

Measuring Child Health: Fulfilling Colorado's Commitment to Become the Healthiest State



*A Report by the Colorado
Cross-Agency Collaborative*

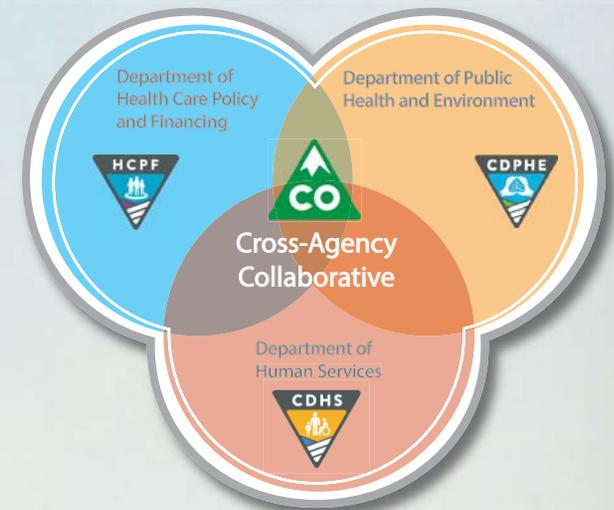


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Executive Summary

The well-being of children in Colorado is one of the most important investments that our communities make. Today's children are our future leaders and innovators, only if they are presented with the opportunity to reach their developmental potential and the ability to sustain the highest possible standard of health.

To fulfill these objectives it is essential that the health of children is protected and promoted from the beginning of life. Early childhood experiences are central to shaping long term health and well-being. Therefore, it is critical that health inequalities are reduced and opportunities for success are extended to everyone.

Recognizing that Colorado has a multitude of initiatives focusing on improving child health, the Department of Public Health and Environment (CDPHE), Department of Human Services (CDHS), and Department of Health Care Policy and Financing (HCPF) partnered to create the Colorado Cross-Agency Collaborative. This Collaborative is tasked to identify metrics based on topics that are pertinent to Colorado and identify gaps where further work is needed.

The Collaborative recognizes that each agency strives to positively impact Coloradans. Oftentimes, however, these efforts could be better coordinated. By leveraging points of intersection, the Collaborative intends to foster alignment and the establishment of priority efforts and targeted interventions in order to more effectively improve Coloradans' health.

The Collaborative's short-term goals are to:

- Identify, track and trend metrics collected by State agencies
- Develop aligned initiatives that impact Coloradans' health
- Set targets and benchmarks for performance

The Collaborative's long-term goals are to:

- Expand the scope of this project to include alignment with other State agencies, such as, the Department of Education, and the Office of Information Technology

- Create a combined, statewide strategy of common programs that create economic opportunities through improved health
- Expand population health data to allow for community, state, and national comparisons
- Improve efficiency of programs and resource allocation

The Collaborative will publish its work through quarterly reports, with the following report focusing on child health in Colorado. This report will provide an environmental scan of Colorado's health situation for children, using metrics from CDPHE, CDHS, and HCPF that have been vetted by the Colorado Cross-Agency Collaborative.

The Child Health report is divided into four life stages that focus on the effects of social, economic, and cultural contexts on children's health. The four life stages are as follows:

- Family Formation (Conception through birth)
- Early Childhood (0-5)
- Middle Childhood (6-12)
- Adolescence (12-19)

The life stage approach acknowledges future long-term risks to health are dependent on the physical, social and emotional developments during gestation, childhood, adolescence, and young adulthood.¹ Without adequate development the risk of future negative health outcomes significantly increases. As demonstrated by the data vetted by the Collaborative, there are a number of indicators in Colorado that portray notable strengths as well as areas for needed improvement.

In 2012, 17% of Colorado children were born into poverty (below 100% FPL).² This staggering number is of great concern due to the strong association between poverty and delays in social/emotional and behavioral development.³ Interventions need to be identified at each life stage that break the cycle of poverty and create opportunities that are critical to the success of children in Colorado.

Executive Summary

Disparities between economically disadvantaged and higher income populations impact multiple health and social outcomes. Women who are impoverished have lower academic achievement, higher rates of smoking during pregnancy and a higher rate of unintended pregnancies.⁴ These factors increase the risk of raising a child with negative health outcomes and limited opportunities for social mobility.

If children are exhibiting any developmental delays that can potentially impact their future health, it is important to refer them to early intervention programs. These programs can assist in diagnosing and treating developmental delays before they manifest into more serious conditions. During fiscal year 2013-2014, the number of infants and toddlers in Colorado who were referred to Early Intervention was 11,811.⁵ Of that number 1,721 were found to have a delay in one or more developmental areas. Timely interventions are necessary to reduce developmental delays in order to allow children to reach their full potential.

Children should have the opportunity to be raised in active nurturing environments, that place emphasis on physical activity, healthy nutrition and life style choices throughout the life span. With the growing amount of obese children in Colorado, culturally respective interventions should be implemented to reverse this trend. Based on the data, 35.7% of children aged 9-14 who are covered by Medicaid, are obese.⁶ Children who are obese are at an increased risk of developing chronic diseases such as diabetes and coronary heart diseases. Obesity can also impact academic achievement leading to limited future success.⁷

During the adolescent life stage, the Collaborative's data highlighted the work CDPHE implemented to address teen pregnancies in Colorado. Colorado's teen birth rate dropped 40% from 2009 through 2013, driven by an initiative that helped women get long-acting reversible contraceptives. Although teen pregnancies have been reduced in Colorado, some populations such as teens (15-17) covered by Medicaid, still exhibit twice the rate of births when compared to the overall Colorado teen population.⁸

Another important health factor for adolescents is their mental health. Adolescents affected by poor mental health may be more inclined to drop out of school, exhibit delinquent behavior, and have higher alcohol, tobacco and illicit substance use rates.⁹ Data in Colorado has shown that 60.1% of high school students exhibited poor mental health during one or more days in the past month.¹⁰

In order to improve the mental health of Colorado's children and adolescents, measurement gaps have to be filled. Without behavioral health data it is difficult to understand the problems that Colorado's youth are facing and challenging to assess the impact of any implemented programs. Thus, collecting quality data on depression and substance use screenings in primary care can inform decision making and shift funding into the direction of need.

The results highlighted in this report may be useful in the following ways:

- Public health agencies and policymakers should focus on efforts to reduce child health disparities caused by poverty.
- Efforts should be made to create environments where children can reach their developmental potential and sustain the highest possible standard of health through investing in maternal health.
- Funding for programs should continue and be enhanced to encourage adoption of healthy behaviors, increased access to preventive health services, and greater education in family planning.



Colorado Child Demographics

Population of Colorado Children 18 and Under



1,237,932



51%
Males

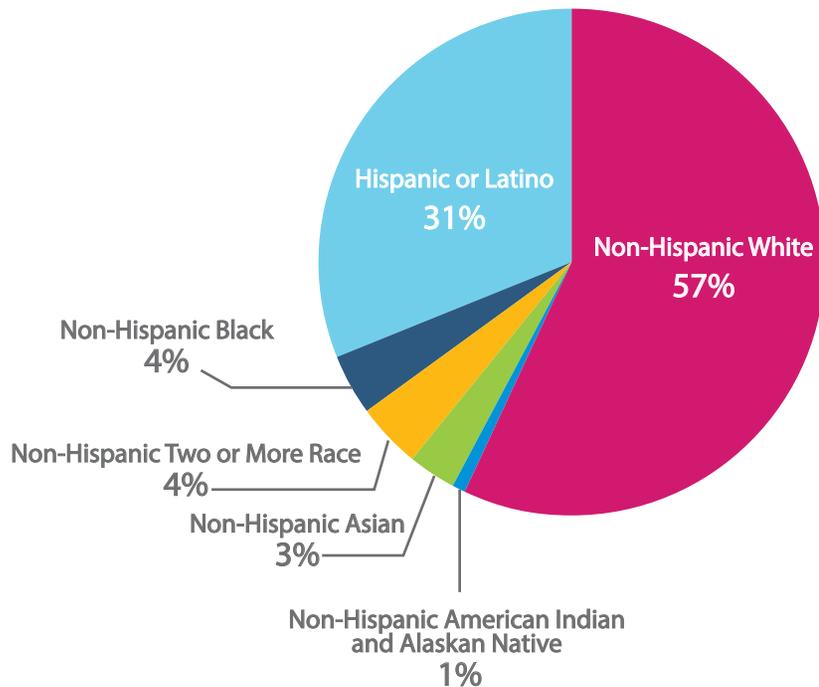


49%
Females

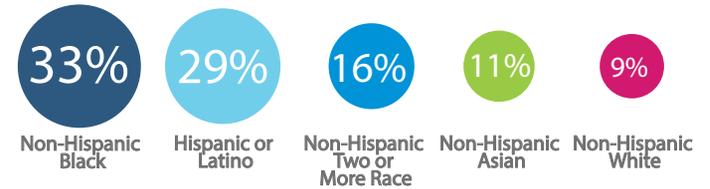
Children with Medicaid under 20 (EPSDT)¹

548,280

Race and Ethnicity of Children in Colorado 18 and Under, 2013



Colorado Children in Poverty by Race and Ethnicity (18 and under), 2013

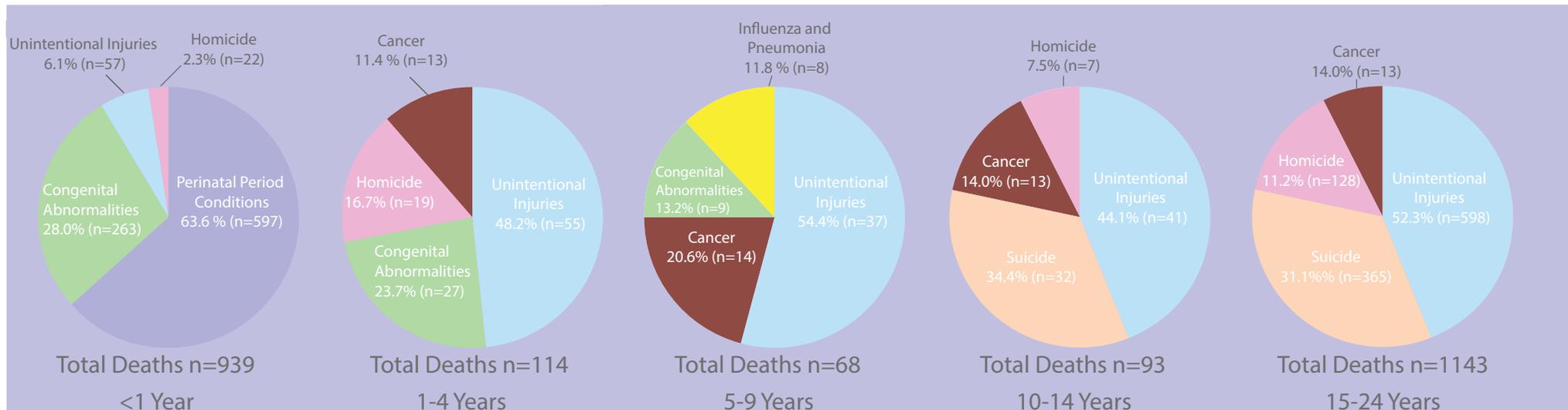


22% or 16 million
Children in the United States
are Living in Poverty

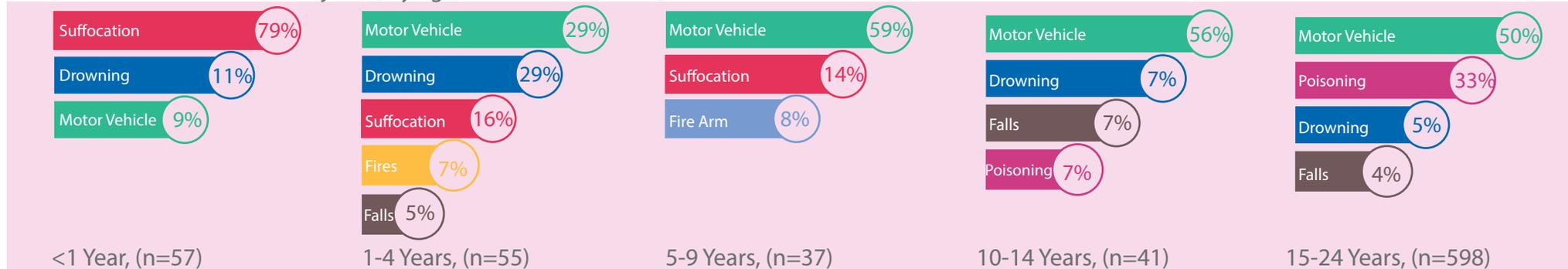
16.9% or 207,000
Children in Colorado
are Living in Poverty

Child and Youth Injuries in Colorado

Leading causes of death, by age, Colorado residents, 2009-2011^{1,2}



Break down of unintentional injuries, by age, Colorado residents, 2009-2011^{1,2}



Colorado Goals and Priorities

By 2016, reduce the percentage of 9th-12th graders who reported attempting suicide.

