# 2019
# Community Health Needs Assessment and Implementation Strategy

Children's HOSPITAL • ST. LOUIS | BJC HealthCare


MISSION: TO IMPROVE THE HEALTH OF THE PEOPLE AND COMMUNITIES WE SERVE.

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# EXECUTIVE SUMMARY

St. Louis Children's Hospital (SLCH), a member of BJC HealthCare, is the pediatric teaching hospital for Washington University School of Medicine located in the City of St. Louis, Missouri. St. Louis Children's Hospital has 390 licensed beds, and each year approximately 275,000 patients visit the hospital. Since its founding in 1879, the hospital has provided comprehensive services in every pediatric medical and surgical specialty. St. Louis Children's Hospital has also established effective partnerships towards the goals of improving the health of the community.

Like all nonprofit hospitals, St. Louis Children's Hospital is required by the Patient Protection and Affordable Care Act (PPACA) to conduct a community health needs assessment (CHNA) and create an implementation plan every three years. St. Louis Children's Hospital completed its first CHNA and implementation plan on Dec. 31, 2013. The report was posted to the hospital's website to ensure easy access to the public.

As part of the CHNA process, each hospital is required to define its community. St. Louis Children's Hospital selected St. Louis City as its community. Once the community is defined, input must be solicited from those who represent the broad interests of the community served by the hospital, as well as those who have special knowledge and expertise in the area of public health.

St. Louis Children's Hospital conducted its 2019 assessment in two phases. The first phase consisted of a focus group discussion with key leaders and stakeholders representing the community. This group reviewed the primary data and community health needs findings from 2016 and discussed changes that had occurred since 2016. Additionally, the focus group reviewed gaps in meeting needs, as well as identified potential community organizations for the hospital to collaborate with in addressing needs. A Parent Health Concerns Survey was also administered to 1,003 parents living within the St. Louis Metropolitan region. This survey identified primary data on health needs.

During phase two, findings from the focus group meeting were reviewed and analyzed by a hospital internal work group of clinical and non-clinical staff. Using multiple sources, including Healthy Communities Institute and Priorities Missouri Information for Community Assessments (MICA) for Infants, Children and Adolescents, a secondary data analysis was conducted to further assess the identified needs.

At the conclusion of the comprehensive assessment process, St. Louis Children's Hospital identified 15 health needs where focus is most needed to improve the health of the community it serves. For its 2019 CHNA plan, the hospital will focus on: Asthma; Dental Health; Maternal/Child Health; Health Literacy; Healthy Lifestyles; Obesity; Mental/Behavioral Health; Allergy (Food); Diabetes; Public Safety; Access to Healthcare; Blood Diseases; Cancer; Infectious Diseases; and Sexually Transmitted Infections.

The analysis and conclusions were presented, reviewed and approved by the St. Louis Children's Hospital Board of Directors.

# COMMUNITY DESCRIPTION

## GEOGRAPHY


St. Louis Children's Hospital is a member of BJC HealthCare, one of the largest, nonprofit health care organizations in the country. BJC HealthCare hospitals serve urban, suburban and rural communities through 15 hospitals and multiple community health locations primarily in the greater St. Louis area, southern Illinois and mid-Missouri regions. St. Louis Children's Hospital and Barnes-Jewish Hospital are the two BJC HealthCare hospitals located in St. Louis City.

St. Louis Children's Hospital serves the health care needs of children, from infancy to adolescence, and advocates on behalf of children and families. It serves not just the children of St. Louis, but children across the world. For the purpose of the CHNA, the hospital defined its community as St. Louis City.

## POPULATION TREND

Population and demographic data are necessary to understand the health of the community and plan for future needs. In 2017, St. Louis City reported a total population estimate of 308,626 compared to the state population of 6,011,532. St. Louis City comprised 5.0 percent of Missouri's total population.

## ST. LOUIS CITY POPULATION GROWTH

As the second most populous county in Missouri with 308,626 people, St. Louis City is also geographically the smallest county in the state with 61.9 square miles (U.S. Census Bureau 2010). From 2000-2017, St. Louis City experienced a steady decrease in population (-3.3 percent) in comparison to the population increase of 2.1 percent for Missouri. Projections estimate a continued gradual decline in population from 2010-2030. St. Louis City's dense urban layout included 5,157.5 people per square mile compared to 87.1 people per square mile in Missouri.

## AGE DISTRIBUTION

According to the 2017 U.S. Census Bureau, only 6.5 percent (20,582) of the population in St. Louis City were children under the age of 5 years, slightly lower than the population in Missouri. For those under 18 years, 19.9 percent (62,704) of the population resided in St. Louis City, above Missouri's 22.9 percent.

## RACE AND ETHNICITY

In 2017, the racial composition percentage of St. Louis City for White (47.2 percent) and African American (46.5 percent) was similar. This differs drastically to Missouri where 83.1 percent of the population was White and 11.8 percent was African American. The city was 3.4 percent Asian

in comparison to the state's 2.1 percent. A greater number of St. Louis City residents (8.7 percent) spoke a language other than English in their home when compared to Missouri residents (6.0 percent).

## GENDER

The percentage of females in the city was slightly higher than in the state while the male percentage in the city was slightly lower than the state.

## SOCIOECONOMIC PROFILE

St. Louis City's median household income for the five-year period ending in 2017 was 24.99 percent lower than the state, overall. The home ownership rate was lower in St. Louis City (35 percent) than Missouri (58 percent). People living below the poverty level in St. Louis City totaled 25 percent compared to 14.6 percent in the state. Children and families living below the poverty level in St. Louis City was almost double the state and U.S.

## EDUCATION

The Healthy People 2020 national health target is to increase the proportion of students who graduate high school within four years of their first enrollment in ninth grade to 82.4 percent. Individuals who do not finish high school are more likely than people who finish high school to lack the basic skills required to function in an increasingly complicated job market and society. Adults with limited education levels are more likely to be unemployed, on government assistance or involved in crime. (Healthy Communities Institute)

In St. Louis City, 85.7 percent of the population 25 and older had a high school diploma compared to Missouri at 89.2 percent; 34.1.0 percent had a bachelor's degree when compared to Missouri at 28.2 percent.

# 2016 CHNA MEASUREMENT AND OUTCOMES RESULTS

In 2016, SLCH prioritized community needs among 13 health topics and created an implementation plan to address these health topics. This report details the outcome measures from Jan. 1, 2016 – June. 30, 2018. These needs include:

| TABLE 1: 2016 CHNA MEASUREMENT & OUTCOMES RESULTS: OBESITY | | |
|---|---|---|
| HEAD TO TOE | "FUN'TASTIC NUTRITION | EXPLORE HEALTH |
| PROGRAM GOAL | PROGRAM GOAL | PROGRAM GOAL |
| To improve knowledge and skill in leading a healthy lifestyle among children and their families by offering a multiple disciplinary approach to weight management. | To improve knowledge and emphasize the overall importance of healthy eating and good nutritional habits. | To improve knowledge and emphasize the overall importance of healthy eating and good nutritional habits. |
| PROGRAM OBJECTIVE | PROGRAM OBJECTIVE | PROGRAM OBJECTIVE |
| a) Provide intensive group educational sessions that focus on nutrition, physical activity and emotional health to 30 children per year.<br>b) Increase knowledge of nutrition, physical activity and emotional health among participants by a 5 percent increase in average knowledge score among participants at post-test compared to pre-test. | Improve overall knowledge of healthy eating and nutritional habits of students by 10 percent from pre- to post-test assessment. | Improve overall knowledge of healthy eating and nutritional habits of students by 10 percent from pre- to post-test assessment. |
| CURRENT STATUS | CURRENT STATUS | CURRENT STATUS |
| During the 2017 - 2018 school year, Head to Toe provided intensive group educational sessions to 51 children. Participants increased their knowledge by 11 percent. | Improve overall knowledge of healthy eating and nutritional habits of students in grade 2-8 by 33 percent at the four of six, one-hour health education sessions during 2016 - 2018. | Students' knowledge level increased by 26 percent after four, one-hour health education sessions during 2016 - 2018. |

| TABLE 1 CONTINUED: 2016 CHNA MEASUREMENT & OUTCOMES RESULTS: OBESITY, DENTAL HEALTH & ALLERGIES | | |
|---|---|---|
| SNEAKERS | HEALTHY KIDS EXPRESS: DENTAL (HKED) | FOOD ALLERGY MANAGEMENT & EDUCATION (FAME) |
| PROGRAM GOAL | PROGRAM GOAL | PROGRAM GOAL |
| To improve knowledge and emphasize the importance of the relationship between how the body systems work and relate to physical activity. | Children will receive appropriate care to prevent dental cavities and treat oral health problems. | To reduce the number of allergic reactions and even deaths due to life-threatening food allergies. |
| PROGRAM OBJECTIVES | PROGRAM OBJECTIVES | PROGRAM OBJECTIVES |
| Improve overall knowledge of cardiovascular health and fitness principles of students by 10 percent from pre- to posttest assessment. | Provide dental exams, cleanings and restorative care to 500 children per year in high risk populations for free. | Distribute 50 food allergy management toolkits per year to schools or community organizations. |
| | | Increase knowledge of educational session participants, measured by a 5 percent increase of average knowledge score at post-test compared to pre-test for a representative sample of participants |
| CURRENT STATUS | CURRENT STATUS | CURRENT STATUS |
| Students' knowledge level increased by 13 percent after four, one-hour health education sessions during 2016 - 2018. | During the 2017 - 2018 school year, Healthy Kids Expless Dental provided dental exams, cleanings and restorative care to 2,241 children. | While included in the implementation plan, the FAME program was delivered only by request in 2016-2018. Web content is updated annually. |

| TABLE 1 CONTINUED: 2016 CHNA MEASUREMENT & OUTCOMES RESULTS: HEALTHY LIFESTYLE & ASTHMA | | |
|---|---|---|
| POWER OF CHOICE | KEALTHY KIDS EXPRESS: ASTHMA | SMOKE-FREE TEENS ON PURPOSE (STOP) |
| PROGRAM GOAL | PROGRAM GOAL | PROGRAM GOAL |
| To improve knowledge and emphasize the overall health issues associated with tobacco, alcohol and illicit drugs. | To reduce asthma morbidity, decrease asthma disparities, improve coordinated care efforts, and increase quality of life for asthma patients and their families. | To support high school students to be successful in their efforts to quit the harmful habit of using tobacco products. |
| PROGRAM OBJECTIVE | PROGRAM OBJECTIVE | PROGRAM OBJECTIVE |
| Improve overall knowledge of health issues associated with tobacco, alcohol, and illicit drug use by 10 percent from pre- to post-test assessment. | a) Enroll 250 elementary, middle or high school students each school year to provide medical care and social services for children who have asthma.<br>b) Increase inhaler/aero chamber technique in 25 percent of students enrolled at the end of the school year compared to their baseline at the beginning of the program.<br>c) Increase knowledge of asthma signs and symptoms among enrolled students by a 5 percent increase in overall asthma knowledge score at post-test compared to pre-test. | Improve overall knowledge of the harmful effects of tobacco use by 10 percent from pre- to post-test assessment. |
| CURRENT STATUS | CURRENT STATUS | CURRENT STATUS |
| Improve overall knowledge of health issues associated with tobacco, alcohol and illicit drug use of students in grades 5-12, during 2016 - 2018, by 47 percent after four, 45-minute health education sessions. | During the 2017 - 2018 school year, HKE Asthma had 509 enrolled children in the program; 27.7 percent of the children in the program improved their inhaler/aero chamber technique. Students increased their knowledge of asthma by 13.5 percent. | While included in the implementation plan, the STOP program was not delivered as a stand-alone program in 2016-2018. The curriculm was included in other BJC School Outreach and Youth Development Programs. |

| TABLE 1 CONTINUED: 2016 CHNA MEASUREMENT & OUTCOMES RESULTS: MATERNAL/CHILD HEALTH & MENTAL/BEHAVIORAL HEALTH | | |
|---|---|---|
| RAISING ST. LOUIS | TEEN OUTREACH PROGRAM (TOP) | BUDDIES |
| PROGRAM GOAL | PROGRAM GOAL | PROGRAM GOAL |
| For every child to be healthy and ready to learn in school. | Increase school success and prevent teen pregnancy by teaching life skills, sense of purpose and healthy behaviors. | To improve knowledge and emphasize the overall importance of healthy communication, problem-solving strategies, personal responsibility and other life skills. |
| PROGRAM OBJECTIVE | PROGRAM OBJECTIVE | PROGRAM OBJECTIVE |
| a) Improve birth outcomes (gestational age, birth weight) of children involved in the Raising St. Louis program.<br>b) Perform exams and screenings to make sure child is healthy, safe and developing on track.<br>c) Help adults learn effective parenting techniques | a) Operate at least 10 TOP clubs throughout the school year.<br>b) Expose 200 students to the TOP curriculum.<br>c) 80 percent of the students in the TOP program will complete at least 20 hours of community service. | Improve overall knowledge of positive social skills and the impact of bullying behavior of students by 10 percent from pre- to post-test assessment. |
| CURRENT STATUS | CURRENT STATUS | CURRENT STATUS |
| In 2017, 317 moms and 372 babies were active in the Raising St. Louis Program, among which 130 babies were born into the program. Preterm births decreased by 4 percent from 2016 (20 percent) to 2017 (16 percent). There were 1,074 health screenings conducted by nurses and parent educators. In the 2016 to 2017 program year, 75 percent of families were connected by their parent educator to at least one community resource. | During the 2017 - 2018 school year, TOP operated 26 TOP clubs and exposed 564 teens to the TOP club curriculum. 36 percent of teens completed 20 hours of community service. | Students' knowledge level increased by 36 percent during 2016 - 2018 after four, 45-minute health education sessions. |

| TABLE 1 CONTINUED: 2016 CHNA MEASUREMENT & OUTCOMES RESULTS: MENTAL/BEHAVIORAL HEALTH | | |
|---|---|---|
| DIFFERENCE MAKERS | INTERSECTIONS | CONNEXTIONS |
| PROGRAM GOAL | PROGRAM GOAL | PROGRAM GOAL |
| To improve knowledge and emphasize the overall importance of healthy communication, problem-solving strategies, personal responsibility and other life skills. | To improve knowledge and emphasize social skills that contribute to healthy relationships and self-identity. | To improve knowledge and foster social intelligence, use assertive communication and make responsible decisions on information sharing. |
| PROGRAM OBJECTIVE | PROGRAM OBJECTIVE | PROGRAM OBJECTIVE |
| Improve overall knowledge of positive social skills and the impact of bullying behavior of students by 10 percent from pre- to post-test assessment. | Improve overall knowledge of positive social skills that contribute to healthy relationships and self-identity of students by 10 percent from pre- to post-test assessment. | Improve overall knowledge of social intelligence of students by 10 percent from pre- to post-test assessment. |
| CURRENT STATUS | CURRENT STATUS | CURRENT STATUS |
| While included in the implementation plan, the Difference Makers program was not delivered as a stand-alone program in 2016-2019. The curriculm was included in other BJC School Outreach and Youth Development Programs. | Students' knowledge level increased by 28 percent during 2016 - 2018 after six, 45-minute health education sessions. | Students' knowledge level increased by 37 percent after four, forty-five minute sessions during 2016 - 2018. |

| TABLE 1 CONTINUED: 2016 CHNA MEASUREMENT & OUTCOMES RESULTS: ACCESS (BLOOD DISEASE) & PUBLIC SAFETY | | |
|---|---|---|
| HEALTHY KIDS EXPRESS SCREENING: BLOOD DISEASES | SAFETY STREET | SAFETY STOP |
| PROGRAM GOAL | PROGRAM GOAL | PROGRAM GOAL |
| Increase access to health screenings for high-risk children by eliminating or reducing barriers to health care access. | To prevent injuries related to pedestrian, home and vehicle safety, playground/sports, water, strangers and stray animals. | To prevent injuries in children related to bicycle, home and vehicle safety. |
| PROGRAM OBJECTIVE | PROGRAM OBJECTIVES | PROGRAM OBJECTIVES |
| Provide 300 blood screenings per year for children in high-risk populations, free of charge. | a) Trained program specialists will educate 2,000 elementary students per year on being safe in their community and at home during a one-hour interactive safety exhibit in the school or community setting.<br>b) Participants will increase their knowledge of safety topics as shown by a 5 percent increase in average knowledge score at post-test compared to pre-test of a representative sample of participants. | a) Provide 1,000 child safety seat, bicycle helmet or home safety consultation to parent/caregivers per year.<br>b) Increase knowledge among child seat safety consultation participants by 5 percent on post-test compared to pre-test. |
| CURRENT STATUS | CURRENT STATUS | CURRENT STATUS |
| During the 2017-2018 school year, Healthy Kids Express provided 51,271 total screenings; 958 were screened for blood lead and anemia. | During the 2017-2018 school year, Safety Street staff saw 3,645 students and parents. Kindergarten - 2nd grade students exhibited an overall knowledge increase of 21 percent and 3rd - 5th grade students observed an increase of 28 percent. | Safety Stop provided 2,368 safety seat, bicycle helmet and home safety consultations during 2017. Child safety seat consultation participants had an overall increase in knowledge of 12 percent from pre- to post-test for rear-facing car seat consultations and 8 percent for forward-facing car seat consultations. |

| TABLE 1 CONTINUED: 2016 CHNA MEASUREMENT & OUTCOMES RESULTS: ACCESS (SERVICES), INFECTIOUS DISEASES & SEXUALLY TRANSMITTED DISEASES | |
|---|---|
| HEALTHY KIDS EXPRESS SCREENING: ACCESS & INFECTIOUS DISEASE | HEART 2 HEART |
| PROGRAM GOAL | PROGRAM GOAL |
| Increase access to health screenings for high-risk children by eliminating or reducing barriers to health care access. | To help students understand the human body and make good decisions about their sexual health. |
| PROGRAM OBJECTIVE | PROGRAM OBJECTIVE |
| a) Provide 4,000 screening services and immunizations per year for children in high-risk populations, free of charge.<br>b) Connect 40 percent of participants who receive follow-up services to appropriate treatment. | Improve overall knowledge of sexual health of students by 10 percent from pre-to post-test assessment. |
| CURRENT STATUS | CURRENT STATUS |
| During the 2017 - 2018 school year, HKE Screening provided 51,271 total screenings, including height/weight, hearing, vision and immunizations: 41 percent of participants were connected to follow-up services; 1,019 immunizations were administered. | Improve overall knowledge of sexual health of students in grades 6-12 by 21 percent at the end of four, 45-minute health education sessions from 2016 - 2018. |

