



Colorado Department  
of Public Health  
and Environment

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## Perinatal and Infant Health

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## Child Health Indicators



This section highlights key indicators of child health. Access to medical and oral health care is important for persons of every age. Nutrition, physical activity, and safety behaviors developed in childhood, often carry over into adolescence and adulthood. Childhood obesity, a growing problem, is associated with the development of chronic disease both in childhood and later in life. Behavioral health is being increasingly recognized as an important part of overall wellbeing. Unintentional injury is the leading cause of death for children in this age group.

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### Indicator 1: Health Care Access and Oral Health

**Healthy People 2010 Objective:** 100 percent of persons under age 65 have health care coverage; 96 percent of persons of all ages have a specific source of on-going primary care.

**Significance of indicator:** As stated in Healthy People 2010, health insurance provides access to health care. Persons with health insurance are more likely to have a primary care provider and to have received appropriate preventive care such as immunization. Having a health care provider or providers one thinks of as his/her main caregiver is also associated with receiving adequate and appropriate health care.

Oral health is an important component of overall health. According to research summarized in Healthy People 2010, dental caries (cavities) is the most common chronic disease of childhood with more than half of children having caries by second grade and 80% by the end of high school. Access to appropriate and timely dental care is important for individuals to achieve and maintain oral health. Barriers to care include cost; lack of dental insurance, public programs, or providers from underserved racial and ethnic groups; and fear of dental visits.

**Colorado measure:** In 2005, 87.4 percent of Colorado children ages 1-14 had health care coverage. The Healthy People 2010 objective is for 100 percent coverage of the population. Also in 2005, 70.4 percent of Colorado children ages 1-14 had one or more persons they considered their personal doctor, also falling short of the Healthy People 2010 objective of 96 percent.

According to parents surveyed in 2005 Colorado Child Health Survey, 91.3 percent of children ages 1-14 received the dental care they needed in the past 12 months.

**Colorado data source:** Colorado Child Health Survey, Health Statistics Section, CDPHE.

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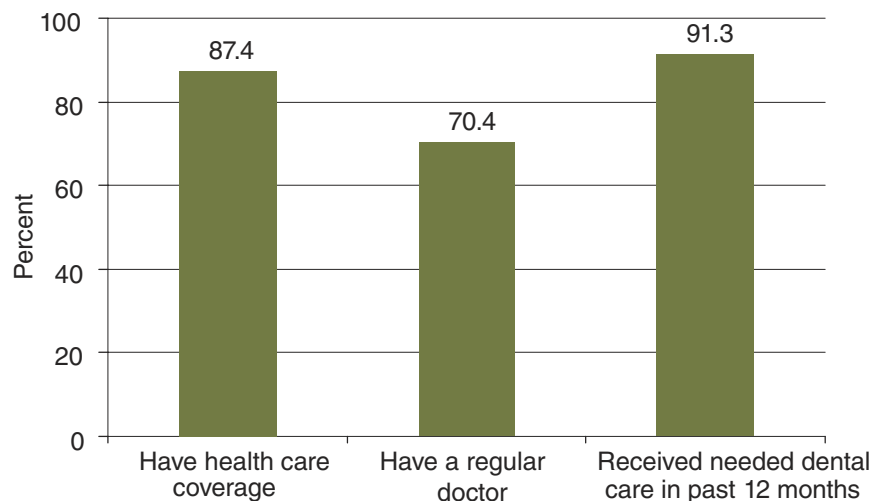
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### Indicator 1: Health Care Access and Oral Health

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Medical and dental care, Colorado children, ages 1-14, 2005



Source: Colorado Child Health Survey, Health Statistics Section, Colorado Department of Public Health and Environment



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### Indicator 2: Physical Activity

**Significance of indicator:** “Physical activity among children and adolescents is important because of the related health benefits (cardiorespiratory function, blood pressure control, and weight management) and because a physically active lifestyle adopted early in life may continue into adulthood. Even among children aged 3 to 4 years, those who were less active tended to remain less active after age 3 years than most of their peers” (*Healthy People 2010*.) As more US children are overweight, adequate levels of physical activity are increasingly important.

