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

Children's Mercy KANSAS CITY LOVE WILL.

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Written Comments:

We welcome comments and feedback on this report. For questions, comments, opportunities for partnership or to request data, send an email to communityplanning@cmh.edu.

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BACKGROUND

Overview of Children's Mercy Kansas City

Children's Mercy Kansas City is a 366-bed pediatric medical center in Kansas City, Mo., that integrates clinical care, research and medical education to provide care for patients from birth to 18 years. In addition, Children's Mercy offers pediatric specialty clinics and an urgent care center in eastern Jackson County (Independence) and in Clay County. A primary care center and additional specialty clinics are located at Children's Mercy Broadway, Kansas City, Mo., and at Children's Mercy West in Kansas City, Kan.

Children's Mercy has received national recognition from U.S. News & World Report in all 10 pediatric specialties. The hospital was the first in Missouri and Kansas to receive Magnet Recognition for excellence in nursing services from the American Nurses Credentialing Center, and has been re-designated four times.

Children's Mercy has a long legacy of caring for children and their families. Since its founding in 1897, Children's Mercy has existed to help meet a community in need. When the founding sisters—one a dentist and the other a surgeon — cared for that first abandoned, crippled little girl, they were responding to a health crisis in Kansas City. Fast forward to the 21st Century and today, Children's Mercy is still serving our community both inside and outside the walls of our facilities.

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.

Community Definition

The study area for the 2019 CHA 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).



Community Health Assessment Service Area, 2019

FIGURE 1

Methods

To support the development of the 2019 CHA, Children's Mercy contracted with Professional Research Consultants, Inc. (PRC). The 2019 CHA incorporates data from quantitative and qualitative sources. Quantitative sources include primary research (the 2018 PRC Child and 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 and Adolescent Health Survey

The PRC Child and Adolescent Health Survey-Kansas City is a random digit dial phone survey (landlines and cell phones) of adult parents and caregivers of children 0-18 years old implemented from October to November 2018. The survey was offered in English and Spanish. 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 old in the TSA (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 $\pm 3.1\%$ at the 95% 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 old, 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 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 on page 9 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.

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			

TABLE 1

Community Conversations

More than 130 individuals participated in community meetings hosted by four agencies (El Centro, ReStart, The Family Conservancy and Urban Neighborhood Initiatives). Participants were asked to describe what can best support the health and well-being of children and what resources are needed to improve conditions in their neighborhoods.

Secondary Data Sources

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

- Centers for Disease Control and 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 and Projections
- Kansas City Missouri 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
- Mid-America Regional Council
- Missouri Department of Elementary and Secondary Education
- Missouri Department of Health and Senior Services: Missouri Information for Community Assessment
- U.S. Census Bureau: American Community Survey; Decennial Census; Population Estimates
- U.S. Department of Health and 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 and 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% 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% variation from the comparative measure.

Limitations

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.

Demographic Characteristics

The four counties in the TSA 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 years of age and Jackson County has the smallest proportion, but largest in absolute number. Table 2 highlights the total population of each county and the percent population 0-19 years of age.

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%		

TABLE 2

Source: U.S. 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. That number is expected to rise to 45% by 2040.¹

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	

TABLE 3

*Non-Hispanic | **See Appendix 3: Notes to Readers

Sources: U.S. Census Bureau, American Community Survey, 5-year data, 2015-http://www.census.gov/acs; Health Status Data for Greater KC, MARC Research, https://www.marc2.org/healthdata/.

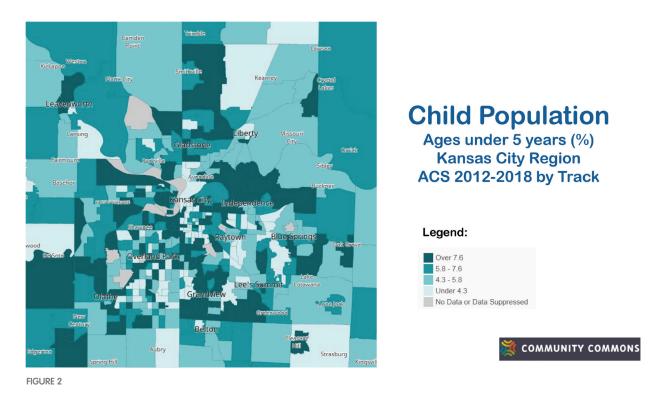
Poverty, Income and Employment

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%	

TABLE 4

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 18 years old live in poverty than the population as a whole. The percentage of children under 18 years of age who live in poverty has grown in every TSA county since the year 2000. 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%).² Johnson County experienced the largest percentage change of children living in poverty from 2000-2015 (108% increase).



² https://www.marc2.org/healthdata/, retrieved March 15, 2019.

