condition that requires special therapy. The highest prevalence was in Wyandotte County and the lowest was in Clay County. Conditions that require special therapy are more frequently reported among: boys, Hispanic children, children under 13 years old, and children in very low-income households.

Speech & Language Problems

A total of 14.7% of TSA children age 0 to 17 years have some type of speech or language problem. This is statistically comparable to the national proportion. In the TSA, boys are more likely than girls to experience speech or language problem. There is a higher prevalence among children age 5 to 12 years of age as well as Hispanic children.

Infant Health

TABLE 10: Key Informant Survey of Impact on Health: Infant Mortality				
Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem at All
Infant Mortality	28.4%	43.1%	27.5%	1.0%

Between 2015 and 2017, there was an annual average of 5.4 infant deaths per 1,000 live births in the TSA that is less than the Healthy People 2020 target of 6.0 per 1,000 live births. During this same time period, the Wyandotte County infant mortality rate was 6.2 infant deaths per 1,000 live births and in Jackson County 6.6 infant deaths per 1,000 live births. While the TSA infant mortality rate has trended downward in recent years; the same can be said for the state and national trends, though at a slower rate.

The challenge for the TSA relates to the disparity in infant mortality rates. The infant mortality rate is nearly two times higher among births to non-Hispanic black mothers (10.6 infant deaths per 1,000 live births) than mothers in other

race/ethnic categories. The report, “From Birth to One: Infant Mortality in the Kansas City Region”⁷ reveals that from 2012 – 2016 for Kansas City Missouri and Wyandotte County, the non-hispanic black infant deaths rate was 9.8 and 12.9 per 1,000 live births, respectively. For Wyandotte County, the Hispanic infant death rate reached 8 per 1,000 live births.

Figure 6: Infant Mortality Rate

Figure 7: Infant Mortality by Race/Ethnicity

Leading Causes of Infant Deaths. Between 20013 and 2017, the number-one leading cause of infant mortality in the TSA was Congenital conditions (congenital malformations, deformations, or chromosomal abnormalities) followed by low birthweight/short gestation, unintentional injury, sudden infant death syndrome, and maternal factors/pregnancy complications.

Survey respondents whose randomly selected child is under one year of age were asked to specify the position they use for putting their baby to sleep. Most of the respondents (62%) place the baby on the baby’s back for sleep while 30.2% responded that they place the baby on the stomach to sleep.

Breastfeeding. A total of 70.6% of TSA children age 0 to 17 were ever breast fed or fed using breast milk (regardless of duration)⁸ and 26.1 percent of all TSA children (as infants) were fed breast milk exclusively for the first six months of life.⁹ Close to 30% of breastfed infants were introduced to foods other than breast milk before three months of age. Exclusive breastfeeding for the first six months is more common among white and Black children, and children living in higher income households and higher in Johnson and Clay County and the lowest in Wyandotte County.

Immunizations. While 88.7% of surveyed TSA parents say they would want their (hypothetical) newborn to receive all recommended vaccinations, a total of 11.3% would not. This number is similar to the percentage reported nationwide and similar across all TSA counties. Reasons given for not wanting all of the recommended vaccines primarily included safety concerns (mentioned by 33.8%), perceiving that some or all vaccines are unnecessary (18.7%), and a preference for delaying certain vaccinations (11.8%).

⁷ From Birth to One: Infant Mortality in the Kansas City Region, 2018, Mother and Child Health Coalition of Greater Kansas City

⁸ The Healthy People 2020 Target is 81.9 percent or higher.

⁹ The Healthy People 2020 Target is 25.5% or higher.

Specific Health Conditions

Asthma

A total of 14.7% of TSA children 0 to 17 years old currently have asthma. The TSA prevalence was similar to the national rate. Wyandotte County had the highest prevalence (21.2%) of childhood asthma while Clay County was the lowest (9.5%). Across the TSA, boys, children ages 5 to 12 years, and Black and Hispanic children are more likely to live with asthma.

Asthma-Related Care: Over one-half of TSA children with asthma (54.0 %) have had one or more emergency room (ED) or urgent care (UC) visits because of asthma at least once in the past year. Among TSA children living with asthma, a total of 31.9 were hospitalized overnight at least once in the past year because of asthma. This is statistically comparable to national findings. To better understand the asthma-related UC, ED and inpatient hospitalization visits, Children's Mercy analyzed data from 2016 -2018. In any one of these years, 758 children had at least four visits in any one of the years. Figure 7 illustrates these visits across the TSA and presents the incidence by county, agegroup, gender and ethnicity.

FIGURE 8: Asthma UC/ED/Hospitalization

Missed School Days Due to Asthma: Among TSA school-aged children with asthma, 58.9% missed school on one or more days in the past year because of asthma-related problems. In fact, 15.1% missed six-plus school days because of their asthma in the past year.

Obesity

Based on the heights/weights reported by surveyed parents, 30.7% of TSA children 5-17 years old are overweight or obese (≥ 85 th percentile)¹⁰. This is statistically similar to the overweight prevalence reported nationwide. Boys are more likely to be overweight or obese. Further, 18.1% of TSA children 5-17 years old are obese (≥ 95 th percentile).¹¹ This percentage exceeds the Healthy People 2020 target (14.5% or lower). Childhood obesity is unfavorable high in Wyandotte county.

Figure 9: Child is Obese or Overweight

Obesity is higher among TSA children who live in Wyandotte County (32.9 percent) and in children 5 -12 years old (21.9%). Among parents of children 5-17 years old who are overweight or obese (based on BMI), over one-half or more see their child as being at "about the right weight."

¹⁰ See Notes to Reader section on page ---for a discussion of the methodology.

¹¹ Note that this proportion is included in the "overweight or obese" percentage reported in the chart.

- Close to 36 percent of parents with an overweight (not obese) child perceive their child as “somewhat overweight” or “very overweight.”
- Only 9.9 percent of parents with an obese child consider that child to be “very overweight.”

A clear majority (77.6 percent) of parents with overweight or obese children have not been told in the past year by a school or health professional that their child is overweight.

Mental and Behavioral Health

TABLE 11: Key Informant Rating of Impact on Health: Mental and Behavioral Health

Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem at All
Mental and Behavioral Health	84.1%	14.0%	1.9%	0.0%

Key informants rated mental and behavioral health issues as a “major problem.” Focus group participants noted several barriers that community children and adolescents encounter relative to mental and emotional health in the community. Participants feel that mental health issues among children and adolescents are growing worse in the region.

“This is the number-one issue in pediatrics today. The number of grade school, middle school, high school, and college-aged kids with treatable anxiety, depression and other mental health issues is appalling. Weekly, I have a patient who has attempted suicide.” -Key Informant, Physician

“I don’t know what it feels like to be happy.” -Community Conversation, Youth

Parents reported “fair/poor” mental health status among children age 5-17 years old more often for those children living in very low-income households.

TABLE 12: Mental and Behavioral Health Conditions: Children, Ages 5-17 Years (as Reported by Parents)

Condition	0	Notes
ADHD or ADD	16.8%	Boys, children over 5 years old, Hispanic children and those of Other races were more likely to have ADHD or ADD.
Anxiety	19.1%	Statistically significant increase from 2012 and 2015 findings. More prevalent among teens and lower income children, whites, Hispanic, and Other races.
Behavioral/Conduct Disorders	8.0%	Statistically significant increase from 2015. Teens and children living in lower income households are statistically more likely to have an anxiety diagnosis. Close to 36% of parents report that the child’s school has notified them in the past year regarding their child’s behavior including 20.4% who were contacted two or more times.
Depression*	11.7%	Significant increase since 2012 and notably higher than found across the US (7.2%). Teenagers, children of Other races, and children living in lower income households are statistically more likely to have been diagnosed with depression.
Signs of Depression**	10.7%	Worse than the US percentage (5.7%) and unfavorably high in Wyandotte County (18.7%). Statistically higher among teens in the TSA. Just over one quarter of families who identified a child with signs of depression did not seek treatment.

*Parents report they have been told by a doctor or other healthcare provider that their child had depression

**Child felt sad or hopeless for two or more weeks in the past year and stopped performing usual activities

The Key Informants and Community Conversation participants agreed that trauma is an especially important factor in child and adolescent health, as impacts current and future health outcomes and well-being. Many respondents felt that trauma-informed services are needed for children and adolescents. In addition, participants discussed a need for education to better understand the effects of trauma.

*"The cycle of adverse childhood experiences is difficult to break without access to mental health resources and support."
-Key Informant, Physician*

The prevalence of Adverse Childhood Experiences (ACEs) was assessed in the telephone survey. The most common ACEs in the TSA is financial strife, with 27.3% of TSA children living in households that "very often" or "somewhat often" found it hard to afford basic necessities. Parental divorce and separation affected the second highest proportion (24.8%) of the TSA children.

FIGURE 10: Adverse Childhood Experiences

In the TSA, 47% of children have endured at least one of the ACEs, including 16.2% that have experienced three or more ACEs in their lifetime. Wyandotte county has the highest proportion of ACEs among children with over half experiencing one or more of these experiences. Over time, the percentage of TSA children experiencing three or more ACEs in their lifetime has doubled. When viewed by age group, there is no statistical difference in the proportion of children experiencing ACEs, though children 11 – 17 years of age are more likely than younger children to have experienced three or more ACEs.

Figure 11: ACEs by County

Figure 12: ACEs by Age

Demand for Mental Health Services

A total of 21.2% of TSA parents report that their child (5-17 years old) has needed mental health services in the past year. Those more likely to have needed such services include boys, teens, children living in lower income households and white children and those of Other races. Among these parents with children needing services, 2.9% report that their child did not receive any type of mental health treatment or counseling. The reasons primarily related to cost and perceptions that treatment or counseling was not needed. More children of lower incomes needed mental health services in the past year as well as children in Wyandotte County (19.8%) followed by Clay County (18.2 %).

It is difficult to reduce barriers associated with mental health treatment when there simply are not adequate resources available. The existing resources are at capacity, contributing to long wait times for treatment. This appears to be true throughout the region; however, in terms of child and adolescent mental health, it is especially relevant in schools, which may lack counselors or funding to support any on-site mental health

services.

"We need increased prevention and education programs focused on depression, anxiety, and suicide for students and school personnel." — Key Informant, Social Service Provider

To improve access to mental health services, Key Informants and Community Conversation participants suggested the following: providing community mental health programs, especially school-based mental health programs and screening; increasing access to culturally appropriate as well as mental health services in Spanish; assisting families entering and navigating the system; and increasing the availability of programs to reduce mental health stigma.

Inpatient Hospitalizations¹²

In 2015, 58.7 per 10,000 Clay County residents under 15 years were discharged from a hospital where they were being treated for a mental disorder. During the same time period, 107.9 per 10,000 Jackson County residents under age 15 were discharged from a hospital where they were being treated for a mental disorder. The state of Missouri rate was 69.4 per 10,000 residents under 15 years.

In 2015, 27.2 per 10,000 Johnson County residents under 15 years were discharged from a hospital after being diagnosed with a mental disorder which is higher than the Kansas rate of 24.2 per 10,000 residents under 15 years. In Wyandotte County the discharge rate was 18.7 per 10,000 residents under 15.

Prescriptions for Mental Health

A total of 15.9% of TSA parents report that their child (5-17 years old) has ever taken prescribed medication for their mental health. The percent marks a statistically significant increase since 2015. This is higher than the US percentage. There was no statistical difference among counties. Teenagers, boys and children living in households just above the poverty level are more likely to have taken prescription medication for their mental health than their demographic counterparts.

Child and Adolescent Mortality

Child & Adolescent Deaths

In 2017, the TSA reported an annual average of 23.7 child deaths (1-4 years) per 100,000 population. With regard to children 5-9 years old, the TSA crude death rate was 13.4 per 100,000 population). This rate higher than the Healthy People 2020 goal of 12.3 child deaths per 100,000 population. Among TSA youth age 10-14 years old, the crude death rate was 14.6 per 100,000 population which is more favorable than the Missouri and Kansas rates. Of concern is the teen (15 to 19 years of age) crude death rate of 69.7 per 100,000 population which is higher than the US, Missouri, and Kansas rates and Healthy People 2020 target.

FIGURE 13: Child and Adolescent Mortality Rates

Leading Causes of Childhood Deaths

The predominant cause of death from 2013-2017 for TSA children ages 1-4 years old, 10-14 years old, and 15-19 years old was unintentional injuries (accidents). Cancer (mostly brain or central nervous system) was the number-one leading cause of death for TSA children age 5-9 years old. Other leading causes of death for children ages 1-4 years old and 15 – 17 years old included homicide, congenital conditions, cancer and heart disease. For adolescents age 15-19 years old there were more deaths by suicide than motor vehicle accidents.

FIGURE 14: Leading Causes of Death by Age Group

Pediatric Health Care Utilization

TABLE 13: Key Informant Rating of Impact on Health: Access to Health Services				
Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem at All
Access to Health Services	45.8%	39.3%	15.0%	0.0%

What families say about access to health services:

"And with, with me, um I usually try to plan [medical] appointments around my pay schedule. So if she [participant's daughter] gets a prescription for something. Or if I have to pull her [from school], I can have her make sure she eats for that day." Food Insecurity Focus Group Participant¹³

"If I have enough time I can find the transportation to get to a medical appointment, but if they want me to bring my child in right away I often can't find a ride." Community Conversation Parent

"When I call my doctor's office with a problem, they always tell me to go to the Emergency room." Community Conversation Parent

"There use to be a clinic at my school. I liked going to that clinic. I don't know why it's no longer there." Community Conversation Parent

"Sometimes you have to wait so long to be seen and then they don't tell you anything." Community Conversation Parent

Usual Source of Care

A total of 92.6% of TSA children were determined to have a usual source of medical care, such as a specific doctor's office or clinic. The percent is similar across all counties and to the US survey results. The proportion of TSA children having a usual source of care has significantly decreased since 2015 and does not satisfy the Healthy People target of 100%. Children of Other races are less likely to identify a "usual source of care."