By 2015, reduce youth motor vehicle fatalities to 10.5 fatalities per 100,000 youth ages 15-19.

Source: ¹Colorado Vital Records, Colorado Health Information Dataset (CoHID), CO Dept. of Public Health & Environment, ²Child Fatality Prevention System. Dept. of Public Health & Environment, Colorado Dept. of Behavioral Health.



Family Formation (Conception through birth)

Many factors influence the health of a child at birth. The development of a child during the prenatal stage is complex and rapid. The brain, organs and other essential parts that make human life possible need a favorable environment in which to grow.¹¹ In order to foster an environment where a child develops healthy cognitive, emotional, and physical growth, access to prenatal care is critical.

Through prenatal services, the mother receives medical attention focusing on preventative care, education, and the promotion of healthy lifestyles that benefit both mother and child. Providing these essential tools ultimately reduces the risk of complications for the mother and may protect the child from developmental delays later in life.¹²

Furthermore, access to prenatal services supports mothers in developing a conception plan, managing conditions like diabetes, obesity and mental health conditions. Other preventative services during prenatal care can include screening for depression and substance use, allowing for identification of problems and timely interventions that can alleviate future health complications of both mother and child.

Prenatal care also provides mothers with important information on alcohol and tobacco use. Studies have shown that consumption of alcohol and tobacco during pregnancy may profoundly affect the development of a child. High intakes of alcohol can cause fetal spectrum disorders, such as growth deficiencies and mental disabilities, while smoking tobacco may lead to premature birth and certain birth defects^{13,14}

Babies born prematurely and below normal birth weight (5.5 lbs. or 2500 grams) may encounter serious health problems, such as respiratory difficulties, increased risk of infections, feeding problems, and difficulty maintaining a normal body temperature.¹⁵ In addition, a lower birth weight may also have long-term effects on the child's cognitive and social abilities.¹⁶

It is essential that our healthcare systems provide equitable access to prenatal care for mothers so they receive the right education and primary prevention services that allow their children to have a healthy start in life.

The time after pregnancy is equally vital in fostering maternal and child health. By receiving postpartum care, maternal health can be improved through timely identification of risks, such as excessive bleeding, pain or infections.¹⁷

Women who receive postpartum care are also introduced to evidence-based information on healthy household activities, counseling on breast care, newborn care practices, family planning, the benefits of breastfeeding and any other information that will promote maternal and child health.¹⁷

These evidence based practices such as breastfeeding, have shown to produce tremendous positive health benefits. Babies who are breastfed from birth receive a nutritional diet that contains immunological and anti-inflammatory properties that protect against a host of illnesses and diseases.¹⁸ These practices and interventions will foster the health and safety of the mother and child, building a strong foundation for future success.

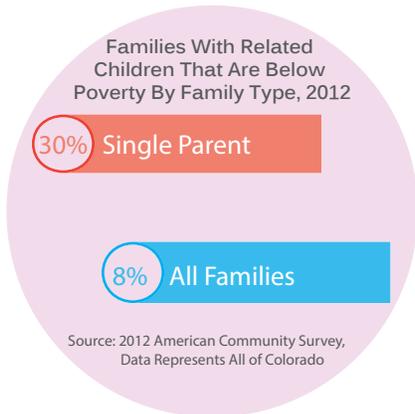
In addition, mothers may go through emotional changes, especially after having their first child. These changes may lead to postpartum depression and cause negative impacts on both the mother and child.¹⁷ By, having access to adequate postpartum care, health professionals can screen for depression, reducing the risk of complications through timely interventions.

The following indicators on family formation were selected by the Department of Human Services, the Department of Public Health and Environment, and the Department of Health Care Policy and Financing through deliberation and analysis of available data in Colorado. The chosen indicators represent the current disparities in Colorado on which the departments want to focus their resources.

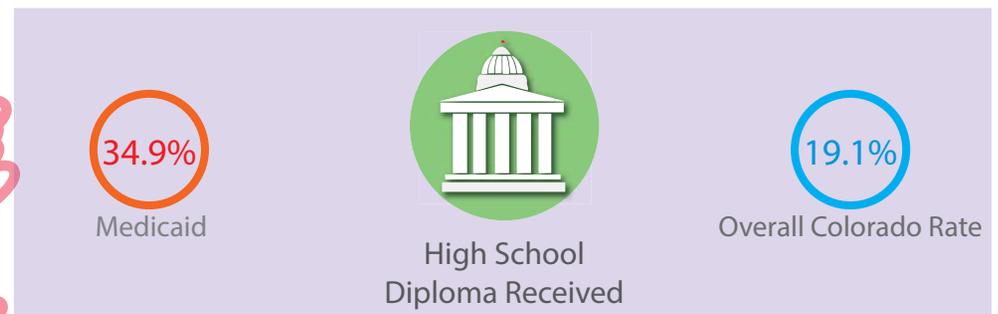
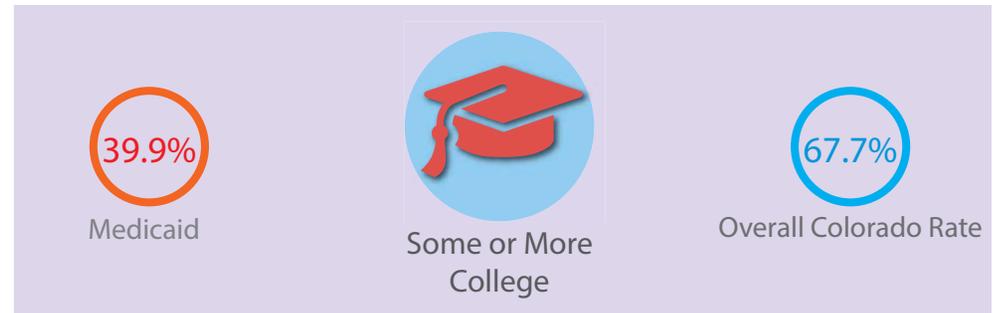




Family Formation: Income and Education



Maternal Education Level of Colorado Women who Recently Gave Birth, 2012



Source: Pregnancy Risk Assessment Monitoring System (PRAMS), 2012

Parental Socio-economic Status

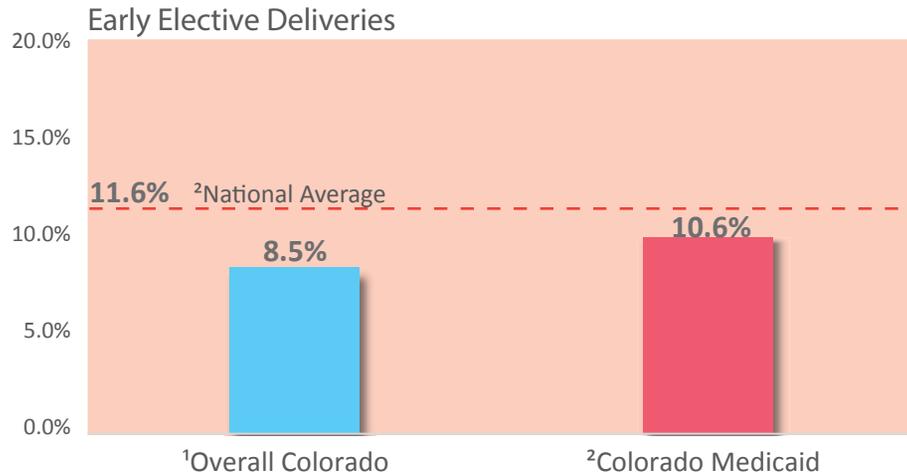
Parents with a higher socio-economic status and educational attainment have children that are more likely to succeed in the future. Research has demonstrated that parental education predicts a child's educational and behavioral health outcomes.¹⁹ In addition, parents who are highly educated tend to have greater aspirations for their children and encourage them to develop high expectations, of their own, ultimately leading to higher education and well paid occupations.²⁰

Children who are born into difficult economic environments have shown to exhibit pessimism towards educational and vocational futures, placing additional barriers to reaching middle class.²¹ This economic hardship may also increase the risk of negative health outcomes due to a multitude of factors such as poor nutrition, stressful environments, or lack of access to health care.

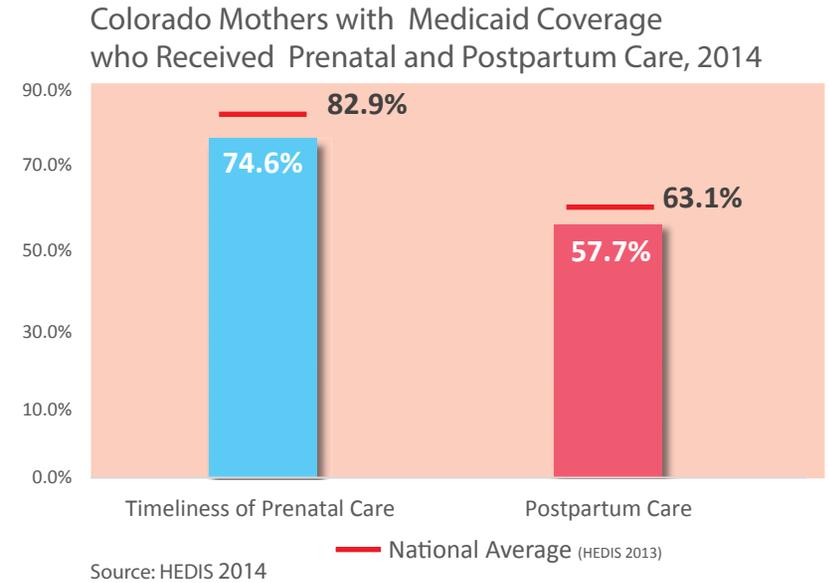
Furthermore, clear advantages have been documented for children who are raised in two-parent families.²² The increased support system of two parents raising a child provides more time for care and greater financial resources to cover the high expenses of raising children.



Family Formation: Infant Health



Source: ¹March of Dimes 2013, ²Medicaid Reporting System FY 2012, Early Elective Deliveries are non-medically indicated (without a medical reason) births between 37 and 39 weeks gestation that were delivered by Cesarean section or induction.

