



2021

Community Health Needs Assessment

*A Joint assessment of Children's Hospital Colorado licensed hospital facilities
at the Anschutz Campus, South Campus, and Parker Adventist Campus*



Children's Hospital Colorado

*Approved by the CHCO Board of Directors
on December 16th, 2021.*

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Overview and Purpose

Overview of Children's Hospital Colorado

Founded in 1908, Children's Hospital Colorado has been a leader in providing the best health care outcomes for children for more than 100 years. Our mission is to improve the health of children through the provision of high-quality coordinated programs of patient care, education, research and advocacy. We also work hard to keep kids out of the hospital. Through medical research and advocacy efforts, we are committed to finding ways to keep kids safe and healthy. Children's Colorado is a not-for-profit pediatric health care network. We have more than 3,000 pediatric specialists and more than 5,000 full-time employees helping to carry out our mission. We provide comprehensive pediatric care at our hospital on the Anschutz Medical Campus in Aurora and at several locations throughout the region, including our South Campus and the 5 licensed inpatient beds and an emergency department at Parker Adventist Hospital. The Anschutz hospital facility, which provides a full spectrum of care, is the only Level 1 Pediatric Trauma Center in a 7-state region. The South Campus facility, located in Douglas County, also provides comprehensive care including emergency, inpatient and diagnostic care. In addition, we have multiple specialty care centers and clinics. Each year, the network has more than 15,000 inpatient admissions and more than 600,000 outpatient visits. This community health needs assessment (CHNA) is a joint assessment for the Anschutz Campus, South Campus and Parker Adventist locations of Children's Hospital Colorado.

Children's Colorado is a not-for-profit pediatric healthcare network.

3,000+

Pediatric specialists

5,000+

Full-time employees helping to carry out our mission

Each year, the network has

15,000+

Inpatient admissions

600,000+

Outpatient visits

Purpose of the assessment

Children's Colorado embraces the opportunity to engage with our community to better understand their interests and concerns and to design programs and partnerships that directly respond to community needs. The primary purpose of this assessment is to better inform how we fulfill our mission of improving the health of all Colorado children. We will also use the information gathered from this assessment.

To inform the work of the Division of Population Health and Advocacy. The Division of Population Health and Advocacy includes the teams of the Child Health Advocacy Institute (CHAI), Government Affairs, School Health, Partners for Children's Mental Health (PCMH), and the Office of Diversity, Health Equity, and Inclusion (DHEI). Our vision is to implement a model for whole child, whole health, which includes considering all clinical aspects as well as social determinants of health (SDoH).

This report is focused on identifying and quantifying community health needs, and it will be followed by a plan to for addressing those needs. The Community Health Implementation Plan will guide the hospital's strategies for addressing identified needs. In addition, this report fulfills the requirements of the Affordable Care Act of 2010. Internal Revenue Service (IRS) Section 501(r) requires that nonprofit community hospitals conduct a community health needs assessment (CHNA) every three years. This is a joint report for the Anschutz Campus, which includes Anschutz Campus, South Campus, and a hospital unit of 5 licensed inpatient beds and an emergency department that are covered by our hospital unit license at Parker Adventist Hospital. Regulations for joint assessments are described in Treas. Reg. §§ 1.501(r)-3(b)(6)(v) and 1.501(r)-3(c)(4). The IRS allows hospital facilities to produce a joint CHNA report if the facilities use the same definitions of community and conduct a joint CHNA process. We have followed those requirements for this report. The last Children's Colorado CHNA was conducted in 2018.



Methods and Process

Children's Colorado used the following process to complete our assessment, which is in full compliance with IRS requirements and builds on approaches we have used for previous assessments.



Review and feedback from 2018 community health needs assessment

The 2018 report was made publicly available during the three-year period for public comment, and there were no comments solicited during this time. Prior to conducting our 2021 CHNA, Children's Colorado Anschutz Campus gathered feedback from external partners on our 2018 CHNA. The partners were representatives from public health, community-based organizations, and a regional accountable entity. Reviewers were asked to give feedback on the strengths and weaknesses of our 2018 CHNA, to describe the extent to which the five priority areas are still relevant, and any other feedback on the report. In addition, we commissioned Melissa Biel, DPA, RN of Biel Consulting, Inc., who specializes in tax-exempt hospital community benefit work, to conduct a formal review of the 2018 assessment.

The summary findings from the feedback included:

1. The report had a strong focus on behavioral health and activities to address the challenges from early childhood to adolescence.
2. The report felt responsive to community-identified needs, with solid qualitative engagement including with Spanish-speaking families and an emphasis on policy solutions and willingness to leverage Children's Colorado's unique assets in this domain.
3. The methodology was clear and comprehensive, with specific attention to underserved populations in data collection and articulation of the needs identified by community stakeholders.
4. There are opportunities to have more focus on diversity, health equity and social determinants of health.

5. There were recommendations to include sub-county analyses when possible and more depth to better understand the context and root causes of the priority areas.
6. The priority areas continue to be relevant and will be important to understand the disproportionate impact of health needs for low income and underserved communities, including how coronavirus disease (COVID-19) has exacerbated health needs.

This feedback was used to shape our 2021 process and final report, including how we approached our data collection process. This process is further outlined in the remainder of the methods section.

In addition to our 2018 CHNA review, Children's Colorado evaluated our strategies and conducted an annual review of our Action Plan, which we refer to as our Community Health Action Plan (CHAP) that was adopted in 2019. The Implementation Plan provides a summary of how the hospital planned to address the priority needs identified in our 2018 CHNA report. The CHAP review can be found here: childrenscolorado.org/Community/Community-Health/Community-Health-Needs-Assessment.

Defining the community

For purposes of this assessment, Children's Colorado has defined community as all children aged 0 to 25 living in the four-county area from which most of the hospital's patient population resides and in which we have facilities: Adams, Arapahoe, Denver, and Douglas Counties. Within these counties, Children's Colorado has three licensed hospital facilities located at the Anschutz Medical Campus, South Campus, and Parker Adventist Campus and our associated networks of care.

Consistent with the Internal Review Service (IRS) guidelines, Children's Colorado considered three criteria to select the geographic area included in the assessment:

- The mission of the organization
- The geographic area served by the hospital facilities
- The physical location of the hospital facilities

The hospital's mission is "to improve the health of children through the provision of high-quality, coordinated programs of patient care, education, research and advocacy." To understand the geographic area served by the hospital facilities, we reviewed our patient population data and found that most inpatient admissions and outpatient visits are from children who live in four counties, which we ultimately decided to include in our definition of our community: Arapahoe, Adams, Denver, and Douglas Counties. In 2019, Children's Hospital Colorado saw 112,678 patients from Adams, Arapahoe, Denver and Douglas ages 0 to 25 years old across inpatient, emergency department or urgent care (ED/UC) and outpatient settings, representing 72% of all patients seen that year.

Unique Patients Ages 0-25 Seen at Children's Hospital Colorado – Anschutz, Parker and South Campuses, By Setting, January 2019-December 2019

County	Inpatient, n (%)	Emergency / Urgent Care, n (%)	Outpatient, n (%)	Total, n (%)
Adams	1,589 (16.2%)	10,387 (16.7%)	17,618 (15.3%)	24,644 (15.6%)
Arapahoe	2,053 (20.9%)	22,422 (36.0%)	30,183 (26.2%)	44,643 (28.3%)
Denver	1,394 (14.2%)	12,539 (20.1%)	18,250 (15.8%)	27,063 (17.2%)
Douglas	715 (7.3%)	8,172 (13.1%)	11,177 (10.2%)	17,302 (11.0%)
Total Patients in Four-County Region	5,741	53,132	77,347	112,678
% of Total Patients	58%	85%	67%	72%

Source: Children's Hospital Association (CHA), 2019

New data collection approach

In response to our 2018 CHNA feedback, Children's Colorado revised our prior data collection approach in two main ways: 1) gathered secondary data first to inform our primary data collection strategy and 2) developed a more dedicated approach to equity in our data collection process.¹

More depth, less breadth

For prior assessments, data was gathered simultaneously and then reviewed for analysis and prioritization. For our 2021 CHNA, Children's Colorado decided to gather and analyze secondary data first to inform what populations and topics we would focus on for our primary data collection approach. Children's Colorado used the Healthy People 2030 Social Determinants of Health Framework to identify focus health and social areas for our secondary data collection.¹ Once the secondary data were gathered and analyzed, Children's Colorado identified focus populations and topics for our primary data collection based on top needs from the secondary data (e.g., indicators with the greatest difference at the county level compared to the state) or where gaps in the secondary data could potentially be explored through our primary data (e.g., health and social indicators for youth in the Lesbian, Gay, Bisexual, Transgender, and Queer communities). Using this approach, the primary data collection process focused on the following populations and topics:

Populations:

- Families in the military
- Families who were born outside the US
- Families who identify as black, indigenous, or other person of color
- Families with diverse languages used at home
- Children with medical complexity
- Youth in the Lesbian, Gay, Bisexual, Trans, and Queer communities

Topics:

- Education and early childhood
- Housing
- Mental health and suicide prevention
- Respiratory health
- Intentional and unintentional injury

As part of this approach, our primary data collection tools used more in-depth and focused questions to deepen understanding of community needs in these populations and context behind the greatest needs identified in the secondary data. Please refer to Appendix A for our data collection instruments.

Applying a Data Equity Lens

A data equity approach aims to help change the status quo and utilization of data to advance equity and inclusion for the communities we serve. A data equity lens works to bring awareness to historical impacts, potential biases, and exploration of demographic data, such as race, ethnicity, sexual orientation, and the intersectionality of varying demographics. Children's Colorado revised our assessment approach by identifying concrete and actionable ways to gather, analyze, and communicate our data more equitably. Below is a table that highlights some of the approaches we committed to ensure a more equitable approach to our CHNA work:

¹Secondary data refer to data that has already been collected from another organization or source, such as public health surveillance data or patient health care utilization data. Primary data refer to data that a person or team gathered directly from a specific population, in the form of survey, interview, focus group, etc.

Equitable Approaches to Data and Children's Colorado Examples

	Equitable Approach	Children's Colorado Example
Data Collection	Design data collection tools with inclusive language, at the appropriate literacy level	Used person-first language to describe specific populations in our data collection tools and reviewed with diverse team members for literacy and culturally responsive language
	Translate data collection tools into community preferred languages	Offered caregiver survey in 8 languages: Amharic, Arabic, Burmese, English, French, Karen, Somali, Spanish
	Recruit and compensate community members to gather data	Hired 4 cultural connectors ² to gather caregiver surveys in 6 languages: Burmese, Karen, Nepali, Spanish, Swahili, and French
Data Analysis	Analyze data by multiple demographics (e.g., gender and race or ethnicity) to understand the intersection of multiple identities	Gathered demographic data for secondary sources, when available
	Include both individual- and system- level measures to limit internal bias	Individual-level: Analyzed data using our electronic medical records data (e.g. Epic) System-level: Analyzed big data from secondary sources
	Assess commonalities and differences in qualitative data using team-based approach which limits bias	Had data and evaluation team members review groupings and themes in the stakeholder interviews
Data Communication	Gather input on data from the community	Consulted with Center for Health Progress (CHP)* to recruit for and facilitate the community meetings
	Provide relevant historical or cultural context for a more complete picture of the data	Discussed barriers such as language, discrimination and racism, stigma around accessing services, and culturally responsive education for providers

*See the Community Engagement section for more information on Center for Health Progress

²Cultural connectors are members of the community who speak diverse languages. They helped community members to complete the caregiver survey in their preferred language.

The Child Opportunity Index

There are a number of measures that have been developed to help understand what type of social determinants a person may experience where they live (e.g., census tract, zip code, county). However, many of these measures do not have a child-specific focus. The Child Opportunity Index (COI) was developed by Diversity Data Kids in collaboration with the Kirwan Institute for the Study of Race and Ethnicity at Ohio State University in 2014 and measures the quality of resources and conditions that are essential for children to develop and thrive in the neighborhoods where they live. The COI is a composite index of 29 neighborhood-level indicators across three domains: education, health and environment, and social and economic.² The scale ranges from Very Low, Low, Moderate, High, and Very High child opportunity and can be calculated for a given geographic area.² As we start to describe our hospital data, we will reference the COI to help connect to the social and economic conditions of the patients we serve.

Child Opportunity Index Domains and Sub-domains

Education	Health & Environment	Social & Economic
Early childhood education	Healthy environments (e.g., walkability, green space)	Economic opportunities
Elementary education	Toxic exposures (e.g., hazardous waste dump sites)	Economic and social resources (e.g., poverty rate, employment)
Secondary and post-secondary education	Health resources (e.g., health insurance coverage)	
Educational and social resources		

Source: diversitydatakids.org

Data Sources

Our team identified relevant secondary indicators both internally and externally to identify health and social inequities and needs within our defined community. In total, we collected and analyzed data from over 30 data sources. For a list of specific data sources see Appendix B.