Receipt of Routine Medical Care¹⁴

A total of 87.5% percent of TSA children have had a routine checkup in the past year. Statistically there was no difference among the four counties and statistically unchanged from 2012. The routine checkups are lowest among Hispanics and children age 5 years and up. The proportions of TSA adolescents fails to satisfy the Healthy People 2020 target (75.6% or higher) for their age group.

Type of Place Used for Medical Care

When asked where they take their child if they are sick or need advice about their health, the greatest share of respondents (66.9%) identified a particular doctor's office, followed by those using some type of clinic (12.4%). A total of 6.9% say they usually go to an urgent care center, while 4.4% rely on a hospital

¹³ Focus Groups were conducted by Children's Mercy staff with families who identified as "Food Insecure." Focus groups conducted June-July 2018.

¹⁴ A routine check-up can include a well-child checkup or general physical exam, but does not include exams for a sports physical or visits for a specific injury, illness or condition.

emergency room, and 0.3% use a health department for their child's medical care.

Emergency Department Utilization

A total of 15.6% of TSA parents report taking their child to a hospital emergency room (ER) more than once in the past year. This denotes a statistically significant increase over time (10.1% in 2012 and 14.2% in 2015). The use of the emergency room was highest for those children that live in Wyandotte County. Those more likely to have used a hospital emergency room more than once in the past year include: Black or Hispanic children; children age 0-4 years old and children in very low-income households (negative correlation with income).

Among TSA parents of children with any ED visit in the past year, 58.2% say the visit was for something that might have been treated in a doctor's office. Asked why they used a hospital ED for their child's care, 39.1% said the visit was to treat an actual emergency situation, and 30.8% indicated that they needed the care after hours or on the weekend. Another 7.2% took their child to the ED due to access-related issues and another 1.5% were recommended to use the ED by their primary care physician.

Urgent Care Centers/Walk-In Clinics Utilization

A total of 48.3% of TSA children visited an urgent care center or other walk-in clinic at least once in the past year. Of these, 11.7% visited an urgent care center three-plus times over the past year. Utilization of urgent care/walk-in clinics has significantly increased from 38.2% in 2012 to 42.5% in 2015. The prevalence of children using an urgent care/walk-in clinic in the past year is higher than national findings and notably lower in Wyandotte County. Those more likely to have sought care at an urgent care/walk-in clinic include: children in upper income households and White and Other race children.

Specialty Care Utilization

A total of 37.8% of TSA children are reported to have needed to see a specialist at some point in the past year. This denotes a statistically significant increase since 2012. Boys and children living above poverty are more likely to have needed to see a specialist in the past year. Parents of children needing specialty medical care in the past year were further asked to evaluate the difficulty of getting the needed care; in all, 6 out of 10 expressed some level of difficulty ("major," "moderate" or "minor problem.") The prevalence of "major/moderate problem" is highest in Johnson County.

FIGURE 15: Evaluation of Difficulty in Getting Specialty Care

Barriers to Services

"Many families living on the city's eastside, northeast and southeast depend upon public transportation to access healthcare services. Our public transit system lacks efficient east/west routes for people to travel in a timely, cost effective manner. This is also true for families living in eastern Wyandotte County." -Key Informant, Health Provider

A total of 38.2% of TSA parents report some type of difficulty or delay in obtaining health care services for their child in the past year. This is well above the national average and while the findings are similar across counties, the findings show a statistically significant increase from 2015. This indicator reflects the percentage of parents experiencing problems accessing health care for their child in the past year, regardless of whether they needed or sought care. Parents of children in lower income households, Black children, and Hispanic children are all more likely to note experiencing difficulties or delays of some kind in receiving their child's healthcare in the past year.

To better understand health care access barriers, survey participants were asked whether any of seven types of barriers to access prevented their child from seeing a physician or obtaining a needed prescription in the past year. Again, these percentages reflect all children, regardless of whether medical care was needed or sought. Of the tested access barriers, difficulty getting a doctor's appointment impacted the greatest share of TSA children (20.2% of parents say that lack of appointment availability prevented them from obtaining a visit to a physician for their child in the past year). Inconvenient office hours impacted nearly as many (18%).

By County:

- Parents living in Jackson and Wyandotte counties reported a significantly higher prevalence of difficulties due to lack of transportation and cost of child's prescription medication.
- Clay county exhibited significantly lower percentages for lack of transportation and culture/language barrier preventing a child's medical visit.
- Parents in Johnson county Exhibited significantly lower percentages for lack of transportation and cost of a child's prescription medication.
- statistically lower than or similar to nationwide findings except for the barriers dealing with cost (of doctor's visit and of prescriptions).

FIGURE 16: Barriers to Access

For the following tested barriers, the proportion of TSA children impacted was statistically worse than nationwide findings: difficulty getting an appointment; lack of transportation; inconvenient office hours; and cost of prescription. For

each of the tested barriers, the proportion of TSA children has increased over time.

Note that 79.9% percent of respondents feel that it is most convenient for them to visit a clinic or doctor's office on weekdays, with similar percentages preferring early morning hours, daytime hours, and evening hours.

Health insurance coverage is often a barrier to healthcare for many families. Nearly 6 in 10 parents (59.5%) report having healthcare coverage for their child through private coverage. Another 35.2% of parents report coverage through a government-sponsored program (e.g., Medicaid, Medicare, state-sponsored program, military benefits). Among parents with insurance for their child, 17.3% report that their child was without healthcare coverage at some point in the past year. This is worse than the national proportion and has worsened over time. Among insured children, the following segments are more likely to have gone without healthcare insurance coverage at some point in the past year: those under age 5 years (negative correlation with age); Hispanics; those in lower-income households (negative correlation with income; and those living in Wyandotte County.

On the other hand, only 5.2% of TSA parents report having no insurance coverage for their child's health care expenses, through either private or public sources. The prevalence of uninsured children is statistically unchanged over time.

Children and Adolescents at Home, School and in the Community

TABLE 14: Key Informant Rating of Impact on Health: Various Issues

Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem at All
Access to Parks/Green Spaces/Recreation Opportunities	18.4%	39.1%	36.8%	5.7%
Adolescent Sexual Activity	19.4%	65.0%	15.5%	0.0%
Child Maltreatment	29.0%	57.0%	14.0%	0.0%
Food Security/Access to Healthy Foods	43.7%	46.0%	9.2%	1.1%
Injury and Safety	21.6%	56.9%	21.6%	0.0%
Nutrition, Physical Activity, Weight	60.4%	32.1%	7.5%	0.0%
Substance Use	39.6%	52.8%	7.5%	0.0%
Tobacco Use	29.5%	55.2%	15.2%	0.0%

Adolescent Sexual Activity

Adolescent sexual health was widely discussed by Key Informants. Participants discussed their perceptions of the increase in sexually-transmitted diseases, adolescent dating violence and teen pregnancy rates.

Between 2015 and 2017, 5.2% of all TSA live births were to a mother under the age of 20. Teen births were highest in Jackson (9.1%) and Wyandotte (6.7%) counties. By race and ethnicity, non-Hispanic blacks exhibit the highest proportions of teen births in the TSA, followed by Hispanics. The proportion of teen births in the TSA has significantly decreased.

Bullying

Among parents of school-age children (5-17 years old), 24.6% report that their child has been bullied in the past year on school property; 11.7 % report that their child has been cyber-bullied.¹⁵ Both forms of bullying are statistically more prevalent than rates seen nationwide and locally, have worsened since 2015. Boys are more likely to be bullied on school property while girls are more likely to be cyberbullied. There is a negative correlation with income. Bullying at

¹⁵ These percentages are not mutually-exclusive.

school is statistically higher among children of Other races. Parents report of cyberbullying are highest among teens and those living just above the poverty level.

FIGURE 17: Bullying

Home Visits

A total of 19.4% of the TSA received a home visit between the time the mother was pregnant with the randomly selected child up until the time of the survey. The prevalence is statistically similar by county. There is a statistically significant increase in those who received home visiting service from 2015 (15.4%). Among the respondents who were never visited by someone from a program for babies and mothers, more than one-half (56.6%) say that they would have used such a program if it had been offered. Hispanic children are years old are more likely to have been offered help from a program for babies and mothers.

Injury and Safety

While parents report that most TSA children were not injured seriously in the past year, 14.4% sustained injuries serious enough to require medical treatment. This is statistically comparable to previous survey findings and across counties. The prevalence of injury was statistically higher among teens, Whites, and Hispanics.

When asked what the child was doing when the injury occurred, parents of these children mentioned activities like organized sports (26.1%), falling or tripping (117.2%), and playing (15.8%). Other activities included walking (6.8 percent), scootering/rollerblading/skate boarding (4.1%), unorganized sports (4.8 percent), and bike riding (3.8%).

Car Seats & Seat Belts

Nearly all, 92.3% of TSA parents report that their child (0-17 years old) “always” wears a seat belt (or appropriate car seat for younger children) when riding in a motor vehicle. This marks a statistically significant decrease since 2012.

Helmet Use

Bicycles. A total of 48.0% of TSA children ages 5-17 years are reported to “always” wear a helmet when riding a bicycle (denominator reflects only those who ride bikes). Among children (ages 5-17 years), those less likely to “always” wear a bike helmet include: boys, teens, and those living in lower income households.

Skateboards, Scooters, Skates & Rollerblades. A total of 38.1% of TSA children ages 5-17 years are reported to “always” wear a helmet when riding a

skateboard, scooter, skates, or rollerblades (denominator reflects only those who engage in these activities). Boys, teens, children living in lower income households, Black Children and those children of Other races are less likely to “always” wear helmets

Child Maltreatment

While additional data was not accessible for this assessment, Key Informants see child maltreatment as an important issue for the region. More than 29% of Key Informants rated child maltreatment as a major problem, while 57.0% saw child maltreatment as a moderate problem.

“I have a feeling that this problem exists at all economic levels and within all races to some extent. Adults who were mistreated during childhood are more likely to raise their children as they were raised.” – Key Informant, Community Business Leader

Nutrition and Access to Healthy Food

Access to and affordability of healthy foods was discussed at length in the Community Conversations. Some community residents are surrounded mostly by fast food and convenience stores, and it is difficult for them to reach a grocery store or farmers’ market; others have a grocery store that is lacking an abundance of healthy foods, or the food is of poor quality. Community Conversation participants mentioned existing programs that attempt to increase access and affordability of healthy foods at farmers’ markets, yet community residents are still faced with the barrier of getting to the farmers’ market. School-age kids, too, might also find it difficult to access healthy foods at school.

A lack of nutrition education and food preparation is one part of the problem, the ability or self-efficacy to utilize that knowledge another. Several nutrition education programs are available for children and adolescents in the community, as well as for parents. However, access barriers may impede a young person’s ability to attend these programs.

Family Meals

A total of 67% of parents report sharing meals as a family on average at least once a day (seven or more times in the past week). Teenagers are less likely to have shared seven or more family meals in the past week.

Fruit & Vegetable Consumption

To measure fruit and vegetable consumption, survey respondents were asked multiple questions, specifically about the foods their child eats on a typical day. A total of 13.9% of TSA parents report that their child eats fruits and/or vegetables five or more times per day. Fewer children living in lower income families ate fruits and/or vegetables five or more times per day than children

living in the other counties.

Fast Food

A total of 34% of TSA children 2-17 years old had three or more “fast food” meals in the past week. This has increased significantly since 2012. Fast food consumption is more prevalent among teens.

Food Security

What families have to say about food insecurity:

- *“...And I have \$35/month for food. That’s it. And that’s like barring the costs of gas going up, or anything going wrong, or needing an oil change for my car....”*
- *“But I don’t eat to make sure they’re fed. (Second participant, “I’ve done that.”)*
- *“If it wasn’t for WIC, then there’d probably be times that we didn’t have any [fruits and vegetables] in our house.”*
- *“You should not have to go 2 or 3 neighborhoods away from you to get food.”*
- *“Nothing is close might have to take several buses to get to the grocery store or buy food at a QT or filling station where they mark -up food 500%.”*

-Food insecurity Focus Group Participants

In the past year 34.3% of parents “often” or “sometimes” worried that their food would run out before they had money to buy more. Close to 30% of TSA Parents “often” or “sometimes” ran out of food and did not have money to buy more. This was most prevalent in Jackson and Wyandotte counties. Children without a consistent food supply at home include: younger children (correlates with age); children living in low income households (correlates with income) and Black, Hispanic, or Other race children.

Parent Support

Most TSA parents believe that they cope with the demands of raising a child “very well” (53.3%) while in contrast, close to 5% cope with these demands “not very well” or “not very well at all.

A total of 36.2% of TSA parents were “sometimes,” “always,” or “usually” angry with their child in the past month. Parents of Hispanic children are most often angry with their children.

Physical Activity

A majority (42.5%) of TSA children ages 2-17 years had 60 or more minutes of physical activity on each of the seven days preceding the interview (one-plus hours per day). Only, 15.1% had two or fewer days in the past week with

adequate physical activity. Teens were the least active.

School Days Missed Due to Illness or Injury

While most TSA school-age children (5-17 years old) missed two or fewer school days in the past year due to illness or injury, 9% reported to have missed 6 or more due to illness or injury.