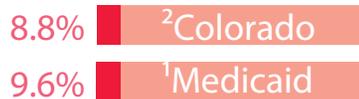


“In 2012, about 1 in 15 infants (6.9% of live births) was born to a woman receiving late or no prenatal care in Colorado.” -March of Dimes

Low Birth Weight Babies (<5.5 lbs)



Source: ¹ Medicaid Birth Certificate FY13
² CDPHE Birth Certificate 2012
³ CDC 2012



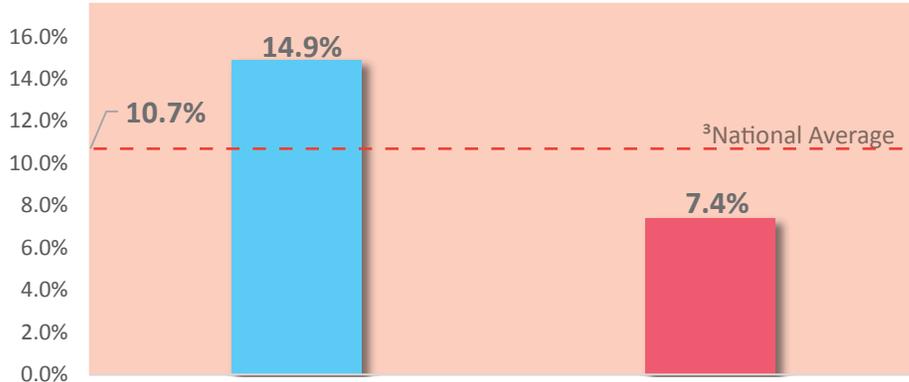
Source: Health Statistics Section, Colorado Department of Public Health and Environment 2010-2012





Family Formation: Mother's Behaviors

Mothers who Smoked During Pregnancy in Colorado



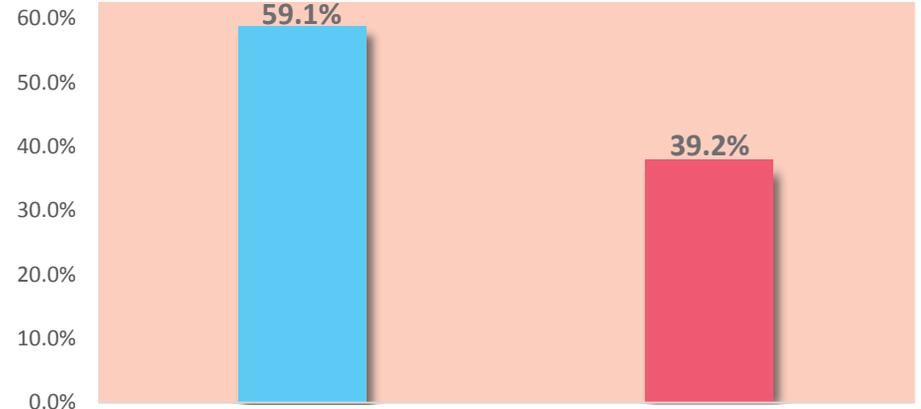
¹Percent of Women (all ages) with Medicaid Coverage who smoked during pregnancy

²Percent of Women (all ages) who Smoked during Pregnancy

³National Average

Source: ¹ Medicaid Birth Certificate FY13, ² CDPHE Birth Certificate 2012, ³ PRAMS, 2010-2011

Unintended Births in Colorado, 2012



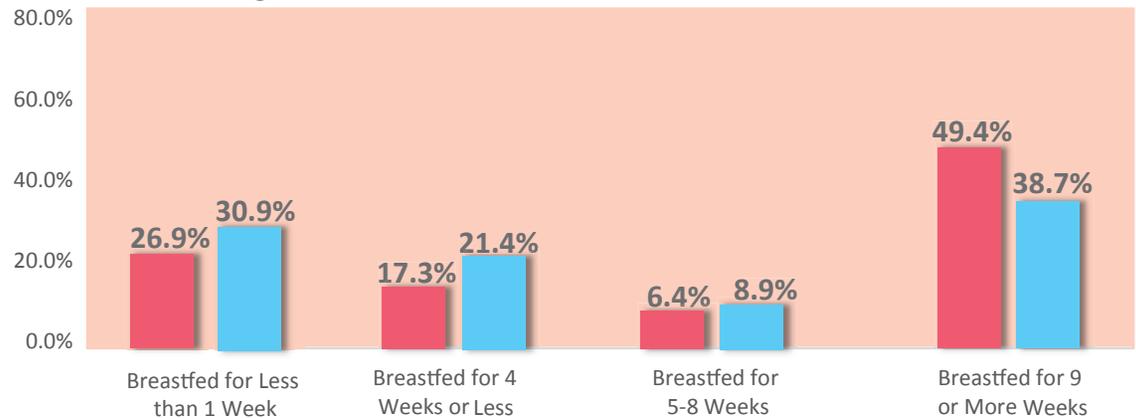
Women with Medicaid Coverage that had an Unintended Birth

All Women in Colorado who had an Unintended Birth

Source: PRAMS, 2012



Breastfeeding Duration in Colorado, 2012



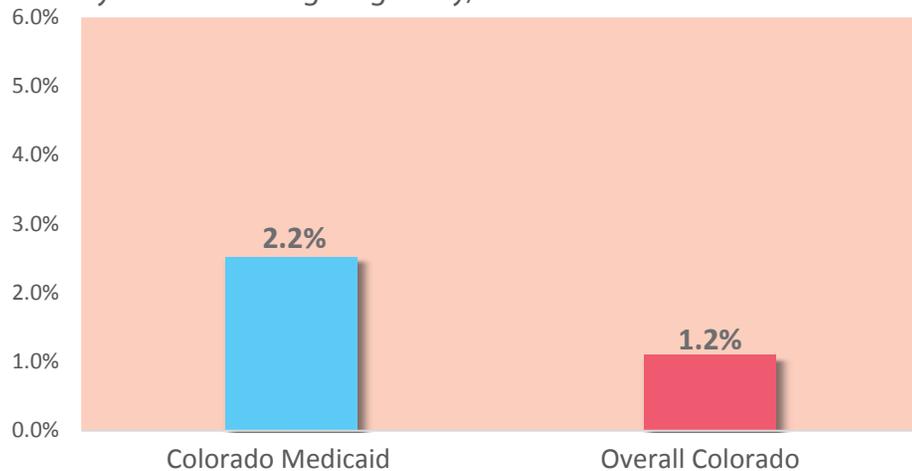
■ Women with Medicaid Coverage ■ All Women in Colorado

Source: PRAMS, 2012



Family Formation: Mental Health

Domestic Violence Experienced by Women During Pregnancy, 2012



Source: PRAMS, 2012

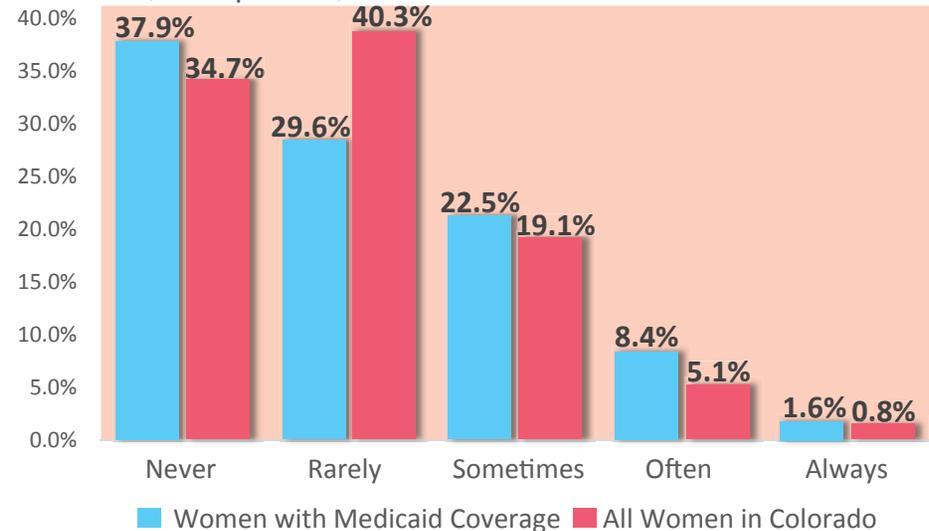
Domestic Violence Program

“Domestic Violence Program (DVP) currently funds 47 domestic violence programs across the State. All DVP-funded programs provide confidential services 24 hours a day, 7 days a week via crisis lines (or utilize Memorandum of Understandings to coordinate services with other entities). Programs provide a wide array of services to victims, including safe shelter, empowerment-based advocacy, information and referrals to community resources, and community education for victims of domestic violence, their families and other stakeholders in their community” - Colorado Department of Human Services

Effects of Domestic Violence on Women and Children

Women who experience domestic violence display higher levels of depression, lower self-esteem, and higher levels of psychological distress. In addition, domestic violence can lead to complex traumatic syndrome that is similar to a diagnosis of post-traumatic stress disorder (PTSD). Children who live in environments with domestic violence are at an increased risk of developing social/emotional problems, decreased social competence, increased behavior problems and psychopathology, increased fear and worry, increased depression and aggression and PTSD.²³

Women with Newborns who Felt Down, Sad, or Depressed, 2012



Source: PRAMS, 2012

Early Childhood (Ages 0-5)

Newborns need a lot of attention from their parents in order to develop healthy physical and cognitive functions.²⁴ Well-care visits to the doctor's office are essential in ensuring that a newborn is reaching all of her/his developmental milestones. It is also a good time for doctors to provide sound health advice to parents on how to properly care for their child. Education on nutrition, breastfeeding, health promoting behaviors and many other important concepts allow parents to become excellent care takers that are more aware of their child's needs. In addition, regular well-care visits provide great opportunities for health professionals to administer all the necessary vaccines that are recommended in the vaccine periodicity schedule, strengthening a child's immune system to resist potential infectious diseases. Additionally, many

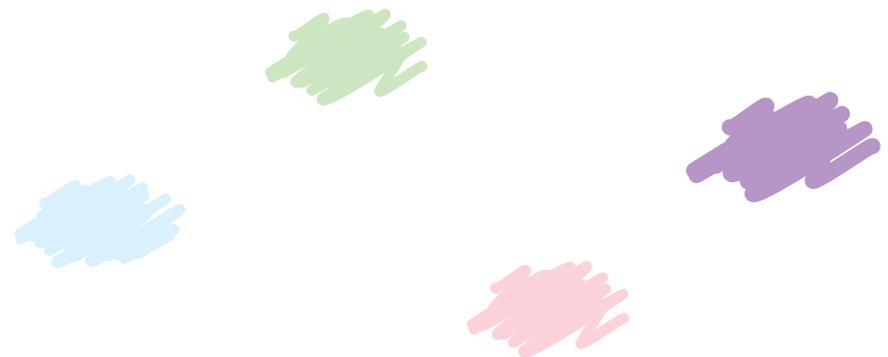
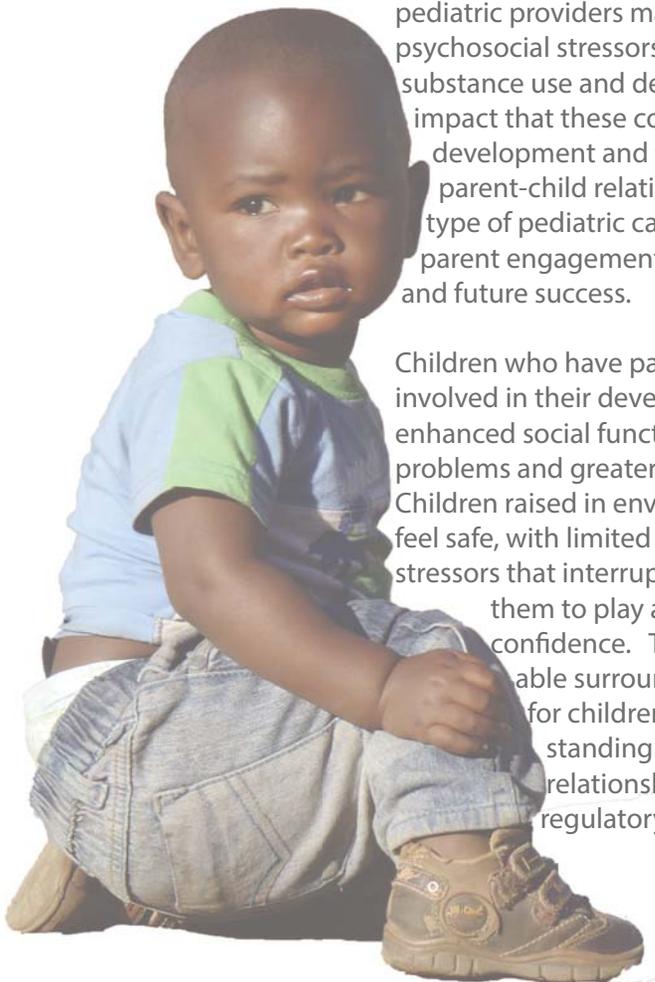
pediatric providers may screen parents for psychosocial stressors such as violence, substance use and depression, recognizing the impact that these conditions have on child development and the quality of the parent-child relationship. Providing this type of pediatric care can create greater parent engagement in their child's health and future success.