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). 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).^{3,4}

"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, child care, 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 health care, needed prescriptions, glasses, dentistry, shelter and food." – Key Informant Survey, Social Service Provider

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%	

Education

TABLE 5

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

⁴ U.S. Census Bureau American Community Survey 1-year estimates (2017), retrieved December 2018 from http://factfinder.census.org.

³ https://www.childtrends.org/indicators/children-in-poverty, retrieved March 15, 2019.

access to quality early childhood is of utmost 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. Key Informants 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

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%	

TABLE 6

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

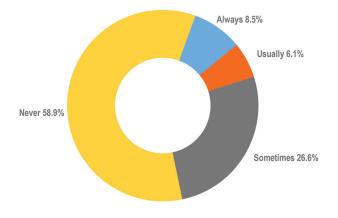
Community Conversation participants shared that high housing costs are consuming many families' incomes, leaving little to cover the cost of other basic needs, such as food and transportation. Households earning less than a living wage are at risk for not meeting the health needs of their family. When 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, including 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.



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

FIGURE 3 Source: 2018 PRC Child & Adolescent Health Survey, Professional Research Consultants, Inc. [Item 355]. Notes: Asked of all respondents.

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.

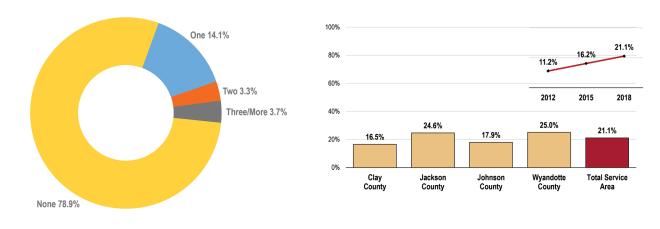
"There is research that shows that high lead levels cause irreversible damage to development. We need urgent attention to this problem." – Key Informant, Educator

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 surveys (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.



Moved Residences Past Year

FIGURE 4 Source: 2018 PRC Child & Adolescent Health Survey, Professional Research Consultants, Inc. [Item 352]. Notes: Asked of all respondents.

> "Housing insecurity and evictions create family upheaval, cause children to move, erode social networks, and affect connections to local health providers."

– Key Informant, Community/Business leader

During the 2017-18 school year, over 8,000 kindergarten through 12th grade students in TSA school districts met the McKinney-Vento Homeless Education Act homeless definition.⁵ Table 7 lists the TSA districts with over 100 students meeting the McKinney-Vento definition which are located in all four of the region's counties.

⁵ See Appendix 3: Notes to Readers

i

(2017-18 SCHOOL YEAR)				
District	# Students Homeless			
Kansas City, Mo.	1,200			
Independence	964			
Kansas City, Kan.	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			

DISTRICTS WITH OVER 100 STUDENTS WHO IDENTIFY AS HOMELESS

TABLE 7

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

Community Conditions

KEY INFORMANT SURVEY OF IMPACT ON HEALTH: COMMUNITY CONDITIONS					
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%	
Crime and Violence	77.9%	21.2%	1.0%	0.0%	
Access to Parks/Green Spaces/Recreation Opportunities	18.4%	39.1%	36.8%	5.7%	

Neighborhood Characteristics

Among survey respondents:

- 21.9% indicated that their neighborhood has no sidewalks or walking paths
- 18% reported that there is usually litter or loose garbage on the street or sidewalk
- 16% reported that there is poorly kept or rundown housing in their neighborhood
- 9% reported vandalism, such as broken windows and graffiti in their neighborhood.

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

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 emphasized how important it was to have places for their children to 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% 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"⁶ was a good addition to their neighborhoods and wanted more added.

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 across the TSA are reported to get to school by the school bus/van (37.2%), walk to school (5.7%) or take public transportation (3.0%), safe neighborhoods, sidewalks and crosswalks become very important.

The survey of TSA families asked about the Adverse Childhood Experiences (ACEs) for the index child.⁷ Close to 11% of families reported that the child had 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.⁸

⁷ See pages 27-29 and Appendix 3: Notes to Readers for additional information on the ACEs.

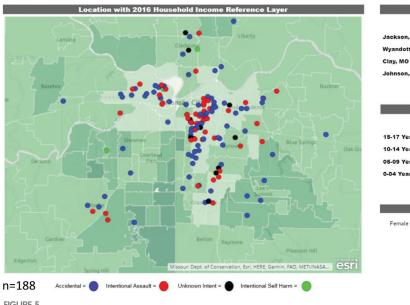
⁶ Shot Spotter is cutting edge technology with the ability to pinpoint the location of gunshots in real time. The Kansas City Missouri Police Department has placed Shot spotters in select neighborhoods across the city to deter crime.

⁸ Kansas City Star, January 2019.

"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 firearm injuries were classified as "Intentional Assaults." Figure 5 presents the data and specifies the rates by county, age, gender and ethnicity.



