

SCHOOL FOODSERVICE & NUTRITION

JUNE/JULY 2005

Healthy Kids are Happy Kids (school-age)

By Dayle Hayes, R.D.

By now, you've probably heard plenty about the "epidemic" of childhood obesity in the US. In fact, you may have heard more than you wanted to hear about the issue. Like many other school nutrition professionals, you may feel that your program is being unfairly blamed as the cause of the problem.

Actually, the nutrition and fitness concerns of American children are much bigger than the discussion about overweight kids sometimes implies. And, food in schools is just one small part of the problem.

However, you and your program can play a critical role in helping children lead healthier and more productive lives. The more you know about the nutrition and fitness problems facing children in elementary schools, the better prepared you will be as an advocate for kids' health in your community.

Overweight Trends

There is no doubt that more children are overweight, and at risk of becoming overweight, than ever before. The results of the 1999-2002 National Health and Nutrition Examination Survey (NHANES), which used measured heights and weights, estimate that 16 percent of children ages 6 to 11 years are overweight. As shown in Figure 1, this is four times the number of elementary children who were overweight during the 1960s and early 1970s.

This graph dramatically illustrates the concerns about children's weight in the US. Until the mid-1970s, the percentage of overweight children and adolescents was relatively stable at around 5 percent of young people. Since then, the percentage of overweight kids and teens has continued to rise – with no indication that the trend is leveling off in any way.

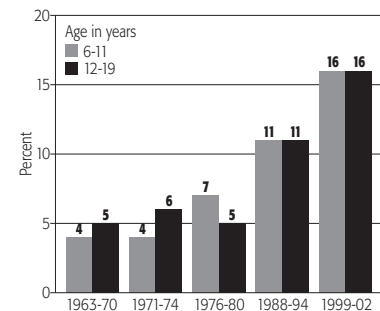
These statistics represent a national sample of children and adolescents. More recent measurements, in states across the country, indicate that the numbers are even higher in some areas. For example:

- In a Pennsylvania study, 20 percent of children (6-19 years) in rural school districts were overweight, while 16 percent of their urban counterparts were overweight.
- In Arkansas measurements, one out of four (25 percent) of public school children met the criteria for being overweight (BMI at or above the 95th percentile).
- In a West Virginia survey, more than a quarter (27 percent) of all fifth-graders were overweight.

News stories often lump the overweight and at risk of overweight categories together – reporting the number of children at or above the 85th percentile BMI-for-age. This does make the statistics even more alarming, with estimates running from 30 percent of elementary school kids to more than 46 percent in states like Arkansas and West Virginia. Some pediatric experts argue that any child above the 85th percentile faces the same health risks – including early onset diabetes, elevated cholesterol levels, high blood pressure, and joint problems.

The rising rates of early weight gain have led to predictions that today's youngsters may be the first generation to have a shorter life span than their parents. Although the estimates are controversial, a 2005 study in the *New England Journal of Medicine* paints an "ominous picture" – with a two- to five-year decline in future life expectancy.

Figure 1.
Prevalence of Overweight Among Children and Adolescents Ages 6-19 Years



Note: Excludes pregnant women starting with 1971-74. Pregnancy status not available for 1963-65 and 1966-70. Data for 1963-65 are for children 6-11 years of age; data for 1966-70 are for adolescents 12-17 years of age, not 12-19. Source: CDC/NCHS, NHES and NHANES www.cdc.gov/nchs/products/pubs/pubd/hestats/overfig1.GIF

Weight Terminology

The terms used to describe the weight of children and adults are different. This can be confusing, since the term “obese” is often inaccurately applied to weight status in childhood. According to the Centers for Disease Control and Prevention (CDC), the correct terms for children are:

Overweight: A body mass index (BMI or weight/height²) for age *at or above the 95th percentile* on gender-specific BMI growth charts.

At risk of overweight: A BMI-for-age *between the 85th and 95th percentile*.

In some reports, children above the 95th percentile are mistakenly referred to as obese – and those between the 85th and 95th are inaccurately described as overweight. A complete description of weight terminology, growth charts for children from birth to 18 years, and interactive training modules for measuring children can be found at www.cdc.gov/growthcharts/

Overfed, Poorly Nourished Couch Potatoes

Clearly, our children are getting plenty of calories. It would be one thing if these calories came from nutrient-rich foods – and if well-nourished American children were getting plenty of physical activity. Sadly, neither of these is true.

Whether they are overweight or not, children in US elementary schools are generally overfed, poorly nourished, and sedentary. This combination is the worst possible scenario for their school performance, their health today, and their future longevity.

