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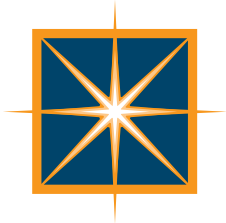
Fathers' Impact on Children's Nutrition

By Lisa K. Foster, M.S.W., M.P.A and Peg Gerould

Funding for this report provided by the U.S. Department of Agriculture Food Stamp Program through the California Nutrition Network



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This report is also available through the Internet at the California State Library's home page (www.library.ca.gov) under CRB Reports.

EXECUTIVE SUMMARY

In California, one out of every four children is classified as overweight or likely to become overweight. Obesity exacts high costs to the psychological and physical health of individuals who are overweight. In addition, it leads to high medical costs for society to treat the related health conditions such as cardiovascular disease, cancer and diabetes. As a result, nutrition enhancement and obesity prevention have become primary targets of health policy efforts at both the national and state levels.

Most child nutrition-related research and programs focus on mothers as the primary influence on children's eating habits. To date there has been little research on the relationship between fathers and children relating to nutrition in spite of the role changes brought about by recent trends in divorce, single-parenthood, and joint custody. In order to examine this aspect of father/child relationships, the California Department of Health Services, Cancer Prevention and Nutrition Section provided funds to the California Research Bureau (CRB) for a qualitative community research project. As part of the project, CRB convened a series of focus groups with fathers of young children. The groups discussed child nutrition, meal planning, shopping for and preparing food, and resources available to families in need of food. This report includes the information gathered in the focus groups as well as descriptions and findings from some of the relevant research.

The focus groups revealed that fathers face many of the same problems documented in research on mothers and children when it comes to what their children eat. Frozen and processed foods such as pizza and corn dogs were favorites among many of the children as were Mexican dishes like burritos and tacos. Vegetables were not high on many of the children's lists of favorites. The focus groups included many fathers who understood the importance of good nutrition and made an effort to cook balanced meals for their children. On the other hand, the fathers interviewed suffered the typical problems faced by single parents and couples who work long hours and have children with busy schedules. Time available for cooking is limited. Fast food filled-in for home cooked meals on occasions when the family was particularly rushed.

When asked about resources available to families who ran out of money to purchase food, many fathers spoke of "making do" with what was available. Some focus group fathers said they thought that families would cut back on other expenses, buy cheaper food, borrow food, find a second job, or otherwise "find a way" to feed their families when they were short on money for food. Some said families would likely eat less food and eat less healthy food. Some fathers were aware of government programs although several thought that men would not take advantage of these resources due to pride or cultural issues. When the WIC (Special Supplemental Program for Women, Infants, and Children) program was raised, several fathers asked the focus group leader if men were eligible to apply, a valid question given the name of the program.

Based on research and input from the focus groups, the report offers several options for policy-makers that focus on targeting and outreach to fathers for current programs for which they are eligible. It also suggests exploring the feasibility of adding fathers as eligible applicants for current child nutrition programs that are restricted to mothers.

INTRODUCTION

As the result of widespread societal changes over the past decades, fathers are spending more time with their children. They are also more involved in caretaking functions, including feeding their children. Societal trends that impact this situation include: both parents in intact families are working one or more jobs, one out of every two marriages are ending in divorce, and fathers are routinely sharing child custody arrangements with mothers. As a result, fathers and male heads of households are increasingly influencing what their children eat.

NUTRITION AS A PUBLIC POLICY ISSUE

Overweight and obesity have reached epidemic proportions in the United States. Obesity exacts high costs to the psychological and physical health of individuals who are overweight. In addition, it results in high medical costs for society to treat the related health conditions including serious, chronic conditions such as cardiovascular disease, cancer and diabetes. As a result, obesity-related health costs have become a primary target of health policy efforts at both the national and state levels.

Public health professionals believe that children who are overweight are likely to become overweight adults. As a result, prevention efforts aimed at helping children maintain a healthy weight have increased in the public and private sectors. In California, one out of every four children is classified as overweight or likely to become overweight. According to the California Center for Public Health Advocacy, "The crisis is perpetuated by complex social and environmental factors that overwhelm our children's ability to make healthy decisions about eating and physical activity."[1]

NUTRITION AND THE ROLE OF FATHERS

To date there has been little research on the relationship between fathers and children relating to nutrition. In order to examine this relationship, the California Department of Health Services, Cancer Prevention and Nutrition Section provided funds to the California Research Bureau (CRB) for a qualitative community research project. Specifically, the CRB conducted six focus groups of low and moderate-income men, married and divorced, in geographically and ethnically diverse communities throughout the State. Areas of information included:

- What do fathers know about nutrition and its link to children's health?
- What physical activity do children engage in?
- Do fathers shop for food? Prepare meals?
- What do children eat? Who decides what they eat?
- What do fathers know about public programs related to food?

Researchers have begun to pay more attention to what fathers do in families and the impact that has on their children. The purpose of this report is to identify the findings of

the research to date and the information gained from the focus groups. The responses from the focus groups are reported throughout the report; along with information gathered through a literature review. The report concludes with a brief section on the role of physical activity as a component in children's healthy life styles and some policy options.

NUTRITION AS A PUBLIC POLICY ISSUE

OVERVIEW

According to a recent report from the Surgeon General, Americans can achieve and maintain a healthy weight with a combination of healthy and moderate eating practices and regular physical exercise.[2] Nutrition, including diet and physical activity, is closely linked with weight. The issue of weight, or more specifically overweight, has become a public policy issue on both the federal and state levels.

OVERWEIGHT: A MAJOR NUTRITION ISSUE

Recent California Center for Public Health Advocacy studies found that there are high rates of overweight and unfit children in all of California's 80 Assembly Districts and 40 Senate Districts in California. Based on statewide physical performance testing across all districts statewide, over 26 percent of children are overweight and close to 40 percent are unfit.[3] (Fitness refers to the ability to engage in strenuous aerobic exercise – such as walking and running – for prolonged duration.)

Overweight primarily results from an imbalance between caloric intake and output: excess calorie consumption and inadequate physical activity. There is a consensus among researchers and health professionals that poor diet and lack of physical activity play important roles in the condition of overweight.

The underlying causes of overweight and physical inactivity are complex. They are impacted by social, cultural, economic, psychological, and personal factors. Environmental factors – such as the eating habits of parents or caregivers – influence children's food choices and contribute to the increasing rate of overweight among children.

The California Center for Public Health Advocacy identifies several factors that impact overweight: larger food portion sizes, greater consumption of fast food and soft drinks, lack of funding for nutrition and physical activity programs, availability of soda and junk food on school campuses, poor physical activity infrastructures in schools and communities, limited compliance with physical education requirements in many schools, limited access to healthy foods in low-income neighborhoods, and advertising of junk food to children and families.[4]

IS WEIGHT A PERSONAL OR GOVERNMENT RESPONSIBILITY?

There are two primary viewpoints about obesity and contributing behaviors such as diet and exercise. Many consider these to be a matter of personal choice and an individual or parental responsibility. People choose to be physically active or sedentary or to eat particular foods.

Others argue that obesity and nutrition has become a government responsibility due to the heavy burden (high health care costs) it places on society. In this view, the non-obese are forced to subsidize those who are obese through higher insurance rates and government health programs like MediCal and MediCare.

IMPACT OF POOR NUTRITION

Overweight is a serious issue. (Overweight and obesity refer to having high and excessive body fat compared to lean body mass.) According to the American Academy of Pediatrics, the United States Center for Disease Control (CDC), and other organizations concerned with children's health, childhood incidences of overweight and obesity have reached epidemic proportions in the United States (including California). Over 15 percent of children age six to 11 are overweight, more than double the proportion twenty years ago. The percentage of overweight adolescents (age 12 to 19), also over 15 percent, is more than three times the number 20 years ago.[5] These numbers are continuing to increase.