# CONDUCTING THE 2019 CHNA

## Primary Data Collection: Focus Group

St. Louis Children's Hospital, SSM Cardinal Glennon Children's Hospital, and Shriners Hospitals for Children – St. Louis, conducted a focus group of community leaders to obtain input from pediatric and public health experts on the health needs of St. Louis City children ages 0-18. Fourteen of 15 invited individuals representing various St. Louis City organizations participated (See Appendix B for complete Focus Group Report). The focus group was held May 31, 2018, at the Central Reform Congregation with the following objectives identified:

1) Determine whether the needs identified in the 2016 CHNA are still the right areas on which to focus

2) Explore whether there are any needs on the list that should no longer be a priority

3) Determine where there are gaps in the plan to address the prioritized needs

4) Identify other organizations with whom these hospitals should consider collaborating

5) Discuss what has changed since 2015/2016 when these needs were prioritized, and whether there are new issues that should be considered

6) Understand what other organizations are doing to impact the health of the community and how those activities might complement the hospital's initiatives

7) Evaluate what issues the stakeholders anticipate becoming a greater concern in the future that we need to consider now

### FEEDBACK ON NEEDS BEING ADDRESSED

- Mental Health is being addressed; specifically, tactics identified to address bullying
- Access to services is significant concern as insurance does not equal access
- Consider looking at data through lens of racial equity
- Missing data indicators on infant health
- Lack of data shared on lead screenings

### NEEDS THAT SHOULD BE REMOVED/BE CONSIDERED

Nothing was identified to come off the list. Questions were raised and discussed regarding immunizations and children who have religious exemptions; reproductive and sexual health; sexually transmitted disease; asthma; mental/behavioral health; sickle cell disease; substance abuse; and gun violence.

### GAPS IN IMPLEMENTATION STRATEGIES

Gaps were identified in the way needs are being addressed, including:

- Access to health services, namely understanding how to apply for the benefits related to food programs such as free school lunch
- Mental/Behavioral Health services

    - the lack of early intervention in school that leads to a child being removed from the home due to a situation that has reached a crisis
    - improved coordination among hospitals, primary care and the Department of Mental Health to diagnose a child in order for that child to receive services
    - barrier to receiving mental health services due to limited resources and application process

### OTHER ORGANIZATIONS FOR COLLABORATION

- Urban League
- Parents as Teachers
- St. Louis Police Department's Door-to-Door initiative
- Allergy and Asthma Foundation
- Department of Mental Health
- faith community
- philanthropic organizations
- managed care organizations
- input from the community

### CURRENT COLLABORATIONS HIGHLIGHTED

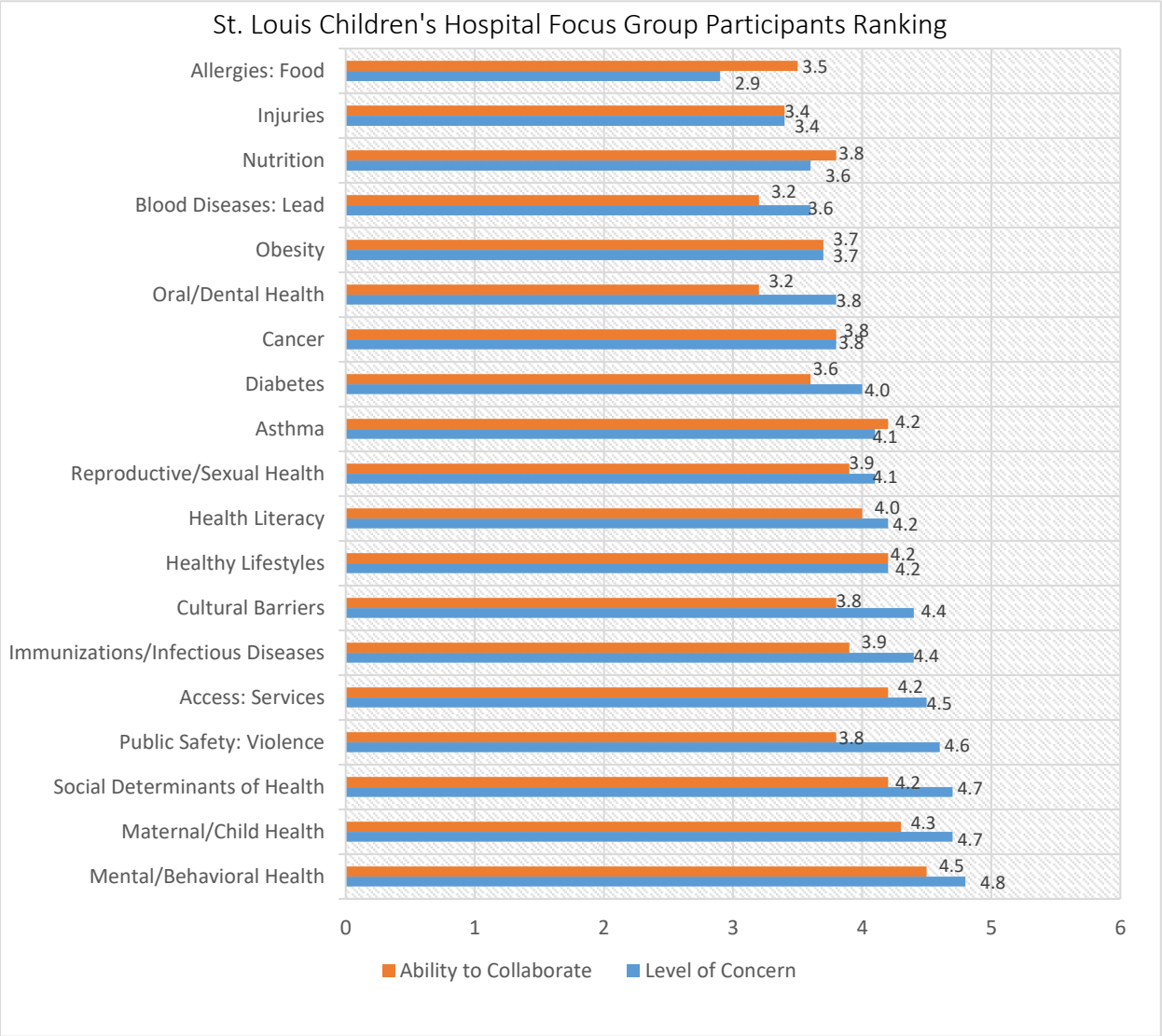
- use of mobile health units
- United Way's 211
- Flourish St. Louis Infant Mortality Reduction Initiative
- Nurses for Newborns
- Casa de Salud

### CHANGES SINCE 2016 CHNA/CONCERN FOR THE FUTURE

- maternal mortality, especially among African Americans
- health of transient families
- need for culture of preventive health care
- role of social determinants of health
- state and federal funding and importance of advocacy
- substance abuse
- use of community health workers
- trauma-informed care
- screening for developmental delays
- cultural competency

## RATING OF NEEDS

Participants were given the list of the needs identified in the 2016 assessment and directed to re-rank needs on a scale of 1 (low) to 5 (high), based on their perceived level of community concern and the ability of community organizations to address them collaboratively. The table on the following page shows the results of this ranking.




The issues of Mental/Behavioral Health were rated the highest both in terms of level of concern and ability to collaborate.

Maternal/Child Health, Social Determinants of Health and Public Safety: Violence rated next in terms of level of concern.

In looking at ability to collaborate, Maternal/Child Health, Social Determinants of Health, Access to Services, Healthy Lifestyles and Asthma all scored high.

## Secondary Data Summary

Based on the primary data reviewed by focus group members (See graph on previous page), the most prevailing health issues were identified by the focus group for a secondary data analysis (See list below). In order to provide a comprehensive analysis of disparities and trends in St. Louis City, the most up-to-date secondary data was collected (See Appendix F for complete secondary data).

In the City of St. Louis, health disparities exist between races resulting in higher rates of disease, injury and death in certain populations. African American children are one of the populations most impacted by health disparities. They are more likely to experience chronic diseases such as asthma, injury and poisoning, adverse pregnancy and birth-related outcomes, emergency mental health treatment and risk factors such as obesity. Access to resources and social and economic factors contribute to these persistent differences.

A summary of observations noted for each health need follows.

- Asthma
- Blood Lead
- Injury and Poisoning
- Maternal and Infant Health
- Sexually Transmitted Infections
- Mental Health

### ASTHMA

Asthma in children is a serious public health problem in the U.S.; it is one of the most common long-term diseases in children. The National Health Interview Survey has found that persons under 18 years have higher rates of asthma than any other age group. Asthma in children results in missed days of school, limitations on daily activities, emergency department visits, and hospitalizations. Asthma disproportionately affects low-income and minority children.

Emergency room data points to racial health disparities between African American and White children. In children under 15 years of age, from 2011-2015, the emergency room rate for asthma in African Americans was 10 times the rate of Whites (50.7 percent compared to 5.8 ER visits per 10,000).

### BLOOD LEAD

Lead exposure has a number of health effects, from causing high blood pressure and anemia to irreversibly damaging the nervous system. Children are particularly vulnerable to lead exposure. Even low levels of lead in children can have lifelong consequences of adverse developmental effects, including slowed growth, lowered intelligence, learning disabilities, and behavior or attention problems. Typically lead poisoning builds up slowly over time, without any obvious symptoms. The Centers for Disease Control and Prevention recommends public health actions be initiated in children with blood lead levels at or exceeding the current reference level of five micrograms per deciliter. The reference level is based on the highest 2.5 percent of blood lead levels in children who were tested for lead, and will be updated every four years.

Racial differences were also present in blood lead levels among children. African Americans had nearly two (2) times the rate of children age zero to 71 months with elevated blood lead levels compared to White children in 2017 (0.8 percent compared to 0.2* percent**).** (Children of the White race's value may be statistically unstable and should be interpreted with caution).

## INJURY AND POISONING

Injuries are the leading cause of death in children ages 19 and younger. Most of these injuries can be prevented - parents and caregivers play a vital role in protecting children from injuries. According to the Centers for Disease Control and Prevention, every day, over 300 children (ages 19 and younger) in the United States are treated in an emergency department, and two children die, as a result of being poisoned. A poison is any substance that is harmful to your body when ingested, inhaled, injected or absorbed through the skin. Everyday items, such as medicines and household cleaners, can be poisonous to children as well. Medication dosing mistakes and unsupervised ingestions are common causes for poisoning in children.

Racial disparities existed when comparing populations and the ER rate due to injury and poisoning among children. In 2015, African Americans had nearly twice the rate of Whites (156.2 compared to 68.1 per 10,000).

## MATERNAL AND INFANT HEALTH

Babies born with low birth weight are more likely than babies of normal weight to have health problems and require specialized medical care in the neonatal intensive care unit. Low birth weight is typically caused by premature birth and fetal growth restriction, both of which are influenced by a mother's health and genetics. The most important things an expectant mother can do to prevent low birth weight are to seek prenatal care, take prenatal vitamins, stop smoking, and stop drinking alcohol and using drugs.

The Healthy People 2020 national health target is to reduce the proportion of infants born with low birth weight to 7.8 percent.

Racial disparities are clearly evident when looking at infant health outcomes by race. African Americans experienced a higher infant mortality rate compared to Whites (13.9 percent compared to 4.5 deaths per 1,000 live births respectively) from 2007-2017. Furthermore, in 2017 African American babies had higher rates of preterm birth (17.7 percent versus 8.5 percent) and low birth weight (18.9 percent versus 6.8 percent) compared to White babies.¨

Babies born to mothers who do not receive prenatal care are three times more likely to have a low birth weight and five times more likely to die than those born to mothers who do get care. Early prenatal care (i.e. care in the first trimester of a pregnancy) allows women and their health care providers to identify and, when possible, treat or correct health problems and health-compromising behaviors that can be particularly damaging during the initial stages of fetal development. Increasing the number of women who receive prenatal care, and who do so early in their pregnancies, can improve birth outcomes and lower health care costs by reducing the likelihood of complications during pregnancy and childbirth.

The Healthy People 2020 national health target is to increase the proportion of pregnant women who receive prenatal care in the first trimester to 77.9 percent.

Smoking during pregnancy poses risks for both mother and fetus. A baby born to a mother who has smoked during her pregnancy is more likely to have less developed lungs and a lower birth weight, and is more likely to be born prematurely. According to the Centers for Disease Control and Prevention, it is estimated that smoking during pregnancy causes up to ten percent of all infant deaths. Even after a baby is born, secondhand smoking can contribute to SIDS (Sudden Infant Death Syndrome), asthma onset, and stunted growth.

The Healthy People 2020 national health target is to decrease the percentage of women who gave birth and who smoked cigarettes during pregnancy to 1.4 percent.

### SEXUALLY TRANSMITTED INFECTIONS

Chlamydia, one of the most frequently reported bacterial sexually transmitted infections (STIs) in the United States, is caused by the bacterium, Chlamydia trachomatis. Although symptoms of chlamydia are usually mild or absent, serious complications that cause irreversible damage, including infertility, can occur "silently" before a woman ever recognizes a problem. Under-reporting of chlamydia is substantial because most people with chlamydia are not aware of their infections and do not seek testing. The Centers for Disease Control and Prevention recommends that all sexually active women age 25 or younger be tested annually for chlamydia. Females aged 15 to 19 consistently have the highest rate of chlamydia compared with any other age or sex group according to the Centers for Disease Control and Prevention. This group may be particularly susceptible because the cervix is not yet fully developed. Increased screening in this group, however, may partially contribute to increased rates of reported chlamydia.

Gonorrhea is a sexually transmitted infection (STI) caused by Neisseria gonorrhoeae. It is typically asymptomatic, but easy to treat. However, gonorrhea has developed resistance to antibiotics over the years, complicating treatment. Left untreated, gonorrhea can cause serious and permanent health problems in both women and men. In women, gonorrhea is a common cause of pelvic inflammatory disease. In the United States, the highest reported rates of infection are among sexually active teenagers, young adults, and African Americans.

The incidence rate for females aged 15 to 19 years old was disproportionately higher among African Americans for gonorrhea and chlamydia. The rate for gonorrhea was almost 18 times higher in teenage, female, African Americans compared to Whites (4,361 versus 245 cases per 100,000). Furthermore, the rate for chlamydia was almost 10 times higher for African American, female teenagers compared to Whites (13,892 versus 1,425 cases per 100,000).

### MENTAL/BEHAVIORAL HEALTH: MENTAL HEALTH

Psychological distress can affect all aspects of our lives. It is important to recognize and address potential psychological issues before they become critical. Occasional down days are normal, but persistent problems should be evaluated and treated by a qualified professional; proper management of mental/emotional health problems can prevent psychological crises warranting hospitalization. According to the National Center for Health Statistics, treatment for mental

disorders is a major cause of hospitalization for children and adolescents between the ages of 10 and 21 years.

