TEXANS CARE for CHILDREN

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# Nourishing Texas' Children
## *Preventing the twin challenges of childhood hunger and obesity*

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*Hunger and obesity are often seen as separate issues. In fact, disproportionate instances of both occur among low-income children in Texas, suggesting a broader challenge of poor access to nutritious food and other factors of healthy living.*

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**Executive Summary**

Children need adequate, nutritious food in order to be healthy and grow. However, too many children in Texas do not know where their next meal is coming from, and, when food is available, it is too often junk food with little or no nutritional value. With Texas having the nation's highest rate of food insecurity in children and also a high rate of child obesity, the overall health, mental wellbeing, and academic outcomes of Texas children suffer.

**Texas children fare worse than children in other states in both food insecurity and child obesity.**

It is important to examine both obesity and hunger through a prism of access to healthy options. Improving access to nutritious food and opportunities for physical activity stands to benefit children, families, communities, and Texas as a whole. Recommended actions for Texas are:

1. Increase the availability of healthy, affordable food in "food deserts," such as rural areas and isolated inner-city urban communities, where access to produce and other nutritious options is often limited.
2. Improve nutrition and physical activity not only in schools but also in child care environments, where many young children spend much of their day.
3. Promote breastfeeding, which has been linked to better regulation of food intake in children early in life and long-term benefits.
4. Increase participation in and infrastructure to deliver existing nutrition programs, such as the Supplemental Nutrition Assistance Program (formerly known as food stamps), the National School Lunch Program, and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).
5. Establish stronger linkages between farmers and consumers, building on the Texas Legislature's 2009 creation of a farm-to-school task force, which supports schools' ability to bring fresh, locally grown food into school cafeterias.

**Nourishing Texas' Children**

***Preventing the twin challenges of childhood hunger and obesity***

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Children need adequate, nutritious food in order to be healthy and grow. However, too many children in Texas do not know where their next meal is coming from, and, when food is available, it often consists of junk, with little or no nutritional value. Although many people think of hunger and obesity as separate issues, Texas children fare worse than children in other states in both food insecurity and child obesity,[i] each of which is prevalent in low-income communities.

**Child Hunger in Texas**

Nearly a quarter of children in Texas are food insecure—the highest rate of any state in the country.[ii] Food insecurity means not having consistent access to adequate food for an active, healthy life.[iii] When households have such a lack of resources that access to food is not consistent, children suffer. Research shows that children from food insecure households have poorer health and a 30 percent higher rate of hospitalization than children from food-secure households. Children who do not know where their next meal is coming from also experience irritability, fatigue, and difficulty concentrating compared to their peers. The physical and emotional burden of food insecurity is associated with problems in academic achievement, including grade repetition, absenteeism, tardiness, anxiety, aggression, poor mathematics scores, psychosocial dysfunction, and difficulty with social interaction among elementary school-aged children. Research has also found that food insecurity is associated with depressive disorders and suicide among 15-16 year olds even when controlling for income and other factors.[iv]

Texas also has one of the highest rates of food insecurity among young children, under age 5.[v] Children under 5 who go without adequate nutrition are especially at risk of problems related to growth, the capacity to fight off illness, and development in areas such as speaking, behavior, and movement. Setbacks in any of these areas can have lifelong effects.[vi]

Not all children who are food insecure actually go without meals. Families often make major changes to their food selections to respond to cost constraints. Some supplement their food intake using government nutrition programs or access food pantries as strategies to avoid going without meals. In food insecure households, mothers will often go without meals in order for their children to eat what little food there is, researchers have found; only when families exhaust all resources do children typically go without meals.[vii] In most households, food insecurity is short-term and often recurrent, rather than chronic.[viii]

Statistics regarding the prevalence of food insecurity in Texas come from the most recent United States Department of Agriculture (USDA) survey, which covers the years 2005-2007—before the current economic recession. It is expected that the new statistics to be released in November 2009 will show food insecurity in children to be even higher. Community-based food banks across Texas report that they are struggling to meet demand during a time of high unemployment, and government nutrition programs are straining under the weight of those seeking assistance. [ix] In recent months, Texas had fallen far behind federal standards in providing families with food supports they qualify for.[x]

**Child Obesity in Texas**

Insufficient and excess body fat are both associated with poor health outcomes, so medical professionals have created recommendations about normal weight ranges as public health measures to help gauge the extent to which individuals should gain or lose weight in order to protect health. Body mass index (BMI), a measure of weight divided by height, is often used to approximate body fatness. A child who is "overweight" has a BMI measurement above the range recommended by medical professionals; a child who is "obese" measures in a range above the range for overweight. The Centers for Disease Control and Prevention (CDC) creates recommendations of normal weight ranges for children, with different ranges recommended for girls and boys.

