

Healthy Moms, Healthy Kids:

A Series on Maternal and Child Health in Colorado

Nutrition

Adequate consumption of nutritious, wholesome foods is essential to the healthy development of young children. Unfortunately, many households throughout the U.S. and Colorado struggle to put sufficient food on the table. According to the United States Department of Agriculture, the percentage of American families who reported experiencing uncertainty over having enough food at some point during the year reached its highest level in 2009.¹ Meanwhile, in 2009, Colorado's five major food banks experienced overwhelming demand and distributed 25 percent more food than in 2008.² Even when children in food-insecure households do consume adequate quantities of food, often times the food they eat is low on nutrients and high on calories and fat, contributing to an unprecedented epidemic of childhood obesity across the country. Efforts to increase access to healthy, nutritious foods, especially among low-income families, are essential to improving the health of Colorado's children.

“Nutrition” is one in a series of six briefs published by the Colorado Children's Campaign addressing maternal and child health topics titled *Healthy Moms, Healthy Kids: A Series on Maternal and Child Health in Colorado*. Other topics in the series include domestic violence, maternal depression, healthy pregnancies, family structure and teen motherhood and social determinants of health. We wish to thank Kaiser Permanente for its generous support of this project.



Hunger and Food Insecurity

The number of individuals and families who experience hunger is often quantified using a measure known as food insecurity. A family that is food-insecure is one that experiences uncertainty as to whether they will be able to acquire sufficient food to meet the needs of each family member.³ According to the National KIDS COUNT Program, 19 percent of U.S. households with children reported being food-insecure at some point during the previous 12 months between 2006 and 2008.⁴ Of all household types, single women with children were most likely to suffer from uncertainty about having sufficient food, with 36.6 percent of female-headed households reporting food insecurity in 2009.⁵

Prolonged episodes of hunger can be devastating to a young child's healthy growth and development. Basic nutrition is key to healthy physical and mental development and is particularly important during the earliest years of growth. Children from households unable to provide adequate nutrition face a heightened risk of health problems such as stunted growth, anemia and a weakened immune system.⁶ Furthermore, research demonstrates that children who experience hunger are significantly more likely to exhibit behavioral, emotional and academic problems, including aggression and anxiety, than their peers.⁷

In Colorado, 20 percent of children – one in five Colorado kids – lived in households that reported experiencing food insecurity between 2006 and 2008. This number increased by more than 60 percent since the three-year averages calculated from 2001 to 2003.⁸ As a result of this increase, the rate of food insecurity among Colorado kids has now surpassed the national average of 19 percent.



Childhood Overweight and Obesity

One of the biggest threats to the immediate and long-term health of Colorado's children is overweight and obesity. Children who are overweight or obese are at significant risk for developing numerous health problems – many of which may persist into adulthood. Research has shown that children who are overweight or obese are 52 percent more likely to receive a new diagnosis of asthma than children at a healthy weight. Even more troubling, studies indicate that obese children are more than twice as likely as their healthy-weight peers to die before the age of 55.⁹ Overweight and obesity among children and adolescents has also been linked to risk factors for cardiovascular disease, including elevated cholesterol levels and high blood pressure.¹⁰

A concerning development associated with the increase in childhood overweight and obesity is the rapid growth observed in the number of diagnoses of Type 2 diabetes among children and adolescents in recent years. The consequences of Type 2 diabetes are dire and can include blindness, limb amputations, heart disease or kidney failure. Formerly known as “adult-onset” diabetes, Type 2 diabetes has become increasingly prevalent in Americans under age 20 since the mid-1990s, as rates of childhood obesity have increased significantly.¹¹ Current data indicates that 3,700 Americans under age 20 are diagnosed with Type 2 diabetes each year, and many more are suspected to have a condition known as pre-diabetes, which may develop into Type 2 diabetes unless significant lifestyle changes are made.¹²

In addition to physical repercussions, being overweight or obese can have psychological consequences for children and adolescents. Studies have found that overweight children and teens often are targets for bullying and social exclusion, which can lead to low self-esteem and poor academic and social functioning.¹³