Firearm Injuries-Fatal and Nonfatal (Seen in the Children's Mercy ED, 2016-2018)

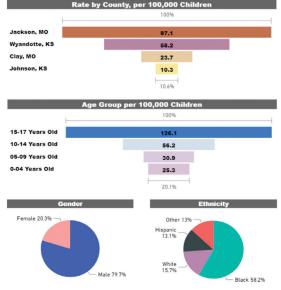


FIGURE 5

HEALTH AND HEALTH CONDITIONS

Top Health Issues

Parents were asked to indicate what they felt was the No. 1 health issue facing infants and children in their community. Parents named one health issue for each of the following age groups: 0–5 years old; 6-11 years old; and 12-17 years old. 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.

PA	PARENTS' RESPONSE OF THE NO. 1 ISSUE FACING CHILDREN IN THE KANSAS CITY REGION, BY AGE GROUP (IN ORDER OF PRIORITY)					
Age	0-5 Years	6-11 Years	12-17 Years			
ð	Colds/Flu	Colds/Flu	Mental Health (Depression, Suicide)			
Issue	Obesity/Nutrition/Exercise	Obesity/Nutrition/Exercise	Colds/Flu			
Health	Vaccinations	Mental health	Obesity/Nutrition/Exercise			
Top H	Asthma	ADD/ADHD	Illegal Drugs			
Ē	Respiratory Issues		STDs			

TABLE 9

Survey respondents were asked to identify their perceptions of the community's availability of resources to address the identified No. 1 health concern. Respondents reporting colds/flu as the No. 1 health issue for infants, children and adolescents largely perceive existing community resources as sufficient or more than sufficient.

Community resources available for obesity/nutrition/exercise are generally seen as insufficient or unavailable by respondents who chose the issue as the No. 1 health concern for children 6-11 years old age 12-17 years old. Findings suggest the same for those reporting mental health as the No. 1 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 were reported as experiencing fair or poor health.

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% 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 and Language Problems

A total of 14.7% of TSA children 0 to 17 years old 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

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%

TABLE 10

Infant Mortality

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"⁹ reveals that from 2012-2016 for Kansas City Mo. 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 infant deaths per 1,000 live births.

Infant Mortality Rate



Healthy People 2020 Target = 6.0 or Lower

FIGURE 6

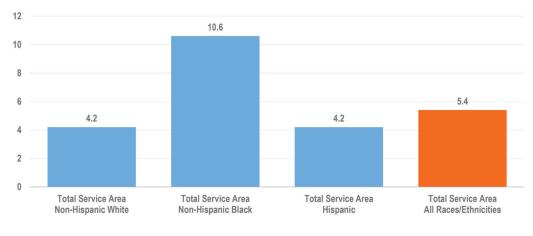
Sources: CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted December 2018; U.S. Department of Health and Human Services. Healthy People 2020. December 2010. http://www.healthypeople.gov. [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.

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

Infant Mortality by Race/Ethnicity (Annual Average Infant Deaths per 1,000 Live Births, 2015-2017)



Healthy People 2020 Target = 6.0 or Lower

FIGURE 7

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; U.S. 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.

Between 2013 and 2017, the No. 1 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.

Low Birthweight

A total of 7.9% of 2015-2017 TSA births were low birthweight (less than 2,500 grams or 5 pounds 8 ounces at birth). While this percent is similar to the Healthy People 2020 target (7.8% or lower), the rate is higher for Jackson (8.9%) and Wyandotte (9.2%) counties. The proportion of low birthweight births in the TSA has remained stable over time.

Safe Sleep

Survey respondents whose randomly selected child is under 1 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 0 to 17 years old were ever breastfed or fed using breast milk (regardless of duration)¹⁰ and 26.1% of all TSA children (as infants) were fed breast milk exclusively for the first six months of life.¹¹ Close to 30% of breastfed infants were introduced to foods other than breast milk before

¹⁰ The Healthy People 2020 Target is 81.9% or higher.

¹¹ The Healthy People 2020 Target is 25.5% or higher.

3 months old. Exclusive breastfeeding for the first six months is more common among white and black children, and children living in higher income households and is higher in Johnson and Clay Counties and the lowest in Wyandotte County.

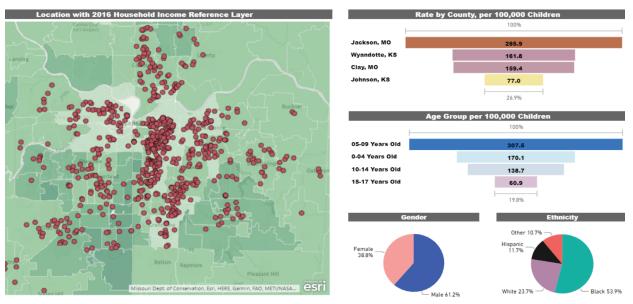
Immunizations

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 (33.8%), perceiving that some or all vaccines are unnecessary (18.7%), and a preference for delaying certain vaccinations (11.8%).