The American Academy of Pediatrics points out that, nationally, children and adolescents of lower socioeconomic status have been reported to be less likely to eat fruits and vegetables and have a higher intake of saturated fats. Both of these factors are associated with overweight.[6]

California is experiencing similar increases. The number of overweight children in the state increased from 12.4 percent to 14.1 percent from 1990 to 1998. There are differences among ethnic groups and genders. In California, African American and Latino children are at higher risk of being overweight than White and Asian children. There is a higher percentage of boys than girls who are overweight among all ethnicities; however, there is a higher percentage of unfit girls than boys.[7]

> The National Conference of State Legislatures has identified three key issues that states are focusing on in relation to nutrition: 1) the availability of and access to snack food, 2) the role of government and schools in relation to nutrition and obesity, and 3) the actions that are available to government officials and communities.
>
> *Nutrition and Obesity,* NCSL Issue Brief

This situation raises concerns among health advocates and others because unfit and overweight children are very likely to become overweight or obese adults who will likely experience a wide range of preventable health problems. These include conditions that affect quality of life such as depression, respiratory and fertility problems, and serious medical conditions such as diabetes, heart disease, high blood pressure, asthma, and kidney failure.[8] *

Researchers have also determined that poor nutrition during childhood can have a detrimental effect on the cognitive development of children and their later productivity as adults. Malnutrition impacts the behavior of children, their school performance, and their overall cognitive development.[9]

The economic cost of obesity in the United States is estimated to be approximately $117 billion (in 2001).[10] The California Center for Public Health Advocacy estimates the cost

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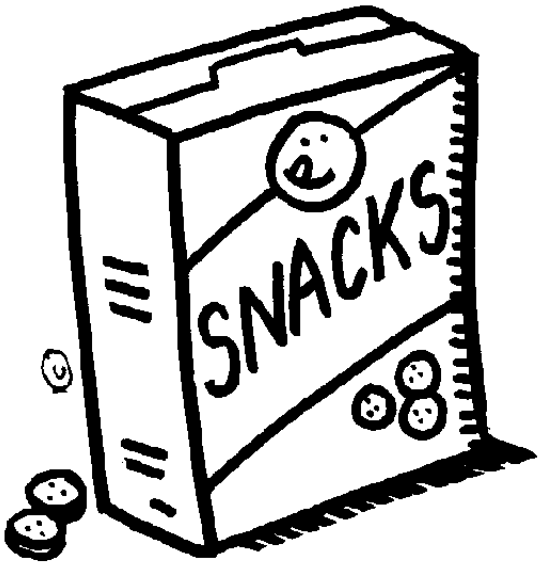
* For a more in-depth discussion of the issue of overweight children, see the CRB Report, *Overweight Kids: Why Should We Care*, December 2000, CRB-00-008. It is available online at www.library.ca.gov under CRB Reports.

of obesity in California at $14.2 billion. (Costs include direct medical costs and costs attributed to illness, disability, and premature death.) These costs outweigh the costs associated with both smoking and problem drinking.[11*]

In summary, the results of poor nutrition – like obesity – exact high costs to the psycological, physical, and cognitive health of individuals who are overweight. In addition, they result in high medical costs for society to treat the related health conditions. As a result, health costs among children and adults related to poor nutrition have become a primary target of health policy efforts at both the national and state levels.



[*] According to the California Center for Public Health Advocacy, obesity is responsible for a 36% increase in inpatient and outpatient costs and a 77 % increase in medications. In comparison, increased inpatient and outpatient costs associated with smoking are less than 21%. Cost increases associated with problem drinking are even lower.

FATHERS' INVOLVEMENT WITH THEIR CHILDREN

FATHERS' ROLE IN THE FAMILY

During the past thirty years, assumptions about who fathers are and what they contribute to their children's well-being have changed dramatically.[12] Traditionally, fathers have been described as playing the roles of economic provider (bread-winner) and playmate in terms of their involvement with their children. However, due to trends such as increasing rates of divorce, single parenthood, and joint custody arrangements, fathers are increasingly involved in their children's lives in many more ways.

Fathers' participation in childcare activities has increased significantly in recent years (though they still spend less time caring for their children than do mothers). Most fathers participate in some level of care; however, the nature, quantity, and quality of that care varies widely.[13]

A broader view of father-child interaction identifies three main ways that fathers are involved: fathers can have direct contact with their children (engagement); they can make themselves available (accessibility); and they can take responsibility for their children's care and welfare (responsibility). This view of father involvement applies to both fathers who live with their children and those who do not.[14]

Researchers have concluded that mothers and fathers influence their children in similar ways and often provide children with similar things such as love, attention, and guidance. However, they do not interact with their children in the same ways.

FATHERS' ROLES

Economic Provider - Traditionally, fathers have been seen as the main source of financial support. Even those who do not live with their children are expected to contribute to their care through child support.

Playmate - In terms of relative frequency, fathers spend more time playing with their children than do mothers.

Caregiver - Fathers are generally just as warm and nurturing as mothers and engage in many kinds of childcare activities. They are the main providers of childcare for children whose mothers work outside the home.

Teacher and Role Model - Like mothers, fathers assume responsibility for teaching their children what they need to know to survive in the world.

Monitor and Disciplinarian - While fathers are not the sole or main disciplinarians of their children, they also fulfill the role of monitoring and regulating child behavior.

Protector - Fathers monitor their children's safety by organizing their environment and eliminating hazards. They teach their children about health risks and how to keep themselves safe.

Advocate - Fathers look out for their children's welfare in many ways, including making sure their need's are met by institutions (like schools).

Resource - Fathers provide "behind the scenes" support in many ways. They also provide children with links to extended family and community resources.

The Meaning of Father Involvement for Children, Child Trends Research Brief, 2002

Fathers have a distinctive way of communicating and playing with their children. They contribute to their children's healthy development in ways that are unique from mothers. For example, fathers promote intellectual development and social competence through physical play while mothers promote these skills through verbal expressions and teaching experiences.[15]

Some of the major roles assumed by fathers are listed in the box on the previous page. In addition to recognizing that fathers fill many roles, it is important to note that the relative importance of each role varies among fathers based on such contexts as culture, ethnicity, class and economics.[16]

Socioeconomic Influences

National-level studies have consistently found strong links between socioeconomic indicators (such as education level, income, and social class) and fathers' involvement with their children.[17] For example, researchers have found that fathers with higher levels of education are more accessible to and engaged with their school-age children. In addition, fathers who are able to provide economically for their children are more likely to stay invested in partner relationships and be engaged with and nurturing of their children, even if they live apart from their children. There is some evidence that daily participation in childcare is higher among fathers in lower-level white-collar and professional jobs, and lower among self-employed fathers, fathers in blue-collar jobs, and those in middle or high management positions. (These findings may be related to work hours and/or the amount of flexibility in work schedules associated with different types of employment.)

Fathers who are unemployed or under employed are less likely to form families or assume responsibility for their children born outside of marriage; they are more likely to limit their involvement with their children. Researchers speculate that this may be due in part to the high value placed on fathers as economic providers. Some studies have found that fathers who are unable to provide financially have defined their roles differently. For example, a study of American Indian families found that fathers saw themselves more as protectors and disciplinarians than economic providers; in another study, a group of extremely low-income African American fathers saw their main contribution as being emotionally available rather than providing economic support.