Children who have parents that are highly involved in their development exhibit enhanced social functioning, fewer behavior problems and greater academic success.²⁴ Children raised in environments where they feel safe, with limited amount of external stressors that interrupt development, will allow them to play and explore with greater confidence. These stable and predictable surroundings are good settings for children to develop their understanding of emotions and relationships as well as learn regulatory skills .

Creative play is critical for healthy human development and is linked to higher-level thinking skills.²⁵ True learning involves creating meaningful connections between concepts or ideas and making emotional links. For example, children reading a story about Peter Pan and then playing Peter Pan have made a meaningful, higher-level connection.

Play also builds social skills. Children practice conflict negotiation, cooperation and develop an understanding of intricate skills related to socialization. Those skills set the stage for academic success and classroom behavior.²⁶ Additionally, play allows children to develop skills to calm and soothe themselves through physical activity and movement. Calm, regulated children are more ready to learn.

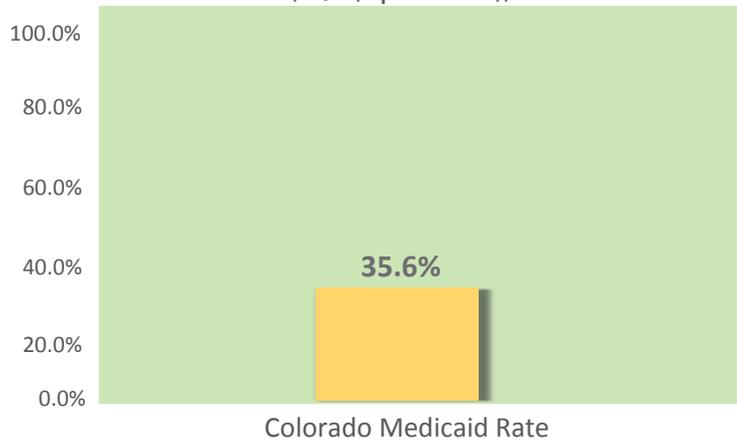
Parents play a vital role in early childhood development. Parents provide foundational relationship skills and emotional safety. Parents promote their child's early learning and education by reading to them regularly, communicating with child care providers and by tailoring parenting strategies to meet the child's needs. Partnering with pediatric providers will support healthy social emotional development and identification of any developmental delays that would be supported through early intervention.





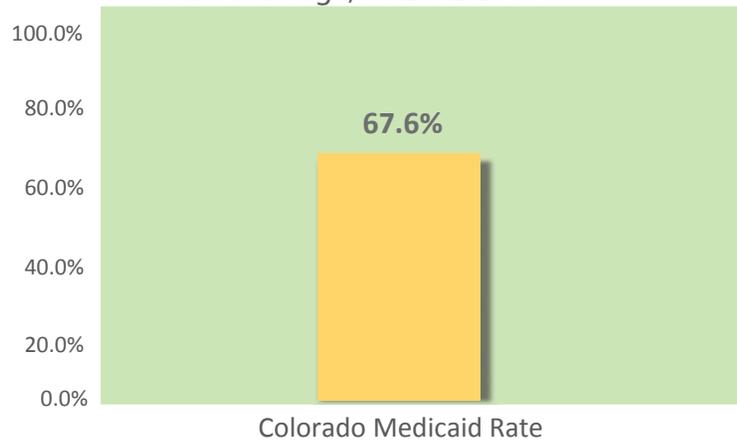
Early Childhood: Screenings

Children with Medicaid Coverage (Aged 9-34 months) who Received a Developmental Screen During a Well-Child Visit, Q2 (April-June), 2014



Source: EPSDT 96110 Billing Data from Medicaid Q2 2014

Well-child visits for children (Ages 0-5) with Medicaid coverage, FY 2012-2013



Source: EPSDT CMS 416, FY 2012-2013

Well-Child Visits

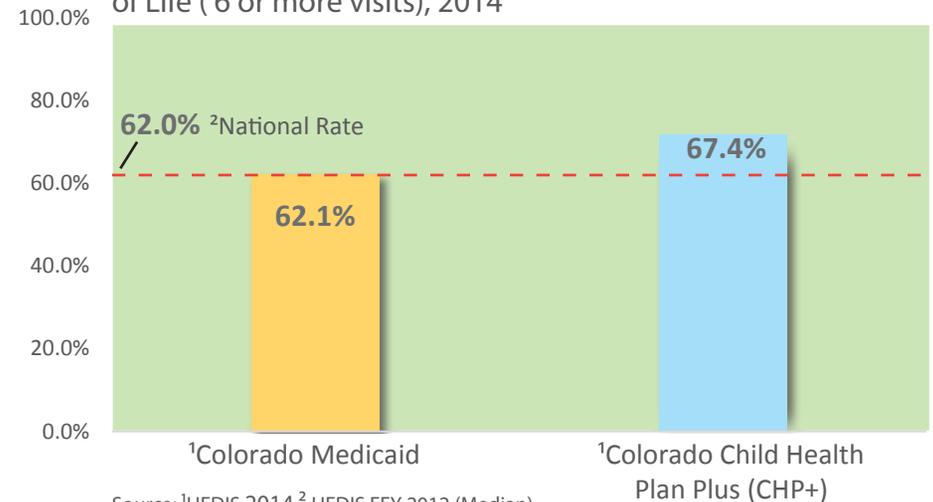
“Colorado Medicaid is committed to ensuring that children receive the health care they need at the time they need it. Through the Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit, children and adolescents under the age of 21 enrolled in Medicaid receive comprehensive, high-quality health care that provides necessary strategies and tools for their healthy physical, social and emotional development.

Well-child visits under EPSDT include a comprehensive health history on both physical and mental health development, immunizations, laboratory tests appropriate for age and risk factors, health education, including anticipatory guidance, and vision, hearing, and dental services.

Well-child visits are designed to ensure that children and adolescents of all ages receive early detection and preventive care so that health problems are averted or diagnosed and treated as early as possible.”

Source: Paving the Road to Good Health, CMS 2014

Well-Child Visits in the First 15 Months of Life (6 or more visits), 2014



Source: ¹HEDIS 2014 ²HEDIS FFY 2012 (Median)



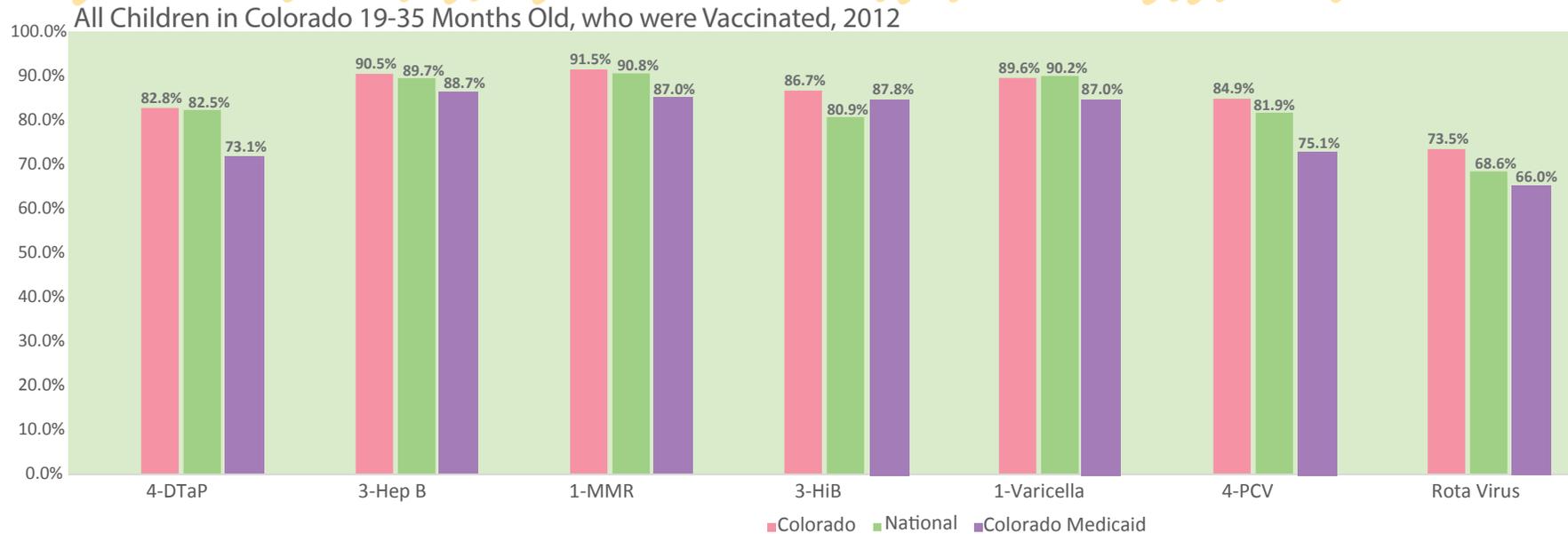
Early Childhood: Immunizations

Access to Immunizations

From the time of birth, children are exposed to environments that are filled with disease causing viruses and bacteria. Luckily, the human body has an immune system that protects us from these life-threatening diseases. This immune system begins developing during pregnancy where many of the antibodies used for fighting off germs are acquired. However, this immunity is not comprehensive because it only passes on antibodies that the mother has. In addition, some of these antibodies are not transferable, leaving the newborn vulnerable to disease.²⁷

Due to the lack of antibodies and undeveloped immune systems in children, vaccines are administered to provide critical protection. Vaccinations are our best defense against many disease causing complications such as pneumonia, liver cancer, bloodstream infections, and even death.²⁷ The Centers for Disease Control and Prevention (CDC) published a recommended immunization schedule to ensure the prevention of 16 potentially life-threatening diseases.

The barriers to immunization are a significant factor in less than optimal immunization rates. Cost, reduced accessibility, transportation, and an increasingly complex immunization schedule can all have an impact on people receiving the vaccinations that they need. A federal program, Vaccines for Children (VFC), was created to address some of these barriers. Children who are uninsured, covered by Medicaid, or American Indian or Alaskan Native are eligible to receive VFC vaccines at low or no cost. Not all providers participate in the VFC program, including some Medicaid providers. Some providers have difficulty meeting the federal requirements of the program, especially if the population of Medicaid they see is small. Those children may be referred to a local public health department to receive immunizations. This creates a barrier for families and may contribute to low immunization rates within the Medicaid population. To ensure that children and infants in Colorado are appropriately immunized, we need to provide equitable access to these services, as well as improved data collection that allows us to make the right policy decisions.