Several organizations are currently promulgating guidelines for physical activity levels for children based on research. This is a summary of guidelines from the National Association for Health and Fitness:

- Children should accumulate at least 60 minutes, and up to several hours, of age appropriate physical activity on all, or most days of the week.
- Children should participate in several bouts of physical activity lasting 15 minutes or more each day.
- Children should participate each day in a variety of age-appropriate physical activities designed to achieve optimal health, wellness, fitness and performance benefits.
- Extended periods (periods of two hours or more) of inactivity are discouraged for children, especially during the daytime hours.

**Colorado measure:** In 2005, more than one in four (27.6%) Colorado children ages 5-14 participated in less than five hours of physical activity per week, however nearly two-thirds (65.7%) of 5-14 years were on a sports team. Almost one in six (14.4%) of children ages 5-14 played 1 or more hours of video games per day, and one-fifth (19.9%) of children ages 1-14 watched 2 or more hours of television per day.

**Colorado data source:** Colorado Child Health Survey, Health Statistics Section, CDPHE.

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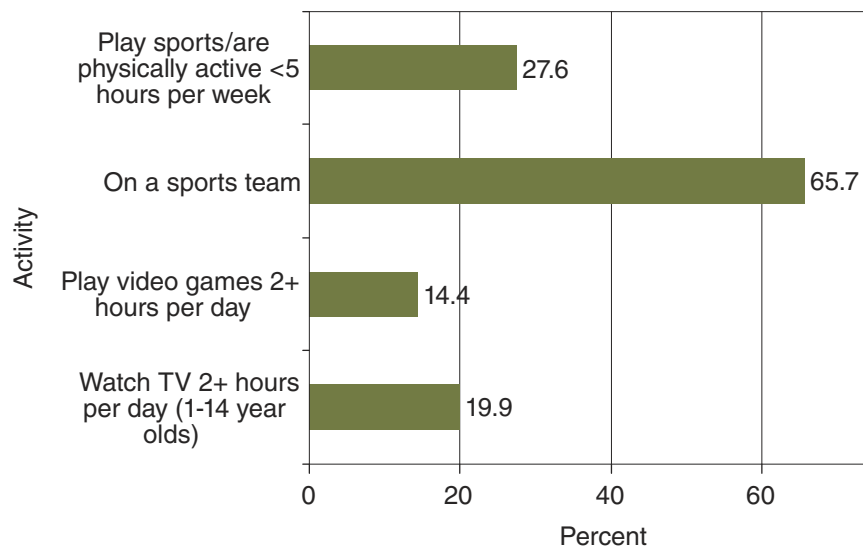
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### Indicator 2: Physical Activity

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Physical activity, Colorado children, ages 5-14, 2005



Source: Colorado Child Health Survey, Health Statistics Section, Colorado Department of Public Health and Environment



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### Indicator 3: Nutrition

**Healthy People 2010 Objective:** 75 percent of persons 2 and over consume at least two daily servings of fruit; 50 percent of persons 2 years and older consume at least three daily servings of vegetables.

**Significance of indicator:** Good nutrition is essential for appropriate growth, development and well-being. Healthy eating habits should be developed early and continue throughout the lifespan. It is especially important to consume adequate amounts of fruits, vegetables, whole grains and calcium, and to limit fats, sugar, and sodium. Fast food is frequently high in fat and sodium and eating out at fast food restaurants may be linked to increasing obesity among children.

Adequate household resources are necessary for obtaining enough food to prevent hunger and food insecurity. Food insecurity means that people do not have sufficient resources to have nutritionally adequate and safe foods available at all times.

**Colorado measure:** In 2005, only 40.6 percent of Colorado children ages 1-14 consumed two or more daily fruit servings and only 7.7 percent consumed three or more vegetable servings falling far short of the Healthy People 2010 objectives. About one-half (54.1%) of children consumed three or more dairy servings each day, and nearly one-fifth (21.7%) ate fast food more than twice a week. Finally, nearly one-third of children (31.7%) lived in household where they their caretakers sometimes or often had to rely on only a few kinds of low-cost food to feed them because they were running out of money to buy food.