The ER rate due to mental health for African American children was more than 3 times higher than the rate for White children (9.1 compared to 3.7 per 10,000).

## PARENT HEALTH CONCERNS SURVEY

A team of six researchers from Washington University St. Louis and SLCH developed a survey to assess parents' health concerns for their children and for children in the community. The survey for the 2019 CHNA was altered from the survey used in 2016 and the edits to the list of health concerns was reviewed by managers in the Child Health Advocacy and Outreach Department, the Faith Advisory Board and by the Community Advisory Board. The survey was administered electronically via Qualtrics. The survey was posted to St. Louis Children's Hospital "About Us" section, included in one of the banners on the home page, on the Facebook page, and through email. Additionally, the survey was sent through Qualtrics to help sample the population; 1,003 parents participated. The survey asked parents to rank 44 items on a four-point scale of how much of a problem the item is for children in the community (large, medium, small or not a problem). The 44 items on the survey are listed in Table 2.

| TABLE 2 : PARENT SURVEY HEALTH TOPICS | |
|---|---|
| Access: Fruits & Vegetables | Motor Vehicle Accidents |
| Allergies (Including Food Allergies) | Neighborhood Safety (Including Assaults & Homicides) |
| Asthma | Obesity |
| Attention Deficit Hyperactivity Disorder (ADHD/ADD) | Opioid Use |
| Autism | Overuse of Antibiotics |
| Bullying (Being the Victim of a Bully) | Poisons (Household Cleaners, Detergents & Medicines) |
| Community Unrest | Poverty |
| Depression | Racial/Ethnic Issues |
| Diabetes | Risks Associated with Immunization Shots |
| Eating Disorders (Like Anorexia & Bulimia) | Risks Associated with not Getting Immunization Shots |
| Environmental Pollution | Safe Housing |
| Getting Health Insurance | School Shootings |
| Flu | School Violence (Not Including School Shootings) |
| Heavy Drinking of Alcohol | Sex Trafficking |
| HIV/AIDS | Sexually Transmitted Infections Other than HIV/AIDs (Chlamydia, Gonorrhea, etc.) |
| Illegal Drug Use (Not Including Opioids) | Smoking and Tobacco Use |
| Internet Safety (Cyberbullying & Stranger Encounters) | Sport & Play-Related Injuries |
| Kid Abuse & Neglect | Stress |
| Lack of Exercise | Suicide |
| Lead Toxicity/Poisoning | Teen Pregnancy |
| Marijuana Use | Understanding Information from Doctor |
| Measles | Zika |

## Internal Work Group Prioritization Meetings

The SLCH internal work group completed a series of surveys that provided input on determining the community's health needs. This group was comprised of pediatric medical directors, nurses, community health professionals and business and planning managers. The CHNA team invited experts from within BJC Health Care, SLCH, Washington University and Shriner's Hospital for Children to participate in an internal work group to prioritize health concerns. (Appendix D)

The group met in via conference call /webinar format to explain the group assignments and then each participant completed two assignments using secondary data sources:

- Priorities MICA for Infants and Children and
- Modified Hanlon and Pearl for Diseases and Risk Factors

Priorities Missouri Information for Community Assessments (MICA) for Infants and Children MICA for Adolescents

Priorities Missouri Information for Community Assessment (MICA) is a system that helps to prioritize diseases using publically available data (http://health.mo.gov/data/mica/MICA/). Priorities MICA divides the 18 and younger population into two groups: infants/children and adolescents. The system also provides for the subjective input of experts to rank their perceived seriousness of each issue. The internal work group individually completed online surveys regarding their perception of the seriousness of each issue. Results were aggregated to determine the rank of each disease.

A list of the diseases that Priorities MICA ranked can be found in table 3.

| TABLE 3: PRIORITIES MICA DISEASE LIST | |
|---|---|
| Abuse & Neglect | Gonorrhea |
| Affective Disorders | Hepatitis A |
| Alcohol- & Substance-Related | HIV/AIDS |
| Anemia (excluding Sickle Cell) | Infant Health Problems |
| Anxiety-Related Mental Disorders | Medical/Surgical Complications |
| Assaults/Homicides | Motor Vehicle Accidents |
| Asthma | Pneumonia & Influenza |
| Burns (Fire & Flames) | Poisoning |
| Burns (Scalds/Hot Objects) | Pregnancy Complications |
| Campylobacter | Salmonella |
| Childhood-Related Mental Disorders | Schizophrenia & Psychosis |
| Chlamydia | Sickle Cell Anemia |
| Dental Health Problems | Suicide & Self-Inflicted Injury |
| Diabetes | Syphilis |
| Elevated Lead | Tuberculosis |
| Falls | Vaccine-Preventable Diseases |

## MODIFIED HANLON METHOD FOR DISEASES AND RISK FACTORS

The internal work group completed a modified version of the Hanlon Method (or Basic Priority Rating System) to prioritize diseases. Using the Hanlon Method allowed the group to include diseases and risk factors not included in the Priorities MICA. Diseases and risk factors are ranked based on the size (how many people affected) and the seriousness (determined by the internal work group members via online survey). State, local and national data were collected using MICA and Healthy Communities Institute Dashboard.

- Inclusion Criteria: A disease or risk factor must have national, state or county level data available to calculate a rate per population.
- Scoring Method: Size of Disease/Risk Factor x Seriousness of Disease/Risk Factor = Final Score.
- Size: The number of people diagnosed with the disease per 100,000 persons (national, state or county level rate).
- Seriousness: Determined by using a Likert Scale of 1 (lowest) to 5 (highest). Each internal work group member rated the seriousness of each disease. This information was collected using Qualtrics. Individual scores were aggregated based on the average for each indicator.

| TABLE 4: DISEASE AND RISK FACTOR TOPICS IN QUALTRICS SURVEY | |
|---|---|
| Abuse & Neglect | Mental Health |
| Adolescents Who Smoke | Mothers who Receive Early Prenatal Care |
| Adults Who Smoke (Second-Hand Smoke) | Mothers Who Smoke During Pregnancy |
| Alcohol Abuse | Motor Vehicle Collisions |
| Allergies (Including Food Allergies) | Pneumonia and Influenza |
| Anemia (Excluding Sickle Cell) | Poisoning |
| Asthma | Pregnancy Complications |
| Babies With Low Birth Weight | Premature Death |
| Bullying | Preterm Births |
| Burns (Fire & Flames) | Primary Care Provider Rate |
| Burns (Scalds/Hot Objects) | Recreation & Fitness Facilities |
| Cancer | Sedentary Behavior |
| Child Abuse | Self-inflicted injury |
| Childhood Obesity | Sexually Transmitted Diseases (Inc. HIV/AIDS, Syphilis, Chlamydia, Gonorrhea) |
| Children Living Below Poverty Level | Sickle Cell Anemia |
| Children Without Health Insurance | Single-Parent Households |
| Dental Health Problems | Social Determinants of Health (Food Security, Housing, Utilities, etc.) |
| Diabetes | Students Eligible for the Free Lunch Program |
| Elevated Lead Blood Levels | Substance Abuse |
| Families Living Below Poverty Level | Suicide |
| Fruit & Vegetable Consumption | Unintentional Injuries |
| Health Literacy (Inc. Graduation Rates & Reading Proficiency, Cultural Competence) | Vaccine-Preventable Diseases |
| Infant Health Problems | Violent Crimes (Including Gun Violence) |
| Infant Mortality | Vision Problems |
| Injury Rrom Falls/Falling | |

## PRIORITIZATION OF HEALTH NEEDS

In order to display each source's top diseases and risk factors, conclusive data were compiled from the external focus group, internal work group and the survey of parents.

**TABLE 5: COMMUNITY HEALTH NEEDS ASSESSMENT: PRIMARY & SECONDARY DATA SUMMARY**

| RANK | MICA ADOLESCENTS | MICA INFANTS | HANLON/PEARL RISK FACTORS | HANLON/PEARL DISEASES | EXTERNAL FOCUS GROUP | PARENT SURVEY |
|---|---|---|---|---|---|---|
| 1 | Motor Vehicle Accidents | Sickle Cell Anemia | Adolescents Who Smoke | Suicide | Mental/Behavioral Health | Stress |
| 2 | Assaults/Homicides | Infant Health Problems | Families Living Below Poverty Level | Violent Crimes (Including Gun Violence) | Maternal/Child Health | Bullying (Being the Victim of a Bully) |
| 3 | Asthma | Asthma | Bullying | Abuse & Neglect | Social Determinants of Health | Lack of Exercise |
| 4 | Pregnancy Complications | Pneumonia & Influenza | Children Living Below Poverty Level | Mental Health | Public Safety: Violence | Obesity |
| 5 | Dental Health Problems | Motor Vehicle Accidents | Percent Mothers Who do not Receive Early Prenatal Care | Asthma | Access: Services | Attention Deficit Hyperactivity Disorder (ADHD/ADD) |
| 6 | Sickle Cell Anemia | Vaccine-Preventable Diseases | Childre Without Health Insurance | Self-Inflicted Injury (ER Visits, Ages 15-19) | Immunizations/ Infectious Diseases | Internet Safety (Cyberbullying & Stranger Encounters) |
| 7 | Pneumonia & Influenza | Assaults/Homicides | Social Determinants of Health (Food Security, Housing, Utilities, etc.) | Dental Health Problems | Cultural Barriers | Racial/Ethnic Issues |
| 8 | Vaccine-Preventable Diseases | Dental Health Problems | Substance Abuse | Babies with Low Birth Weight | Healthy Lifestyles | Depression |
| 9 | Suicide & Self-Inflicted Injury | Burns (Scalds/Hot Objects) | Alcohol Abuse | Infant Mortality | Health Literacy | Asthma |
| 10 | Schizophrenia & Psychosis | Falls | Mothers Who Smoke During Pregnancy | Infant Health Problems | Reproductive/Sexual Health* | Smoking and tobacco use |
| 11 | Anxiety-Related Mental Disorders | Affective Disorders | Students Eligible for the Free Lunch Program | Premature Death | Asthma | Illegal drug use |
| 12 | Diabetes | Poisoning | Adults Who Smoke (Second-Hand Smoke) | Preterm Births | Diabetes | Allergies (Including Food Allergies) |
| 13 | Affective Disorders | Medical/Surgical Complications | Primary Care Provider Rate | Childhood Obesity | Cancer | Poverty |
| 14 | Falls | Schizophrenia & Psychosis | Health Literacy (Including graduation rates and reading proficiency, cultural competence) | Unintentional Injuries | Oral / Dental Health | Getting Health Insurance |
| 15 | Burns (Scalds/Hot Objects) | Burns (Fire & Flames) | Sedentary Behavior | Pregnancy Complications | Obesity | Opioid Use |
| 16 | Medical/Surgical Complications | Diabetes | Single-Parent Households | Motor Vehicle Collisions (Deaths due to MVA) | Blood Diseases: Lead | Environmental Pollution |
| 17 | Chlamydia | Anxiety-Related Mental Disorders | Fruit and Vegetable Consumption | Sexually Transmitted Diseases (Inc. HIV/AIDS, Syphilis, Chlamydia, Gonorrhea) | Nutrition | Marijuana Use |
| 18 | HIV/AIDS | Abuse & Neglect | Recreation and Fitness Facilities | Child Abuse | Injuries | Community Unrest |

| TABLE 5 CONTINUED: COMMUNITY HEALTH NEEDS ASSESSMENT: PRIMARY & SECONDARY DATA SUMMARY | | | | | | |
|---|---|---|---|---|---|---|
| RANK | MICA ADOLESCENTS | MICA INFANTS | HANLON/PEARL RISK FACTORS | HANLON/PEARL DISEASES | EXTERNAL FOCUS GROUP | PARENT SURVEY |
| 19 | Alcohol- & Substance-Related | Anemia (excluding Sickle Cell) | | Allergies (Including Food Allergies) | Allergies: Food | Kid Abuse & Neglect |
| 20 | Anemia (excluding Sickle Cell) | Childhood-Related Mental Disorders | | Diabetes | | Flu |
| 21 | Gonorrhea | Elevated Lead | | Vaccine-Preventable Diseases | | Neighborhood Safety (Including Assaults & Homicides) |
| 22 | Poisoning | Tuberculosis | | Pneumonia & Influenza | | Teen Pregnancy |
| 23 | Syphilis | Hepatitis A | | Injury from Falls/Falling | | Suicide |
| 24 | Tuberculosis | Salmonella | | Burns (Fire & Flames) | | Heavy Drinking of Alcohol |
| 25 | Elevated Lead | Campylobacter | | Sickle Cell Anemia | | Autism |
| 26 | Burns (Fire & Flames) | | | Burns (Scalds/Hot Objects) | | Diabetes |
| 27 | Hepatitis A | | | Anemia (Excluding Sickle Cell) | | Motor Vehicle Accidents |
| 28 | Salmonella | | | Elevated Lead Blood Levels | | School Violence |
| 29 | Campylobacter | | | Cancer | | Sport & Play-Related injuries |
| 30 | | | | Poisoning | | Sexually Transmitted Infections other than HIV/AIDs (Chlamydia, Gonorrhea, etc.) |
| 31 | | | | Vision Problems | | Safe Housing |
| 32 | | | | | | Understanding Information from doctor |
| 33 | | | | | | Risks Associated with Not Getting Immunization Shots |
| 34 | | | | | | Overuse of Antibiotics |
| 35 | | | | | | Access to Fruits & Vegetables |
| 36 | | | | | | Sex Trafficking |
| 37 | | | | | | School Shootings |
| 38 | | | | | | Eating Disorders (Like Anorexia & Bulimia) |
| 39 | | | | | | Lead toxicity/poisoning |
| 40 | | | | | | HIV/AIDS |
| 41 | | | | | | Poisons (Household Cleaners, Detergents, & Medicines) |
| 42 | | | | | | Risks Associated With Immunization Shots |
| 43 | | | | | | Measles |
| 44 | | | | | | ZIKA |

Due to the language variance from each data source, indicators for each disease and risk factor were grouped by a color-coded health topic. Each health topic includes all of the data sources, indicators and definitions used during this process. A comprehensive table of health topics and indicators are included in Table 12.

The health topics were ranked based on a weighted number of mentions from the risk factors and diseases listed below. Each indicator was weighted from 44 (highest ranked) to 1 (lowest rank) and then divided by the total number of questions asked per topic. The overall rank of each

health topic is listed in Tables 8-9. The number in parenthesis represents the weighted number of mentions.

