



Children's Hospital Colorado

Community Health Assessment 2012:

Priorities and opportunities for outreach and advocacy

**Prepared by the Colorado School of Public Health
for the Children's Health Advocacy Institute**

Children's Hospital Colorado

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Executive summary

The Children's Health Advocacy Institute (CHAI) of Children's Hospital Colorado (CHCO) conducted this assessment of the health and safety needs of children in Colorado and selected Colorado communities in order to inform the community benefit priorities for Children's Hospital Colorado.

This assessment was conducted with assistance from the Colorado School of Public Health (see Appendix 5), building on a prior community health assessment conducted in 2010.¹ This 2012 assessment updates data from the 2010 report and specifies priority community strategies, as guided by the CHAI community outreach subcommittee (see Appendix 1).

This assessment examined information on children's health and safety for Colorado statewide, as well as for residents in the Original Aurora and Montbello communities that are nearby the Aurora campus and for residents in El Paso County, an area of expanding services coverage for CHCO. Data sources were from 2010 and 2011 vital records, disease surveillance systems, hospitalization records, health behavioral surveys, and the interviews of 36 key informants and 6 focus groups in 2010.

Four major health priorities emerged from both the quantitative and qualitative data:

- ✓ access to health care
- ✓ obesity
- ✓ injuries
- ✓ mental health

For each of these issues CHCO has experience with both clinical services and community-targeted prevention programs, and is already making a large community benefits investment in access and injury prevention.

These priority areas will be best addressed by broad-based partnerships between CHCO and other community-based organizations that are already working in these areas; and by aiming at prevention and advocacy rather than only clinical services. Therefore, as part of this community health assessment we identified key CHCO staff and community members to serve on the CHAI community outreach subcommittee, which served as a steering committee for this report, and which stands ready to serve as a liaison between CHCO and communities to address the priority health needs identified in this report (see Appendix 1).

Future CHCO involvement in these efforts could contribute expertise and influence to achieve full access to high quality health care services for all children, to reverse the current adverse trends in childhood obesity, to accelerate the current favorable trends in deaths and injuries, and to better prevent and treat depression and social isolation that leads to self-destructive behaviors among teens and young adults.

Background and context for this report

The Children's Hospital Colorado (CHCO) is an outstanding multi-specialty regional hospital for children, serving Colorado and the greater Mountain West. CHCO has grown substantially in size and stature since its relocation from Downtown Denver to the new Anschutz Medical Campus in Aurora. This growth now includes the development of several other campuses and new partnerships both in the greater Denver area as well as in El Paso County. CHCO extends direct clinical services to children in communities from Pueblo to Broomfield as part of the CHCO Network of Care, and through the Children's Health Advocacy Institute (CHAI) it supports prevention services and advocates for children's health and safety.

The Affordable Care Act of 2010 specifies all not-for-profit hospitals conduct assessments of their surrounding communities at least every three years and they specify plans for addressing health needs of the communities served with their community benefits funds.² This community health assessment builds on a health assessment conducted in 2010, and is intended to be the first of the tri-annual assessments that will be conducted from 2012 forward. This report was written with input from community representatives in order to better develop community relationships to enable CHAI/CHCO partnerships into the future.

CHCO will continue to work with these communities to specify a work plan for implementation of collaborative programs to address the priority health needs identified in this report. That implementation plan, to be developed in the coming 6 month period, will specify key partners, key approaches, and indicators for progress to be measured.

Methods

The CHAI Leadership Board asked that this 2012 assessment consider four populations:

- ✓ all of Colorado
- ✓ the nearby Original Aurora neighborhood
- ✓ the nearby Montbello neighborhood
- ✓ El Paso County

Health outcomes and risk factors for all under age 21 were assessed in these 4 populations using the most recent data and building on the qualitative information collected in the 2010 assessment. Below is a description of methods used for each data source:

1. Demographic data from the UC Census 2010.³
2. Health insurance data from the 2010 American Community Survey, as reported by the Robert Wood Johnson Foundation (Uninsured Children: Who are they and where do they live?) and a statewide survey conducted by the Colorado Health Institute in 2010.⁴
3. Behavioral data were taken from two sources - the 2010 Children's Health Survey and the 2011 Youth Risk Behavior Survey, both managed and operated jointly by the Colorado Department of Public Health and Environment and the US Centers for Disease Control and Prevention (CDC). The Children's Health Survey is an anonymous random-digit-dialed telephone survey of parents of children ages 1 and older, and the Youth Risk Behavior Survey is an anonymous self-administered questionnaire of a representative sample of children in schools, grades 9-12. ^{5,6}

4. Hospitalization data from the reports of the Colorado Hospital Association (CHA) for 2010 (some data were available only for 2006-2009). The CHCO reports hospitalizations at only the aggregate level, without hospital identifiers.⁷
5. Mortality data from the 2010 Colorado vital records system. The underlying cause of death was used for illness causes and injury codes indicating type of injury event for injury deaths.⁸
6. Key Informant opinions were ascertained by telephone interviews conducted in the fall of 2010 from 36 key informants who represented a wide range of professionals and community workers, and were connected to a wide range of organizations, including community health clinics, community-based organizations, government agencies, statewide organizations, policy advocacy groups, philanthropic organizations, and hospitals (see Appendix 2 for details of these methods).
7. Focus groups were assembled by recruiting sets of parents (four groups) and teenagers (one group) from the same organizations used to recruit key informants as well as from other sources in the fall of 2010 (see Appendix 3 for details of the focus group methods).

Prioritization:

With support from the Colorado School of Public Health, members of the Children's Hospital Colorado CHAI community outreach subcommittee undertook a structured approach to review public health data and conduct key informant interviews and focus groups relative to the health status of target areas and populations identified above.

From the data gathered priority health needs were identified using the criteria initially established by the CHAI Leadership Board:

- Population impact
- Efficacy of interventions
- Sustainability of impact
- Capability and resource availability
- Philanthropic support
- Policy alignment

Below we summarize the findings for both the quantitative and qualitative assessments in six sections: demographic factors, health care access, obesity, injury, mental health, and other conditions.

Demographic factors

Table 1 shows the population characteristics of Colorado, El Paso County, and the Original Aurora and Montbello neighborhoods. There are approximately 1.5 million Coloradans under age 21.