Stakeholder Interviews

Stakeholders provide critical insights regarding the root causes of community health needs as well as providing context and nuance that is often missed in secondary data. Our stakeholders were identified based on the community or communities they worked in and the population and topics outlined in the methods section of this report. Some stakeholders focused on one or more of the counties identified as our community, while others served the entire State of Colorado, including our counties of focus. Hospital staff and leadership developed an initial list of stakeholders. Additionally, when we conducted stakeholder interviews, we solicited suggestions from the stakeholders for additional informants. In total, more than 20 organizations collaborated with Children's Colorado representing our diverse community members and assisted in our understanding their priorities. For a detailed list of stakeholder names, roles, and organizations, please refer to Appendix C. We are deeply grateful to the many organizations who participated in the interviews:

- Aurora Public Schools (APS) Impact Zone
- Aurora Community Connection
- Colorado Department of Public Health & Environment (CDPHE), Emergency Medical and Trauma Services-Injury Prevention (EMTS-IP)
- CDPHE, Office of Suicide Prevention
- City of Aurora, Office of International and Immigrant Affairs
- Colorado Access
- Colorado Department of Education and Denver Public Schools
- Colorado Department of Local Affairs, Division of Housing
- Culture of Wellness, Colorado School of Public Health
- Developmental Pathways
- Early Childhood Council Leadership Alliance
- El Grupo Vida
- Metro Denver Homeless Initiative (MDHI)
- Mile High United Way
- Montbello Organizing Committee
- One Colorado
- The Colorado Health Foundation
- The GrowHaus
- Tri-County Public Health Department
- University of Colorado University of Colorado, (Office of Diversity, Equity, and Community Engagement)
- Youth Move Colorado

Interviewees were selected based on the communities they serve (Adams, Arapahoe, Denver, and/or Douglas counties) and included both state and local agencies. A total of 22 interviews were conducted. Some of the populations identified by stakeholders include but are not limited to families with diverse languages used in the home, families born outside of the U.S., families who identify as black, indigenous, or other person of color, LGBTQ+ youth, and children with medical complexities.

Respondents were asked to identify the top needs of the populations they serve, barriers that these populations face, and COVID-19 impacts in addition to other organization-specific questions.

For our stakeholder interviews, interviewees were selected based on the communities they serve (Adams, Arapahoe, Denver, and/or Douglas counties) and included both state and local agencies. A total of 22 interviews were conducted. Some of the populations identified by stakeholders include but are not limited to families with diverse languages used in the home, families born outside of the U.S., families who identify as black, indigenous, or other person of color, LGBTQ+ youth, and children with medical complexities.

Center for Health Progress (CHP)

Children's Colorado contracted with CHP to develop an equitable approach to conducting community meetings to help prioritize community needs in Adams, Arapahoe, Denver and Douglas counties.

Colorado School of Public Health (CSPH)

Children's Colorado partnered with a group of students enrolled in a Community Health Assessment course to assist with stakeholder interviews with organizations focused on food insecurity and to research existing and new, more holistic methods to screen for and measure food insecurity in a household.

Surveys

In the caregiver and health care worker surveys that we administered, we asked respondents to rate a list of issues as not important, a little important, important, or very important. We then applied a weighting system, giving those issues rated as very important 4 points, important 3 points, a little important 2 points, and not important 1 point. The combined points for each issue were then compared to determine the top issues for each set of respondents.

We provided our caregiver survey in 8 different languages: English, Spanish, Somali, Burmese, Amharic, French, Karen, Arabic. We distributed the survey with the help of our stakeholders and hired 4 cultural connectors to gather caregiver surveys in 6 languages (Burmese, Karen, Nepali, Spanish, Swahili, and French) to gain representation for our diverse community members.

Limitations

Not surprisingly, the biggest barriers to community engagement and data collection during this needs assessment period were related to the many impacts of the coronavirus pandemic to everyday life. Due to safety concerns, Children's Colorado conducted most of their community outreach work virtually. This significantly limited our ability to reach important populations, including families who do not have reliable access to internet or technology, families who speak diverse languages, and populations who may prefer to engage in-person. Additionally, it was much more difficult to meaningfully engage community members and community organization leaders with shifting priorities during the pandemic, both personal and professional, such as accessing food, accessing COVID-19 tests, or managing remote learning for their children, or monitoring outbreaks and helping community members access COVID and non-COVID related resources, among many other pressing issues.

When gathering secondary data, it was often the case that the most recent data available was from 2019, prior to the pandemic. This data lag was more meaningful than prior assessments due to the substantial impacts the pandemic has had on community health and well-being, such as families' access to healthy food or youth mental health during the pandemic. To adjust for these limitations, Children's Colorado used questions in our surveys and stakeholder interviews that focused on the impact of COVID-19 on community needs and barriers to address those needs, when available, used 2020 data in the needs assessment.



Summary Findings

Description of community served

The counties that are included in this assessment are part of the Denver metro area and reflect the rich diversity of this urban community. While there are slight variances between the four counties considered, the demographics of Adams, Arapahoe and Denver are similar. Douglas County is generally more affluent and less diverse.

Child Population

Across Colorado, there are approximately 1.3 million children under the age of 18, representing 22% of Colorado's residents. This figure is slightly higher for the more suburban counties in our community and slightly lower in Denver proper. Approximately 3 in 10 households in Colorado have children.³

Child Population, 2019

	Colorado	Adams	Arapahoe	Denver	Douglas
Total Population Under 18 years (N, %)	1,256,320 (22%)	135,127 (26%)	152,428 (23%)	138,624 (19%)	88,627 (25%)
% of households with one or more children under 18 years old	30%	37%	31%	23%	39%

Source: American Community Survey 1-Year Estimate, 2019

Births and Deaths

There has been a steady decline in birth rates in Colorado since 2006. In 2020, there were 61,496 live births in Colorado.⁴ While Colorado's birth rate has been declining for over a decade, there has been a positive net migration into Colorado, particularly among people of childbearing age.⁵

When looking at deaths in the less than 1 year age group, Colorado's infant mortality rate has hovered between 4.5 and 5.1 per 1,000 live births since 2012.⁴ By race and ethnicity, infant mortality rates in Colorado are highest among Black and African American mothers: at 8.9 per 1,000 between 2017 and 2019.⁴

Strikingly, between 2015-2019, suicide was the leading cause of death among Colorado youth aged 10-17, exceeding motor vehicle and other transportation.⁶ Among children under 10, sudden unexpected infant death (SUID) remains the leading cause for the less than 1 age group, child maltreatment for 1-4 year olds, and motor vehicle and other transportation for 5-9 year olds.⁶

Leading Cause of Death by Age Group, 0-17 Years in Colorado, 2015-2019

All	Less than 1	1-4	5-9	10-14	15-17
Suicide	Sudden unexpected infant death	Child maltreatment	Motor vehicle and other transportation	Suicide	Suicide
Child maltreatment	Child maltreatment	Motor vehicle and other transportation	Child maltreatment	Firearm	Firearm
Sudden unexpected infant death	Unintentional drowning	Unintentional drowning	Unintentional drowning	Motor vehicle and other transportation	Motor vehicle and other transportation
Motor vehicle and other transportation	Other	Asphyxia	Firearm	Child maltreatment	Homicide
Firearm	Motor vehicle and other transportation	Fire	Fall or Crush	Homicide	Child maltreatment

Source: Child Fatality Prevention System, Colorado Department of Public Health and Environment, 2015-2019

Race and Ethnicity

While Colorado is predominantly White, 41% of the population identifies as minority when looking at the 0 to 24 year old population. Three of the four counties (Adams, Arapahoe, and Denver) in our community have higher minority populations than the state, and Douglas County has a much smaller minority population (<20%). For all counties, the Hispanic or Latinx group is the largest minority population by a wide margin, and in both Adams and Denver County they are the majority population (53.1% and 44.1% respectively).

Race and Ethnicity Ages 0-24, 2019

	Colorado	Adams	Arapahoe	Denver	Douglas
American Indian	0.8%	0.6%	0.6%	0.7%	0.4%
Asian/Pacific Islander	4.0%	4.3%	7.1%	4.4%	6.1%
Black	5.7%	4.4%	14.0%	11.7%	2.2%
Hispanic	30.5%	53.1%	28.7%	44.1%	11.3%
White	58.9%	37.6%	49.6%	39.1%	80.1%

Source: Colorado Department of Local Affairs, 2019

Education

In school year 2018-2019, the average graduation for Colorado high school students was 81.1%. For our four-county area, the rate ranged from 91.7% in Douglas to 70.9% in Denver County. Denver County had one of the lowest graduation rates in the surrounding area in 2019.

Across counties, graduation rate varies by race and ethnicity. Additionally, the high school student population has diverse backgrounds and cultures with 1% of Coloradan students identifying as immigrants and 14% English-Language Learners. See Appendix D for details.

Graduation Rates by Race and Ethnicity, 2019

	Colorado	Adams	Arapahoe	Denver	Douglas
American Indian or Alaska Native	64.9%	65.9%	75.8%	49.2%	87.5%
Asian	89.9%	89.6%	92.2%	79.7%	97.0%
Black or African American	74.4%	69.1%	82.0%	68.3%	79.4%
Hispanic or Latinx	74.0%	73.8%	78.8%	68.0%	82.1%
Native Hawaiian or Other Pacific Islander	76.0%	77.8%	71.1%	56.0%	100.0%
Two or more races	80.6%	77.9%	83.8%	72.8%	89.7%
White	85.9%	84.3%	87.5%	81.0%	93.7%

Source: Colorado Department of Education, 2019

Children with a Disability

The percentage of children under 18 years living with a disability³ in Colorado is 3.5%. Adams and Denver County have an equal or higher percentage of children living with a disability. When looking specifically at cognitive disabilities, Adams has a higher percentage (3.7%) of children living with a cognitive disability compared to the state (3.2%).

Children with a Disability, 2015-2019

	Colorado	Adams	Arapahoe	Denver	Douglas
% of children under 18 years old with a disability	3.5%	4.0%	2.8%	3.5%	2.3%

Source: American Community Survey 5-Year Estimate, 2015-2019

According to the Colorado Department of Education, among children aged 6-21 years old with a disability in school year 2019-2020, 83% were non-English language learners and 17% were English language learners. When looking at race and ethnicity among students with disabilities, White students comprise 49%, followed by Hispanic or Latinx at 38%, and Black or African American at 6%.

Social Determinants of Health

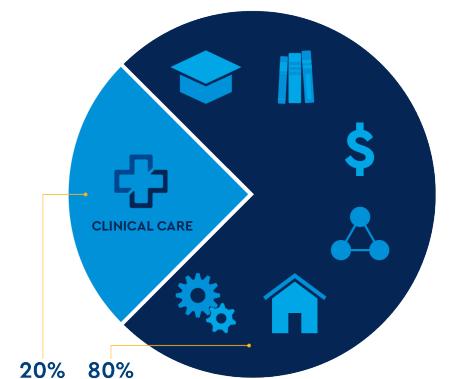
Social determinants of health (SDoH) are the social, economic, and physical conditions in which people are born and live in that impact their health. Social determinants of health can range from families not being able to access medical care because of their immigration status to structural issues with their housing that impact their child's asthma.

When looking at a child's overall health, only 20% is impacted by clinical care while approximately 80% comes from other factors including education, income, and the home environment.

Below we will discuss the following SDoH topics:

- Socioeconomic status
- Access to benefits
- Housing
- Physical activity
- Food access

Social determinants



³Disability is defined as someone who has a serious difficulty with four basic areas of functioning – hearing, vision, cognition, and ambulation. <https://www.census.gov/quickfacts/fact/note/US/DIS010219>

Socioeconomic Status

While Colorado's median household income is about \$95,000, more than 1 in 10 households with children live in poverty (10.9%), representing approximately 135,000 children.³ For a family of four living in poverty, their annual household income would be \$25,750 or less, according to the 2019 federal poverty guideline. For our four-county area, the rate of children living in poverty ranges from 14.9% in Denver to 1.7% in Douglas County. Colorado median household income has increased in the three years since our last assessment, and the percentage of children living in poverty between 2016 and 2019 has dropped 2.5 percentage points from 13.4% to 10.9%, with similar trends at the county level. Close to one-third of children in Colorado are being raised in single-parent households.³ Like the distribution of income and poverty, these figures are slightly higher in more urban areas and notably lower in more suburban areas.³

Socioeconomic Indicators, 2019

	Colorado	Adams	Arapahoe	Denver	Douglas
Total Population	5,758,736	517,421	656,590	727,211	351,154
Children (under 18) living in poverty	135,405 (10.9%)	15,969 (11.9%)	12,195 (8.2%)	20,449 (14.9%)	1,499 (1.7%)
Median Household Income	\$95,164	\$85,129	\$101,925	\$98,247	\$137,073
% children (under 18) living in single-parent household	27%	28%	29%	33%	15%

Source: American Community Survey 1-Year Estimate, 2019

Access to Benefits

Access to benefits—and health insurance in particular—can promote health at any age through routine check-ups, preventive screenings, and immunizations. Public insurance benefits, such as Medicaid, Child Health Plan Plus (CHP+), and Advance Premium Tax Credits (APTCs), provide no cost or low-cost options for health insurance for families with lower incomes, although many eligible families are not enrolled in these programs. At the state level, from ages 0 to 18 years old, the number of eligible but not enrolled individuals (EBNE) in Medicaid, CHP+, or APTCs is 7%.¹³ Two of the four counties (Adams and Arapahoe) are higher than the state at 8% respectively.¹³ When looking at the data by race/ethnicity and income statewide, 49% of those who are eligible but not enrolled in any of the programs are Hispanic and 32% are under 139% of the federal poverty level.¹³

Eligible But Not Enrolled, Ages 0-18, 2018

	Colorado	Adams	Arapahoe	Denver	Douglas
% EBNE*	7%	8%	8%	5%	3%

Source: Department of Health Care Policy and Financing; Connect for Health Colorado; American Community Survey 2018; 2019 Colorado Health Access Survey; 2015 Medical Expenditure Panel Survey