**Colorado data source:** Colorado Child Health Survey, Health Statistics Section, CDPHE.

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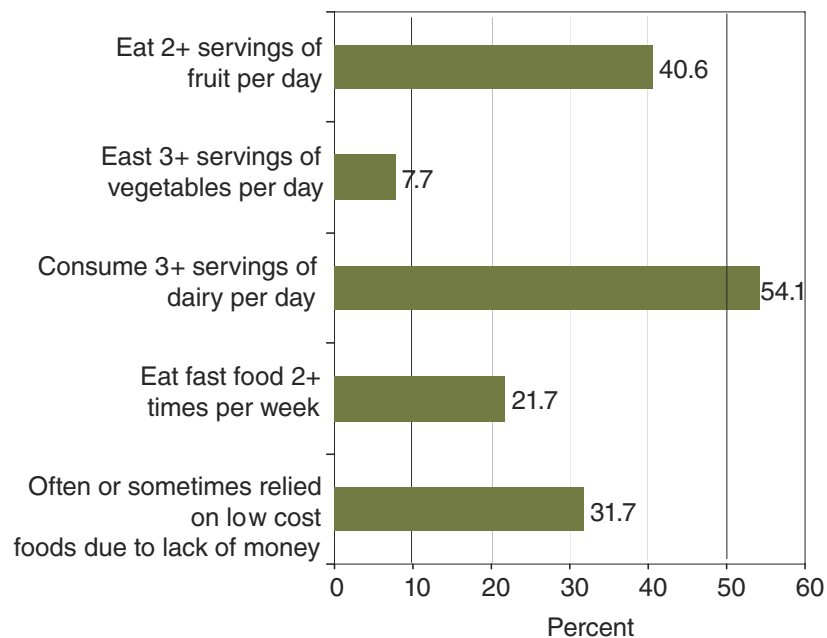
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### Indicator 3: Nutrition

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Nutrition and food security, Colorado children, ages 1-14, 2005



Source: Colorado Child Health Survey, Health Statistics Section, Colorado Department of Public Health and Environment



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### Indicator 4: Overweight

**Healthy People 2010 Objective:** No more than 5 percent of children and adolescence are overweight or obese.

**Significance of indicator:** There is much concern about the increasing prevalence of obesity in children and adolescents. Overweight and obesity acquired during childhood or adolescence may persist into adulthood and increase the risk for some chronic diseases later in life. As weight increases, so does the prevalence of health risks. The objective to reduce the prevalence of overweight and obesity among children and adolescents has a target set at no more than 5 percent and uses the gender- and age-specific 95th percentile of Body Mass Index (BMI) from the revised Centers for Disease Control and Prevention (CDC) Growth Charts for the United States. The reduction of BMI in children and adolescents should be achieved by emphasizing physical activity and a properly balanced diet so that healthy growth is maintained (Healthy People 2010).

**Colorado measure:** In 2005, the proportion of Colorado children age 2-14 who were considered underweight (Body Mass Index less than the 10<sup>th</sup> percentile) was 9.6 percent; normal weight (BMI between the 10<sup>th</sup> and 84.9<sup>th</sup> percentiles), 61.5 percent; at risk for overweight (BMI between the 85<sup>th</sup> and 94.9<sup>th</sup> percentiles), 15.1 percent; and overweight (BMI in the 95<sup>th</sup> percentile or higher), 13.7 percent. The proportion of children who were overweight is nearly three times the Healthy People 2010 objective of 5 percent.