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 5 to 12 years old, and black and Hispanic children are more likely to live with asthma.

Over one-half of TSA children with asthma (54.0 %) have had one or more emergency department (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 the UC, ED and/or hospitalization. Figure 8 illustrates these visits across the TSA and presents the incidence by county, age group, gender and ethnicity.



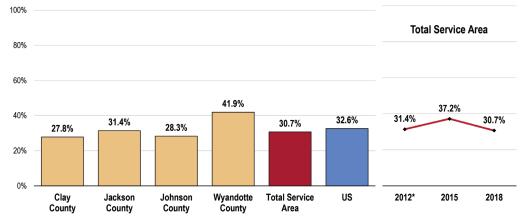
Asthma UC/ED/Hospitalization at Children's Mercy (>4 times Annual Visits, 2016-2018)

FIGURE 8

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.

Overweight and Obesity

Based on the heights/weights reported by surveyed parents, 30.7% of TSA children 5-17 years old are overweight or obese (>85th percentile).¹¹ This is statistically similar to the overweight prevalence reported nationwide. Boys are more likely to be overweight or obese.



Child is Obese or Overweight



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

FIGURE 9

Sources: 2018 PRC Child & Adolescent Health Survey, Professional Research Consultants, Inc. Ittem 1351; 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 U.S. growth charts by gender and age

*BMI was calculated slightly differently in the 2012 study: age-in-years midpoints were used to calculate the 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 marainal

Further, 18.1% of TSA children 5-17 years old are obese (≥95th percentile).^{12,13} This percentage exceeds the Healthy People 2020 target (14.5% or lower). Obesity is higher among TSA children who live in Wyandotte County (32.9%) 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."
- Close to 36% of parents with an overweight (not obese) child perceive their child as "somewhat overweight" or "very overweight."
- Only 9.9% of parents with an obese child consider that child to be "very overweight."

¹² See Appendix 3: Notes to the Reader for a discussion of the methodology.

¹³ Note that this proportion is included in the "overweight or obese" percentage reported in the chart.

A clear majority (77.6%) 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

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%	

TABLE 11

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 Participant



Children's Heath Summit, 2019.

Mental Health Status

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

MENTAL AND BEHAVIORAL HEALTH CONDITIONS: CHILDREN, AGES 5-17 YEARS (AS REPORTED BY PARENTS)				
Condition	%	Notes		
ADHD or ADD	16.8%	Boys, children over 5 years of age, 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 U.S. (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 U.S. 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 health care 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.

TABLE 12

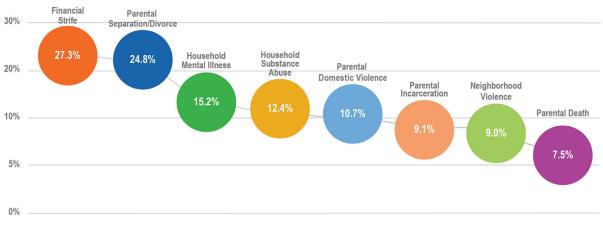
Adverse Childhood Experiences

The Key Informant 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 expanded trauma-informed services are needed to meet the needs of area 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.



Adverse Childhood Experiences (ACEs) (Total Service Area Children Age 0-17, 2018)

FIGURE 10

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

> "The children with incarcerated parents are invisible to schools, social service and health professionals, yet they need so much support."

– Community Conversation Participant

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 ACEs. 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 old are more likely than younger children to have experienced three or more ACEs.

Adverse Childhood Experiences (ACEs) by County (Total Service Area Children Age 0-17, 2018)

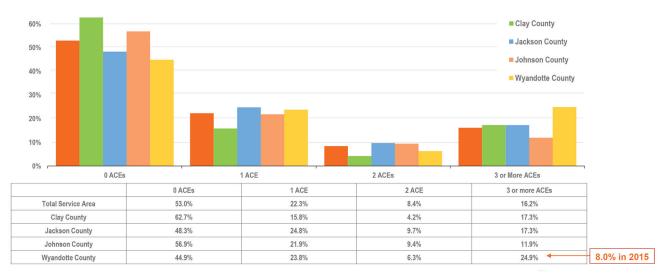


FIGURE 11

Source: 2018 PRC Child & Adolescent Health Survey, Professional Research Consultants, Inc. Iltern 3651. Notes: Asked of all respondents about a randomly selected child in the household.