*Eligible but not enrolled (EBNE) in Medicaid, CHP+, or APTCs

Housing and Homelessness

Coloradans experiencing challenges with the lack of housing affordability and/or housing stability may also experience negative impacts on their physical health and may have trouble accessing health care.¹⁴ Approximately 1 in 8 Coloradans are spending at or above 50% of their household income on housing.³ Colorado ranks as the 8th least affordable state in the US when median income is compared to median home sales prices.¹⁵ This is particularly true in urban settings across the Front Range. Across Colorado, 13.6% of households spend 50% or more of their household income on housing. This rate is higher in Denver County (15.7%) and lower in Douglas County (8.8%).³ At the state level, approximately 1 in 3 units have monthly rent ranging from \$1,000 to \$1,499.³

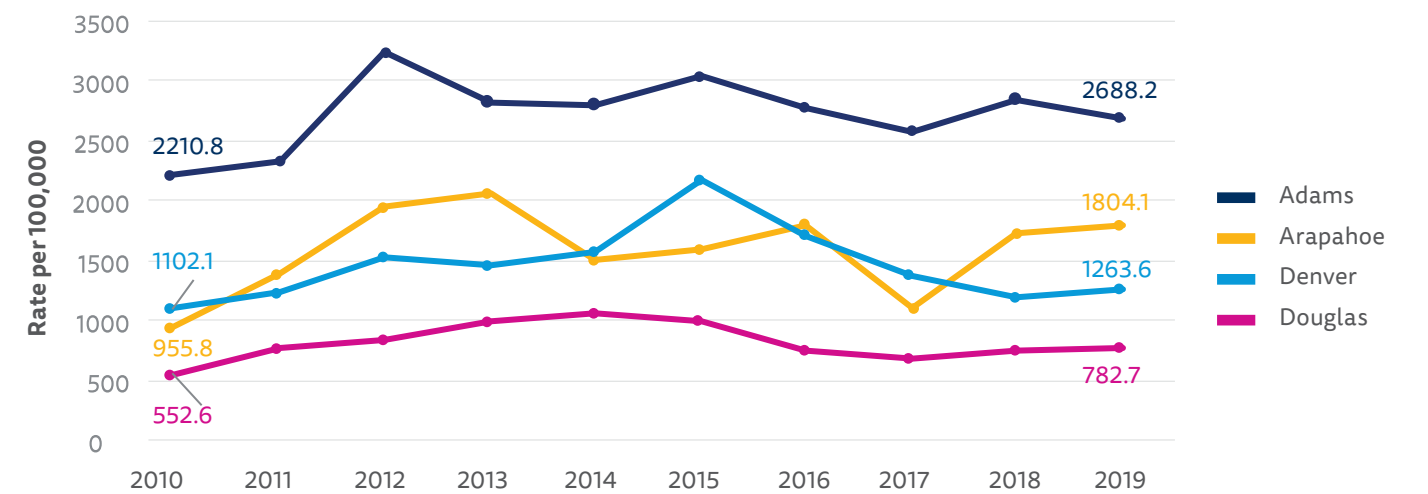
Housing Cost Burden, 2019

	Colorado	Adams	Arapahoe	Denver	Douglas
Percent of households that spend 50% or more of their income on housing	13.6%	13.9%	13.3%	15.7%	8.8%

Source: American Community Survey, 1-Year Estimate, 2019 following the County Health Ranking methodology for severe housing cost burden

Families spending the majority of their incomes on housing can lead to families experiencing more housing instability and homelessness. The rate of youth⁴ experiencing homelessness has shown an increase between 2010 and 2019 across all four counties. Adams County has some of the highest homeless rates per 100,000 followed by Arapahoe, Denver, and then Douglas County with the lowest.⁸

Youth Experiencing Homelessness, 2010-2019



Source: Kids Count, Colorado Department of Education; Colorado Department of Local Affairs, 2010-2019

Physical Activity

The role of physical activity can affect both a child's physical and mental well-being. The benefits of physical activity can help reduce the risk of developing heart disease, type 2 diabetes, and high blood pressure.¹⁶ It has also been shown that physical activity can be associated with lower symptoms for depression.¹⁷ The Physical Activity Guidelines for Americans, by the U.S. Department of Health and Human Services (DHHS), recommends that children ages 6 to 17 should do 60 minutes or more of moderate-to-vigorous physical activity each day.¹⁸

⁴Number of PK-12 public school students served by the McKinney-Vento Homeless Education Program during the school year based on Colorado school district submissions

Three of the four counties (Adams, Arapahoe, and Denver) had a lower percentage of students who are physically active for a total of at least 60 mins/day on five or more days in the past week compared to the state.¹⁹ Both Arapahoe (76%) and Douglas Counties (77%) reported higher video game play compared to the state (73%).¹⁹

Physical Activity, 2019

	Colorado	Adams	Arapahoe	Denver	Douglas
% of students who were physically active for a total of at least 60 mins/day on five or more days in the past week	48.0%	41.3%	45.1%	37.1%	49.7%
Among students who play video games, percentage who spend two or more hours per average school day playing video or computer games	73.1%	72.7%	76.4%	68.9%	76.9%

Source: Healthy Kids Colorado Survey, 2019

Lack of physical activity can also negatively impact a child's academic performance and may lead to lower levels of concentration and memory.²⁰ According to the 2017 Healthy Kids Colorado Survey, over half of Colorado youth (52.2%) spend an average of 3+ hours of total screen time on an average school day.²¹

Food Access

Children experiencing food insecurity can be at an increased risk for a variety of negative health outcomes, including obesity. They also face a higher risk of developmental problems compared with food-secure children. In addition, reduced frequency, quality, variety, and quantity of consumed foods may have a negative effect on children's mental health.²² In 2019, about 12% of Colorado children 18 years and under experience food insecurity.²³ In 2019, 41% of pre-kindergarten through 12th graders received free (33%) or reduced (8%) lunch. More students who identify as Black or Hispanic were enrolled in the free or reduced lunch program than students of other races.⁹

The COVID-19 pandemic took economic tolls on many individuals and families and disrupted many food systems in place for children in Colorado, leading to increased food insecurity. Hunger Free Colorado conducted a quarterly survey across the state to determine the impact of Coloradans' access to food and financial security.²⁴ In December 2020, the third statewide survey in the series found that "almost 2 in 5 (38%) of Coloradans are food insecure."²⁴ This was found to be the highest incidence rate of food insecurity in the state since the Great Recession.²⁴

Food Insecurity, 2019-2020

	Colorado	Adams	Arapahoe	Denver	Douglas
2019 Child Food Insecurity Rate	12.2%	11.7%	11.1%	12.6%	7.7%
2020 Projected Child Food Insecurity Rate	16.0%	17.3%	16.5%	18.8%	10.3%

Source: Feeding America, 2019-2020

When looking at the percentage of students who sometimes, most of the time, or always went hungry in the past 30 days because of a lack of food at home, Arapahoe County has a higher rate (18.3%) compared to the state (14.7%).¹⁹ In each of the counties, the majority of students who went hungry in the past 30 days are either more than one race, Hispanic or Latinx, or Black or African American.¹⁹ See Appendix E for details.

Screening for Resource Needs

In recognition of the connection between social needs and health outcomes, an increasing number of healthcare systems are screening for identified social needs and connecting interested families to resources. Food access along with other social determinants of health are crucial to screen for within clinical settings since they have such a large impact on a child and family's well-being. At our Anschutz Campus, a psychosocial screener is administered to patients in several settings, assessing a variety of resource (e.g., barriers to benefits, food access, housing, keeping appointments, finances, education, access to a primary care physician), social, and mental health-related needs. Based on screening data from 2019 to 2020, the hospital saw a total of 37,175 psychosocial screens across Adams, Arapahoe, Denver and Douglas counties with 16% of families screening positive for a resource need. For positive screenings by race, American Indian/Alaskan Native had the highest positive screens of 27%.

Psychosocial Positive Screening- Anschutz Campus, 2019-2020

Positive Screenings by County	Adams	Arapahoe	Denver	Douglas	Total
% Positive Screens, Any Item	18%	19%	19%	18%	19%
% Positive Screens, Any Resource Need	15%	16%	16%	14%	16%

Source: Epic, 2019-2020

From 2019 to 2020, there was an increase in positive screenings with financial resources, public benefits and food insecurity being among the top highest needs.

Psychosocial Positive Screening - Anschutz Campus, by Screener Item, 2019-2020

Positive Screener Items by Year	% Positive Screens by Item of Total Screens	
	2019	2020
Screener Items		
Financial	7.2%	9.5%
Public Benefits	7.4%	7.8%
Food Insecurity	4.2%	7.5%
Adult Primary Care Provider	3.4%	3.6%
Keeping Appointments	3.0%	3.1%
Education	2.6%	3.0%
Anxiety/Depression	2.0%	3.0%
Housing	2.0%	2.9%
Isolation	1.5%	1.5%
Alcohol/Marijuana Use	<1.0%	<1.0%
Domestic Violence	<1.0%	<1.0%
Self-Harm	<1.0%	<1.0%
Illegal Drugs	<1.0%	<1.0%

Source: Epic, 2019-2020

Health and health care indicators

After looking at how social factors can influence a child’s well-being, the section below summarizes how some of the following health and health care indicators impact our counties:

- Health Status
- Asthma and respiratory health
- Child abuse and neglect
- Mental health and suicide prevention
- Unhealthy weight
- Oral health
- Health access
- Health care utilization

Health status

Most parents in Colorado report that their children’s health is either excellent (57.0%) or very good (31.4%).²⁵ Statewide, parent-reported health status varies slightly by race or ethnicity. Slightly fewer parents that identify as Hispanic report that their children’s health is either excellent or very good (51.6% and 29.9% respectively) while a slightly higher percentage of parents that identify as non-Hispanic White reported excellent or very good health (60.6% and 31.4% respectively). Parents of any race or ethnicity in the 4-county area reported similar rates to the state, with slightly higher percentage of parents reporting their children’s health as “excellent” in Arapahoe and Douglas Counties (62.3% and 61.1% respectively).⁵

Asthma and respiratory health

Children are more likely than adults to be seen in the emergency department or hospital for asthma and/or upper respiratory infections. In 2018, Adams, Arapahoe, and Denver Counties had higher asthma hospitalization rates among 0 to 14 year olds compared to the state(13.7).²⁶

Asthma and Respiratory Health, 2018-2019

	Colorado	Adams	Arapahoe	Denver	Douglas
Current asthma children aged 1-14¹	7.9%	9.1%	6.8%	7.5%	10.4%
Asthma hospitalization rate, per 10,000, 0-4 year olds²	13.7	20.2	18.2	21.8	8.3
Asthma hospitalization rate, per 10,000, 5-14 year olds²	9.9	15.8	13.7	18.2	5.5

Source: ¹Colorado Child Health Survey, 2018-2019; ²Colorado Environmental Public Health Tracking, 2018

Children who identify as Black and children who live below 250% of the poverty line have greater health disparities in asthma prevalence, treatment, and outcomes.²⁷ Black and Latino children are less likely to receive preventive care and more likely to visit the ED and be hospitalized than White children.²⁸⁻³⁰

Barriers to asthma management may be related to the disease itself. However, national studies show that more than 50% of the patients of all ages whose asthma is uncontrolled have barriers that are not related to their disease or even their health care. Access to health care and medications are cited as barriers to asthma treatment, but U.S. families also report barriers such as poverty, stress, poor housing conditions, and increased exposure to environmental triggers. These factors are associated with increased asthma prevalence, worse control, and increased hospital admissions.³¹⁻³³

⁵Differences are not statistically significant



Asthma and respiratory health

Joey has asthma. He currently lives in Denver in an older building and occasionally his family has pests in their home which can trigger asthma. At school, Joey must take his inhaler to the gym and sometimes he forgets it. Joey recently lost his inhaler. With his family’s medical insurance, his parents can only pay for one inhaler for several months due to the amount that the insurance will cover for the prescription. This financial strain and concern about Joey’s asthma creates added stress for their household. Without Joey’s inhaler, he is more at risk of having to go to the emergency room to manage his asthma.

Child abuse and neglect

Child maltreatment is one of the leading causes of death among youth under 18 years in the state. Young children (under 1 year) experience higher rates of child maltreatment death compared to older children.³⁴ Between 2016 and 2019, Denver County had a higher rate of ED visits per 100,000 tied to abuse among 0-18 year olds compared to the state’s 62.1 per 100,000.³⁵ Adams County has the highest rate of child maltreatment death among the four counties at 6.9 per 100,000.³⁴

Colorado infants, children, and youth who are non-Hispanic Black are 3.8 times as likely to die by child maltreatment compared to non-Hispanic White infants, children, and youth.⁶ In Adams, Arapahoe, and Denver County, Black or African Americans had the highest rate of child maltreatment deaths compared to other groups while Non-Hispanic White was the highest in Douglas County.³⁴

Child Abuse, Maltreatment, and Neglect, 2016-2019

	Colorado	Adams	Arapahoe	Denver	Douglas
Crude rate of ED visits per 100,000 mentioning injuries due to child or adult abuse among Colorado residents under 18 years old¹	62.1	67.3	79.9	100.9	32.9
Crude rate of child maltreatment deaths per 100,000 among Colorado residents under 18 years old¹	3.7	6.9	2.9	2.3	3.3
Child Abuse and Neglect (rate per 1000)²	9.5	12.1	6.0	12.1	5.2

Source: ¹Colorado Department of Public Health and Environment, Child Fatality Prevention System, 2016-2019; Colorado Department of Public Health and Environment, Injuries in Colorado Dashboard, 2016-2019; ²Kids Count, Division of Child Welfare Services, Colorado Department of Human Services, 2018

Mental health and suicide prevention

Mental health impacts emotional, psychological, and social well-being and is important at every stage of life, from childhood and adolescence through adulthood.³⁶ In the four-county area, between 30.9% to 33.5% of high school students felt sad or hopeless almost every day for 2 or more weeks in a row during the past 12 months in 2019. Despite the prevalence of mental health issues, access to mental health care continues to be a challenge for all Coloradans. More than one in 10 Coloradans reported not getting needed treatment for mental health issues in 2019.