While Texas is the hungriest state in the country for children, it also ranks 20th among states in prevalence of overweight children. About one-third of Texas children ages 10-17 (approximately grades 5-12) are overweight or obese.[xi] Looking only at rates of *obesity*—which is more severe than overweight—23 percent of fourth graders, 20 percent of eighth graders, and 19 percent of eleventh graders are *obese* in Texas. Overall child rates of obesity are higher than the national average.[xii] Among the youngest children, 16 percent of low-income children ages 2-5 are *obese* in Texas.[xiii]

Children who are overweight are at much higher risk of lifetime health problems than children who are at a healthy weight. Children who are overweight or obese have increased risk factors for heart disease, such as high cholesterol and high blood pressure, and are increasingly being diagnosed with Type II diabetes, previously considered an adult disease.[xiv] Additionally, excess weight in childhood is a strong predictor of excess weight later in life: the Surgeon General reports that overweight children have a 70 percent chance of becoming overweight or obese adults.[xv] Adults who are overweight or obese experience much higher incidence of chronic disease, including heart disease, Type II diabetes, high blood pressure, and some forms of cancer. Because of the shortened life expectancy associated with these chronic diseases, our children today may be the first U.S. generation to live shorter lives than their parents.[xvi] Across the nation, prevalence of obesity among children has increased two to three times in the past three decades.[xvii] Researchers estimate that, based on current demographic patterns, 43 percent of the adult population in Texas will be *obese* in 2040.[xviii]

The prospect of so many Texas children becoming overweight and obese adults carries serious financial costs. The Texas Comptroller of Public Accounts found that Texas businesses paid an estimated $3.3 billion dollars in one year alone in costs attributable to obesity. Costs to employers include increased absenteeism, decreased productivity, and disability.[xix] The Comptroller's Office estimates that the cost of obesity-related illness to Texas businesses, taking current trends and also inflation into account, will be $15.8 billion in 2025.

**The Relationship between Hunger and Obesity**

Because hunger implies having too little to eat, and obesity results from consuming too many calories, it seems paradoxical that both can occur within the same communities, families, and even individuals. However, both problems are prevalent in low-income communities. For instance, a recent study in San Antonio found that in a population of low-income children, 44 percent did not consume enough calories for healthy growth, and a third are obese. Overall, children in the study lacked four important nutrients in their diets: calcium, magnesium, potassium, and phosphorus.[xx]

There are multiple reasons why the same low-income people at risk of hunger are also at high risk for obesity:

- When people seek food to relieve the physical sensation of hunger, calorie-dense foods, including highly processed foods and foods with added fats and sugars, represent the lowest-cost choice to the consumer. Foods that are nutrient-dense but not calorie-dense, like fruits and vegetables, are more expensive. The connection between poverty and obesity may be heightened both by the low cost of high-calorie foods and the palatability of sugar and fat.[xxi]

- When individuals experience short-term food insecurity, they may develop binge-eating behaviors during periods when food is available. The behavior of overeating may outlast the period of food insecurity.[xxii]
- Overweight and obesity are problems that affect people at all socioeconomic levels, but people with fewer resources face especially high barriers to eating healthfully and getting adequate exercise.[xxiii] Low-income neighborhoods often have high crime rates that prevent people from being physically active outside and a lack of supermarkets offering healthier foods, making fast-food restaurants and convenience stores primary sources for food.[xxiv]
- Additionally, chronic stress associated with poverty may lead to depression and reduced physical activity, and also may cause a hormonal response that contributes to weight gain.[xxv]

Food insecure individuals may even be *more* likely than their peers to be overweight or obese. Research finding higher rates of obesity among food-insecure than food-secure women suggest that, at least in some cases, there is a correlation of the two conditions..[xxvi] However, among children, the findings have been mixed, with inconsistencies across age and race groups.[xxvii] What research has established is that children who are food insecure have at least comparable rates of overweight as their food-secure peers. Therefore, it is critical that nutrition policy take both health concerns into account.