The Original Aurora neighborhood, which bounds the Anschutz Medical Campus to the south and west, contains approximately 44,500 people, 16,700 of whom are younger than age 21. In Original Aurora, approximately 57% are Hispanic and 15% African American. Original Aurora now has a very large and growing population of new immigrants, not only from Latin America, but from Africa and Asia, and about 38% of residents were foreign-born. Strikingly, about 40% of children in Original Aurora schools report they are in the process of learning English.

The Montbello neighborhood, located about 6 blocks to the north and west of the campus, contains approximately 30,000 people, 12,800 of whom are under age 21. In Montbello, about 28% are African American and 59% Hispanic. Both Montbello and Original Aurora are neighborhoods with lower income and lower education levels, as evidenced by over 80% of children qualifying for free or reduced food services at schools, twice the proportion seen in Colorado statewide. Green Valley Ranch, a newer neighborhood just to the east of Montbello where about 10,000 children live, shares many of the demographic and social needs of Montbello, with which it is now connected within the Far Northeast Health Alliance, a neighborhood initiative for health improvement.

El Paso County includes the city of Colorado Springs as well as a large population of military and retired military families. There are about 201,000 ages under 21 in El Paso County, and the demographics of that population are very similar to those of Colorado statewide, with considerably less diversity and poverty than in the neighborhoods surrounding the CHCO Aurora campus.

Table 1.
Demographic and socioeconomic characteristics of Colorado and selected areas in 2010.

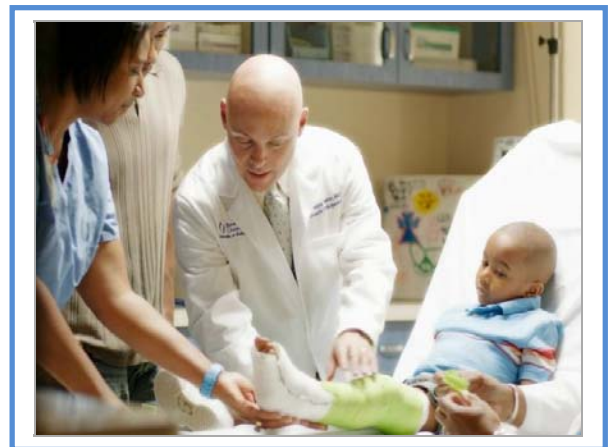
	Colorado	El Paso County	Original Aurora	Montbello
Total population	5,029,196	622,263	44,472	30,348
Population ages 21 and under	1,518,533	201,298	16,677	12,776
Age (% of total population)				
1-4	6.8	7.3	10.2	10.3
5-14	13.5	14.5	16.9	20.2
15-21	9.6	10.6	10.4	11.6
Race/ethnicity (% of total population)				
Non-Hispanic white	72.2	75.5	22.6	10.8
Hispanic	20.7	15.1	57.1	58.8
Black	3.8	5.8	14.9	28.4
Other	3.3	3.6	5.4	2.0
% of population that was foreign-born	9.8	7.1	37.9	31.3
% of households with single male parent	2.5	2.5	4.2	3.6
% of households with single female parent	6.0	7.2	10.6	12.4
Percent of births that are:				
Low birthweight	8.8	9.4	11.6	10.0
Pre-term	9.1	10.4	9.6	8.0
Unwed mothers	24.1	23.5	39.2	36.1
Free/reduced lunch in schools (%)	41.3	36.3	65.5	73.0
Percent of students who are:				
Learning English	14.4	6.3	40.2	36.0
homeless	1.6	1.0	3.7	1.0
immigrants	1.0	0.3	4.0	2.8

Both the key informants and the focus groups emphasized the current economic recession has put enormous strains on social and health services for lower socioeconomic areas such as Montbello and Original Aurora. Asking respondents to describe their communities created a mix of responses based on their individual experiences and acceptance of new cultures and languages into their neighborhoods. While most participants welcomed the diversity, others voiced reluctance for change. In discussing their communities, safety was a major and emotional issue for the parents. They were proud of their communities but stated that the safety of their children has become their primary concern: walking to school, going to the library, and attending community events. This fear was based on gang activities and sexual assaults. The focus groups seemed to express a sense of hopelessness regarding community safety.

“The demand for services is already up with longer wait lists or turning people away. There is a lot to do but no capacity to get it done”.

Access to health care

Increasing access to health care services is both a national priority with health care reform (the Affordable Care Act of 2010) as well as here in Colorado (the Colorado Health Care Affordability Act of 2009, which increased coverage for CHP+ to families under 250% of the federal poverty level as of May 1, 2010).⁹ In addition, several Colorado foundations have health care access as a priority, in particular the Colorado Health Foundation and the Colorado Trust, with which CHCO is now collaborating directly on efforts to improve the public will for universal access. Although many efforts of all health care organizations, including CHCO, will focus on access to care regardless of any new CHAI initiatives, access is so important to achieve, and so high in the listing of priorities as mentioned by both key informants and focus group members, that health care access is specifically highlighted in this report. CHCO now makes major contributions to community benefit in health care, including over 40% of its patients being on Medicaid, and large contributions to access to both inpatient and outpatient services regardless of ability to pay.



Quantitative data

In 2010 about 10% of children in Colorado ages 0-18 were without health insurance. Among those eligible for Medicaid or CHP+, 18.7% were not enrolled in 2010. The challenge today, then, is enrollment of eligible children and the assurance of accessible clinics where they can be seen. There are many community clinics across Colorado, and that system will be expanding in the years to come from funding in the Affordable Care Act. In Colorado, there are only 40 schools providing school-based health care services, serving only 3.6% of Colorado school children. Table 2 shows estimates of uninsured in Colorado and the Original Aurora and Montbello neighborhoods, as imputed based on characteristics of race/ethnicity, poverty, and language characteristics of those neighborhoods. Although current estimates on uninsured will need to take into account the Medicaid expansion in Colorado since 2010, it is clear that the characteristics of race/ethnicity, poverty, and language that characterize the Original Aurora and Montbello communities near CHCO make these areas high risk for low access to medical care.

Table 2. Proportion of children uninsured in Colorado and in three selected areas, 2010.