Racial/Ethnic Variations

Researchers do not know very much about father/child involvement among specific racial/ethnic populations. There appear to be as many or more similarities in father involvement across racial/ethnic groups than there are differences. Specific father roles – economic provider, protector, caregiver, and teacher – seem to cross cultures. For example, low-income fathers from African American, Mexican American, and white backgrounds express similar concerns for their children and care for them in similar ways.[18]

FAMILY STRUCTURE

There are many types of family structures. These include two-parent intact families, blended families with stepparents and stepchildren, single-parent families (headed by mothers or fathers), two-parent, same-gender families, and extended families. (See box at right.) In addition, there are "social fathers," men who, regardless of their biological connection, have a significant relationship with a child.

U.S. FAMILIES

- 69 percent of children live with two parents. Most live with both biological parents; about seven percent of all children live with a stepparent.
- 23 percent of children live in mothers-only families.
- Five percent of children live in fathers-only families.
- Three-four percent of children are living without either parent in the family.

Family Structure
Child Trends Data Bank, 2002

Fathers in Intact Families

Several studies have found that when fathers spend more time on childcare tasks, their children benefit. For example, in one study, preschool-age children whose fathers were responsible for 40 percent or more of the childcare tasks had higher scores on assessments of cognitive development, had more of a sense of mastery over their environment, and exhibited more empathy than those children whose fathers were less involved.[19] Other studies have found that, as they grow, children with fathers or close relationships with adult males have higher self-esteem, are better learners, and are less likely to be depressed; and that children whose fathers share meals, spend time with them, or help with homework do significantly better in school than those children whose fathers do not.[20]

FATHER INVOLVEMENT IN INTACT FAMILIES

Substantial percentages of fathers who live with their children are engaged in monitoring and setting limits on their children's daily activities. For example, 61 percent set limits on what TV programs their children can watch.

More than one in five young children in two-parent families have their father as the primary caregiver when their mother is at work, attending school, or looking for work.

Charting Parenthood: A Statistical Portrait of Fathers and Mothers in America, Child Trends, 2002

Stepfathers

Stepfathers vary in how involved they are in the parenting role; their involvement depends on whether their biological children are also part of the family, the age of their stepchild when the family formed, the quality of the relationship with his wife/partner, and the stepchild's relationship with his or her biological father. Men who live with their stepchildren and their own biological children, and those who become stepfathers when their stepchildren are young, tend to be more involved.[21]

Single Fathers

Although the number of single fathers is low, their numbers have been increasing rapidly over the past 20 years. Several factors impact the way fathers approach the role of single

custodial parent. These include the children's age and gender, ability to balance work and parenting, relationship with the children's mother, fathers' own age and educational level, and the circumstances in which the child was conceived. Fathers who actively seek out custody of their children tend to adjust more easily.[22]

FATHERS AND CHILDREN LIVING APART

While 40 percent of children whose fathers live outside the home have no contact with them, the other 60 percent of children had contact an average of 69 days in the last year.

Charting Parenthood: A Statistical Portrait of Fathers and Mothers in America, Child Trends, 2002

Fathers Who Live Apart From Their Children

Fathers who live apart from their children are generally much less involved than fathers who reside with them. Although many nonresident fathers are initially involved in their children's lives, this involvement tends to taper off over time, particularly among fathers who were never married to their children's mothers. Researchers have found that nonresident fathers tend to be more involved when they live nearby, have a positive relationship with the child's mother, and have financial resources and work experience.[23]

A Caveat on the Research

"Fathers cannot be studied in isolation. Fatherhood, motherhood, and childhood are all interdependent and result from the interplay of complex cultural, political, economic, and institutional forces. Researchers should study fatherhood by placing it within various family and social contexts."

Reinventing Fatherhood, National Center of Fathers and Families

"Research on father involvement has not kept pace with changes in family structure and children's living arrangements."[24]

Although rates of divorce, number of single parents, and the percentage of children and fathers who live apart from one another have increased in recent decades, most of the research on fathers has focused on intact families – fathers living in two-parent families with their children and their children's mother. As a result, our knowledge of fathers' involvement with their children when they live apart is limited. In addition, most of the research on fathers' care of their children is focused on fathers who are highly educated, middle-class, and white. Research on fathers of color tends to focus on poor, nonresident fathers. These limitations affect our understanding of how fathers relate to and impact their children.[25]

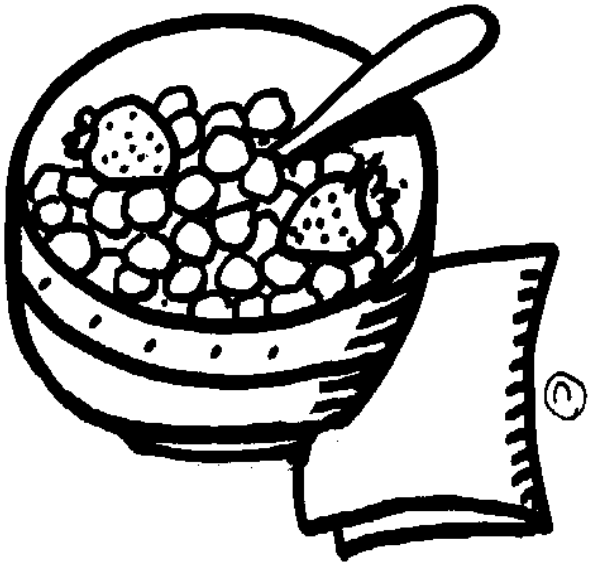
FOCUS GROUP FATHERS

In order to gain a better understanding of the role fathers' play in relation to their children's nutrition, the California Research Bureau conducted six focus groups during February and March of 2003. The focus groups were conducted in San Marcos, San Jose, and Fresno, California.

A total of 33 men participated. They were selected by local community-based organizations. Seventeen of the men were fathers who lived with their children in intact families. Sixteen men were unmarried. This group included 15 fathers who lived apart

from their children and one participant who had no children of his own but played an active role (a “social father”) in the lives of his nieces and nephews. Most of these fathers had a child custody arrangement in which their children stay with them on weekends or on a regular basis.

The focus group fathers each had between one and three children who ranged in age from one to 14 years old. Information on the age, race/ethnicity, and income level of focus group fathers was not collected. Based on observation, the fathers ranged from 20 to 40 of age. They were of white, African American, Hispanic, and Asian descent and had low- or middle-incomes.



If My Child Is Overweight, What Should I Do about It?

UNIVERSITY OF CALIFORNIA
Division of Agriculture and Natural Resources
Publication 21455

The illustration above is from "If My Child Is Overweight, What Should I Do About It?" publication 21455, University of California, Division of Agriculture and Natural Resources. Copyright 1998, Regents of the University of California.

FATHERS, CHILDREN, AND FOOD

Authors of a study of the nutrition education needs of fathers noted that *"In the field of nutrition…there has been limited attention given to the impact of fathers on the nutritional well-being of their children or their educational needs concerning food and nutrition issues with their children."*[26] There are increasing demands on intact families and single parents, including fathers. This can result in less time to shop and cook, less energy for negotiating with children about what they will eat, easing up on demands due to limited time with children, unsupervised snacking and activities, and inconsistent rules between households and parents.

DIETS OF AMERICAN CHILDREN

What do we know about the eating habits of our children? The United States Department of Agriculture (USDA) monitors American eating habits through the Continuing Survey of Food Intakes by Individuals (CSFII). One measure reported through the CSFII is the percentage of Americans whose diet includes at least the recommended number of servings of the food groups included in the Food Guide Pyramid (see next page). The pyramid "was designed as an educational tool to help explain and interpret the Dietary Guidelines for Americans--seven basic principles for healthful eating that form the basis of Federal nutrition policy…"[27] The table below shows how the diets of American children from low-income families measure up against the Guidelines.