Mental health is also a risk factor for suicide. For several years, suicide has been the leading cause of death for Colorado youth aged 10 to 17.³⁷ In 2019, approximately 8% of Coloradan students attempted suicide one or more times in a 12 month period.¹⁹

Substance use and abuse can be a risk factor for suicide. Between 2014 to 2018, marijuana was present in 3 out of 10 (30.0%) suicide deaths among youth ages 15-19 compared to about 1 in 5 (19.8%) from 2009 to 2013. Furthermore, from 2014 to 2018 alcohol was present in 12.1% of suicide deaths among 15- to 19-year-olds. For these reasons, there are concerns over access to substances among youth.³⁸

At Children's Colorado, patients are increasingly presenting with mental and behavioral needs as well as self-harm and suicide attempts, particularly since the start of the pandemic. Between January and May 2021, behavioral health emergency department visits across the Children's Hospital Colorado health system were up 73% compared to the same time period in 2019. During the spring of 2021, suicide continued to be a leading chief complaint in Children's Colorado Emergency Departments and Children's emergency transportation teams were receiving calls for 3-4 suicide attempts per week. Experts at Children's Colorado expect to see increases in other diagnoses, including disordered eating and substance use and abuse.

Mental Health Indicators, 2016-2019

	Colorado	Adams	Arapahoe	Denver	Douglas
Percent of high school students who felt sad or hopeless almost every day for 2 or more weeks in a row so that they stopped doing some usual activities during the past 12 months¹	34.7%	31.9%	33.5%	31.8%	30.9%
Percent of high school students who actually attempted suicide one or more times during the past 12 months¹	7.6%	8.0%	8.1%	6.6%	5.3%
Percentage of high school students who had an adult to go to for help with a serious problem¹	72.7%	70.0%	70.8%	72.2%	76.2%
Average annual crude rate of ED visits per 100,000 mentioning self-harm injuries among Colorado residents under 18 years old²	202.0	201.5	179.6	130.6	202.4
Average annual crude rate of ED visits per 100,000 mentioning self-harm injuries among Colorado residents 18-24 years old²	329.8	347.3	329.9	327.6	342.0

Source: ¹Health Kids Colorado Survey, 2019; ²Colorado Department of Public Health and Environment, Injuries in Colorado Dashboard, 2016-2019

Unhealthy weight

People who are obese are at a higher risk for many serious health conditions. Furthermore, those who experience childhood obesity are more likely to be obese and experience more severe risk factors into adulthood.³⁹ The percent of high school students in our four-county area who are overweight or obese ranges from 13.1% to 26.5%.¹⁹

Unhealthy Weight, 2019

	Colorado	Adams	Arapahoe	Denver	Douglas
% of students who are overweight or obese	21.6%	26.5%	22.8%	24.5%	13.1%
% of students who are overweight	11.9%	15.1%	12.4%	13.2%	7.9%
% of students who are underweight	4.6%	4.3%	4.4%	4.4%	3.8%

Source: Healthy Kids Colorado Survey, 2019

Oral Health

Oral health is essential to a person's overall health and well-being. However, not everyone has access to preventative care, such as visiting a dentist or dental hygienist which can lead to greater rates of oral diseases. Individuals with lower incomes or education levels are less likely to access oral health services.⁴⁰ In Adams, Arapahoe, and Denver counties a higher percentage

of parent-reported child's teeth condition is fair or poor compared to the state.⁴¹ In the same three-county area, the level of children age 0 to 18 who did not visit the dentist or dental hygienist in the past year is higher than the state.⁴²

Oral Health, 2017-2019

	Colorado	Adams	Arapahoe	Denver	Douglas
Percentage of parent-reported child's teeth condition is Fair or Poor¹	6.8%	10.6%	13.0%	15.9%	1.1%
Children age 0 to 18 who did not visit the dentist or a dental hygienist in the past year²	20.4%	22.7%	23.6%	22.9%	8.4%

Source: ¹Child Health Survey, 2018-2019; ²Colorado Health Access Survey, 2017-2019

Health Access

Statewide, the percentage of children enrolled in Medicaid was 32.0% in 2019.³ In Adams and Denver Counties, a higher percentage of children use Medicaid compared to the state (38.9% and 40.4% compared to 32.0%, respectively). In addition, the uninsured rate among children is relatively low in the 4-county region, though higher in Adams compared to other counties and the state average.

When looking at access to care, cost can be a major contributing factor for families to not seek medical care. Adams, Arapahoe, and Denver Counties had higher rates of families indicating that they did not seek care from a doctor, specialist, and dentist due to costs compared to the state, while Douglas County had lower rates compared to the state.⁴³

Health Access and Affordability, 2019

	Colorado	Adams	Arapahoe	Denver	Douglas
Access					
Uninsured children (under 19)¹	5.5%	5.1%	7.0%	4.8%	1.8%
% Medicaid (under 19)¹	32.0%	38.9%	30.3%	40.4%	8.5%
Affordability					
Did not fill a prescription for medication due to cost²	10.8%	14.3%	10.6%	13.8%	7.3%
Did not get needed doctor care due to cost²	12.8%	16.9%	13.4%	16.3%	9.8%
Did not get needed specialist care due to cost²	12.9%	17.3%	14.8%	17.5%	10.9%
Did not get needed dental care due to cost²	20.6%	25.5%	20.7%	23.1%	13.5%

Source: ¹American Community Survey 1-Year Estimate, 2019; ²Colorado Health Access Survey, 2019

The health care workforce shortage remains a staggering issue, as there are not enough providers, especially for mental and behavioral health, compared to the population.

Health Care Workforce, 2019

	Colorado	Adams	Arapahoe	Denver	Douglas
Ratio of population to primary care physicians	1,230:1	2,340:1	1,190:1	760:1	1,460:1
Ratio of population to dentists	1,260:1	1,600:1	950:1	1,360:1	1,500:1
Ratio of population to mental health providers	300:1	320:1	300:1	190:1	1,000:1

Source: County Health Rankings & Roadmaps, 2019

Health Care Utilization

When looking at our own patient volumes from the Adams, Arapahoe, Denver, and Douglas Counties, the majority of patients across the ED/UC, inpatient/observation, and outpatient settings were identified as either White, Hispanic/Latinx, or Black or African American.

Health Care Utilization—Children’s Hospital Colorado (Adams, Arapahoe, Denver, and Douglas), by Setting, by Race and Ethnicity, 2019

Clinical Setting	Race Ethnicity	Percent
ED/UC	American Indian/Alaska Native	<1.0%
	Asian	2.7%
	Black/African American	10.7%
	Hispanic/Latinx	40.1%
	More than one race	4.2%
	Native Hawaiian/Other Pacific Islander	<1.0%
	Other	2.3%
	White	34.7%
Inpatient/Observation	American Indian/Alaska Native	<1.0%
	Asian	3.0%
	Black/African American	10.1%
	Hispanic/Latinx	33.7%
	More than one race	4.5%
	Native Hawaiian/Other Pacific Islander	<1.0%
	Other	2.1%
	White	39.9%
Outpatient	American Indian/Alaska Native	<1.0%
	Asian	3.1%
	Black/African American	9.4%
	Hispanic/Latinx	34.1%
	More than one race	4.3%
	Native Hawaiian/Other Pacific Islander	<1.0%
	Other	2.6%
	White	38.3%

Source: Epic, 2019

The most common languages for Children’s Hospital Colorado patients in the Adams, Arapahoe, Denver, and Douglas areas were English, Spanish, and Arabic. About half of the patient population seen in 2019 used Medicaid as their primary insurance, followed by private insurance and then Tricare.

Top Diagnoses by Clinical Setting

The top diagnoses for ED/UC encounters for patients from the four-county area in 2019 included respiratory-related illnesses and viral infections. In 2020, respiratory-related illnesses still remained a top diagnosis in the ED along with viral infections. Please see Appendix F for 2020 diagnoses by clinical setting.

Top 5 Diagnoses – ED/UC, 2019

Diagnosis Description	Percent
Acute upper respiratory infection, unspecified	9.1%
Acute obstructive laryngitis (croup)	3.8%
Viral infection, unspecified	3.5%
Fever, unspecified	2.4%
Vomiting, unspecified	2.3%

Source: Epic, 2019

In the Inpatient or Observation settings, the top diagnoses in 2019 were similar to those of ED visits and included respiratory- and mental health-related diagnoses. In 2020, additional top diagnoses included visits for appendicitis and bronchiolitis.

Top 5 Diagnoses – Inpatient/Observation, 2019

Diagnosis Description	Percent
Acute bronchiolitis due to other specified organisms	7.4%
Viral pneumonia, unspecified	4.4%
Acute bronchiolitis, unspecified	3.1%
Acute respiratory failure with hypoxia	2.9%
Major depressive disorder, single episode, unspecified	2.2%

Source: Epic, 2019

In the Outpatient setting, the top diagnoses in 2019 included encounters for well-child checks, muscle weakness, and immunizations. In 2020, additional top diagnoses included visits for suspected exposure to communicable diseases.

Top 5 Diagnoses – Outpatient, 2019

Diagnosis Description	Percent
Encounter for routine child health examination without abnormal findings	3.1%
Muscle weakness (generalized)	2.2%
Encounter for immunization	2.1%
Unspecified lack of coordination	1.8%
Feeding difficulties	1.4%

Source: Epic, 2019

Emergency Department Utilization and the Child Opportunity Index

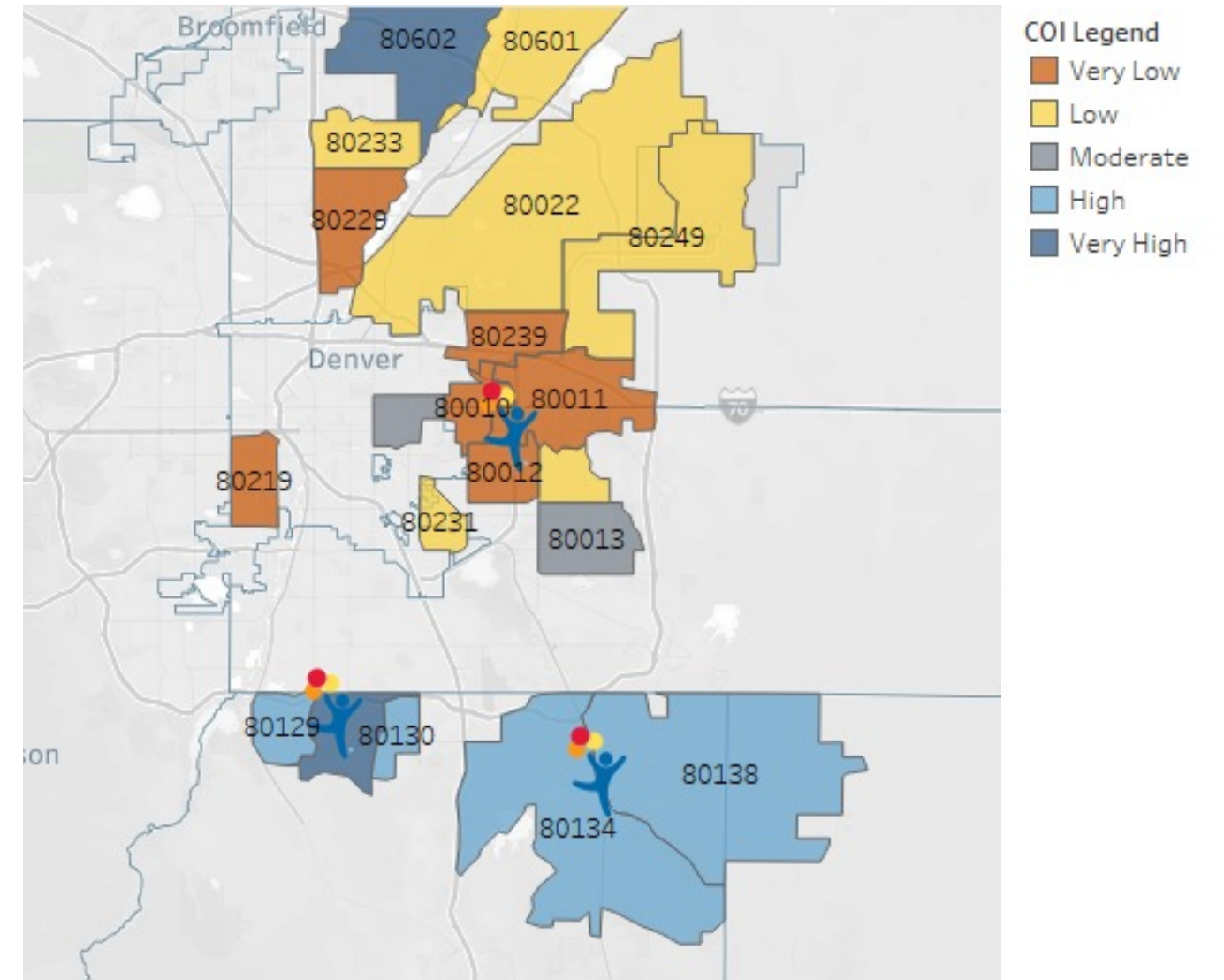
In order to gain a better understanding of where we see the highest patient volumes from our ED and the level of child opportunity in those respective zip codes, we looked at both the COI and ED utilization among our patient population.⁴⁴ When looking at the top zip codes where we see our highest patient volumes for ED/UC visits, there are areas of low and very low child opportunity in the surrounding zip codes of the hospital in Adams, Arapahoe, and Denver Counties.

