



# 2016 Community Health Action Plan

## FOR THE LOVE OF OUR CHILDREN

Children’s Hospital Colorado has served children for over 100 years—a commitment that extends beyond our facility and reaches into the community. For the same reasons we tackle preventable harm within our hospital walls, we strive to tackle preventable harm in our communities. We do this not because we have to; we do this for the love of our children. We do this because we can and we will make a difference.

While our providers engage in discovery and innovation in the provision of child health care in ways that bend the mortality curve, we have an opportunity to bend the wellness curve. In communities just adjacent to our hospital facilities, children don’t have access to consistent primary, behavioral or oral health care and health risks such as obesity and asthma continue to pose considerable challenges to our community’s children. The rate of premature birth for African American women living within walking distance to our medical campus is almost double that of their Caucasian counterparts, leading to an alarming rate of death for African American infants. Finally, injury remains the leading cause of death of children and teens. This is unacceptable; and we are dedicated to changing these outcomes.

Children’s Hospital Colorado’s commitment to these kinds of community needs drove the creation of the Child Health Advocacy Institute (CHAI)—the hub for the hospitals’ community-based work to foster healthier kids and families. We recognize impacting population health is a big undertaking. In an effort to sharpen our focus and develop our strategy, CHAI collected community input and community-level data that now serves as the foundation for community programs and initiatives moving forward.

This Community Health Needs Assessment identified the top issues that impact kids’ health as:

- Behavioral health
- Oral health
- Obesity/physical activity/nutrition
- Injury prevention
- Respiratory illness
- Premature birth

Members of our community, the communities we serve, identified the first three priority areas (behavioral health, oral health, obesity/physical activity/nutrition) as noted above. The final three areas of focus (injury prevention, respiratory illness, premature birth) correspond with the leading causes of death or healthcare utilization, making this assessment both community-based and data-driven.

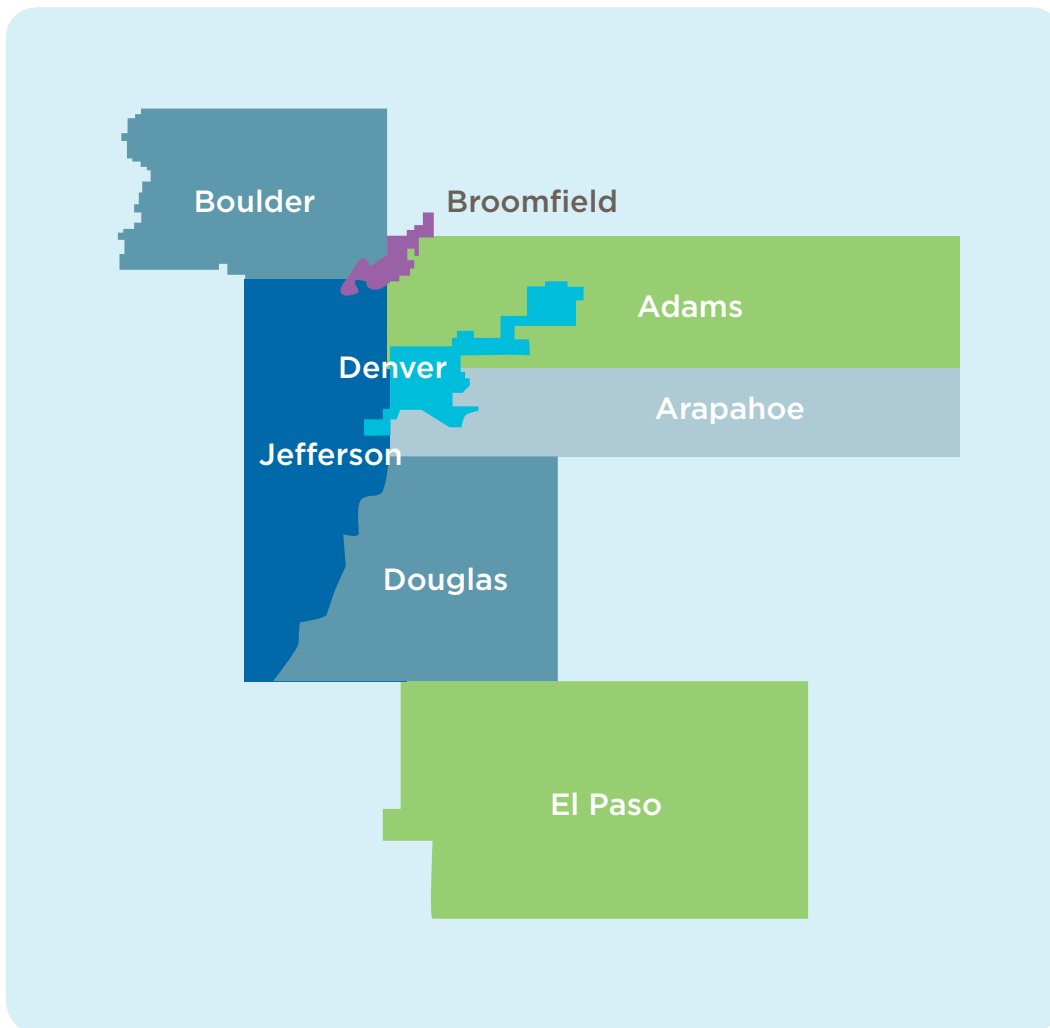
In response to these findings, CHAI has drafted the following Community Health Action Plan<sup>1</sup> defining how Children’s Hospital Colorado (CHCO) will address these six main child health challenges, in targeted zip codes, over the next three years.



<sup>1</sup> This Community Health Action Plan serves as the Hospital’s fulfillment of the requirement under the Affordable Care Act to develop a plan outlining the strategies it will implement to meet the identified community needs in the Hospital’s Community Health Needs Assessment.

## THE COMMUNITIES WE SERVE

Patients from Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson and El Paso Counties make up 86 percent of all in-patient and outpatient visits for all CHCO facilities. 84 percent of patients at the Main Campus live in these eight counties, as do 93 percent of South Campus patients, and 41 percent of Parker Adventist patients. Thus, for the purposes of this action plan, we have defined “community” to include these eight counties.



## POPULATION HEALTH PRIORITIES

In the 2015 Community Health Needs Assessment, Children's Hospital Colorado has determined the issues that are of greatest importance to the community and which the hospital can most effectively address are:

### COMMUNITY IDENTIFIED



In addition to these priority needs identified by the community, the hospital has committed to addressing the top three issues resulting in child mortality and healthcare utilization because these are similarly critical to the long-term health and wellness of children in our community:

### DATA DRIVEN



## HOT SPOTS: TARGETING OUR WORK

Recognizing that eight counties spread thousands of miles and cover millions of people, we contracted with the Colorado Health Institute (CHI) to help us identify where all 6 child health priority areas intersect with one another at the zip code level. This heightened level of analysis allows us to better target where resources can be leveraged to address the identified child health priority areas.

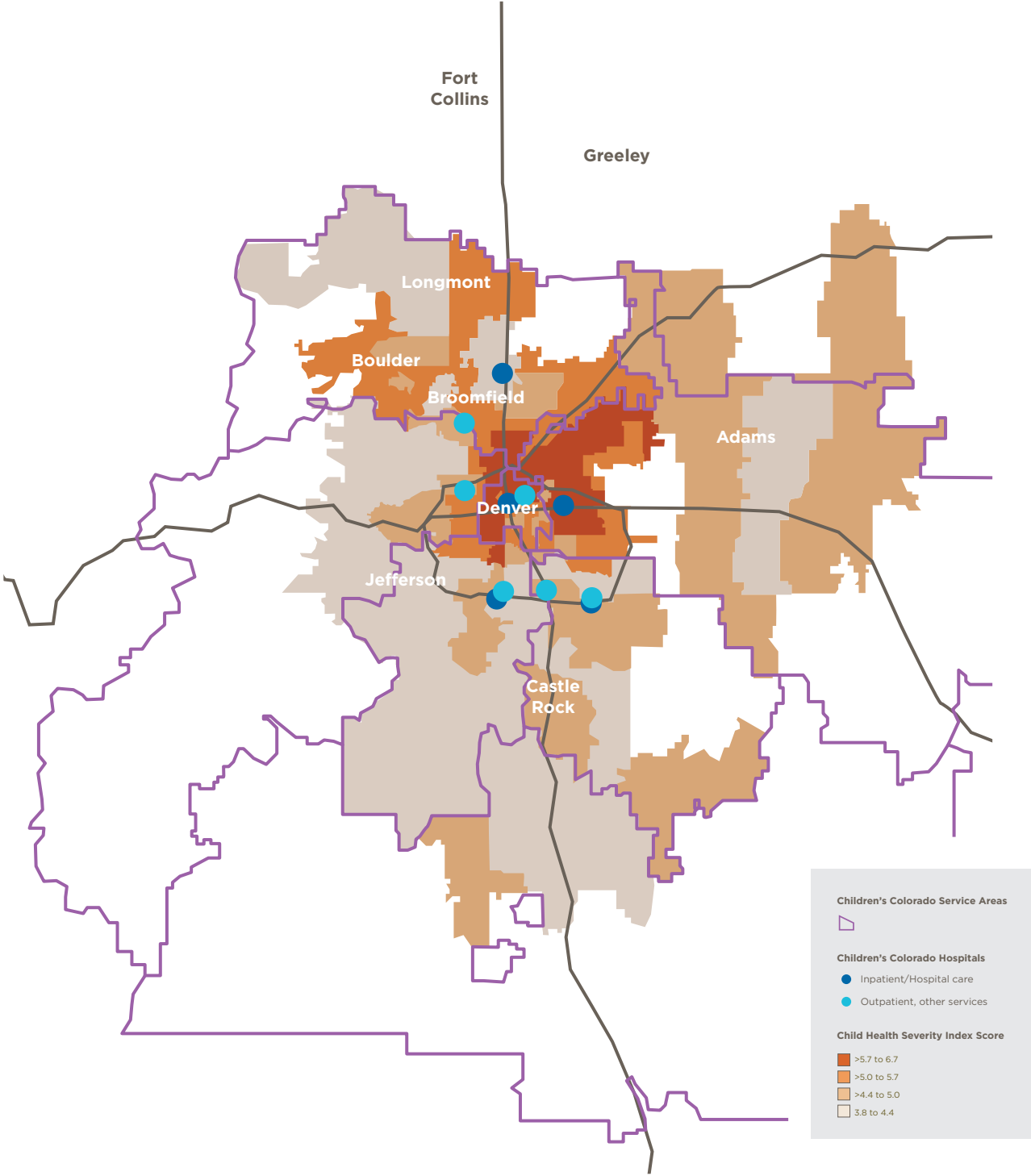
The Colorado Health Institute created the child health severity index to illustrate where all six child health priorities overlapped at the zip code level. In the creation of the index, each of the six health needs represents an equal percent of the overall score. Further, within the index, a score of 10 represents the highest need across all health indicators. The highest health needs across the service region are in the Denver County ZIP codes 80216 (Elyria-Swansea/Globeville) and 80219 (Barnum, Westwood); Arapahoe County ZIP codes 80010 and 80011 (Aurora); and Adams County ZIP codes 80221 (west of I-25/north of I-70) and 80260 (Federal Heights/Thornton). Douglas County ZIP code 80104 that includes Castle Rock has the highest health needs of the county. In Jefferson County, ZIP code 80235 that includes Lakewood performed poorly, as did the ZIP code that includes Longmont in Boulder County (80501).

Based on the information provided to CHAI and CHCO through the Child Health Severity Index, the Hospital will now engage in work to understand the capacity of the communities in those targeted zip codes to address the top six child health priorities. This work will involve community convenings, community leader and resident interviews and mapping resources, such as schools, grocery stores, access to public transportation, recreation centers and health care provider locations. Once this body of work is completed, CHAI will pinpoint the exact sites and community partners to begin program and service delivery.





# CHILD HEALTH SEVERITY INDEX



## PROGRAM DELIVERY: WHERE THE RUBBER HITS THE ROAD

We can most effectively improve the health of children and families if we provide services and supports at the places where children already spend much of their time. Consequently, CHAI has designed programming to address the top six health priorities in the following settings:



**HOME:** CHCO will use community health workers to team up with high risk families to address socio-economic barriers that most frequently result in problems in the top health priority areas. These health workers will visit families in their homes or other community based settings and help connect them with beneficial and necessary support services.



**SCHOOL:** CHCO will spearhead the creation of school resource centers that will provide: integrated primary care services, including mental and oral health; community support services; professional development and technical assistance for school personnel; and will inform targeted policy initiatives.



**WORK:** Employers have the ability to impact the health of children in the way they structure employee programs and benefits. CHCO will both design and implement family friendly business practices that will serve as a model for other employers in Colorado.



**HEALTHCARE PROVIDERS:** CHCO will work to support other healthcare providers in implementing tools and practices that address the top child health priorities in the provider setting. These practices can range from the creation and implementation of psycho-social screening tools to the provision of child passenger safety stations. A full range of options is listed in more detail below.



**COMMUNITY:** Whether it be a faith based setting or a community recreation center, there are many different community settings where CHAI programs can be delivered in conjunction with our community partners.

	Mental Health	Obesity-Physical Activity-Nutrition	Oral Health	Injury Prevention	Prematurity	Respiratory Illness
	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓

## POLICY ADVOCACY

Across the six identified priority areas, CHCO will continuously work to support local, state, and federal policy advocacy efforts aimed at improving child health. As policy opportunities arise, CHCO may also launch or lead new policy efforts within one or more of the priority areas.

This policy advocacy work will integrate the following component parts:

**Direct advocacy with policymakers:** CHCO will continue to meet with a wide variety of policymakers—state and federal lawmakers, local government officials, and regulatory staff—to directly support (or oppose) proposed public policies that will positively (or negatively) impact child health.