PERCENT LOW-INCOME CHILDREN CONSUMING AT LEAST MINIMUM NUMBER OF RECOMMENDED DAILY SERVINGS

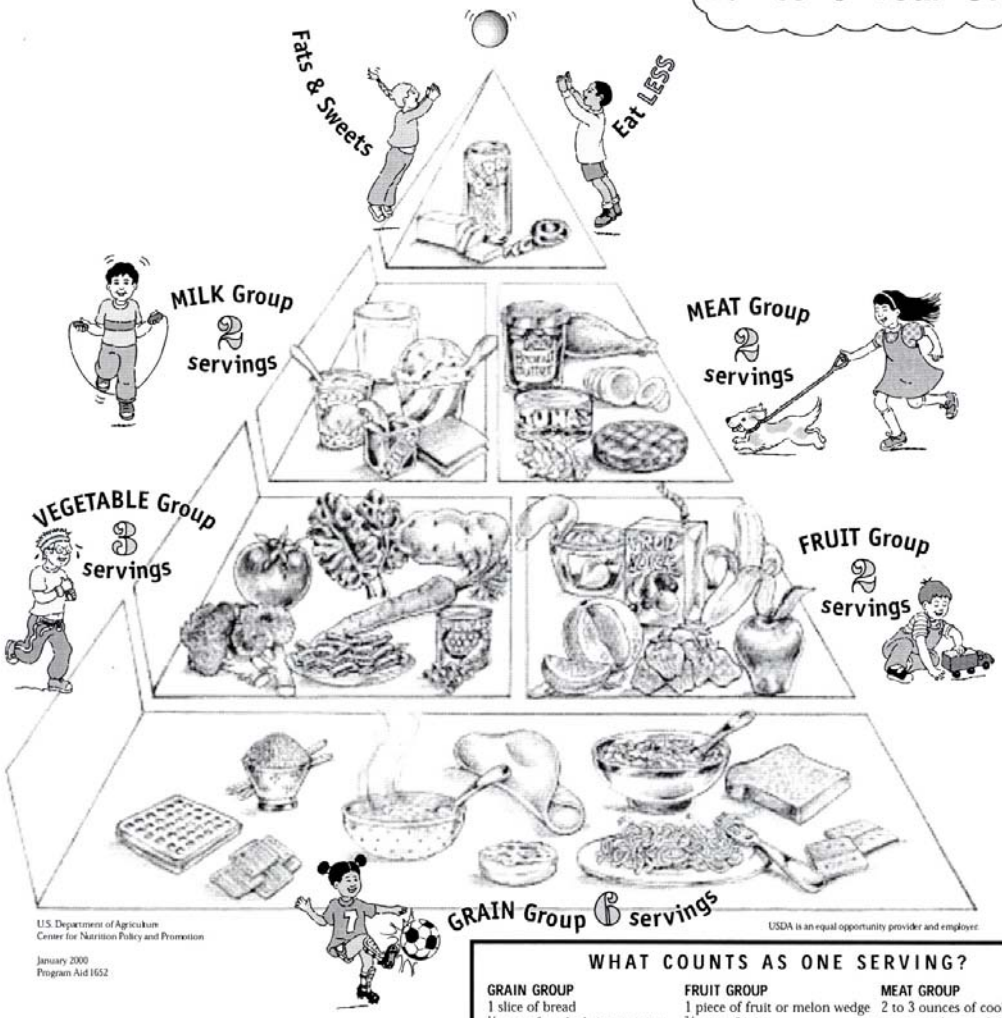
By Age and Gender, 1994-96[28]

Food Pyramid Group (Servings)	***2-5 years***		***6-11 years***		***12-19 years***	
	Boys	**Girls**	**Boys**	**Girls**	**Boys**	**Girls**
Grain (6-11/day)	52%	45%	56%	37%	73%	46%
Vegetables (3-5/day)	29%	28%	27%	25%	60%	40%
Fruit (2-4/day)	38%	40%	23%	20%	20%	20%
Dairy (2-3/day)	35%	38%	46%	37%	40%	21%
Meat	14%	11%	29%	19%	59%	35%

FOOD Guide PYRAMID

for Young Children

A Daily Guide for 2- to 6-Year-Olds



U.S. Department of Agriculture
Center for Nutrition Policy and Promotion

January 2000
Program Aid 1652

USDA is an equal opportunity provider and employer.

FOOD IS FUN and learning about food is fun, too. Eating foods from the Food Guide Pyramid and being physically active will help you grow healthy and strong.

WHAT COUNTS AS ONE SERVING?

GRAIN GROUP
1 slice of bread
½ cup of cooked rice or pasta
½ cup of cooked cereal
1 ounce of ready-to-eat cereal

VEGETABLE GROUP
½ cup of chopped raw or cooked vegetables
1 cup of raw leafy vegetables

FRUIT GROUP
1 piece of fruit or melon wedge
¾ cup of juice
½ cup of canned fruit
¼ cup of dried fruit

MILK GROUP
1 cup of milk or yogurt
2 ounces of cheese

MEAT GROUP
2 to 3 ounces of cooked lean meat, poultry, or fish.

½ cup of cooked dry beans, or 1 egg counts as 1 ounce of lean meat. 2 tablespoons of peanut butter count as 1 ounce of meat.

FATS AND SWEETS
Limit calories from these.

Four- to 6-year-olds can eat these serving sizes. Offer 2- to 3-year-olds less, except for milk. Two- to 6-year-old children need a total of 2 servings from the milk group each day.

EAT a variety of FOODS AND ENJOY!

Generally, more children met the guidelines for grain consumption than any other food group. This group contains foods like bread, rice and pasta, cereals, and snacks like popcorn and corn chips, foods that are popular with most children. Around one-third of children met the guidelines for the dairy group that contains milk, yogurt, and cheese, although four of five teenage girls consumed less than the minimum guideline amount. Interestingly, teen boys seemed to have better eating habits than their younger counterparts, except for fruit consumption, which dropped dramatically as boys aged. Girls eating habits appeared to get worse as they got older, with only vegetable and meat consumption improving over time. Unfortunately, this could reflect increased consumption of burgers and fries, a meal that contributes one serving of meat and one serving of potatoes accompanied by a portion of added fat.

Comparisons of the diet of low-income children with those in the middle and upper-income groups show mixed results.[29] According to data from the 1994-96 CSFII, low-income children were more likely than those from higher-income families to meet the guidelines for vegetables and meat, but were less likely to consume minimum levels of grains, fruit, and dairy products.

The tip of the Food Pyramid includes fats, sugars, and alcohol that supply calories but little or no vitamins or minerals. The following table uses 1994-96 CSFII data to show the percentage of low-income children's daily caloric intake accounted for by total fat and added sugars. Total fat included both fat that is contained in food from the five major food groups as well as "discretionary fat" such as cream, butter, or chocolate that is added to foods in preparation or at the table. Added sugars included sugar used as an ingredient in processed or prepared foods and sugars that are eaten separately or added at the table.

MEAN DAILY INTAKE AS A PERCENT OF TOTAL FOOD ENERGY (Kilocalories), LOW-INCOME CHILDREN, 1994-96[30]

Pyramid Tip Component	***2-5 years***		***6-11 years***		***12-19 years***	
	Boys	**Girls**	**Boys**	**Girls**	**Boys**	**Girls**
Total Fat	33.8%	33.6%	33.5%	33.8%	34.4%	33.3%
Added Sugars	14.2%	14.9%	17.1%	16.7%	18.5%	19.4%

Consistently, approximately one-third of children's daily calories came from fat. For the youngest children, sugar accounted for another 14 to 15 percent of calories. Sugar consumption increased as they got older, accounting for almost one in five calories by the time they were teens. Data from the same source for children from middle- and high-income families showed that their diets tended to be one to two percentage points lower in fat consumption, but one to three percentage points higher in sugar consumption.