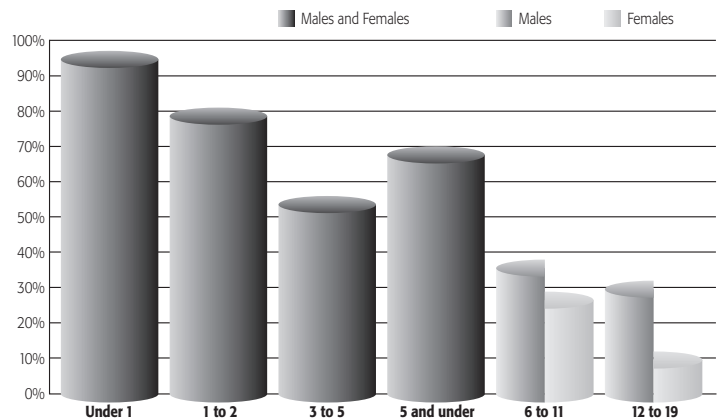
In terms of nutrition, these statistics paint a picture of children who are poorly nourished in a land of plenty:

- According to USDA's Healthy Eating Index (HEI), 76 percent of 4-6 year olds and 80 percent of 7-9 year olds have diets that “need improvement.” Another 7 percent of children 4-6 years and 8 percent of 7-9 year olds reported diets that were “poor.”
- Although the average intake of most vitamins and minerals meets recommended levels, elementary children often do not consume adequate amounts of several micronutrients. The nutrients most likely to be missing include vitamin E, folate, magnesium, and potassium.
- Calcium intakes fall dramatically when children reach school age. Less than 40 percent of boys and 30 percent of girls ages 6-11 years old consume an adequate amount of calcium. (See Figure 2)
- Iron deficiency anemia is still the most common nutrient deficiency among American children – and it continues to exceed the 2010 national health objective.
- Among children 2 to 9 years old, 63 percent do not eat the recommended number of fruit servings per day and 78 percent do not meet vegetable recommendations.

When it comes to physical activity, the statistics are equally bleak:

- Although American children are more active than adults, CDC surveys indicate that 48 percent of girls and 26 percent of boys do not get vigorous activity on a regular basis. Activity levels are lowest among girls, non-Hispanic blacks, and Mexican Americans.
- Participation in school-based physical education classes has dropped substantially – and some schools have even begun to restrict recess in order to increase classroom instructional time.
- American children are spending more and more recreational time in sedentary pursuits – with video games, computers, TV, DVD, and other media. A 2005 Kaiser Family Foundation survey found that kids devoted, on average, 6 hours and 21 minutes a day to recreational media use – more than 44 hours per week.

Figure 2.
Percentage Meeting 100% of AI for Calcium



Source: USDA Continuing Survey of Food Intakes by Individuals 1994-96.
http://www.nationaldairycouncil.org/lv04/nutrilib/digest/dairydigest_705b.htm

What Can We Do for Generation XXL?

There is no one cause for the rising number of overweight children in the US – and the rest of the world. This “epidemic” has developed due to a long list of far-reaching environmental changes that affect virtually every aspect of our daily lives. (See side bar).

These changes have obviously affected adults as well as children. Although some demographic groups are more likely to be overweight (people in rural areas, people of color, and low-income populations), no social or geographical group has been immune from the trends.

In fact, the environmental changes are so pervasive that it is almost surprising that anyone is able to maintain a healthy weight! Decreasing the number of overweight children in the US will require changes at every level of society – families, childcare, schools, neighborhoods, communities, the health care system, the media, and the food industry.

As a school nutrition professional, you are uniquely positioned to play a leadership role in improving children's health. This is especially true for elementary age children because research suggests that health promotion interventions should begin before the sixth grade, before eating and activity patterns become resistant to change.

As a school nutrition professional, you can directly affect the policies and options available in your local school buildings. You can also impact the families of the children who eat in your cafeteria – by educating the children directly and by sending information home to parents and other caregivers.

As a school nutrition professional, you can promote the importance of nutrition and fitness to academic performance. By working with others at school and in the community, you help to insure that all elementary children are fit, healthy, and ready to learn.

BMI: To Report or Not?

Recently, several states and local districts have considered the use of school report cards in their efforts to prevent childhood weight problems. Arkansas, where the rates of overweight children are among the highest in the nation, led the effort with a state law on school health report cards passed in 2003. Other states, including Texas, Maine, and Georgia, are looking at similar statewide initiatives during their 2005 legislative terms.

Obesity experts differ significantly on using BMI-for-age and other health information on school report cards (1,2). Some believe that any effort to raise parental and school awareness about childhood overweight is an important step. Others are concerned that putting BMI onto report cards may do more harm than good.

To date, one peer-reviewed article has been published on the topic. This study (3), published in 2003, described a pilot program implemented with kindergarten through eighth-grade children in Cambridge, Massachusetts. Parents were divided into three groups: those receiving personal information about their child's weight and fitness status, those receiving general information about healthy lifestyles, and those receiving no information.