**Grassroots capacity-building and coalition work:** CHCO will continue to cultivate a statewide network of advocates, the Child Health Champions, to support and encourage Coloradans to raise their voice with their elected officials about the importance of child health in public policy. CHCO will also actively work to train and mobilize youth, healthcare providers, and parents to engage in policy advocacy, through programs like Advocacy Boot Camp, and Speak Up For Kids day at the Capitol. In addition, CHCO will join with a rich array of allied advocacy organizations, non-profit groups, and the business sector to support shared kids' health priorities.

**Public will-building:** CHCO will utilize traditional media outlets and leverage social media to educate members of the community, inform opinion leaders throughout Colorado, and ultimately build public support for key child health policies and initiatives.

## SCOPE

The work to address each of the health priority areas will take place in targeted communities identified by the Child Health Severity Index and corresponding community capacity assessments still under development.

## EVALUATION MEASURES

Metrics used to evaluate whether programs are successful in achieving the desired impacts will be developed based on individual community needs.

Further, tactics and external partners will be even further developed to reflect the targeted community needs and dynamics.

# COMMUNITY HEALTH ACTION PLAN

## STEP 1: ADDRESS COMMUNITY IDENTIFIED PRIORITIES

### Mental Health

Mental health is a crucial component of a child’s well-being, impacting a child throughout their lifespan and across all domains of development, including school performance and health outcomes. Lack of information and understanding regarding mental health issues can pose serious barriers to mental health promotion in children and families. Additionally, the stigma associated with seeking mental health services creates an additional barrier to overcome. Parents/caregivers, community residents, and key informants and leaders from community based organizations who participated in the 2015 community health needs assessment survey, interviews, and focus groups all cited mental health as one of the most critical health needs for Colorado children, regardless of geographic location or income level. Additionally, data sources such as the Colorado Department of Public Health and Environment (CDPHE) Child Health Survey and Healthy Kids Survey reinforce mental health as a priority for Colorado children.

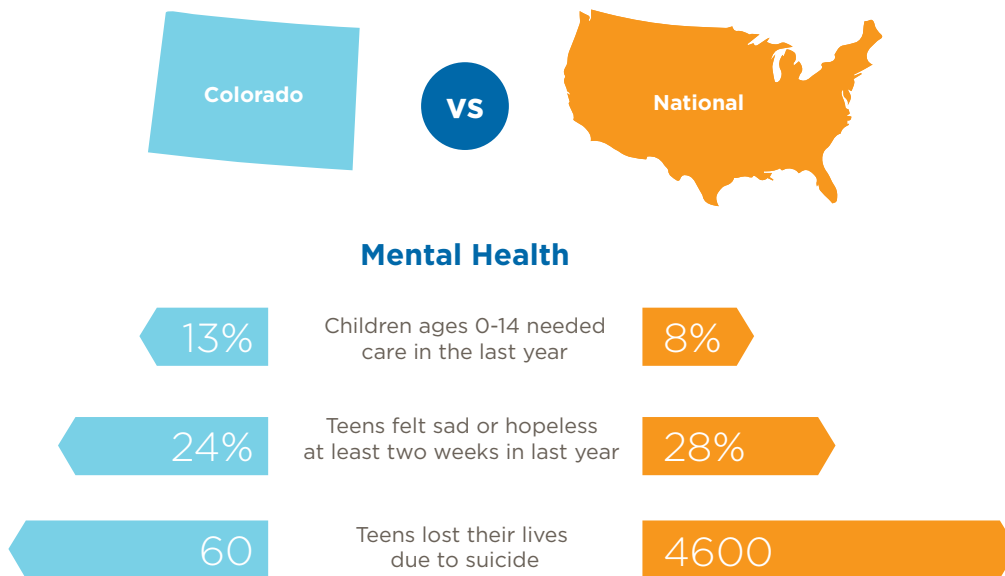
To address these concerns, Children’s Hospital Colorado (Children’s Colorado) will focus on three major areas of prevention and health promotion:

**Goal 1: Educate about and reduce stigma associated with mental health**

**Goal 2: Promote healthy social-emotional development for children ages 3-18**

**Goal 3: Increase access to mental health services**

**NOTE:** These goals are designed to build upon the early childhood development goals and strategies outlined in the Prematurity Plan.



## Goal 1: Educate about and reduce stigma associated with mental health.

### Anticipated Impact

Increased community access and exposure to information about mental health promotion in children will result in increased community knowledge and understanding of the importance of mental health. Children's Colorado anticipates that as a result youth and their families will be more comfortable discussing mental health with health care and community based providers, resulting in increased likelihood that they will seek resources and support to foster positive mental, social and emotional development. Additionally, increased community understanding of the importance of mental health may increase public will and support for enhanced funding for mental health promotion, prevention and treatment.

### Strategy 1.1

Increase community education and awareness about the importance of healthy social-emotional development and mental health promotion. (NOTE: Will be aligned with Prematurity Plan's healthy social emotional education and awareness efforts for ages gestation - 2yrs).

**Tactic:** Form expert panel to identify evidence based messages and approve/update content on a regular basis. Identify content that will proactively be disseminated as well as develop structured process for responding to community requests for information.

**Tactic:** Create centralized, community facing resource hub for healthy social-emotional development information and resources for children ages 3-18. Develop comprehensive, interactive toolkits for identified social-emotional topics - ex) video, tip sheets, training modules for target audiences (parents/caregivers, coaches, school staff, after school programs, other community based organizations serving youth, etc.); media/communication tools, etc.

**Tactic:** Identify, train, and resource the Children's Health Advocacy Institute (CHAI) Prevention, Education, and Outreach and Community Health teams to conduct community education.



## Setting / Delivery Mechanism



Provider - Children's Colorado as well as other community health clinic and pediatric practice providers will be educated regarding the importance of addressing healthy social-emotional development, how to discuss this with families, and how to access and utilize topic specific resources from the resource hub as need be.



School - Children's Colorado school nurse team as well as other school based providers will be educated regarding the importance of addressing healthy social-emotional development and how to access and utilize topic specific resources from the resource hub as need be.



Employer - CHAI will partner with the hospital's Corporate and Community Relations team to embed healthy social emotional development content into corporate lunch and learn program and other venues.



Community - CHAI Prevention, Education and Outreach team will embed content as appropriate in current CHAI healthy lifestyle programming (ex - Camp Champions) as well as leverage existing programs and partnerships as a vehicle to reach parents. (ex - YMCAs, Boys & Girls Clubs, Corporate and Community Relations partners).



Home - Hospital and community based community health workers and educators will be trained and educated regarding the importance of addressing healthy social-emotional development and how to access and utilize topic specific resources from the resource hub as need be. Additionally, the CHAI community health team may use the content and toolkits for parent education sessions (1:1 or class setting).

## Internal Resources

- Children's Health Advocacy Institute (CHAI)
- Pediatric Mental Health Institute (PMHI)
- School Health Nursing
- Marketing and Communications
- Corporate and Community Relations

## External Partners

Partners will be defined based on targeted communities for intervention. Partners include but are not limited to:

- Schools
- Churches
- Recreation
- Child care programs

## Strategy 1.2

Reduce stigma associated with mental health, and with children and families seeking mental health supports and services. Change the conversation to focus on health promotion.

**Tactic:** Establish a project team for the stigma reduction campaign. The project team will be responsible for defining scope of the effort, including hospital, Colorado, and national presence. The team will determine evidence based approaches and evaluations measures, as well as identify core messages. Additionally, the team will secure necessary resources.

**Tactic:** Secure buy in to develop and lead internal hospital level mental health education and de-stigmatization campaign. With support from hospital leadership, and in partnership with Employee Wellness and the comprehensive Healthy Hospital Initiative, CHAI will develop and implement a hospital wide culture change effort that emphasizes and reinforces the importance of a comprehensive approach to health, integrating mental health into overall wellness. As part of this effort, the PMHI Youth Action Board and PMHI Mental Health Family Advisory Council will be mobilized to help drive stigma reduction and culture change efforts.

**Tactic:** Establish partnerships to develop and lead external mental health education and de-stigmatization campaign. Partner with others (other Colorado hospitals, local public health departments, community based organizations) to drive external public awareness and education efforts. In addition to broadly targeting parents, caregivers, and community providers serving youth, we will leverage the innovative work of the PMHI Youth Action Board to drive a larger social media campaign and community dialogue that engages youth in “normalizing” the importance of taking care of their mental health.

## Setting / Delivery Mechanism



Provider - Children’s Colorado team members will be engaged regarding the importance of incorporating social-emotional development into overall wellness, and will play a key role in driving the conversation with other stakeholders – policymakers, media, payers



School - Children’s Colorado school nurse team as well as other school based providers will be engaged regarding the importance of incorporating social-emotional development into overall wellness efforts.



Employer – Children’s Colorado’s incorporation of social-emotional wellness into employee wellness and Healthy Hospital initiative can be used as a model for other worksite wellness programs.



Home - Hospital and community based community health workers and educators will be educated regarding the importance of incorporating social-emotional development into overall wellness efforts.

## Internal Resources

- Children's Health Advocacy Institute (CHAI)
- Pediatric Mental Health Institute (PMHI)
- Children's Colorado Healthy Hospital Steering Committee (CHAI, Human Resources, Lifestyle Medicine, Spiritual Care, Facilities, Nutrition)
- PMHI Youth Action Board and PMHI Mental Health Family Advisory Council
- Marketing and Communications

## External Partners

Partners will be defined based on targeted communities for intervention. Partners include but are not limited to:

- Tri County Health Department
- Other Colorado hospitals and local public health departments
- Other children's hospitals across the country
- Mental Health Colorado
- Mental Health First Aid Colorado



## Goal 2: Promote healthy social-emotional development of children ages 3-18

### Anticipated Impact

Increased community access to programming and information about social-emotional development in children will result in increased community knowledge and skills related to promoting positive social-emotional development in children. Building these types of skills and knowledge are being supported with the long term goal of better health and education outcomes for youth.

### Strategy 2.1

Improve collaboration with community partners to promote children's social-emotional health.

**Tactic:** Provide professional development and technical assistance for schools and community-based organizations seeking to incorporate social-emotional content and programming for youth and families.

**Tactic:** Forge local partnerships that expand access for underserved youth to arts, music, sports, physical activity, and nutrition programming that contribute to positive social-emotional development. (Note: Linked to Physical Activity, Nutrition, and Obesity Plan).

**Tactic:** Utilization of resources identified in Strategy 1.1 with shared outcome measures in place.

### Setting / Delivery Mechanism



**School:** This program can be integrated in the school resource center project to ensure that all school based health centers providing behavioral health care include the promotion of positive social-emotional development.



**Provider:** This program can be expanded and administered through a clinical network of primary care providers that ranges from the traditional private pediatric practice to the safety net clinic.



**Community:** Social-emotional workshops will be provided in a variety of community based settings, such as recreation centers or Boys and Girls club locations.



**Employer:** Workshops will be provided to the employees of corporate partners educating them about the role of positive social-emotional development in their child's health and well-being.



**Home:** Community Health Workers can provide basic social-emotional development education information and link families up with other additional resources they may need to address child specific dynamics.

## Internal Resources

- Children's Health Advocacy Institute (CHAI)
- Pediatric Mental Health Institute (PMHI)

## External Partners

Partners will be defined based on targeted communities for intervention. Partners include but are not limited to:

- Schools
- Community mental health centers
- Sports and recreation programs
- After care/summer programs
- Corporate Partners



## Goal 3: Identify mental health needs in children ages 3-18 as early as possible and facilitate access to appropriate mental health services

### Anticipated Impact

Successful enhancements in funding for mental health promotion and treatment services will improve access to these types of services and supports, particularly for underserved populations, which ultimately can both lead to mitigating more serious mental health conditions and decrease the suicide rate for youth in the long term. Additionally, collaborating and coordinating more strategically and effectively with community partners will result in lower health costs and better outcomes due to families being able to access appropriate mental health services for their children in a more effective manner. There will be an increase in the number of children identified as having a medical home with integrated mental health services in targeted communities. There will be fewer visits to the CHCO emergency department for mental health related challenges by children in these targeted communities. More children will receive consistent access to mental health services.

### Strategy 3.1

Lead state and federal policy efforts aimed at improving access to pediatric mental health promotion, prevention, and treatment services.

**Tactic:** Pursue innovative financing mechanisms to advance pediatric mental health promotion, prevention, and treatment services. In partnership with key community stakeholders, explore funding streams such as tobacco sales tax revenues, marijuana sales tax revenues, social impact bonds, and enhanced reimbursement from public and private insurers to fund mental health services and mental health promotion and prevention programming for Colorado children and families.

**Tactic:** Pursue policies to advance workforce development for mental health, including but not limited to loan repayment and funding for additional training slots.

**Tactic:** Identify other policy priorities as appropriate.

**Tactic:** Train and mobilize youth, their families, and mental health providers to engage in and support policies and initiatives aimed at enhancing funding for pediatric mental health promotion, prevention, and treatment services. Invite participation in monthly resident/provider legislative advocacy training days as well as Advocacy Boot Camp, Speak Up for Kids Health event, and other grassroots advocacy training and programming offerings provided by the Children's Hospital Colorado government affairs team.

**Tactic:** Utilize media, social media, and grassroots communications to build public will to support policies and initiatives aimed at enhancing funding for pediatric mental health promotion, prevention, and treatment services. Leverage existing Children's Colorado marketing, media and communications resources as well as relationships with university and community partners, to drive public awareness and dialogue. Develop toolkits including but not limited to talking points, action alerts, social media campaigns, and earned media stories.