Technology

Internet Access

A high proportion of children living in the TSA (52.3%) have access to the Smartphone. In the TSA, 88% of age 13 – 17 year old have a Smartphone and close to 58% of girls have their own Smartphone.

Tobacco Exposure

A total of 11.4% of TSA parents report that someone in the household smokes inside the home. Those most likely to be exposed to tobacco smoke in the home are younger children (negative correlation with age), Black and Hispanic children, and children in low-income households. Close to 27% of TSA parents report that someone in the household smokes outside the home. Smoking outside the home is notably higher among households with children ages 0-4 years, or incomes less than 200 percent of the federal poverty level.

Vaping

“Teenagers see vaping as ‘cool’ and a mature thing to do, being a rebel without the risk of smoking. However, we know there are risks with vaping as well. This vaping seems to appeal to boys and girls alike and all in the suburbs, we see it in middle school kids into high school.” -Key Informant, Physician

While we were not able to collect comprehensive set of data related to vaping, the issue was addressed by a number of Key Informants. The Kansas and Missouri student survey data¹⁶ is as follows:

- In Jackson and Clay counties just over 11% of high school students responded that they had used an ecigs, mods or vapes
- Over 24% of Jackson County and 29% Clay County high school students believe that peers would think it was ‘pretty cool’ or ‘very cool’ if you used ecigs, mods or vapes
- Over 10% of Wyandotte County high school students and 21.56% (higher than the state average of 17.8%) of Johnson County high school students have tried ecigs, mods, or vapes

¹⁶ Kansas Communities that Care Student Survey, 2018 and Missouri Student Survey, 2018

Priority-Setting of Health Needs

On April 1, 2019, Children's Mercy held a Children's Health Summit (Summit) to solicit input on the focal question, "What are our community's biggest health problems affecting children?" More than 350 representatives from area public health, health care, social services, governmental, community, neighborhood and housing organizations were invited. The 198 attendees (including 45 from Children's Mercy) were presented with an overview of the 2019 CHA findings and participated in facilitated break-out groups to discuss and prioritize nine health areas that emerged from the morning's session. Participants were asked to sort and rate the problems.

COMMUNITY AREAS of OPPORTUNITY **Prioritized at Children's Health Summit** **April 1, 2019**



The identified top community issues are (in priority order): mental/behavioral health access to health services, infant health, nutrition/physical activity/weight, injury and violence; tobacco, alcohol, substance abuse, and asthma. The Summit participants recognized that in order to address the identified priorities, three overarching population level topics affecting children's health outcomes must be considered. These "crosscutting themes" are: addressing social determinants; focusing on equitable outcomes, and keeping children safe.

The results from the 2019 CHA and the Summit were then presented to more than 180 staff members from across the Children's Mercy system. The Children's Mercy staff members were asked to rate each of the community-identified issues by the following criteria:

1. Importance:

How important is the problem to our community? Consider magnitude, is this issue increasing or decreasing?

(1 = not important, 5 = most important)

2. Measurable Impact:

What is the likelihood of being able to make a measurable impact on the problem? Consider if there are evidence-based interventions? Can the change be measured?

(1 = not likely; 5 = highly likely to make an impact)

3. Children's Mercy's Ability to Address:

Does Children's Mercy have the ability (resources, personnel, etc.) to address this problem? Is the issue in our wheelhouse?

(1 =no ability; 5 = great ability)

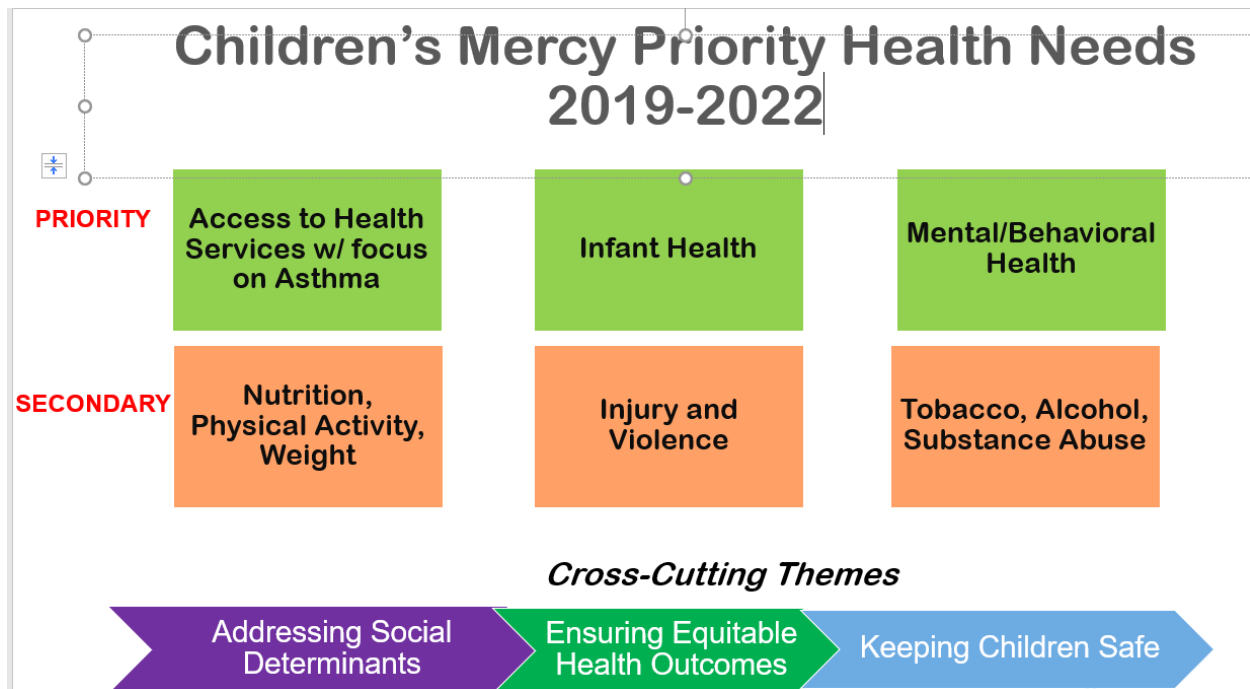
Ratings by Children's Mercy Staff

Presentations to 9 Groups 4/3-5/3

180 reached with 72 (41.1%) participated in rating survey
(5 pt. scale from zero to most or greatest)

AREA	IMPORTANCE <i>(out of 72 for most important)</i>	IMPACT <i>(out of 72 for greatest impact)</i>	ABILITY <i>(out of 72 for most ability)</i>	TOTAL <i>(216 total points)</i>
Access to Health	54	59	52	165
Infant Health	55	52	53	160
Mental/Behavioral Health	64	41	31	136
Nutrition, Physical Activity and Weight	43	39	38	120
Tobacco, Alcohol and other Substances	31	18	11	60
Injury and Violence	51	26	15	92
Asthma	37	48	53	138

The above results were presented to the Children's Mercy Executive Leadership Team who determined the priority and secondary health needs to present to the Board of Directors.



The Children's Mercy approved the priority health needs by unanimous vote on June 18, 2019. Members of the internal Community Benefit Advisory Committee are reviewing the prioritized health needs and considering how Children's Mercy can address each of the identified issues in a strategic and targeted fashion over the next three years. An implementation strategy and evaluation plan that addresses the five priority areas will be developed over the Summer of 2019. The following chart outlines the results of this discussion.

PRIORITY HEALTH NEEDS TARGET AREAS AND POTENTIAL MEASURES		
HEALTH NEED	TARGET AREAS	POTENTIAL MEASURES
Access to Health Care/	<ul style="list-style-type: none"> • Expand On-Demand Transportation Services • Develop approach to school-based access • Articulate strategy to reach Refugee Population • Convene community-based partners to develop Asthma program • Review internal Primary and Secondary Clinic approaches to articulate potential reforms • 	<ul style="list-style-type: none"> • Reduced barriers to accessing health services • Increase well child visits • Improve attendance at area schools where school-based program lives • Reduce UC and ED visits for Asthma and Ambulatory Sensitive conditions • Increase number of students reached through Sports Medicine • Increase number served by On-Demand transportation
Infant Health	<ul style="list-style-type: none"> • Join Community Action Teams throughout the region. • Support existing community collaboratives to improve infant health outcomes. • Continue to support and deepen the work of the Fetal Health Center. • Work to expand home visiting programs across the region. • Continue to support and expand Children's Mercy safe sleep efforts with community agencies • Develop approaches to support new efforts related to breastfeeding and immunizations 	<ul style="list-style-type: none"> • Increased collaboration with community agencies • Increase number of home visitation clients • Expansion of community-based safe cribs program • Increase Breastfeeding rates • Improve immunization rates for infants under 1 year of age • Continue reach of infant mortality program
Mental and Behavioral Health	<ul style="list-style-type: none"> • Develop plan in conjunction with community partners to address high priority mental health needs. • Develop school-based mental health strategy • Increase integration into primary care • Expand suicide prevention program • Grow to scale the Behavioral Master Class 	<ul style="list-style-type: none"> • Development of plan • Reduction in AHMS patients seen in ED • Decrease in adolescent suicide attempts and completions • Increase number of Behavioral Master Classes • Establish partnership with at least three schools

Addressing Significant Health Needs	
Nutrition/Physical Activity/Weight	<ul style="list-style-type: none"> • Continue Hunger Free Hospital Task Force • Expand Formula Recovery program and distribution • Continue Summer Lunch Program • Continue Weighing In Coalition • Expand Community Garden • Expand Food Demonstration projects
Injury and Violence	<ul style="list-style-type: none"> • Expand the scope of the Center for Childhood Safety • Continue Council on Violence Prevention • Expand Gun-lock distribution program • Participate in community coalitions to address gun violence
Tobacco, Alcohol/Substance Abuse	<ul style="list-style-type: none"> • Create video and education materials on the proper disposal of medication • Maintain a smoke-free and drug-free workplace.

2016-2019 Implementation Progress

In 2016, Children's Mercy conducted a community health needs assessment and identified three priority needs. Below is a brief summary of accomplishments to date. A more detailed evaluation report is available on the Children's Mercy website: www.childrensmercy.edu/community

Need #1: Access to Health Care

- The [Beacon Program](#) is seeing 100-plus complex, chronic, special health care needs patients and their siblings.
- Expanded on-site health services at Operation Breakthrough, University Academy and Synergy Services.
- Continue to support Project Clinic Access – 3rd Next Available Appointment scheduling
- Over 100,000 lives covered through the Pediatric Care Network.
- Established On-Demand transportation program

Need #2: Infant Mortality Reduction

- Support Promise 1,000, a community-wide program to coordinate home visit services across the region.
- Created centralized community porta-crib distribution
- Established faith-based partnership to engage church
-

Need #3: Mental and Behavioral Health

- Established Behavioral Health Master Class
- Established Acute Mental Health Screening in Emergency Department
- Established Universal Suicide Screening program
- Delivered community-based Adolescent Risky behavior programs

APPENDIX 1: Improving Child Health: Key Informant and Community Conversation Participant Recommendations

Key Informants and participants in Community Conversations were asked what was the one thing that could be done right now to improve children's health in the Kansas City region; and to name one action, policy, or funding priority that they would most support in order to build a healthier community for children. The following presents a summary of their responses. See Appendix 2 for a list of the organizations represented by the Key Informants and Community Conversation participants.

Access to Care/Services

- Access to providers and clinics in low income areas
- Expand clinic hours
- More access to Federally Qualified Health Centers
- Free healthcare to all
- Expand Medicaid
- Quicker access to specialty care
- Paid maternity/paternity leave
- Culturally sensitive healthcare education and services
- Expand insurance coverage
- Provide one-stop shop environments
- Provide school-based or mobile clinic services
- Provide health clinics at schools in low income areas where children can receive vision, dental, medical checkups, immunizations, and mental

Access to Healthy Foods/Programs

- Address hunger and food insecurity
- Improve access and options for healthier food
- Access to nutrition and physical activity programs
- Tax breaks for grocery stores that build in impoverished neighborhoods
- Education for families on how to buy and cook with health foods
- More community gardens

Affordable/Safe Housing

- Provide better living conditions where people can live in a stable, healthy

home environment

- Increase property inspections
- Provide more affordable housing for families

Asthma Management

- Make asthma awareness and treatment as important as other chronic diseases
- Coverage for home visits and supplies related to asthma management
- Improve health and safety of home environment

Mental and Behavioral Health Services

- More access to mental health services, providers and resources
- Integrate primary and behavioral health
- Provide better access to resources, support services and other treatment options other than medication
- More providers
- Need school-based mental health services for students
- More culturally appropriate mental health care
- Provide and expand more counseling services

Collaboration

- Partner with other organizations to address improving children's health

Community Wellness

- Hospitals need to address the social determinants of health to provide holistic care
- Establish a model for community wellness for the city so everyone has a role in creating a healthy environment
- Increase community policing
- Increase neighborhood associations
- Improve communications between neighbors

Early Childhood Education

- Provide more opportunities for early childhood education
- Make available programs to help children to learn coping skills while

forming healthy habits and relationships

- Universal access to Head Start and early childhood services
- Provide affordable childcare
- Provide weekend and overnight childcare

Health Equity

- Focus on areas with the lowest life expectancy
- Address racism and how it intersects with other

Infant Mortality

- Address infant mortality

Interventions

- More home visiting for at-risk families
- Establish a strategy for those children not performing well in schools

Parenting Education

- Have parenting classes for all and one-on-one education for pregnant women regarding prenatal care and child development
- Provide role models for teens that may not have support system at home
- Teach modeling behaviors to parents or guardians
- Expand home visitation programs that educate parents on healthy parenting and relationships with their children
- Increase parent awareness on drug issues in their community
- Provide resources to support families with conflict resolution and coping skills to reduce stress and better manage anger