Adverse Childhood Experiences (ACEs) by Age (Total Service Area Children Age 0-17, 2018)

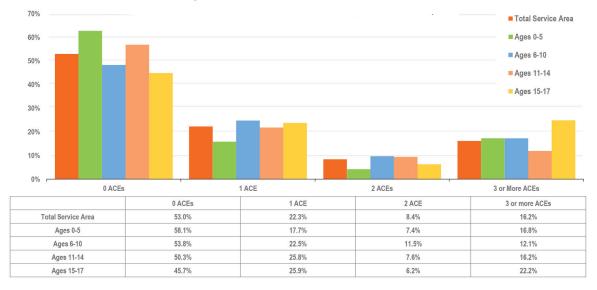


FIGURE 12

Source: 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.

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 the 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%).

Key informants emphasized important points related to the supply of mental health services:

- 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.
- There is a great need for school-based services, in terms of child and adolescent mental health, especially in schools, which may lack counselors or funding to support adequate on-site mental health services and training.

"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 Hospitalizations

In 2015, 58.7 per 10,000 Clay County residents under 15 years of age 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 of age.

In 2015, 27.2 per 10,000 Johnson County residents under 15 years of age 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 of age. In Wyandotte County the discharge rate was 18.7 per 10,000 residents under 15 years of age.

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. This is a statistically significant increase since 2015 and is higher than the U.S. percentage. There was no statistical difference across 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 and Adolescent Deaths

In 2017, the TSA reported an annual average of 23.7 child deaths (1-4 years old) per 100,000 population. For children 5-9 years old, the TSA crude death rate was 13.4 per 100,000 population. This rate is 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 note is the teen (15 to 19 years of age) crude death rate of 69.7 per 100,000 population, which is higher than the U.S., Missouri and Kansas rates and the Healthy People 2020 Target.

Child and Adolescent Mortality Rates by Age Group (Annual Average Child Mortality per 100,000 Population; 2017)

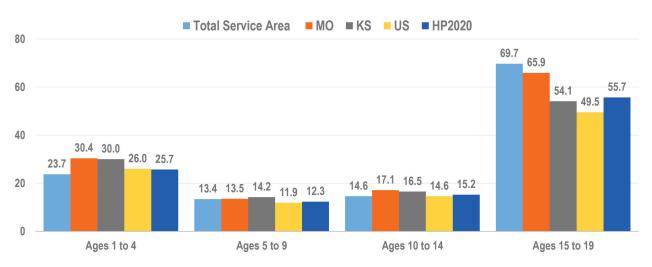
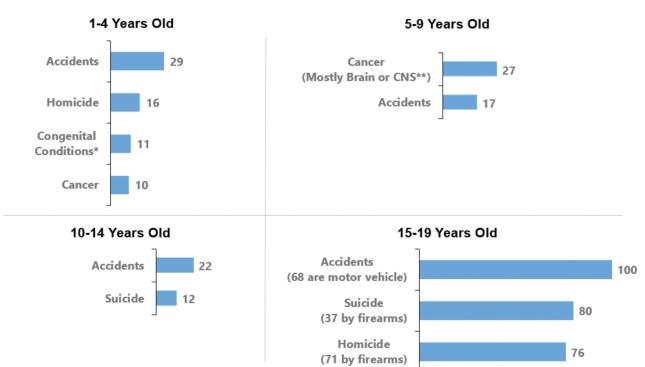


FIGURE 13

Source: 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; U.S. 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.

Leading Causes of Childhood Deaths

A 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 No. 1 leading cause of death for TSA children age 5-9 years old. For adolescents age 15-19 years old there were more deaths by suicide than motor vehicle accidents.



Leading Causes of Death by Age Group (Number of Deaths by Cause, Total Service Area, 2013-2017)

FIGURE 14

Source: 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.



Children's Health Summit, 2019.

PEDIATRIC HEALTH CARE UTILIZATION

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%

TABLE 13

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 Participant¹⁴

"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 Participant

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

– Community Conversation Participant

"There used 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 Participant

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

– Community Conversation Participant

¹⁴ Focus Groups were conducted by Children's Mercy staff with families who identified as "Food Insecure." Focus groups conducted June-July 2018.

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 U.S. 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 Care¹⁵

A total of 87.5% of TSA children have had a routine checkup in the past year. Statistically there was no difference among the four counties and remains statistically unchanged from 2012. The routine checkups are lowest among Hispanics and children greater than 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 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).

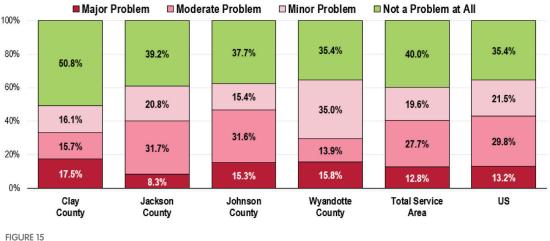
Among TSA parents of children with any ER visit in the past year, 58.2% say the visit was for something that might have been treated in a doctor's office. Asked why they used a hospital ER for their child's care, 39.1% said the visit was to treat an actual emergency situation, and 30.8% indicated that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

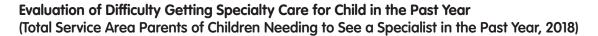
Urgent Care Centers/Walk-In Clinics Utilization

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.