## Setting / Delivery Mechanism



Providers – Mobilization of Children’s Colorado as well as other community health clinic and pediatric practice providers to provide expert testimony and help generate public will for enhanced funding for mental health services. Engage community health providers to inform hospital policy agenda, identifying barriers and opportunities related to accessing mental health services and supports.



Schools – Mobilization of Children’s Colorado school nurse team as well as other school based providers to provide expert testimony and help generate public will for enhanced funding for mental health services. Engage school providers to inform hospital policy agenda, identifying barriers and opportunities related to accessing mental health services and supports.



Employers – Engagement of business community in generating public will for enhanced funding for mental health services.



Home – Engagement of community health workers to inform hospital policy agenda, identifying barriers and opportunities related to accessing mental health services and supports. Utilization of Child Health Champions Network to engage other parents/caregivers and child health advocates.

## Internal Resources:

- CHAI Government Affairs
- CHAI public affairs lobbying firms
- Marketing and Communications
- School Health Nursing
- Pediatric Mental Health Institute (PMHI)
- PMHI Youth Action Board and Mental Health Family Advisory Council

## External Partners

Partners will be defined based on targeted communities for intervention. Partners include but are not limited to:

- Other nonprofit agencies and community based organizations
- Elected officials
- Policy staff
- Businesses, chambers of commerce
- Media outlets

## Strategy 3.2

Improve collaboration with community partners to improve access for children and families to mental health services and supports.

**Tactic:** Expand PMHI Family Resource Liaisons/Warm Line capacity to enhance collaboration with community partners and to facilitate children's access to appropriate prevention and intervention services.

**Tactic:** Offer professional development and technical assistance to community based providers to enhance their ability to meet children's mental health needs in community-based settings such as community health clinics and schools. This could include integrating screening, referral and counseling services into community based settings, as well as the potential for targeted initiatives, such as training on appropriate referrals to Children's Colorado Emergency Department.

**Tactic:** Utilize community health workers embedded in community settings to support connecting families with mental health services and supports.

**Tactic:** Explore feasibility of developing crisis text line or other mobile based platform for youth, which would serve as entry and referral point to Children's Colorado and other community based services based on acuity.

**Tactic:** Explore ways to improve communication and coordination with other providers, such as Children's Colorado participation in the Aurora Project AWARE pilot.

## Setting / Delivery Mechanism



Providers – Children's Colorado will partner with other community health clinic and pediatric practice providers to assess needs and develop a coordinated response involving one or more of the tactics listed above.



Schools – Children's Colorado will partner with schools and other school based providers to assess needs and develop a coordinated response involving one or more of the tactics listed above.



Home – Community based community health workers will utilize questionnaires to assess a child/family's needs and connect them with appropriate resources and supports based on needs. Referrals will be tracked and evaluated for effectiveness.



## Internal Resources

- Children's Health Advocacy Institute (CHAI)
- Pediatric Mental Health Institute (PMHI)
- Strategy and Planning
- Business Development

## External Partners

Partners will be defined based on targeted communities for intervention. Partners include but are not limited to:

- Schools
- Community Mental Health Centers
- Community based pediatric providers
- Other community based organizations in targeted communities

## Physical Activity, Nutrition, Obesity

Obesity is one of the biggest drivers of preventable chronic diseases and health care costs in the United States. Despite a long history as being one of the healthiest states for adults, Colorado's children have not fared as well. Data from the 2015 community health needs assessment illustrates some of the challenges facing our youth:

- 28% of children statewide are overweight or obese
- 19% of parents report their child consumes 5 total servings of fruits and vegetables per day
- 24% of households with children ages 1-14 sometimes or often feel that the food they bought didn't last, and they didn't have money to get more
- 45% of parents report that their child is physically active for at least 60 minutes per day

Additionally, key informants and parents/caregivers across the state cited physical activity, nutrition and childhood obesity as issues warranting the hospital's attention in surveys, focus groups, etc. Of particular concern to community participants was the issue of nutrition, not only the need for nutrition education, but the concern regarding families' ability to access to healthy foods. Food insecurity is linked to adverse health outcomes, and while the links between food insecurity and obesity are still being researched, what we do know is that both issues significantly affect the low socio-economic population.

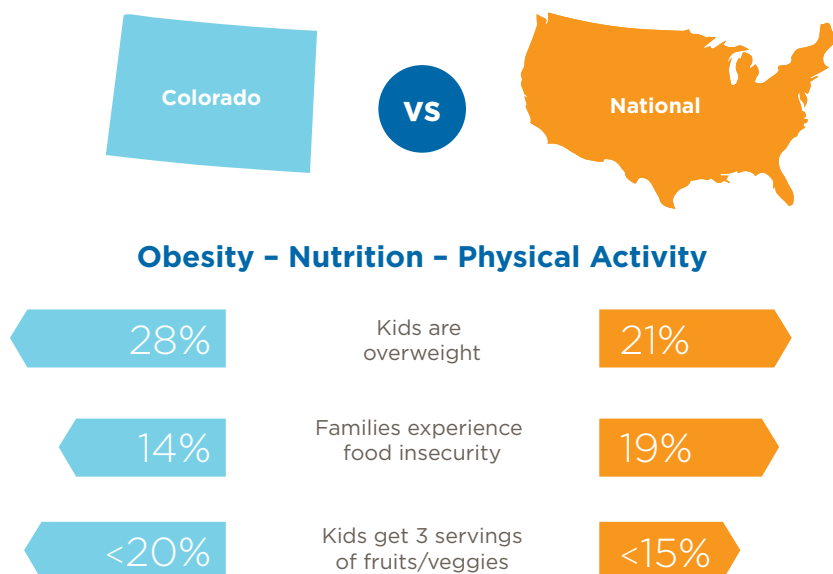
Good nutrition and physical activity are among the most important factors for health. They are particularly significant for infants, toddlers, and young children who need an adequate intake of key nutrients while their brains and bodies are rapidly developing. The foundations for lifelong healthy eating and physical activity begin in these formative years.

To address these concerns, Children's Hospital Colorado (Children's Colorado) will focus on three major areas of prevention and health promotion:

**Goal 1: Educate and empower families across the lifecycle with the skills and information they need to make behavior changes that support a healthy lifestyle**

**Goal 2: Improve access to healthy foods and physical activity for children and their families, particularly in underserved communities**

**Goal 3: Advance the field of childhood obesity research through collaboration and dissemination**



## Goal 1: Educate and empower families across the lifecycle with the skills and information they need to make behavior changes that support a healthy lifestyle

### Anticipated Impact

Increased community access to information about healthy lifestyle behaviors in children will result in increased community knowledge and skills related to healthy lifestyle behaviors in children, with the long term goal of better health outcomes resulting from positive behaviors such as healthy eating, physical activity, and adequate sleep. Additionally, research suggests a correlation between obesity and mental health, suggesting that engaging in healthy behaviors also has the potential to positively impact mental health.

Additionally, we expect health care and service providers to be better equipped with information and skills they need to address healthy lifestyles with children and their families across the continuum, beginning in pregnancy. Ideally the community capacity to understand and support healthy lifestyle behaviors in children across a continuum will be increased.

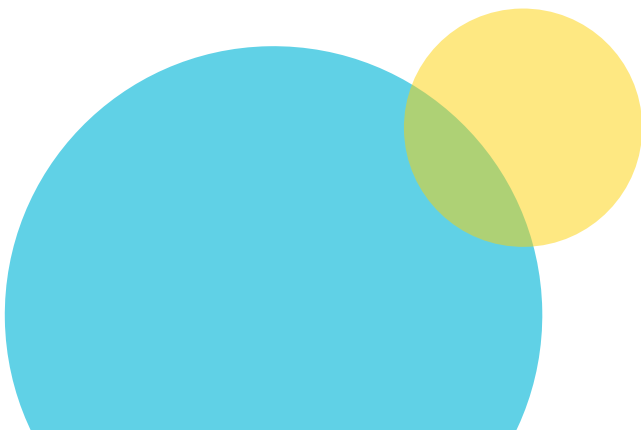
### Strategy 1.1

Increase community knowledge by centralizing evidence based healthy lifestyle resources and content and make them easily accessible and available for families and other community based providers that serve families.

**Tactic:** Form expert panel to identify evidence based content, and approve and update content on routine basis. Content will be focused on primary prevention and will encompass a child's lifespan, starting during gestation.

**Tactic:** Create an online hub to house information. Develop comprehensive, interactive toolkits for target audiences (such as parents, WIC program professionals, school staff, and other community based organizations).

**Tactic:** Track utilization of resources and other actions, such as referrals resulting from people who accessed the information.



## Setting/Delivery Mechanism



Providers – Children’s Colorado as well as other community health clinic and pediatric practice providers will be educated regarding the importance of addressing healthy lifestyle behaviors, how to educate, empower, and motivate families to make behavior changes, and how to access and utilize topic specific resources from the resource hub as need be.



Schools – Children’s Colorado school nurse team as well as other school based providers will be educated regarding the importance of addressing healthy lifestyle behaviors and how to access and utilize topic specific resources from the resource hub as need be.



Employers – Partner with Corporate and Community Relations team to embed healthy lifestyle content into corporate lunch and learn program and other venues.



Community – Children’s Health Advocacy Institute (CHAI) Prevention, Education, Outreach, and Coordination team will embed content as appropriate in current CHAI healthy lifestyle programming (ex – Camp Champions) as well as leverage existing programs and partnerships as a vehicle to reach parents. (ex – YMCAs, Boys & Girls Clubs, Corporate and Community Relations partners).



Home – Hospital and community based community health workers and educators will be trained and educated regarding the importance of addressing healthy lifestyle behaviors and how to access and utilize topic specific resources from the resource hub as need be. Additionally, the community health team may use the content and toolkits for parent education sessions (1:1 or class setting).

## Internal Resources

- Children’s Health Advocacy Institute (CHAI)
- Lifestyle Medicine
- Marketing and Communications
- Corporate and Community Relations

## External Partners

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- Community based pediatric providers
- Universities and community colleges
- City of Aurora
- American Diabetes Association
- Local and state public health departments
- Boys & Girls Club of Metro Denver
- Other community based organizations

## Strategy 1.2

Train providers on the importance of promoting healthy lifestyle behaviors in children and utilizing evidence based practices to engage with children and families to make behavior changes.

**Tactic:** Develop expert panel to lead professional development.

**Tactic:** Identify existing training programs and opportunities for providers such as: community health workers/navigators, health care providers and other professionals within CHCO as well as our community partners and shared networks. Identify opportunities and readiness to integrate motivational interviewing, healthy lifestyle education, skill building and support for families.

**Tactic:** Identify and/or develop training modules that can be embedded into existing training programs for providers across the lifespan –gestation through childhood into adulthood. Examples include CU School of Medicine; community health worker training programs; Children’s Colorado professional development; child care; school nurses; school based staff, WIC professionals, camp counselors, and more).

## Setting / Delivery Mechanism



Provider – This strategy targets providers and online, in person, telehealth, and other innovative training and technical assistance modules will be explored.

## Internal Resources

- Children’s Health Advocacy Institute (CHAI)
- Marketing and Communications
- Professional Development team
- Human Resources
- Lifestyle Medicine Clinical Team
- School Health nurse team
- Telehealth program

## External Partners

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- Community based pediatric providers
- Universities and community colleges
- K-12 schools
- City of Aurora
- American Diabetes Association
- American Heart Association
- Local and state public health departments
- Boys & Girls Club of Metro Denver
- Other community based organizations

### Strategy 1.3

Lead educational classes and programs for families to build knowledge and skills about healthy lifestyles

**Tactic:** Continue to provide the evidence based Cooking Matters for Kids, Cooking Matters for Families and Cooking Matters Grocery Store Tour classes for Children's Colorado patients on site at the main hospital campus. The program teaches low income families nutrition, healthy meal preparation, and how to shop for affordable healthy foods. Assess the need and capacity to offer the courses at other locations, either in Children's Colorado Network of Care or in collaboration with other community based partners.

**Tactic:** Continue to refer families directly to educational offerings made available by our community partners and track effectiveness of these referrals.

**Tactic:** Assess need and capacity to pursue additional educational offerings and partnerships.

### Setting / Delivery Mechanism



Providers - Children's Colorado as well as other community health clinic and pediatric practice providers will refer families to educational offerings at Children's Colorado or in the community and document the referrals so partnerships can be analyzed for effectiveness.



Schools - Children's Colorado school nurse team as well as other school based providers will refer families to educational offerings at Children's Colorado or in the community and document the referrals so partnerships can be analyzed for effectiveness.



Community - Children's Health Advocacy Institute (CHAI) Prevention, Education, Outreach, and Coordination team will operate and provide technical assistance for healthy lifestyle educational programming for families.



Home - Hospital and community based community health workers and educators refer families to educational offerings at Children's Colorado or in the community and document the referrals so partnerships can be analyzed for effectiveness. Additionally, the community health team may conduct family education.

### Internal Resources

- Children's Health Advocacy Institute (CHAI)
- Lifestyle Medicine and Primary Care

### External Partners

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- Cooking Matters/Share our Strength
- American Diabetes Association/Portu Familia
- YMCA
- Girls on the Run
- City of Aurora
- Other community based organizations

## Goal 2: Improve access to healthy foods and physical activity for children and their families, particularly in underserved communities

### Anticipated Impact

Increased access to healthy foods and physical activity increases the likelihood that children and families will engage in healthy behaviors, ultimately resulting in more positive health outcomes. Additionally, successful enhancements in funding for healthy lifestyle and obesity prevention services will improve access to these types of services and supports, particularly for underserved populations.

### Strategy 2.1

Engage in local, state and federal public policy advocacy efforts aimed at improving access to healthy lifestyle and obesity prevention services.