The results indicate some of the problems associated with reporting BMI to parents via report cards:

- Families receiving report card information were more likely to report initiating or intending to initiate activities designed to help manage their child's weight.
- Families with overweight children said they were happy to receive the information and intended to change.
- However, there was no difference between the groups in controlling TV time, increasing physical activity, or serving five or more fruits and vegetables per day. In other words, even when they were told their child's weight might be a problem, families did not make any of the suggested changes.
- Although all the information sent to families specifically warned against putting children on diets, 20 percent of families who received personal information said they planned to put their child on a diet.

Why are more children overweight in 2005 than in 1980?

Socio-demographic changes

- More single-parent households
- More families with two working parents
- More children feeding themselves after school
- More after-school and evening activities
- More concerns about safety and security

Physical activity changes

- Fewer walkable/bikeable neighborhoods
- Fewer active chores at home or on farm
- Increased “drive-thru” options
- More children driven to school
- More television channel options
- More video games
- More satellite dishes
- More personal computers

Eating pattern changes

- Increased portion sizes
- More eating away from home
- More fast food meals
- More snacking and frequent eating
- More packaged and processed foods
- Increased food advertising
- More ads aimed at children
- Increased sugar and fat intake
- Lower intake of calcium and dairy products
- More microwave ovens

School environment changes

- Less time in PE classes
- Less time devoted to active recess
- More vending and a la carte options
- More processed, prepared meals
- More fast food options

Virtually all experts agree on one thing related to putting BMI on report cards. To avoid creating more problems than it cures, any school health report card program must be comprehensive and sensitive to the needs of children and their families. Two excellent resources for comprehensive guidelines related to weight issues in schools are:

- *The Role of Michigan Schools in Promoting Healthy Weight: A Consensus Paper* (2001) from the Michigan Department of Education at www.michigan.gov/documents/healthyweight_13649_7.pdf
- *Guidelines for Childhood Obesity Prevention Programs: Promoting Healthy Weight in Children* (2002) from the Society for Nutrition Education at www.sne.org/Chi_Obesity.pdf

1. Scheier LM, *School health report cards attempt to address the obesity epidemic*, Journal of the American Dietetic Association, March 2004; 104: 341-344
2. Scheier LM, *Potential problems with school health report cards*, Journal of the American Dietetic Association, April 2004; 104: 525-527
3. Chomitz VR, Collins J, Kim J, Kramer E, McGowan R. *Promoting healthy weight among elementary school children via a health report card approach*. Arch Pediatr Adolesc Med. 2003; 157: 765-772.

Bullying: Not a Laughing Matter for Overweight Children

In a media-driven culture that worships thinness, overweight children not only face health risks, they may also pay a high price socially. According to a report by the National Education Association, students who are overweight face harassment, discouragement, and even discrimination at school.

Obesity has been called the “last socially acceptable form of prejudice in our society.” For elementary school children this can mean almost constant teasing and taunting, as well as always being the last person chosen for games and other activities.

While overweight children generally face bullying and ostracism, there are cultural differences in attitudes toward body size. Studies have shown that Black and Latina girls tend to focus on style and grooming, while White girls emphasize slimness.

Child nutrition experts, like Ellyn Satter in Wisconsin and Joanne Ikeda from the University of California-Berkeley, believe that teaching children about size diversity is as important as teaching them about healthy food choices and the importance of being physically active. Here are a few ways to introduce the issue in elementary classrooms.

- Include body size in discussions of human variation. Encourage children to discuss variations in body type along with other factors like skin color, culture, and religion.
- Confront the false stereotypes of overweight people as lazy, overeaters without any motivation to take care of themselves.
- Encourage overweight children to utilize their talents in positive peer groups where other kids can look deeper than their size and weight.

FIT KIDS = HAPPY KIDS: Six Simple Steps to a Healthy Weight for Kids

Tips for Parents from the Montana Chapter, American Academy of Pediatrics

1. Be active by playing together inside and outside.

For a healthy weight, kids and adults need 30 to 60 minutes of daily physical activity. Play with your kids every day – fun for them, fun for you too!

- ✓ **Play inside:** Turn off the TV and play an old-fashioned game of hide-and-seek. Clear a space for wiggling, dancing, and playing with soft-foam balls or squishy toys.
- ✓ **Play outside:** The options for outdoor play are unlimited: bikes, trikes, scooters, balls, kites, Frisbees, jump ropes, squirt guns, hula-hoops, hopscotch, and tag.
- ✓ **Play at the park:** Most towns have fun park facilities, sometimes close enough to walk or ride a bike. When the weather is nice, take a picnic and play before dinner.