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.

Barriers to Services

"Many families living on the city's east side, northeast and southeast depend upon public transportation to access health care 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 health care 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 barriers due to lack of transportation and cost of child's prescription medication.
- Parents living in 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.

Barriers to Access Have Prevented Child's Medical Care in the Past Year (By County, 2018)

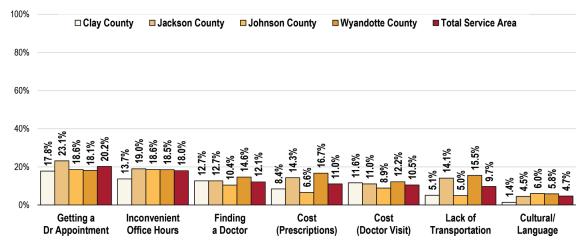


FIGURE 16

Source: 2018 PRC Child & Adolescent Health Survey, Professional Research Consultants, Inc. Ittems 17-23] Notes: Asked of all respondents about a randomly selected child in the household. 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. Note that 79.9% 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

Health insurance coverage is often a barrier to health care for many families. Nearly 6 in 10 parents (59.5%) report having health care 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 health care 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 health care 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.



Community Baby Shower, 2019.

CHILDREN AND ADOLESCENTS AT HOME, SCHOOL AND IN THE COMMUNITY

KEY INFORMANT RATING OF IMPACT ON HEALTH: VARIOUS ISSUES						
Health Issue	Major Problem	Moderate Problem	Minor Problem	No Problem at All		
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%		

TABLE 14

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.

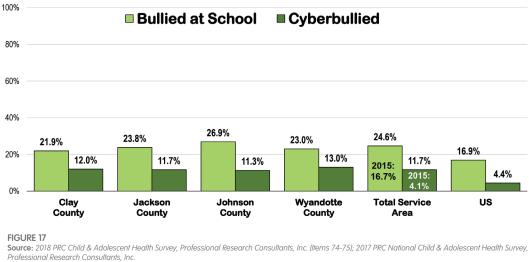
Between 2015 and 2017, 5.2% of all TSA live births were to a mother under the age of 20. Teen births were highest in Jackson (9.1%) and Wyandotte (6.7%) counties. By race and ethnicity, non-Hispanic blacks exhibit the highest proportions of teen births in the TSA, followed by Hispanics. The proportion 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.¹⁶ Both forms of bullying are statistically more prevalent than rates seen nationwide and locally, and 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 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.

¹⁶ These percentages are not mutually-exclusive.

Child was Bullied in the Past Year (Total Service Area Children Age 5-17, 2018)



Notes-

• 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 messages, websites or texting.

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 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 (17.2%), and playing (15.8%). Other activities included walking (6.8%), scootering/rollerblading/skate boarding (4.1%), unorganized sports (4.8%), and bike riding (3.8%).

Car Seats and 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 (5-17 years old), those less likely to "always" wear a bike helmet include: boys, teens, and those living in lower income households.

Skateboards, Scooters, Skates and Rollerblades

A total of 38.1% of TSA children 5-17 years old 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 farmer's market. In addition, participants were concerned that school-age children may 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 and 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 higher income families.

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 security:

"...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 two or three 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 2-17 years old 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 six or more due to illness or injury.

Technology

A high proportion of children living in the TSA (52.3%) have access to a smartphone. In the TSA, 88% of 13-17-year-olds 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 0-4 years old, or incomes less than 200% 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 data¹⁷ is as follows:

- In Jackson and Clay counties just over 11% of high school students responded that they had used e-cigs, 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 e-cigs, 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 e-cigs, mods or vapes.



Children's Health Summit, 2019.

 $^{^{\}mbox{\tiny 17}}$ 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 to discuss CHA data and 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 CHA data. Participants were asked to sort and rate the problems.

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. The "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 (42.1%) participated in rating survey | 5 pt. scale from zero to most or greatest

Area	Importance (Out of 72 for most important)	Impact (Out of 72 for greatest impact)	Ability (Out of 72 for most ability)	Total (216 total points)
Access to Health	54	59	52	165
Infant Health	55	52	53	160
Mental/Behavioral Health	64	41	31	136
Nutrition, Physical Activity, 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

TABLE 15 Note: Orange text received highest points.

The above results were presented to the Children's Mercy Executive Leadership Team who determined the priority, significant health needs and crosscutting themes for Board of Directors approval.