**Tactic:** Advocate for adequate reimbursement from public and private health insurance payors to providers for healthy weight screening, counseling and referrals, as well as incorporation of preventative programming that has demonstrated health outcomes.

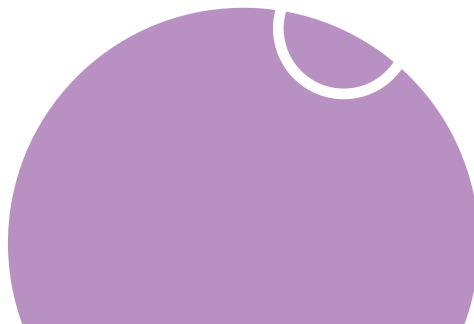
**Tactic:** Explore potential financing mechanisms (ex - social impact bonds, mill levy, soda tax, etc.) to fund access to healthy food and physical activity for families such as physical education in schools, bike/pedestrian routes, food programs, recreation centers, and more.

**Tactic:** Advocate for and serve as expert resource for state and federal policy initiatives surrounding child nutrition, physical activity, and healthy lifestyles. For instance, positively influencing child care regulations regarding sleep, nutrition, and physical activity; advocating for quality of and funding for federal child nutrition programs like WIC, school breakfast and lunch programs.

**Tactic:** Identify other policy priorities as appropriate.

**Tactic:** Train and mobilize families and providers to engage in and support policies and initiatives aimed at enhancing access to healthy lifestyle and obesity prevention services.

**Tactic:** Utilize media, social media, and grassroots communications to build public will to support policies and initiatives aimed at enhancing funding for healthy lifestyle and obesity prevention services.



## Setting / Delivery Mechanism



Providers – Mobilization of Children’s Colorado as well as other community health clinic and pediatric practice providers to provide expert testimony and help generate public will for enhanced funding for healthy lifestyle and obesity prevention services. Engagement of health providers to inform hospital policy agenda, identifying barriers and opportunities related to accessing services and supports.



Schools – Mobilization of Children’s Colorado school nurse team as well as other school based providers to provide expert testimony and help generate public will for enhanced funding for healthy lifestyle and obesity prevention services. Engagement of school based providers to inform hospital policy agenda, identifying barriers and opportunities related to accessing services and supports.



Employers – Engagement of business community in generating public will for enhanced funding for healthy lifestyle and obesity prevention services.



Home – Engagement of community health workers to inform hospital policy agenda, identifying barriers and opportunities related to accessing services and supports. Utilization of Children’s Colorado’s Child Health Champions Network to engage other parents/caregivers and child health advocates.

## Internal Resources

- CHAI Government Affairs
- CHAI public affairs lobbying firms
- Marketing and Communications
- Primary Care clinicians

## External Partners

Partners will be defined based on targeted communities for intervention. Partners include but are not limited to:

- Community based nonprofit agencies and organizations
- Elected officials
- Policy staff
- Businesses
- Health Insurance Payors
- Media outlets



## Strategy 2.2

Pursue internal hospital policy changes affecting nutrition and physical activity environment.

**Tactic:** In partnership with the Healthy Hospital Initiative, develop and adopt formal evidence based policies (ex – access to free water; no marketing of unhealthy items, etc.) aimed at maintaining and enhancing efforts to improve nutrition and physical activity environment at Children’s Hospital Colorado.

**Tactic:** Demonstrate collective impact resulting from institutional level policy changes in partnership with other hospitals and public health departments across the state.

### Setting / Delivery Mechanism



Provider – CHCO main campus and network of care sites will be the focus, however outcomes and learnings will be shared more broadly with the community to help drive collective impact efforts. A variety of delivery mechanisms will be deployed including internal communications and education efforts, physical environment changes, availability of programming, and more.

### Internal Resources

- Children’s Health Advocacy Institute (CHAI)
- Children’s Colorado Healthy Hospital Steering Committee (CHAI, Human Resources, Lifestyle Medicine, Spiritual Care, Facilities, Nutrition)
- Marketing and Communications

### External Partners

Partners will be defined based on targeted communities for intervention. Partners include but are not limited to:

- Colorado Department of Public Health and Environment
- Centers for Disease Control
- Local public health departments
- Children’s Hospital Association
- LiveWell Colorado
- Other Colorado hospitals – Denver Health, Kaiser, Centura, Exempla, University Hospital

### Strategy 2.3

Utilize Children’s Colorado touch points with families to help increase access to healthy food, physical activity, and healthy lifestyle services and supports.

**Tactic:** Screen for access to healthy food and physical activity for patients at clinic visits. This is currently being piloted in the Child Health Clinic (primary care) and can be expanded to other Children’s Colorado clinics and community health providers.

**Tactic:** Continue to operate and evaluate existing CHAI healthy lifestyle programming and collaborations available to Children’s Colorado patients, such as Bikes for Life, Camp Champions, Cooking Matters, Girls on the Run. Provide technical assistance to other providers interested in offering these types of programs for the children they serve.

### Setting / Delivery Mechanism



Providers - Children’s Hospital Colorado will partner with other community health clinic and pediatric practice providers to assess needs and develop a coordinated response involving one or more of the tactics listed above.



Schools - Children’s Hospital Colorado will partner with schools and other school based providers to assess needs and develop a coordinated response involving one or more of the tactics listed above.



Home - Hospital and community based community health workers will utilize questionnaires to assess a child/family’s needs and connect them with appropriate resources and supports based on needs. Referrals will be tracked and evaluated for effectiveness.

## Strategy 2.4

Increase collaboration with community partners to improve access for children and families to healthy food, physical activity, and healthy lifestyle services and supports.

**Tactic:** Forge formal referral relationships and collaborations with community partners operating food and physical activity programs, such as Hunger Free Colorado, City of Aurora, and YMCA of Metropolitan Denver. Track referrals and outcomes resulting from referrals. Referrals could originate from Children’s Colorado or school and community based clinics.

**Tactic:** Build community capacity to integrate healthy eating and active living content into community based child and family programming by providing program models and content, professional development and technical assistance to community based providers such as schools, after school and summer programs, and child care.

**Tactic:** Explore additional tactics based on needs of targeted community or population.

## Setting / Delivery Mechanism



Providers - Children’s Hospital Colorado will partner with other community health clinic and pediatric practice providers to assess needs and develop a coordinated response involving one or more of the tactics listed above.



Schools - Children’s Hospital Colorado will partner with schools and other school based providers to assess needs and develop a coordinated response involving one or more of the tactics listed above.



Home - Community based community health workers will utilize questionnaires to assess a child/family’s needs and connect them with appropriate resources and supports based on needs. Referrals will be tracked and evaluated for effectiveness.

## Internal Resources

- Children’s Health Advocacy Institute (CHAI)
- Primary care clinical
- Corporate and Community Relations

## External Partners

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- City of Aurora Youth
- American Diabetes Association
- Local and state public health departments
- Boys & Girls Clubs of Metro Denver
- YMCA of Metropolitan Denver
- Families Forward Resource Center
- Hunger Free Colorado
- Other community based organizations

## Goal 3: Advance the field of childhood obesity prevention research by improving coordination communication and collaboration on the Anschutz Medical Campus (AMC)

### Anticipated Impact

Greater collaboration and information sharing could increase campus capacity to engage in research and increase efficiencies. Additionally, improved information sharing will support efforts to more quickly and effectively disseminate research findings with an ultimate aim to reduce childhood obesity by increasing community capacity to understand effective prevention strategies and how to put those strategies into practice.

### Strategy 3.1

Enhance information sharing regarding AMC driven childhood obesity research efforts to facilitate greater collaboration and efficiencies.

**Tactic:** Conduct needs assessment amongst obesity researchers and community providers to determine gaps in current information sharing systems. Identify what type of information would be most useful.

**Tactic:** Explore current systems for tracking research efforts and methods for accessing information. Identify opportunities.

**Tactic:** Pilot systems improvement initiatives.

### Setting / Delivery Mechanism



Provider - The goal is to connect providers with obesity researchers with whom they can potentially collaborate.

### Internal Resources

- Clinical researchers
- Information systems and analytics
- Research Institute

### External Partners

- Anschutz Medical Campus partners



## Strategy 3.2

Improve the process for disseminating childhood obesity prevention research and adopting evidence based practices.

**Tactic:** Assemble project team.

**Tactic:** Explore current systems for research dissemination. Identify opportunities to streamline, improve, and promote easier and more efficient access to information and support for implementation.

**Tactic:** Pilot systems improvement initiatives.

## Setting / Delivery Mechanism



Providers – Provide technical assistance and consultation for hospital and community based providers on the most current obesity prevention evidence base and how to put the evidence into practice.



Schools – Provide technical assistance and consultation for school nurses and other school based staff and on the most current obesity prevention evidence base and how to put the evidence into practice.



Community – CHAI Prevention, Education, Outreach, and Coordination team will embed evidence based content as appropriate in current CHAI healthy lifestyle programming (ex – Camp Champions) as well as leverage existing programs and partnerships as a vehicle to reach parents, such as YMCAs, Boys & Girls Clubs, Corporate and Community Relations partners.



Home - Hospital and community based community health workers and educators will provide a vehicle for implementing evidence based strategies in the home and community settings.

## Internal Resources

- Clinical researchers
- Information systems and analytics
- Research Institute

## External Partners

- Anschutz Medical Campus partners

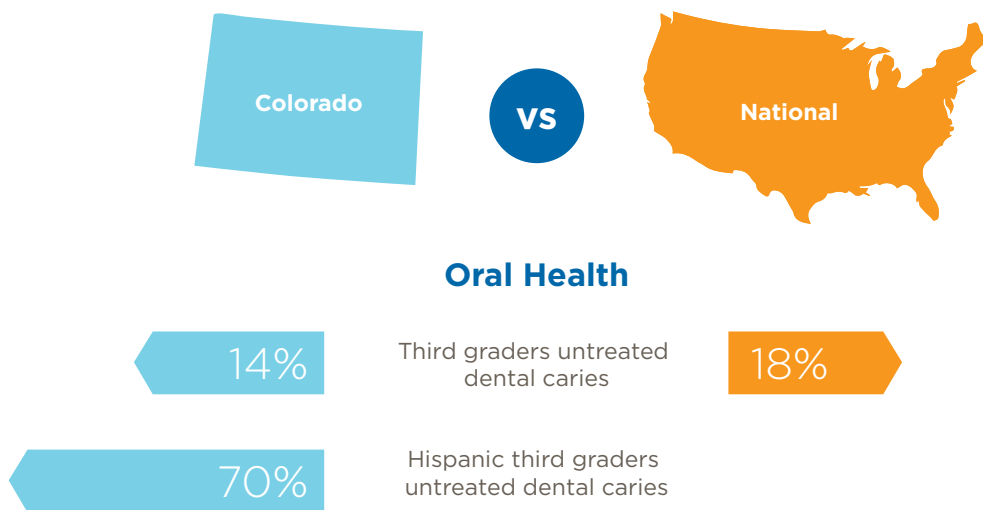
## Oral Health

The increasing number of children living with untreated dental decay and/or dental caries has been identified as a silent epidemic by the Centers for Disease Control (CDC). The CDC has identified approximately one in four children aged 3-5 and 6-9 years living in poverty has untreated dental caries. Further, dental health issues continue to be a leading cause of school absenteeism for Colorado's kids. According to the Delta Dental Foundation, in Colorado, on average, parents miss 2.5 days of work and kids miss 58 hours of school to address oral health challenges. Further, kids with untreated caries or tooth decay are four times more likely to see a decline in their Grade Point Average and are at an increased risk of experiencing type 2 Diabetes and challenges with their cardiovascular health. Additionally, pregnant women with untreated dental health challenges are at a higher risk of experiencing premature delivery of their babies. When you take these alarming facts and couple them with the information that oral health was the leading health issue identified by low income families in our community health needs assessment survey there is no way to ignore the need to take action.

Children's Hospital Colorado will focus on two major areas of prevention and health promotion to address this health priority area:

**Goal 1: Increase Access to Oral Health Care**

**Goal 2: Promote oral health in provider, community and home settings**



## GOAL 1: Increase Access to Oral Health Care

### Anticipated Impact

Over the course of 3 years the impact will be a decrease in the number of youth ages 2-18 with untreated tooth decay or dental carries in the targeted communities where these services are being provided. There will be an increase in the number of children identified as having a dental home in targeted communities. There will be fewer visits to the CHCO emergency department for oral health related issues by children in these targeted communities. More children will have oral health insurance coverage and will receive fluoride varnishes and other critical preventive services at sites providing pediatric specific oral health services.

### Strategy 1.1

Ensure for the full integration of oral health prevention services in a diverse network of care provider settings that range from private health care clinics to school based and community mental health centers.

**Tactic:** Expand and build upon the success of the Cavity Free at Three program. This innovative clinical program aims to provide a dental home for children 3 years of age and younger. In addition to serving as a dental home, the Cavity-Free at Three program also provides clinical infant oral health training to pre-professional and professional students, residents and community providers.

**Tactic:** In an effort to increase access to oral health services, CHCO will work to ensure that insurance products offered on the exchange and by Medicaid contain robust oral health service coverage.

### Setting / Delivery Mechanism



School – This program can be integrated in the school resource center project to ensure that all school based health centers provide preventative oral health care.



Provider – This program can be expanded and administered through a clinical network of primary care providers that ranges from the traditional private pediatric practice to the community mental health center.



Employer – CHCO can work with other employers to inform how to ensure for the proper and affordable coverage of dental benefits for both their employees and their families.



Home – Community health workers will have access to dental home referrals for children who are identified as being in need of oral health care.