**Colorado data source:** Colorado Child Health Survey, Health Statistics Section, CDPHE.

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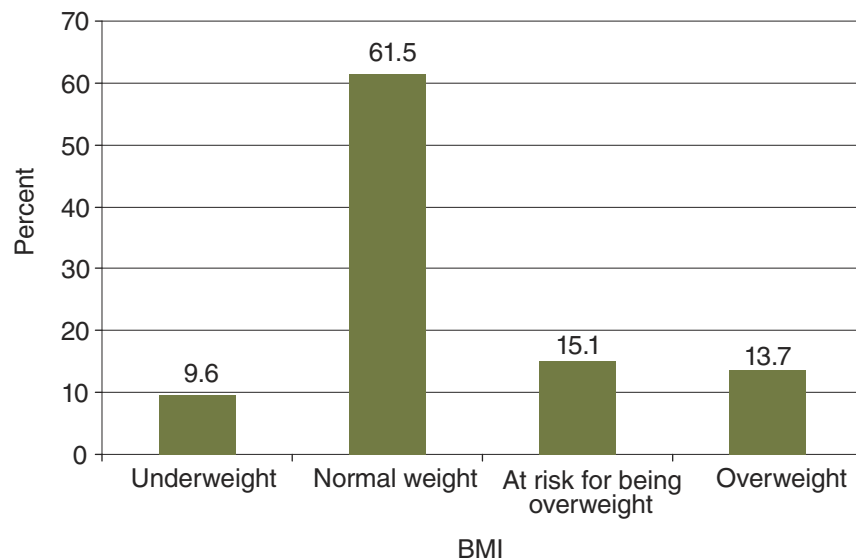
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### Indicator 4: Overweight

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Body Mass Index (BMI)\* percentiles, Colorado children, ages 2-14,  
2005



\*For this age range, children with a BMI in the 85<sup>th</sup>-94.5<sup>th</sup> percentile are considered at risk for overweight and children with a BMI in the 95<sup>th</sup> percentile or above are considered overweight

Source: Colorado Child Health Survey, Health Statistics Section, Colorado Department of Public Health and Environment



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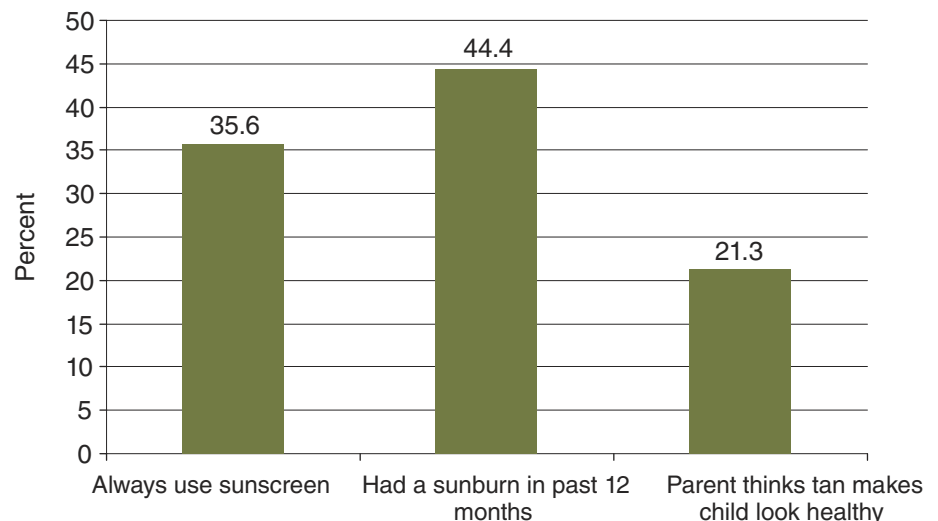
### Indicator 5: Sun Safety

**Significance of indicator:** Intermittent exposure to the sun and a history of sunburns early in life are risk factors for skin cancer. These sun safety practices are recommended in order to reduce the risk of skin cancer: avoid the sun between 10 a.m. and 4 p.m., wear sun-protective clothing when exposed to sunlight, use sunscreen with a sun-protective factor (SPF) of 15 or higher, and avoid artificial sources of ultraviolet light.

**Colorado measure:** Only one-third (35.6%) of Colorado children ages 1-14 always used sunscreen in 2005. Not surprisingly, 44.4 percent of children had a sunburn during the last 12 months. Over one-fifth (21.3%) of parents think that a tan makes a child look healthy.