Top 5 Zip Codes by County – ED/UC Visits, 2019

County	ZIP	COI	% Total ED/UC Encounters per County
Adams	80022	Low	16.2%
	80229	Very Low	11.2%
	80602	Very High	10.6%
	80601	Low	9.8%
	80233	Low	9.5%
Arapahoe	80011	Very Low	18.6%
	80010	Very Low	13.7%
	80012	Very Low	10.5%
	80013	Moderate	10.4%
	80017	Low	7.3%
Denver	80239	Very Low	21.6%
	80249	Low	12.1%
	80219	Very Low	6.3%
	80220	Moderate	6.1%
	80231	Low	5.7%
Douglas	80134	High	23.8%
	80126	Very High	19.3%
	80129	High	13.1%
	80138	High	10.4%
	80130	High	8.7%

Source: Epic, 2019

Child Opportunity Index by Top 5 ED/UC Zip Codes, 2019



Source: Epic 2019 and diversitydatakids.org

Community Engagement

To help prioritize our community engagement work, we identified focus areas for our primary data collection based on where there were health disparities and inequities in our secondary analysis when comparing the four counties to the state or within populations living in the four-county area (see Appendix A). As described in the methodology section of this report, Children's Colorado engaged in a significant community outreach process to assess the interests and concerns of caregivers in the neighborhoods and counties of the assessment. Through collaborations, surveys, interviews and community meetings, we were able to get the input of hundreds of people. We found both consistencies and differences in the issues that concerned those with whom we spoke.

Collaborations

Children's collaborated with several partners to inform our CHNA. Below is a brief description of the partnerships and collaboration approach.

Center for Health Progress (CHP) – Children's Colorado contracted with CHP to develop an equitable approach to conducting community meetings to help prioritize community needs in Adams, Arapahoe, Denver and Douglas Counties. CHP facilitated four meetings with community members, one meeting with community organization leaders, and one internal meeting with the Team Member Resource Groups¹ to discuss the assessment findings and identify priority needs from the community's perspective. In order to promote language justice, translation services were made available so that community members were able to participate in their preferred spoken language.

Colorado School of Public Health (CSPH) – Children's Colorado partnered with a group of students enrolled in a Community Health Assessment course to assist with stakeholder interviews with organizations focused on food insecurity and to research existing and new, more holistic methods to screen for and measure food insecurity in a household.

Data Collection

Children's Colorado engaged in community outreach process to assess the interests and concerns of caregivers with children in the home who live in the 4-county area. Through our primary data collection approaches, which included surveys, interviews, and community meetings, we were able to gain the input of hundreds of people.



¹Team Member Resource Groups are internal Children's Hospital staff members who impact team member experience beyond raising cultural awareness, furthering our organizational mission and diversity and inclusion efforts.

Caregiver Survey

Of our 408 respondents, most completed the survey in English, followed by Spanish (26%), Karen (<10%), Burmese (<10%), and French (<10%). About 1 in 5 respondents (22%) reported primarily using a diverse language at home other than English and Spanish. In addition, 34% identified as Hispanic or Latinx, 28% as White, 18% as Asian or Pacific Islander, 11% as Black or African American, 10% as multiple races or ethnicities, and less than 1% reported as other. Approximately 23% of families have children with complex medical needs, such as chronic physical, developmental, mental, emotional, or behavioral conditions.

In the caregiver survey, respondents ranked the following as the top 5 health issues for children in their community:

Caregiver Survey- Top 5 Issues (in rank order)

1. Access to health care and mental health services
2. Mental health, including suicide
3. Hunger and access to healthy food
4. Mother and infant health
5. Affordable housing

Among respondents with annual incomes of less than \$50,000, hunger or access to healthy food was the most critical need. Access to health care and mental health services was the most critical need for respondents who reported annual incomes of \$50,000 or more. Mental health, including suicide, was a top critical need among families with annual incomes of \$25,000 or higher. Additionally, access to benefits was also a top concern in nearly all income brackets.

Household Income	
\$0 to \$24,999	27%
\$25,000 to \$49,999	23%
\$50,000 to \$74,999	8%
\$75,000 to \$99,999	4%
\$100,000 or more	25%
Don't know/prefer not to answer	13%

Income Distribution

	#1 Critical Need	#2 Critical Need	#3 Critical Need	#4 Critical Need	#5 Critical Need
\$0 to \$24,999	Suicide prevention	Nutrition	Obesity	Teen pregnancy	Accidents and injuries
\$25,000 to \$49,999	Early child care and education	Obesity	Suicide prevention	Teen pregnancy	Care for children with special needs
\$50,000 to \$74,999	Early child care and education	Mental or behavioral health	Suicide prevention	Care for children with special needs	Healthy pregnancies and childbirth*
\$75,000 to \$99,000	Suicide prevention	Mental or behavioral health	Care for children with special needs	Accidents and injuries	Asthma
\$100,000 or more	Mental or behavioral health	Suicide prevention	Early child care and education	Care for children with special needs	Immunizations (vaccines) and infectious diseases
Don't know/prefer not to answer	Suicide prevention	Sexual health	Early child care and education	Healthy pregnancies and childbirth**	Mental or behavioral health**

In addition to asking caregivers about community needs to be healthy and thriving, we also asked about how the Covid pandemic has impacted their family. Among all respondents, the top three impacts of COVID were 1) feeling connected with family and friends who live outside their home, 2) changes in mood for their child(ren), and 3) accessing health care when needed.

Health Care Worker Survey

There were 94 respondents for the health care worker survey. Approximately three in 10 (30%) were physicians and approximately one in four were registered nurses. Majority of the respondents worked in a pediatric setting. For the health care worker survey, access to health care and mental health services followed by mental health, including suicide, were top concerns for health care workers in the community.

In the health care worker survey, respondents ranked the following as top 5 health issues for children in their community:

Health Care Worker Survey- Top 5 Issues (in rank order)

1. Access to health care and mental health services
2. Mental health, including suicide
3. Access to benefits (e.g., Medicaid, WIC, food stamps, TANF)
4. Affordable housing
5. Hunger or access to healthy food

Interviews

Stakeholders identified mental and behavioral health as well as access to care as the top needs for the populations they serve. This was followed by housing (lack of affordable and/or available housing) and food insecurity as the subsequent top needs. Economic issues were also identified as a top need and included employment and job loss.

Stakeholder Interviews- Top 5 Needs (in rank order)*

1. Mental and behavioral health
2. Access to care
3. Housing
4. Food insecurity
5. Economic issues

*Mental and behavioral health and Access to care had same number of votes; Housing and Food Insecurity had same number of votes

When stakeholders were asked to identify the top barriers these populations face, discrimination, and language were the most frequently cited. One stakeholder highlighted that families have felt discrimination when they are accessing services. Another stakeholder mentioned how families can feel isolated or rushed when they are at an appointment. There was also mention of a lack of culturally responsive education among service providers. Families have expressed that there is lack of representation in the medical workforce and a growing need for more culturally responsive care. Stakeholders also mentioned that more navigation support is needed around access to care (both for medical and social services) including families needing more help in reading and understanding legal documents, explaining the referral system, and knowing where to go next following a visit with a provider. Stigma around accessing services was also identified as a top barrier. Stakeholders described how many of the families they work with are reluctant or even ashamed to access services, especially mental and behavioral health. Many of these barriers are connected and addressing at least one of these could impact others.

Stakeholder Interviews- Top 5 Barriers (in rank order)

1. Discrimination and racism
2. Language
3. Lack of culturally responsive education
4. Need for more navigation support
5. Stigma around accessing services



Community Meetings

After identifying top needs from our secondary data and primary data, we discussed the following for our community meetings:



In partnership with the Center for Health Progress (CHP), we held 1 community partner meeting, 4 community member meetings, and 1 internal Team Member Resource Groups meeting to share our primary and secondary data and provide feedback in prioritizing the health needs of the children and young adults in the Anschutz campus community. We hired CHP to consult and facilitate an equitable approach to community outreach and to assist us in engaging with more community members. The results of these meetings will be used to inform the prioritization and selection of health needs for the hospital to focus during the implementation plan.⁴⁵

CHP invited representatives from organizations that completed CHNA stakeholder interviews with Children’s and community organizations that support children, young adults and communities in the Metro area, specifically those that are led by and for Black, Indigenous and People of Color (BIPOC) Coloradans. We invited a total of 37 organizations to participate. For the community member meetings, CHP paid three organizations that work deeply in local communities to either organize meetings with the community members they serve and/or to invite community members to the broader community meetings (Cultivando and Colorado Circles for Change hosted separate meetings and Street Fraternity recruited and supported their participants to join the broader community meetings). Center for Health Progress distributed invitations to the broader community meetings to dozens of organizations that emphasize health and racial justice in their approach to community work.⁴⁵

For the community partner meeting, we had 25 employees representing 21 partner organizations. The partner organization represented the following counties:

Community Meeting County Distribution

	Adams	Arapahoe	Denver	Douglas
Number of Community Meeting Participants	11	17	10	9

The top 3 health concerns that the community partners see in the youth and child they work with and think Children’s should address were mental health needs, housing costs, and not having enough food.

For our community member meetings, we had 86 community members participate. The top most common race and ethnicities the participants identified as were Latinx/Hispanic, Black/African American and White. For these meetings, we divided the health needs into two categories, those more tied to medical needs and broader social health needs. Participants answered the following questions: What are the top medical needs for your children and/or young people in your community (select up to two)? What are the top social needs for your children and/or young people in your community (select up to two)?

Medical Need

Category	Votes
Mental health	55
Unhealthy Weight	29
Asthma and respiratory health	26
Oral health	20
Child abuse and neglect	13

Social Need

Category	Votes
Housing costs	47
Access to health care and mental health ser-vices	37
Access to benefits	20
Not having enough food	21
Not getting enough exercise	19

We did face limitations during engaging the community members by holding virtual meeting due to the pandemic. Some community members faced issues with technology access. Due to this, some community members shared the same computer to participate in our virtual meeting. Additionally, as many community members may not have had the technology literacy to navigate virtual meetings, we had some participants not vote during the polling. Therefore, when we conducted our polls on the video conference these community members may not be accurately represented in the number of votes.

In addition to gaining feedback from the community organization and community members, we reached out to the Team Member Resource Groups (TMRGs) to gain their feedback. TMRGs impact team member experience beyond raising cultural awareness, furthering our organizational mission and diversity and inclusion efforts. We heard similar feedback in the issues that impact our community. When asked what the top medical concerns, the #1 concerned identified was mental health. When asked what the top social needs concerns, the #1 was access to health care and mental health services.

Impacts of racism on health

The Centers for Disease Control and Prevention explains racism as “structures, policies, practices, and norms that assigns value and determines the opportunities based on the way people look or the color of their skin.”⁴⁶ Racism is a public health issue as it negatively impacts mental and physical health and has led to health inequities. Racial and ethnic minority groups experience higher rates of illness and death from health conditions, including diabetes, obesity, hypertension, heart disease, and asthma, when compared to their White counterparts. Additionally, social determinants of health such as where one lives, learns, works, are crucial drivers of health inequities experienced by communities of color which can put these populations at greater risk for poor health outcomes.⁴⁶ This impact is critically important for us to acknowledge and understand as we work to enhance health equity in our communities.