## Internal Resources

- Staff within the dental clinic will assist in the provision of existing Cavity Free at Three program
- The CHAI Prevention, Education, Outreach, and Coordinator team and primary care practice coaches will lend capacity to the expansion of this program in targeted communities.
- School Health Nurses will lend capacity to the expansion of this program in school settings.

## External Resources

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- Expansion of the partnerships with the Anschutz Medical Campus Schools of Dentistry, Medicine and Nursing
- Oral Health Colorado
- Delta Dental
- Private Dental practices in targeted communities



## Strategy 2.1

Expand the number of dental providers offering pediatric specific preventative oral health services via professional development programs.

**Tactic:** Children’s Hospital Colorado and its partners on the Anschutz Medical Campus will offer a variety of courses for practicing dentists and dental hygienists with an emphasis on trending topics in pediatric oral health and infant oral health care. Annual seminars and updates, poster presentations, interdisciplinary oral health research presentations and research studies based on Cavity-Free at Three program activities have been published and well attended within the community. Children’s Hospital Colorado will also sponsor many opportunities for professional education courses including oral health seminars for School and Community Nurses, Public Health Professionals, Perinatal and Obstetric Nurses and Pediatric Physicians.

### Setting / Delivery Mechanism



School – These courses can be extended to relevant school and/or school based health center personnel.



Provider – These courses specifically target the provider community.

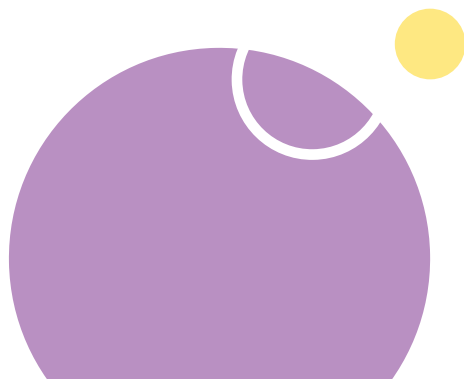
### Internal Resources

- Professional Education
- Physician relations team members, including practice transformation coaches

### External Resources

Partners will be defined based on targeted communities for intervention. Partners include but are not limited to:

- Private primary care practices
- Private dental practices
- Public Health, safety net and community health clinics
- Regional Care Collaboration Organizations



## Goal 2: Promote oral health in provider, community and home settings

### Anticipated Impact

There will be an increase in number of dental providers and other primary care providers able to engage in pediatric specific preventative dental care utilizing practices like prevention counseling and dental caries risk assessments provided by the Cavity Free at Three program in the targeted communities. Additionally, more parents and caregivers will participate in oral health education programs that result in: (1) the increase of better oral health care in the home setting; (2) an increase in dental primary care services; and (3) a decline in the number of children needing specialty dental care to treat tooth decay or caries.

### Strategy 2.1

Expand the Cavity-Free by Three community outreach program which consists of the interdisciplinary training of child health and professional care providers, and oral health education workshops for parents and community groups.

**Tactic:** Preventative Counseling & Education for Providers. Caries prevention counseling comprises a large part of the clinical visit giving parents and caregivers an opportunity to learn, ask questions and receive anticipatory guidance to improve oral health outcomes for their child. Caries risk assessment interviews include discussions of child nutrition, breast and bottle feeding, weaning, food choices, meal and snack patterns, fluoridated water, age appropriate oral hygiene practices, tooth brushing, flossing, the dental decay process, home health and safety, teething and dental eruption patterns. Caries risk assessment counseling is integral to the infant oral health exam and performed for a child under three years of age.

**Tactic:** Expand the provision of oral health education workshops for parents and community groups.

### Setting / Delivery Mechanism



School - This program can be integrated in the school resource center project to ensure that all school based health centers providing oral health care include Caries prevention counseling and Caries risk assessment counseling. Caries risk assessment counseling.



Provider - This program can be expanded and administered through a clinical network of primary care providers that ranges from the traditional private pediatric practice to the community mental health center.



Community - Oral Health Education workshops will be provided in a variety of community based settings, such as recreation centers or Boys and Girls club locations.



Employer - Oral Health Education workshops will be provided to the employees of corporate partners.



Home - Community Health Workers can provide basic oral health education information and link families up with available training opportunities held within the community.

## Internal Resources

- Staff within the dental clinic will continue to assist in the provision of existing Cavity Free at Three program.
- The CHAI Prevention, Education, Outreach, and Coordination team and primary care practice coaches will lend capacity to the expansion of this program in targeted communities.
- School Health Nurses will lend capacity to the expansion of this program in school settings.

## External Resources

Partners will be defined based on targeted communities for intervention. Partners include but are not limited to:

- Rocky Mountain Youth Clinics
- CCHN member clinics
- ClinicNet member clinics
- Comitis
- Dawn Clinic
- Colorado Access and other Regional Care Collaborative Organizations
- CBHC member providers



# COMMUNITY HEALTH ACTION PLAN

## STEP 2: ADDRESS DATA DRIVEN PRIORITIES

### Prematurity

In the United States, about 1 in 10 babies is born prematurely each year; prematurity is the second leading cause of infant mortality at a rate of 107 per 100,000 births. In Colorado, that translates to 128 babies born preterm each week (March of Dimes, 2013). Children’s Hospital Colorado is well positioned to play a lead role in addressing prematurity by expanding partnerships with pre-natal providers in order to reduce premature births and to improve young child and family outcomes through innovative programming, internal quality improvement and partnerships that recognize the importance of the First 1,000 Days (gestation through age two). The Children’s Hospital Colorado population in this age group is 40,000 individual children participating in over 117,000 visits to Children’s Colorado providers. Children’s Colorado is a partner in the Colorado Institute for Maternal Fetal Health and collaborates with organizations like the March of Dimes to increase public awareness of prematurity, support research to understand the underlying causes, and provide long-term care for children who suffer complications from premature birth.

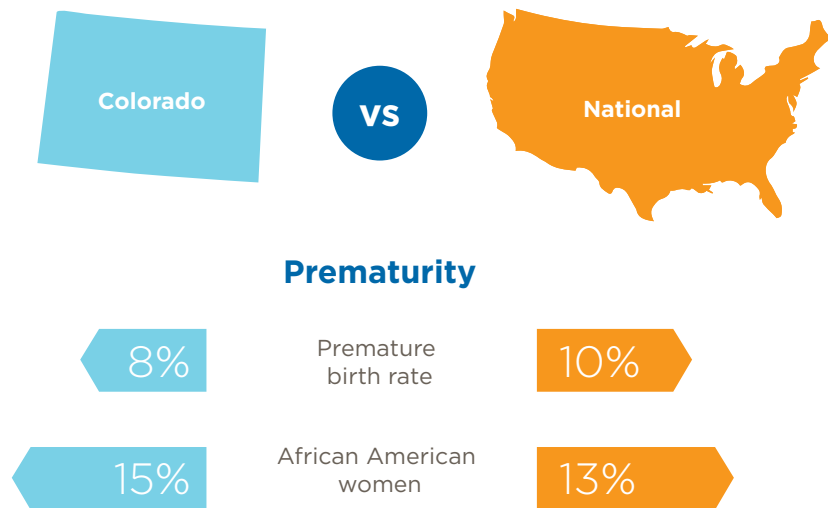
**Goal 1: Increase public awareness about the importance of prenatal care and early childhood development**

**Goal 2: Advocate for local and state policy changes that would positively influence conditions in pregnancy and early childhood**

**Goal 3: Increase healthcare provider awareness and understanding of the importance of gestation through age 2**

**Goal 4: Identify families with psychosocial concerns and provide supports and services to address needs**

**Goal 5: Expand partnerships with pre-natal providers in order to reduce premature births**



## **Goal 1: Increase public awareness about the importance of prenatal care and early childhood development**

### **Anticipated Impact**

Increased awareness of the importance of gestation through age 2 (First 1,000 Days) to a wide audience of parents, caregivers, healthcare providers, early care and education providers, and community partners. The significant impact created by increased awareness is the recognition that supports and services are both available and needed to support healthy pregnancies and care giving of infants, babies and young children. This can lead to the ultimate goal of reducing prematurity and toxic stress.

### **Strategy 1.1**

Create universal awareness through public engagement and a shared messaging campaign.

#### **Tactic:** Message Development

Unlike other public health campaigns that aim to change one specific behavior, such as smoking or shaking a baby, this campaign is intended to broadly enhance and support parenting and caregiving skills and to reduce childhood exposure to adverse experiences. Children's Colorado will therefore need to invest significant time and resources in creating a compelling message. Additionally Children's Colorado should collaborate with other groups interested in pooling resources, increasing overall exposure and aligning messages for maximum impact and exposure. Ideally, the messages would include research-based frames developed by those with experience in early childhood development.

#### **Tactic:** Media Campaign

**Paid Media** - While paid media is an expensive medium for distributing public awareness messages, it can also be very effective. Ideally, a paid media campaign will include a mix of TV, radio and targeted social media buys to reach a broad audience.

**Earned Media** - Children's Colorado should find ample opportunity to work with both traditional media outlets and online media to tell the story of the importance of gestation through age 2. Key steps include identifying key influencers, developing press materials and pitching stories, and monitoring responses.

**Owned Media** - The second highest-rated tactic identified in the First 1,000 Days strategic planning process was to create a content-rich area of the Children's Colorado website with information about pregnancy, prematurity, early childhood development, toxic stress and positive parenting. Children's Colorado should utilize existing owned media to promote key messages identified in the message development process. This should extent to text-based 'push' messaging to capture audiences that use digital sources of information for guidance and support, as well as develop a comprehensive social media strategy.

## Setting/Delivery Mechanism



Community – Messages for the ad campaign will be also be made available via the web and community education pieces (i.e. brochures, speaker powerpoints, etc.) for use in community outreach events. Children’s Colorado will leverage its own internal outreach efforts (parenting seminars, conferences, trainings, event sponsorships, etc.) as well as those of other organizations that work in public health and early care and education to disseminate shared messages about the importance of the First 1,000 Days. If parents of young children hear consistent messages about strategies for improving the health and wellbeing of their children from different messengers and through different channels, those messages become “stickier” and are more likely to be internalized and embraced.



Provider – Campaign messaging and materials will be provided for family navigators and / or community health workers affiliated with Children’s Colorado as well as other related partners. We recognize that information given by a health care provider is often well-received, and that messages need to be heard a number of times to internalize, so we will use all available avenues when developed.

## Internal Resources

- Initial investment in shared message development
- Marketing and Communications

## External Partners

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- Kohl’s Cares to support the 1,000 Ways to Care public awareness campaign, applied for annually
- 9News – local NBC affiliate
- Early Childhood Colorado Partnership
- Early Childhood Leadership Commission

## Goal 2: Advocate for local and state policy changes that would positively influence conditions in pregnancy and early childhood.

### Anticipated Impact

By working to enact policy changes that support families, the anticipated impact will be: an increase in the number of women seeking prenatal care; an increase in the number of caregivers able to take advantage of maternity/paternity leave; and finally and most importantly a decline in the number of premature births and incidents of toxic stress following birth.

### Strategy 2.1

Review Children's Hospital Colorado internal policies to create a "Best in Class" workplace.

**Tactic:** Create a policy review committee.

The first step in conducting the policy review will be creating a committee that has broad enough representation from across the hospital to be viewed by the employee base as credible and knowledgeable. While it will certainly be important to include senior leaders in this committee, it is equally important to include front line workers whose daily experiences are impacted by the policies that Children's Colorado enacts. Ideally, the committee will include 15 to 20 representatives from diverse disciplines such as:

- Human resources
- Finance
- Nursing
- Emergency care
- Urgent care
- Ambulatory care
- Primary care
- Food services
- Intake/admissions
- Janitorial services



The committee should be chaired by an individual who is freed up to devote sufficient time to this effort and has skills and experience with convening large groups and facilitating discussion among stakeholders with varied interests. We will use an outside third party to facilitate the review to ensure that the recommendations are seen as serving the employee base as a whole and not just hospital leadership.

**Tactic:** Conduct policy review and formulate recommendations.

Conducting a careful policy review is likely to take several months and should include the following steps:

- Review all current HR policies and identify those that have specific and direct impact on working parents. The committee should think broadly when identifying these policies. For example, while reviewing maternity leave policies has obvious implications for working mothers, thinking about policies for trading shifts may be less obvious but equally significant.
- Determine if there are other community efforts looking at internal family-friendly policies and determine if there is an appropriate and applicable assessment to use at Children's Hospital Colorado. Use the information as a baseline measurement to determine progress and measureable outcomes.
- For the specific policies targeted for review, identify best practices nationwide. This can be achieved by conducting literature reviews, speaking to and visiting peer organizations, and consulting with HR professionals.

Once best practices have been identified, develop a prioritized list of potential changes to Children's Colorado policies. Then, analyze the potential costs and benefits of any proposed changes. For example, if Children's Colorado were to consider offering some paid maternity leave, they could survey employees about how such a change might impact their likelihood of returning to Children's Colorado after having a child to determine the potential benefit of the change and then compare the savings associated with the anticipated improvement in retention against the cost of implementing the policy. It is worth considering, however, that potential benefits are likely to be more qualitative while costs are likely to be more quantitative. The benefits side of the equation should take into account the intangible value of improving employee satisfaction as well as the long-term goal of positioning Children's Colorado as a best-practice employer.

Having completed this analysis, the committee should then bring forth a final set of recommendations to the hospital leadership and, ultimately, to the Board of Directors.

## Setting/Delivery Mechanism



Employer - To get the most impact from making these policy changes, Children's Colorado will also ensure that they are widely publicized both within the hospital and in the broader employer community. Changes should be announced through multiple mediums including employee newsletters, emails from the CEO, press releases and participation in employer forums such as those hosted by the Mountain State Employer's Council and the Denver Business Journal. Because part of the purpose of the policy review is also to position Children's Colorado as an advocate for broader policy changes, the hospital may also want to brief targeted state and national legislators once the new policies are enacted.