Physical Activity

- Reduce access to phones and screen time
- Provide safe opportunities to play outside
- Provide yoga and meditation service to improve physical and mental

health

- Promote policies to support nutrition and physical activity

Education

- Establish a literacy campaign across Kansas City beginning at birth
- Focus on improving third grade reading achievement

Vaccinations

- Expand programs to support immunizations

Violence Prevention

- Create gun free and violence free affordable housing
- Stop conceal and carry laws
- Install more shot-spotter cameras

Workforce Issues

- Increase minimum wage to a living wage
- Provide job training and apprenticeship programs

APPENDIX 2

Key Organizations, Programs, Resources Participated in Community Conversations, Key Informant On-Line Survey and Children's Health Summit and/or Identified through Community Health Assessment	
Aim 4 Peace	Johnson County Department of Health and Environment
Baby and Child Associates LLC	Meeker Creative
Baptist-Trinity Lutheran Legacy Foundation-- Kansas City's Medicine Cabinet	Mid-America Head Start
BikeWalkKC	Mid-America Regional Council
Blue Springs Pediatrics	Midwest Dairy Council
Boys and Girls Club	Marillac
Calvary Community Outreach Network	Mattie Rhodes Center
Catholic Charities of Kansas City-St Joseph	Missouri Primary Care Association
Child Care Aware of Kansas	Mother's in Charge
Child Protection Center	MO Depart of Health and Senior Services/ Bureau of Special Health Care Needs
Children Of Incarcerated Parents	Mother and Child Health Coalition
Children's Mercy Cancer Center Auxiliary	MU Extension
CHW Certification at MCC	New Birth Company
Clay County Public Health Center	No Kid Hungry Missouri
Community Health Council of Wyandotte County Comprehensive Community Development	North Kansas City Hospital North Kansas City School District
Cornerstones of Care	Northland Healthcare Access
Cradle Kansas City	Operation Breakthrough
Cradle Thru College Care Pediatrics, Inc	PACES of Wyandot Center
Eitas	Parents As Teachers KCPS
El Centro	Pediatric Associates
First Call	Pediatric Care North
First Hand Foundation	Phoenix Family
Food Equality Initiative	Planet Play
Greater Kansas City Community Foundation	Platform Civic Strategies
Green Acres Urban Farm and Research Project	Platte County Health Department
Guadalupe Centers	Poetry For Personal Power
Guardian Group	Pro Deo Youth Center
Happy Bottoms	Project Eagle
Harvesters – The Community Food Network	REACH Healthcare Foundation
Health Care Collaborative of Rural Missouri	Reconciliation Services
Health Forward Foundation	ReStart Homeless Shelter
Healthcare for Children	Samuel U. Rodgers Health Center
Healthy Families America	Science City at Union Station
Heartland Primary Care	Score 1 For Health – Kansas City University of Medicine and Biosciences
Hron and Partners	Shawnee Mission School District
Independence School District	Sleepyhead Beds
Ivanhoe Neighborhood Council	Start at Zero
Jackson County Community Children's Services Fund	Sunflower Health Plan
Jackson County Mental Health Fund	Sunflower House
Johnson County Pediatrics	Swope Health Services
Jewish Vocational Services	Synergy Services Inc.

Kansas Children's Service League	TIES Advisory Council
Kansas Breastfeeding Coalition	Tri-County Mental Health Services
Kansas City Health Department	Truman Medical Center
Kansas City Healthy Start	Turn the Page KC
Kansas City Kansas Public Schools	UMKC Health Sciences District
Kansas City Missouri Health Department	UMKC-IHD
Kansas City Public Library	Unified Government Public Health Dept. of Wyandotte County
Kansas City Public Schools	United Community Services of Johnson County
Kansas City, Missouri Health Commission	United Way of Greater Kansas City
Kansas City Missouri Police Department	United Way of Wyandotte County
Kansas City, Missouri Health Department	UnitedHealthcare
Kauffman Foundation	University of Kansas Medical Center
KC Healthy Kids	University of Missouri–KC
KC STEM Alliance	Urban Neighborhood Initiative
KidsTLC	Vibrant Health
KIPP KC	Washington University at St. Louis
KU Master of Public Health Program	Westside Housing Organization
KUMC Project Eagle	William T Kemper Foundation
KVC Hospitals	Wyandot Inc.
Lathrop Gage, LLP	Wyandotte Health Foundation
Lee's Summit Physicians Group	YMCA of Greater Kansas City
Legal Aid of Western MO	Young Women on the Move
The Children's Place	Youth Ambassadors, Inc.
The Family Conservancy	
Thermo Fisher Scientific	

APPENDIX 3

Notes to Readers

Child weight status based on Body Mass Index (BMI) Determination: BMI data are not presented for children 0-4 years. Height and weight data is from parent/caregiver report. BMI is calculated from a child's height and weight using the formula:

$$\text{BMI} = \text{weight (kg)} / [\text{height (m)}]^2$$

To determine whether a child is overweight or obese, his or her BMI is compared against the BMI of other children of the same age and sex using standard growth charts from the Centers for Disease Control and Prevention (CDC).

Food Insecure Household Definition: The United States Department of Agriculture defines food insecurity as limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire foods in socially acceptable ways.

Homeless Definition: The McKinney-Vento definition of the term "homeless children and youths" is individuals who lack a fixed, regular and adequate nighttime residence and includes: (i) children and youths who are sharing the housing of other persons due to loss of housing, economic hardship, or a similar reason; are living in motels, hotels, trailer parks, or camping grounds due to the lack of alternative adequate accommodations; are living in emergency or transitional shelters; are abandoned in hospitals; or are awaiting foster care placement; (ii) children and youth who have a primary nighttime residence that is a public or private place not designed for or ordinarily used as a regular sleeping accommodation for human beings; (iii) children and youth who are living in cars, parks, public spaces, abandoned buildings, substandard housing, bus or train stations, or similar settings; and (iv) migratory children who qualify as homeless for the purposes of this subtitle because the children are living in circumstances described in clauses (i) through (iii).

Infant Mortality Rate Definition: The infant mortality rate is the number of deaths under one year of age occurring among the live births in a given geographical area during a given year, per 1,000 live births occurring among the population of the given geographical area during the same year.

Poverty Definition: The poverty definition used for data presented in poverty-related charts in this report is that of the U.S. Census Bureau.

For the survey data, income categories reflect the respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Very low income" includes households with incomes below 100 percent of the FPL (\$24,250 for a family of four in 2015); "Low income" includes households with incomes between 100 percent and 199 percent of the FPL; and "Mid/High income" includes households with incomes at 200 percent or more of the FPL (\$48,500 for a family of four in 2015).

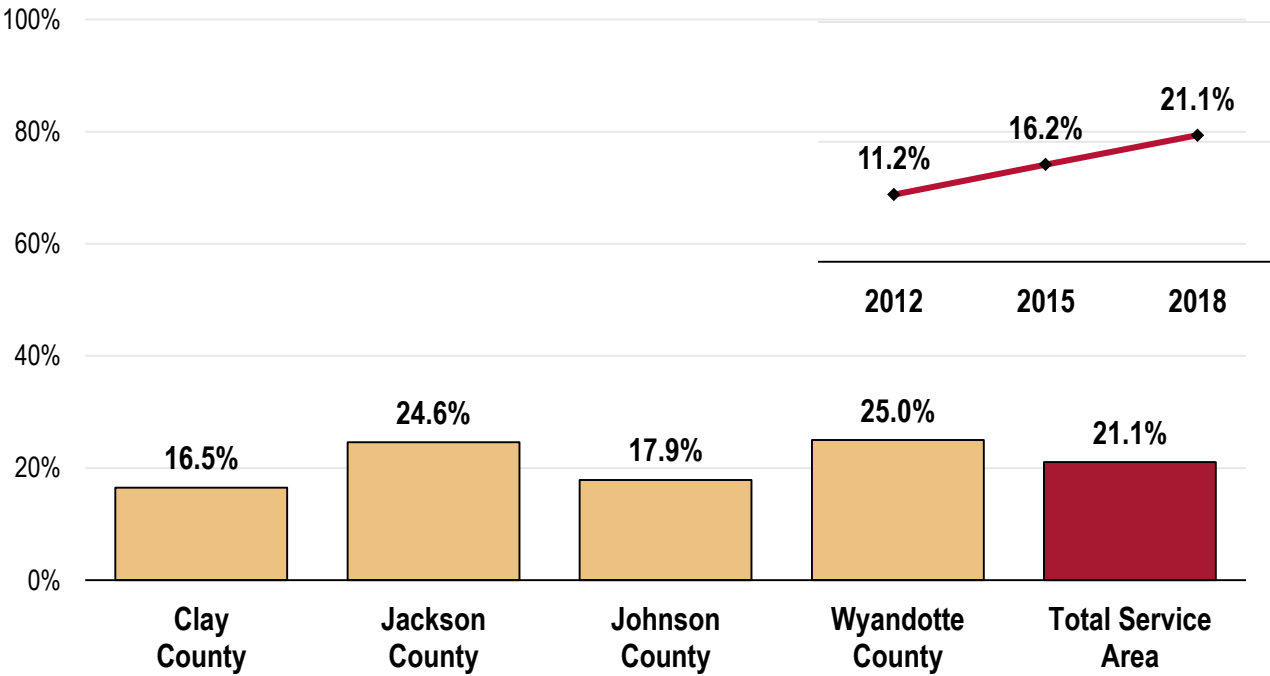
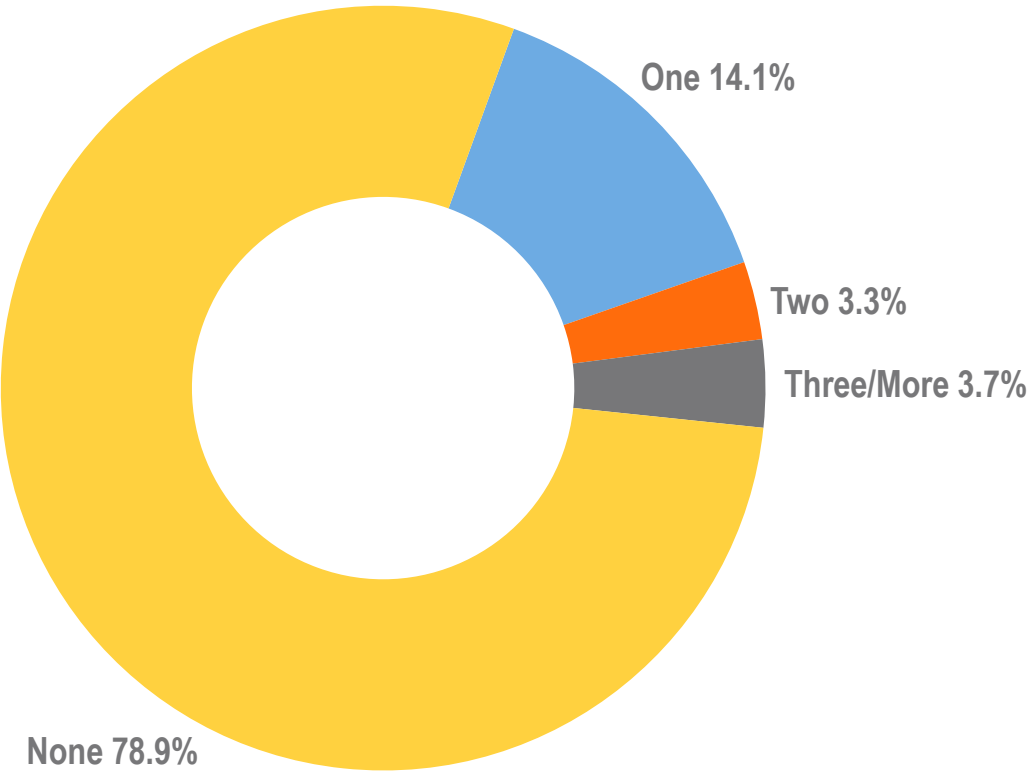
Racial and ethnic designations: All racial and ethnic designations in this report are self-reported for the survey data. For other data, designations are based on the U.S. Census definitions.