Children's Mercy Priority Health Needs 2019-2022 Access to Mental/Behavioral Health Services with **Priority** Infant Health Health Focus on Asthma Nutrition, Physical Significant **Injury and Violence** Activity, Weight

Crosscutting Themes

Addressing Social Keeping Children Safe Determinants

The Children's Mercy Board approved the recommended priority health needs by unanimous vote on June 18, 2019. Members of the internal Community Benefit Advisory Committee and additional representatives from Children's Mercy are reviewing the priority health needs framework and considering how Children's Mercy can address each of the identified issues in a strategic and targeted approach over the next three years. An implementation strategy and evaluation plan to address the priority areas will be developed and presented to the Board of Directors in October 2019. Tables 16 and 17 outline the focus for the development of the implementation strategy.

PRIORITY HEALTH NEEDS POTENTIAL TARGET AREAS AND MEASURES				
Health Need	Target Areas	Potential Measures		
Access to Health Care with Focus on Asthma	 Expand on-demand transportation services Develop approach to school-based access Articulate strategy to reach refugee population Convene internal and community-based partners to identify approaches to improving asthma care Review internal primary and specialty clinic approaches to articulate potential reforms and improvements 	 Reduce barriers to accessing health services Increase well-child visits Improve attendance at area schools where school-based programs live 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	 Join FIMR 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 	 Increased collaboration with community agencies Increase number of home visitation clients Expand community-based portable cribs program Increase breastfeeding rates Improve immunization rates for infants under 1 year of age Continue reach of infant mortality prevention programs 		
Mental and Behavioral Health	 Develop plan in conjunction with community partners to address high priority mental health needs Develop school-based mental health strategy Increase integration of mental health into primary care Expand suicide prevention program Scale the Behavioral Health Master Class 	 Reduce mental health patients seen in ED Decrease in adolescent suicide attempts and completions Increase number of Behavioral Health Master Classes Establish partnerships with at least three schools 		

TABLE 16

ADDRESSING SIGNIFICANT HEALTH NEEDS			
Nutrition/Physical Activity/Weight	 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 Develop regional physical activity plan 		
Injury and Violence	 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	 Create video and education materials on the proper disposal of medication Maintain a smoke-free and drug-free campus 		

TABLE 17



Patient being treated in the Emergency Department.

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: https://www.childrensmercy.org/communityneeds.

Need #1: Access to Health Care

- Provided care to 100-plus complex, chronic, special health care needs patients and their siblings, through the Beacon Program.
- Expanded on-site health services at Operation Breakthrough, University Academy and Synergy Services.
- Continued Project Clinic Access 3rd Next Available Appointment scheduling.
- Covered over 100,000 lives through the Pediatric Care Network.
- Established on-demand transportation program for primary care appointments.
- Extended primary care appointment hours to Saturdays and four evenings a week.

Need #2: Infant Mortality Reduction

- Expanded the quality and breadth of home visiting programs.
- Expanded safe sleep support through initiatives and community partnerships for the distribution of portable cribs.
- Established faith-based partnership to engage churches in supporting infant health.
- Partnered with Uzazi Village and the Black Health Care Coalition on the provision of community-based programs.
- Worked with the Mother and Child Health Coalition of Greater Kansas City to publish infant mortality data report and host a regional conference.

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 risk reduction programs.
- Launched community-based bullying prevention program, Red Card: Call It When You See It.
- Placed social workers in the Blue Valley School District.

APPENDIX 1

Key Organizations, Programs, Resources

Participated in Community Conversations, Key Informant Online Survey and Children's Health Summit and/or Identified through Community Health Assessment

Aim 4 Peace Baby and Child Associates LLC **Baptist-Trinity Lutheran Legacy Foundation** Kansas City's Medicine Cabinet **BikeWalkKC Blue Springs Pediatrics** Boys and Girls Club Calvary Community Outreach Network Catholic Charities of Kansas City-St. Joseph Child Care Aware of Kansas Child Protection Center Children of Incarcerated Parents Children's Mercy Cancer Center Auxiliary CHW Certification at MCC Clay County Public Health Center Community Health Council of Wyandotte County **Comprehensive Community Development** Cornerstones of Care Cradle Kansas City Cradle Thru College Care Pediatrics, Inc. Eitas El Centro First Call First Hand Foundation Food Equality Initiative Greater Kansas City Community Foundation Green Acres Urban Farm and Research Project **Guadalupe Centers Guardian Group** Happy Bottoms Harvesters – The Community Food Network Health Care Collaborative of Rural Missouri Health Forward Foundation

Health Care for Children Healthy Families America Heartland Primary Care Hron and Partners Independence School District Ivanhoe Neighborhood Council Jackson County Community Children's Services Fund Jackson County Mental Health Fund Johnson County Pediatrics Jewish Vocational Services Johnson County Department of Health and Environment Kansas Children's Service League Kansas Breastfeeding Coalition Kansas City Health Department Kansas City Healthy Start Kansas City Kansas Public Schools Kansas City Missouri Health Department Kansas City Public Library Kansas City Public Schools Kansas City Missouri Health Commission Kansas City Missouri Police Department Kansas City Missouri Health Department Kauffman Foundation KC Healthy Kids KC STEM Alliance KidsTLC KIPP KC KU Master of Public Health Program **KUMC** Project Eagle **KVC Hospitals** Lathrop Gage, LLP Lee's Summit Physicians Group