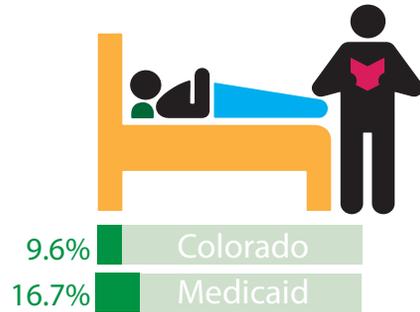


Source- Colorado and National Data (Children 19-35 Months Old, who were Vaccinated, 2012) National Immunization Survey 2012
Colorado Medicaid- Children at age 2 in Colorado with Medicaid Coverage who were Vaccinated, HEDIS 2014



Early Childhood: Parent Engagement and Nutrition

Percent of Colorado Children whose Family Read Stories to them Less than Three Days Per Week (Ages 14-5)



Source: Colorado Child Health Survey 2012-2013

Malnourishment

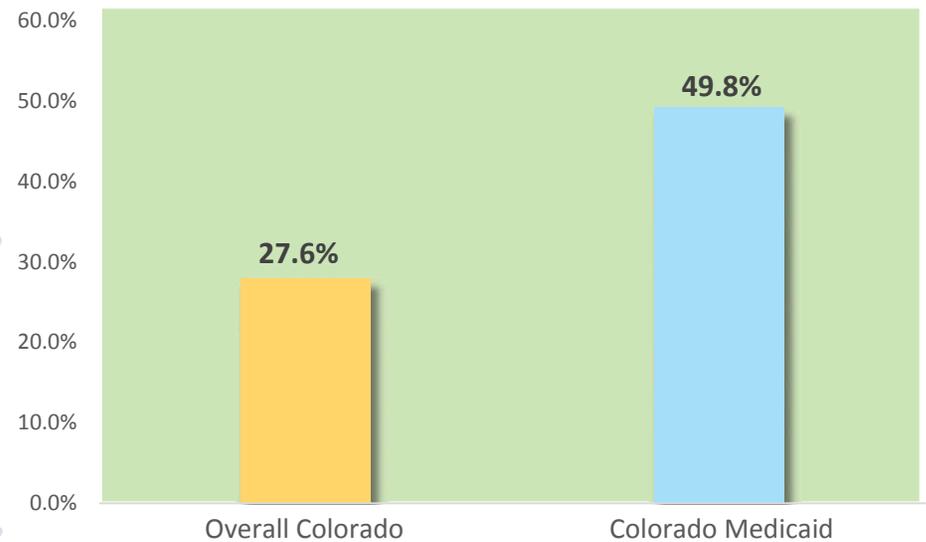
Children are at a stage of life where they are constantly growing and developing cognitive as well as social/emotional skills. In order for healthy child development to occur, children need a well-balanced nutritional diet that supplies the right amount of nutrients needed for growth. Not having this essential component can cause short and long-term health complications.

Children who are malnourished can lack important micronutrients such as iodine, iron, and vitamin A, potentially causing delayed motor and cognitive development.²⁸ These delays can have indirect impacts on educational attainment, academic achievement and future success. In addition, children who are malnourished are at an increased risk of developing chronic diseases such as diabetes, coronary heart disease, and obesity.²⁸

Parents Engaged in their Child's Education

Parents that are involved in their child's education positively affect their child's school performance. Children who have parents that read to them, demonstrate higher literacy and academic achievement, greater cognitive competence, greater problem solving skills, and less behavioral problems. The positive effects of reading to a child are even more pronounced when parents start at an earlier age, providing an early head start that has been observed to increase future success.²⁹

Percent of Colorado Families Relying on Low Cost Food (Ages 1-8)



Source: Colorado Child Health Survey 2012-2013

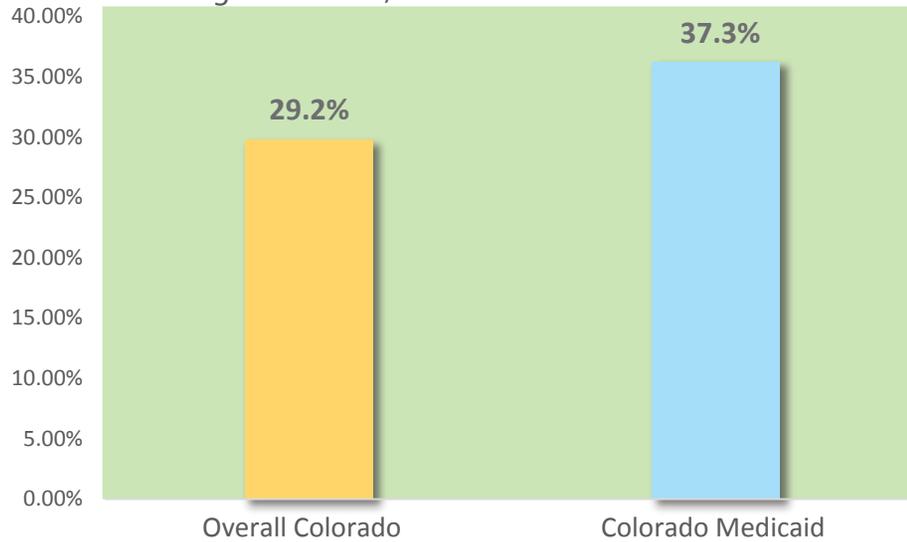
Nutrition

To ensure that children develop healthy physical and cognitive functions, it is essential that they receive a well-balanced diet that promotes their growth. Furthermore, children who lack the resources for food security due to poverty or unexpected life events, need to be supported so that any health complications can be mitigated.³⁰



Early Childhood: Physical Health

Percent of Children Ages 2-8 who are Overweight or Obese, 2012-2013



Source: Colorado Child Health Survey 2012-2013

Percent of Colorado Children (Ages 0-5) Eligible for EPSDT who Received any Dental Services, FY 2012-2013

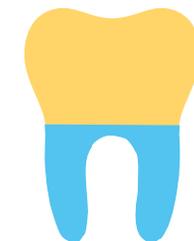


Source: EPSDT CMS 416, FY 2012-2013

Importance of Oral Health

Oral health is often overlooked as an important overall component of health. Tooth decay is the most common chronic disease among children 5 and under.³¹ If left untreated, pain and infection from tooth decay can cause problems with nutrition, speaking and learning. In addition, poor oral health has been linked to poor performance in school, poor social relationships, and less success later in life.³² Populations especially vulnerable to dental caries, are children with special health care needs as well as children from low socio-economic backgrounds.³¹ Therefore, early diagnosis and treatment of dental caries, will ensure the health and well-being of a child.

Percent of Third Grade Colorado Children who have Received Protective Sealants on at Least One Permanent Molar Tooth, 2011-2012



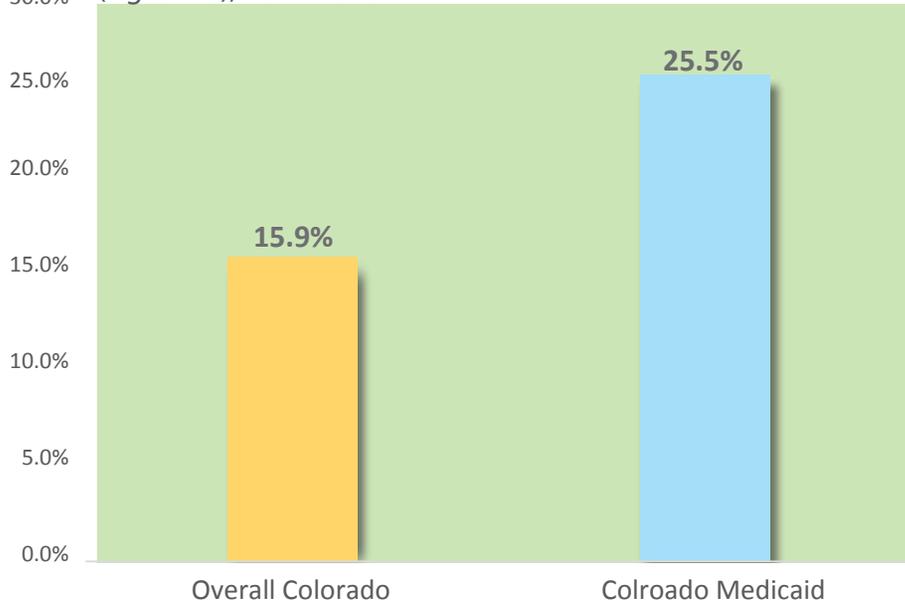
44.9%

Source: Colorado Children's Oral Health Screening Survey 2011-2012



Early Childhood: Mental Health and Early Intervention

Percent of Coloradan Parents Concerned about Child's Emotions, Concentration, Behavior or Ability to Get Along with Others (Ages 1-8), 2012-2013



Source: Colorado Child Health Survey 2012-2013

Child Development

The early childhood period (ages 0-5) is a time of incredible growth in all areas of development. During these early years, the foundation is set for positive relationships, strong physical and mental health and well-being, and lifelong learning. Some of the development that takes place involves the increase in ability to self-soothe and self-regulate behavior and emotions. These skills are critical to developing behaviors that allow children to participate in and benefit from educational settings.

Early Intervention

Children who screened positive for developmental concerns at a pediatric practice can be referred to community early intervention programs. These programs can assist in diagnosing and treating any physical or mental conditions with a high probability of resulting in a developmental delay, or an existing delay that may affect their development or impede their education. The purpose of early intervention is to lessen the effects of the disability or delay. Services are designed to identify and meet a child's needs in five developmental areas, including: physical development, cognitive development, communication, social or emotional development, and adaptive development.

11,811

Infants and Toddlers Referred to Early Intervention



6,682

Found Eligible for Services



1,721

Found to have a delay in one or more developmental domains

Source: Colorado Department of Human Services, Office of Early Childhood FY 13-14

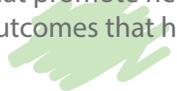
Middle Childhood (Ages 6-12)

During middle childhood, children change drastically. They become more independent from their parents and make significant leaps in cognitive abilities and social relationships with peers.

A safe and structured learning environment allows children to develop confidence as well as positive social and cognitive skills. The expansion of their vocabulary allows them to find better ways to describe experiences and talk about their thoughts and feelings. In addition, they gain a sense of responsibility along with their growing independence, especially when making new friendships.

These new experiences shape how children make decisions. During a time when it is important to be liked and accepted, a growing need to conform to peer pressure exists. Children who feel good about themselves and are involved in healthy friendships have a greater ability to resist peer pressure and make better choices.³³ School age children need continued support in navigating their broader social interactions with peers and teachers. Bullying or challenges navigating peer relationships can impact children's mental and emotional health. Children that exhibit other symptoms such as changes in sleep and eating, anger outbursts or withdrawing from relationships may need additional intervention. Scheduling regular pediatrician visits can alleviate some of these symptoms by supporting appropriate interventions for children and families.

In addition, their lifestyle choices are heavily dependent on their external environment. Having healthy school lunches, opportunities of physical activities, curriculum that teaches health promotion, and friends that abstain from negative health behavior, will influence a child to make health oriented choices. Creating conditions that promote health and well-being alleviates the risk of future negative health outcomes that have the potential to affect their lives.