**The Role of Public Programs**

Each decade, U.S, agencies create a comprehensive set of ten-year public health objectives called "Healthy People."[xxviii] Most recently, childhood hunger and child obesity emerged as areas for public health attention. The Healthy People 2010 guidelines include a goal of reducing low food security and eliminating very low food security among children in U.S. households. The Healthy People 2010 guidelines also include overweight and obesity as one of ten "priorities for action,"[xxix] and include goals of reducing the proportion of children and adolescents who are overweight or obese. Related goals include increasing fruit, vegetable, and whole grain consumption proportionately in Americans' diets, increasing nutritional and weight education provided in doctors' offices,[xxx] and increasing the proportion of the nation's schools that require daily physical activity for students.[xxxi]

Three major federal programs, administered at the state level, help address food insecurity: the Supplemental Nutrition Assistance Program (SNAP, formerly known as the Food Stamp Program), the National School Lunch Program, and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). Emergency food assistance, such as community food pantries, also plays a vital role in the nutrition of low-income families.[xxxii]

Research shows that participation in public nutrition programs helps reduce both child hunger and child obesity.[xxxiii] For instance, a recent study found that school-aged girls in food insecure households had a significantly lower risk of being overweight if they participated in any of the federal nutrition programs.[xxxiv]

The fact that food insecure people depend so much on the federal nutrition programs makes the nutritional standards in each program extremely important. WIC has recently changed its package of subsidized foods for low-income mothers and young children in order to offer healthier options and respond to obesity rates among this population. Recently, the Institute of Medicine made recommendations to USDA for healthier nutrition standards in the National School Lunch and School Breakfast programs, including more and greater variety of vegetables, whole grains, fat restrictions on milk, sodium restrictions, and maximum calorie limits.

Other federal policies also impact hunger and obesity. Agricultural subsidies for crops like corn support the production of meat, dairy, and high-fructose corn syrup, while most fruits and vegetables are not subsidized. The intent of price supports has been to help farmers, yet price supports also lead to the over-production of foods such as meat and cheese that get more attention in the standard American diet than is recommended in the USDA Food Pyramid, which emphasizes more servings of vegetables and whole grains.[xxxv xxxvi]

While federal policies play a major role in child hunger and obesity, state policies and state administration of federal programs have great potential to affect whether children have adequate and healthy food. Unfortunately in Texas, the nutrition programs leave large gaps in meal provision. One gap is in school-based summer feeding programs that typically end early in the summer, leaving children who depend on them without nutrition assistance later in July and August. SNAP benefits are quite low in Texas compared to other states—and serious problems with the timeliness and error rate of SNAP application processing have recently drawn public attention and the filing of a class-action lawsuit.[xxxvii] The reality is that 54 percent of food insecure households meet the definition of food insecurity *despite* participating in at least one of the three major federal nutrition programs.[xxxviii]

Since so many children receive a significant proportion of their meals through the National School Lunch program—including breakfasts, lunches, afternoon snacks, and summer meals—it is critical that the foods served in these programs meet strong nutritional standards. Nationally, there are large loopholes for "competitive foods" like sugar-sweetened beverages, candy, and high-fat foods like pizzas and burgers offered in schools along with the meals provided in the cafeteria. On the positive side, Texas is one of nineteen states in the country that sets school nutritional standards that are stricter than USDA requirements, one of only seven states that sets provisions for sanctions or penalties for noncompliance with those laws, and one of twenty-nine states that limit when and where competitive foods (e.g. ,junk foods) are available in schools beyond federal requirements.[xxxix] The state also has the ability to enact policies that close the gaps in provision of school meals during summers, weekends, and holidays.

The Texas Legislature made several good policy changes in 2009 to support Texas children having the adequate, nutritious food that they need for healthy development. The Legislature created an advisory committee to study the availability of healthy foods in underserved areas of Texas. The advisory committee will report back to the Legislature with an implementation plan for a statewide program to bring healthy foods to areas of the state that do not have access to fresh fruit and vegetable retailers. The Legislature also established a farm-to-school task force to promote the availability of locally grown fresh foods in public schools. The task force will provide schools with training and technical assistance and create a database of available locally grown food.