## PRIMARY DATA CONSIDERED:

Column 5: External focus group-ranked results

Column 6 “Parents Health Concerns” survey-ranked results

## SECONDARY DATA CONSIDERED:

Column 1: Priorities Missouri Information for Community Assessments (MICA) for Infants and Children ranked results

Column 2: Priorities Missouri Information for Community Assessments (MICA) for Adolescents ranked results

Column 3: Modified Hanlon Method for Risk Factors ranked results (or Basic Priority Rating System)

Column 4: Modified Hanlon Method for Disease Ranked Results (or Basic Priority Rating System)

**TABLE 6: HEALTH TOPICS AND INDICATORS**

| RANK | HEALTH TOPIC | INDICATOR INCLUDED |
|---|---|---|
| 1 | Asthma | Allergies, asthma and pollution |
| 2 | Dental Health | Children with medical needs who also need dental care, dental exams for 3 – 5 year olds, follow up dental care, kids who need root canals under the age of 8, kids who need sedation to receive dental care, and preventive oral health. |
| 3 | Maternal, Child Health | Babies with low birth weight, infant mortality, infant health problems, mother who received early prenatal care, mothers who smoke during pregnancy, preterm births, pregnancy complications, and teen pregnancy. |
| 4 | Health Literacy | Cooperation for the chronically ill, cultural barriers, cultural competence, knowing when to go to the ER/managing minor ills, reading proficiency, and understanding the need for treatment. |
| 5 | Healthy Lifestyle | Access to fruits and vegetables, adolescents who smoke, adults who smoke, children living below poverty level, families living below poverty level, fruit and vegetable consumption, lack of exercise, poverty, recreation and fitness facilities, sedentary behavior, single-parent households, smoking and tobacco use, social determinants of health, students eligible for the free lunch program. |
| 6 | Obesity | Childhood Obesity and obesity |
| 7 | Mental/Behavioral Health | Abuse and neglect, affective disorders, alcohol- and -substance-related, anxiety-related mental disorders, Attention Deficit Hyperactivity Disorder (ADHD/ADD), Autism, bullying, childhood-related mental disorders, depression, eating disorders, (like anorexia and bulimia) heavy drinking of alcohol, internet safety (cyberbullying and stranger encounters), marijuana use, mental health, overuse of antibiotics, racial/ethnic issues, schizophrenia and psychosis, stress, suicide and self-inflicted injury. |
| 8 | Allergy ffood) | Food allergies |
| 9 | Diabetes | Diabetes |
| 10 | Public Safety | Burns (scalds, hot objects, fire and flames from asphalt transfer stations, motor vehicle collisions/accidents, neighborhood recovery and restoration, poisoning, trauma, unintentional injury, community unrest, and violent crimes (assaults, homicide, gun violence). |
| 11 | Acces to Healthcare | Children without insurance, hearing and vision screenings, maintaining a primary care provider, and medical/surgical complications. |
| 12 | Blood Diseases | Anemia, elevated lead, and sickle cell. |
| 13 | Cancer | All cancers excluding cervical cancer. |
| 14 | Infectious Disease | Influenza, overuse of antibiotics, Ebola, pneumonia, and vaccine preventable diseases. |
| 15 | STDs | Cervical cancer, chlamydia, gonorrhea, HIV/AIDS, and syphilis. |

| TABLE 7: HEALTH TOPICS RANKING FOR MENTIONS | | | |
|---|---|---|---|
| RANK | HEALTH TOPIC | WEIGHTED TOTAL MENTIONS | TOTAL NUMBER MENTIONS |
| 1 | Asthma | 37.6 | 7 |
| 2 | Dental Health | 36.5 | 4 |
| 3 | Maternal, Child Health | 35.8 | 13 |
| 4 | Health Literacy | 35.0 | 3 |
| 5 | Healthy Lifestyle | 32.9 | 17 |
| 6 | Obesity | 32.8 | 4 |
| 7 | Mental/Behavioral Health | 32.3 | 35 |
| 8 | Allergy (Food) | 28.3 | 3 |
| 9 | Diabetes | 27.8 | 5 |
| 10 | Public Safety | 26.5 | 28 |
| 11 | Access to Healthcare | 24.5 | 10 |
| 12 | Blood Diseases | 24.4 | 11 |
| 13 | Cancer | 24.0 | 2 |
| 14 | Infectious Disease | 23.7 | 18 |
| 15 | Sexually Transmitted Diseases | 21.3 | 7 |

## CONCLUSION

At the conclusion of the comprehensive assessment process to determine the most critical needs in St. Louis City, the group concluded that St. Louis Children's Hospital's ranks are as follows: Asthma; Dental Health; Maternal, Child Health; Health Literacy; Healthy Lifestyle; Obesity; Mental/Behavioral Health; Allergy (Food); Diabetes; Public Safety; Access To Healthcare; Blood Diseases; Cancer; Infectious Diseases; Sexually Transmitted Diseases.

# APPENDICES

## Appendix A: About St. Louis Children's Hospital

Founded in 1879, St. Louis Children's Hospital is one of the premier children's hospitals in the United States. It serves not just the children of St. Louis, but children across the world. The hospital provides a full range of pediatric services to the St. Louis metropolitan area and a primary service region covering six states. As the pediatric teaching hospital for Washington University School of Medicine, the hospital offers nationally recognized programs for physician training and research. St. Louis Children's Hospital was re-designated as a Magnet® hospital by the American Nurses Credentialing Center's Magnet Recognition Program, which recognizes excellence in nursing. Only 3 percent of hospitals nationally have achieved Magnet re-designation. St. Louis Children's Hospital is recognized in the top 7 percent nationally by U.S. News & World Report, which in 2017 ranked the hospital in all 10 specialties surveyed.

SLCH has 390 licensed beds, which includes a 41-bed pediatric intensive care unit, 38-bed heart center, a 125-bed newborn intensive care unit, and a 16-bed pediatric bone marrow transplant unit. Each year the hospital receives about 275,000 patient visits, and the school of medicine receives about 150,000 patient visits. SLCH extends its services to children and families in the community through numerous health workshops and outreach interventions. Recent advocacy efforts have included programs on nutrition and fitness, childhood immunizations, home safety for special needs children, car seat and helmet safety, and injury prevention. SLCH established the first dedicated pediatric mobile health program in the region, providing dental care, asthma care and health screening services free of charge, thanks to generous contributions to the hospital's foundation.

In 2018, SLCH provided $197,185,076 in community benefit providing 301,473 individual service. This total includes:

- $86,283,471 in financial assistance and means-tested programs and 85,751 individual's services.
- 77,277 individuals on Medicaid at a total net benefit of $80,663,461

SLCH also provided a total of $110,901,605 to 215,722 individual program in other community benefits including, community health improvement services, health professional, subsidized health services and cash & in-kind donations. (See Appendix B for Community Benefit Expenses)

## Appendix B: SLCH 2018 Total Net Community Benefit Expenses

| ST. LOUIS CHILDREN'S HOSPITAL: 2018 TOTAL NET COMMUNITY BENEFIT EXPENSES | | |
|---|---|---|
| CATEGORY | PERSONS SERVED | TOTAL NET BENEFIT |
| FINANCIAL ASSISTANCE AND MEANS-TESTED PROGRAMS | | |
| Financial Assistance at Cost | 8,474 | 5,620,010 |
| Medicaid | 77,277 | 80,663,461 |
| TOTAL FINANCIAL ASSISTANCE AND MEANS-TESTED PROGRAMS | 85,751 | 86,283,471 |
| OTHER COMMUNITY BENEFITS | | |
| Community Health Improvement Services | 210,093 | 3,817,414 |
| Health Professional | 1,113 | 76,717,941 |
| Subsidized Health Services | 4,516 | 1,626,137 |
| In-Kind Donation | | 28,740,113 |
| TOTAL OTHER COMMUNITY BENEFITS | 215,722 | 110,901,605 |
| **GRAND TOTAL** | **301,473** | **197,185,076** |

# Appendix C: Demographic of St. Louis City vs. Missouri

| DEMOGRAPHIC OF ST. LOUIS CITY VS. MISSOURI | | |
|---|---|---|
| | ST. LOUIS CITY | MISSOURI |
| GEOGRAPHY | | |
| Land area in square miles, 2010 | 61.9 | 6,874,1.52 |
| Persons per square mile, 2010 | 5157.5 | 87.1 |
| POPULATION | | |
| Population, 2010 | 319,294 | 5,988,923 |
| Population, 2017 | 308,626 | 6,113,532 |
| Population, Percent Change - 2010 -2017 | -3.3 | 2.1 |
| AGE | | |
| Persons Under 5 Years, Percent, 2017 | 6.3 | 6.1 |
| Persons Under 18 Years, Percent, 2017 | 19.4 | 22.6 |
| Persons 65 Years and over, Percent, 2017 | 13.0 | 16.5 |
| GENDER | | |
| Female Person, Person, 2017 | 51.6 | 50.9 |
| Male Persons, Percent, 2017 | 48.4 | 49.1 |
| RACE / ETHNICITY | | |
| White, Percent, 2017 | 47.2 | 83.1 |
| African American Alone, Percent, 2017 | 46.5 | 11.8 |
| White Alone, not Hispanic or Latino, Percent, 2017 | 43.9 | 79.5 |
| Asian Alone, Percent, 2017 | 3.4 | 2.1 |
| Hispanic or Latino, Percent, 2017 | 4.0 | 4.2 |
| Two or More Races, Percent, 2017 | 2.5 | 2.3 |
| American Indian and Alaska Native alone, Percent, 2017 | 0.3 | 0.6 |
| Native Hawaiian and Other Pacific Islander Alone, Percent, 2017 | 0.1 | 0.1 |
| LANGUAGE | | |
| Foreign Born Persons, Percent, 2013-2017 | 6.8 | 4.0 |

*Source: Conduent Healthy Communities Institute*

| ST. LOUIS COUNTY DEMOGRAPHIC INCLUDING EDUCATION / INCOME / HOUSING VS. MISSOURI | | |
|---|---|---|
| | ST. LOUIS CITY | MISSOURI |
| HOUSING | | |
| Housing Units, 2017 | 176,846 | 2,792,506 |
| Homeownership, 2013-2017 | 35 | 58 |
| Median Housing Units Value, 2013-2017 | 123,800 | 145,400 |
| FAMILY & LIVING ARRANGEMENTS | | |
| Households, 2013-2017 | 139,741 | 2,386,203 |
| Average Household Size, Percent, 2013-2017 | 2.2 | 2.5 |
| Population Age 5+ with Language other than English Spoken at Home, Percent, 2013-2017 | 8.7 | 6.0 |
| EDUCATION | | |
| High School Graduate or Higher, Percent of Persons Age 25+, 2013-2017 | 85.7 | 89.2 |
| Bachelor's Degree or Higher, Percent of Persons Age 25+, 2013-2017 | 34.1 | 28.2 |
| INCOME & POVERTY | | |
| Median Household Income, 2013-2017 | $38,664.0 | $51,542.0 |
| Per Capita Income, 2013-2017 | $26,739.0 | $28,282.0 |
| People Living Below Poverty Level, Percent, 2013-2017 | 25.0 | 14.6 |

*Source: Conduent Healthy Communities Institute*

| PERCENT ST. LOUIS CITY vs. MISSOURI SOCIO-ECONOMIC INDICATORS | | | |
|---|---|---|---|
| INDICATORS | ST. LOUIS CITY | MISSOURI | U.S. |
| Students Eligible for Free Lunch Program, Percent, (2016-2017) | 92.7 | 44.1 | 40.4 |
| Infant Participating in WIC, Percent, (2016) | 62.7 | 51.1 | |
| Renters spending 30% or moreon Income on Rent, Percentt (2013-2017) | 51.4 | 46.3 | 50.6 |
| Children Living Below Poverty Level, Percent, (2013-2017) | 39.8 | 20 | 20.3 |
| Homeownership, percent, (2013-2017) | 34.5 | 57.8 | 56 |
| Families Living Below Poverty Level, Percent, (2013-2017) | 19.7 | 10.3 | 10.5 |
| Households With Cash Public Assistance Income, Percent, (2013-2017) | 2.7 | 2.1 | 2.6 |
| Unemployed Workers in Civilian Labor Force, Percent, (April 2019) | 3.5 | 2.9 | 3.3 |

*Source: Conduent Healthy Communities Institute*

| PERCENT ST. LOUIS CITY vs. MISSOURI FAMILIES LIVING BELOW POVERTY LEVEL BY RACE/ETHNICITY (2013-2017) | | |
|---|---|---|
| RACE/ETHNICITY | ST. LOUIS CITY | MISSOURI |
| Native Hawaiian / Other Pacific Islander | 100 | 29.4 |
| Other | 38.1 | 28.9 |
| Two or More Races | 33.9 | 17.4 |
| African American | 30.9 | 22.6 |
| Hispanic or Latino | 23.1 | 21.9 |
| Asian | 21.7 | 10.0 |
| White, non-Hispanic | 6.7 | 8.2 |
| American Indian or Alaska Native | 6.2 | 16.3 |
| Overall | 19.7 | 10.3 |

*Source: Conduent Healthy Communities Institute*

| PERCENT ST. LOUIS CITY vs. MISSOURI CHILDREN LIVING BELOW POVERTY LEVEL BY AGE GROUP (2013- | | |
|---|---|---|
| AGE GROUP | ST. LOUIS CITY | MISSOURI |
| less than 6 | 38.8 | 22.7 |
| 6-11 years | 44.5 | 20.7 |
| 12-17 years | 36 | 16.8 |
| Overall | 39.8 | 20 |

*Source: Conduent Healthy Communities Institute*

| PERCENT ST. LOUIS CITY vs. MISSOURI CHILDREN LIVING BELOW POVERTY LEVEL BY RACE/ETHNICITY (2013-2017) | | |
|---|---|---|
| RACE/ETHNICITY | ST. LOUIS CITY | MISSOURI |
| Native Hawaiian / Other Pacific Islander | 100.0 | 44.0 |
| Other | 52.9 | 39.8 |
| African American | 50.5 | 39.2 |
| Hispanic or Latino | 45.2 | 30.5 |
| Two or More Races | 35.5 | 24.4 |
| Asian | 24.0 | 13.1 |
| White, non-Hispanic | 13.7 | 15.3 |
| Overall | 39.8 | 20.0 |

*Source: Conduent Healthy Communities Institute*

| PERCENT ST. LOUIS CITY vs. MISSOURI INFANTS PARTICIPATING IN WIC BY RACE/ETHNICITY (2016) | | |
|---|---|---|
| RACE/ETHNICITY | ST. LOUIS CITY | MISSOURI |
| African American | 88.5 | 82 |
| White | 26.1 | 42.2 |
| Overall | 62.7 | 51.1 |

*Source: Conduent Healthy Communities Institute*

## Appendix D Focus Group Report

PERCEPTIONS OF THE PEDIATRIC HEALTH NEEDS
OF ST. LOUIS CITY RESIDENTS
FROM THE PERSPECTIVES OF COMMUNITY LEADERS

PREPARED BY:

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June 29, 2018

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## BACKGROUND

In the Patient Protection and Affordable Care Act (PPACA) passed in March 2010, non-profit hospitals were mandated to conduct a community-based health needs assessment (CHNA) every three years. As a part of that process, each hospital is required to solicit input from those who represent the broad interests of the community served by the hospital as well as those who have special knowledge and expertise in the area of public health and underserved populations.

St. Louis Children's Hospital (SLCH) and SSM Health Cardinal Glennon Children's Hospital conducted their first stakeholder assessment in 2012, followed by a second in 2015. Shriners Hospitals for Children – St. Louis officially joined the process for the first time this year.

The hospitals are on slightly different timelines with this iteration. The next CHNAs for Cardinal Glennon and Shriners Hospitals for Children – St. Louis are due by the end of December 2018, while SLCH's will be finalized by the end of December 2019.

## RESEARCH OBJECTIVES

The main objective of this research is to solicit feedback on the pediatric health needs of the community from experts and those with special interest in the health of the community served by the hospitals of St. Louis City.

Specifically, the discussion focused around the following ideas:

1) Determine whether the needs identified in the 2015/2016 CHNAs are still the right areas on which to focus

2) Explore whether there are there any needs on the list that should no longer be a priority

3) Determine where there are the gaps in the plans to address the prioritized needs

4) Identify other organizations with whom these hospitals should consider collaborating

5) Discuss what has changed since 2015/2016 when these needs were prioritized, and whether there are there new issues which should be considered

6) Understand what other organizations are doing to impact the health of the community and how those activities might complement the hospitals' initiatives

7) Evaluate what issues the stakeholders anticipate becoming a greater concern in the future that we need to consider now

## METHODOLOGY

To fulfill the PPACA requirements, St. Louis Children's Hospital, SSM Health Cardinal Glennon and Shriners Hospitals for Children – St. Louis conducted a single focus group with public health experts and those with a special interest in the health needs of St. Louis City children. It was held on May 31, 2018 at Central Reformed Congregation in the Central West End. The group was facilitated by Angela Ferris Chambers of BJC HealthCare. The discussion lasted about ninety minutes.

15 individuals representing various St. Louis City organizations participated in the discussion. (See Appendix)

Steven Burghart, President, SSM Health Cardinal Glennon Children's Hospital, welcomed participants at the beginning of the meeting. Those observing on behalf of the participating hospitals were also introduced. At the conclusion of the meeting, Joan Magruder, BJC Group President, St. Louis Children's Hospital, thanked everyone for sharing their perspectives.

During the group, the moderator reminded the community leaders why they were invited - that their input on the health priorities for children is needed to help the hospitals move forward in this next phase of the needs assessment process.

The moderator shared the demographic and socioeconomic profile of St. Louis City, the needs prioritized by the hospitals in their most recent assessments, and the highlights of each hospital's implementation plan.

Because SLCH, Cardinal Glennon and Shriners referred to the same needs differently, some changes were made in the nomenclature to ensure that the same health need was being referenced. This was based on work that BJC HealthCare conducted in 2015 and 2016 to develop a common nomenclature to use among all of its hospitals.