FRUIT & VEGETABLE INTAKE OF MIDDLE SCHOOL CHILDREN IN BERKELEY, CALIFORNIA

- Average fruit and vegetable consumption was three servings per day – less than the recommended five or more.
- Girls ate more servings of fruit and vegetables than boys.
- The vast majority of students consumed no fruit or vegetables at lunchtime.
- Students who brought lunch from home consumed more fruit and vegetables than students who purchased food at school.
- Of five ethnic groups, Asians consumed the most fruit and vegetables and African Americans the least.

Students' Fruit and Vegetable Survey, 2000

Overall, for all age and income groupings, half of children's daily calorie consumption came from foods that supplied almost no nutritional value.

Do California children have healthier eating habits? In 2001, the California Health Information Survey (CHIS) examined the eating habits of a representative sample of two to five-year old children throughout the state.[31] CHIS found that young California children did much better than the national sample when it came to consumption of fruit. Eighty-nine percent of two-year olds, 87 percent of three to four-year olds, and 81 percent of five-year olds met the minimum guidelines for daily servings of fruit and 100 percent fruit juice.

On the other hand, California children were less likely to consume the minimum recommended servings of vegetables than children in the national sample. CHIS found that only 20 percent of two-year olds, 18 percent of three to four-year olds, and 15 percent of five-year olds met the minimum guidelines.

The CHIS study also looked at young children's consumption of soda. (Soda is one of the sources of sugar monitored in the Pyramid Tip.) Survey data showed that soda drinking was a particular problem for low-income children. The CHIS study noted that, "*…soda consumption reduces the milk that children drink, has no nutritional value, and increases risk of tooth decay*." To examine the impact of family income on a child's consumption of soda, the study divided children into four income groupings: less than 100 percent of Federal Poverty Level; 100-199 percent FPL; 200-299 percent FPL; and 300 percent FPL and above. CHIS found that among children in the lowest income grouping, 25 percent of two-year olds, 33 percent of three to four-year olds, and 46 percent of five-year olds consumed soda daily. Daily soda consumption dropped as income increased so that, in the highest income group, only 10 percent of two-year olds, 20 percent of three to four-year olds, and 22 percent of five-year olds consumed soda on a daily basis.

Children of Focus Group Fathers

What about the diets of the children of the focus group fathers? Frozen and processed foods were favorites among many of the children. Frozen pizza and corn dogs, foods that could be quickly cooked in a microwave, were frequently mentioned. Mexican dishes, especially burritos and tacos, were a favorite of children of all races and ethnicities. Fruit, pasta, meat (particularly steak) were mentioned frequently as favorites, but few

fathers listed vegetables as child favorites. On the other hand, a significant proportion of the fathers emphasized that they felt it was important to cook balanced meals for their children, and that their children were only allowed to eat fast food on occasions when the family was particularly rushed.

SKIPPING MEALS

In addition to consuming a less than well-balanced diet, many children may have developed eating habits that leave them hungry during important portions of the day. The CSFII also gathers information on the quantity and timing of the meals children ate. The average number of meals consumed by children was quite stable during the three surveys – 2.8 meals in the 1977 and 1994 surveys, 2.7 in 1989.[32] The average number of snacks increased dramatically, however, going from 1.1 in the first two surveys to 1.8 in 1994.

Reported data from the 1989 survey give us a picture of the timing of children's meals. The table below shows CSFII data on the frequency of skipped meals for children of different age-groupings. Younger children skipped fewer meals than adolescents although one in ten missed lunch and about one out of every 20 pre-school or primary school children missed breakfast and/or dinner. More disturbing are the meal patterns of adolescents where one in four females and one in five males start their school or work day with no breakfast. Statistics on midday meals are somewhat better, with the evening meal being the one most consistently eaten. The level of snack consumption is fairly consistent across the age groupings.

PERCENTAGE OF CHILDREN WHO SKIP MEALS BY MEALS AND AGE GROUP[33]				
	Preschoolers	**Primary Students**	**Female Adolescents**	**Male Adolescents**
Morning Meal	5%	6%	24%	20%
Midday Meal	10%	10%	18%	17%
Evening Meal	6%	4%	9%	8%
PERCENTAGE OF CHILDREN WHO CONSUME SNACKS BY AGE GROUP[34]				
	Preschoolers	**Primary Students**	**Female Adolescents**	**Male Adolescents**
Snacks	34%	41%	43%	35%

Children of Focus Group Fathers

Fathers in the focus groups were asked if any of their children skipped breakfast. Many of them talked about the difficulty of getting their children to eat breakfast on school

days. Children would rather sleep-in a few more minutes than get up earlier to eat breakfast. Some fathers kept a stock of granola or nutrition bars so that their children could eat in a hurry and still get some before-school nutrition. Several fathers mentioned driving through McDonald's for breakfast because children felt too rushed to eat at home. The fathers seemed to feel uncomfortable about feeding fast food to their children, but each expressed the belief that eating a McMuffin and potatoes was healthier than not eating at all.

FOOD PREPARED AWAY FROM HOME

According to a 7th grade boy, "*I eat [fast food] two or three times a week because my mother and father are busy*." Journal of the American Dietetic Association 99, 1999.

While parents can work to control the nutritional value of the food they prepare for their children, it is much more difficult to control the content of food prepared away from home. CSFII surveys show that the proportion of food children eat that is prepared away from home has been steadily increasing. (See table below.)

Between 1977 and 1994, there was a consistent decline in the proportion of food eaten at home and school and a marked increase in restaurant and fast food consumption. USDA research has noted that "*The quality of away-from-home foods may differ from the nutritional quality of home foods for several reasons*."[35] These include the lack of nutritional information available for food served in restaurants and cafeterias, the lack of control over the preparation techniques for away-from-home foods, and differences in consumer's reactions to the nutritional content of food they prepare at home versus food purchased away from home.

PERCENT OF DAILY ENERGY INTAKE, CHILDREN 2-17 YEARS, BY SITE

	Percent of Daily Energy Intake		
Site Food Prepared	**1977-78**	**1989-91**	**1994-96**
Home	*80%*	*72%*	*68%*
Away from Home	*20%*	*28%*	*32%*
Fast Food	2%	8%	10%
Schools	11%	10%	9%
Restaurants	1%	2%	4%
Others	6%	7%	8%

Children of Focus Group Fathers

About half of the focus group fathers reported that their children ate at school most or all of the time. Pre-schoolers often ate one or more meals at childcare. Virtually every focus group family ate at McDonald's or Mexican fast food restaurants on occasion, although the frequency varied widely. Some fathers, particularly those who only saw their children on weekends, ate fast food on a weekly basis. Many fathers said that they visited fast food restaurants when soccer practice or another of their child's activities left too little time to cook. Almost every father who spoke about occasions when the family ate fast food expressed concern about the possibility that these meals might have a negative impact on their children's overall nutrition.

INFLUENCES ON CHILDREN'S FOOD CHOICES

"I never see a child who has better eating habits than his parents. Parents are captain of the ship here. Kids need to see their parents eating healthy foods." Keith Ayoob, Associate Professor of Pediatrics, Albert Einstein College of Medicine, New York.[36]

Young Children

How do young children decide what to eat? A study published last year in the Journal of the American Dietetic Association tracked the food preferences of 70 young children and their mothers to determine how they changed and the factors that influenced them.[37*] Interviews were conducted with each mother/child pair three times; once when the child was between two and three years of age, once when they were four, and once when they were eight. In each interview, preferences were reported for a variety of foods. The child's preferences were reported by the mother and then validated with the child. Each mother and child also answered a series of questions to determine their willingness to try new foods.

WHO'S A BETTER ROLE MODEL: DAD OR MOM?

Data on low-income men and women, age 20 to 39 years, showed:

- Men and women consumed about equal levels of fruit, fat, and added sugar; however,
- Twice as many men as women consumed at least the minimum daily recommended servings of bread (70% vs. 32%); vegetables (67% vs. 35%); dairy products (35% vs. 14%) and meat (68% vs. 30).