Middle Childhood: Mental Health

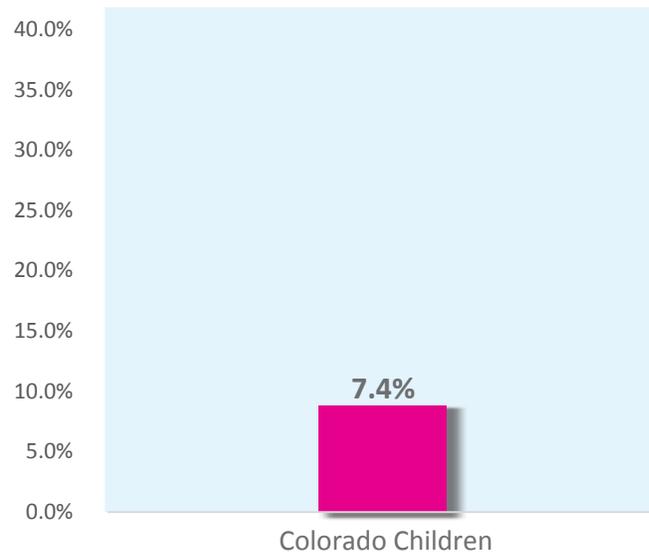
Child Development

Reaching developmental, emotional milestones, knowing how to cope with problems and learning healthy social skills are vital steps that allow children to develop positive social behaviors. Unfortunately, many children develop behavioral health conditions, such as mood and anxiety disorders, problems with emotional regulation, and behavior disorders.

In order to prevent these negative outcomes, safe environments and healthy relationships must be built that allow children to develop emotional skills to cope and quickly recover from adverse effects, stress and traumatic experiences.³⁴

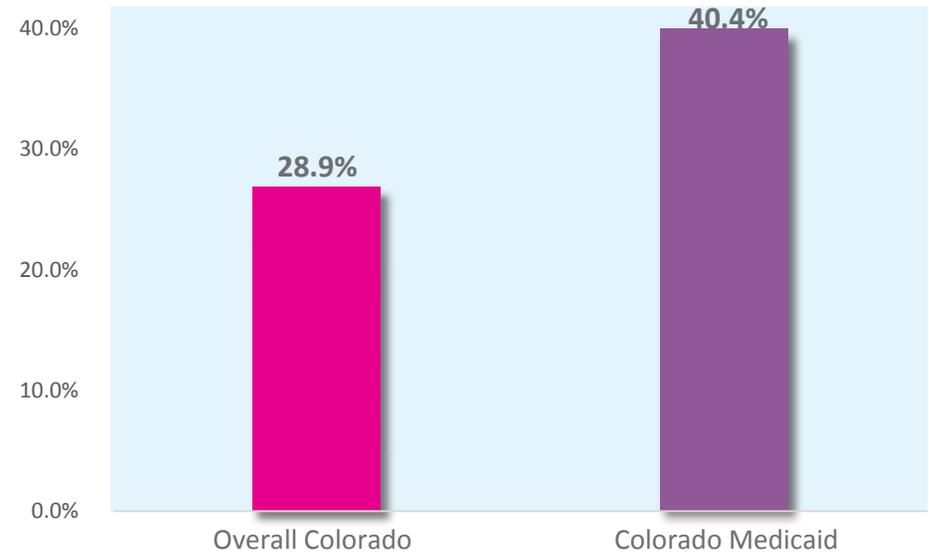
Furthermore, early diagnosis of social and emotional disruptions for children and providing appropriate services can provide great opportunity for a healthy life.

Percentage of Children (Ages 0-12) with Medicaid Coverage using Behavioral Health Services, 2012-2013



Source: Medicaid Reporting System FY 12-13

Percent of Colorado Parents Concerned about Child's Emotions, Concentration, Behavior or Ability to Get Along with Others (Ages 9-14), 2012-2013

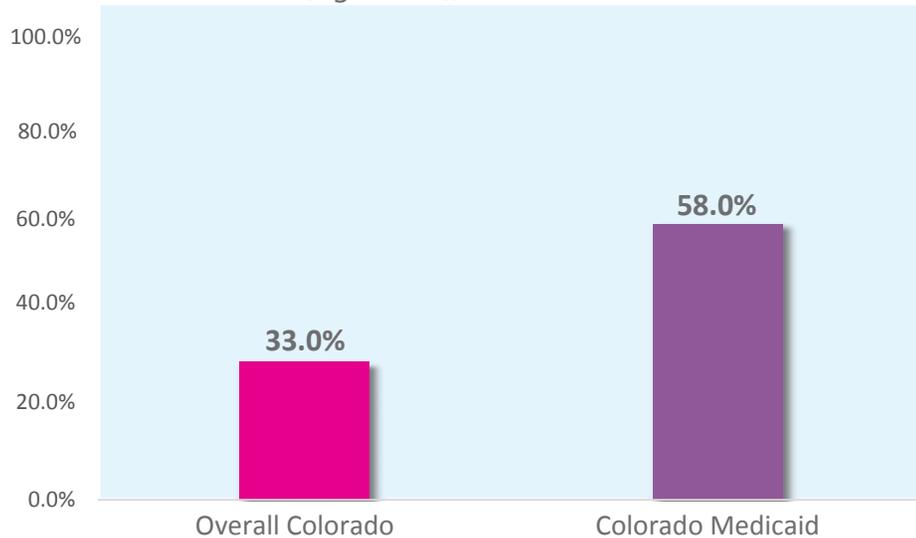


Source: Colorado Child Health Survey 2012-2013



Middle Childhood: Nutrition

Percent of Colorado Families Relying on Low Cost Food (Ages 9-14), 2012-2013



Source: Colorado Child Health Survey 2012-2013

Academic Success

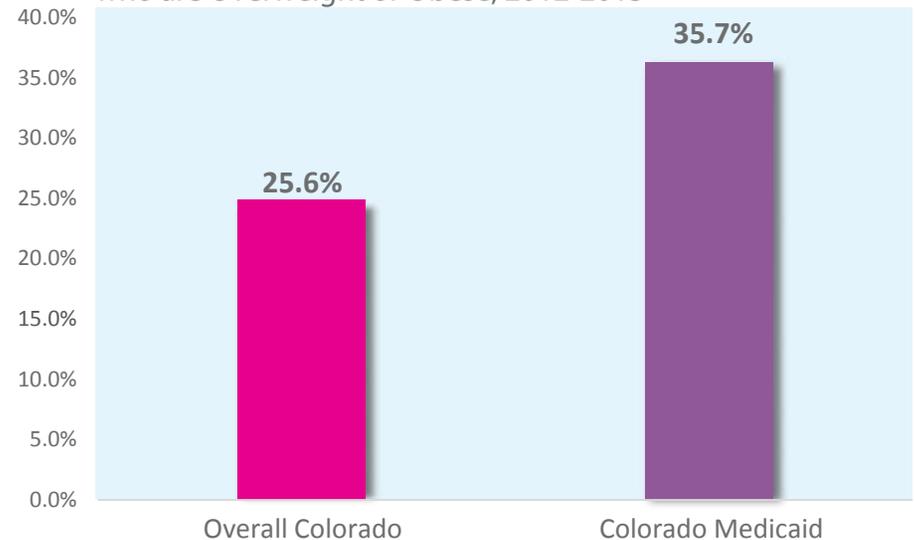
Children who have insufficient food intake are at greater risk of poor academic performance and cognitive function. Studies show an association between the lack of adequate foods like fruits, vegetables and dairy products and lower grades among students.³⁸ These results are even more pronounced for children from lower socio-economic backgrounds.

To soften the effects that food insufficiency causes, school breakfast programs can be implemented. Studies show that children in schools with breakfast programs have improved academic and cognitive performance. Additionally, these programs provide children with a guaranteed daily meal that has shown to reduce absenteeism and tardiness.³⁹

Childhood Obesity

Childhood obesity is a major public health concern in the United States. According to the Centers for Disease Control and Prevention, the prevalence of childhood obesity is continually rising; currently, approximately 18% of children aged 6-to 11-year-old are overweight.³⁵ This upward trend has dangerous implications on future health outcomes. There are strong associations between childhood obesity and an increased risk of chronic diseases, such as orthopedic, neurological, pulmonary, gastroenterological, and endocrine conditions.³⁶ Furthermore, obesity also affects psychosocial outcomes, more specifically low self-esteem and depression that result from being overweight.³⁷ These factors may influence aspects of a child's life, such as academic achievement, leading to potentially more serious adverse social outcomes later in life. To mitigate these negative health outcomes, children need to have adequate access to healthy foods as well as nutritional education that promote healthy lifestyles.

Percent of Colorado Children Ages 9-14 who are Overweight or Obese, 2012-2013

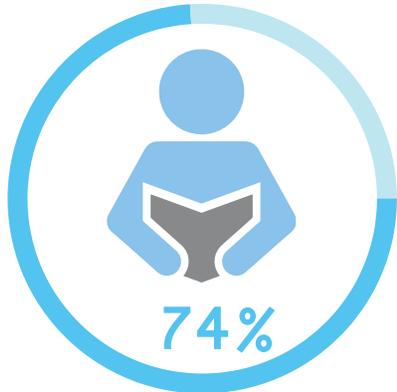


Source: Colorado Child Health Survey 2012-2013



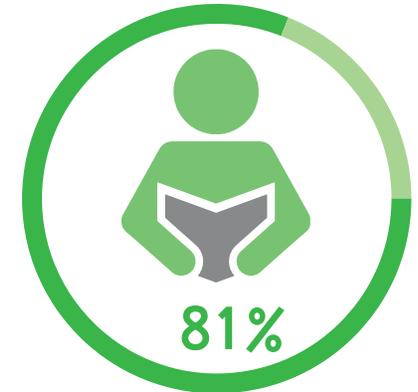
Middle Childhood: Academic Proficiency

4th graders who are at or above basic reading achievements



US Avg:67%

8th graders who are at or above basic reading achievements

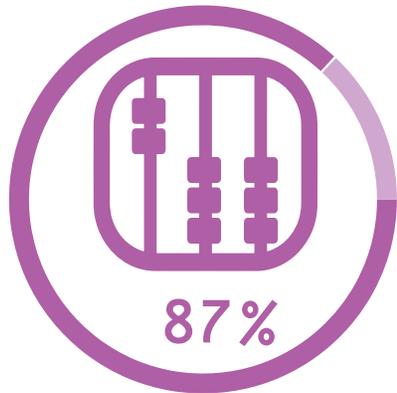


US Avg:77%

Basic Reading and Math Skills of 4th and 8th Graders in Colorado

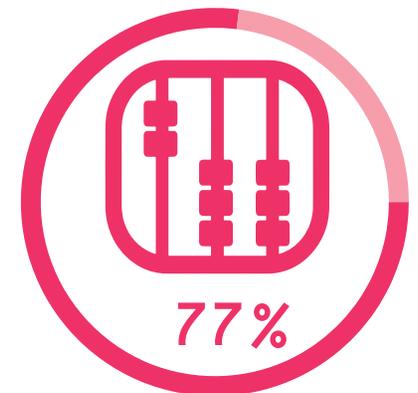


4th graders who are at or above basic math achievements



US Avg:82%

8th graders who are at or above basic math achievements



US Avg:73%

Source: National Assessment of Educational Progress (NAEP), Kids Count Data Center, 2013

Adolescents (Ages 12-19)

The adolescent years signal a time of substantial change between childhood and adulthood. The hormonal changes of puberty cause significant physical, social, and emotional changes. Due to the pressures of pop culture and social media, adolescents are burdened by concerns surrounding body image, as certain physiques and styles are perceived as attractive while others are not. Adolescent girls, in particular, may risk negative health outcomes if they start dieting, develop eating disorders, or fall into depression as they strive to attain that perfect image so as to be liked by their peers or able to attract relationships.