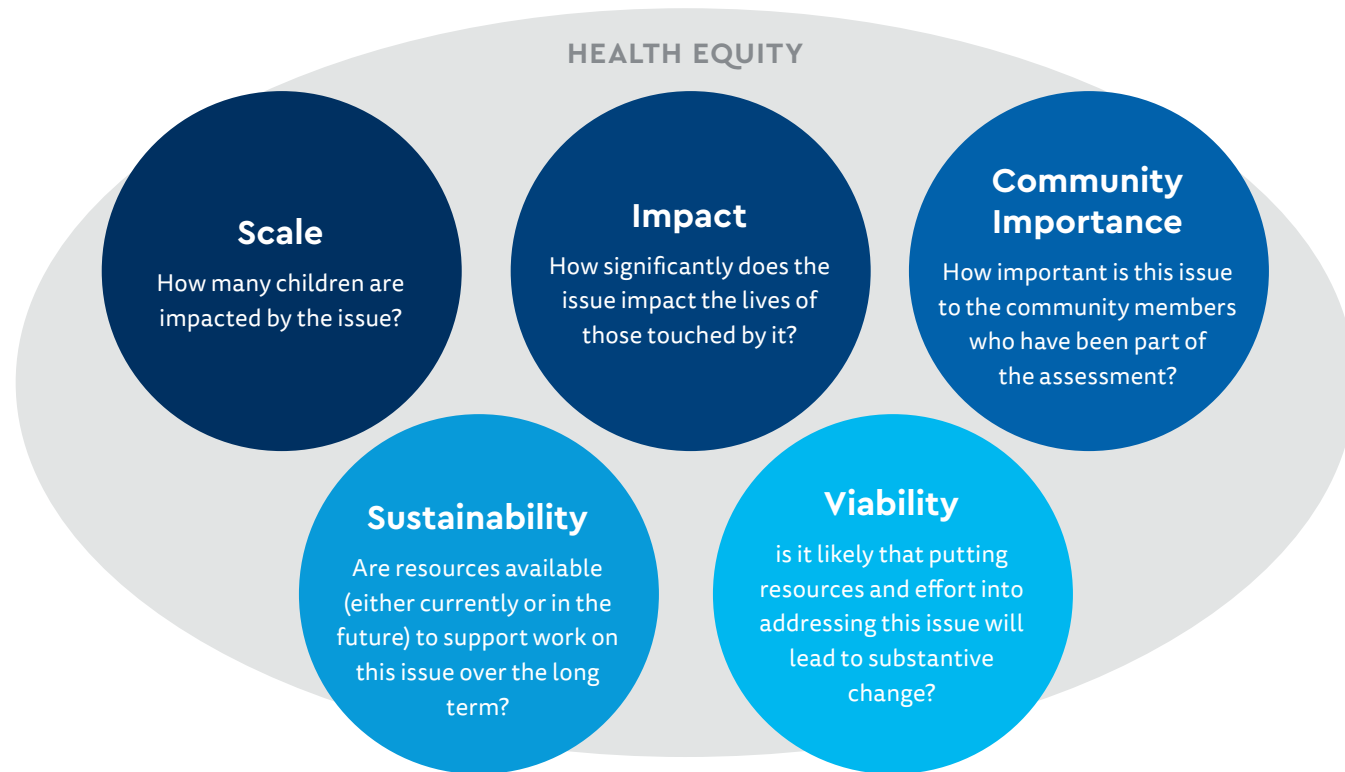
Impacts of COVID-19 Pandemic

The mitigation tactics for the COVID-19 pandemic inadvertently created inequities and implications which disproportionately affected racial and ethnic minority groups. As systems and policies were not created to be preventative for the most vulnerable populations, the Center for Disease Control and Prevention (CDC) guidelines exuberated the underlying issues. The guideline to mitigate the spread had economic, social, and secondary health consequences. For instance, essential work setting increased exposure due to lack benefits such as paid sick days. Other unintended consequences may include lost wages, unemployment, increased exposure to older adults in multi-generational households, and stress and social isolation.⁴⁷

From our interviews, when asked about COVID-19 impacts, stakeholders highlighted the following for the populations they serve: increased need for housing, increase in families experiencing homelessness, delayed care (e.g., families were missing important appointments such as well-child check visits), technology barriers (e.g., Wi-Fi access and families in rural areas struggling with connection issues), and financial stressors (e.g., unemployment, loss of income, and lack of additional employment opportunities).

Prioritization

Once both secondary and primary data collection were completed, the final step of the assessment was to seek input on how to prioritize among the needs identified between the primary and secondary data. The Population Health committee, which is comprised of CHCO clinical and nonclinical leadership worked to select prioritization criteria and, after careful consideration, determined that the following six factors were most important: impact, community importance, viability, sustainability, scale, and health equity.



Description of Identified Priority Needs

Mental health emerged as the top community concern through every method of data collection included in this assessment. Caregivers, health care team members, and community leaders all reported that mental health of children in our community is a critical issue. Internal utilization data and public health surveillance data demonstrate a continued and increasing need for mental health and suicide prevention services for children and youth in Colorado, including services that address disparities in mental health outcomes within populations. Please see the Mental Health and Suicide Prevention section for details on the data.

Mental health has also long been identified as a health priority among our community stakeholders as persistent systemic challenges have prevented mental health parity from being achieved. As Children's Colorado joins our community partners in embracing whole child, whole health approaches to child health, we recognize the need to place a



consistent intentional focus on mental health to meaningfully integrate mental health into our holistic approaches to care.

Moreover, during the COVID-19 pandemic, children's mental health needs have alarmingly intensified and further underscored the lack of mental health resources in our communities. In May 2021, Children's Colorado declared a "State of Emergency" for youth mental health, highlighting the reality that mental health challenges facing kids have gone beyond crisis levels, and the organizations that serve kids are overwhelmed. Therefore, based on the data and feedback we heard from the community, our work toward holistic models of care, and reflecting the current crisis state of our mental health system for children and youth, mental health was selected as our primary priority.

Complementary priorities that will roll up under our primary priority, and include continuing priorities, will be determined as part of our implementation plan, which will outline the specific strategies and tactics we will employ to address mental health needs for children and youth. Further engaging our community stakeholders to identify more specific areas within the immense mental health needs in our communities will ensure the development of a meaningful implementation plan. See Appendix G for resources available to address mental and behavioral health.

Children's Hospital Colorado knows that the needs and the concerns of the community are extensive and that our ability to address those needs is limited. While the selected priorities areas will be the focus of our community efforts for the next several years, we will also continue to listen to the community and to identify new opportunities to address public concerns. Some of the specific issues that the community raised through this process, but that were not selected as top priorities, will continue to be addressed through the work of the Division of Population Health and Advocacy.

Conclusion

This report is the culmination of an inclusive and far-reaching effort to gather input from a wide range of stakeholders.

Children's Hospital Colorado is proud of its work with the community and the leadership role it plays in supporting the mental, emotional, and physical health of every child in our great state. We wish to thank the hundreds of parents and community members who lent their voices to this health needs assessment. Through surveys, community meetings and one-on-one conversations, we gathered important insight into the issues that families care about. Our promise is that we will act on what we heard and will continue to partner with the community to improve the health and wellbeing of all children in Colorado.

As a first step, we will incorporate the findings of this assessment into an implementation plan that will guide our community-based efforts for the next three years. We will consult with our many partners in the development of that plan. We look forward to documenting ways that we can continue the successful programs we have already established as well as exploring new ways to effectively address the priority issues.

We also welcome continued feedback both on the content of this report and our strategies for addressing community health needs. Comments, questions, and suggestions can be sent to communitybenefit@childrenscolorado.org.



Appendix A: Data Collection Instruments

Caregiver Survey

Children's Hospital Colorado 2021 Caregiver Survey

Thank you for participating in the Children's Hospital Colorado Caregiver Survey. The goal of this survey is to hear from parents and caregivers of children about the most important community health needs for families in our surrounding community. This survey should take about 10 minutes. The results of the survey will be summarized into a report, called a Community Health Needs Assessment, and available on our website (www.childrenscolorado.org) by the end of December 2021. Your responses will remain confidential with others in the overall report. In what language would you prefer to take this survey?

- Amharic
- Arabic
- Burmese
- English
- French
- Karen
- Somali
- Spanish

Tell Us About Your Community

Please answer the following question about children in your community.

- Thinking about what children in your community need to be healthy and thrive, please share how **important** you think it is to address the following needs for **children in your community**:

	Not important	A little important	Important	Very important
Access to benefits (e.g., Medicaid, WIC, food stamps, TANF)				
Access to health care and mental health services				
Access to or cost of child care				
Affordable housing				
Child abuse and neglect				
Dental care				
Hunger or access to healthy food				
Injury				
Mental health, including suicide				
Mother and infant health				
Obesity / overweight				
Respiratory health, including asthma				

Other (please specify): _____

Covid Impact

Please answer the following question about how much the Covid pandemic has impacted your family.

- Please share how much you think the Covid pandemic has impacted the following areas for your **FAMILY**:

	Not impacted	A little impacted	Impacted	Very impacted
Accessing health care when needed (medical, dental, or mental health)				
Accessing stable child care				
Changes in mood for my child/children (sadness, fatigue, irritability, loneliness)				
Family member (including child) diag-nosed with Covid				
Internet access and technology				
Keeping health insurance for my child/children				
Being able to pay rent or mortgage				
Paying for basic needs, such as food or utilities				
Feeling connected with family and friends who live outside our home				

Other (please specify): _____

Tell Us About Yourself

Please answer the next set of questions about yourself and the children living in your home.

- What county do you live in?
 - Adams
 - Arapahoe
 - Denver
 - Douglas
 - El Paso
 - Other – please specify
- What ZIP code do you live in? (free text)
- What language do you primarily use in your home?
 - American sign language
 - Amharic
 - Arabic
 - Burmese
 - English
 - French
 - German
 - Karen
 - Nepali
 - Russian
 - Spanish
 - Somali
 - Other – please specify
- What age are the children living in your household? (Check all that apply)
 - Infant to 2 years
 - 3 to 5 years
 - 6 to 11 years
 - 12 to 14 years
 - 15 to 17 years
 - 18 to 24 years

7. Which racial and ethnic groups are the children in your home?
- Asian
 - South Asian
 - East Asian
 - Pacific Islander
 - Black or African American
 - Hispanic/Latinx
 - Middle Eastern/Arab American
 - American Indian or Alaska Native
 - White
 - Other – please specify _____
 -
8. Do any of your children have complex medical needs (chronic physical, developmental, mental, emotional, or behavioral conditions)?
- Yes
 - No
9. What is your household income? Mark one response.
- \$0 to \$24,999
 - \$25,000 to \$49,999
 - \$50,000 to \$74,999
 - \$75,000 to \$99,999
 - \$100,000 or more
 - Don't know / Prefer not to answer

Provider Survey

Children's Hospital Colorado 2021 Provider Survey

Thank you for participating in the Children's Hospital Colorado Provider Survey. The goal of this survey is to hear from health care providers about the most important community health needs for families in your practice's community. This survey should take about 5 minutes. The results of the survey will be summarized into a report, called a Community Health Needs Assessment, and available on our website (www.childrencolorado.org) by the end of December 2021. Your responses will remain confidential with others in the overall report.

1. What is your role within your practice?
- Medical assistant
 - Nurse practitioner
 - Physician
 - Physician assistant
 - Registered nurse (not in a school setting)
 - School nurse
 - Other (please specify): _____
2. In what type of practice do you work?
- Pediatrics
 - Internal Medicine
 - Family Medicine
 - Other (please specify): _____
3. In what county is your practice?
- Adams
 - Arapahoe
 - Denver
 - Douglas
 - El Paso
 - Other (please specify): _____

4. Approximately how many unique patients under 18 years are treated in your practice annually?
- _____
5. Does your practice accept Medicaid?
- Yes
 - No
6. (If yes to question 5) Approximately what percentage of patients under 18 years are on Medicaid?
- 0-25%
 - 26-50%
 - 51-75%
 - 76-100%
7. Thinking about what pediatric patients in your practice's community need to be healthy and thrive, please share how **important** you think it is to address the following needs for **your pediatric patients in your community**:

	Not important	A little important	Important	Very important
Access to benefits (e.g., Medicaid, WIC, food stamps, TANF)				
Access to health care and mental health services				
Access to or cost of child care				
Affordable housing				
Child abuse and neglect				
Dental care				
Hunger or access to healthy food				
Injury				
Mental health, including suicide				
Mother and infant health				
Obesity / overweight				
Respiratory health, including asthma				

Other (please specify): _____

Covid Impact

8. Please share how much you think the Covid pandemic has **impacted** the following areas for **pediatric patients in your practice's community**:

	Not impacted	A little impacted	Impacted	Very impacted
Families accessing health care when needed (medical, dental, or mental health)				
Families accessing stable child care				
Changes in mood for my pediatric patients (sadness, fatigue, irritability, loneliness)				
Patient or their family member(s) diagnosed with Covid-19				
Families' access to internet and technology				
Families keeping health insurance for their children				
Families being able to pay rent or mortgage				
Families paying for basic needs, such as food or utilities				
Families and patients feeling connected with family and friends who live outside their home				

Other (please specify): _____

9. How can Children's Hospital Colorado better meet the health needs of pediatric patients in your community?

Thank you for your input!

Stakeholder Interview Guide

Stakeholder Interview Introduction

Thank you for taking the time to speak with me today. As shared in the outreach email to you, the purpose of this interview is to inform Children's Colorado's Community Health Needs Assessments (or CHNAs for short) for **Anschutz Campus** which will be completed and published in December 2021.

Do you have any questions about the information provided in the consent form?

[Overview and purpose] As a reminder, the purpose of the CHNA is to understand what the most important community health needs for our surrounding community to inform how we prioritize our community health work. Another critical component of this work is understanding what is already happening in the community to address health or social needs, so we are not duplicating efforts, and understanding what Children's role from the community's perspective, if any, to help address a specific need. In addition, non-profit hospitals are required to complete CHNAs every three years.

[About the interview and how information will be used] The interview will take up to 60 minutes and your participation is completely voluntary. We will keep your individual responses confidential. We will be conducting roughly 20 interviews per facility and aggregating the findings to report in our CHNA. **As part of the CHNA process, we are required to include a list of all interviewees, including their name, role, and organization in the report. None of your individual responses will be attributed to you in the published report.** The results of the interview will be summarized into a report, and available on our website (www.childrenscolorado.org) by the end of December 2021.

Any questions before we get started?

Questions

[Prior to starting the interview, review the stakeholder's pre-survey results. If they did not complete the survey, use the first part of the interview to complete the survey.]

