health watch

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How Healthy are Colorado Children?

Key Findings From the 2004 Colorado Child Health Survey

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Introduction

Monitoring the health status of children has often been overlooked in national and state-level surveillance systems. In Colorado, there has been no system in place for gathering information about the health of our children. These data are critical for targeting public health resources appropriately to best address the needs of children. To fill the gap in monitoring child health status, the Health Statistics Section partnered with several programs and organizations to develop and implement an annual Colorado Child Health Survey. This survey was piloted in 2003 and implemented in 2004. This report summarizes the key findings from the 2004 survey.

Survey Development

A literature review was conducted to assess appropriate topic areas and questions for the child health survey. A draft survey was developed that included questions from national, state, and international surveys. Interested parties from the Colorado Department of Public Health and Environment and local universities along with other children's advocates, were invited to learn about the survey and determine the target age group and final content of the questionnaire. The group decided that the survey would target parents of 1-14 year-olds. The 2004 survey consisted of seven broad topic areas:

- Demographics;
- Access to health and dental care;
- Health status and health behaviors;
- Safety and injury;
- School policy and health education;
- Mental health/behavioral health; and
- Identification of children with special health care needs.

Methods

To reach parents of young children, a random-digit-dialing telephone survey method was used. The Behavioral Risk Factor Surveillance System (BRFSS) currently employs this

method, and once a respondent had completed the BRFSS survey, the interviewer inquired if they had a child in the target age range and about their willingness to complete the child health survey.

The final 2004 survey consisted of 124 questions and was fielded in January 2004. Data collection occurred throughout the calendar year and a total of 997 interviews were completed. The data were cleaned and weighted, so population-based estimates could be derived.

Results

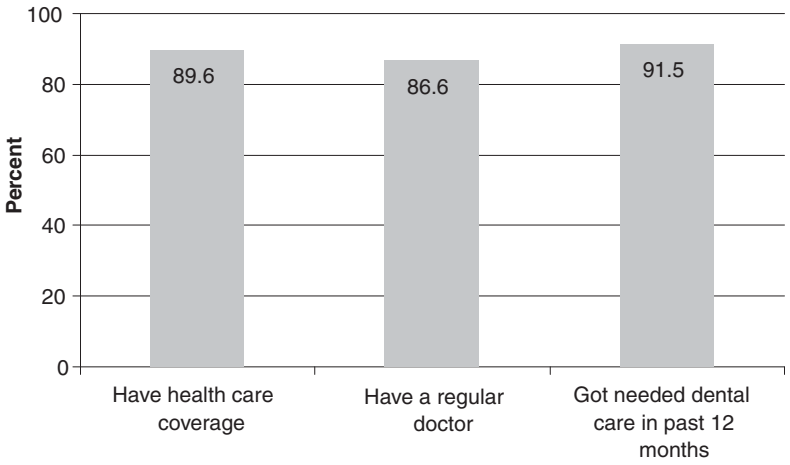
Health Care Access

Health insurance coverage is an important factor in being able to access 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.

As shown in Figure 1, in 2004, 89.6 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 2004, 86.6 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.

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. Access to appropriate and timely dental care is important for individuals to achieve and maintain oral health. According to parents surveyed in the 2004 Colorado Child Health Survey, 91.5 percent of children ages 1-14 got the dental care they needed in the past 12 months (Figure 1).

Figure 1. Medical and dental care, Colorado children ages 1-14, 2004



Physical Activity

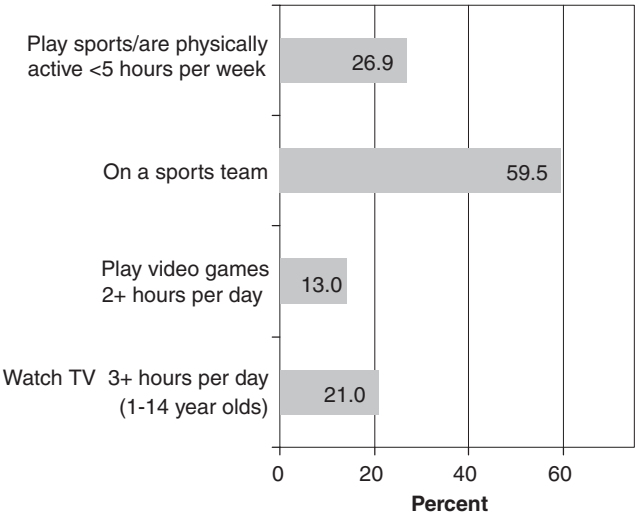
"Physical activity among children and adolescents is important because of the related health benefits (cardiorespiratory function, blood pressure control, and weight management) and because a physically active lifestyle adopted early in life may continue into adulthood. Even among children aged 3 to 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 U.S. 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.

Figure 2 shows that more than one in four (26.9%) Colorado children ages 5-14 got less than five hours of physical activity per week. However nearly 60 percent (59.5%) of children this age were on a sports team. Thirteen percent of children ages 5-14 played 2 or more hours of video games per day, and one-fifth (21.0%) of children ages 1-14 watched 3 or more hours of television per day.