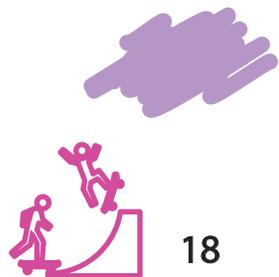
Furthermore, sexuality and sexual relationships come into the picture, and the risk of unintended pregnancies or other negative outcomes is high. Therefore, educating adolescents on sexually transmitted diseases, building healthy relationships, and providing resources that prevent teen pregnancies is essential.

The mental health of adolescents can be fragile during this life stage, especially due to all of the expectations that are placed on them by friends, schools and families. Data in Colorado has shown that the leading cause of death for 10-17 year olds is suicide. An adolescents risk of self-harm increases when certain protective factors are lacking such as positive community environment and support, family and peer connect-edness, school connectedness and positive relationships. Ensuring that these factors are in place will help mitigate the poor mental health.

Integrating behavioral health into primary care will quickly allow for identification and treatment of mental health problems before they escalate into life ending circumstances. The Office of Suicide Prevention in Colorado is currently working on reducing suicide rates among adolescents.

Additionally, education is crucial in learning the dangers of substances such as alcohol, tobacco, and drug use as well as learning how to combat peer pressure to engage in unhealthy behaviors. By empowering adolescents through education, they are provided with the opportunity to make healthier lifestyle choices.

Not only can making healthy life-style choices negate bad health outcomes, those choices can also impact school performance. Staying healthy leads to increased academic achievement and reduces dropout rates, and since graduating high school is such an important factor to future success, every opportunity must be leveraged that allows children to reach that milestone.⁴⁰





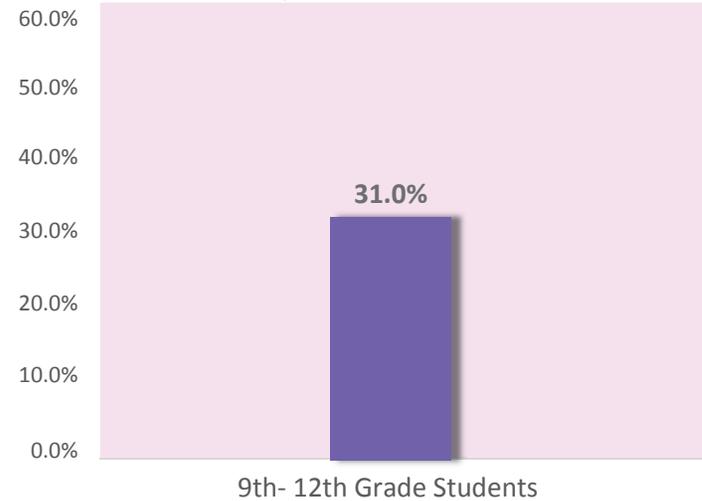
Adolescents: Healthy Behaviors

Living Healthy

Health outcomes are dependent on the type of behaviors that individuals exhibit. People who eat healthy, engage in physical activity, and avoid tobacco use, decrease their risk of developing chronic diseases in adulthood. However, what determines an individual's behavior is depended on their values on health and perceived effects of health-compromising behavior.⁴¹

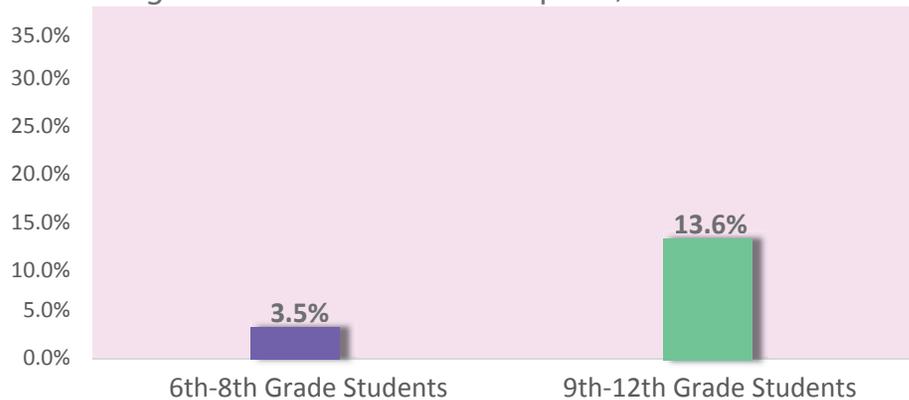
These attitudes towards healthy behaviors are influenced and shaped by individuals, peers, families, schools, communities and media. To ensure that adolescents make healthy lifestyle choices, it is beneficial to create joint health promoting efforts between entities that influence the behavior of individuals.

Sexually Active High School Students in Colorado who Use an Effective Method of Birth Control, 2013



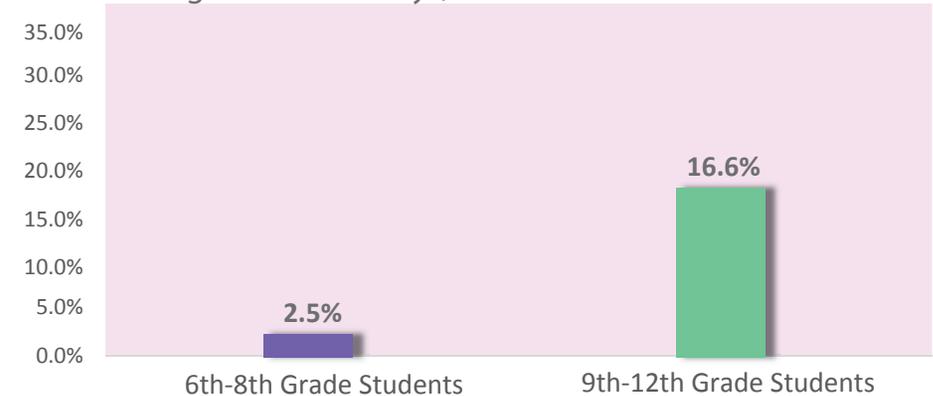
Source: Healthy Kids Colorado Survey 2013

Percent of Students in Colorado who Took a Prescription Drug Without a Doctor's Prescription, 2013



Source: Healthy Kids Colorado Survey 2013

Percent of Students in Colorado who had 5 or More Consecutive Drinks of Alcohol, within a Couple of Hours, During the Past 30 days, 2013

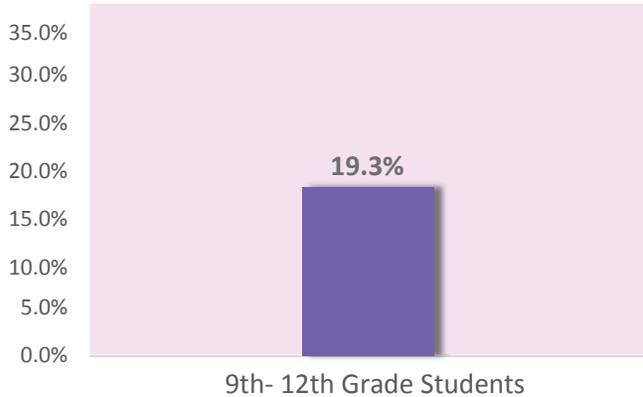


Source: Healthy Kids Colorado Survey 2013



Adolescents: Physical Health

High School Students in Colorado who are Overweight or Obese, 2013



Source: Healthy Kids Colorado Survey 2013

Adolescent Well-Care Visit

Well-care visits give health care providers a great opportunity to help teenagers who are at risk for many preventable health problems. During these visits doctors have the opportunity to discuss nutrition, physical activity, screen for depression and safety (including substance abuse and sexuality). All of the leading causes of adolescent non-fatal and fatal incidents are avoidable and well-care services are one way for teens to get the help they need beforehand.

Counseling and treatment can help adolescents avoid or recover from a number of problems including addictive behaviors like alcohol abuse, smoking and drug use; eating or mental disorders; sexually transmitted diseases and pregnancy.

The American Academy of Pediatrics recommends parents leave the room for a portion of the exam so that adolescents may freely discuss confidential health issues with their health care provider.⁴² It helps to ensure that important health concerns will not be overlooked due to a teen's concern for privacy, and provides a "bridge" toward becoming an adult and handling health issues independently.

Adolescents in Colorado with Medicaid Coverage who had a Well-Care Visit, FY 2013



Source: ¹HEDIS 2013 ²HEDIS FFY 2012 (Median)

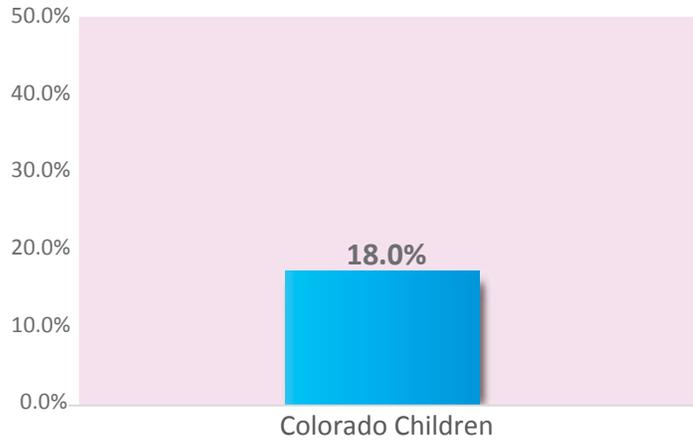
What's the Difference Between a Well-Care Exam and a Sports Physical?

Local high schools require athletes to provide proof of an annual physical exam in order to participate in high school sports. A sports physical is simply an exam that helps determine if it is safe for the athlete to participate in a particular sport. An annual well-care exam gives doctors a chance to perform a thorough physical exam and health assessment.⁴² It's also a good chance to address important adolescent issues.



Adolescents: Mental Health

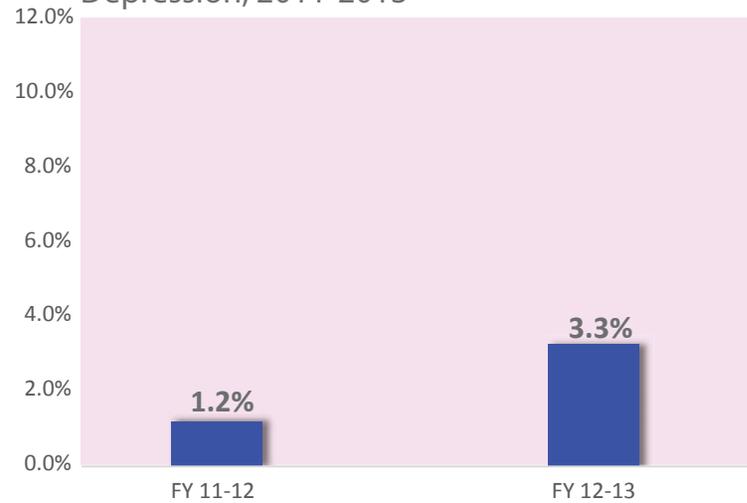
Percentage of Children (Ages 13-17) with Medicaid Coverage using Behavioral Health Services, 2012-2013



Source: Medicaid Reporting System FY 12-13



Percentage of Adolescents in Colorado (Aged 11-20) with Medicaid Coverage who were Screened for Depression, 2011-2013

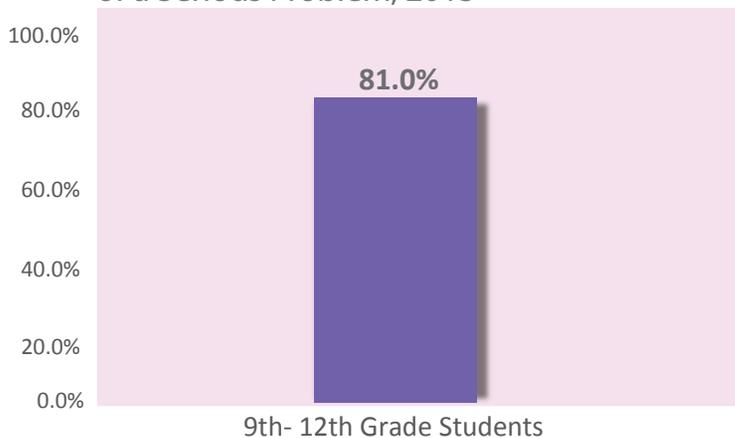


Source: Medicaid Reporting System FY 11-13

Effective 2011, the Colorado Medical Assistance Program will cover developmental screening for adolescents aged 11 – 20, using a standardized, validated depression screening tool (i.e., PHQ-9, Columbia Depression Scale, Beck Depression Inventory, Kutcher Adolescent Depression Scale, etc.) at the child's periodic visits.