	Percent uninsured
Colorado statewide	10.1%
Colorado statewide, in families <200% FPL	24.9%
El Paso County	7.8%
Original Aurora*	21.4%
Montbello*	16.3%

* Estimates based on race/ethnicity

Qualitative data

The key informants mentioned access to health care as their main concern and as their main recommendation for CHCO initiatives. Key informants reported because the wait for care can be long,

Access to health care was mentioned first by all of the parent focus groups.

many people go without care, ending up in emergency rooms for services. Oral health and mental health were also major concerns expressed. Support for school health centers is strong, and many see CHCO as a

logical strong partner in supporting primary care and preventive services in schools. Access to health care was mentioned first by all of the parent focus groups.

Focus group participants felt most people did not know how to access available resources such as CHP+, Medicaid or other discount programs. In accessing care, they began to view some health care clinics as no longer a viable place to access services because they did not feel comfortable with the language barriers. Language barriers were expressed bi-directionally, with some English speakers not comfortable in situations where Spanish or other languages were predominantly spoken, and vice-versa.

Summary of findings regarding access to care

1. Access to services is perceived as a major problem in the communities near CHCO.
2. The big challenges now are obtaining higher CHP+ enrollment rates and establishing medical homes for children.
3. Better access means more than just insurance. It also means more convenient locations and timing of services, better coordination of care, and assurance of linguistically and culturally competent services.



Key opportunities in access to health care

Access is clearly an important issue already for CHCO as well as for all providers. The opportunity for CHCO in the coming few years, as the Affordable Care Act gets implemented is that CHCO has enormous credibility in pediatric care. Extending the current image of tertiary care excellence by CHCO into excellence in primary care will help to strengthen the CHCO voice for access to care. The Colorado Trust is funding many organizations across Colorado, including CHCO, in social marketing efforts to increase the public will to achieve full access to care for Coloradans. As access is easier to argue for children, CHCO can have an important role to play in the coming years as a partner with other Colorado Trust awardees for advocacy and education to increase public will for universal access to care as a state policy priority.



Finally, CHCO has an opportunity to respond more directly to community requests for better engagement in developing both more and better-integrated medical home services in underserved communities, including both oral health and mental health services. There are many opportunities for CHCO to work in collaboration with local community clinics that which will be expanding to meet these needs in the years ahead, particularly with MCPN, Clinica Tepeyac, and Denver Health. In addition to forging strong partnerships with local community groups like the Far Northeast Health Alliance, Aurora Health Access, and Aurora Mental Health as well as expanding work through schools can enable CHCO to leverage broader University resources to benefit local communities.

Obesity

Childhood obesity is now recognized as a major public health problem in the United States. Since 1980, the prevalence of obesity has increased 3-fold in the US population of children ages 6-19 (from about 6% to 18%).

Obesity creates adverse health consequences in childhood (eg, increased asthma risk, early onset diabetes), but most of the adverse health consequences of childhood obesity are manifested in the adult years.



Obesity rates in Colorado are slightly lower than in the rest of the US, but rates here are nonetheless high and increasing.

Quantitative data

The Children's Health Survey (CHS) and the Youth Risk Behavior Survey (YRBS) routinely monitor self-reported (and parent-reported) heights and weights of children, ages 2-18. In 2011, the YRBS indicated that 7.3% of children in grades 9-12 were obese, based on self-reported weights and heights. In 2010 the CHS indicated that among children ages 2-14, 13.8% were obese. Obesity varies by race/ethnicity and social class. Among Non-Hispanic white children in Colorado, 10.5% are obese, but 24.1% of Hispanic children and 18.4% of African American children are obese. Direct measures of the prevalence of overweight and obesity in the Original Aurora and Montbello neighborhoods are not available, but based on race/ethnicity, prevalence of obesity can be estimated to be about 19.5% in Original Aurora and 20.8% in Montbello.

In Colorado, 13.8% of children ages 2-14 are obese.

Qualitative data



Key informants see childhood obesity as an important health problem that needs to be addressed through prevention. There is wide agreement about the need for health education but there is not agreement about how it should be organized or carried out.

Focus group participants, both parents and teens, regarded obesity as a major health problem that needs to be seriously addressed. Obesity was especially a concern as it was widely recognized to be the major risk factor for cardiovascular disease and diabetes. Gaining knowledge about healthy nutrition and eating habits were listed as ways to address these issues, and prevention was preferred to treatment. The adolescents and teens very much concurred with the parents on these points.

Summary of findings regarding obesity

1. Childhood obesity is a major health problem in Colorado, with about 13.8% of children ages 2-14 now being obese.
2. Community health leaders, parents, and teens all agree that obesity is a serious health problem. There is a high level of community readiness to address obesity as a health problem.
3. There is general agreement that efforts need to be increased at the prevention level, and as early in childhood as possible.

Key opportunities in obesity

Although the scientific evidence base for effective programs is weak, it is rapidly developing now, and CHCO should be effectively engaged in the work of obesity prevention and management for children.

Colorado has several important obesity initiatives, including a foundation-funded program (LiveWell) as an independent CBO,¹⁰ and two very large DHHS-funded demonstration projects focused on community transformation for obesity (Tri County Health Department and Denver Health). The Colorado Clinical Guidelines Collaborative (CCGC) has recently released a set of comprehensive guidelines for the identification and management of obesity in clinical practice.¹¹

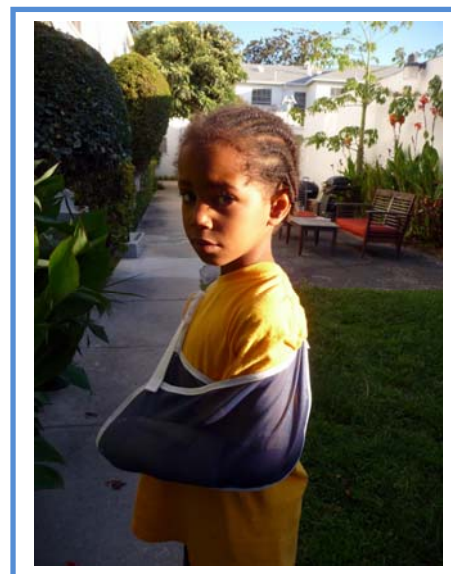
An Internet-based set of curriculum aids for health education (Health Teacher) is now available in Colorado, with CHCO support, and these could be expanded to include obesity prevention lessons.