The following health needs (based on the revised nomenclature) were identified to be addressed in the 2015/2016 hospital CHNAs and implementation plans.

| NEEDS BEING ADDRESSED | SSM CARDINAL GLENNON CHILDREN'S HOSPITAL | SHRINERS HOSPITALS FOR CHILDREN | ST. LOUIS CHILDREN'S |
|---|---|---|---|
| Access to Care/Services | X | X | X* |
| Allergies | | | X |
| Asthma | X | | X |
| Blood Diseases (Lead Poisoning) | | | X |
| Health Literacy | | | X |
| Healthy Lifestyles | | | X** |
| Immunizations | | | X |
| Maternal/Infant/Child Health | X | | X |
| Mental/Behavioral Health | | X | X |
| Obesity | | | X |
| Oral/Dental Health | | | X |
| Public Safety: Injuries | | | X |
| Reproductive/Sexual Health Including (STDs) | | | X |

Other health needs were identified in the 2015/2016 plans, but not addressed, due to factors such as lack of expertise and limitations in resources. These included:

| NEEDS NOT BEING ADDRESSED | SSM CARDINAL GLENNON CHILDREN'S HOSPITAL | SHRINERS HOSPITALS FOR CHILDREN | ST. LOUIS CHILDREN'S HOPSITAL |
|---|---|---|---|
| Cancer | X | | X |
| Blood Disease (Lead Poisoning) | X | | |
| Cultural Barriers | X | | |
| Diabetes | | | X |
| Immunizations | X | | |
| Mental/Behavioral Health | X | | |
| Nutrition | X | | |
| Oral/dental Health | X | | |
| Public Safety: Injuries | X | | |
| Public Safety: Violence | X | | |
| Social Determinants of Health | X | | |

* Includes screening for lead

** Includes smoking cessation/tobacco education

The moderator also shared several pieces of information to help further identify the health needs of St. Louis City. These were based on comparisons between publically available St. Louis City health data and state/national measures. They included the following:

- the best performing health indicators
- the best performing social determinants of health
- the worst performing social determinants of health
- the worst performing health indicators

Other health indicators were shared describing access to health insurance, access to healthcare providers, infectious disease rates (including STDs), and children receiving cash assistance/SNAP benefits.

At the end of the presentation, the community stakeholders were asked to rate the identified needs based on their perceived level of concern in the community, and the ability of the community to collaborate around them.

## KEY FINDINGS

### FEEDBACK ON THE NEEDS BEING ADDRESSED:

The stakeholders felt positively that mental health was one of the needs being addressed, and specifically mentioned the tactics identified to address bullying. The representative from the St. Louis Police Department mentioned that there has been an increase in the number of retaliations related to bullying, which reinforces the need for programs not only to reduce bullying but to prevent the ones being bullied from responding in a negative way.

Some felt that access to services was still their highest concern. Although the statistics reflect that a large majority of children are eligible for insurance, this doesn't necessarily mean that they are enrolled. The same concern was expressed about the fact that although many may be

enrolled in an insurance program, they may not know how to access services. The person was making the point that insurance does not equal access, and we need to better understand these barriers.

- Some families are hesitant to apply for benefits for fear of "messing up" benefits that are attached to something else. There are automatic dis-enrollments that happen because a mother applied for SNAP and then lost her Medicaid. Or because a family's income varies from month-to-month, they may be eligible at one point in time for services but ineligible over the course of a year. This creates a culture of fear within the population we are trying to reach.

After viewing all of the data on the health rankings, one stakeholder suggested that we must consider looking at the data through the lens of racial equity. The data might suggest that strides have been made in infant mortality, but it is not equal among all groups. This should be a part of the process as each of the identified needs are evaluated.

One stakeholder felt that data indicators are missing around infant health. Some are included to assess prenatal health, but indicators such as infant weight gain, head circumference, and achieving weight goals by the child's first birthday should also be considered.

A question was raised about the lack of data that was shared on lead screening, even though lead levels in children have been tracked for over 20 years. In her organization, Vision for Children at Risk, there has been a decrease in the number of children screened for lead.

### NEEDS THAT SHOULD COME OFF OF THE LIST:

Nothing was identified to come off the list.

### ADDITIONAL NEEDS THAT SHOULD BE CONSIDERED:

The St. Louis City Department of Health director mentioned her ongoing concern about immunizations and that 137 children currently have a religious exemption. She is worried about her department's ability to respond quickly if there is a potential outbreak in which those children and their families need to be notified.

The issue of reproductive and sexual health should be considered a higher priority, due to high rates of sexually transmitted diseases.

The school nurse representative identified asthma and mental/behavioral health as the areas that were most top-of-mind for her colleagues. Sickle cell disease should also be considered for addition to the list.

Substance abuse was identified as missing from the list of identified needs. Although often included as part of behavioral health, this stakeholder felt that it deserves to be named. The hospital can play an important role in education about use of prescription medications and pain management, both among children and their parents.

Although Public Safety: Violence was called out as a specific area of need, another stakeholder felt gun violence specifically needs to be identified, and as a public health issue rather than a criminal one.

## GAPS BETWEEN DEFINED NEEDS AND OUR ABILITY TO ADDRESS THEM:

During the discussion of access to health services, one stakeholder felt that there is a gap in even knowing how to apply for the benefits related to food programs, like free lunch. This impacts children's health due to lack of nutritious food as well an understanding of healthy lifestyles.

Another stakeholder commented about gaps in mental/behavioral health services in schools.

- The lack of early intervention may lead to a child being removed from his home due to a situation that has reached a crisis. If there was an opportunity to address issues earlier at the point when a child acts-out in school, the crisis might be prevented and the child may not need to be put in foster care.

- To receive services from the Department of Mental Health (DMH), a child must also have a diagnosis. If the child has only been seen in the emergency room, the physician is reluctant to give the child a diagnosis. This suggests that there is a need for improved coordination between hospitals, primary care and the behavioral health center.

- This also related to DMH requirements that an individual be classified as severe or serious enough to receive services. Because of limited resources, they cannot provide services to anyone except the most severe. The process to apply for mental health services was also described as cumbersome by those who are familiar with it, again creating a barrier to receiving mental health services.

## OTHER ORGANIZATIONS WITH WHOM TO COLLABORATE:

One stakeholder was glad to see that many of the tactics are being implemented in collaboration with organizations that are physically located in the community and not in the hospitals. She felt that the impact is greater when the services are offered in the community, rather than requiring children and families to come to the hospitals to receive them.

The Urban League representative mentioned that at this time of year, families are coming in regularly for utility assistance, housing assistance and other services. This presents health care organizations with an opportunity to capture these families and inform them about health services.

Parents as Teachers regularly goes into homes bringing educational resources to young children. They could also become part of the conversation about how to access health resources.

The representative of the St. Louis Police Department mentioned that there is now a program in place where city representatives, including police officers, fire fighters and others are going door-to-door in St. Louis City to talk to area residents about their homes. They hand out a pamphlet with telephone numbers that identifies who to call for different services. They would be happy to add information related to available health services in St. Louis City. He offered the services of his four staff members to take the information door-to-door as long as people felt it was of value.

In addition, he suggested that it would be beneficial to have a central location to which they could direct area families to get more information about services that are available. It could be a web site, or a central call center number, that would direct them to some of the non-profit organizations that provide services to the community. It could help educate them about who they should be talking to, and what questions should they ask.

The Allergy and Asthma Foundation mentioned that they are coming full circle in the way they provide support by making home visits. Because you can visually identify triggers in the home, it often has a greater impact on reducing incidence of asthma attacks. When you see a child in the ED, you can't address those things if you don't know about them.

With all of the discussion that was taking place around mental health services, many felt that the state Department of Mental Health should have a seat at the stakeholder table. In addition, representatives of the faith community – the archdiocese and area pastors – would also be valuable resources and influencers. Many of them already have outreach programs in place on which healthcare organizations could piggyback to share information and services with the community. Another participant mentioned that we should engage philanthropic organizations and managed care organizations, as the latter has a major influence over what programs are financially supported.

Several suggested that there should be input from the community itself as to what they need. A few organizations mentioned hosting community cafes on various topics to solicit feedback. However, they mentioned that a lot of intention needs to go into how to organize and structure those meetings so you get the honest feedback you are looking for.

### CURRENT COLLABORATIONS THAT WERE HIGHLIGHTED:

The use of mobile health units is a positive example of providing health services to people where they are, rather than making them come to us. Affinia, People's and Healthy Kids Express all have mobile units that have had a positive impact on our community.

The representative from Generate Health indicated that they have been working with the United Way's 211 centralized data base as a resource that residents can refer to for finding information about resources and how to access them. They have an action team that is part of the Flourish St. Louis Infant Mortality Reduction Initiative that meets every fourth Thursday of the month. They are exploring how to improve this system and make it accessible to everyone.

Nurses for Newborns has been reaching out to all of their referral sources to remind them that they serve babies and families prenatally. Because of their name, many were waiting until the baby was born to contact them. However, they know that their outcomes are much better if they can reach moms before the birth. Their service is free, and they have a goal to reach at least 50% of their moms prenatally.

The spokesperson for Casa de Salud mentioned that, because of their name, there is a misperception that they only serve Latinos. The organization's only criteria for service is that an individual be uninsured. Their case management program helps people navigate the system and access care. They currently have collaborations with six other agencies in their new mental health center that recently opened.

The representative from Abbott Ambulance suggested that all of the organizations who had gathered for this discussion were, among themselves, a rich set of resources that consumers should be aware of. Identifying a way to bring information about them to the families of St. Louis City would be an educational service to the community, and help them to help themselves.

## CHANGES SINCE THE 2015/2016 CHNA/CONCERN FOR THE FUTURE:

There is a major concern about maternal mortality, especially among African American moms who are dying at higher rates during, and immediately after pregnancy.

Another concern is the health of transient families, who often do not have a regular source of health care. There is no good way to keep track of them as they move within the St. Louis region.

- Some feel that the best way to reach these families is through one-on-one door-to-door outreach. Others feel that the schools are the best way to each these families because they need to submit their transfer documentation.

The culture of preventive health care - understanding that there is value in regular check-ups and health screening - was also identified as a consideration. This is a foreign concept to some families, who avoid seeing the doctor and only go when they are very sick. Children grow up believing the emergency room is where you go to receive health care, and then become adults who visit the ED for primary care later on in life.

There is also greater recognition today that social determinants of health play a larger role in a family's health than ever before. Many feel that hospitals need to figure out a way to help address them, or all of their other efforts will be wasted. One stakeholder mentioned a risk assessment tool called PREPARE that screens for multiple social risk factors and how they impact health. They are using the tool to understand how to engage people differently based on their needs and their attitudes.

The state representative mentioned that there also needs to be a recognition that "economic incentives are not going to change and they're going to get worse." State funding has been reduced to rely more on federal funding. But the federal government is trying to reduce their investment as well. So health organizations cannot expect to get help from the state. He pointed out the importance of advocacy and that personal relationships with government officials can often have an impact on getting small or pilot programs funded. Demonstrating the cost savings of a particular program can also carry a lot of weight in gaining support and funding.
Substance abuse will become a more important concern as the use of opioids and synthetics increase. In families, more children will go into foster care because of parents who are using these substances and are unable to care for their children. There are questions, though, about having sufficient resources to address this growing need.

Discussion about using community health workers was not happening as much three years ago. In some communities, there are community health workers working with children with asthma and children with diabetes.

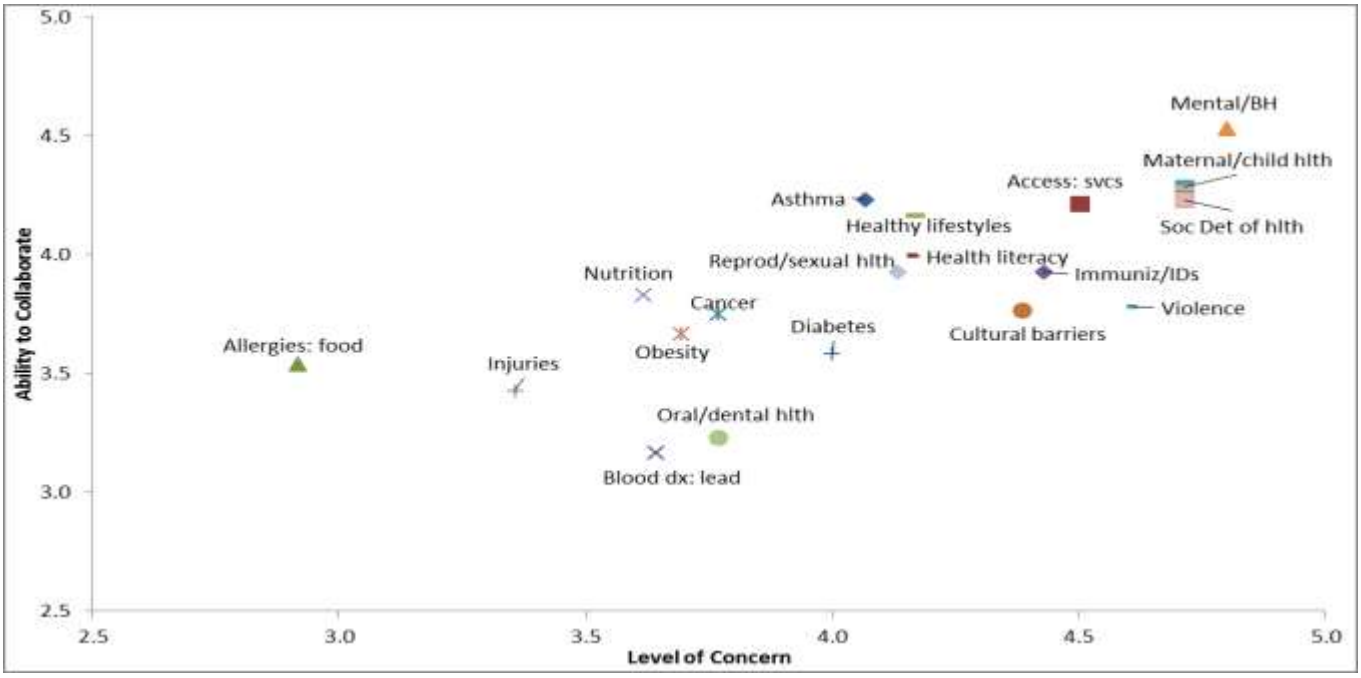
There is also more conversation now about trauma-informed care compared to three years ago. There are more discussions around trying to understand what happened to a child that resulted in their behavior, rather than asking "what's wrong with you."

There is also more discussion today in the early childhood field about screening for developmental delays. Identifying issues sooner allows them to be addressed sooner, but again, there are not always sufficient resources to do so.

There is a continuing trend in recognizing the importance of cultural competency in the way that health services are provided. St. Louis has been identified as one of the fastest growing metropolitan areas for the foreign-born. If that trend continues, then so will the importance of cultural competency.

## RATING OF NEEDS

Participants rerated the needs identified in the 2015/2016 assessment on a scale of 1 (low) to 5 (high), based on their perceived level of community concern and the ability of community organizations to collaborate around them.




The issues of mental/behavioral health were rated the highest both in terms of level of concern and ability to collaborate.

Maternal/child health, social determinants of health and public safety: violence rated next in terms of level of concern.

In looking at ability to collaborate, maternal/child health, social determinants of health, access to services, healthy lifestyles and asthma all scored high.

The table on the next page shows the actual ratings for each need that was evaluated.

Average Scores

| | Level of Concern | Ability to Collaborate |
|---|---|---|
| Mental/Behavioral Health | 4.8 | 4.5 |
| Maternal/Child hHalth | 4.7 | 4.3 |
| Social Determinants of Health | 4.7 | 4.2 |
| Public Safety: Violence | 4.6 | 3.8 |
| Access: Services | 4.5 | 4.2 |
| Immunizations/Infectious Diseases | 4.4 | 3.9 |
| Cultural Barriers | 4.4 | 3.8 |
| Healthy Lifestyles | 4.2 | 4.2 |
| Health Literacy | 4.2 | 4.0 |
| Reproductive/Sexual Health (STIs) | 4.1 | 3.9 |
| Asthma | 4.1 | 4.2 |
| Diabetes | 4.0 | 3.6 |
| Cancer | 3.8 | 3.8 |
| Oral/Dental Health | 3.8 | 3.2 |
| Obesity | 3.7 | 3.7 |
| Blood Diseases: Lead | 3.6 | 3.2 |
| Nutrition | 3.6 | 3.8 |
| Injuries | 3.4 | 3.4 |
| Allergies: Food | 2.9 | 3.5 |

* Including STDs

## NEXT STEPS

Using the input the hospitals received from community stakeholders, St. Louis Children's Hospital, SSM Health Cardinal Glennon Children's Hospital and Shriners Hospitals – St. Louis will consult with their internal workgroups to evaluate this feedback. They will consider it with other secondary data they may review, and determine whether/how their priorities should change.

Cardinal Glennon and Shriners must complete their needs assessments and associated implementation plans by December 31, 2018; St. Louis Children's Hospital must complete theirs by December 31, 2019.