- In our pre-interview survey, you indicated that your organization is most familiar with or primarily serves/outreaches to the following populations:
 - Population 1 _____
 - Population 2 _____
 - Population 3 _____

For most of today's discussion, we will focus on those populations. You may answer these questions for all the populations you included in your survey, or we can return to these questions if you feel your responses would differ by population.

Community Needs

2. What would you say are the top 2 or 3 health or social needs overall for **[name the Populations 1-3]**?

3. What are some of the barriers that this/these population(s) faces to address the needs you identified?

4. Covid has impacted different populations in different ways. How would you say Covid has impacted **[name the Populations 1-3]** in particular?

5. We are focusing on the following health or social topics in this phase of our CHNA: early childhood / education, food insecurity, housing, mental and behavioral health, including suicide, respiratory health, and injury. Among these topics, are there any that stand out as impacting **[name the Populations 1-3]**, that we haven't already discussed? If so, how?
 - Early childhood / education
 - Food insecurity
 - Housing
 - Mental / behavioral health, including suicide
 - Respiratory health
 - Intentional and unintentional injury

6. Is there anything else that would help **[name the Populations 1-3]** achieve better health?

7. **[If interviewee listed more than one population, but in the interview only focuses on one population, proceed with this question]** Would you respond differently to any of these questions for the other populations you identified? [If yes, repeat questions 2-6 for populations 2 and 3.]

Existing work and collaboration opportunities

8. What is your organization already doing to address the top needs for these populations?

9. What are other organizations doing, that you're aware of?

10. What role do you see Children's playing, if any, to help address these top needs?

11. **[Optional, if time]:** Do you have any other feedback or ideas about how to address these health and social needs?

Appendix B: Data Sources

- American Community Survey, 1-Year Estimate, 5-Year Estimate, 2019
- Centers for Disease Control and Prevention, 2020
- Feeding America, 2019
- Healthy Kids Colorado Survey, 2019
- Hunger Free Colorado Survey, 2021
- Division of Child Welfare Services, Colorado Department of Human Services, 2018
- Colorado Department of Public Health and Environments (CDPHE), 2016-2019
- Child Health Survey, 2018-2019
- Colorado Health Access Survey, 2017-2019
- Colorado Department of Education, 2018-2019
- Vital Statistics, 2016-2019
- Pregnancy Risk Assessment Monitoring System, 2019
- Colorado Environment Public Health Tracking, 2018
- Colorado Health Information Dataset, 2019
- Colorado Health Observational Regional Service, 2019
- KidsCount, 2019
- County Health Rankings, 2018-2020
- Colorado Body Mass Index Monitoring System, Children and Youth 2-17 years, 2014-2016
- Colorado Health Institute, American Community Survey Estimates, 2018
- Governor's Office of Information Technology, 2019
- U.S. Census Bureau Household Pulse Survey, 2020
- Children's Colorado Epic, 2020
- Child Fatality Prevention System
- Colorado Department of Local Affairs, 2019
- Department of Health Care Policy and Financing, 2018
- Connect for Health Colorado, 2018
- Medical Expenditure Panel Survey, 2015
- Child Opportunity Index
- Colorado Environmental Public Health Tracking, 2018
- Colorado Health Institute (CHI) Access to Care Index, 2018
- Injuries Dashboard, CDPHE, 2016-2019
- Colorado Hospital Association, 2019

Appendix C: Stakeholder List

Name	Role	Organization
Kate Garvin	Director, Family Advocacy and Community Engagement	Aurora Public Schools (APS) Impact Zone
Teresa Torres	Programs Manager	Aurora Community Connection
Kelly Dougherty	Injury Prevention Coordinator	Colorado Department of Public Health and Environment (CDPHE), Emergency Medical and Trauma Services-Injury Prevention (EMTS-IP)
Lena Heilmann	Office of Suicide Prevention Strategies Manager	CDPHE, Colorado Office of Suicide Prevention
Minsoo Song	Admin Specialist	City of Aurora, Office of International and Immigrant Affairs
Rene Gonzalez	Community & External Relations Strategist	Colorado Access
Christy Haas-Howard	Asthma Nurse Specialist	Colorado Department of Education and Denver Public Schools
Zac Schaffner	Supportive Housing Services Manager	Colorado Department of Local Affairs, Division of Housing
Deanna LaFlamme	Program Director	Culture of Wellness, Colorado School of Public Health
Michele Coates	Early Intervention Director	Developmental Pathways
Maegan Lokteff	Executive Director	Early Childhood Council Leadership Alliance
Elisa Aucancela	Executive Director, Infant Family Specialist	El Grupo Vida
Jamie Rife	Director of Communications and Development	Metro Denver Homeless Initiative (MDHI)
Tricia Allen	Vice President, Community Impact	Mile High United Way
Gregory Allen	Community Member - Montbello, Green Valley Ranch, Parkview	Montbello Organizing Committee
Marvyn Allen; Alexander Wamboldt	Health Equity and Training Director; Youth & Schools Program Manager	One Colorado
Chris Bui	Senior Program Officer	The Colorado Health Foundation
Nathan Mackenzie	Interim Executive Director	The GrowHaus
Vicki J Swarr	Nursing Division Manager	Tri-County Public Health Department
Jaclyn Blitz	Nutrition Manager	Tri-County Public Health Department / Women, Infants & Children (WIC)
Gabriela Jacobo	Community Connector	University of Colorado (Office of Diversity Equity, and Community Engagement)
Kippi Clausen	Project Director	Youth Move Colorado

Appendix D: Colorado Department of Education

		Colorado	Adams	Arapahoe	Denver	Douglas
% Immigrants	American Indian or Alaskan	*	*	3%	*	*
	Asian	*	5%	13%	15%	*
	Black	*	2%	7%	4%	*
	Native Hawaiian	*	*	16%	13%	*
	Latino	*	2%	4%	3%	*
	Multiple Races	*	1%	1%	1%	*
	White	*	0%	1%	2%	*
	All races	1%	*	*	*	*
% English Language Learners	American Indian or Alaskan	*	6%	22%	6%	6%
	Asian	*	36%	35%	52%	26%
	Black	*	8%	18%	16%	9%
	Native Hawaiian	*	15%	43%	33%	*
	Latino	*	38%	42%	51%	22%
	Multiple Races	*	4%	2%	3%	3%
	White	*	2%	3%	5%	1%
	All Coloradan Students	14%	*	*	*	*

Source: Colorado Department of Education, 2019; * indicates suppressed or unavailable data

Appendix E: Percentage of Students Hungry in the last 30 days, 2019

% of students who went hungry in the past 30 days sometimes, most of the time, or always because of a lack of food at home	State	Adams	Arapahoe	Denver	Douglas
American Indian or Alaska Native, non-Hispanic	27.4	*	*	*	*
Asian, non-Hispanic	14.9	12.4	18.7	15.3	13.5
Black or African American, non-Hispanic	23.4	*	26.4	19.5	*
Hispanic Only or Hispanic White	17.8	13.0	21.4	15.3	18.9
Multiple Race or Hispanic Other Race	20.5	19.6	23.7	21.2	19.6
Native Hawaiian or Other Pacific Islander, non-Hispanic	22.7	*	*	*	*
White, non-Hispanic	11.7	11.1	12.9	10.1	9.9

Source: Healthy Kids Colorado Survey, 2019; * indicates suppressed or unavailable data

Appendix F: Top 5 Diagnoses by Patient Class, 2020

ED/UC, 2020

Diagnosis Description	Percent
Acute upper respiratory infection, unspecified	8.9%
Viral infection, unspecified	2.9%
Influenza due to unidentified influenza virus with other respiratory manifestations	2.8%
Fever, unspecified	2.7%
Acute obstructive laryngitis (croup)	2.1%

Source: Epic, 2020

Inpatient/Observation, 2020

Diagnosis Description	Percent
Acute bronchiolitis due to other specified organisms	5.5%
Other acute appendicitis without perforation or gangrene	2.6%
Viral pneumonia, unspecified	2.6%
Acute bronchiolitis due to respiratory syncytial virus	2.5%
Major depressive disorder, single episode, unspecified	2.1%

Source: Epic, 2020

Outpatient, 2020

Diagnosis Description	Percent
Contact with and (suspected) exposure to other viral communicable diseases	3.8%
Encounter for routine child health examination without abnormal findings	3.7%
Encounter for immunization	2.1%
Muscle weakness (generalized)	2.0%
Unspecified lack of coordination	1.5%

Source: Epic, 2020

Appendix G: Resources to Address Mental and Behavioral Health

Community stakeholders identified resources potentially available to address the identified community needs. This is not a comprehensive list of all available resources. For additional resources refer to Colorado 2-1-1 at 211colorado.org.

Health Need	Resource
Behavioral Health	Aurora Mental Health Center
	Mile High Behavioral Health
	Douglas County Community Mental Health Ctr.
	Nami Arapahoe/Douglas Counties
	Asian Pacific Center for Human Development
	Colorado Crisis Line
	Asian Pacific Center for Human Development – Alton
	Servicios de La Raza
	Denver Public Health
	Tri-County Health Department
	Colorado Department of Public Health and Environment
Office of Behavioral Health, State of Colorado	

Appendix H: 2019–2021 Implementation Strategy Evaluation Report

Mental Health

1. Goal: Advocate for a mental/behavioral health care system that prioritizes the needs of families

Enhance care coordination between Aurora Public Schools (APS) and Children's Hospital Colorado to ensure that our shared patient population has timely access to appropriate level of mental health care.

Advocate for a system of care approach that improves accountability for and coordination of mental health services and supports in Colorado by leading legislative efforts

Progress:

Completed - Through the Mental Health Advisory Council (MHAC), Children's Colorado co-created educational materials with patients and families to be used clinically with patients presenting with psychiatric issues, emphasizing compassionate care and reducing stigma.

Completed – Children's Colorado helped form a diverse coalition to champion Senate Bill 19-195, a bipartisan measure that has the potential to transform our state's mental health system to better serve Colorado children, youth and families and to reduce costly, unnecessary interventions. Children's Colorado engaged in SB19-195 implementation activities through this period to ensure fidelity to the legislation. Unfortunately, the legislature stripped funding for these important reforms while trying to balance the state's budget during the economic crisis in 2020. In 2021, we successfully restored funding for SB 19-195 to advance the bill's comprehensive "Wraparound" care coordination benefit for children and youth with significant behavioral health needs, with an emphasis on getting kids the right care at the right time.

In Progress – Following the passage of Senate Bill 19-195, Colorado Governor Jared Polis appointed a staff member from Children's Colorado to serve as a Co-Chair of Governor Polis' Behavioral Health Task Force Children's Subcommittee to develop statewide policy recommendations to improve the behavioral health system, from prevention and promotion to acute intervention, for children and youth.

Completed - In 2020, Children's Colorado worked with a coalition on House Bill 20-1006 to strengthen an existing early childhood mental health consultation program that equips early childhood educators with the training and skills to support the behavioral and developmental needs of the children in their classroom. The program has successfully reduced burnout among educators and has reduced early childhood suspensions and expulsions. This bill was folded into an early childhood legislative package and ultimately passed.

Completed-- In 2021, Children's Colorado worked with partners to build a better system of care for all children, youth and families. House Bill 21-1097 helps implement a key recommendation of the Colorado Behavioral Health Task Force to create a Behavioral Health Administration, a new state agency to lead, promote and coordinate Colorado's behavioral health priorities.

Completed – Children's Colorado co-drafted education materials to improve patient experience when presenting with psychiatric issues.

Mental Health continued

2. Goal: Reduce the risk of youth suicide through targeted community engagement.

Reduce risk of youth suicide through enhanced care coordination between Aurora Public Schools and Children's Hospital Emergency Department at the time of referral for safety assessment.

Advocate for mental health resources, including suicide prevention programs, in school settings.

Progress:

Completed – Children's Colorado developed streamlined warm handoff procedures so that communication between APS and Children's occurs systematically (more than 80% of all referrals).

Completed - In 2019, Children's Colorado worked with coalition partners to pass Senate Bill 19-010, to expand access to a school health professional grant program by investing an additional \$3 million into the program. This grant program allows schools to hire mental health professionals to support the needs of students. In 2020, Children's Colorado supported an effort, Senate Bill 20-001, to ensure that teachers and school professionals had greater access to professional development training opportunities in youth behavioral health. Unfortunately, due to funding challenges, the bill did not pass.

As a result of federal funding the state received for COVID-19 response, HB 20-1411 will appropriate \$15.2 million for behavioral health programs, including suicide prevention in school-based health centers and other settings.

Completed-- In 2021, Children's Colorado supported House Bill 21-1021 to fund behavioral health services provided by peer support professionals and House Bill 21-1119 which expands the scope of the Office of Suicide Prevention to include comprehensive suicide prevention, intervention, and postvention. Children's Colorado also supported House Bill 21-1130 to expand the Transition Specialist Program, which helps individuals transition from hospitals back into the community and lowers rates of re-hospitalization and incarceration. Children's Colorado is also working to support the implementation of House Bill 21-1258, which provides access to three telehealth therapy appointments for all school-aged children regardless of insurance coverage. Finally, Children's Colorado fought to increase the state's behavioral health funding through Senate Bill 21-137, the Behavioral Health Recovery Act. Among many things, this important measure jumpstarts transformational investments, including a statewide care coordination infrastructure and supports workforce development. The bill also funds urgently-needed direct services to help children immediately, like funding to crisis services for children and youth, and supporting additional bed capacity at step-down residential facilities so that children aren't sent out of state to access the care they need.