Additionally, Children's Colorado will also have to work with its largest suppliers of contract workers to extend benefits to those employees. Once a model set of policies has been adopted internally, Children's Colorado should begin to include extension of those policies in its negotiations with vendors, recognizing that those policies may also come with a cost.

## Internal Resources

- Children's Hospital Colorado leadership
- Human Resources
- Children's Health Advocacy Institute (CHAI)
- Representatives and thought leaders for broad representation from multiple divisions and departments

## External Partners

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- Essentials for Childhood project based out of the Colorado Department of Public Health and Environment
- Executives Partnering to Invest in Children (EPIC)
- Health Links (based in the Colorado School of Public Health) on the work those entities are doing to raise the profile of Family Friendly Business practices in Colorado

## Strategy 2.2

Suggest appropriate policy revisions at local and state levels.

**Tactic:** Utilize Children’s Hospital Colorado clinical and government affairs expertise to vet potential policy and advocacy recommendations and act upon those recommendations. Children’s Colorado will utilize the Child Health Champions network to push action alerts when appropriate. For example, an action alert was sent to the network in March 2016 to Colorado Senator Michael Bennet, a member of the Senate Health, Education, Labor and Pensions Committee, to include infant and early childhood provisions in mental health reform legislation.

**Tactic:** Participate in community efforts to develop policy recommendations for broad-based policy change in Colorado. An example of Children’s Hospital Colorado partnered with the Colorado Children’s Campaign (CCC) and Colorado Children’s Healthcare Access Program (CCHAP) to develop an early childhood policy brief “Young Minds Matter: Supporting Children’s Mental Health Through Policy Change” (August, 2015).

### Setting/Delivery Mechanism



Community – policy work and development at the local, city, state and federal levels.



Provider – practices, programs and approaches to further the health and wellbeing of all children.

### Internal Resources

- Children’s Hospital Colorado leadership
- Child Health Advocacy Institute (CHAI)
- Government Relations
- Child Health Champions
- Representatives and thought leaders for broad representation from multiple Hospital divisions and departments

### External Partners

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- Colorado Children’s Campaign
- Colorado Children’s Healthcare Access Program
- Colorado Association for Infant Mental Health
- Essentials for Childhood

## Goal 3: Increase healthcare provider awareness and understanding of the importance of gestation through age 2

### Anticipated Impact

Children's Colorado has over 1,200 providers that serve as a national touch point for young children and their families. Providing training to all levels of clinical staff and extending the training to providers at pediatric and family practices outside of Children's Colorado network will lead to improved health outcomes. Providing provider training will lead to improved interventions with families, and, to improve health outcomes for children through the following:

- Increased awareness among all level of providers about the importance of the First 1,000 Days.
- Increased provider comfort with discussing psychosocial and emotional issues with patients and families.
- Improved provider knowledge about the internal and external resources available for patients with psychosocial and emotional needs.
- Provide providers both information and resources to assist patients and families that are living in vulnerable situations and/or are exposed to adverse experiences and environments.

As the universal screening initiative is rolled out, training providers on implementation of psychosocial screening, and the associated identification, triage and referral processes (see Goal #4).

### Strategy 3.1

Offer thorough and impactful training to all levels of medical staff at Children's Hospital Colorado to educate medical providers with information about how to prevent, identify and mitigate toxic stress.

**Tactic:** Content development

As a first step, the hospital will convene a small team of these experts and a representative from the professional development group within the hospital. This group will be charged with creating an effective training module that can be delivered to caregiver teams within the hospital in a manner that is both impactful and efficient.

Training modules will have specific and measurable learning objectives and will be linked to specific and observable changes in practice. To ensure that outcomes are being achieved, the team developing the training may want to consider pre and post testing to verify that participants are mastering learning objectives.

**Tactic:** Small-scale pilot

Once the training modules have been created, they will be tested with a limited number of provider teams. Testing will occur within the Child Health Clinic, but also in a department that does not provide primary care where the links to the training materials may be less obvious.

**Tactic:** Rollout

Once the training module has been tested and refined, it will be rolled out to all medical providers. Departments that see the largest volume of children under the age of two, including the Child Health Clinic and the Emergency Department will be prioritized.

### Strategy 3.2

Extend provider training to providers at pediatric and family practices outside of Children's Colorado network.

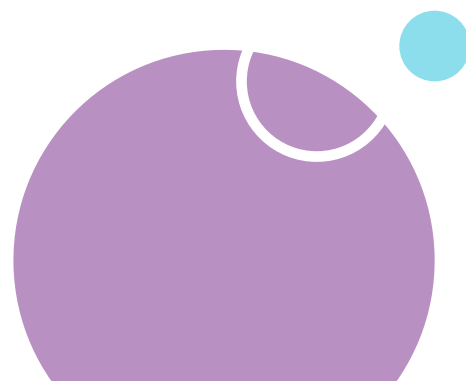
**Tactic:** Development of Advanced Practitioner Group

In addition to wide-scale training for most or all staff, Children's Colorado will develop an "advanced practitioner" group of professionals, comprised of a cross section of types of employees and specialties, who wish to become experts and advocates for the First 1,000 Days work.

**Tactic:** Refinement and re-training

Training around prematurity and the importance of early childhood is not a one-time initiative. Children's Colorado has made a long-term commitment to ensuring that all staff keep apprised of advances in the field. Providing ongoing training also signals to members of the Children's Colorado community that the hospital remains committed to the wellbeing of vulnerable young children. Specific ongoing activities include:

- At least annually reviewing and revising the First 1,000 Days training module(s)
- Providing training to any new staff within one year of their start date
- Developing options and a schedule for re-training of staff members who have completed the initial module



## Setting/Delivery Mechanism



Provider - In addition to the over 117,000 child visits to Children's Hospital Colorado, Children's Colorado's Physician Relations team had over 1,800 interactions with community providers in 2015, and there are over 1,200 community based providers affiliated with Children's Colorado. Children's Colorado can use this as an opportunity to train other providers outside of its internal staff. In addition to community-based family and pediatric practices, partners such as public health departments will be included in provider trainings.

## Internal Resources

- Children's Colorado early childhood social and emotional experts
- Children's Colorado Harris Fellows
- Children's Colorado Professional Development
- Children's Colorado Pediatric Mental Health Institute
- Children's Colorado Child Health Clinic
- Project Consultation & Liaison in Mental Health and Behavior (CLIMB)
- CLIMB to Community

## External Partners

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- Public health departments
- Community-based family and pediatric practices
- The Colorado Chapter of the American Academy of Pediatrics
- Colorado Academy of Family Physicians
- Project Linking Actions for Unmet Needs in Children's Health (LAUNCH)
- Colorado Association of Infant Mental Health
- Healthy Child Care Colorado

## Goal 4: Identify families with psychosocial concerns and provide supports and services to address needs

### Anticipated Impact

Psychosocial screening of all families will allow Children's Colorado to provide graduated levels of support depending upon the severity of their challenges. While these supports will not necessarily be medical supports, they are an integral part of the long-term health outcomes of our community that includes addressing disparate health outcomes of African American women experiencing higher rates of prematurity.

### Strategy 4.1

Universal psycho-social screening for adverse conditions, particularly in the hospital and pediatric well-child settings, to identify any concerns within the social determinants of health.

**Tactic:** Create a Social Determinants of Health Oversight Committee.

**Tactic:** Select a Screening Tool

There are a number of widely available psychosocial screening tools that have been tested and validated with broad audiences, and doctors affiliated with Children's have developed a tool that is in process of being finalized and validated. The small group of stakeholders should review and select the tool that will best meet the needs of the hospital.

**Tactic:** Develop Supporting Technology

Once a screening tool has been selected, the next step is to consider the method for administering the screen. Children's Colorado will use an electronic system for administering the screen so surveys can be automatically scored and tiered so that providers immediately know what level of intervention, if any, is required. Additionally, data about families that are flagged for intervention can be instantaneously and accurately shared with the groups or individuals who will provide those interventions, large volumes of data can be collected on the Children's Colorado population as a whole and analyzed for key trends, and this data can then inform other efforts such as public policy initiatives and public health activities.



### Strategy 4.3

Provide appropriate, targeted interventions.

One of the challenges of implementing system-wide psychosocial screening will be managing the sheer volume of data being collected and interventions that are required. If the screening tool is administered to the approximately 40,000 unique families with children under the age of 2 who visit Children's Colorado in a given year, the anticipated number of responses requiring some sort of intervention could be as high as 15,000. Of course, not all families will require intervention, and the intensity of the recommended invention will vary greatly among those families that do need support.

**Tactic:** Created Tiered Intervention Protocols.

To mitigate the challenges of managing such a large population, Children's Colorado will create a system for scoring the screening surveys and placing families into one of four tiers based on their responses. The oversight committee will be charged with looking at the current tiered system in place for medically complex cases at Children's Colorado and adapt them for a psychosocial response protocol.

**Tactic:** Determine response protocol for each level of tiered Intervention.

Tiered interventions will provide families with an understanding of the resources available both within Children's Colorado and in the community. Top tier interventionists would need sufficient time to provide intensive supports to families, up to and including providing home-based services. The oversight committee will be charged with defining this role and determining how best to provide these services.

**Tactic:** Partner with community based organizations that already provide services for vulnerable women and children as well as provide a limited number of new interventions directly A key aspect of the screening and intervention effort will be ensuring that Children's Colorado has information about the community resources that are available to families and how best to access those resources.

### Setting/Delivery Mechanism



Community - Rollout of the screening and intervention initiative will be expanded in partnership with community providers.



Provider - Implementing universal psychosocial screening across all of Children's Colorado's departments and campuses is a major undertaking that will take years to complete. Rollout of the screening initiative will begin in small, well-controlled environments and expand gradually system-wide. When the psychosocial tool and collection infrastructure are complete, training for providers on use of the psychosocial screening tool would follow the Provider Training (Goal #3) strategy and tactics listed above.

## Internal Resources

- Children's Colorado early childhood social and emotional experts
- Children's Colorado Harris Fellows
- Children's Colorado Professional Development department
- Children's Colorado Pediatric Mental Health Institute
- Children's Colorado Child Health Clinic
- Project Consultation & Liaison in Mental Health and Behavior (CLIMB)
- BUILD Health Challenge

## External Partners

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- Help Me Grow
- UnitedWay 211
- HealthLinks 211
- Direct service providers
- Colorado Children's Healthcare Access Program (CCHAP)
- State Innovation Model grant (SIM)
- Project LAUNCH

## **Goal 5: Expand partnerships with pre-natal providers in order to reduce premature births**

A final piece of the overall prematurity strategy is to work with local obstetricians and family physicians to ensure that women who are pregnant or planning to become pregnant are giving their babies the best possible start in life. Because Children's Colorado has limited direct contact with pregnant women, the hospital will need to forge stronger partnerships with other practitioners to achieve its goals in supporting children during gestation.

### **Anticipated Impact**

The anticipated impact of expanding Children's Colorado's partnerships with obstetricians and family care providers treating pregnant women are to: reduce premature birth; increase referrals to the Child Health Clinic and other pediatric settings that prioritize social and emotional health in addition to physical health; ensure that more babies and young children have medical homes; and improve treatment for women experiencing pregnancy related mood disorders.

### **Strategy 5.1**

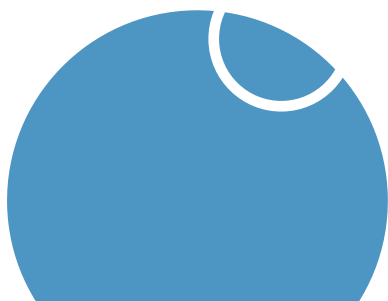
Expand the public awareness campaign (Goal #1) to providers, give them information and materials they can easily disseminate to their patients.

### **Strategy 5.2**

Extend the provider training program (Goal #3) to obstetricians and family practitioners who see high volumes of low-income women so that those providers have an increased understanding of the social determinants of health and how to best assist mothers who face adverse social circumstances.

### **Strategy 5.3**

Provide training on the psychosocial screening (Goal #4) tool and information on how to access community resources. Expansion of the screening and intervention has two potential benefits: more vulnerable children will be identified and treated earlier, which will further mitigate the potential impact of any negative effects of their home circumstances, and the transition of care from OB's to pediatricians can be more seamless and comprehensive.



## Strategy 5.4

Create “warm handoff” protocols for providers who refer babies to the Child Health Clinic. As partner providers begin to implement the screening and intervention tools that Children’s Colorado also will be using, there will be a great deal of data available to receiving pediatricians after mothers deliver their babies and transition to pediatric practices. By forging data sharing agreements that include information about the social determinants of health in addition to basic medical information, Children’s Colorado can ensure that new mothers do not have to complete duplicate social-emotional screenings and can minimize disruptions to social services that are being supported by referring physicians.

## Strategy 5.5

Extend the “warm handoffs” to pediatric clinics beyond the Child Health Clinic.

## Setting/Delivery Mechanism



Provider - The above strategies will begin with providers that refer to the current Children’s Colorado programs serving pregnant women: Adolescent Medicine, Colorado Adolescent Maternity Program (CAMP), and the Colorado Institute for Maternal and Fetal Health. The strategies outlined in this goal area will require extensive community outreach and education. The public awareness messages, information on provider training, psychosocial screening and resources, as well as intervention information should all be a part of a comprehensive outreach to community based obstetricians and family practitioners.