Food and Nutrient Intakes by Individuals in the United States, by Income, 1994-96, Table Set 14, USDA

The study revealed a number of interesting findings. First, researchers found that the children's food preferences changed very little over time. A high proportion of preferences were formed as early as age two. The researchers had hypothesized that as children grew they would be exposed to new foods and, as a result, would learn to like more foods. This turned out to not be the case. Between the ages of two and eight, children were, in fact, exposed to new foods; however, only the number of foods they

[*] The sample mothers and children were all white and middle to upper-income so findings may differ from the multi-racial, lower-income population that is the target of this report.

disliked increased significantly. One explanation may be found in other research that showed it takes between eight and 15 exposures to result in a child learning to like a new food.[38] Mothers in this study tended to conclude the child did not like the new food and, therefore, stopped serving it before this point was reached.

Among possible influences on the food preferences of children at the age of eight, the study found that "*Children's and mothers' food preferences were significantly correlated for liked, disliked, and never tasted foods . . .. Although by 8 years of age children have been exposed to a variety of influences outside the family, mothers' influence on food preferences remained primary. The finding that children often were not introduced to foods disliked by their mothers also indicates the importance of maternal food acceptance*."

Adolescents

In 1997, a group of researchers from the California Department of Health Services, the Public Health Institute, and Loma Linda University conducted a study of 780 high school science students in San Bernadino to identify the predictors of healthful dietary practices in adolescents.[39] Students were first asked a series of questions to determine their beliefs in three areas. These were: 1) the positive and negative outcomes of eating a healthful diet; 2) the persons who would approve or disapprove of them if they ate a healthful diet; and 3) factors that would facilitate or inhibit their intention to eat a healthful diet. One month later, they completed a follow-up questionnaire that measured what they ate during the month following their first interview. The results of the first interview were used to measure the adolescent's intention to eat a healthy diet. The second interview allowed the researchers to examine the relationship between these intentions and actual eating behavior during the following month.

The study found that intention to eat a healthier diet was strongest among students who associated healthy eating with good tasting food, feeling good about themselves, a tolerance for giving up foods they liked, and the potential to lose weight or maintain a healthy weight. Interestingly, beliefs that healthy eating would improve appearance or enhance athletic performance were not associated with an adolescent's intention to eat a healthy diet.

The study found that perceptions of social pressure from friends, mothers, and siblings had significant influences on the adolescents' intention to eat a healthful diet. Fathers, coaches, and teachers did not. Factors that facilitated the adolescents' perceptions that they could control their eating included knowledge about how to eat a healthy diet, availability of healthy food, motivation, and access to money. While having the time to prepare healthy food is known to be an important determinant of parental behavior, it was not a significant factor influencing the eating behavior of these adolescents.

Analysis of the eating patterns of the adolescents in the study revealed that those who had formed an intention to eat healthy food were, in fact, more likely to do so than adolescents who had not. Given the importance of attitudes and beliefs in the formation of "good intentions," the authors suggested that, "*nutrition education and marketing*

strategies used to promote healthful eating in teens should reinforce the perception that healthful foods are tasty and may assist in achieving and maintaining appropriate weight." They went on to suggest that, "*Multiple environments, such as schools, after-school facilities, restaurants, and family dwellings, should consistently expose teens to healthful food options so that they have the opportunity to experience this sense of self-worth, accomplishment, and positive internal reinforcement*."

Viewpoints of Focus Group Fathers

Many of the focus group fathers had strongly held opinions about the proper approach to take toward their children's nutrition. Some fathers believed it was important to plan and prepare nutritionally balanced meals and serve them to children without giving them the power to choose. One father explained that this was the way he was raised and he thought it was important for his children to be raised the same way. They might decide not to eat what was cooked once in a while, but when they realized they wouldn't get anything else, they would learn to eat the healthy food. Many fathers expressed frustration that their children were allowed to eat anything they wanted when they were with their mothers or other relatives, and that the children tended to make unhealthy choices such as corn dogs or frozen pizza.

In contrast, other fathers let the children choose what they ate at least some of the time. In these families, children most often were allowed to choose one to two meals a week. The father chose the rest of the time. One father noted that he allowed his children to make all of the food choices when they were with him because, if he fed them food they didn't like, they called their mother and said they wanted to go home.

Several fathers said that their children were very picky eaters and that it was hard to get them to eat anything. More than one father had taken his child to a doctor because he was worried that the child was malnourished. In each case, the child was fine, but the parents were baffled as to how to get the child to eat. Some fathers made a point to introduce new foods to their children from time to time. Other fathers raised the point that they only fed their children food that they knew they would like because they had a very low budget for food and whatever the children disliked ended up in the garbage. They couldn't afford to waste money on food that wasn't eaten.

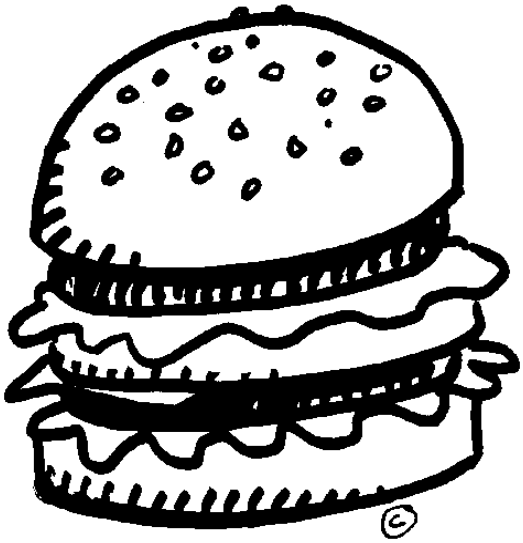
HELPING FATHERS TO HELP THEIR CHILDREN

In 1998, a group of researchers from the University of Minnesota (UM) and Rutgers conducted a study to explore the food and nutrition-related educational needs of limited-income, urban fathers.[40] The researchers noted that little research specifically targeting fathers had been done, even though they may significantly influence their children's nutritional well-being. The UM/Rutgers research consisted of a series of small focus groups conducted with limited-income, urban fathers who had children between the ages of four and 11. The fathers in the focus groups were involved in men's programs run by community agencies.

The men were asked about their knowledge of nutrition and the types of foods they cooked with or for their children. They were then asked to assist in designing a nutrition education program that would meet the needs of fathers like themselves. The most commonly identified nutrition education need was assistance in learning how to cook meats and casseroles as well as nutritious snacks and healthy foods such as vegetables. They were also interested in inexpensive ways to eat more healthy foods and in meal planning. Finally, they expressed the need to learn more about child nutrition and ways to handle eating issues with their children.

The fathers felt that men should lead the nutrition education classes, and that the classes should be fun. Classes should incorporate men's love of competition as a motivator and be marketed as a "macho" thing to do.

Fathers participating in the CRB focus groups were not asked about their need or desire for nutrition education; however, the discussions revealed several areas where it might be helpful. Many of the fathers appeared to be accomplished cooks. This included several married fathers who did much of the cooking for their families. For others, education in cooking, particularly focused on nutritious meals that could be prepared in a short time, could make their parenting jobs easier. Some parenting education focusing on dealing with picky eaters and other food-related behaviors would also benefit many of the fathers in the focus groups. These problems are common in families of all types, but they can be particularly difficult and disruptive in single parent and joint custody situations.



FOOD ASSISTANCE RESOURCES

FOOD AND NUTRITION PROGRAMS

Based on data from the 2001 California Health Information Survey (CHIS), over 28 percent of low-income adults (those with incomes below 200 percent of poverty) – more than 2.24 million – cannot always afford to put food on the table.[41] Almost one in three of these adults experiences episodes of hunger. Many of these adults are parents with children. When children are taken into account, the actual number of those who are "food insecure" may exceed five million according to the U.S. Department of Agriculture (USDA).