3. Improve the social emotional wellness of children and families through a combination of clinical and community-based efforts.

Integrate social emotional wellness content and messages in clinical and community settings

Progress:

In progress - The Child Health Clinic and Young Moms Clinic are working to provide universal access to family social and emotional supports, aligning with behavioral health integration (Project CLIMB), Healthy Expectations, Vroom, Healthy Steps and Mommy and Me. This is also part of our prematurity work.

Injury Prevention

1. Goal: Implement and evaluate evidence-based, culturally relevant programs to reduce the incidence of unintentional injury.

Deliver programs focused in 1) car seat inspections and trainings, 2) teen driver safety education, 3) infant safe sleep education, and 4) home safety inspections

Progress:

In progress – Children's Colorado provides a car seat voucher, inspection and education to Child Health Clinic and Young Mothers' Clinic patients, distributing over 150 low cost car seats along with education. From June 2019 to May 2021, Children's Colorado held 4 certification courses and trained 16 new CHCO car seat technicians and several community car seat technicians.

Redirected– In 2019, 125 teen drivers participated in a safe driver curriculum, led by Children's Colorado and Denver Metro Teen Drivers. In 2020, we lost staffing support to continue the Denver Metro Teen Driver program.

In progress – Children's Colorado trained Family Navigator staff and residents on infant safe sleep and distributed over 80 pack n play sleep spaces to caregivers.

Redirected – The home safety inspection program is being re-evaluated to focus more on parent education on home safety practices.

Completed – In 2021, Children's Colorado supported the passage of HB21-1106, requiring safe storage of firearms, and HB21-1299 to create an office of gun violence prevention, both of which can help reduce gun violence and suicide and youth access to firearms. We also supported HB21-1193, which provides more transparency and accountability in vehicle safety systems and in doing so, will enhance passenger safety and reduce the chance of serious injuries in an accident. Moreover, we supported HB21-1317, which makes important changes to state law to help protect youth from accessing harmful marijuana products with high THC potencies. Lastly, we supported SB21-184, which failed but would have created publicly available ski-area specific accident and safety data to decrease pediatric snow sport injuries.

Prematurity

1. Goal: Advance policies to support families and mitigate prematurity at the organizational, local, and state level through education and advocacy

Promote family-friendly workplace practices within Children's Colorado and advocate for policies that contribute to the reduction in pre-term births

Progress:

Completed – (State) In 2019, Children's Colorado worked on regulatory updates with the state public health department to the state's newborn hearing screening program to ensure young children receive early intervention services and supports. In 2020, Children's Colorado providers worked with the state Department of Regulatory Agencies to provide feedback regarding workforce issues related to newborns who are delivered at home by direct-entry midwives. Additionally, Children's Colorado helped advance home visiting legislation, Senate Bill 20-144, to expand funding opportunities for programs that support parents and caregivers with less resources and exposure to risk factors that could lead to poor developmental outcomes. Unfortunately, the bill was not passed by the legislature this year. In 2021, Children's Colorado supported the passage of Senate Bill 193 and Senate bill 194, critical policies that will help improve birth equity and reduce the health disparities that women and infants of color in Colorado face.

Prematurity continued

2. Goal: Increase awareness about the contributors of pre-term birth through community and clinical outreach

Raise awareness in clinical settings and across the broader community about the prematurity, particularly for populations disproportionately affected such as Black and African American infants

Progress:

Completed – In January 2020, the Black Health Initiative Prematurity and Infant Mortality Workgroups launched with the mission to promote quality health care and mental well-being by increasing positive patient experiences and empowerment for Black mothers, babies, and families through improved access to services, support, advocacy, and education at Children's Hospital Colorado. With 16 participants from the community and clinical settings, the BHI workgroups each have an area of focus: education and behavioral health. Since launching, the workgroups have developed a more inclusive care model called Care Collaboration, conducted joint community and provider education with 25 physicians/advanced practitioners and 16 community advocate participants (refer to the CAPE training description below).

Completed – Borne out of the crucial need to have community members' experiences inform how health care providers address issues of healthy equity in health care settings, the BHI is collaborating with the Center for Advancing Professional Excellence (CAPE) within the University of Colorado School of Medicine to develop provider trainings that immerse providers in simulated scenarios with actual cases developed by community members and BHI workgroup members. These trainings are an effort to shine a light on the challenges that African American women face in clinical settings and bridge the gaps that can result in negative patient experiences and poor patient outcomes. By engaging providers in practice-based simulated visits, providers are immersed in situations that increase their appreciation for the needs of their patients, while building their skills around how to meaningfully address their patients' needs by addressing bias in a culturally responsive manner. Objectives of the training include:

- Identify gaps in knowledge of culturally responsive communication and care as it relates to African American women and children.
- Determine how to work collaboratively in the care setting to improve the patient experience for African American women and children.
- Demonstrate how to use multiple care delivery modalities (e.g., telehealth, telemedicine, home visitation) to increase access to care for African American women and children.

3. Goal: Improve access to care and supports for families through strengthening community and clinical connections and pathways.

Promote access to programs and services that promote social-emotional well-being among families

Progress:

In progress - The Child Health Clinic and Young Moms Clinic are working to provide universal access to family social and emotional supports, aligning with behavioral health integration (Project CLIMB), Healthy Expectations, Vroom, Healthy Steps and Mommy and Me. This is also part of our mental health work.

Obesity, Nutrition and Physical Activity

1. Goal: Reduce obesity rates of children in Aurora through a combination of clinical and community-based efforts.

Improve how families are referred to community healthy lifestyle supports and resources

Progress:

Redirected – Due to the impact of Covid-19, Children's Colorado is exploring telehealth options for treatment modules and connecting families to healthy lifestyle resources, tailoring needs to what families are most comfortable with.

2. Goal: Increased knowledge about and access to quality physical activity options for kids in Aurora.

Promote physical activity policy and advocacy and increase access to physical activity options in Aurora through community partnerships and trainings

Progress:

Completed – Children's Colorado worked with coalition partners to advance House Bill 19-1161, legislation that encourages children to be active by boosting access to comprehensive physical education in schools across Colorado.

Redirected – Due to the impact of Covid-19, Peak Champions, Children's Colorado's weight management summer camp, was paused.

3. Increased knowledge about and access to healthy food and quality nutrition service for kids in Aurora.

Promote healthy eating and access to healthy foods for patients and families in Aurora. Healthy Roots/mobile distribution in partnership with APS

Progress:

Completed – Children's Colorado opened Healthy Roots food clinic in October 2019 and has served 2,401 families between October 2019 and May 2021.

Completed – During the peak months of Covid-19 in spring 2020, Children's Colorado converted the Healthy Roots Food Clinic into a mobile food distribution program, distributing more than 110,000 pounds of food in 7,600 bags to roughly 6,000 families.

Completed Children's Colorado co-leads the Aurora Healthy Kids' Meals Coalition, a group of local and statewide stakeholders advocating to improve access to healthy kids' meals beverages in restaurants through a proposed ordinance with the City of Aurora.

Completed – Children's Colorado joined a coalition of anti-hunger organizations to support House Bill 1171, a measure that will reduce the cost of school lunches for low-income high school students. In 2020, Children's Colorado supported HB 1003 to expand the Food Pantry Assistance Grant Program and reduce family food insecurity.

Completed – In summer 2020, Children's Colorado became a designated Summer Food Service Program (SFSP) open to the public.

In progress – Children's Colorado Food Security Council actively participates in several initiatives to improve food security, including participating in the Colorado Health Foundation's Blueprint to End Hunger Steering Committee and associated activities.

Asthma and Respiratory Care

1. Goal: Reduce exposure to tobacco smoke and e-cigarette vapor among children in Colorado.

Pilot a cessation clinic for tobacco and other nicotine products with 50 patients or caregivers by 2021

Update the Clean Indoor Air Act to include e-cigarettes by 2021.

Support the reversal of local pre-emption laws related to tobacco by 2021.

Advocate for increased tobacco tax including e-cigarettes and vape products by 2021.

Progress:

In progress – A pilot cessation clinic opened in 2019, serving adult parents and caregivers who smoke or vape. To date, 17 caregivers have been seen for assistance with smoking cessation and 40 additional caregivers are scheduled to be seen. To increase access, this service now includes telehealth and can serve parents or caregivers across Colorado, including referrals from participating pediatric primary care practices. Clinical work since 2019 has demonstrated that the majority of patients with respiratory symptoms at Children's Colorado who vape also use other substances, such as marijuana. Because treatment for polysubstance use differs from tobacco cessation, we have partnered with the ENCOMPASS program in the University of Colorado School of Medicine Department of Psychiatry to form a strong referral pathway.

Completed – House Bill 19-1076 updated the Colorado Clean Indoor Air Act and was signed into law 5/29/19. Children's Colorado, with other members of the Colorado Tobacco-Free Alliance, championed this legislation and provided expert testimony.

Completed – House Bill 19-1033 was signed into law on 3/29/19. The bill authorizes local governments to enact tobacco control policies without penalty from the state. Children's Colorado, as a member of the Colorado Tobacco-Free Alliance, provided expert testimony in support of the bill. Several Children's Colorado providers also took part in media interviews to educate the public.

Completed – Cigarette Tobacco and Nicotine Products Tax (House Bill 20-1427) was passed during the 2020 Colorado legislative session, putting this measure on the ballot in November 2020 as Proposition EE. Children's Colorado actively engaged in supporting Proposition EE in partnership with public health partners, which passed by a wide margin and will increase the tax on tobacco products and create a tax for nicotine products. Revenue collected from the taxes will support funding for universal preschool, tobacco cessation and prevention services, K-12 education, affordable housing and more.

In progress—Children's Colorado supported House Bill 20-1001 in 2020 which successfully advanced, updating the state law to require individuals to be age 21 or older to purchase tobacco and nicotine products, including vaping products. It also requires all tobacco retailers to be licensed in the state, which will help ensure compliance with the law and reduce easy youth access to tobacco and nicotine products. Children's Colorado continues to monitor the implementation of House Bill 20-1001 to ensure the law is implemented with fidelity and in a way that holds tobacco retailers accountable.

2. Increase access to community-based respiratory health education and care coordination in Colorado.

Expand asthma home visit program by adding 1-3 community-based referring partners and integrate/connect with other school-based healthy lifestyle supports by 2020.

Expand school-based asthma program to 5 new districts by 2020.

Pilot a community-based program to prepare asthma patients to return to school with 20 patients in Fall 2019.

Progress:

Completed – Additional staff were hired to expand the home visit program and referrals began in June 2020. Children's Colorado has four community-based referring partners, including three pediatric practices and a local health department. The home visit program continues to be delivered via telehealth due to COVID-19.

In progress – Planning for AsthmaCOMP school-based asthma program expansion has been put on hold due to COVID-19 but will continue in the 2021-2022 academic year. In the past year, progress has focused on relationship-building and supporting school nurses throughout the pandemic. Additionally, as we pivoted to virtual program implementation due to COVID 19 school closures, we recognized the ability to expand beyond the originally planned geographic regions. We are now offering the program to 35 new sites statewide including some rural areas. We are achieving this through our collaboration with the Colorado Department of Education School Nurses Specialists.

Completed – A community-based program for asthma patients (Back to School Asthma Olympics) returning to school was piloted in two communities: Aurora and Colorado Springs. In a pre/post survey, 67% of participants showed improved understanding in at least one area of asthma education. A virtual version was held in August 2020 due to COVID-19.

3. Increase awareness of respiratory health and ways to mitigate respiratory threats in Colorado.

Conduct 25 media interviews related to respiratory and sleep health by 2021.

Conduct 25 educational sessions on respiratory and sleep health for community residents or health professionals by 2021.

Incorporate respiratory and sleep health into at least three new and existing community-based education programs by 2021.

Progress:

Completed – In the past year, there have been 137 media stories related to health education or advocacy featuring our respiratory and sleep health experts.

Completed – Breathing Institute experts have provided education at 44 sessions for health professionals and community residents across Colorado and the Rocky Mountain region, with 9 in the past year.

Children's Colorado received the Environmental Protection Agency's National Environmental Leadership Award in Asthma Management for our asthma program, which encompasses inpatient, outpatient, home, and school-based support.

Healthy Neighborhoods

1. Goal: Develop the architecture for a data exchange system that allows key community partners with shared goals and populations to track how families are accessing community resources and facilitates tracking of outcomes.

Develop mechanisms to send resource-related referrals between clinical and community settings to address social-related health needs among Children's Colorado patients and families

Progress:

In progress - At Resource Connect (opened in October 2019), we developed a tracking mechanism to capture end-to-end resource referrals from clinic to Resource Connect partner. Since opening Resource Connect, 1,218 families have been seen for one or more resource need between October 2019 and May 2020. In June 2020, Children's Colorado launched a referral tracking mechanism from clinic to community-based organizations.

2. Goal: Develop a community-driven engagement process that leads to an effective Community Network co-designed by the communities it serves.

Build a community network with partners focused on coordinating referrals for resource needs for patients and families

Progress:

Redirected - The goal of the Community Network is to enhance community-based care coordination of resource needs for patients and families. Due to the impact of Covid-19 on our community engagement efforts, we are focusing our Community Network work on our Resource Connect partnerships, community health navigation, and food insecurity.

¹ Resource Connect is a centralized location connecting Children's Colorado Health Pavilion patients and families with community-based services to meet non-medical health needs, such as benefits and food

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