**Colorado data source:** Colorado Child Health Survey, Health Statistics Section, CDPHE.

Sun safety practices and attitudes, Colorado children, ages 1-14, 2005



Source: Colorado Child Health Survey, Health Statistics Section, Colorado Department of Public Health and Environment



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### Indicator 6: Behavioral/Mental Health

**Significance of indicator:** “For many children aged 18 years and under, lifelong mental disorders may start in childhood or adolescence. For many other children, normal development is disrupted by biological, environmental, and psychosocial factors, which impair their mental health, interfere with education and social interactions, and keep them from realizing their full potential as adults. Expanding effective services for children, particularly for those with serious emotional disturbance, depends on promoting effective collaboration across critical areas of support: families, social services, health, mental health, juvenile justice, and schools. Better services and collaboration for children with serious emotional disturbance and their families will result in greater school retention, decreased contact with the juvenile justice system, increased stability of living arrangements, and improved educational, emotional, and behavioral development” (Healthy People 2010).

**Colorado measure:** In 2005 in Colorado, 29.2 percent of children ages 1-14 had some difficulty with emotions, concentration, behavior, or getting along with others. Of these children, 54.3% had minor difficulties, 38.3 percent had moderate difficulties, and 7.4 percent had severe difficulties. Most of these children (62.4%) never received counseling or treatment for their difficulties.

**Colorado data source:** Colorado Child Health Survey, Health Statistics Section, CDPHE.



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### Indicator 7: Unintentional Injuries

**Healthy People 2010 Objective:** 100% of motor vehicle occupants aged 4 years and under used child restraints.

**Significance of indicator:** Injuries are a major public health problem resulting in significant numbers of hospitalizations and deaths each year. Injuries can be classified as either “intentional” meaning there was intent to harm such as homicides or suicides, or “unintentional”. Unintentional injuries are sometimes labeled “accidents”, however many injuries are not random, uncontrollable acts of fate; rather, most injuries are predictable and preventable.

Among children aged 1 to 14 years, crash injuries are the leading cause of death. The use of age-appropriate car restraint systems can reduce this problem. All States have child restraint laws, however, loopholes in the laws exempt many children from coverage under either safety belt or child restraint use laws. Another problem is the persistence of incorrect use of child restraints and safety belts. Head injuries are the most serious type of injury sustained by bicyclists of all ages. Bicycle helmets reduce the risk of bicycle-related head injury by 85 percent (Healthy People 2010).

**Colorado measure:** In 2005, 93.5% of Colorado children ages 1-14 always used a car seat, booster seat or seat belt when riding in a car. Only 49.4% of 3-14 year olds always wore a bike helmet when riding a bike, and 31.8% always wore a helmet when skating or scootering.

**Colorado data source:** Colorado Child Health Survey, Health Statistics Section, CDPHE.

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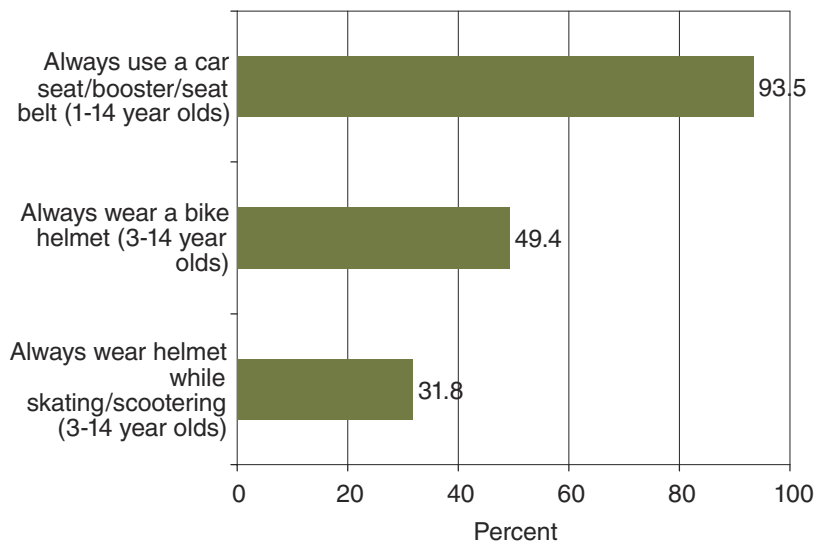
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### Indicator 7: Unintentional Injuries

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Vehicle safety practices, Colorado children, 2005



Source: Colorado Child Health Survey, Health Statistics Section, Colorado Department of Public Health and Environment



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### Indicator 8: Child Mortality

**Healthy People 2010 Objective:** 18.6 deaths per 100,000 children ages 1-4; 12.3 deaths per 100,000 children ages 5-9; 16.8 deaths per 100,000 children ages 10-14.