## Appendix E: Focus Group Participants & Hospitals' Observers

| ST. LOUIS CHILDREN'S HOSPITAL FOCUS GROUP PARTICIPANTS | | |
|---|---|---|
| NAME | ORGANIZATION | ATTENDANCE |
| Anderson-Rice, Rose | Generate Health | X |
| Buhlinger, Yvonne | Affinia Healthcare | X |
| Butler, Michael | State Representative | X |
| Cole, Marge | MO Dept of Health and Senior Services | X |
| Fleisher, Randy | Central Reform Congregation | |
| Franklin, Wil | People's Health Centers | X |
| Hoester, Liz | Vision for Children at Risk | X |
| Moore, Melba | City of St. Louis Dept of Health | X |
| Nelson, Reagan | Asthma and Allergy Foundation | X |
| Ohlemillerr, Melinda | Nurses for Newborns | X |
| Polak, Colleen | Voices for Children | X |
| Riopedre, Jorge | Casa de Salud | X |
| Simpson, Matthew | St. Louis Police Department | X |
| Swabby, Tracey | Abbott EMS / CG Parent Rep | X |
| Williamson-Powell, Tammie | Voices for Children | X |

| ST. LOUIS PEDIATRIC'S HOSPITALS OBSERVERS ROOSTER | | |
|---|---|---|
| NAME | ORGANIZATION | ATTENDANCE |
| Bakkar, Kim | SSM Health | X |
| Burghart, Steven | SSM Health Cardinal Glennon | X |
| Isaak, Elizabeth | Shriners Hospitals for Children | X |
| King, Karley | BJC HealthCare | X |
| Kozma, Nicole | St. Louis Children's Hospital | X |
| Magruder, Joan | St. Louis Children's Hospital | X |
| Pabst, Jessica | SSM Health | X |
| Schaeffer, Melody | St. Louis Children's Hospital | X |
| Strehlow, Denise | BJC HealthCare | X |
| Todd, Greta | St. Louis Children's Hospital | X |
| Ward, Kel | St. Louis Children's Hospital | X |
| Wickenhauser, Carol | Shriners Hospitals for Children | X |
| Wilhold, Diana | BJC HealthCare | X |

# Appendix F: St. Louis Children's Hospital CHNA Internal Work Group

| ST. LOUIS CHILDREN'S HOSPITAL INTERNAL WORK GROUP | |
|---|---|
| NAME | TITLE |
| Alison Nash, MD | Professor of Clinical Pediatrics |
| Alysa Ellis, MD | Assistant Professor of Pediatrics, Peds Allergy Immun Pulmonary Med |
| Andrea Al-Hussain | Clinical Supervisor, Call Center, BJC Behavioral Health |
| Carolyn Schainker, RD | Manager, Community Education and Events |
| Cydney Gilbert | Social Worker |
| Daniel Stoeckel, DDS | Instructor in Clinical Surgery, Washington University |
| Daniel Stoeckel, DDS | Dentist, St. Louis Children's Hospital |
| David Hoffman | Director, Emergency Services |
| Diana Wilhold | Director, BJC School Outreach & Youth Development |
| Fahd Ahmad, MD | Assistant Professor of Pediatrics, Pediatrics Emergency Medicine |
| Greta Todd | Executive Director, Diversity & Inclusion, Child Health Advocacy & Outreach |
| Jane Garbutt, MD | Professor of Medicine, Internal Medicine – General Medical Science |
| Janis Stoll, MD | Assistant Professor of Pediatrics, Pediatrics Gastroenterology |
| Julie Bruns | Director, Call Center & Market Research |
| Katie Plax, MD | Ferring Family Chair Professor of Pediatrics, Pediatrics Diagnostic Center |
| Lisa Meadows | Director, Health Kids Express |
| Maggie Wolf | Director, Newborn Intensive Services |
| Mary Mike Cradock, Phd | Director of Behavioral Health |
| Melody Schaeffer, MPH | Supervisor, Community Benefit & Evaluation |
| Moe Schmid | Manager, EU, Transport, Trauma |
| Nicole Arciniega | Women's Health Education and Outreach Coordinator, Women and Infants |
| Nicole Kozma, MPH | Director, Outreach Programs, Child Health Advocacy & Outreach Department |
| Shaneco Fennoy, MPH | Manager, Raising St. Louis |
| Susanne Rosenburg | Director, Hematology Oncology |

*Source: Conduent Healthy Communities Institute*

# Appendix G: Secondary Data

## ASTHMA

**ST. LOUIS CITY vs. MISSOURI ASTHMA RATE AMONG CHILDREN AGE 0-14 /10,000 POPULATION (2011-2015)**

| PERCENT EMERGENCY ROOM RATE DUE TO ASTHMA AMONG CHILDREN UNDER 15 YEARS | | |
|---|---|---|
| Change over Time | | |
| Change over Time | St. Louis City | Missouri |
| 2007-2011 | 33.5 | 10.1 |
| 2008-2012 | 34.4 | 10.5 |
| 2009-2013 | 34.9 | 10.6 |
| 2010-2014 | 36.0 | 10.9 |
| 2011-2015 | 35.3 | 10.8 |
| By Age Group | | |
| Age Group | St. Louis City | Missouri |
| Less than 1 year | 11.4 | 4.8 |
| 1-4 year | 47.4 | 15.2 |
| 5-9 year | 40.2 | 12.2 |
| 10-14 year | 24.4 | 7.1 |
| Overall | 35.3 | 10.8 |
| By Gender | | |
| Gender | St. Louis City | Missouri |
| Female | 28.7 | 8.3 |
| Male | 41.6 | 13.1 |
| Overall | 35.3 | 10.8 |
| By Race/Ethnicity | | |
| Ethnicity/Race | St. Louis City | Missouri |
| African American | 50.7 | 36.6 |
| White | 5.8 | 5.0 |
| Overall | 35.3 | 10.8 |

| PERCENT HOSPITALIZATION RATE DUE TO ASTHMA AMONG CHILDREN UNDER 15 YEARS | | |
|---|---|---|
| Change over Time | | |
| Change over Time | St. Louis City | Missouri |
| 2007-2011 | 67.5 | 21.8 |
| 2008-2012 | 66.5 | 21.5 |
| 2009-2013 | 60.2 | 20.5 |
| 2010-2014 | 58.1 | 20.1 |
| 2011-2015 | 53.9 | 18.7 |
| By Age Group | | |
| Age Group | St. Louis City | Missouri |
| Less than 1 year | 12.7 | 8.7 |
| 1-4 year | 71.9 | 31.2 |
| 5-9 year | 59.5 | 20.0 |
| 10-14 year | 41.1 | 9.5 |
| Overall | 53.9 | 18.7 |
| By Gender | | |
| Gender | St. Louis City | Missouri |
| Female | 42.8 | 14.0 |
| Male | 64.4 | 23.1 |
| Overall | 53.9 | 18.7 |
| By Race/Ethnicity | | |
| Ethnicity/Race | St. Louis City | Missouri |
| African American | 77.4 | 54.7 |
| White | 9.3 | 9.8 |
| Overall | 53.9 | 18.7 |

*Source: Conduent Healthy Communities Institute*

## BLOOD LEAD LEVEL

**PERCENT ST. LOUIS CITY vs. MISSOURI CHILDREN AGE 0-71 MONTHSOF AGE WITH ELEVATED BLOOD LEAD LEVELS (2017)**

| CHANGE OVER TIME | | |
|---|---|---|
| CHANGE OVER TIME | ST. LOUIS CITY | MISSOURI |
| 2011 | 2.2 | 0.8 |
| 2012 | 2.3 | 0.8 |
| 2013 | 1.9 | 0.7 |
| 2014 | 4.5 | 0.8 |
| 2016 | 0.7 | 0.1 |
| 2017 | 0.7 | 0.1 |

| BY RACE/ETHNICITY | | |
|---|---|---|
| RACE/ETHNICITY | ST LOUIS CITY | MISSOURI |
| African American | 0.8 | 0.3 |
| White | 0.2* | 0.1 |
| Overall | 0.7 | 0.1 |

**(*) Value may be statistically unstable and should be interpreted with caution**

*Source: Conduent Healthy Communities Institute*

## INJURY AND POISONING

**ST. LOUIS CITY vs. MISSOURI INJURY AND POISONING RATE AMONG CHILDREN AGE 0-14 / 10,000 POPULATION (2011-2015)**

| EMERGENCY ROOM RATE DUE TO INJURY & POISONING AMONG CHILDREN AGE 0-14 /10,000 | | |
|---|---|---|
| CHANGE OVER TIME | | |
| CHANGE OVER TIME | ST. LOUIS CITY | MISSOURI |
| 2007-2011 | 130.0 | 113.3 |
| 2008-2012 | 133.6 | 112.0 |
| 2009-2013 | 136.1 | 109.9 |
| 2010-2014 | 129.1 | 105.6 |
| 2011-2015 | 129.7 | 103.5 |
| BY AGE GROUP | | |
| AGE GROUP | ST. LOUIS CITY | MISSOURI |
| Less than 1 Year | 86.5 | 70.0 |
| 1-4 Years | 157.8 | 129.1 |
| 5-9 Years | 117.0 | 89.2 |
| 10-14 Years | 127.6 | 104.3 |
| Overall | 129.7 | 103.5 |
| BY GENDER | | |
| GENDER | ST. LOUIS CITY | MISSOURI |
| Female | 115.6 | 93.0 |
| Male | 143.1 | 117.7 |
| Overall | 129.7 | 105.6 |
| BY RACE/ETHNICITY | | |
| RACE/ETHNICITY | ST. LOUIS CITY | MISSOURI |
| African American | 156.2 | 91.7 |
| White | 68.1 | 114.7 |
| Overall | 129.7 | 103.5 |

| HOSPITALIZATION RATE DUE TO INJURY & POSONING AMONG CHILDREN AGE 0-14 /10,000 POPULATION | | |
|---|---|---|
| CHANGE OVER TIME | | |
| CHANGE OVER TIME | ST. LOUIS CITY | MISSOURI |
| 2007-2011 | 42.8 | 26.1 |
| 2008-2012 | 42.6 | 24.8 |
| 2009-2013 | 39.3 | 23.5 |
| 2010-2014 | 37.5 | 22.1 |
| 2011-2015 | 34.4 | 21.1 |
| BY AGE GROUP | | |
| AGE GROUP | ST. LOUIS CITY | MISSOURI |
| Less than 1 Year | 65.2 | 40.7 |
| 1-4 Years | 42.9 | 24.1 |
| 5-9 Years | 23.0 | 15.0 |
| 10-14 Years | 29.3 | 20.9 |
| Overall | 34.4 | 21.1 |
| BY GENDER | | |
| GENDER | ST. LOUIS CITY | MISSOURI |
| Female | 30.3 | 17.5 |
| Male | 38.4 | 24.4 |
| Overall | 34.4 | 21.1 |
| BY RACE/ETHNICITY | | |
| RACE/ETHNICITY | ST. LOUIS CITY | MISSOURI |
| African American | 40.5 | 26.2 |
| White | 17.9 | 18.4 |
| Overall | 34.4 | 21.1 |

*Source: Conduent Healthy Communities Institute*

## MATERNAL AND CHILD HEALTH

**PERCENT ST. LOUIS CITY vs. MISSOURI MATERNAL AND CHILD HEALTH RATE**

BABIES WITH LOW BIRTH WEIGHT BY MATERNAL RACE/ETHNICITY (2017)

| RACE/ETHNICITY | ST. LOUIS CITY | MISSOURI |
|---|---|---|
| Asian/Hawaiian/Pacific Island | 13.3 | 8.9 |
| African American | 18.9 | 14.9 |
| Hispanic | 6.7* | 7.8 |
| White | 6.8 | 7.5 |
| Overall | 13.0 | 8.7 |

MOTHERS WHO RECEIVED EARLY PRENATAL CARE BY RACE/ETHNICITY (2013-2017)

| RACE/ETHNICITY | ST. LOUIS CITY | MISSOURI |
|---|---|---|
| American Indian/Alaska Native | 63.8 | 63.7 |
| Asian/Hawaiian/Pacific Island | 75.0 | 69.4 |
| African American | 61.2 | 60.9 |
| Hispanic | 65.3 | 60.5 |
| Other | 60.1 | 60.8 |
| White | 82.7 | 76.3 |
| Overall | 70.4 | 73.5 |

INFANT MORTALITY BY RACE/ETHNICITY BY RACE/ETHNICITY (2007-2017)

| RACE/ETHNICITY | ST. LOUIS CITY | MISSOURI |
|---|---|---|
| African American | 13.9 | 12.9 |
| White | 4.5 | 5.5 |
| Overall | 10.1 | 6.7 |

MOTHERS WHO SMOKED DURING PREGNANCY BY RACE/ETHNICITY (2017)

| RACE/ETHNICITY | ST. LOUIS CITY | MISSOURI |
|---|---|---|
| Asian/Hawaiian/Pacific Island | 3.3 | 2.2 |
| African American | 13.2 | 11.4 |
| Hispanic | 4.2* | 6.3 |
| White | 9.4 | 15.8 |
| Overall | 11.1 | 14.5 |

MOTHERS WHO RECEIVED NO PRENATAL CARE BY RACE/ETHNICITY (2013-2017)

| RACE/ETHNICITY | ST. LOUIS CITY | MISSOURI |
|---|---|---|
| African American | 2.2 | 2.7 |
| Hispanic | 1.6* | 1.8 |
| Other | 1.3 | 1.5 |
| White | 1.2 | 0.9 |
| Overall | 2.6 | 1.2 |

**(*) Value may be statistically unstable and should be interpreted with caution**

PRETERM BIRTHS BY MATERNAL RACE/ETHNICITY (2017)

| RACE/ETHNICITY | ST. LOUIS CITY | MISSOURI |
|---|---|---|
| Asian / Hawaiian / Pacific Island | 13.3 | 9.5 |
| African American | 17.7 | 14.8 |
| Hispanic | 8.3 | 9.8 |
| White | 8.5 | 9.8 |
| Overall | 13.7 | 10.6 |

*Source: Conduent Healthy Communities Institute*

## SEXUALLY TRANSMITTED INFECTIONS

**ST. LOUIS CITY vs. MISSOURI GONORRHEA/CHLAMYDIA INCIDENCE RATE: FEMALES / 100,000 FEMALES AGE 15-19 (2010-2014)**

Gonorrhea Incidence Rate: Females 15-19: Change over Time

| Change over Time | St. Louis City | Missouri |
|---|---|---|
| 2005-2009 | 4,262.30 | 875.5 |
| 2006-2010 | 3,965.10 | 820.4 |
| 2007-2011 | 3,533.40 | 755.8 |
| 2008-2012 | 3,304.20 | 698.3 |
| 2009-2013 | 3,202.10 | 658.6 |
| 2010-2014 | 3,313 | 642 |

Chlamydia Incidence Rate: Females 15-19: Change over Time

| Change over Time | St. Louis City | Missouri |
|---|---|---|
| 2005-2009 | 11,986.70 | 3,487.90 |
| 2006-2010 | 11,917.60 | 3,559.60 |
| 2007-2011 | 11,957.30 | 3,650.90 |
| 2008-2012 | 11,865 | 3,717.50 |
| 2009-2013 | 11,756.20 | 3,690 |
| 2010-2014 | 11,362.20 | 3,607 |

Gonnhorrea Incidence Rate: Females 15-19 by Race/Ethnicity

| Ethnicity/Race | St. Louis City | Missouri |
|---|---|---|
| African American | 4,360.70 | 2,898.50 |
| White | 245 | 145.7 |
| Overall | 3,313 | 642 |

Gonnhorrea Incidence Rate: Females 15-19 by Race/Ethnicity

| Ethnicity/Race | St. Louis City | Missouri |
|---|---|---|
| African American | 13,891.50 | 10,205.30 |
| White | 1,424.60 | 16,48.2 |
| Overall | 11,362.20 | 3,607 |

*Source: Conduent Healthy Communities Institute*

MENTAL/BEHAVIORAL HEALTH

## ST. LOUIS CITY vs. MISSOURI MENTAL HEALTH RATE AMONG CHILDREN AGE 0-14 / 10,000 POPULATION (2011-2015)

ER Rate due to Mental Health among Children over Time

| Change over Time | St. Louis City | Missouri |
|---|---|---|
| 2007-2011 | 4.5 | 2.9 |
| 2008-2012 | 4.9 | 3.1 |
| 2009-2013 | 5.7 | 3.4 |
| 2010-2014 | 6.5 | 3.8 |
| 2011-2015 | 7.4 | 4.2 |

Hospitalization Rate due to Mental Health among Children over Time

| Change over Time | St. Louis City | Missouri |
|---|---|---|
| 2007-2011 | 39.0 | 55.3 |
| 2008-2012 | 40.4 | 57.1 |
| 2009-2013 | 46.4 | 59.7 |
| 2010-2014 | 54.7 | 62.7 |
| 2011-2015 | 59.7 | 64.5 |

ER Rate due to Mental Health among Children by Gender

| Gender | St. Louis City | Missouri |
|---|---|---|
| Female | 6.8 | 4.2 |
| Male | 7.9 | 4.2 |
| Overall | 7.4 | 4.2 |