A key opportunity right now for CHCO is therefore to develop a high-level strategic partnership with LiveWell Colorado. LiveWell is now focused largely on adult obesity, but they are beginning to enter into policy issues such as the quality of foods served in schools. As this develops, and as the large school-based project now underway across the Tri-County matures, CHCO could have many opportunities to selectively engage these and other obesity programs as the pediatric expert organization to design and evaluate novel programs and to engage in public advocacy.



Injury

About 5% of Colorado children ages 1-14 are injured seriously enough each year to require medical attention. Clearly, hospitalization data capture only a small proportion of this large number. CHCO has a very active trauma center and a very active and successful injury prevention outreach programs.¹² CHCO has made a substantial contribution to injury prevention in Colorado, including child abuse prevention through the Kempe Center, and many public education efforts to improve safety of biking, walking to school, and safety in motor vehicles.



Quantitative data

Injuries are a major cause of hospitalizations and mortality among Colorado children. Injury trends are favorable, but preventable injuries are still among the major reasons for hospitalization and mortality in children. Table 3 shows how injury dominates reasons for hospitalization in the teenage years, where injuries account for as many hospitalization as the other five leading causes combined (highlighted number). Table 4 shows the hospitalizations for injuries by detailed reasons for those injuries. Falls are the leading cause up to age 14 (highlighted) and motor vehicle crashes become an important cause as children age into the teens. Strikingly, the leading cause of hospitalization from injuries among teens is self-inflicted injuries, which are more common than even injuries from motor vehicle crashes (highlighted).

The leading cause of hospitalization from injuries among teens is self-inflicted injuries, which are more common than even injuries from motor vehicle crashes.

Table 3.
Hospitalization rates per 100,000 for 2006-2009 in Colorado by age and condition

	Age		
	<2	2-12	12-17
Appendectomy	5.2	66.6	127
Asthma	199	196	53.4
Diabetes	11.1	18.9	56.6
GI problems	398	37.5	21.6
Respiratory problems	2299	196	40.7
Injury	294	136	342

Table 4.
Hospitalization rates per 100,000 by age and detailed cause from injuries for Colorado in 2010.

	<5	5-9	10-14	15-19
Motor vehicle crashes	9.6	9.8	20.1	78.1
Poisoning	28.5	4.6	5.1	24.4
Falls	44.8	34.7	40.0	62.4
Firearm	*	*	1.5	12.7
Drowning	3.5	0.9	1.5	*
Assaults	14.8	*	3.3	36.2
Attempted Suicide/self injury	*	*	31.9	123.4

Deaths by cause and for detailed causes of injuries are listed in Tables 5 and 6 below. Clearly, injuries are by far the leading cause of death for children after age 1 (highlighted numbers in Table 5). Among the specific reasons for injuries, deaths from trauma are most common from intentional violence under age 5, but among teenagers deaths from intentional violence (homicide and suicide) exceed the risk of death from motor vehicle crashes (highlighted numbers in Table 6).



Table 5.
Mortality rates per 100,000 in 2010 in Colorado by age and cause

	Age			
	<1	1-4	5-14	15-24
Congenital	145.7	4.0	0.6	0.9
Infections	13.5	1.8	0.6	0.7
Cardiovascular diseases	10.5	*	0.9	3.5
Respiratory	4.5	3.2	0.9	1.5
Cancer	*	1.4	1.2	3.3
Unintentional injuries	24.0	9.7	3.2	28.8
Intentional injuries	7.5	1.8	2.1	23.3

Table 6.
Mortality rates per 100,000 from injuries by age and detailed cause for Colorado, 2010.

	Age				
	<1	1-4	5-9	10-14	15-19
Motor vehicle crashes	*	2.5	2.0	1.2	12.1
Poisoning	*	*	*	*	2.9
Fall	*	0.4	*	*	0.9
Homicide	7.5	1.8	*	*	5.0
Suicide	*	*	*	3.3	11.5

*suppressed counts of 2 or fewer cases

Behaviors reported in the Youth Risk Behavior Survey that are directly relevant to preventable intentional injuries are shown in Table 7 below (risk factors for intentional injuries are covered in the following section). Fewer than one teen in 4 reports usually using a helmet while riding a bicycle.

In addition, 7.6% report never or rarely using seat belts in the car, and 5.8% report they had driven in the past 30 days after drinking alcohol. Of course, self-reports likely under-estimate the extent of risky behaviors such as failure to use seat belts, which appears to be a much more common problem based on direct observations.



Table 7.

Behaviors directly related to injury in Colorado children in grades 9-12 as assessed in the 2011 Youth Risk Behavior Survey

	Percent reporting
Never/rarely wear a helmet while riding a bicycle in the last 12 months	75.2*
Never/rarely wear a seat belt when riding in a car driven by someone else	7.6*
Had ridden in car with driver who had been drinking alcohol in past 30 days	21.8
Had driven while drinking in past 30 days	5.8
Had carried a weapon such as a gun a knife or a club in past 30 days	5.5

*These questions were not asked in 2011. These data are from 2009

Qualitative data

It was striking that neither the key informants nor the focus groups volunteered mention of injuries as a major health problem in children, or of injury prevention as a high community priority. However, they did frequently cite concerns about community safety, in terms of gang violence and safe streets.

Summary of findings regarding injuries

1. Injuries remain a major health problem for Colorado children as the leading cause of death and hospitalization, especially injuries resulting from motor vehicle crashes and both intentional and unintentional violence.
2. There are important ongoing opportunities for injury prevention efforts, as there is very low use of helmets while biking, about 1 in every 4 youth report riding in a car driven by someone who had been drinking, and about 1 of every 12 youth report driving after consuming alcohol.
3. Lessons learned from the current successful programs of CHCO in specific types of injury prevention can be extended to other injury prevention areas.