Figure 2. Physical activity, Colorado children ages 5-14, 2004



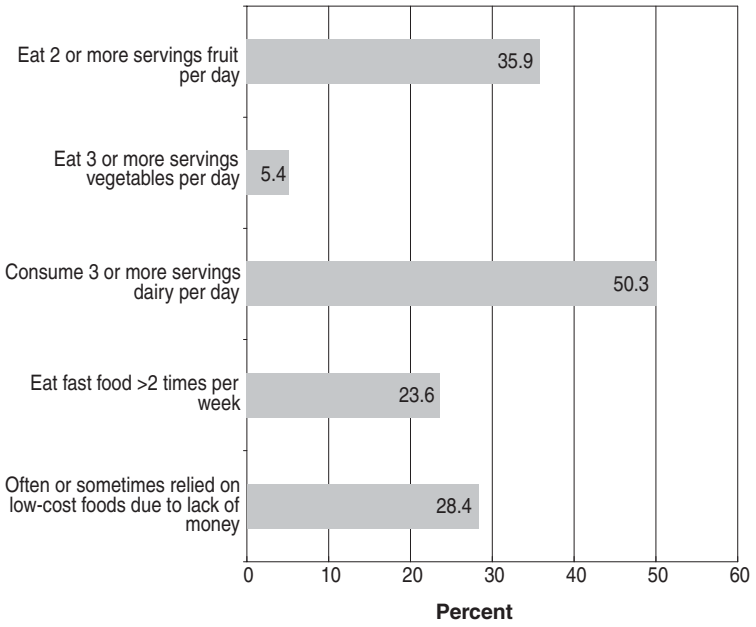
Nutrition

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.

As shown in Figure 3, only 35.9 percent of Colorado children ages 1-14 consumed two or more daily fruit servings and only 5.4 percent consumed three or more vegetable servings. This falls far short of the *Healthy People 2010* objectives of 75 percent and 50 percent respectively. Only half (50.3%) of children consumed three or more dairy servings each day, and nearly one-fourth (23.6%) ate fast food more than twice a week. Finally, more than one-fourth of children (28.4%) lived in a household where 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.

Figure 3. Nutrition and food security, Colorado children ages 1-14, 2004



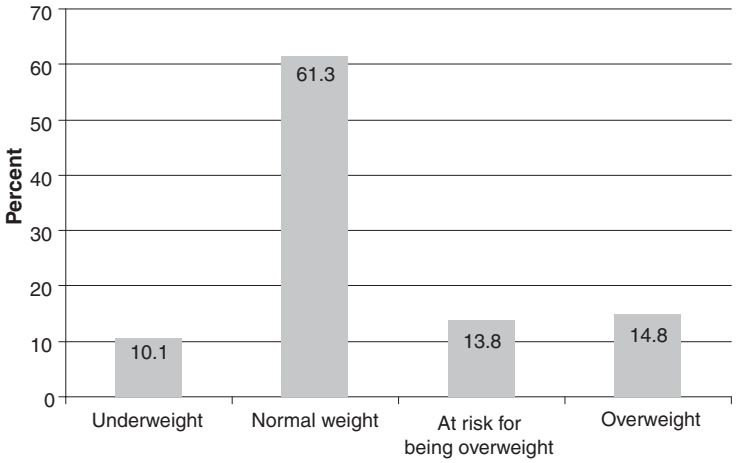
Overweight/Obesity

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. The *Healthy People 2010* objective is to reduce the prevalence of overweight and obesity among children and adolescents to 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.

Figure 4 shows the proportion of Colorado children ages 2-14 who are considered underweight (Body Mass Index less than the 5th percentile), normal weight (BMI between the 5th and

and 84.9th percentiles), at risk for overweight (BMI between the 85th and 94.9th percentiles) and overweight (BMI in the 95th percentile or higher.) Although the majority of Colorado children are either underweight or normal weight (71.4%), 13.8 percent are at risk for overweight, and 14.8 percent are overweight, almost three times the objective of 5 percent.

Figure 4. Body Mass Index (BMI)* percentiles, Colorado children ages 2-14, 2004



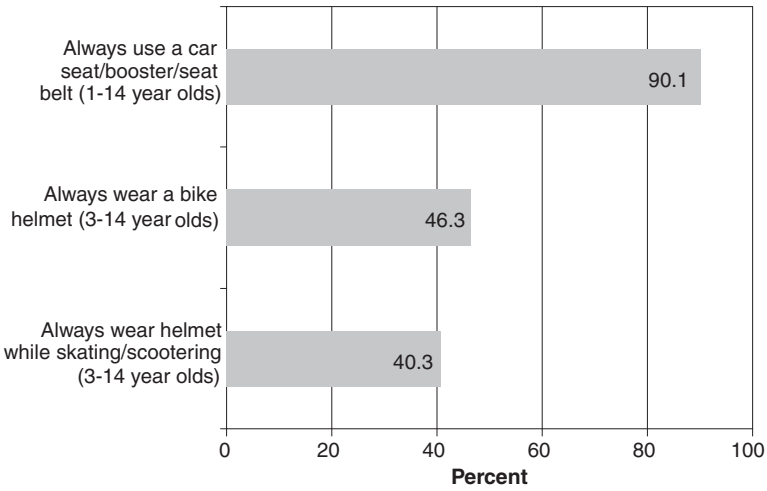
Unintentional Injury

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*, but many injuries are not random, uncontrollable acts of fate. Rather, most injuries are predictable and preventable.