**Best Practices that Address the Link between Obesity and Hunger**

In a recent report that highlights best practices across the country for obesity prevention, "F as in Fat" by Trust for America's Health, Texas was identified as having two policies that other states can learn from. One is the stricter-than-federal-law **school nutrition policies** mentioned above. Texas was also highlighted for having **physical activity and weight assessments** known as Fitnessgrams. The report also highlights 19 states that have **farm-to-school programs**—something that the current farm-to-school task force created by the Texas Legislature can strive to develop.

Research shows that **multi-pronged community initiatives** can be effective at reducing child obesity at a population level. A study of the effects of several concurrent initiatives in El Paso in the 2000-2002 and 2004-2005 school years found a 13 percent decrease in obesity among fourth graders. The initiatives in this pilot included evidence-based coordinated school health[xl] for elementary and middle school students, a community walking program, a healthy living program incorporating elements of Mexican-American culture to promote good nutrition and physical activity, and media advertisements that emphasized nutrition and physical activity.[xli] Research shows that community-based prevention programs, such as those that El Paso adopted have a large return on investment through reduced healthcare spending. There is a $4.70-to-$1 benefit-to-cost ratio within five years for spending $10 per person annually for community programs to increase physical activity, improve nutrition to reduce obesity, and prevent smoking and tobacco use.[xlii]

There is ample documentation that the three main **federal nutrition programs**, as administered by the states, provide meals to children who are very low-income and at risk of hunger; when they also involve food regulated by strong nutritional standards, they combat obesity, as well.[xliii] The problem is that when children from low-resource families leave the meals provided in these programs, they often go without. During long periods away from school, like summers, their risk of missing meals or having very poor nutrition increases.

In the discussion of the link between hunger and obesity prevention, it is important not to forget the first year of life. The Surgeon General recommends **breastfeeding** as the best method of feeding an infant, exclusively, for the first six months, and from six months to the first year, breast milk in addition to other nutrition as warranted.[xliv] Among the advantages of breastfeeding, systematic reviews of studies indicate, is protection against child obesity. Breastfed babies are 13-22 percent less likely to be obese than formula-fed infants.[xlv] The reasons that breastfeeding might be a protective factor against overweight are not completely understood, but may include setting a healthy metabolism early in life. Another theory is that, when parents feed infants by bottle, they are more likely to overfeed their infants in order to finish the bottle, whereas breastfeeding mothers are more likely to allow infants to self-regulate feeding in response to hunger. [xlvi] Breastfeeding is also protective against childhood ear infections and some digestive tract complications. According to the USDA, the U.S. would save $3.6 billion dollars annually related to these illnesses if breastfeeding were increased to the goals set by the Surgeon General. [xlvii]

In the summer of 2009, the CDC released a document detailing 24 recommendations for action at the local community level to prevent obesity.[xlviii] The CDC details the existing evidence base for each practice as well as measures to gauge progress in implementation. Of these, half relate to the availability of nutritious food and half relate to physical activity. Of the nutritious foods recommendations, half relate to making sure that adequate foods are available and affordable—which also improve food security—while the other half relate to restricting unhealthy foods. The CDC-recommended, research-supported strategies for obesity prevention that also improve food security include:

- **Increasing the availability of healthy, affordable food in public places**
- **Increasing the availability of healthy, affordable food in underserved areas**
- **Increasing linkages between farmers and consumers**

The additional nutrition-related strategies recommended by the CDC for obesity prevention relate to restricting or dismantling incentives for people to eat calorie-dense foods. It is important for policymakers and child advocates to also consider these restrictions while taking into account the fact that nearly one-quarter of the children in Texas are also food insecure. For instance, policies that incentivize restaurants providing smaller portion sizes as an effort at curbing obesity may need to take into account the extent to which food insecure families purchase large-portion-size meals in restaurants, and take home leftovers, as a strategy for stretching their food dollars.