FIGURE 1: Community Health Assessment Service Area, 2019



FIGURE 3: Moved Residences Past Year

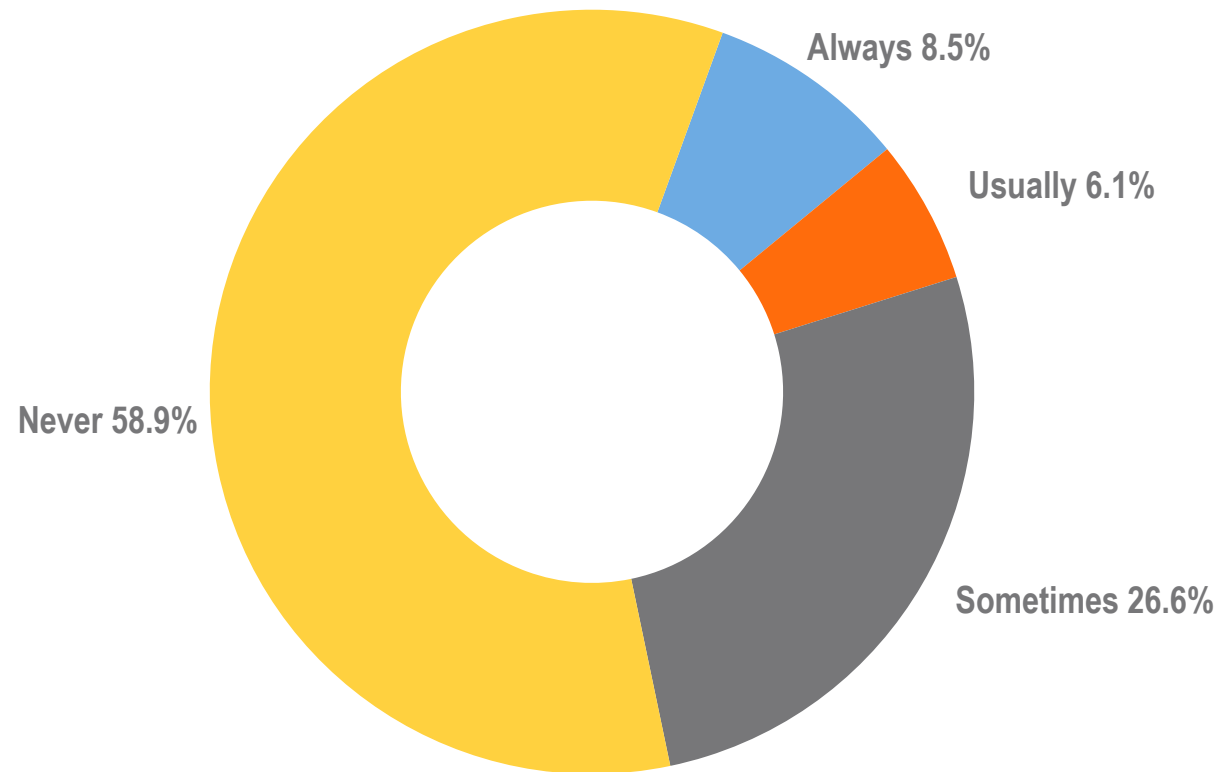
(Total Service Area, 2018)



Sources: 2018 PRC Child & Adolescent Health Survey, Professional Research Consultants, Inc. [Item 352]
Notes: Asked of all respondents.

FIGURE 4: Frequency of Worry or Stress Over Paying Rent/Mortgage in the Past Year

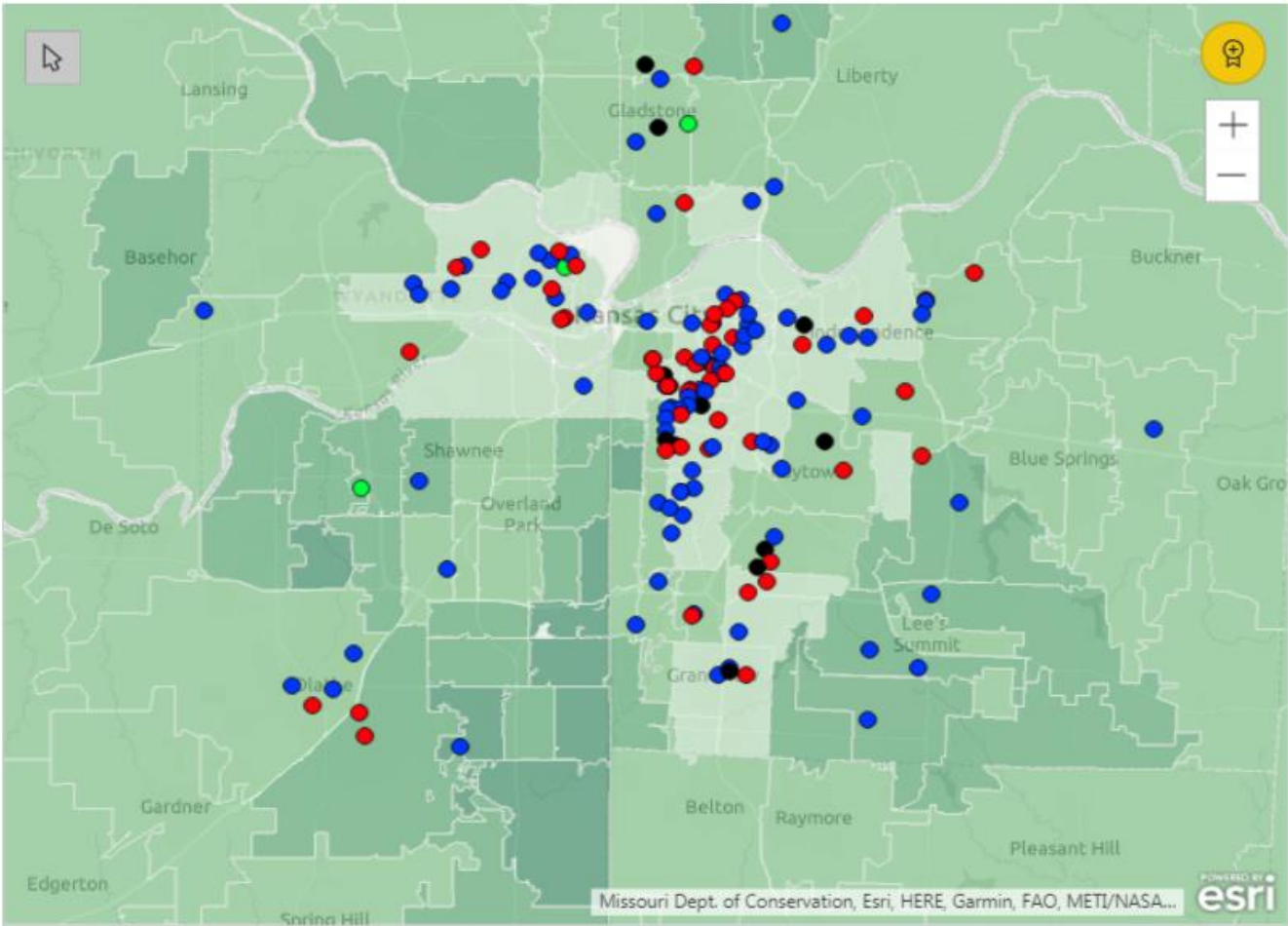
(Total Service Area, 2018)



Sources:
Notes:

- 2018 PRC Child & Adolescent Health Survey, Professional Research Consultants, Inc. [Item 355]
- Asked of all respondents.

FIGURE 5: Firearm Injuries- Fatal and Nonfatal Seen in the Children's Mercy ED, 2016-2018



Accidental = ● Intentional Assault = ● Unknown Intent = ● Intentional Self Harm = ●

n = 188

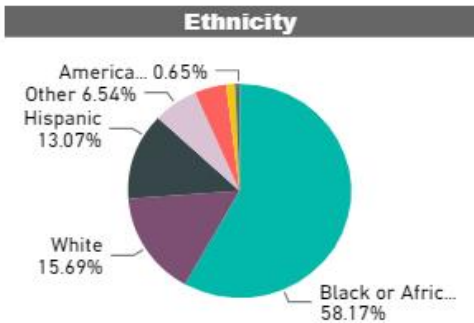
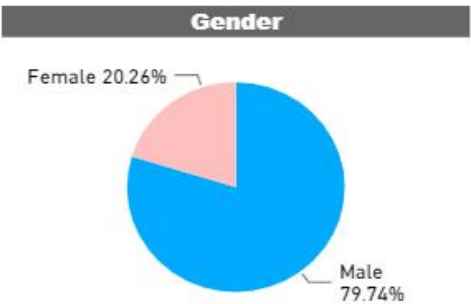
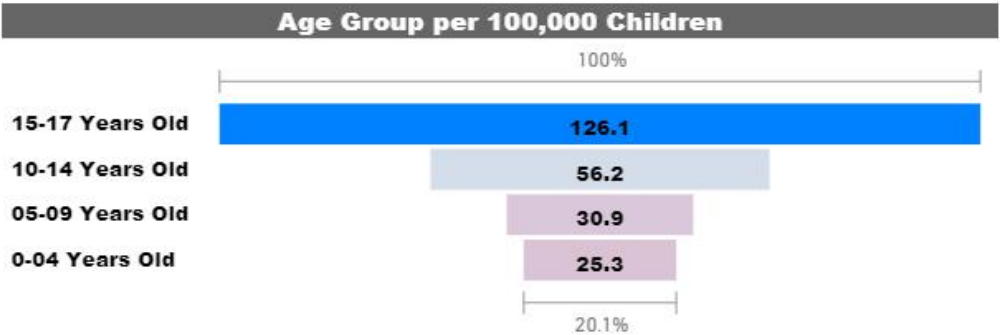
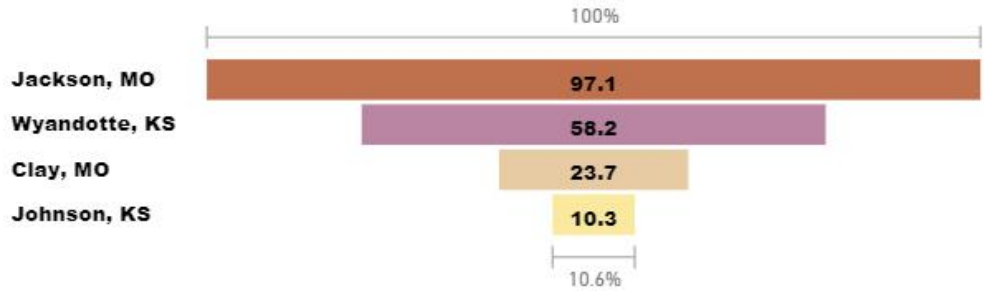
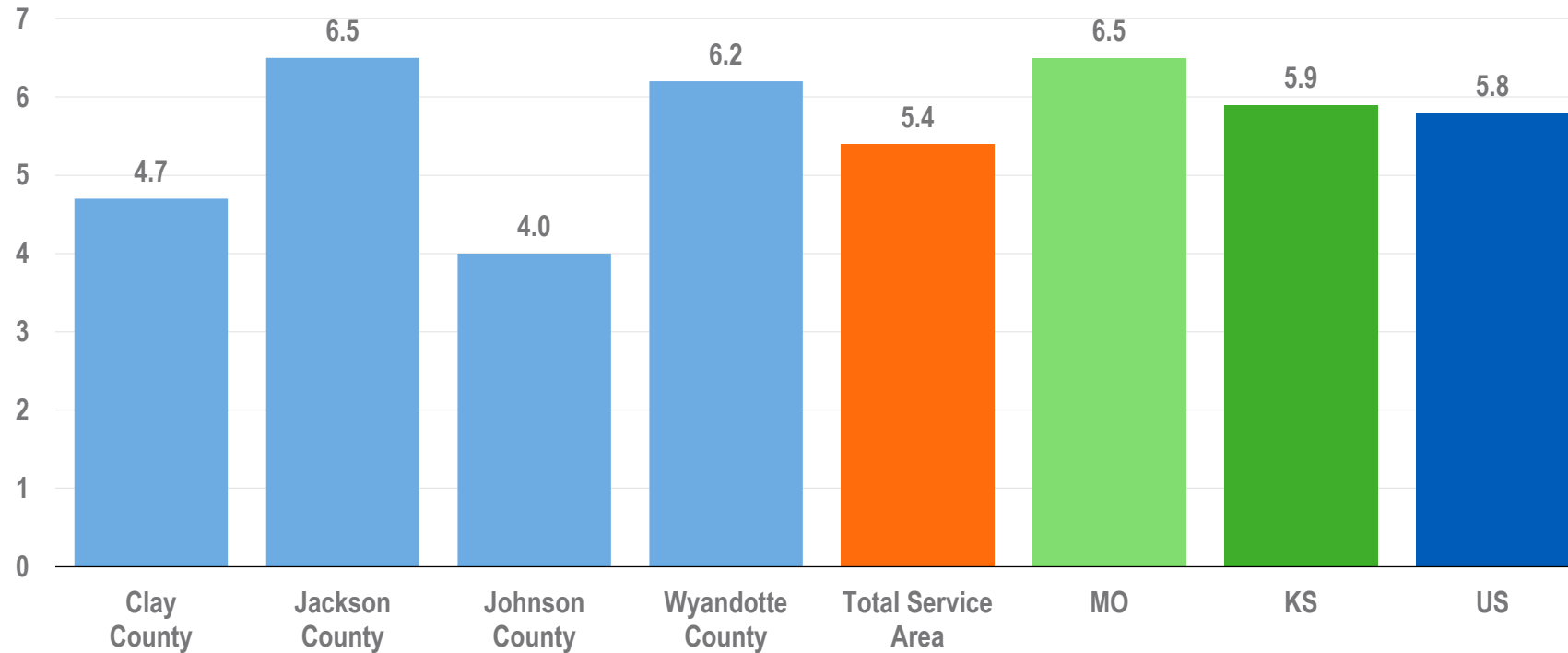


FIGURE 6: Infant Mortality Rate

(Annual Average Infant Deaths per 1,000 Live Births, 2015-2017)

Healthy People 2020 Target = 6.0 or Lower



Sources:

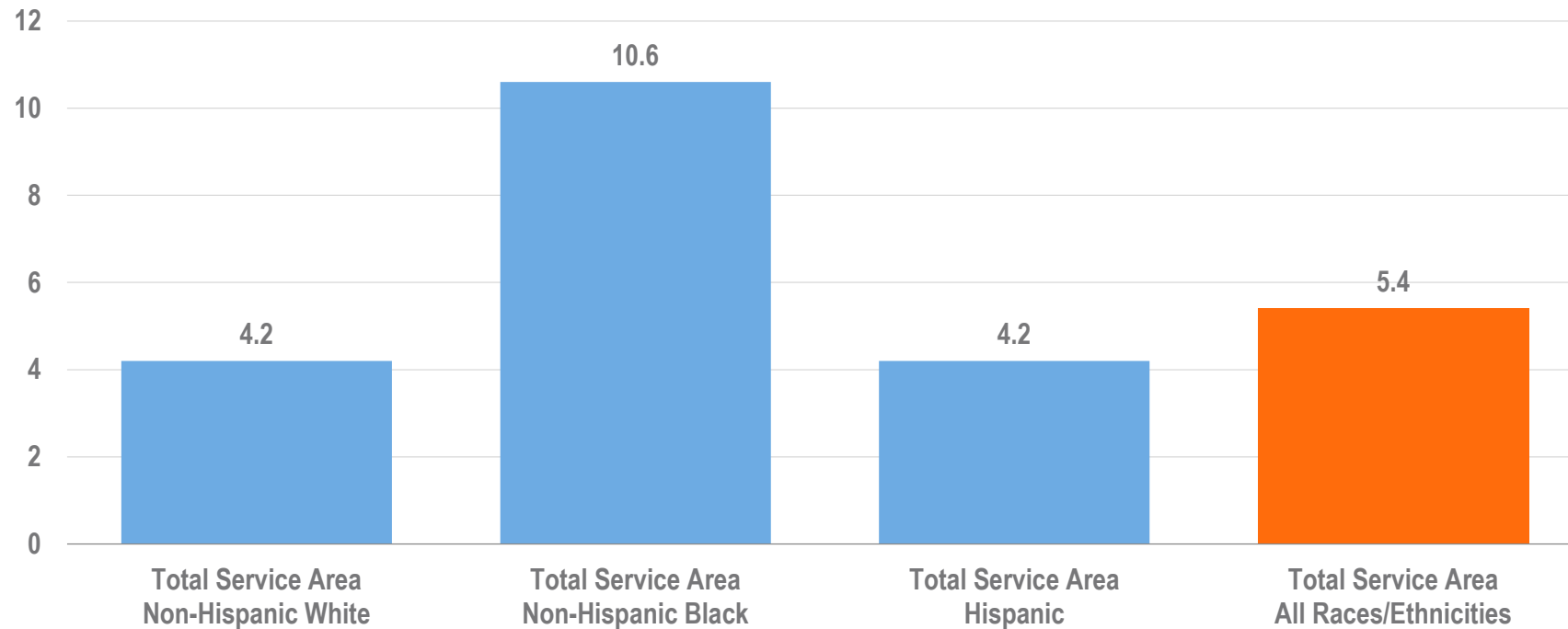
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted December 2018.
- US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective MICH-1.3]

Notes:

- Infant deaths include deaths of children under 1 year old.
- This indicator is relevant because high rates of infant mortality indicate the existence of broader issues pertaining to access to care and maternal and child health.

FIGURE 7: Infant Mortality by Race/Ethnicity

(Annual Average Infant Deaths per 1,000 Live Births, 2015-2017)
Healthy People 2020 Target = 6.0 or Lower



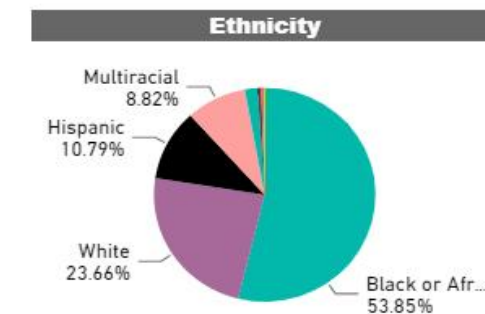
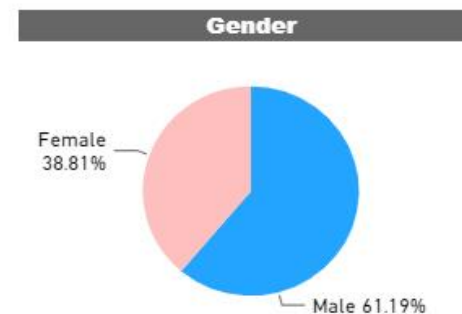
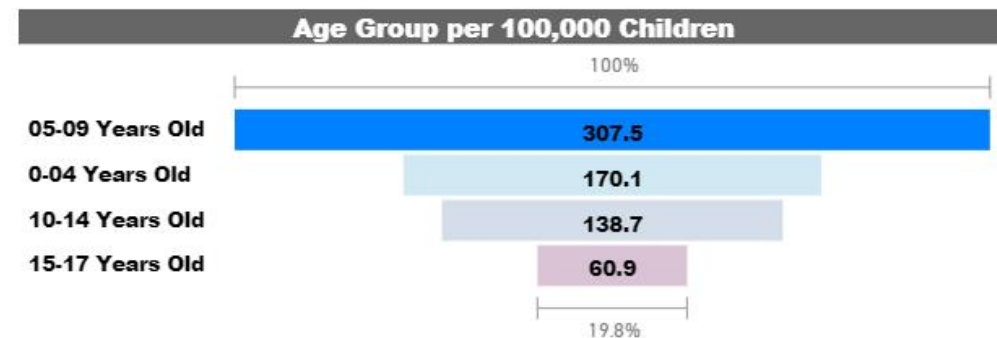
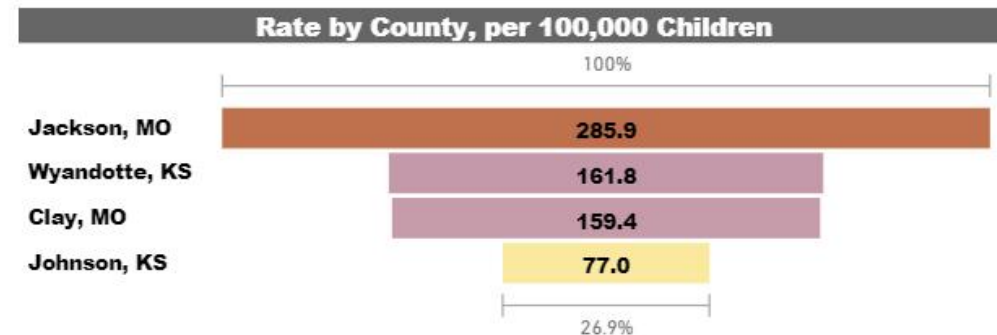
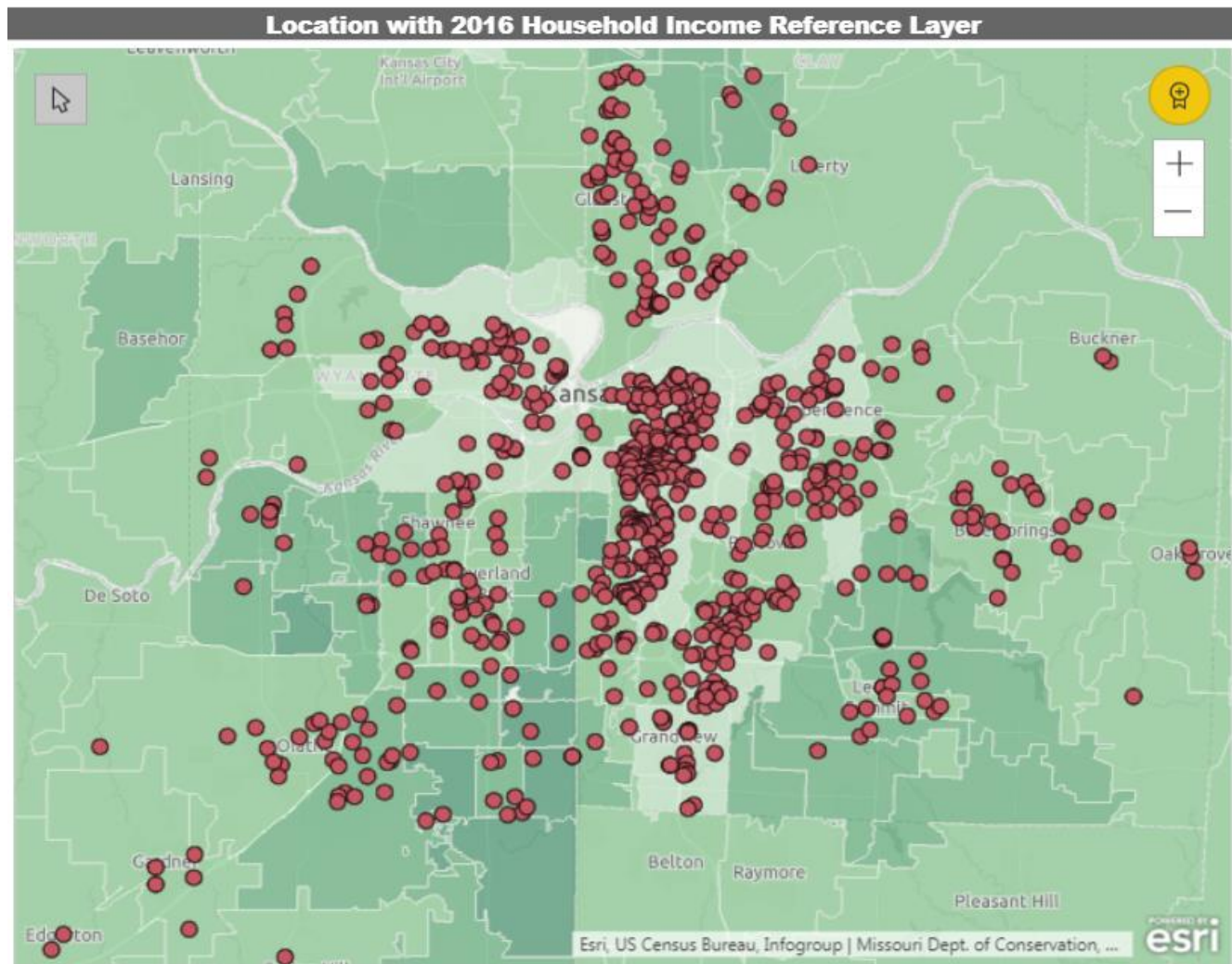
Sources:

- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted December 2018.
- US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective MICH-1.3]

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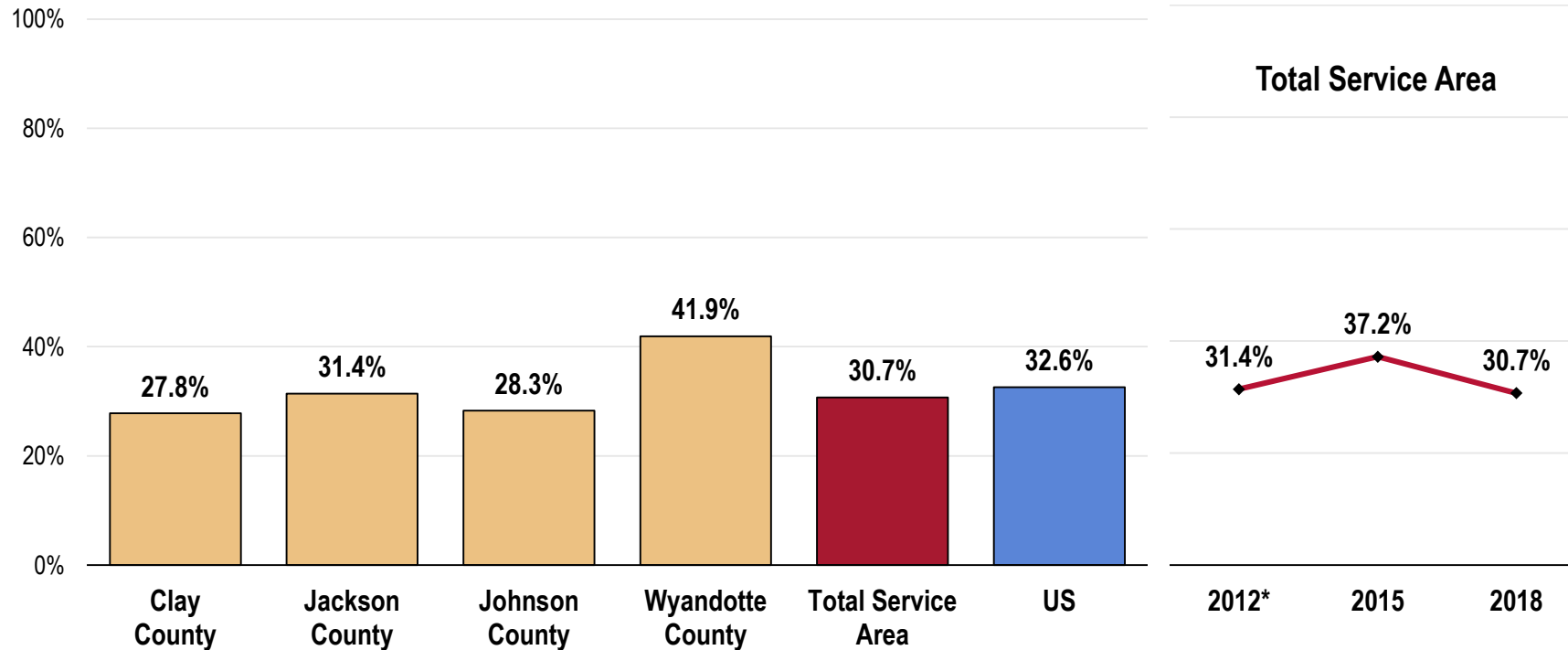
FIGURE 8: Asthma UC/ED/Hospitalization at Children's Mercy >4 times Annual Visits, 2016-2018



n = 758

FIGURE 9: Child Is Overweight or Obese

(Total Service Area Children Age 5-17 With a BMI in the 85th Percentile or Higher)



Sources: • 2018 PRC Child & Adolescent Health Survey, Professional Research Consultants, Inc. [Item 135]

• 2017 PRC National Child & Adolescent Health Survey, Professional Research Consultants, Inc.