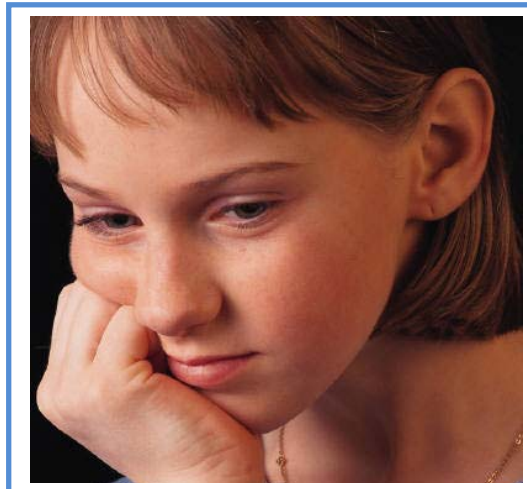


Key opportunities in injury prevention

It is important to continue and re-energize the current outstanding CHCO efforts in preventing specific injuries to children, including shaken baby syndrome and other forms of child abuse, bicycle safety, walking safety, and safety when riding in cars. New efforts within the Pediatric Injury Prevention Education Research (PIPER) program promise to increase the application of evidence-based approaches to injury prevention by CHCO. Continued partnerships and public advocacy are needed. In addition, the relative importance of injuries that are self-inflicted needs to be better highlighted in public education and awareness.

Mental health

Mental, emotional, and behavioral health problems are common in children of all ages. These problems become especially acute during the teen years, when social stresses can compound depression and result in self-destructive behaviors of various kinds. Bullying and other forms of social aggression are increasingly being recognized as problems that can be addressed by education, monitoring, and intervention in schools.¹³



Quantitative data

Apart from hospitalization and mortality data, summarized above, the best population-wide surveillance data on the mental health of teenagers comes from the Youth Risk Behavior Survey (see Table 8):

Table 8.
Self-destructive behavior as reported by children in grades 9-12 in the Youth Risk Behavioral Surveillance System in Colorado, 2011

Teens who report that they:	Percent reporting
Had felt so sad or hopeless for two weeks or more in a row that they stopped doing some usual activities in past year	21.9
Had seriously considered attempting suicide in past year	14.8
Had made a plan about how they would attempt suicide in past year	11.4
Had attempted suicide one or more times in the past year	6.1
Had a suicide attempt that resulted in treatment from a doctor or nurse in past year	2.2
Had seriously considered attempting suicide in past year, by ethnicity	
Non-Hispanic whites	13.9
Hispanics	17.6
Had seriously considered attempting suicide in past year, by gender, ethnicity	
Non-Hispanic white boys	11.3
Hispanic boys	15.4
Non-Hispanic white girls	15.9
Hispanic girls	20.0

Having seriously considered suicide is quite common, particularly for girls, and particularly for Hispanic girls, among whom about 20% reported seriously considering suicide in the past year. The definition of what a serious consideration might be is unclear, of course, but as 11.4% of Colorado teens report having made a specific plan, 6.1% report a specific attempt, and 2.2% reported having medical treatment as a result of an attempt, it is clear that depression and self-destructive behavior are major problems among Colorado youth.

14.8% of Colorado teens report they had seriously considered suicide in the past year.

Table 9 shows how common the use of tobacco, alcohol, and other drugs are among Colorado youth. The high prevalence of tobacco smoking (15.7%), and of binge drinking (22.5%) are especially striking.

Table 9.
Tobacco, alcohol, and drug use as reported by children in grades 9-12 in the Youth Risk Behavioral Surveillance System in Colorado, 2011

Teens who report that they:	Percent reporting
Had smoked cigarettes one or more of the past 30 days	15.7
Had used chewing tobacco in past 30 days	7.0
Had at least one drink of alcohol in past 30 days	36.4
Had at least 5 drinks of alcohol within 2 hours in past 30 days (binge drinking)	22.3
Have used marijuana at least once in past 30 days	22.0

Qualitative data

Key informants regarded mental health issues in children, especially adolescents, as being critically important but largely unaddressed by the current health care system. Key Informants felt that CHCO is not partnering enough in areas of mental and behavioral health.

Many informants were quick to mention that terminology in this area can be a barrier to services. They do not like the term “mental health”, as it had adverse implications from a historical perspective in communities of color, is therefore itself a barrier to care, especially for children. They prefer terms such as “life skills” or “coaching”.



Adolescent depression and suicide were perceived as health disparities issues, specifically in African American and Hispanic families. Bullying is viewed as one of the key precursors to violence and there was wide recognition of bullying and cyber bullying as factors in to suicides, including bullying related to sexual orientation.

The schools were identified as one option to begin a conversation about mental health. Participants believed schools were safe places to talk and gain a better understanding about mental health, violence, and bullying, and to access needed services because of their community’ relationships and trust.

Key Informants felt that CHCO is not partnering enough in areas of mental and behavioral health.

Summary of findings regarding mental health

1. Self-destructive behavior in adolescence may be the single largest health problem among Colorado children, with about 22% of teens reporting feeling sad or hopeless, and about 15% reporting having contemplated suicide in the previous year.
2. Hospitalizations for self-inflicted injuries far exceed those for motor vehicle injuries among Colorado teens.
3. In addition to suicide, many other behaviors that are also self-destructive are common among Colorado teens, including the use of tobacco, drugs, alcohol, and failure to protect against injury.



Key opportunities in mental health

The high rates of self-destructive intents and behaviors among Colorado teens should drive new initiatives and partnerships for CHCO. Here, as for obesity, the current evidence base for successful programs is weak, but the stakes are high and there is both considerable community activity and demand. CHCO could develop partnerships with a variety of community-based organizations that provide educational and social services for children aimed at mental and behavioral health improvement. Many times partnerships would not require substantial new funding, but only strategic support to improve the visibility and credibility of the local project. CHCO could also work with community clinics and schools to identify new models for integrating counseling services for children with emotional, social, and behavioral health problems as a part of health care reform. Likely local partners would be Aurora Mental Health and Arapahoe House, as well as school health programs.

Other health issues

There are, of course, many other important issues of concern to the health of Colorado children, including such conditions as congenital anomalies, autism, asthma, cancer, reproductive health, and dental health.