Students who have Someone to Talk to in Case of a Serious Problem, 2013



Source: Healthy Kids Colorado Survey, 2013



Adolescents: Mental Health

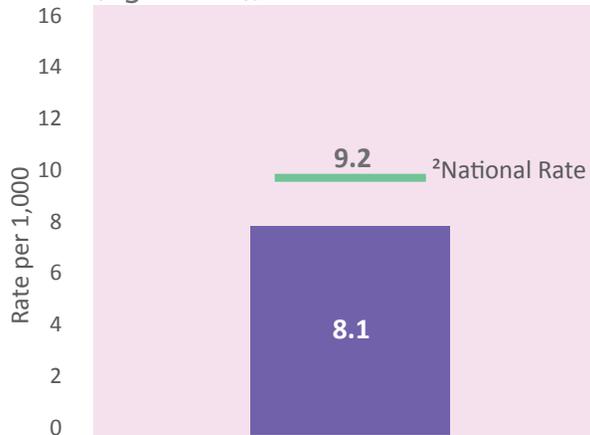
Mental Health During Adolescents

During late childhood and early adolescence, many mental health problems may emerge. Recent studies on mental health have found depression to be the largest burden of disease among young people.⁴³

Adolescents who are affected by poor mental health may exhibit adverse health and social outcomes, such as higher alcohol, tobacco and illicit substance use, teen pregnancies, dropping out of school, and delinquent behaviors.⁴⁴

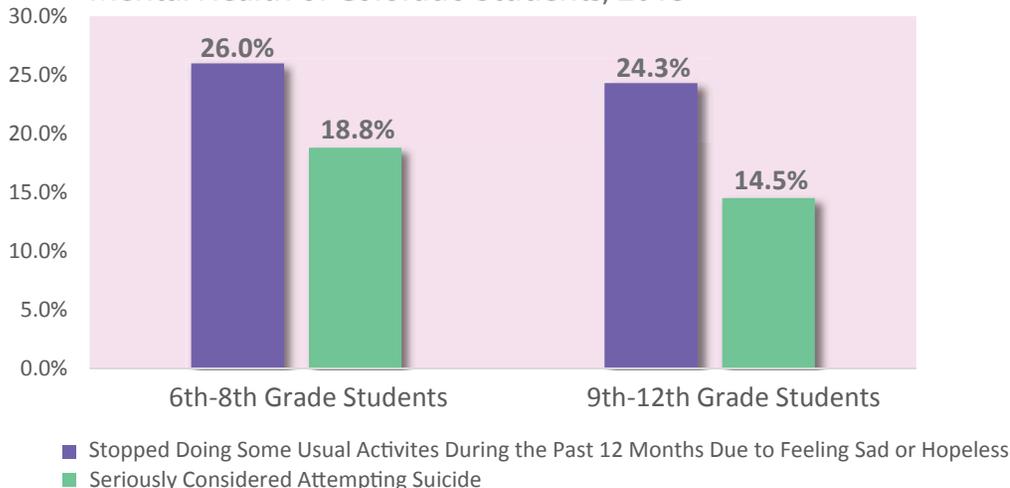
Healthy child development is shown to reduce and prevent mental health problems. In addition, children who are provided with positive social and problem-solving skills can better protect themselves from everyday environmental stressors that may cause mental health disorders.

¹Colorado Child Maltreatment Rate, (Ages 0-17), 2013



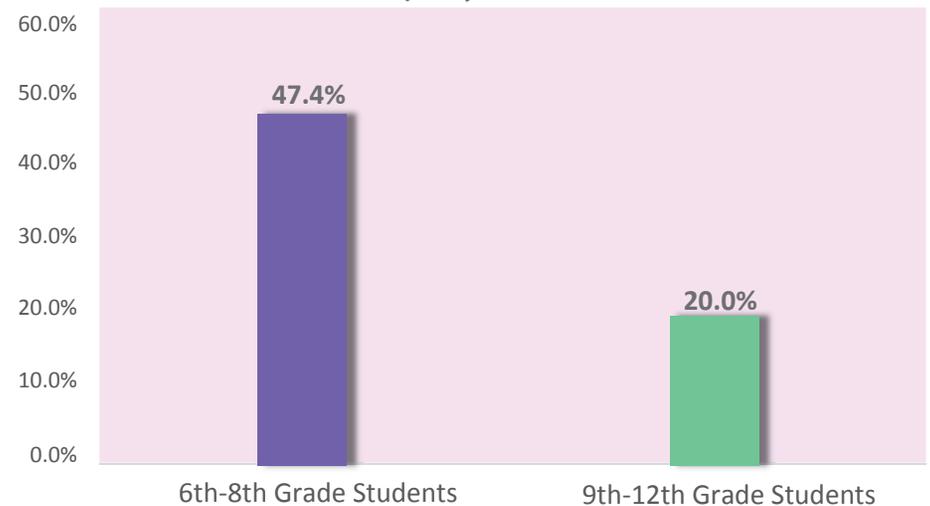
Source: ¹Colorado Department of Human Services, 2013
²NCANDS FFY 2012

Mental Health of Colorado Students, 2013



Source: Healthy Kids Colorado Survey, 2013

Percentage of Students in Colorado who Reported being Bullied on School Property, 2013



Source: Healthy Kids Colorado Survey 2013



Adolescents: Reproductive Health

Women in Colorado (Aged 15-17) with Medicaid Coverage who were Prescribed Contraceptives, FY 13-14

12.5%



Women in Colorado (Aged 15-17) with Medicaid Coverage who been Prescribed a Long Acting Reversible Contraceptive, FY 13-14

1.4%

Source: Medicaid Reporting System FY 2013-2014

Teen Pregnancy and Educational Attainment

“Because the relationship between academic failure and teen pregnancy is so strong, and because teen pregnancy affects the educational achievement of teens themselves as well as that of their children, those concerned about educating young people should also be concerned with preventing teen pregnancy. Moreover, given the increasing demands in schooling necessary to qualify for a well-paying job, it is more important than ever for teens to finish high school and attain post secondary education when possible.”

Source: The National Campaign to Prevent Teen Pregnancy, 2010

Unintended Pregnancies

“Unintended pregnancies are associated with an array of negative outcomes for the women and children involved. For example, relative to women who become pregnant intentionally, women who experience unintended pregnancies have a higher incidence of mental-health problems, have less stable romantic relationships, experience higher rates of physical abuse, and are more likely to have abortions or to delay the initiation of prenatal care.”

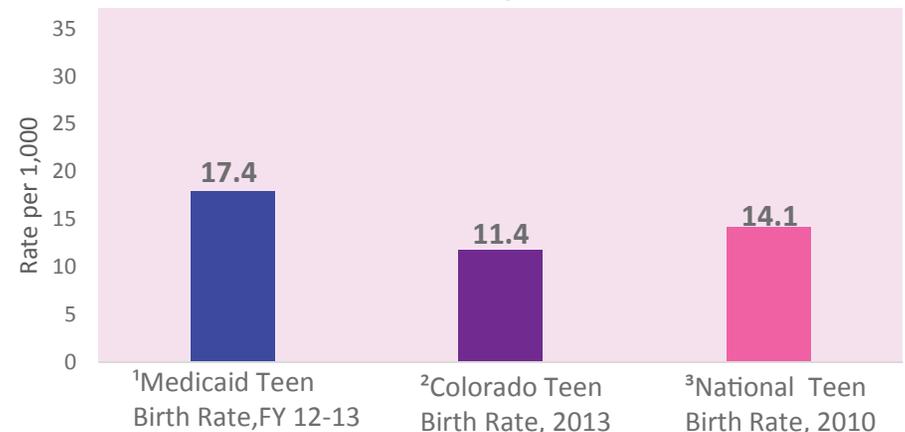
Source: The High Cost of Unintended Pregnancy, Brookings Institution, 2011

Teen Pregnancy and Poverty

“Poverty is a cause as well as a consequence of early childbearing, and some impoverished young mothers may end up faring poorly no matter when their children are born. Nevertheless, although disadvantaged backgrounds account for many of the burdens that young women shoulder, having a baby during adolescence only makes matters worse.”

Source: The National Campaign to Prevent Teen Pregnancy, 2010

Colorado Teen Birth Rate (Ages 15-17)

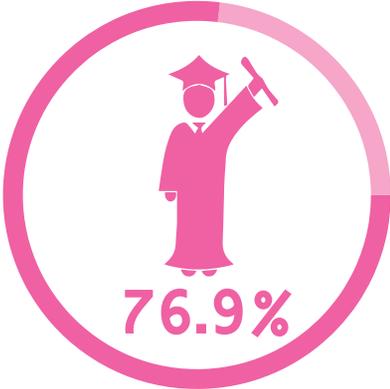


Source: ¹Medicaid Birth Certificate FY 2012-2013, ²CDPHE Birth Certificate 2013, ³CDC 2012



Adolescents: High School Completion

Colorado Graduation Rate, 2012-2013



US Avg: 78.2%

Graduation Rates

The four-year on-time graduation rate for the Class of 2013 was 76.9 percent, which amounts to a 1.5 percentage point increase from the 2011-12 rate of 75.4 percent. The four-year formula, adopted in 2009-10, defines "on time" as only those students who graduate from high school four years after transitioning from eighth grade - See more at: <http://www.cde.state.co.us/cdereval/gradcurrent#sthash.Cvollk4B.dpuf>

Source: Colorado Department of Education 2012-2013

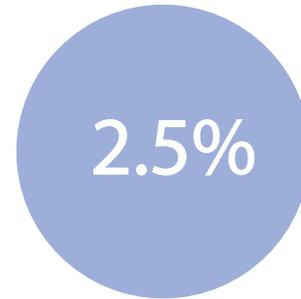
National Governors Association (NGA) Center for Best Practices

In October of 2009, The NGA Center for Best Practices released a report highlighting what states can do to decrease the dropout rate entitled, "Achieving Graduation for All; a Governor's Guide to Dropout Prevention and Recovery".

The report encourages states to take four action steps:

1. Encourage high school graduation for all by creating or eliminating policy barriers such as raising the compulsory education age and holding schools accountable for graduating kids.
2. Identify students who are at risk of dropping out and provide them with intentional support.
3. Incentivize districts to re-enroll out-of-school youth.
4. Provide alternative options along with rigorous and relevant curriculum to students who may be looking to pursue a high school diploma in a non-traditional setting.

Dropouts in Colorado, 12-13



(10,664 dropouts reported)

Source: Colorado Department of Education 2012-2013

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