Among children ages 1-14 years, crash injuries are the leading cause of death. The use of age-appropriate car restraint systems can reduce this problem. 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*).

As shown in Figure 5, 90.1 percent of Colorado children ages 1-14 always used a car seat, booster seat, or seat belt when riding in a car. Only 46.3 percent of 3-14 year-olds always wore a bike helmet when riding a bike, and 40.3 percent always wore a helmet when skating or scootering.

Figure 5. Vehicle safety practices, Colorado children, 2004



Behavioral/Mental Health

"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*).

In 2004 in Colorado, 28.5 percent of children ages 1-14 had some difficulty with emotions, concentration, behavior, or getting along with others. Of these children, 54.7 percent had

minor difficulties, 38.0 percent had moderate difficulties, and 7.2 percent had severe difficulties. Most of these children (65.0%) never received counseling or treatment for their difficulties.

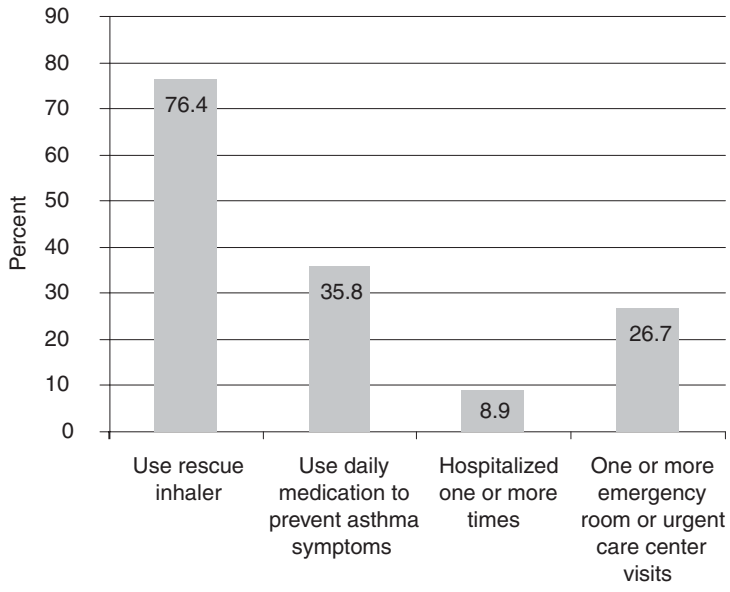
Asthma

Asthma, a chronic disease of the lungs, is a growing health problem, especially in children. Many of the problems caused by asthma could be prevented if persons with asthma and their health care providers managed the disease according to established guidelines; including controlling exposures that trigger asthma, use of appropriate medication, patient education, and active asthma management by the patient and provider.

In Colorado, 12.5 percent of children ages 1-14 have been diagnosed with asthma.

There are basically two types of asthma, intermittent and persistent. All asthmatics should have a rescue inhaler to control unexpected asthma symptoms, and those with persistent asthma should use daily medication to prevent asthma symptoms. As shown in Figure 6, 76.4 percent of childhood asthmatics use a rescue inhaler, and 35.8 percent use a daily medication to prevent asthma symptoms. Additionally, 8.9 percent have been hospitalized one or more times in the last year, and 26.7 percent have been to an emergency room or urgent care center one or more times in the last year. According to *Healthy People 2010*, the asthma hospitalization objectives are: 4.56 percent for children under five years of age and 1.25 percent for those over five. Asthma emergency room visit objectives are 15 percent for those under five and 7.1 percent over five years of age.

Figure 6. Asthma treatment, Colorado children ages 1-14, 2004



Summary

For the first time in Colorado, there is a population-based surveillance system in place which allows for the monitoring of the health of Colorado children over time. As seen in the results of the 2004 Colorado Child Health Survey presented here, Colorado children face many threats to their health. More than 10 percent of children do not have health insurance coverage. One in four children does not get the recommended minimum level of daily physical activity, and nearly one-third of children are at risk for being overweight or are overweight. Colorado children ages 1-14 fall far short of the recommendations for daily fruit and vegetable consumption, with nearly two-thirds not eating enough fruit and 95 percent not eating enough vegetables. One in four children relies on low-cost food each month due to limited financial resources. Although 9 in 10 children are restrained when riding in a car, less than half always wear a helmet when bicycling, skating, or scootering. More than one in four children have emotional or behavioral problems, and 65 percent of these children never received any help. Families, schools, and communities must work together to improve the health behaviors and outcomes of Colorado children.

Additional Information

For more information about the Colorado Child Health Survey or to join the advisory group, contact the Health Statistics Section at (303) 692-2160 or www.health.statistics@state.co.us.