Of the 12 CDC research-based strategies for obesity prevention relating to physical activity, many apply to all children. For example, research supports better outcomes for communities that require **physical education in schools** and that have increased the amount of physical activity that children experience in physical education classes. Other strategies are especially important for the low-income children most likely to be food insecure, including **enhancing the safety** of areas where people are or could be physically active.[xlix]

**Recommendations for Texas**

Texas leads in some areas of child obesity prevention, and policymakers have made great strides in school nutrition and physical fitness assessment. There are also areas in which Texas can learn from the science, research, and experiences of other states to close the gaps that prevent many Texas children from reaching their full potential. We recommend the following:

**1. Increase the availability of healthy, affordable food in "food deserts"**

Texas has many communities, often inner-city or rural, in which there is limited access to affordable, fresh, nutritious foods. Texas policymakers should support effective strategies to improve the availability of full-service supermarkets in underserved areas and to create incentives for food retailers to offer healthy choices in underserved areas. The advisory committee created by the Texas Legislature in 2009 provides an opportunity to focus attention on food deserts in Texas. The CDC recommends this strategy based on research supporting its effectiveness.

**2. Improve nutrition and physical activity in child care environments**

For food insecure children, meals provided in child care centers may comprise a large fraction of food that they eat—making the provision of *healthy* food through these programs especially important. Texas should adopt national standards to promote healthy eating and fitness behaviors in young children and to stem the rising prevalence of poor health outcomes associated with early obesity. The National Association for Educating Young Children (NAEYC) requires accredited centers to follow federal Child and Adult Care Food Program (CACFP) guidelines, and their recommendations include:

- Children 1 year and older in full-day care should be physically active an hour a day,
- Children 3 years and older should have at least 30 minutes structured movement activity,
- Children should not remain sedentary for more than an hour at a time, except for rest time,
- Child care facilities should follow federal Child and Adult Care Food Program meal patterns, with certain juice and milk restrictions.

**3. Promote breastfeeding**

Policies to effectively address food insecurity and obesity must take into account ways to support breastfeeding through the period recommended by the Surgeon General. Texas data shows that 78 percent of mothers initiate breastfeeding, but less than half continue at 6 months and less than one-quarter continue at 12 months. Rates of exclusive breastfeeding are even lower, with less than one-third of mothers exclusively breastfeeding at three months and only ten percent exclusively breastfeeding at six months.[l] The CDC recommends breastfeeding promotion as a best practice for obesity prevention.[li] The prongs of a strong breastfeeding policy that Texas policymakers should adopt include:

- Worksites with appropriate lactation policies and spaces for mothers of infants.
- Hospital policies and procedures that facilitate breastfeeding.
- Insurance coverage that effectively covers lactation services to mothers.
- Public awareness campaigns to educate the community about the importance of breastfeeding
- Laws that support a breastfed baby's right to eat in public places.
- Regulation and certification of lactation consultants.

**4. Increase participation in existing nutrition programs**

State and local governments should work with community organizations to expand and improve participation in federal nutrition programs.[lii] Ways that policymakers can help in this effort include:

- Fix challenges in the eligibility and enrollment system for SNAP and other nutrition programs, including by suspending the six-month paperwork renewal requirement until the Health and Human Services Commission can promptly and reliably process applications.
- Reduce paperwork for parents, schools, and nonprofit organizations that provide meals in order to reduce stigma and boost participation.
- Support free school breakfast and lunch for all children in schools with substantial numbers of already-eligible children.
- Eliminate barriers that prevent many afterschool and summer programs from feeding children.
- Provide start-up grants to expand afterschool and summer food programs for children.

**5. Establish stronger linkages between farmers and consumers**

In 2003, only 47 of the 1,200 school districts in Texas had Farm to School programs providing fresh fruits and vegetables to students. The Farm to School program allows schools to use a portion of commodity entitlement dollars to buy fresh produce. Policymakers should support the health of Texas school children, while helping Texas farmers, by establishing stronger farm-to-school linkages statewide, as recommended by the CDC based on research that supports its effectiveness as part of a child obesity prevention campaign.[liii] These programs provide a local market to farmers and allow students to eat more nutritious foods while increasing their understanding of food production.[liv] The Texas Legislature took a very positive step in 2009 by creating the farm-to-school task force. The task force will provide schools with training and technical assistance and create a database of available locally grown food.[lv] The Legislature should build upon the task force's work to strengthen farm-to-school supports in the future, including funding the grant program that was passed in 2009, but was not funded.

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