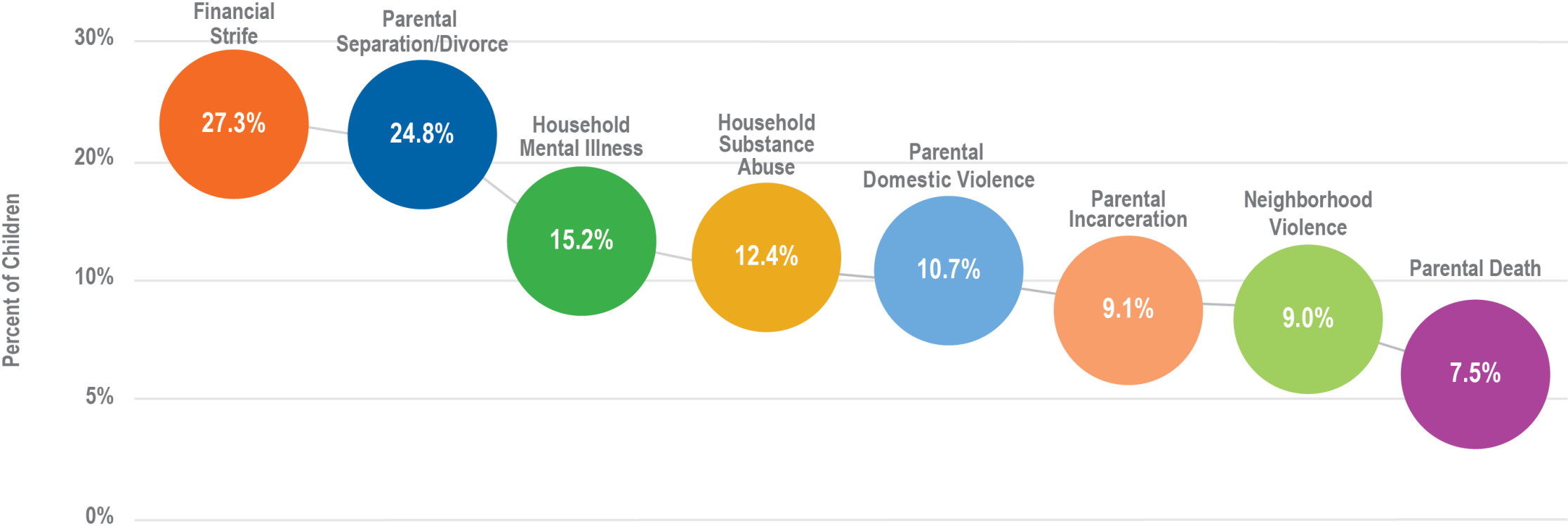
Notes: • Asked of those respondents for whom the randomly selected child in the household is between the ages of 5 and 17.

• Overweight among children 5-17 is determined by child's Body Mass Index status at or above the 85th percentile of US growth charts by gender and age.

• *BMI was calculated slightly differently in the 2012 study: age-in-years midpoints were used to calculate BMI in 2012; in 2015 and 2018, BMI cutoffs were based on child's actual age in both years and months. Analysis shows that the difference between the two calculation methods is marginal.

FIGURE 10: Adverse Childhood Experiences (ACEs)

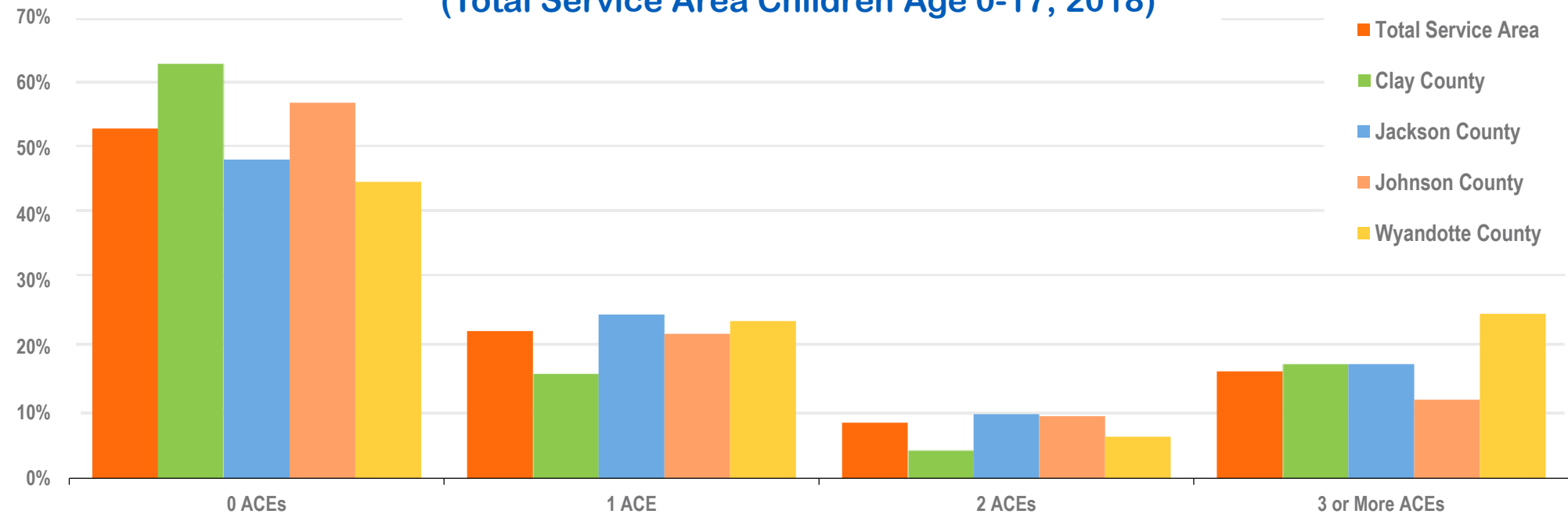
(Total Service Area Children Age 0-17, 2018)



Sources: 2018 PRC Child & Adolescent Health Survey, Professional Research Consultants, Inc. [Items 338-345]
Notes: Asked of all respondents about a randomly selected child in the household.

FIGURE 11: Total Number of Adverse Childhood Experiences (ACEs)

(Total Service Area Children Age 0-17, 2018)



	0 ACEs	1 ACE	2 ACE	3 or more ACEs
Total Service Area	53.0%	22.3%	8.4%	16.2%
Clay County	62.7%	15.8%	4.2%	17.3%
Jackson County	48.3%	24.8%	9.7%	17.3%
Johnson County	56.9%	21.9%	9.4%	11.9%
Wyandotte County	44.9%	23.8%	6.3%	24.9%

8.0% in 2015

Sources:

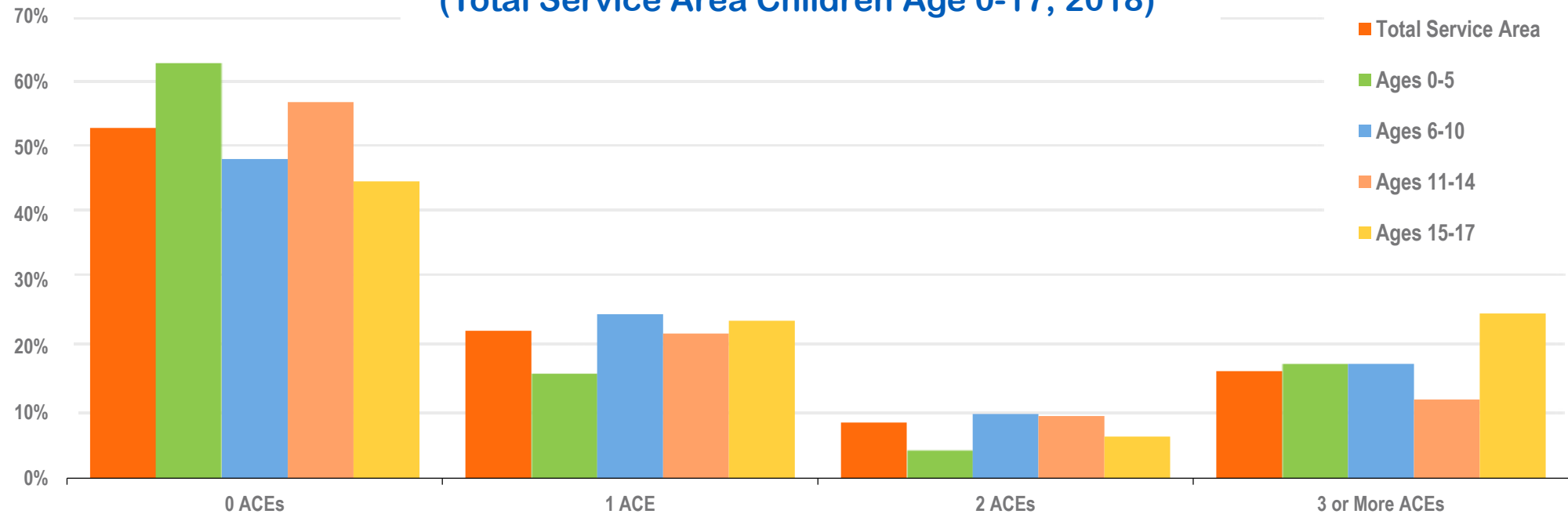
- 2018 PRC Child & Adolescent Health Survey, Professional Research Consultants, Inc. [Item 365]

Notes:

- Asked of all respondents about a randomly selected child in the household.

FIGURE 12: Total Number of Adverse Childhood Experiences (ACEs)

(Total Service Area Children Age 0-17, 2018)



	0 ACEs	1 ACE	2 ACE	3 or more ACEs
Total Service Area	53.0%	22.3%	8.4%	16.2%
Ages 0-5	58.1%	17.7%	7.4%	16.8%
Ages 6-10	53.8%	22.5%	11.5%	12.1%
Ages 11-14	50.3%	25.8%	7.6%	16.2%
Ages 15-17	45.7%	25.9%	6.2%	22.2%

Sources:

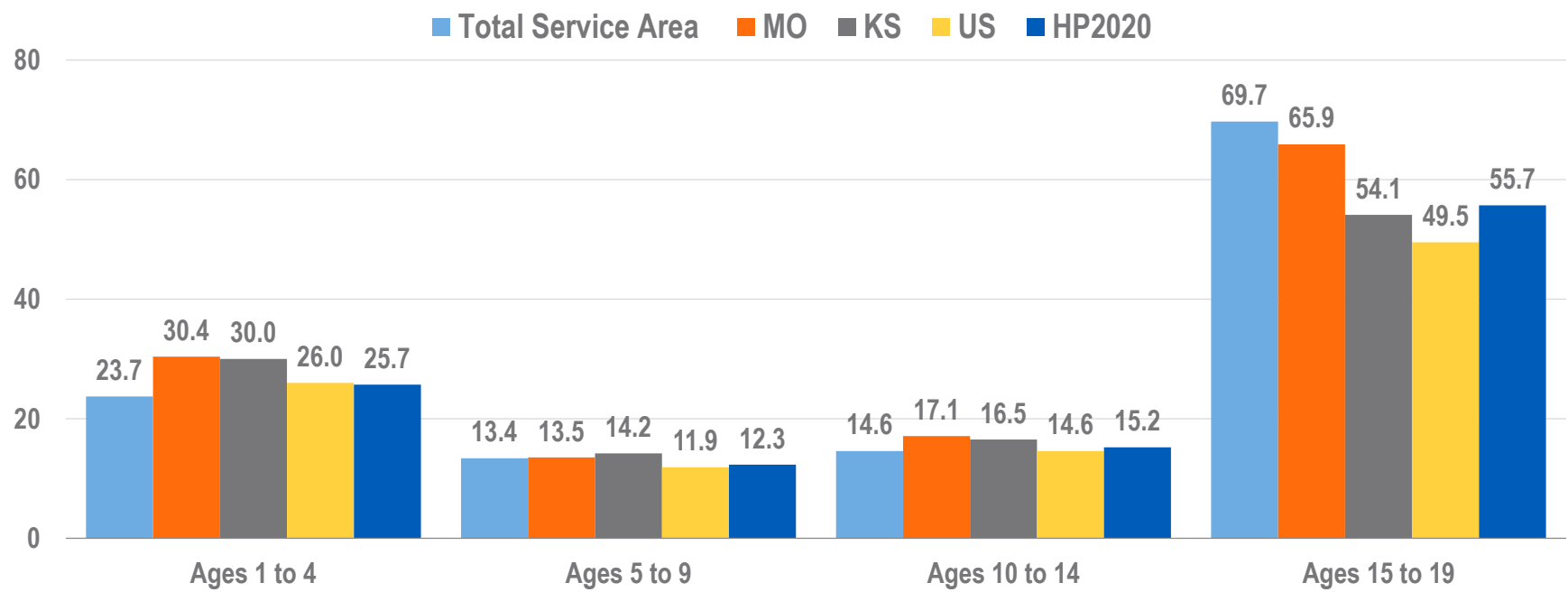
- 2018 PRC Child & Adolescent Health Survey, Professional Research Consultants, Inc. [Item 365]

Notes:

- Asked of all respondents about a randomly selected child in the household.