## Internal Resources

- Adolescent Medicine
- Colorado Adolescent Maternity Program (CAMP)
- Colorado Institute for Maternal and Fetal Health
- Physician Relations

## External Partners

Partners will be defined based on targeted communities for intervention. Partners include but are not limited to:

- Referring Physicians
- Obstetricians
- Family Providers
- Targeted Community Partners

## Respiratory Illness

Nationally, asthma, bronchiolitis, and other respiratory illnesses are a leading cause of children’s hospitalizations and missed school and work days with an estimated cost of \$56 billion annually. The Centers for Disease Control and Prevention estimate that 9.3% of children in the United States under the age of 18 had a diagnosis of asthma in 2012. Similarly, the 2013 Colorado Child Health Survey demonstrated that nearly 1 in 10 children has a current diagnosis of asthma. In 2015, asthma and bronchiolitis were two of the most common causes of emergency department visits at Children’s Hospital Colorado (CHCO), with 1351 admissions related to bronchiolitis and 651 admissions related to asthma at our facilities.

Poorly controlled asthma disrupts sleep, can negatively impact a child’s ability to learn and perform at school and is a common cause of children missing school, with 10.5 million days lost annually nationwide. In Denver, Adams and Arapahoe Counties, asthma related hospital discharge and emergency department rates for children ages 5-14 are higher than the state average. Low-income and minority families are disproportionately burdened by the morbidity and cost associated with asthma. Black and Latino children are less likely to receive routine care for asthma and more likely to visit the emergency room and be hospitalized than white children. While some measures of health and health care quality have improved over the past decade, these disparities in the burden of asthma have persisted or worsened.

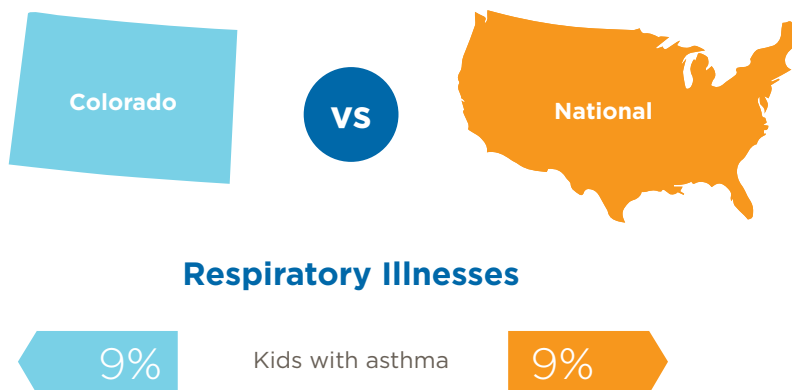
The risk and severity of asthma and other respiratory illnesses is greatly affected by environmental exposures. Factors such as poverty, poor housing conditions, and increased exposure to environmental triggers are associated with increased asthma prevalence, worse control, and increased hospital emergency room visit and admissions. Barriers to asthma control may or may not be related to direct healthcare but may lie in areas like adherence to medications, exposure to tobacco and/or marijuana smoke or living in multi-unit housing. Many of these barriers significantly impact disease management, further complicating care for patients and providers. Due to the high prevalence of respiratory illnesses in childhood, especially asthma, their burden on the healthcare system, and the correlation between these illnesses and social determinants of health, we have prioritized respiratory illnesses.

Children’s Hospital Colorado will focus on three major areas of prevention and health promotion to address this health priority area:

**Goal 1: Increase access to routine care for respiratory illnesses**

**Goal 2: Strengthen support network in clinical and community settings**

**Goal 3: Decrease health impact of environmental exposure to air particulate matter**



## Goal 1: Increase access to routine care for respiratory illnesses

### Anticipated Impact

Over the course of three years, the anticipated impact will be a decrease in the number of emergency department visits and hospitalizations for asthma and bronchiolitis in youth ages 0-17 in the targeted communities where these services are being provided. There will be an increase in the number of children who receive routine asthma care in the clinical setting outside of the emergency department. In addition, community providers will have a better understanding of care for children at risk for respiratory illnesses. The patient and family education provided across clinic settings will be standardized, high quality, and at an appropriate health literacy level. Finally, routine preventive care for respiratory illnesses will be easier for families to access within the Denver metro area.

### Strategy 1.1

Increase rate of follow-up visits with a specialist or community based primary care provider within 30 days of a CHCO emergency department visit or inpatient hospitalization for asthma.

**Tactic:** CHCO will improve our process for scheduling follow-up visits in our clinics and tracking follow-up visits scheduled with community based providers.

**Tactic:** CHCO will enhance the hours, days, and locations of clinical services to match the needs of our patients and improve ease of receiving follow-up care.

### Setting / Delivery Mechanism



Provider – This program can be expanded and administered through a clinical network of pediatric pulmonologists and advanced practice providers (PA-C and CPNP) in conjunction with existing community based primary care practices.

### Internal Resources

- Patient/Family Navigator
- Welcome Coordinator
- Prevention & Education Coordinator
- Process improvement specialist
- Primary Care Practice Coach
- 5 outpatient specialty clinics located around the Denver metro area

### External Resources

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- Denver Health
- Community pediatric and family medicine practices

## Strategy 1.2

Standardize the content, material, and delivery of education around respiratory illnesses for all stakeholders, including community providers, school nurses, patients, and family members.

**Tactic:** CHCO will establish one recommended set of educational materials, ensuring accuracy and availability in multiple languages at the 5th grade reading level. These materials will be available for all stakeholders in the community, including medical providers, school nurses, and families.

**Tactic:** CHCO will provide educational offerings to community health care workers including medical providers, school nurses, and para-professionals. Topics will include how to care for and when to refer patients with both common and rare lung diseases as well as strategies for preventing increased morbidity among high risk patients. Examples of these offerings include: in-person training courses, computer-based training, and informal face-to-face learning opportunities.

## Setting / Delivery Mechanism



School - Standardized education can be provided in the school setting through school-based programs such as Colorado Step-Up Asthma and through training school based nurses, para-professionals, teachers, and coaches.



Home - Standardized education can be provided to patients and families in the home setting through community health workers.



Provider - Standardized education can be provided to medical professionals based in the community and our facilities.

## Internal Resources

- Health literacy manager
- Physician Relations team members
- Marketing and Communications
- Asthma Education Standardization Committee
- Certified Asthma Educators
- CHCO employed school nurses

## External Resources

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- Private pediatric and family practice groups
- Denver and Aurora Public School districts
- Colorado Department of Public Health & Environment
- Local Health Departments

## Goal 2: Strengthen support network in clinical and community settings

### Anticipated Impact

We expect work in goal area 2 will improve the continuity and consistency of care received by children with respiratory illnesses in the Denver metro area. We expect this will result in improved asthma control and decreased rates of hospital admissions and emergency department visits for asthma, bronchiolitis, and other respiratory illnesses in the target population. Additionally, we anticipate work in this goal area will increase communication between medical professionals across the spectrum of care, including specialists, primary care providers, and those based in the home and school.

### Strategy 2.1

Improve the quality and frequency of asthma care given by nurses and para-professionals in public schools.

**Tactic:** CHCO will provide support and resources to identify students with asthma and educate front line school staff who care for asthma students through collaboration with schools through our Step Up Asthma Program. School-based asthma educators employed by Step Up Asthma will provide school-based case management for identified students and technical assistance for participating nurses and para-professionals. Additionally, we will explore connecting this work with the hospital's larger goal of establishing resource and care centers based in schools.

### Setting / Delivery Mechanism



School - Standardized education can be provided in the school setting through school-based programs such as Colorado Step-Up Asthma and through training and technical assistance for school based nurses and para-professionals.

### Internal Resources

- School health educators
- Certified Asthma Educators
- Prevention and Education Coordinator
- CHCO employed school nurses

### External Resources

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- Denver and Aurora Public School districts
- Colorado Department of Public Health & Environment
- Local Health Departments

## Strategy 2.2

Improve access to home-based support, including tailored patient education, case management, environmental assessment of the home to identify triggers, and resources for remediation.

**Tactic:** CHCO will implement Just Keep Breathing, a program to provide home visits for asthma patients at high risk for exacerbations. If this program is shown to be successful, we will consider adapting to other patients at risk for acute respiratory illness.

### Setting / Delivery Mechanism



Home – Community Health Workers can provide tailored asthma health education information and environmental assessment in the home. Additionally, they will connect families with available resources that exist within CHCO and the community.

### Internal Resources

- Community health workers
- Social work

### External Resources

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- Colorado Department of Public Health & Environment
- Local Health Departments
- Denver Environmental Health
- Denver Health Medical Center
- Local non-profit agencies providing social services

## Strategy 2.3

Improve communication between all patient stakeholders including families, primary care providers, and specialists.

**Tactic:** CHCO will create process and materials to standardize and expedite patient-related communication between multiple sources. This will enable providers and caregivers to monitor health and make decisions in a coordinated manner.

**Tactic:** CHCO will explore options for personalized monitoring technology to have access to additional objective health data. These options include medication adherence devices for inhaled medications, which are already being tested in asthma patients, and wearable devices that can monitor vital signs. This additional objective data can improve the quality of communication between stakeholders and assist with clinical decision making.

### Setting / Delivery Mechanism



Provider - Enhanced communication will occur between providers and assist with clinical decision-making.



Home - Enhanced communication tactics will include families. Improved communication and the availability of objective data may assist families with self-management of respiratory illnesses.

### Internal Resources

- Research coordinator
- Process improvement specialist
- Employed school nurses

### External Resources

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- Community-based primary care providers
- Technology companies, including Propeller Health, Microsoft, and Cohero Health
- Denver and Aurora Public School districts



## Goal 3: Decrease health impact of environmental exposure to air particulate matter

### Anticipated Impact

Because air particulate matter, such as tobacco smoke, car exhaust, and wildfire smoke, have been linked to increased prevalence of respiratory illness and worse outcomes, we anticipate decreasing exposure to air particulate matter will reduce emergency department visits and hospitalizations for acute respiratory episodes. Additionally, reducing exposure may reduce prevalence of chronic respiratory disease, in turn reducing burden on the health care system.

### Strategy 3.1

Improve tobacco screening and intervention by providers during routine and unexpected healthcare encounters.

**Tactic:** CHCO will develop training for providers on best practice methods for screening pediatric patients for exposure to environmental tobacco smoke. This will include motivational interviewing skills and provision of cessation assistance when appropriate.

**Tactic:** CHCO will adapt the materials developed in tactic 1.1 for use by community providers.

**Tactic:** CHCO will explore the creation of a tobacco cessation clinic. This clinic will be staffed by an advanced practice provider and will see adolescents and adults, following the successful model currently in place at Denver Health Medical Center.

### Setting / Delivery Mechanism



Provider – Training, resources, and technical assistance for providers around tobacco screening, advising, and cessation assistance will be made available for providers at CHCO and in the community.

### Internal Resources

- Child Health Clinic
- Adolescent Medicine
- Department of Psychiatry and Behavioral Services

### External Resources

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- Denver Health Medical Center
- Colorado Department of Public Health and Environment
- Colorado QuitLine
- Community pediatric and family practice providers
- Local public health departments

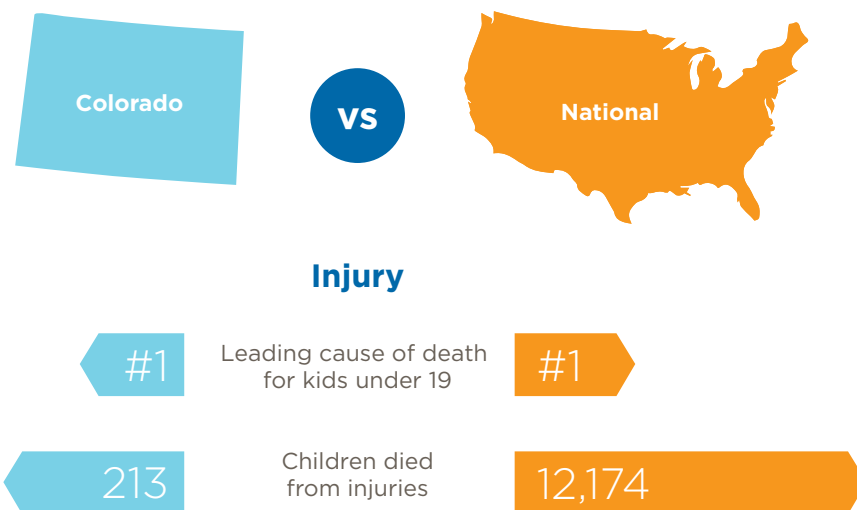
## Injury

Injury-related Emergency Department utilization and hospitalizations for both intentional and unintentional injuries continue to challenge the programmatic and financial resources of many hospitals. Preventable injuries continue to be a leading cause of morbidity and mortality for Colorado children ages 1-19. The vast majority of injuries are non-fatal and preventable, and can lead to a range of costly outcomes for families and communities. For each incident that results in a visit to an E.D., many more injuries are never reported. While some types of injury have declined in Colorado over the past decade, recent increases in deaths due to teen motor vehicle crashes, suicide, and non-accidental trauma to infants raise new concerns. Among all pediatric age groups, falls are a leading cause of emergency department visits. Teen MVC and infant Shaken Baby Syndrome injuries remain problematic for regional communities. Although motor vehicle fatalities have decreased, distracted and impaired driving continues to endanger drivers, passengers, bicyclists, and pedestrians. Opportunities include prevention-related primary care assessments and screenings, enhanced coordination of community-based prevention efforts between partner trauma centers, sharing of injury-related emergency department utilization data with local hospitals, health departments and NPOs, and training of community providers in suicide assessment and treatment interventions.