The USDA Economic Research Service compared food purchases by U.S. households of different income levels. This study found that low-income households economize on their food purchases to limit spending (despite some evidence that they face generally higher purchase prices). This includes purchasing less expensive meat, poultry, fresh fruits and vegetables, generic brands, and items on sale.[42]

The USDA administers several federal food assistance programs that are targeted to low-income households. The purposes of these programs are to provide families with access to a more nutritious diet, to improve the eating habits of children, and to help farmers by providing an outlet for the distribution of food. Each program targets different populations with different needs. A profile of California food assistance programs contained in the "State of the States" publication compiled by the Food Research and Action Network details participation in a number of these programs:

- *The Food Stamp Program* – provides monthly benefits for eligible participants to purchase approved food items at authorized food stores. The average monthly participation in the Food Stamp Program in California in Fiscal Year (FY) 2000 was around 1.8 million persons, including 1.3 million children (age 18 and under).[43]

- *The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)* – provides free supplemental food packages, nutrition counseling, and health and social service referrals to low-income women (and men), infants, and children up to age five who are at nutritional risk. In FY 2000, the WIC program served around 293,000 women, over 280,000 infants, and over 640,000 children (age one to four) in California each month.[44]

- *The National School Lunch Program* – provides nutritional low-cost or free lunches to school-age children at participating schools. Based on FY 2000 data, the National School Lunch Program (NSLP) provides nutritious food to over 2.6 million California children each year. These lunches provide one-third of a child's daily nutritional needs which results in greater consumption of nutrients and reduced sugar intake among NSLP participants when compared to the diets of non-participants.[45]

- *The School Breakfast Program* – provides low-cost or free breakfasts to school-age children at participating schools. The School Breakfast Program (SBP) serves close to 900,000 California children based on FY 2000 data. Like the NSLP, this program provides nutritious food; the SBP provides one-fourth of a child's dietary nutritional requirements. SBP children also have been found to consume more nutrients and less sugar than non-participants.[46]

- *The Child and Adult Care Food Program* – subsidizes healthy meals and snacks in participating childcare centers, family day care homes, and adult day care facilities. Over 138,000 children in 22,000 family childcare homes and around 4,000 childcare centers serving 139,000 children participate in the Child and Adult Care Food Program based on FY 2000 data.[47]

- *The Summer Food Service Program* – provides free, nutritious meals and snacks to school-age children in low-income areas when school is not in session. Over 800,000 children participate in Summer Nutrition programs based on FY 2000 data.[48]

- *The Emergency Food Assistance Program* – provides USDA food commodities to states to distribute to emergency food programs.[49]

WHAT FATHERS KNOW ABOUT FOOD ASSISTANCE RESOURCES

Fathers in the focus groups were asked what they thought families did when they did not have enough money for food. The purpose of this and related follow-up questions was to determine whether and what these fathers knew about local resources for food assistance.

Several fathers identified the Food Stamp Program as a resource. In addition, several were familiar with the WIC Program. They were unclear, however, if this program served fathers as well as mothers with infants and young children.

(The California Department of Health Services confirmed that WIC services are available to men and their children.[50] However, in addition to its name, "Women, Infant, Children…" all of the WIC material identifies "women and their children" as the target audience. As a result, in spite of the program's intent to help young children eat well and stay healthy, the program appears to exclude fathers.)

Several fathers also knew about the School Lunch Program. A smaller number mentioned the School Breakfast Program. However, focus group fathers did not mention the Child and Adult Care Food Program and only one father mentioned the Summer Nutrition Program. He remembered this program because he and his brothers used it when they were growing up. He didn't know if it existed any more.

Focus group fathers also did not specifically mention the Emergency Food Assistance Program. However, several identified emergency food closets or similar programs as resources for hungry families. A few fathers observed that churches are a good resource for food.

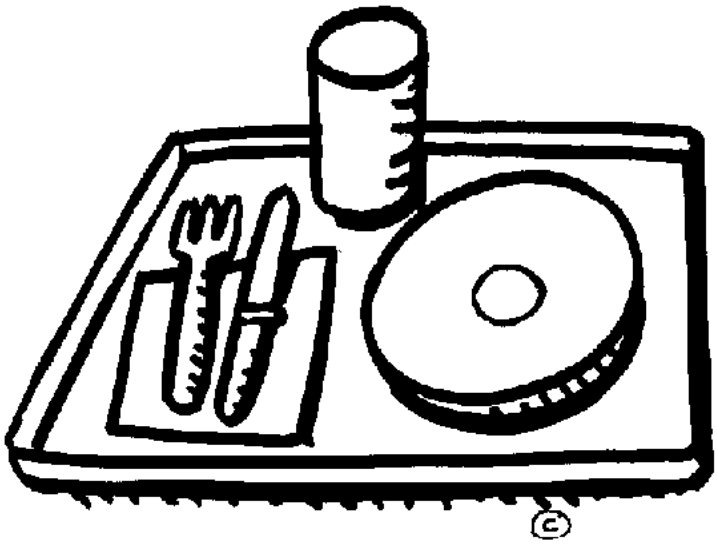
What Fathers Say About the Use of Food Assistance Resources

In spite of the range of resources available, many eligible families do not apply for food assistance. For example, the Food Stamp Program participation rate among eligible families is less than half. The literature identifies several reasons for nonparticipation: welfare reform-related barriers, confusion/lack of knowledge, program features/ administrative practices, stigma associated with public assistance, perceived lack of need, and expected benefits are too low. The relative importance of individual factors or how they are interrelated is not known.[51]

Some focus group fathers said they thought that families would cut back on other expenses, buy cheaper food, borrow food, find a second job, or otherwise "find a way" to feed their families when they were short on money for food. Some said families would likely eat less food and eat less healthy food.

In spite of available food assistance, several thought that some fathers would not take advantage of this resource due to pride or cultural issues. They described reluctance to ask for a "handout," and feelings that it would be "begging" as potential barriers. Focus group fathers also identified other barriers to using food assistance programs such as lack of transportation. Finally, several of them mentioned that, in order to apply for any of these programs, they would have to take time off from work. They weren't sure that the benefits they would obtain from the programs would offset the lost income incurred during the application.

Focus group fathers indicated that public awareness was needed to inform other fathers that food assistance is available, that it is not "a handout," and that using available resources "is not about them, it's about their kids."



A NOTE ABOUT PHYSICAL ACTIVITY

Good nutrition is only one component of a child's healthy lifestyle. According to the Surgeon General, regular physical activity, fitness, and exercise are critically important for the health of children and adults.[52] Physical activity is important for promoting overall health and development in children. It contributes to maintaining a healthy body, enhancing psychological well-being, and preventing premature death. Some studies have also reported a positive relationship between physical activity, brain development, and academic performance.[53]

The level of physical activity among children nationally has been decreasing over the past few decades. In contrast, physical activity levels among California's children have not been declining. However, the State Superintendent of Public Instruction recently announced that most California children failed to score in the "Healthy Fitness Zone" on tests given in selected grades to measure: body composition; aerobic ability; muscular strength, flexibility, and endurance; and, levels of physical activity. (Researchers refer to these children as being "unfit.") Only about 25 percent of the 1.3 million students tested, statewide, met fitness standards.[54]

Physical education is required in the schools. However, research indicates that many elementary schools do not adhere to the mandated quantity requirement (see box at right). In addition, the likelihood of students enrolling in physical education classes declines each year, especially for female adolescents.[55]

> California law requires 200 minutes of physical education every 10 school days for elementary students and 400 minutes every 10 school days for middle/junior high school students. Physical education is required only two of four years in high school.
>
> California Center for Health Improvement

To emphasize the importance of physical education for children's health, the California Research Bureau organized a tour to allow legislative and executive branch staff to experience how it is taught in California schools. The participants visited physical education classes in several levels of schools in the Sacramento area to see the types of activities that were taught and interact with students and teachers. They also went to California State University, Sacramento, to learn about the training of physical education teachers. Issues addressed during the day-long trip included: the role of physical activity in prevention of childhood obesity; the use of general education teachers instead of certified physical education specialists in California schools; and, the impact of new academic standards on the quantity and quality of physical education in California's Kindergarten to 12th grade schools. Funding for this trip came from the Department of Health Services grant that supported this report.