**Significance of indicator:** Injury deaths are consistently the leading cause of death in children ages 1-14; however, most these injury deaths are considered to be preventable through appropriate intervention.

**Colorado measure:** A total of 83 Colorado children ages 1-4 died in 2005. At 29.9, the 2005 Colorado death rate per 100,000 population of children ages 1-4 is higher than the Healthy People 2010 objective of 18.6 deaths per 100,000 in that age group. For the 5-9 age group, 49 children died and the Colorado rate for 2005 is 15.4, also higher than the Healthy People 2010 objective of 12.3. For children ages 10-14, the 2005 Colorado rate of 17.6 is higher than the Healthy People 2010 objective of 16.8. A total of 57 Colorado children ages 10-14 died in 2005.

More than one-quarter of deaths to children ages 1-14 in Colorado in 2005 were due to unintentional injuries (27.5%). When both unintentional and intentional (homicide and suicide) injuries are combined, more than one-third of all child deaths in this age group (39.1%) are injury-related.

**Colorado data source:** Colorado Vital Statistics, Health Statistics Section, CDPHE.

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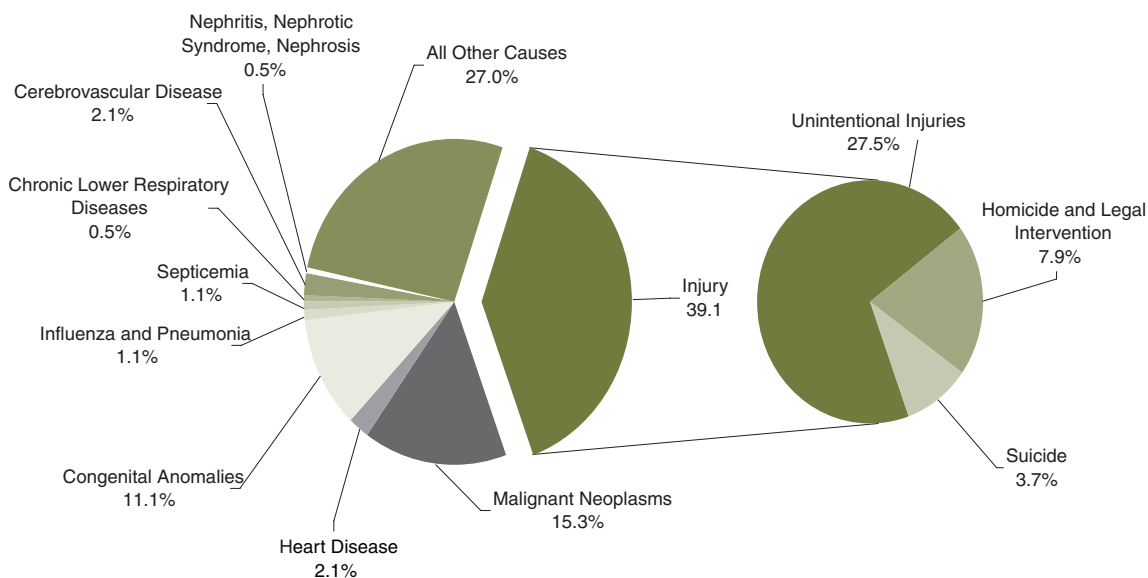
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### Indicator 8: Child Mortality

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Child deaths by underlying cause Colorado children, ages 1-14, 2005



Source: Colorado Vital Statistics, Health Statistics Section, Colorado Department of Public Health and Environment