Legal Aid of Western MO **Meeker Creative** Mid-America Head Start Mid-America Regional Council Midwest Dairy Council Marillac Mattie Rhodes Center Missouri Primary Care Association Mothers in Charge Missouri Department of Health and Senior Services/ Bureau of Special Health Care Needs Mother and Child Health Coalition **MU Extension** New Birth Company No Kid Hungry Missouri North Kansas City Hospital North Kansas City School District Northland Health Care Access **Operation Breakthrough** PACES of Wyandot Center Parents As Teachers KCPS Pediatric Associates Pediatric Care North **Phoenix Family** Planet Play **Platform Civic Strategies** Platte County Health Department Poetry for Personal Power Pro Deo Youth Center **Project Eagle REACH Health Care Foundation Reconciliation Services ReStart Homeless Shelter** Samuel U. Rodgers Health Center Science City at Union Station

Score 1 For Health – Kansas City University of Medicine and Biosciences Shawnee Mission School District **Sleepyhead Beds** Start at Zero Sunflower Health Plan Sunflower House Swope Health Services Synergy Services Inc. The Children's Place The Family Conservancy Thermo Fisher Scientific **TIES Advisory Council** Tri-County Mental Health Services **Truman Medical Center** Turn the Page KC UMKC Health Sciences District UMKC-IHD Unified Government Public Health Department of Wyandotte County United Community Services of Johnson County United Way of Greater Kansas City United Way of Wyandotte County UnitedHealth Care University of Kansas Medical Center University of Missouri–Kansas City Urban Neighborhood Initiative Vibrant Health Washington University at St. Louis Westside Housing Organization William T. Kemper Foundation Wyandot Inc. Wyandotte Health Foundation YMCA of Greater Kansas City Young Women on the Move Youth Ambassadors, Inc.

APPENDIX 2:

Key Informant and Community Conversation Participant Recommendations on Improving Child Health

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 1 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 health care to all
- Expand Medicaid
- Quicker access to specialty care
- Paid maternity/paternity leave
- Culturally sensitive health care 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 health care

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 healthy 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

Collaboration

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

Community Wellness

- Need to address the social determinants of health
- 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 learn coping skills while forming healthy habits and relationships
- Access to Head Start and early childhood services for all children
- Provide affordable child care
- Provide weekend and overnight child care

Education

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

Health Equity

- Focus on areas with the lowest life expectancy
- Address racism and how it intersects with health access and outcomes

Infant Mortality

• Address infant mortality

Interventions

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

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 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

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 a 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

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

Notes to Readers

Adverse Childhood Experiences

The CHA uses data from the PRC Child and Adolescent Health Survey-Kansas City to describe the prevalence of one or more ACEs among children from birth through age 18, as reported by a parent or guardian.

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:

BMI = weight (kg) / [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 1 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.

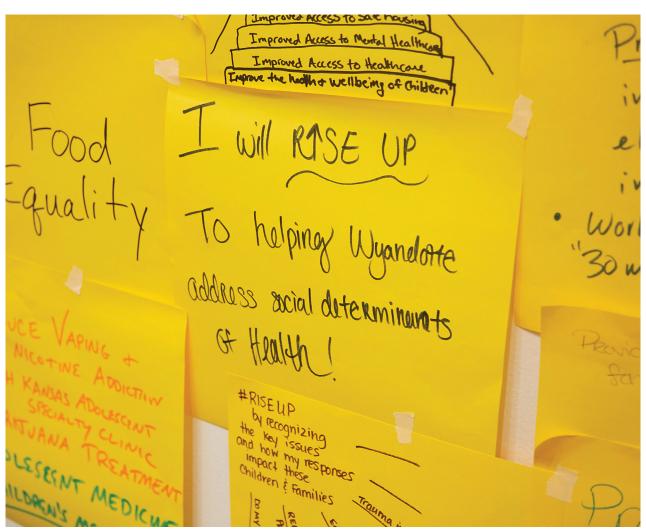
Poverty Definition

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 key 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% of the FPL (\$25,750 for a family of four in 2019); "Low income" includes households with incomes between 100% and 199% of the FPL; and "Mid/High income" includes households with incomes at 200% or more of the FPL (\$51,500 for a family of four in 2019).

Racial and ethnic designations

All racial and ethnic designations are self-reported for the survey. The racial and ethnic designations are based on the U.S. Census definitions.



Children's Health Summit, 2019.