Childhood overweight and obesity is determined using a child's body mass index (BMI), which measures weight in relation to height. According to the Centers for Disease Control and Prevention, children and adolescents ages two to 19 with BMI values at or above the 85th percentile and less than the 95th percentile are considered overweight, and children with BMI values above the 95th percentile are obese.¹⁴

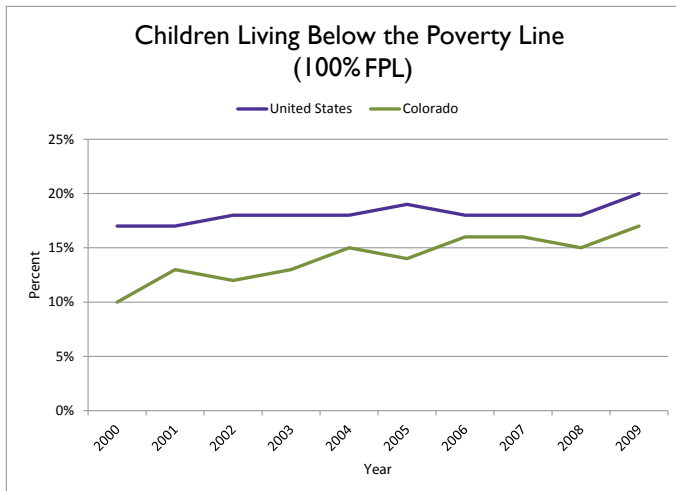
While Colorado's childhood obesity rate remains below the national average, the state is experiencing an alarming growth in its childhood obesity rate. As of 2009, 27 percent of children under 18 – one in four Colorado kids – were overweight or obese.¹⁵ According to the National Survey of Children's Health, Colorado has the second fastest-growing rate of overweight and obese children in the nation.



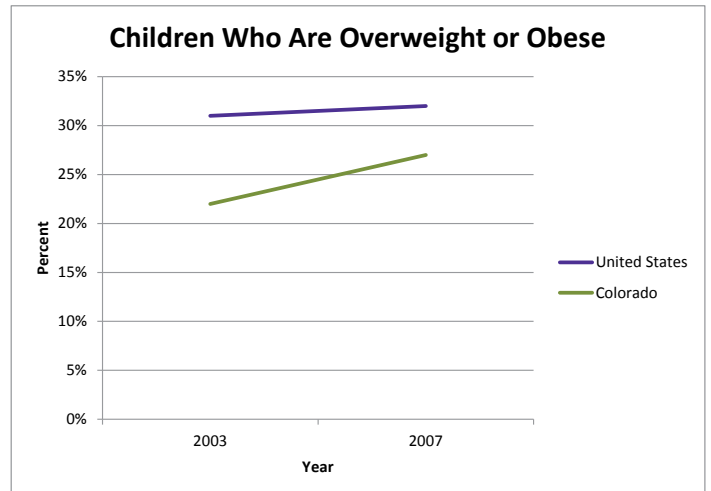
Links Among Obesity, Hunger and Poverty

A growing body of research indicates that a correlation exists among the issues of poverty, hunger and obesity. A link between poverty and hunger may seem obvious, but the link to obesity may seem counter-intuitive, as poverty and hunger appear to be problems of scarcity while obesity appears to be a problem of abundance. However, research shows a distinct connection between a family's socioeconomic status and their child's likelihood of being overweight or obese across many demographic groups.¹⁶ Low-income families often face barriers to accessing healthy, nutritious foods, such as the lack of neighborhood full-service supermarkets that sell fresh produce and lean meats. In addition, families with limited resources may choose processed, high calorie foods over fresh foods because of their lower cost.¹⁷