The declining availability of safe parks and playgrounds and other barriers may contribute to this trend. However, the decrease in physical activity is generally attributed to the increase in sedentary behaviors such as watching television and playing video games.[56]

The time spent in physical activity declines when children spend excessive time watching television. (The American Academy of Pediatrics recommends that infants and toddlers under age two be discouraged from any television viewing.) According to the 2001 California Health Interview Survey, around 67 percent of young children (age four and five) spend two or more hours each weekday watching television; about 33 percent spend more than two hours daily watching television or using computers. Household income levels did not impact on the amount of time children spent watching television or using the computer.[57]

Physical activity is also an issue for older children. The CDC conducted a nationally representative telephone survey of children aged nine to 13 and their parents. The survey data indicated that over 61 percent of children did not engage in any organized physical activity (an activity that has a coach, instructor, or leader) during their non-school hours. Over 22 percent did not engage in any free-time physical activity.[58]

A recent study of over 385 California children ages 11 to 13 was conducted to determine the prevalence of, and lifestyle factors associated with, obesity. The researchers concluded that time spent watching television and the number of soft drinks consumed were significantly associated with obesity.[59]

> *"Social support from family and friends has been consistently and positively related to regular physical activity."*
>
> *Physical Activity and Health,* Surgeon General Report, 1996

Many lifestyle patterns – like physical activity and sedentary activity – are typically established in childhood and persist into adulthood. Experts stress the need to develop positive physical activity patterns early in life. Parents can help their children to develop healthy exercise habits by providing encouragement and opportunities for physical activity.

Focus group fathers were asked about their children's physical activities ("tell me about your kids' typical school day activities – in school and after school."). Many listed physical activities (like soccer, basketball, riding bikes, and skateboarding); however the majority also said their children spent varying amounts of time watching TV and playing computer games.

OPTIONS FOR ACTION

CURRENT GOVERNMENT RESPONSE

On the federal level, the Senate and House of Representatives are considering the Improved Nutrition and Physical Activity Act. This act would appropriate grant funds for health training, program activities, school health programs, a youth media campaign addressing nutrition, and research on obesity and effectiveness of food and nutrition programs. Other bills target childhood obesity through school-based programs and require that Medicaid cover drugs to treat obesity. In addition, there are on-going efforts to promote physical activity. Federal initiatives, like Healthy People 2010, include goals directed at improving nutrition and increasing physical activity.[60]

State strategies include implementing food and/or beverage taxes and limiting access in schools to snack and soda vending machines. In California, the California Childhood Obesity Prevention Act of 2003, carried by Senator Deborah Ortiz, was enacted.[61] Effective January 2004, this legislation restricts the sale of sodas and sets nutrition standards for beverages in elementary and middle schools. It also sets nutrition standards for foods in elementary schools. In addition, there is pending legislation that would require fast food or restaurant chains to post nutritional information so patrons can make informed decisions. Forty-nine states, including California, mandate some level of physical education for children and youth.[62]

POLICY OPTIONS

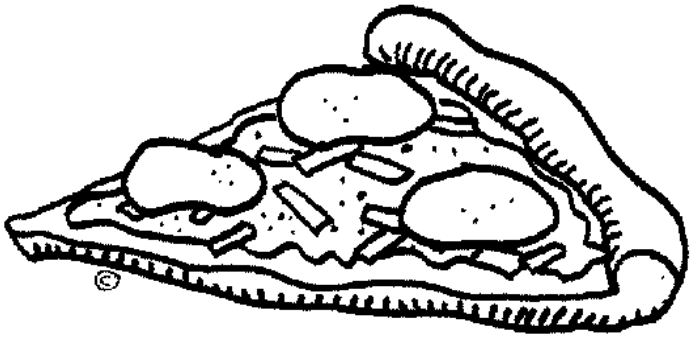
"Families and communities lie at the foundation of the solution to the problems of overweight and obesity. Family members can share their own knowledge and habits regarding a healthy diet and physical activity with their children, friends and other community members. Emphasis should be placed on family and community opportunities for communication, education, and peer support surrounding the maintenance of healthy dietary choices and physical activity patterns." The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity, 2001.

"Families should be educated and empowered through anticipatory guidance to recognize the impact they have on their children's development of lifelong habits of physical activity and nutritious eating." American Academy of Pediatrics Policy Statement, 2003.

Fathers (both biological and social) are playing a larger role in raising children. Many have direct care giving responsibilities and, as a result, exert considerable influence and control over their children's nutrition and health. Efforts to support enhanced nutrition for children must take fathers into account if they are to be successful. The following are some options for addressing this objective:

- Administrators of programs that already target fathers such as the Adolescent and Family Life Program and Cal-Learn should review their parenting curriculum to determine if it includes father-friendly nutrition education.

- Programs such as WIC and Black Infant Health that are marketed exclusively to mothers should review their eligibility criteria to determine whether fathers are also entitled to the programs' food and nutrition education benefits. If they are, explore whether it is possible to change the name and descriptions of the programs to reflect that services/resources are available for fathers (for example, use term "parents" in place of "mothers"). If the name cannot be changed, outreach materials could reflect a message such as "WIC is for fathers too."
- For parenting programs where fathers are not presently eligible, efforts could be made to determine the feasibility of expanding state program eligibility to men who meet same income or other criteria as mothers.
- Identify if there is a need for new programs or marketing efforts specifically targeted to fathers.
- To meet the nutrition education needs expressed by fathers, state and local programs could collaborate with the adult education system to develop nutrition education/cooking classes for fathers. These could be offered to men at low or no cost through the parenting education component of the adult education curriculum.
- Programs could also partner with grocers to feature low-cost, nutritious foods for fathers to cook with and for their children. (The issue of forming partnerships between state programs, community-based organizations, grocers, and educators to address the need for a quick, nutritious, inexpensive alternative to fast food would be extremely beneficial to all families.)



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The California Center for Public Policy Health Advocacy. The Center is an independent, nonpartisan, nonprofit organization. Its purpose is to raise awareness about public health issues and mobilize communities to promote effective health policies. http://www.publichealthadvocacy.org

The Center for Science in the Public Interest. The Center is a consumer advocacy organization whose functions are to conduct research and inform the public about health and nutrition. http://www.cspinet.org

National Center on Fathers and Families, Graduate School of Education, University of Pennsylvania. The Center is an interdisciplinary policy research center that is dedicated to research and practice that expands the knowledge base on father involvement and family development, and that informs policy designed to improve the well-being of children. http://www.ncoff.gse.upenn.edu

The Public Health Institute. The Institute is an independent, non-profit organization that promotes the health, well-being, and quality of life for Californians, and nationally, through research and evaluation, training and technical assistance, and community building activities. www.phi.org

United States Department of Agriculture. The USDA administers food assistance programs for low-income families. http://www.usda.gov

United States Office of the Surgeon General. The Surgeon General of the United States is the nation's leading spokesperson on matters of public health. Reports of the Surgeon General highlight important public health issues and generate major public health initiatives. http://www.surgeongeneral.gov/sgoffice.htm

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