Quantitative data

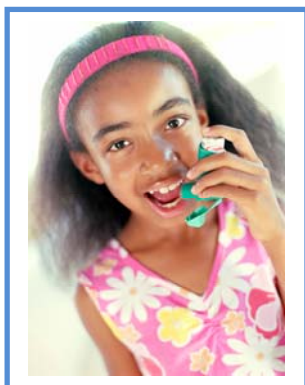


Table 3 (see earlier section) shows that asthma and other respiratory diseases are the most prevalent causes of hospitalization among children under age 12 (highlighted numbers). In the Children's Health Survey, 12% of parents reported their child had a diagnosis of asthma currently, and in the YRBS, 12% of teens reported a current diagnosis of asthma. Among third graders in Colorado, 24.5% have evidence of untreated dental caries, and only 37% have had sealants applied.

Table 10 shows some of the self-reported risks regarding sexual transmitted diseases and unplanned pregnancy among Colorado teens, as reported in the 2011 YRBS:

Table 10.

Behavioral issues related to reproductive health, as reported in the YRBS in Colorado among children in grades 9-12 in 2011.

	% reporting
Have had sexual intercourse with one or more people during the past three months	31.8
(Among teens who had sexual intercourse during the past three months), % who did not use a condom last time during last sexual intercourse	(29.2)
(Among teens who had sexual intercourse during the past three months), % who did not use birth control pills to prevent pregnancy before last sexual intercourse	(77.2)

Unintended pregnancy is a major social and health issue in neighborhoods with high poverty, like those surrounding the CHCO campus in Aurora.

Qualitative data

Key informants stated health education is an important need in the community. Education and training of new parents is a major need to prevent unnecessary injuries, curb child abuse, and prevent SIDS related deaths. New parents education can also work to help them teach their children healthy habits to combat obesity. An issue that often was mentioned is the need for transitional services for adolescents. Many of the key informants felt that the unmet need for more prevention and health resources specifically for teens in sexual/reproductive health and education and programs that address teen-specific mental health concerns.

Key findings

1. Asthma is a common condition in the population and accounts for considerable numbers of hospitalizations, but asthma does not seem to be regarded as a high priority in the community.
2. Access to dental health care is regarded as inadequate, and there is a strong call for better integration of dental care into other health care.
3. Reproductive health issues continue to provide opportunities for prevention (sexually transmitted infections and unplanned pregnancies), yet these issues do not seem to be regarded as critical in the community.

Conclusion

Four major health priorities emerged from this report: access to health care, obesity, injuries and mental health. These priority areas will be best addressed by broad-based partnerships between CHCO and other community-based organizations that are already working in these areas, and by aiming at prevention and advocacy rather than only clinical services.

As part of this community health assessment CHCO identified key staff and community members to serve from here forward on the CHAI community outreach subcommittee, which served to steer the work of the community health assessment described in this report. The outreach subcommittee now stands ready to serve as a liaison between CHCO and communities to address these priority health needs. In the coming 6 month period CHCO and the CHAI community outreach subcommittee will develop a work plan for implementation of partnerships and programs, specifying the partners, the approaches, and the metrics for measuring success for all the CHCO community benefits investments addressing the health needs identified in this report.

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Appendix 1. CHAI community outreach subcommittee.

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Appendix 2. Key informants

Following is a listing of the organizations from which the 36 Key Informants were selected. The full list of individuals, titles is available if requested by authorized parties:

State and Local Government

- Colorado Department of Public Health and Environment
- Local public health agencies (Denver Health, Tri-County Health Dept.)
- Dept of Health Care Policy & Financing
- Colorado Department of Education
- Office of Transportation Safety
- Office of Health Disparities

Colorado community

- Colorado foundations (Caring for Colorado, Colorado Health Foundation, The Colorado Trust, The Rose Community Foundation, Piton Foundation)
- Colorado Children's Campaign
- Area Health Education Centers
- Center for Systems Integration
- Colorado Hospital Association
- Oral Health Awareness Council
- Safe2Tell
- Colorado Behavioral Health Care Council
- LiveWell Colorado
- Pediatrics and family medicine providers

Montbello community

- Lowry Family Resource Center
- Montbello Family Health Center
- The Center for African American Health

Original Aurora community

- Asian Pacific Development Center
- Adams County Youth Initiative
- Metro Community Provider Network
- Aurora Mental Health Center
- Aurora Health Care Access Task Force

Key Informants were asked the following questions:

I. THEIR ORGANIZATION/AGENCY

Can you tell me a bit about your organization/agency?

What type of programs/services do you provide? What communities or neighborhoods do you work in?

Who are the main clients/audiences for your programs?

How long has your organization been working in [SPECIFIC NEIGHBORHOOD OR COMMUNITY]?

What are some of the biggest challenges your organization faces in providing these programs/services in the community?

Do you currently partner with any other organizations or institutions in any of your programs/services?

Has your organization ever partnered with Children's Hospital before?

A) PROGRAMS/PROJECTS

Can you briefly describe 1-2 program/projects?

What health indicator chronic disease or risk factor does it address?

How was the need determined?

What is the level of your intervention strategies? (individual level, environmental/community level, policy level)

B) EVALUATION

What are your evaluation methods? \How do you assure service quality?

What kinds of outcomes do you think should or can be evaluated to assess the impact of an integrated health care program?

What components of “success” have been difficult to evaluate and why?

C) EVIDENCE-BASED PRACTICE

How does your organization define/think of EBP?

What is the level of understanding of EBP within your organization?

II. COMMUNITY ISSUES

How would you describe the community/neighborhood which your organization serves?

What do you consider to be the community’s strongest assets/strengths?

What are some of its biggest problems/concerns?

What are some of the biggest stressors or challenges that families in this community face today?

What do you think are the most pressing health concerns in the community?

Who do you consider to be the populations in the community most vulnerable to these issues?

What do you think are the most pressing health concerns in the community for younger children, those under age 13? How about for adolescents? (13-21)

Are there specific groups of children who are most vulnerable to these issues?

From your experience, what are families’ or parents’ biggest barriers to addressing these issues?

What programs/services are you aware of in the community that address some of these health issues?

Are you aware of any programs/services in the community that specifically focus on childhood asthma? Obesity? Mental health issues among children/adolescents? Injury prevention among children/adolescents?

From your experience, what are the most effective ways that programs can provide information to or communicate with parents? To youth?