FIGURE 13: Child & Adolescent Mortality Rates by Age Group

(Annual Average Child Mortality per 100,000 Population; 2017)



Sources:

- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted January 2019.
- US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective MICH-3.1]

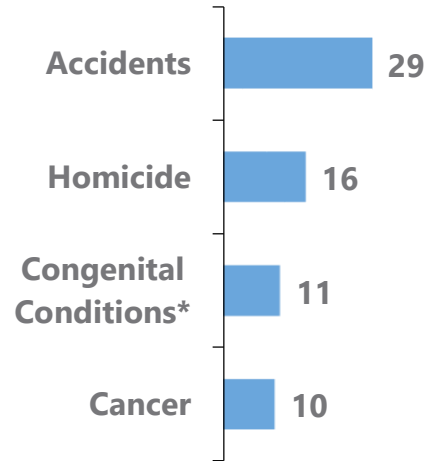
Notes:

- Rates are crude rates, representing the number of deaths of children in each age group per 100,000 population.

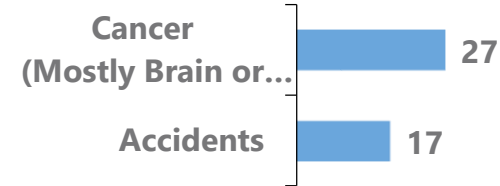
FIGURE 14: Leading Causes of Death By Age Group

(Number of Deaths by Cause, Total Service Area, 2013-2017)

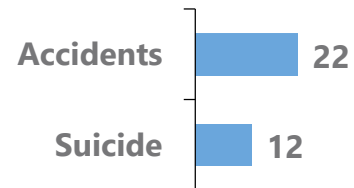
1-4 Years Old



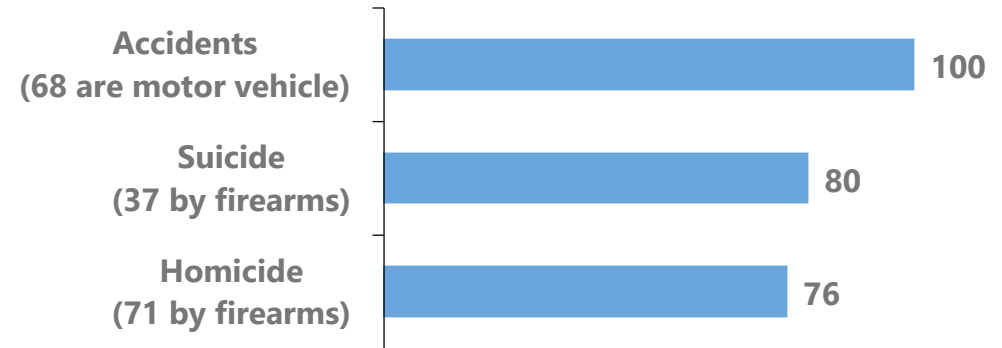
5-9 Years Old



10-14 Years Old



15-19 Years Old



Sources:

- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted January 2019.

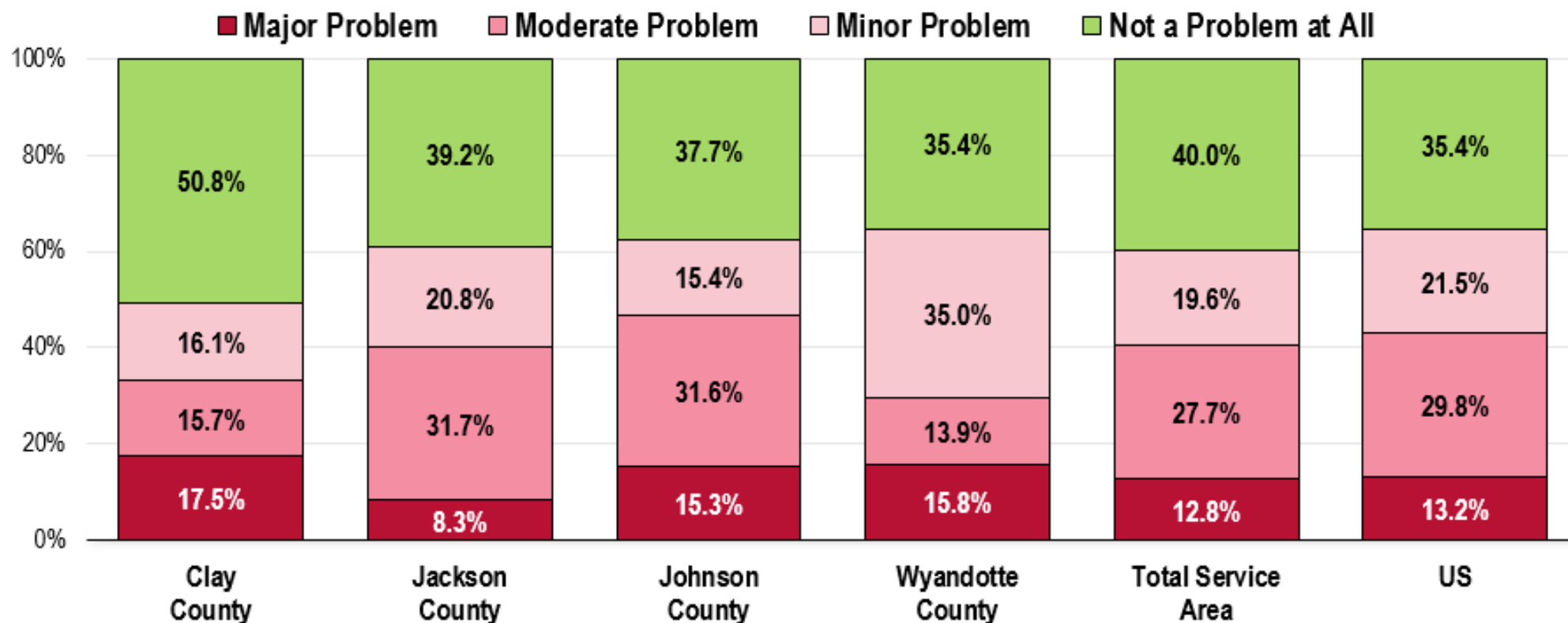
Notes:

- *Congenital conditions include congenital malformations, deformations and chromosomal abnormalities.
- **CNS stands for Central Nervous System.

FIGURE 15:

Evaluation of Difficulty Getting Specialty Care for Child in the Past Year

(Total Service Area Parents of Children Needing to See a Specialist in the Past Year, 2018)



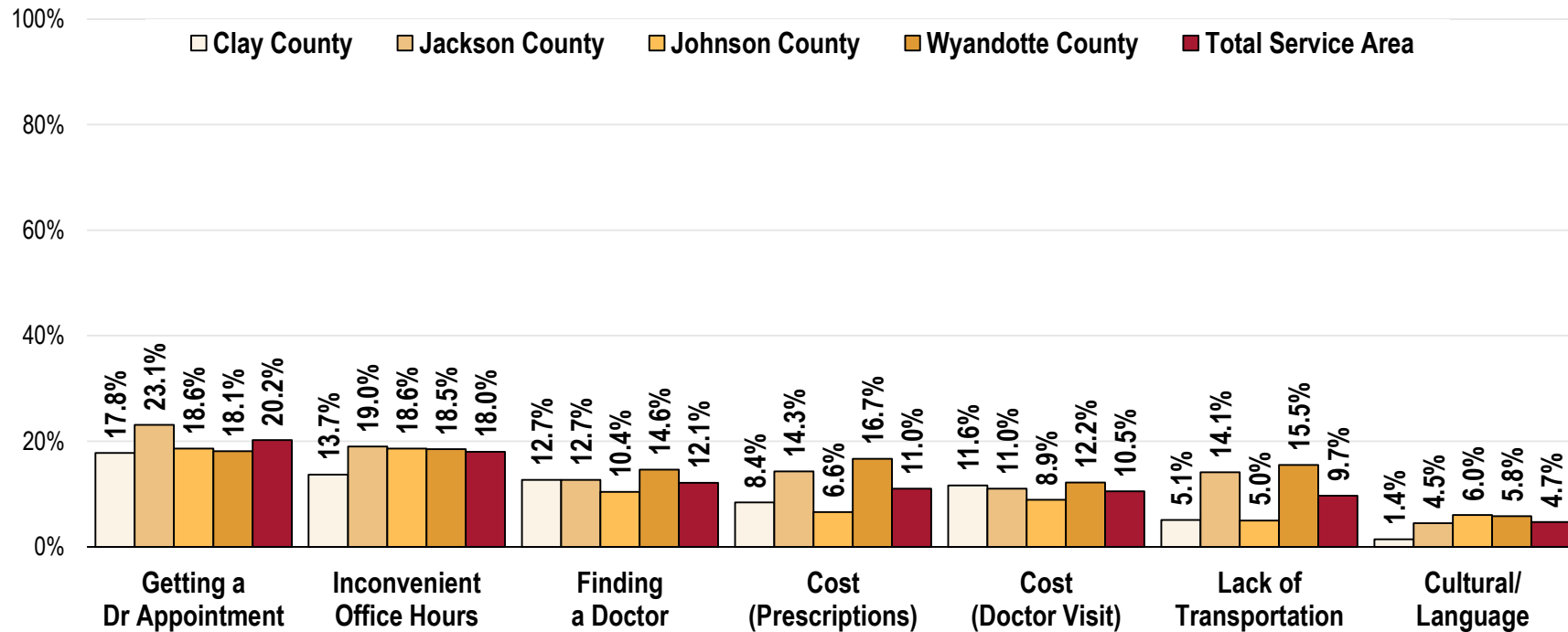
Source: • PRC Child & Adolescent Health Surveys, Professional Research Consultants, Inc. [Item 29]

• 2017 PRC National Child & Adolescent Health Survey, Professional Research Consultants, Inc.

Notes: • Asked of respondents for whom the randomly selected child in the household has needed to see a specialist in the past year.

FIGURE 16: Barriers to Access Have Prevented Child's Medical Care in the Past Year

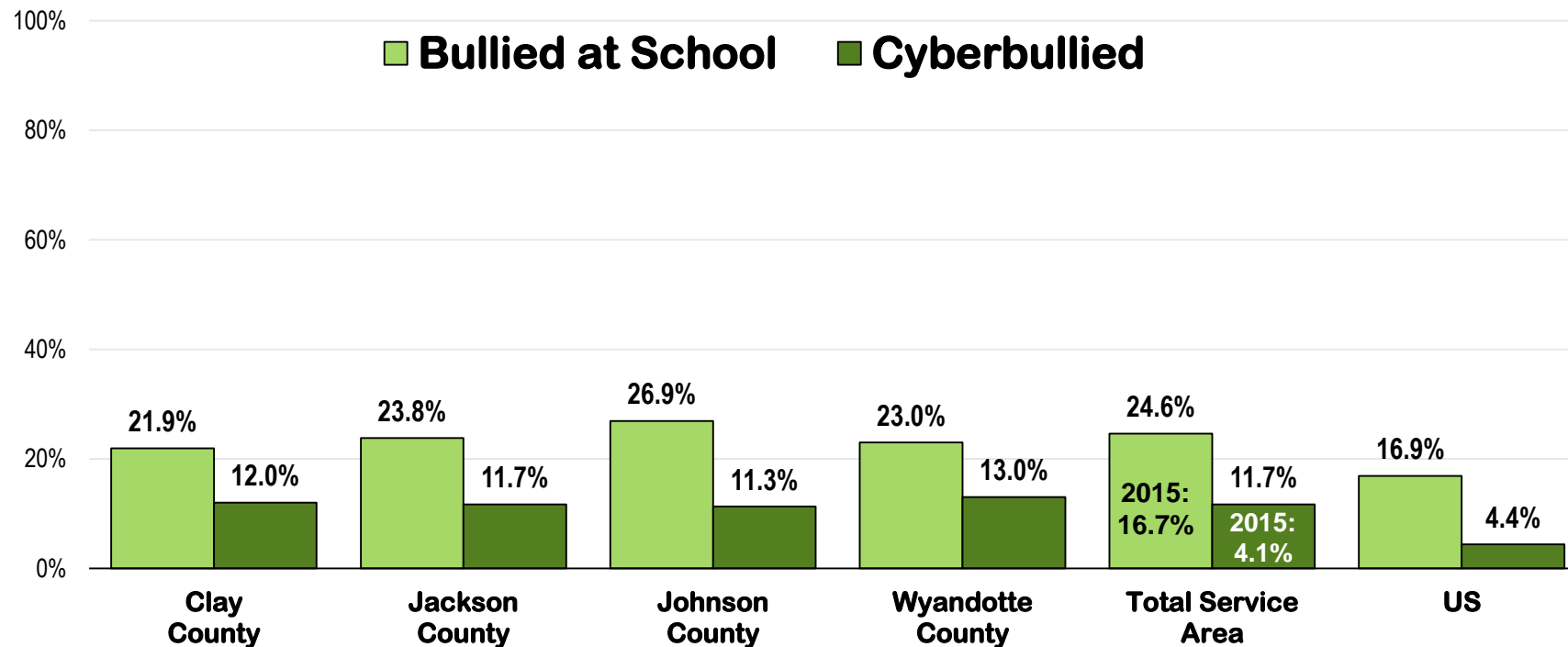
(By County, 2018)



Sources: • 2018 PRC Child & Adolescent Health Survey, Professional Research Consultants, Inc. [Items 17-23]
Notes: • Asked of all respondents about a randomly selected child in the household.

FIGURE 17: Child Was Bullied in the Past Year

(Total Service Area Children Age 5-17, 2018)



Sources: • 2018 PRC Child & Adolescent Health Survey, Professional Research Consultants, Inc. [Items 74-75]

Notes: • 2017 PRC National Child & Adolescent Health Survey, Professional Research Consultants, Inc.

• Asked of those respondents for whom the randomly selected child in the household is age 5 to 17.

• Cyberbullying includes electronic bullying such as through email, chat rooms, instant messaging, websites, or texting.