Hospitalization Rate due to Mental Health among Children by Gender

| Gender | St. Louis City | Missouri |
|---|---|---|
| Female | 59.1 | 61.9 |
| Male | 60.3 | 67.9 |
| Overall | 59.7 | 64.5 |

ER Rate due Mental Health among Children by Race / Ethnicity

| Ethnicity/Race | St. Louis City | Missouri |
|---|---|---|
| African American | 9.1 | 5.7 |
| White | 3.7 | 3.7 |
| Overall | 7.4 | 4.2 |

Hospitalization Rate due Mental Health among Children by Race / Ethnicity

| Ethnicity/Race | St. Louis City | Missouri |
|---|---|---|
| African American | 62.2 | 80.1 |
| White | 37.1 | 55.2 |
| Overall | 59.7 | 64.5 |

ER Rate due to Mental Health among Children by Age (2010-2014)

| Age Group | St. Louis City | Missouri |
|---|---|---|
| Less than 1 Year | 0.5 | 0.3 |
| 1-4 Years | 0.9 | 0.1 |
| 5-9 Years | 6.4 | 2.8 |
| 10-14 Years | 17.2 | 9.2 |
| Overall | 7.4 | 4.2 |

*Source: Conduent Healthy Communities Institute*

DATA SOURCES USED FOR THE SECONDARY DATA ANALYSIS INCLUDED:

*CONDUENT HEALTHY COMMUNITIES INSTITUTE* (HCI), an online dashboard of health indicators for St. Louis County, offers the ability to evaluate and track the information against state and national data and Healthy People 2020 goals. Sources of data include the National Cancer Institute, Environmental Protection Agency, U.S. Census Bureau, U.S. Department of Education, and other national, state, and regional sources. http://www.healthycommunitiesinstitute.com/

*MISSOURI INFORMATION FOR COMMUNITY ASSESSMENT (MICA)* is an online system that helps to prioritize diseases using publicly available data. The system also provides for the subjective input of experts to rank their perceived seriousness of each issue. MICA provides a common means for users to access public health related data to assist in defining the health status and needs of Missourians. https://healthapps.dhss.mo.gov/MoPhims/MOPHIMSHome

# IMPLEMENTATION STRATEGY

# Community Health Needs to be Addressed

***Update:*** *Due to lack of financial resources, some of the programs such as Safety street, food allergy and healthy kids express screening are discontinued from this platform.*

## COMMUNITY HEALTH NEED: PUBLIC SAFETY

### Community Health Need Rationale

According to Healthy People 2020, injuries are the leading cause of death for Americans age one to 44, and a leading cause of disability for all ages. Unintentional injuries are a common reason for ER utilization at SLCH and are often preventable.

SLCH currently operates Safety Street to address injury prevention at community sites across the metropolitan area. The Safety Street program is unique in both the defined community and the surrounding area and has shown to be effective at increasing safety knowledge among children. This program is delivered at community sites both in and outside the defined community.

*Due to COVID-19, Safety Street program delivery is paused until large group gatherings are safe for community members and program participants.*

## PROGRAM: SAFETY STOP

Safety Stop is a free service that educates parents and caregivers about car seat, helmet, home and sleep safety.

### Strategy Goal

To prevent injuries in children related to bicycle, home, sleep and vehicle safety.

### Strategy Objectives

a) Provide 2,000 car seat, bicycle helmet, home safety or sleep safety consultations to parents/caregivers per year.

b) Increase knowledge among child seat safety consultation participants by 5 percent on post-test compared to pre-test.

*This objective excludes those months where pre-test and post-test delivery was not feasible for virtual safety consultations during the COVID-19 pandemic.*

### Strategy Action

SLCH's Community Education and Child Health Advocacy and Outreach departments are responsible for this safety program. At the hospital safety center, certified child passenger safety technicians educate parents and caregivers on how to use safety equipment such as child safety seats and bicycle helmets. Motor vehicle, bicycle, and home safety equipment is available for purchase at a reduced rate. Staff provides free child safety educational presentations in the

community and safety seat consultations, helmet safety checks, and home safety consults at the safety center.

> *Consultations will be given both in-person at the hospital safety center and virtually to adapt to COVID-19 challenges. Presentations to the community were paused during the COVID-19 pandemic.*

## Strategy Outcomes

Participants of this program will increase knowledge and skills of how to keep children safe in the car, on bicycles, at home and while sleeping.

## Strategy Outcome Measurements

This program will be evaluated using a pre-and post-knowledge test for a sample of participants. Progress will also be evaluated by tracking the number of car seat, helmet, home and sleep safety consultations, number of pre- and posttests completed, and percent of car seats installed incorrectly upon arrival.

## COMMUNITY HEALTH NEED: OBESITY

### Community Health Need Rationale:

Obesity now affects 17 percent of all children and adolescents in the United States - triple the rate from just one generation ago according to the CDC. Childhood obesity can have a harmful effect on the body and lead to a variety of adult-onset diseases in childhood such as high blood pressure, high cholesterol, diabetes, breathing problems, socio-emotional difficulties and musculoskeletal problems.

## PROGRAM: HEAD TO TOE

SLCH's Child Health Advocacy and Outreach Department currently provides the Head to Toe program twice annually to serve children from within St. Louis City as well as the surrounding community who have a written recommendation from their physician stating their need for the program.

### Strategy Goal:

To improve knowledge and skill in leading a healthy lifestyle among children and their families by offering a multidisciplinary approach to weight management.

### Strategy Objectives:

a) Provide medium intensive group educational sessions that focus on nutrition, physical activity and emotional health to 30-60 families per year.

b) Increase knowledge of nutrition, physical activity and emotional health among participants by a 5 percent increase in average knowledge score among participants at post-test compared to pre-test.

### Strategy Action:

SLCH's Child Health Advocacy and Outreach Department is responsible for this program. An exercise specialist, registered dietician, social worker and health promotion professionals facilitate 17 medium intensive group sessions on topics regarding physical activity, nutrition and emotional health.

*Educational sessions are provided both in-person and virtually to adapt to COVD-19 challenges.*

### Strategy Outcomes:

Participants learn skills and techniques that will help them incorporate heart healthy behavior into their lifestyles by increasing their knowledge of healthy nutrition, physical activities and emotional health.

### Strategy Outcome Measurements:

This program is evaluated by measuring improvements in physical activity, nutrition, self-image, family relationships and healthy behaviors. The tools used to measure these outcomes capture

changes in behavior, knowledge, skill and readiness to change assessment tools. Progress will be evaluated by measuring the number of sessions and the number of participants who complete pre- and post- assessment tools.

## PROGRAM: "FUN"TASTIC NUTRITION

### Strategy Description:

BJC School Outreach and Youth Development currently provides "Fun"tastic Nutrition, a classroom-based program that teaches students in grades 2 to 5 the importance of healthy eating habits and a healthy lifestyle.

> *The program was revised to adapt to COVID-19 challenges. The school selects from the delivery options of pre-recorded lessons, live on a virtual platform or in person.*

### Strategy Goal:

To improve knowledge and emphasize the overall importance of healthy eating and good nutritional habits.

### Strategy Objective:

Improve overall knowledge of healthy eating and nutritional habits of students by 10 percent from pre- to post-test assessment.

### Strategy Action:

"Fun"tastic Nutrition consists of four one-hour sessions taught by a registered dietitian and includes the following topics:

- Importance of healthy eating and MyPlate
- Exercise and heart health
- Label reading
- The digestive system

After the program is delivered, a final program report is given to teachers, administrators and staff to help foster future classroom-based education.

### Strategy Outcomes:

The intended outcome of this program is to increase knowledge of healthy eating and good nutritional habits by 10 percent.

### Strategy Outcome Measurements:

To measure the overall increase in knowledge, a pre- and post-test is administered to all students enrolled in the program. Questions on the assessments not only measure knowledge, but student attitude, perception, and intention to change specific health behaviors.

## PROGRAM: EXPLORE HEALTH

### Strategy Description

BJC School Outreach and Youth Development currently provides Explore Health, a classroom-based program that teaches students in grades 6 to 12 the importance of healthy eating habits and a healthy lifestyle.

> *The program was revised to adapt to COVID-19 challenges. The school selects from the delivery options of pre-recorded lessons, live on a virtual platform or in person.*

### Strategy Goal

To improve knowledge and emphasize the overall importance of healthy eating and good nutritional habits.

### Strategy Objective

Improve overall knowledge of healthy eating and nutritional habits of students by 10% from pre- to post-test assessment.

### Strategy Action

Explore Health consists of four one-hour sessions taught by a registered dietitian and includes the following topics:

- Learning healthy eating basics
- Learning the importance of family medical history
- Learning how to read a food label and make informed decisions
- Examining food advertisements and learning how to evaluate claims made

After the program is delivered, a final program report is given to teachers, administrators and staff to help foster future classroom-based education.

### Strategy Outcomes

The intended outcome of this program is to increase knowledge of healthy eating and good nutritional habits by 10 percent.

### Strategy Outcome Measurements

To measure the overall increase in knowledge, a pre- and post-test is administered to all students enrolled in the program. Questions on the assessments not only measure knowledge, but student attitude, perception, and intention to change specific health behaviors.

## PROGRAM: SNEAKERS

### Strategy Description:

BJC School Outreach and Youth Development currently provides SNEAKERS, a classroom-based program that teaches students in grades 4 to 6 the importance of cardiovascular health and understanding fitness principles.

> *The program was revised to adapt to COVID-19 challenges. The school selects from the delivery options of pre-recorded lessons, live on a virtual platform or in person.*

### Strategy Goal:

To improve knowledge and emphasize the importance of the relationship between how the body systems work and relate to physical activity.

### Strategy Objective:

Improve overall knowledge of cardiovascular health and fitness principles of students by 10 percent from pre- to post-test assessment.

### Strategy Action

SNEAKERS consists of four one-hour sessions taught by a registered dietitian and includes the following topics:

- Systems of the body
- Ways to keep the heart healthy
- Eating to maximize energy and muscle development
- How to exercise and stretch the major muscle groups
- Setting exercise goals

After the program is delivered, a final program report is given to teachers, administrators and staff to help foster future classroom-based education.

### Program Outcomes:

The intended outcome of this program is to increase knowledge of cardiovascular health and fitness principles by 10 percent.

### Program Outcome Measurements:

To measure the overall increase in knowledge, a pre- and post-test is administered to all students enrolled in the program. Questions on the assessments not only measure knowledge, but student attitude, perception, and intention to change specific health behaviors.

## COMMUNITY HEALTH NEED: RESPIRATORY: ASTHMA

### Community Health Need Rationale:

Asthma is the most common chronic disease in children ages 0-18. It is the No. 1 reason children miss school and a parent misses work. At SLCH, it is the top reason for admission. In the United States, 9.5 percent of children are living with asthma. Asthma affects 11.6 percent of black persons, 8.2 percent of white persons and 7.3 percent of Hispanic persons in the U.S. (Source: National Health Interview Survey, CDC).

This program is conducted in zip codes with very high rates of asthma prevalence and uncontrolled asthma among children. Students are selected for asthma both inside and outside the defined community in order to reach children with the highest need.

## PROGRAM: HEALTHY KIDS EXPRESS ASTHMA (HKEA)

### Strategy Goal

To reduce asthma morbidity, decrease asthma disparities, improve coordinated care efforts, and increase quality of life for asthma patients and their families.

### Strategy Objectives

a) Enroll 30 percent of children identified as having asthma into the intensive asthma program from the schools served for 2020-2021 school year and thereafter for three school years
b) Develop asthma action plans for at least 90 percent of students enrolled in the program, according to National Asthma Education and Prevention Program standards.
c) Ensure 70 percent of asthma coach patients have created disease management goals.
d) Ensure 75 percent of families receiving asthma coach patients will attend at least 1 return visit to their PCP/Specialist during their 12-month participation in the asthma coach program.
e) Increase participant knowledge/skills about asthma by 10 percent during intensive asthma program.
f) Students will improve the use of their inhaler through a technique checklist by 20 percent compared to their first score by the end of 2020-2021 school year and thereafter for three school years

### Strategy Action

SLCH's Child Health Advocacy and Outreach Department is responsible for disseminating the HKEA program to the community. Children enrolled in HKEA receive specialized asthma care and education from a team of nurses, nurse practitioners and asthma educators in a school setting. Asthma coaches are available to provide one- on-one education with parents, while community health workers assist as needed with the many socioeconomic barriers families often experience.

*Coordinated care and education for families enrolled in HKEA can occur in-person or virtually to adapt to COVID-19 challenges.*

The program collaborates with multiple clinical advisory groups, hospital administrators, advocacy groups and local schools to connect children to asthma care and resources.

## Strategy Outcomes:

We expect this program to impact children with asthma, teaching them to manage their asthma properly by increasing their knowledge of asthma signs and symptoms, improve their ability to use medications correctly and follow an asthma action plan. This intervention is intended to improve asthma related outcomes for these children.

## Strategy Outcome Measures

This program is evaluated by measuring improvement in skill of using an inhaler/aero chamber, increase in asthma knowledge, and an increase in access to healthcare for at-risk children. The tools used to measure these outcomes include data tracking for the number of intensive program clinical encounters, the number of community events, absenteeism, emergency room visits, asthma coach encounters, and the number of PCP patient and staff encounters. Evidence-based guidelines for asthma programs are used to create evaluation tools.

## COMMUNITY HEALTH NEED: DENTAL HEALTH

### Community Health Rationale

Tooth decay is one of the most common childhood diseases. It is five times more common than asthma and seven times more common than hay fever. Oral health is poorer among certain racial and ethnic groups including, non-Hispanic African Americans, Hispanics, American Indians and Alaska Natives. Mexican American and non-Hispanic African American children ages 2-8 are particularly at risk for poor oral health.

In Missouri, 27.1 percent of school-aged children have untreated tooth decay. In 2010, less than 30 percent of children with Medicaid received dental services of any kind.

## PROGRAM: HEALTHY KIDS EXPRESS DENTAL (HKED) PROGRAM

### Strategy Description

SLCH's Child Health Advocacy and Outreach department is responsible for HKED. HKED provides free comprehensive dental care in schools, early childcare centers and at community youth and family organization sites. Locations are selected based upon a needs assessment that reviews access to local health clinics and socioeconomic barriers.

### Strategy Goal

Children will receive appropriate care to treat dental cavities, prevent future oral health problems and connect with a community dental home.

### Strategy Objectives

a) HKED will provide free services to a minimum of 700 children per year from marginalized populations within a 60-mile-radius of SLCH.

b) 75% of children who fail their screening will complete care within one year of their initial diagnosis.

c) Increase patient knowledge of proper oral hygiene by 8%.

### Strategy Action

SLCH's Child Health Advocacy and Outreach department is responsible for this program. HKED staff includes a dentist, dental assistants, and social workers. HKED staff provides dental services for free in schools, childcare centers and community youth and family organization sites. Schools and community sites are selected based on socioeconomic status and availability and access to local health clinics. Upon obtaining parent/guardian consent for service, children are given a dental exam, X-rays and cleaning. If dental cavities are determined, then the team will coordinate on-site restorative treatment or refer to the child to an appropriate community provider. Staff utilize anxiety reducing techniques to keep the patient calm and focused. They also promote oral health and hygiene by teaching children about brushing and flossing techniques, using fluoride and how to prevent dental cavities. HKED staff will work in partnership with BJC medical interpreters, community site partners and community dental providers to meet the goals of this program.

## Strategy Outcomes

Children participating in the program will receive proper dental treatment to prevent dental cavities and restore dental health.

Children will increase their knowledge of proper oral hygiene

## Strategy Outcome Measurement

The number of children served, dental procedures administered, and oral hygiene knowledge will be used to measure the reach and progress of the program. An electronic dental record and tracking forms will be used to record the progress of patients in receiving appropriate treatment.

## COMMUNITY HEALTH NEED: ACCESS: SERVICES & INFECTIOUS DISEASES

### Community Health Need Rationale

According to the Brookings Institution, "Poor children in the United States start school at a disadvantage in terms of their early skills, behaviors and health." In Missouri, 35 percent of children report not having a medical home and 13.3 percent of Missourians reported not seeing a doctor because of cost. Barriers to accessing immunizations and health screenings include transportation, lack of insurance and low rate of primary care providers accepting new Medicaid patients.

Health screenings can detect problems early that would eventually impede normal growth and learning. This is reflected in state guidelines for hearing, vision and growth screenings in schools. Additionally, Head Start programs require blood lead, blood iron, and blood pressure screenings for enrollment.