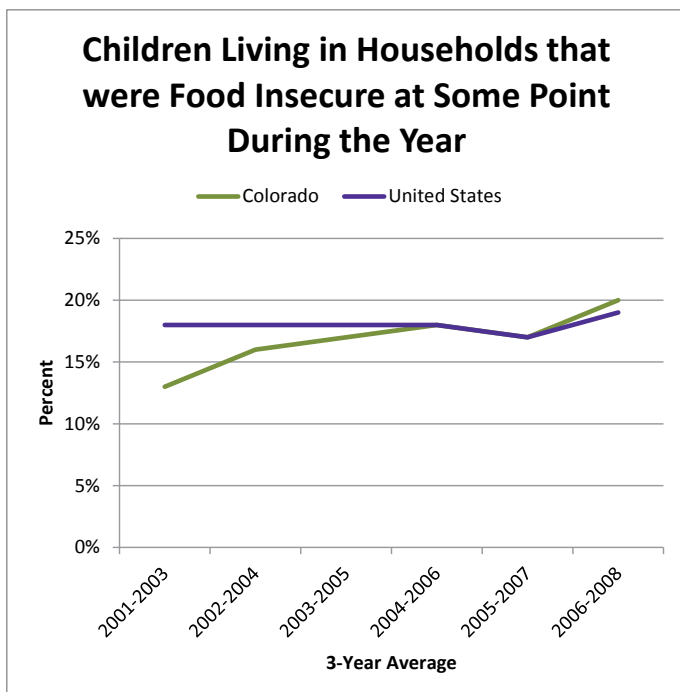
In recent years, Colorado has been trending in the wrong direction in all three areas.



Source: Colorado Children's Campaign. 2011 KIDS COUNT in Colorado!



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Childhood Nutrition: Best Practices

Making Nutrition a Part of the Conversation with Health Care Providers

Regular checkups present a strategic opportunity for health care providers to monitor a child's nutritional well-being and weight and promote healthy eating habits and balanced diets among families. In addition, health care settings specifically designed to address the needs of children at risk for food insecurity are particularly important for preventing nutritional deficiencies and developmental problems. For example, Hunger Free Colorado operates the Sprout Clinic, a medical clinic serving babies and children from birth to three years old that are undernourished. Families who visit the Sprout Clinic receive consultations from pediatricians, dieticians and social workers working together to help families access the resources that are integral to a child's healthy growth and development. Clients of the clinic also receive free, supplemental nutritious food through the program's Food Pharmacy.¹⁸

Improving Supplemental Nutrition Assistance Program (SNAP) Participation

The Supplemental Nutrition Assistance Program, often referred to as SNAP and formerly known as food stamps, is a federally-funded program designed to mitigate the effects of food insecurity on children. Through the SNAP program, low-income families receive electronic benefits that can be used like cash at most supermarkets. SNAP is an essential support for many families who otherwise would not be able to afford food, assisting 31 million Americans per month in 2009.¹⁹ By expanding low-income families' food budgets, SNAP helps make all foods, including fresh produce and other healthy items, which tend to be more costly, easier to access. Research shows that participation in SNAP is associated with a substantial improvement in dietary quality, with participants consuming fewer snack foods and fats, sugars and sweets than nonparticipants.^{20,21}

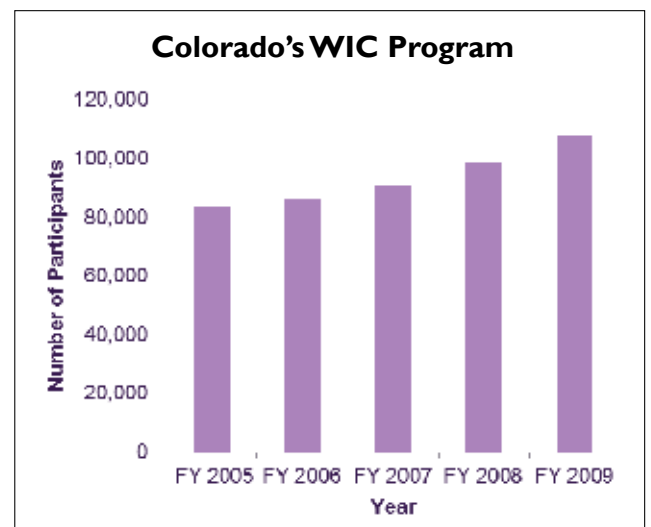
Colorado's rate of SNAP enrollment among eligible families is currently the second-lowest in the country, with only 41.8 percent of people qualified for the program actually receiving benefits in 2009.²² A variety of factors contribute to this low rate of participation, including inefficiencies in program administration, access and outreach.²³ Experience in other states has shown that improved outreach and enrollment strategies are crucial to increasing participation in SNAP among eligible families and protecting Colorado's kids from the adverse health outcomes associated with hunger and food insecurity.