IV. PERCEPTIONS OF CHCO AND ITS PROGRAMS

What have you heard about The Children’s Hospital’s programs in the community? Are you aware of any of their community benefits programming?

What is your perception of Children's Hospital and their community benefits programming (if known)?

What do you see as its strengths?

What do you see as its challenges/limitations?

What do you consider Children's Hospital's role to be in the community?

To what extent do you think Children's Hospital is currently meeting the health concerns of your community/the community your organization serves?

How do you see Children's Hospital becoming more engaged in the community to address these concerns?

Are there specific health issues in the community in which Children's Hospital should take a lead in addressing?

Are there any specific organizations in the community in which you see as being a good fit for partnership with Children's Hospital to address these health concerns?

With whom? Around which programs or issues?

Specific suggestions mentioned by Key Informants for CHCO included:

- ✓ Identify best practices for schools, children and families and develop campaigns similar to the shaken baby syndrome campaign to provide community-wide education, not just for families currently under the care of TCH. Health education in communities is particularly needed for obesity, mental health, access to care, and infant mortality.
- ✓ Develop an active learning exchange between community providers and TCH providers (physicians, nurses, care coordinators/case managers and other clinical and health education representatives)
- ✓ Create a Community Advisory Committee (filled with people being served)
- ✓ Partner with community organizations that are already "doing the work" such as CBO's, community clinics, and school-based clinics.
- ✓ Many key informants at one point in the interview stated integrated health care should include physical, mental health and dental health care services.
- ✓ Expand the capacity of the CHCO Clinics, both in space and in hours of access
- ✓ Establish a home visiting nurse service
- ✓ Expand the Children's Access Program
- ✓ Develop parenting mentoring programs in partnership with organizations already doing this work
- ✓ Help coordinated school health programs with caring for children with chronic disease and more advanced care needs of students.
- ✓ Invest more around partnerships with community agencies to provide health services, especially mental health care for children.
- ✓ Advocate for better reimbursement rates for pediatricians in private practices to improve access to care for low income children.
- ✓ Outreach outside of the Denver Metro area

Appendix 3. Focus groups

In addition to the above-listed organizations used to identify key informants, focus group participants were recruited also from the following organizations:

General

- 9Health Fair
- Tony Grampsas Service Program
- Colorado Rural Health Center
- Colorado Community Health Network
- Colorado Coalition for the medically underserved
- Colorado Access
- Family Advisory Council
- Mile Hi Mamas
- El Grupo Vida
- Local community clinics
- Building Bridges for Children's Mental Health
- Mental Health/Juvenile Justice Action Network
- Substance Abuse and Mental Health Services Administration
- Colorado Violent Death Reporting System
- Behavioral Healthcare Council
- ColoradoLINKS
- COPAN

Original Aurora

- Alternatives Pregnancy Center
- LiveWell Colorado
- Weed and Seed
- Rocky Mountain Youth Clinic
- Aurora Community Connection
- Asian Pacific Development Center
- The African Community Center
- Adams County Youth Initiative
- Juvenile Assessment Center
- Metro Community Provider Network
- Tri-County Health Dept
- Kid's Clinic at Crawford Elementary
- Behavioral Healthcare Inc
- Aurora Mental Health Center
- Interchurch Task Force
- COMITIS Crisis Center
- It Takes A Village- Housing Assistance, Family Support
- Colfax Community Network
- Arapahoe House-substance abuse, recovery program
- Redcross Blueshield Gang Prevention
- Boettcher Boys and Girls Club

Montbello

- Center for African American Health
- Lowry Family Resource Center
- Montbello High School SBHC
- Rachel Noel Middle School SBHC
- Montbello Family Health Center
- Colorado Council on Urban Youth Development/Families Against Violent Acts/Now Faith Christian Center
- Flagship Help Center
- Street Kidz

Focus group questions were based on the responses in the key informant interviews, but the general questions they were be asked were:

I. INTRODUCTION AND WARM-UP

Please tell me: 1) Your first name; 2) what neighborhood you live in; 3) how many children you have and their ages; and 4) something about yourself - such as what activities you like to do with your children in your spare time.

II. COMMUNITY AND HEALTH PERCEPTIONS

How would you describe your community?

What are some of the biggest strengths of your community? What are the most positive things about it?

What are some of the biggest problems or concerns in your community?

What do you think are the most pressing health concerns in your community?

What do you think are the most pressing safety concerns in your community?

Who do you think deals with these issues the most? Which groups or types of people?

As a parent, what do you think are the most pressing health concerns in your community for younger children, those under age 13? How about for teenagers (up to 21)?

Who do you think deals with these issues the most? Which groups or types of children/adolescents?

In your opinion, how much of a concern is asthma to the children living in your community? How about obesity? Mental health issues such as depression or attention deficit disorder? Injuries such as car accidents, sports injuries, or injuries in the home?

As a parent, what are the biggest concerns you have for your younger children/adolescents [SELECT DEPENDING ON PARENT GROUP] and their health?

What are some things that you do or have done to try to prevent these issues - or at least reduce your family's risk?

Let's talk about issues that are even broader than health. Just thinking about day to day life -working, getting your kids to school, things like that - what are some of the challenges or struggles you deal with on a day to day basis? What causes stress in your life?

How do you deal with these challenges?

In general, what issues or problems cause your child to miss school or for you to miss work?

III. PROGRAMS/SERVICES IN THE COMMUNITY

Do you know of any programs or services in your community that focus on these specific issues?

Have you or your children ever been a part of these programs? What were they like?

How did you get connected to these programs? How did you initially hear about them?

How satisfied were you with the programs?

How do you wish they were different? What do you think the programs could have done differently?

Thinking about the list of health concerns related to children, teens, and families that we talked about: What kinds of programs or services would you want to see in your community to address these issues? [GO THROUGH SAME SET OF QUESTIONS BELOW MULTIPLE TIMES FOR THE DIFFERENT HEALTH ISSUES PREVIOUSLY MENTIONED]

What is your vision for these programs? What do they look like? [PROBE FOR SPECIFICS]

Who do you think should sponsor them?

Who would be involved in developing them? In participating in them?

Would these be totally new programs or would they be building off of something that already exists in the community?