## PROGRAM: HEALTHY KIDS EXPRESS SCREENING (HKES) PROGRAM

### Strategy Description:

SLCH's Child Health Advocacy and Outreach Department is responsible for Healthy Kids Express Screening. This program provides health screenings and administers immunizations to children in the community.

### Strategy Goal

Increase access to health screenings for high-risk children by eliminating or reducing barriers to health care access.

### Strategy Objectives

a) Provide 7,800 screening services and immunizations per year for children in high-risk populations, free of charge.

b) Connect 80 percent of participants who receive follow-up services to appropriate treatment

*The objective (a) excludes those months where program delivery was paused or scaled back due to COVID-19.*

### Strategy Action

SLCH's Child Health Advocacy and Outreach Department is responsible for these programs. HKES staff will conduct health screenings (such as blood lead, hearing, vision, blood pressure, blood iron, height and weight) and administer immunizations to children ages 0-18 at schools and community youth and family organization sites. Children who are found to need further treatment receive follow-up from a community health worker. The community health worker works with the family to help them navigate health insurance, transportation and other healthcare access barriers to getting appropriate treatment.

*During the COVID-19 pandemic, HKES activities were scaled back to include only immunizations for recently arrived child refugees and children in need of school-required vaccinations. By late fall 2020, the HKES team was able to return to schools and community sites to provide their usual offering of health screenings.*

HKES staff partner with BJC medical interpreters, community site staff/administration, community health providers, state and local health departments and programs, local universities and colleges, local coalitions, and state and local nurses' associations to accomplish the goals of this program.

## Program Outcomes

Children participating in the program will receive proper health screenings to detect health issues and receive follow-up services to link them to the proper treatment.

## Program Outcomes Measurements

The number of children served, screenings given and children followed-up with will be used to measure the reach and progress of the program.

## COMMUNITY HEALTH NEED: MENTAL/BEHAVIORAL HEALTH

### Community Health Need Rationale

According to the U.S. Center for Safe and Drug-Free Schools, empathy skills are essential to learn to prevent and reduce violence associated with bullying. The lack of a clearly understood definition of bullying and how to address bullying behavior contribute to unsafe schools and communities. To address this community health need, BJC School Outreach and Youth Development implements the following programs:

## PROGRAM: BUDDIES

### Strategy Description

BJC School Outreach and Youth currently provides Buddies, a classroom-based program that helps students in grades K-5 understand the impact of bullying behaviors and provides training for healthy interactions.

> *The program was revised to adapt to COVID-19 challenges. The school selects from the delivery options of pre-recorded lessons, live on a virtual platform or in person.*

### Strategy Goal

To improve knowledge and emphasize the overall importance of healthy communication, problem-solving strategies, personal responsibility, and other life skills

### Strategy Objective:

Improve overall knowledge of positive social skills and the impact of bullying behavior of students by 10 percent from pre- to post-test assessment

### Strategy Action

Buddies consists of four 45-minute sessions taught by a Health Educator and includes the following topics:

- The definition of bullying and the impact of bullying behaviors
- Ways to handle bullying behaviors without retaliation
- Friendship skills and ways to show kindness
- How to admit mistakes and forgive the mistakes of others
- Acceptance
- Communication skills

After the program is delivered, a Final Program Report is given to teachers, administrators and staff to help foster future classroom-based education.

### Strategy Outcomes

The intended outcome of this program is to increase knowledge of healthy communication, problem-solving strategies, personal responsibility, and other life skills by 10 percent.

### Strategy Outcome Measurements

To measure the overall increase in knowledge, a pre- and post-test is administered to all students enrolled in the program. Questions on the assessments not only measure knowledge, but student attitude, perception, and intention to change specific health behaviors.

## PROGRAM: INTERSECTIONS

### Program Description:

BJC School Outreach and Youth provides Intersections, a classroom-based program that helps students in grades 6-8 learn the necessary life skills to achieve academic and social success.

*The program was revised to adapt to COVID-19 challenges. The school selects from the delivery options of pre-recorded lessons, live on a virtual platform or in person.*

### Strategy Goal

To improve knowledge and emphasize social skills that contributes to healthy relationships and self-identity.

### Strategy Objective:

Improve overall knowledge of positive social skills that contribute to healthy relationships and self-identity of students by 10 percent from pre- to post-test assessment

### Strategy Action

Intersections consists of six 45-minute sessions taught by a Health Educator and includes the following topics:

- Defining and identifying the hallmarks of emotional intelligence
- Strategies for thinking, learning and communicating more effectively
- Communication styles, both verbal and nonverbal
- Self-awareness and Star Qualities
- Successful relationships with peers and adults

After the program is delivered, a Final Program Report is given to teachers, administrators and staff to help foster future classroom-based education.

### Strategy Outcomes

The intended outcome of this program is to increase knowledge of social skills that contribute to healthy relationships and self-identity by 10 percent.

### Strategy Outcome Measurements

To measure the overall increase in knowledge, a pre- and post-test is administered to all students enrolled in the program. Questions on the assessments not only measure knowledge, but student attitude, perception, and intention to change specific health behaviors.

## PROGRAM: ConneXtion

### Program Description

BJC School Outreach and Youth provides ConneXtions, a classroom-based program that helps students in grades 6-8 learn to preserve overall body health when using digital communication.

*The program was revised to adapt to COVID-19 challenges. The school selects from the delivery options of pre-recorded lessons, live on a virtual platform or in person.*

### Strategy Goal

To improve knowledge and foster social intelligence, use assertive communication, and make responsible decisions on information sharing.

### Strategy Objective:

Improve overall knowledge of social intelligence of students by 10 percent from pre- to post-test assessment

### Strategy Action

ConneXtions consists of four 45-minute sessions taught by a Health Educator and includes the following topics:

- Communication – verbal, nonverbal and tone
- Bullying in all forms
- Social media
- Problem solving
- Information sharing, posting and sending

After the program is delivered, a Final Program Report is given to teachers, administrators and staff to help foster future classroom-based education.

### Strategy Outcomes

The intended outcome of this program is to increase knowledge of social intelligence by 10 percent.

### Strategy Outcome Measurements:

To measure the overall increase in knowledge, a pre- and post-test is administered to all students enrolled in the program. Questions on the assessments not only measure knowledge, but student attitude, perception, and intention to change specific health behaviors.

## PROGRAM: HEALTHY KIDS, HEALTHY MINDS™

### STRATEGY DESCRIPTION

Healthy Kids, Healthy Minds™ places full-time school nurses and mental health professionals in four St. Louis public schools. The nurses assess physical needs and the mental health care providers address the social-emotional components for the students. Through Healthy Kids, Healthy Minds collaborative efforts with staff and parents, both physical health and psychological needs of students are being addressed.

### STRATEGY GOALS

To help students manage barriers to learning that stem from health, social emotional and behavioral needs.

### STRATEGY OBJECTIVES

a) Reduction of discipline referrals and suspensions for students on Behavioral Therapists' caseload by 3 percent
b) Improvement in the immunization compliance rate to 100 percent
c) Increase in the number of trauma informed practices implemented in the schools as determined by the trauma informed care environment plan established at the beginning by 3 percent

### STRATEGY ACTION

A school nurse and behavioral health therapist are embedded in four schools to:

- Address access to services for pediatric health and behavioral health
- Bridge health care and education
- Provide care coordination by setting specific health goals for the student

*Due to the COVID-19 pandemic, the activities of school nurses look very differently in order to address screening, testing, contact tracing, and transmission prevention efforts at each school. Additionally, mental health practitioners will provide services in-person or virtually to adapt to COVID-19 challenges.*

### STRATEGY OUTCOMES

To increase students' ability to develop positive behavior by understanding the effect of physical and psychological health on their mind.

STRATEGY OUTCOME MEASUREMENTS - this program is evaluated by measuring:

- Reduction of discipline referrals and suspensions for students on Behavioral Therapists' caseload
- Improvement in the immunization compliance rate
- Increase in the number of trauma-informed practices implemented in the schools as determined by the trauma-informed care environment plan established at the beginning

## COMMUNITY HEALTH NEED: HEALTHY LIFESTYLES: HEALTH EDUCATION

### Community Health Need Rationale

Based on the outcomes provided by the Youth Risk Behavior Surveillance (YRBS) Survey, alcohol, tobacco and other illicit drug use are health behaviors that young people are too often involved with before school, during school and within their community. Educating youth by providing developmental and critical thinking skills to make informed decisions when confronted with use can reduce diseases, promote healthy choices that empower and advocate for a healthy lifestyle. To address this community health need, BJC School Outreach and Youth Development implements the following program:

## PROGRAM: POWER OF CHOICE

### Program Description

BJC School Outreach and Youth provides Power of Choice, a classroom-based program that helps students in grades 5-12 learn to make informed choices when it comes to the use and abuse of tobacco, alcohol and other drugs.

> *The program was revised to adapt to COVID-19 challenges. The school selects from the delivery options of pre-recorded lessons, live on a virtual platform or in person.*

### Strategy Goal

To improve knowledge and emphasize the overall health issues associated with tobacco, alcohol and illicit drugs.

### Strategy Objective

Improve overall knowledge of health issues associated with tobacco, alcohol, and illicit drug use by 10 percent from pre- to post-test assessment

### Strategy Action

Power of Choice consists of four 45-minute sessions taught by a Health Educator and includes the following topics:
Reasons people choose to use or not use substances

- Healthy alternatives and great natural highs
- Media “hooks” that encourage use and media “counter-ads” that discourage use
- Long-term consequences of use as seen in healthy and diseased organs
- Resources to assess addiction and access help, if necessary

After the program is delivered, a Final Program Report is given to teachers, administrators and staff to help foster future classroom-based education.

### Strategy Outcomes

The intended outcome of this program is to increase knowledge of health issues associated with tobacco, alcohol and illicit drug use by 10 percent.

## Strategy Outcome Measurements

To measure the overall increase in knowledge, a pre- and post-test is administered to all students enrolled in the program. Questions on the assessments not only measure knowledge, but student attitude, perception and intention to change specific health behaviors.

## COMMUNITY HEALTH NEED: HEALTHY LIFESTYLES/ STD

### Community Health Need Rationale.

Adolescents are faced with many influences that impact decisions regarding sexual behavior and self-identity. Therefore, this health education program provides students with sexual health knowledge and critical thinking skills that translate into changes in attitudes and behaviors, leading to better health. To address this community health need, BJC School Outreach and Youth Development implements the following program:

## PROGRAM: HEART 2 HEART

### Strategy Description

BJC School Outreach and Youth Development implements Heart 2 Heart, a classroom-based program that helps students in grades 6-12 make healthy decisions about their relationships and sexuality.

> *The program was revised to adapt to COVID-19 challenges. The school selects from the delivery options of pre-recorded lessons, live on a virtual platform or in person.*

### Strategy Goal

To help students understand the human body and make good decisions about their sexual health.

### Strategy Objective

Improve overall knowledge of sexual health of students by 10 percent from pre- to post-test assessment

### Strategy Action

Heart 2 Heart consists of four 45-minute sessions (grades 6-8) or six 45-minute sessions (grades 9-12) taught by a Health Educator and includes the following topics:

Media influences and messages

- Self-esteem and body image
- Healthy and unhealthy relationships
- Communication skills (Middle School only)
- Refusal Skills (Middle School only)
- Sexually transmitted infections (High School only)
- Teen pregnancy (High School only)

After the program is delivered, a Final Program Report is given to teachers, administrators and staff to help foster future classroom-based education.

### Strategy Outcomes

The intended outcome of this program is to increase knowledge of sexual health by 10 percent.

## Strategy Outcome Measurements

To measure the overall increase in knowledge, a pre- and post-test is administered to all students enrolled in the program. Questions on the assessments not only measure knowledge, but student attitude, perception, and intention to change specific health behaviors.

## COMMUNITY HEALTH NEED: MATERNAL / CHILD HEALTH

### Community Health Need Rationale

According to Healthy People 2020, improving the well-being of mothers, infants and children is an important public health goal for the United States[1]. As the Center on the Developing Child at Harvard University stated: "When developing biological systems are strengthened by positive early experiences, healthy children are more likely to grow into healthy adults."[2]

## PROGRAM: RAISING ST. LOUIS (RSTL)

### Strategy Description

SLCH's Child Health Advocacy and Outreach Department is responsible for RSTL. RSTL provides home visitation services to improve child health, meet developmental milestones, and support parents in raising children to reach their full potential. Any woman or family who lives within an identified 22 ZIP code area and is pregnant or has a child up to age 4 is eligible to participate at no cost to the participant. The program offers monthly group and family connections for peer support, Community Health Workers help parents navigate resources to meet family goals and offer specialized programming for fathers and all males. RSTL connects with mothers, fathers and other family members to help build and sustain the family unit, reduce the high infant mortality rate, promote literacy and increase access to health care.

> *Services from parent educators, nurses, community health workers, and social workers can be offered both in-person and virtually to adapt to COVID-19 challenges.*

### Strategy Goal

For every child to get the best start on a healthy and full life.

### Strategy Objectives

1) Improve birth outcomes by focusing on 4 core areas:
   a) Birth weight and gestational age
   b) Improved child health and development
   c) Birth Spacing
   d) Community Health Workers

2) In five years (end of 2024) see a 12.5 percent reduction in (gestational age, birth weight) of children involved in the RSTL program.
3) Provide 1,174 exams and screenings to 89 percent of clients to improve child health and development.
4) 60 percent of mothers who deliver in 2019 will have a pregnancy spacing of 8 to 12 months.
5) Community Health Workers will help to bridge cultural and language barriers and improve health care outcomes by providing 400 clients with 800 resources, social services, visitation(s) and outreach.

6) Father engagement programming to offer specialized programming for 100 fathers and all males per year.

### Strategy Action

The core program components will include referrals to appropriate prenatal care, evidence-based home visitation programs, parent support groups and navigation of healthcare and social services. Our program is available to pregnant women residing in the north St. Louis zip codes of: 63101,63102,63103,63104,63106,63107,63108,63112,63113,63115,63120, 63130, 63134,63135,63136,63137,63138,63140,63147,63031,63033,63034.

### Strategy Outcomes

Through participation in the RSTL program, children will be healthy, developing at an age-appropriate level, have developmentally delays identified and referrals given to appropriate practitioners and organizations. Improve systems of care by helping participants navigate and find appropriate medical homes and other resources to address social determinant of health.

### Strategy Outcome Measurements

This program will be evaluated by utilizing a mixed-methods approach to ensure outcomes are being met. Progress will be evaluated by tracking data on the number of participants, birth outcomes, social/emotional and developmental screenings, referrals to resources and social services, and participant satisfaction.

## PROGRAM: TEEN OUTREACH PROGRAM

### Program Description

SLCH's Child Health Advocacy and Outreach Department is responsible the Teen Outreach Program (TOP), which is a positive youth development classroom curriculum for grades 6-12. This program promotes academic success, life and leadership skills, and healthy behaviors and relationships.

### Strategy Goal

Increase school success and prevent teen pregnancy and risky behaviors by teaching life skills, sense of purpose, and healthy behaviors and relationships.

### Strategy Objectives:

a) Operate at least 22 TOP clubs throughout the school year
b) Expose 500 students to the TOP curriculum
c) 85 percent of the students in the TOP program who attend at least 24 sessions over 9 months will complete at least 17 hours of community service
d) At post-test, less than 10 percent of youth participating in the TOP program will report a pregnancy or fathering a child

### Strategy Action

SLCH's Child Health Advocacy and Outreach Department is responsible for this program. Teen Outreach Program staff includes health educators and a supervisor. Staff provides weekly lessons throughout the school year in the classroom to 6-8th grade students to engage teens in the TOP curriculum-guided discussion and community service learning.

> *Since COVID-19, all lessons and community service-learning projects have been provided in a virtual setting. Supplies for lessons and community service-learning projects have been mailed to students' houses to promote active engagement with TOP while virtual.*

## Strategy Outcomes

Participants increase social emotional and life skills, develop a positive sense of self and strengthen relationships with others and connections to community and as a result improve academic outcomes and lower risky behavior and pregnancy.

## Strategy Outcome Measurement

Participants in the TOP club complete a self-report pre- and post-survey. TOP health educators will monitor attendance and record the number of community service hours completed by each individual student and club.

# Community Health Needs that Will Not be Addressed

The hospital does not currently focus any community benefit programs on the health topic of cancer. The health topic of cancer only received two mentions as stated in this report; therefore, the internal focus group did not create an implementation strategy for this health topic. In addition, there are no resources to address this issue in the community. The hospital does not currently offer any community benefit programs focused on the topic of diabetes, although it does offer programs to address obesity, a major risk factor of diabetes.

The hospital plans to continue to offer activities and initiatives already in place to address the following health needs: mental health, social determinants of health, health literacy and blood diseases.