Supporting Special Supplemental Nutrition Program for Women, Infants and Children (WIC)

The federal WIC program is another important resource for promoting healthy nutrition among low-income pregnant women, mothers, infants and children up to age five. WIC is instrumental in helping low-income pregnant women achieve a balanced diet and encouraging appropriate weight gain during pregnancy by providing services such as nutrition counseling and education, supplemental nutritious foods and screenings and referrals to other health and social services. Evaluations of WIC have found that women who participate in the program have improved birth outcomes, such as fewer premature births, and increased likelihood of receiving prenatal care.²⁴

WIC serves another important role in improving maternal and child health by promoting breastfeeding for new mothers. Breastfeeding is associated with a number of positive health outcomes for mothers and children, including a reduction in a child's risk of becoming overweight or obese. Studies show that for each month a child is breastfed (up to nine months), the likelihood of being overweight decreases by four percent.²⁵

Like many safety net programs in Colorado, WIC has seen increased participation in recent years, likely due to the impacts of the recession on Colorado families. In 2009, the program served 105,888 pregnant women, infants and children – a nine percent increase over 2008.²⁶



Expanding Access to Healthy, Nutritious Foods in Schools

Promoting the availability of nutritious foods is important in helping children develop healthy eating habits. Given their high participation rates, especially among children from low-income families who may struggle with food insecurity, the National School Breakfast and School Lunch Programs present a strategic opportunity to increase children's access to healthy, balanced meals that aid in their healthy development. In Colorado, school meal programs serve nearly 400,000 children each year.²⁷ In 2010, the U.S. Congress passed the Healthy, Hunger Free Kids Act which increased funding for school meal programs and directed the USDA to establish, for the first time, nutritional content standards for all foods served in schools. Implementation of the Healthy, Hunger Free Kids Act provides Colorado a great opportunity to expand access to subsidized meals to kids in schools and improve the nutritional quality of the meals these children receive.

Increasingly, schools across the U.S. are supplementing their school meal programs with farm-to-school programs – an inventive way to expose children to fresh, healthy foods grown in their own communities. These programs may be particularly influential on the eating habits of children from low-income families who often face more barriers to accessing fresh produce. A handful of school districts across Colorado have already developed partnerships with local farmers, and this number will likely increase as the Colorado Farm to School Project, launched in 2010, continues to explore ways to develop farm-to-school networks throughout the state.²⁸

Culinary training programs for school food staff represent another innovative approach that works hand-in-hand with farm-to-school programs to improve the nutritional quality of school lunches. Programs such as the Cook for America Culinary Boot Camps teach school food staff about healthy recipe and menu development, as well as techniques for cooking food from scratch to provide more wholesome options for children who eat school meals.²⁹



Promoting Participation in the Summer Food Service Program

Research indicates that hunger among children spikes during the summer months, when children are out of school and do not receive meals through the National School Lunch and School Breakfast programs.³⁰ The Summer Food Service seeks to remedy this problem by providing free, nutritious meals to children in low-income areas during the summer months. Site locations can include libraries, faith-based organizations, summer camps and youth programs such as Boys & Girls Clubs.³¹ The Campaign to End Childhood Hunger in Colorado, a collaborative initiative of organizations concerned about hunger among Colorado's children, has made the Summer Food Service Program a priority, developing initiatives aimed at increasing awareness of these programs to help guarantee that children continue to receive adequate, nutritious meals throughout the summer months. As a result of these initiatives, the number of meals served through the Summer Food Service program increased by 26 percent from 2009 to 2010, jumping from 767,800 meals in 2009 to 970,000 meals in 2010.³²



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Multiple staff members of the Colorado Children's Campaign contributed to the publication of this report. Project management was facilitated by Sarah Hughes. For more information or to request a presentation on this topic, please visit www.coloradokids.org.

End Notes

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