[IF NOT MENTIONED, GO THROUGH SAME SET OF QUESTIONS SPECIFICALLY FOR ISSUES OF: ASTHMA, CHILDHOOD OBESITY, MENTAL HEALTH (E.g., depression, ADHD, etc.), AND INJURY PREVENTION (E.g., car accidents, sports injuries, injuries in the home)]

If an organization was going to develop these types of programs in your community, what advice would you have for the program planners?

Are there specific things that they would need to know about or do in the community when thinking of developing these types of programs?

IV. CHCO PERCEPTIONS AND HEALTH INFORMATION

Before today's discussion, how many people here had heard of Children's Hospital?

What is your impression of Children's Hospital? If you had to pick a few words to describe your perception of it, what would you say?

If you heard that some of the programs we just mentioned before were going to be developed in your community and that they were sponsored by Children's Hospital, would that make you more or less interested in the program? Why?

What do you think the role of Children's Hospital should be in your community? What could or should the institution be doing at the community or neighborhood level?

If a program wanted to get health information out to parents on children and family issues, what would your advice be? What is the best way to reach parents with information about some of the issues we talked about earlier in our discussion?

How about if a program wanted to invite parents and families to become involved, what is the best way to reach parents with this type of information?

What is the best way to inform parents about a new program and get them excited about it?

ACCESSING HEALTH CARE

I just have a few additional brief questions. If your children had a minor health issue that needed a doctor's care or prescription medicine - such as an ear infection - where would you go for this type of medical care?

In general, how often do your children usually go to a health care provider for minor health issues or check-ups?

Have you ever experienced any problems in trying to get medical care for your children? Like what?

Specific suggestions mentioned for CHCO by focus groups included:

- ✓ Partner with CBO's in educating parents, kinship caregivers and grandparents about the services offered at TCH
- ✓ Partner with CBO's to provide on-site health education workshops for staff working in community-based organizations
- ✓ Invite CBO clinical providers to attend CHCO grand rounds, educational workshops
- ✓ TCH providers to attend educational sessions offered at community organizations
- ✓ Partner with CBO's to provide basic and preventive clinical services (e.g., immunizations prior to the new school year, well-baby check-ups, counseling services for adolescents and teens, etc.).

Appendix 4. Dashboard measures of progress

One of the tasks to be addressed by the CHAI community outreach subcommittee as they develop an implementation plan in the coming 6 months is how to track success in the four priority areas in future years. Developing “dashboard” indicators to monitor on at least an annual basis is needed so that CHCO and its partners can maintain focus on the outcomes to be achieved. Below is a brief discussion of candidate measures to be considered for a “CHAI dashboard”:

1. Access to care can be tracked statewide and by county by monitoring rates of lack of health insurance, using annual survey data compiled by the Colorado Health Institute (Colorado Trust) survey. Data for neighborhoods can be imputed by race/ethnicity, as was done for Montbello and Original Aurora in this report (see Table 2). In addition, two questions on the Child Health Survey, which is aggregated across consecutive 2-year samples, could be useful. One of those questions asks whether any needed health care for the child was delayed, and another specifies the reason(s) for that delay.
2. Obesity can be tracked annually by the YRBS questions and aggregated every two years by the questions on the Child Health Survey. However, both surveys are weakened by their reliance on self-reports. In fact, if awareness becomes an intermediate stage of solving the obesity problem (as it should), then any indicators based on self-reports may well worsen even as the problem begins to improve. Therefore, adding objective measures into the system of monitoring is needed. Such objective surveillance data could be obtained via partnerships with schools as part of school interventions. This would be a cost-effective way to integrate surveillance with institutions that need to be involved in solving this problem. Clinical monitoring could also be developed but that would be more expensive, more burdened by HIPAA barriers, and less representative than school-based surveillance.
3. Injuries can be tracked by the same mortality reporting and hospitalization reporting systems used in this report (see Tables 3-6) as well as the YRBS reports on helmets, seat belts, etc (see Table 7). Effective prevention programs should be reflected in improvements in some or all of those metrics.
4. Mental health issues involving self-destructive behaviors can be tracked by the YRBS questions (see Tables 8 and 9) as well as by hospitalization data on admissions for self-injury. In addition, the numbers of school professionals (nurses, counselors, administrators) who have been trained in mental health issues can be tracked as a critical process measure.

Most of these measures use existing data, but additional investments by CHCO in objective measures of obesity will be needed, as well as in tracking training of school personnel in mental health intervention. In addition, some existing surveillance system such as the YRBS could be improved with strategic investments by CHCO to fortify their approaches.

Appendix 5:

This report was conducted under the oversight of Tim Byers, MD, MPH, Associate Dean for Public Health Practice, Colorado School of Public Health and Director of the Center for Public Health Practice. Data collection, key informant interviews, and community engagement efforts were conducted by Center for Public Health Practice staff as well as Colorado School of Public Health Students.

About the Center for Public Health Practice:

MISSION

To create and foster practitioner excellence to improve public health practice at the systems, community and organizational levels. The Center strives to accomplish this through providing workforce development, community project development and practice-based learning.

Colorado's public health workforce approaches public health practice through collaboration. Whether seen in the cross over between nursing and community health or joint departments of environmental and public health, professionals in Colorado and the greater Rocky Mountain region understand that collaboration leads toward greater improvements in the health of all of our communities. The Colorado School of Public Health Center for Public Health Practice understands collaboration and actively integrates the concept into its organization and programs. Funded by a partnership with Kaiser Permanente, the Center for Public Health Practice ensures that connections to public health practice are collaboratively incorporated throughout the Colorado School of Public Health, both in and out of the classroom. Through the Practice-Based Learning program, Workforce Development, and Community Project Development, it actively connects education and research to the practice and profession of public health.

In addition, the school is a collaboration of three premier Colorado institutions:– University of Colorado, Colorado State University and the University of Northern Colorado. As a result, staff and resources are located at the University of Colorado Anschutz Medical Campus and Colorado State University's Fort Collins campus, in addition to staff and resources connected across the state.

In an effort to connect professionals and agencies, the Center has developed a Public Health directory, which will help to bring together people and projects across the state facilitating professional interactions and collaborative work.

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