**Goal 1: Strengthen the hospital-based and community-based education and outreach components of the Child Passenger Safety (CPS) Program at Children’s Hospital Colorado (CHCO) through establishment of a sustainable infrastructure that provides leadership, funding, data, policy, and evaluation to support the needs of community partners serving children and families in targeted communities.**

**Goal 2: Expand programmatic efforts, and facilitate opportunities for collaborative injury prevention initiatives focusing on teen driver safety that provides leadership, funding, data, policy, and evaluation to support the needs of schools and community partners serving families and students in targeted communities.**

**Goal 3: Expand programmatic efforts, and facilitate opportunities for collaborative injury prevention initiatives focusing on the four leading causes of unintentional injury among children residing in neighborhoods at disproportionate risk.**



**Goal 1: Strengthen the hospital-based and community-based education and outreach components of the Child Passenger Safety (CPS) Program at Children’s Hospital Colorado (CHCO) through establishment of a sustainable infrastructure that provides leadership, funding, data, policy, and evaluation to support the needs of community partners serving children and families in targeted communities**

**Anticipated Impact**

An increase in the percentage of Adams, Arapahoe, and Denver County children ages birth to age eight years old, that are properly restrained in a car or booster seat, with special emphasis on increasing child restraint usage rates among African-American and Hispanic families living in the targeted neighborhoods.

An increase in the confidence of parents and caregivers regarding their ability to properly use and install child restraints in the identified high-risk neighborhoods by offering CPS education and outreach opportunities to residents of these communities.

A reduction in the barrier of cost of child restraints for parents, caregivers, and other child guardians in identified high-risk neighborhoods by providing them at reduced cost to families demonstrating a need for assistance.

**Strategy 1.1**

Expand Child Passenger Safety program efforts to target parents and caregivers of (1) infants discharged from CHCO NICU; (2) CHCO Child Health Clinics; and (3) infants, toddlers, and children residing in neighborhoods at disproportionate risk for MVC injuries.

**Strategy 1.2**

Advocate and provide leadership to policy efforts aimed at strengthening of the Colorado Child Passenger Safety Law (Colorado Revised Statute 42-4-236) to reflect best practice recommendations from the American Academy of Pediatrics.

**Tactic:** Maintenance of CPS Technician certifications among CHCO staff in clinical units.

**Tactic:** Continuation of CPS education and outreach partnerships with Denver Public Health, the Tri-County Health Department, Street-Smart, Inc.

**Tactic:** Expansion of CPS partnerships to include entities/organizations serving families residing in targeted neighborhoods.

## Setting/Delivery Mechanisms



Community – Continuation and, where practical, expansion of CPS initiatives with local health departments, partner hospitals, NPOs, Head Start agencies, law enforcement, EMS, and the Colorado Department of Transportation’s Office of Transportation Safety.



Employer – Work collaboratively with CHCO Corporate & Community Relations to assist metro-area employers in establishing or advancing traffic safety policies as they relate to their workforce; complimentary efforts include opportunities to purchase child restraints at a discount through the CHCO Safety Store.



Home – Use of Community Health Workers trained as Child Passenger Safety Technicians to improve proper child safety seat usage in targeted neighborhoods; engagement of partner entities that conduct home visitation efforts (i.e., Nurse Family Partnership, Safe Care Colorado).



Provider – Integration of CPS risk assessment questions in well-child visits through CHCO’s Clinically Integrated Network, with special emphasis on Medicaid populations to improve seat belt and child safety seat usage among patients served; integration of promotional opportunities for messaging best practices for CPS throughout the CHCO network of care; complimentary efforts include opportunities to purchase child restraints at a discount through the CHCO Safety Store; integration of aforementioned efforts targeting (1) schools and students served by the School Health Resource Center, and (2) CHCO employees and their families through our Employee Wellness Program.



School – Integration of CPS messaging and programs to pre-school programs located in targeted neighborhoods, with special emphasis on Head Start centers and child care centers to improve child safety seat usage among families eligible for Colorado Child Care Assistance Program benefits; complimentary efforts include opportunities to purchase child restraints at a discount through the CHCO Safety Store.



## Internal Resources

- Child Passenger Safety Program
- Child Health Clinics
- Clinically Integrated Network
- Marketing & Communications
- School Health Resource Center
- Teen Driver Safety Program
- Trauma/Burn Program
- Safe Kids Colorado Springs
- Safe Kids Denver Metro
- Safety Store

## External Resources

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- ABRA Auto Body & Glass
- Aurora Police Department
- Colorado Department of Transportation
- Colorado Department of Public Health & Environment
- Colorado State Patrol
- Denver Public Health
- Jefferson County Public Health
- Mile High Regional Emergency Medical Trauma Advisory Council
- Street-Smart, Inc.
- Tri-County Health Department
- Walgreens

## **Goal 2: Expand programmatic efforts, and facilitate opportunities for collaborative injury prevention initiatives focusing on teen driver safety that provides leadership, funding, data, policy, and evaluation to support the needs of schools and community partners serving families and students in targeted communities**

### **Anticipated Impact**

1. Reduce the number of traffic fatalities and injuries among young drivers and passengers in the metro Denver area, with special emphasis on increasing seat belt usage rates among African-American and Hispanic families living in the targeted neighborhoods.
2. Increase the knowledge of teens, parents, and caregivers about Colorado's Graduated Driver's Licensing laws in the identified high-risk zip codes by offering education and outreach opportunities to residents of these communities, and measuring progress toward this increase.
3. Reduce the barrier of access to evidenced-based teen driver safety prevention strategies and resources among parents, caregivers, and other child guardians in identified high-risk neighborhoods by providing targeted programming to address the MVC injury burden.

### **Strategy 2.1**

Integrate Teen Driver Safety program efforts to target (1) parents of teens residing in neighborhoods at disproportionate risk for MVC injuries; and (2) teens 15-19 years residing in neighborhoods at disproportionate risk for MVC injuries.

### **Strategy 2.2**

Advocate and provide leadership to policy efforts aimed at strengthening of the Colorado Graduated Driver License Law (Colorado Revised Statute 42-2-106, Code 062) to reflect best practice recommendations from the National Highway Traffic Safety Administration.

**Tactic:** Integration of teen driver safety program opportunities for students attending high schools in targeted neighborhoods; integration of teen driver safety opportunities through CHCO's Clinically Integrated Network and community partners.

## Setting/Delivery Mechanisms



Community – Expansion of teen driver safety initiatives with partner hospitals, NPOs, law enforcement, EMS, the Colorado Department of Transportation’s Office of Transportation Safety, and the Colorado Department of Public Health & Environment’s CO Teen Driver Initiative.



Employer – Work collaboratively with CHCO Corporate & Community Relations to assist metro-area employers in messaging teen driver safety opportunities to their employees with current or soon-to-be teen drivers, establishing or advancing traffic safety policies as they relate to their workforce.



Home – Use of Community Health Workers trained in teen driver safety education and outreach to improve seat belt usage at targeted high schools; exploration of potential engagement opportunities with insurance agencies to collaboratively message best practices for teen driver safety.



Provider – Integration of seat belt and teen driver safety risk assessment questions in well-child visits and preseason athletic physicals conducted through CHCO’s Clinically Integrated Network, with special emphasis on messaging to improve seat belt usage targeted to parents and teens (i.e., parent-teen driving “contracts”); integration of promotional opportunities for messaging best practices for teen driver safety to CHCO employees with teen drivers.



School – Full implementation of project objectives for Colorado Department of Transportation-funded teen driver safety project targeting high schools whose students are at disproportionate risk for motor vehicle crash injuries; Provision of teen driver safety resources and technical support for schools through CHCO’s School Health Resource Center.

## Internal Resources

- Clinically Integrated Network
- Marketing & Communications
- Planning & Strategy
- School Resource Center
- Teen Driver Safety Program
- Trauma/Burn Program
- Safe Kids Denver Metro

## External Resources

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- AAA Colorado
- Aurora Public Schools
- Cherry Creek School District
- Colorado Department of Transportation
- Colorado Department of Public Health & Environment
- Colorado State Patrol
- Mile High Regional Emergency Medical Trauma Advisory Council
- Partner Hospitals

### **Goal 3: Expand programmatic efforts, and facilitate opportunities for collaborative injury prevention initiatives focusing on the four leading causes of unintentional injury among children residing in neighborhoods at disproportionate risk**

#### **Anticipated Impact**

1. Reduce the number of mechanism-specific fatalities and injuries resulting from preventable injuries among infants, toddlers, and young children in the metro Denver area, with special emphasis on African-American and Hispanic families living in the targeted neighborhoods.
2. Increase the knowledge of young children, their parents, and caregivers about how to prevent injuries in the identified high-risk zip codes by conducting prevention education and outreach opportunities to residents of these communities, and measuring progress toward this increase.
3. Reduce the barrier of access to evidenced-based injury prevention strategies and resources among parents, caregivers, and other child guardians in identified high-risk neighborhoods by providing targeted programming to address mechanism-specific injury challenges.

#### **Strategy 3.1**

Concentrate Safe Kids Denver Metro coalition prevention, education, and outreach efforts to target parents and caregivers of children residing in neighborhoods at disproportionate risk for the four leading causes of unintentional injuries, as determined by Colorado Hospital Association data for Emergency Department utilization.

#### **Strategy 3.2**

Monitor federal and state legislation that impacts the prevention of injuries and enhancement of opportunities to improve children's health, and aligns with anticipatory guidance and best practices provided by federal, state, and NPO entities and organizations recognized as experts in the field of pediatric injury prevention (i.e., American Academy of Pediatrics, National Highway Traffic Safety Administration, Health Resources & Services Administration's Maternal & Child Health Bureau, Safe Kids Worldwide, American Association of Poison Control Centers, etc.).

**Tactic:** Establishment of new, and expansion of existing, partnerships (or cooperative agreements where appropriate) with Aurora Fire Department, Denver Public Health, Tri-County Health Department, and additional entities/organizations serving families residing in targeted neighborhoods.

**Tactic:** Provide capacity-building efforts, including training and continuing education opportunities, that align with the Core Competencies for Injury and Violence Prevention developed by Safe States Alliance and the Society for the Advancement of Violence and Injury Research (<http://www.safestates.org/page/CoreCompetencies#Core%20Competencies%20for%20Injury%20and%20Violence%20Prevention>).

**Tactic:** Generate alignment with state and national injury prevention strategic plans developed by the Colorado Department of Public Health and Environment's Injury, Suicide and Violence Prevention Unit, U.S. Department of Health and Human Services' Title V Maternal and Child Health Block Grant Objectives, and the National Center for Injury Prevention and Control.

## Setting/Delivery Mechanisms



Community - Establishment and/or continuation of initiatives with local health departments, partner hospitals, NPOs, Head Start agencies, law enforcement, EMS, Colorado Department of Public Health and Environment's Injury, Suicide and Violence Prevention Unit and the Colorado Department of Transportation's Office of Transportation Safety.



Employer - Work collaboratively with CHCO Corporate & Community Relations to target metro-area employers for opportunities to access prevention resources through complimentary Injury Prevention Program efforts (i.e., Safe Kids Denver Metro, Teen Driver Safety program), and the availability to purchase prevention hardware at discount through the CHCO Safety Store.



Home - Use of Community Health Workers trained as injury prevention educators to increase awareness among parents and caregivers in targeted neighborhoods of the leading causes of preventable injuries in their communities; engagement of partner entities that conduct home visitation efforts (i.e., Nurse Family Partnership, Safe Care Colorado); exploration of potential opportunities for provision of free or reduced-cost prevention hardware/equipment through grant or donor funding.



Provider - Integration of injury risk assessment questions in well-child visits through CHCO's Clinically Integrated Network, with special emphasis on Medicaid populations to improve outcome measures of the leading causes of preventable injuries in their communities; integration of promotional opportunities for messaging best practices for injury prevention throughout the CHCO network of care; complimentary efforts include opportunities to purchase prevention hardware/equipment at a discount through the CHCO Safety Store; integration of the aforementioned efforts targeting (1) schools and students served by the School Health Resource Center, and (2) Head Start Centers; and (3) CHCO employees and their families through Employee Wellness Program.



School - Integration of injury prevention messaging and programs to pre-school programs located in targeted neighborhoods, with special emphasis on Head Start centers and child care centers to improve injury measures among families eligible for Colorado Child Care Assistance Program benefits; complimentary efforts include opportunities to purchase child restraints at a discount through the CHCO Safety Store.

## Internal Resources

- Child Health Clinics
- Child Passenger Safety Program
- Clinically Integrated Network
- Corporate & Community Relations
- Marketing & Communications
- Physician Relations
- Planning & Strategy
- Safety Store
- School Resource Center
- Trauma/Burn Program
- Safe Kids Denver Metro coalition

## External Resources

Partners will be defined based on targeted communities for intervention. Current partners include but are not limited to:

- ABRA Auto Body & Glass
- Aurora Public Schools
- Cherry Creek School District
- Colorado Department of Public Health and Environment
- Colorado Department of Transportation
- Denver Public Health
- Mile High Regional Emergency Trauma Advisory Council
- Partner EMS and Fire Departments
- Partner Hospitals
- Rocky Mountain Poison & Drug Center
- Tri-County Health Department
- Walgreens



## CONCLUSION

Children’s Hospital Colorado has served children for over 100 years—a commitment that extends beyond our facility and reaches into the community. For the same reasons we tackle preventable harm within our hospital walls, we strive to tackle preventable harm in our communities. We do this not because we have to; we do this for the love of our children. We do this because we can and we will make a difference.

This Community Health Action Plan serves as the foundation for our hospital’s population health work for the next three years. Our goals are ambitious and we have our sights set high. The children currently living in targeted communities warrant our support and shouldn’t face a different future because of the happenstance of their zip code.

This Plan, along with our communities, will continue to evolve in the coming months and years and we are committed to sharing these changes as we travel the road to improved child health and well-being.