2. Make family meals a special time to eat together.

Eating more meals together can make a big difference in your family's health, happiness, and finances. Dinners at home are easier (and cheaper) than you think!

- ✓ **Plan a weekly menu:** Make it simple or make it detailed – the key is to have a plan. Involve the whole family; let each person have a night to pick their favorite dishes.
- ✓ **Cook once, eat twice:** Cut down on prep time. Cook and freeze key ingredients, like ground beef for tacos and spaghetti sauce, or main dishes, like lasagna and casseroles.
- ✓ **Keep the cupboard stocked:** Pack your pantry (and freezer) with staples like canned beans, tuna, and fruit; pasta, rice, and baking mixes; and frozen vegetables.

3. Eat most meals at home – and save fast food for a once or twice a week treat.

Fast food can be loaded with calories, fat, and sugar. Whether you drive-thru or go inside, here are some smart tips to help you eat better in the fast food lane.

- ✓ **Share a super size:** There's a way to make mega portions work for you: share them! By sharing a large order of fries, you eat fewer calories, less fat, and save money too.
- ✓ **Switch to power drinks:** A 44-oz. soft drink has over 450 calories and 1/2-cup sugar – with no nutrient value. Get power nutrients with low-fat milk or 100% orange juice.
- ✓ **Choose nutrient-rich options:** Many national chains now offer tasty, fun choices in kids' meals – like flavored milk instead of pop and mandarin oranges instead of fries.

4. Enjoy tasty fruit and veggie snacks together.

Serve a rainbow of produce every day – at least 5 juicy, crunchy, crispy, tasty fruits and vegetables. Fresh, frozen, dried, canned, and juice – they all count for 5-A-Day!

- ✓ **Enjoy green fruits and veggies:** For snacks or dinner, green comes in dozens of delicious flavors – like sliced kiwi fruit or broccoli trees with light Ranch dip.
- ✓ **Enjoy yellow-orange fruits and veggies:** For morning, afternoon, or evening snacks, choose a fresh orange, canned pineapple, baby carrots, or yellow pepper slices.
- ✓ **Enjoy red fruits and veggies:** Red is a tasty color for produce – any time of day! Try frozen berries, watermelon, or canned tomato sauce on pasta, pizza, or tacos.

5. Drink milk with meals and drink water with snacks.

Dairy products can help kids (and adults) maintain a healthy weight, build strong bodies, and lower blood pressure. Water is always refreshing – and calorie-free.

- ✓ **Serve low-fat milk with meals:** The best way to get your kids to drink milk is to drink milk yourself with every meal. Aim for a total of 16 to 24 ounces per day.
- ✓ **Offer water at snack time:** Everybody needs fluid to stay well hydrated, especially in warm weather. Water quenches your thirst – without adding extra calories or sugar.
- ✓ **Steer clear of sugary drinks:** For beautiful teeth and strong bodies, wise parents limit soft drinks, fruit punch, fruit drinks, sweet tea, and other high-sugar drinks.

6. Take the TV out of the bedroom and read together.

Pediatricians recommend no TV for children under three years, no more than two hours of total screen time a day for older kids, and no TVs in children's rooms.

- ✓ **Improve your child's fitness level:** Turning off the TV gives kids more time for active play – plus they miss all those commercials for candy, chips, and sugary cereals.
- ✓ **Improve your child's school performance:** Children who have less screen time (TV, computers, and video games) tend to read more and do better in their classes.
- ✓ **Improve your child's sleeping habits:** There are many benefits to taking the TV out of a child's bedroom: calmer bedtime routines, more bedtime stories, and better sleep.

DEVELOPED BY: Montana Chapter, American Academy of Pediatrics; Eat Right Montana; Montana Action for Healthy Kids; Montana Area Health Education Center (AHEC); Montana Cardiovascular Health Program, Department of Health and Human Services; and Montana Team Nutrition, Office of Public Instruction

Books for Parents

- *Generation Extra Large: Rescuing our Children from an Epidemic of Obesity*, Lisa Tartamella, Chris Woolston, and Elaine Herscher, 2004 (\$25.00)
- *Underage and Overweight: America's Childhood Obesity Crisis – What Every Family Needs To Know*, Frances M. Berg, 2003 (\$24.95), www.healthyweight.net/
- *Your Child's Weight: Helping Without Harming (Birth Through Adolescence)*, Ellyn Satter, Kelcy Press, 2005 (\$19.95), www.ellynsatter.com

Resources for School Professionals

Action for Healthy Kids (AFHK)

www.actionforhealthykids.org/

In early October 2002, health professionals and educators from across the US gathered to “take action” for children’s nutrition and fitness. This site provides extensive tools, resources, and contacts from the meeting in Washington, DC.

American Dietetic Association: Position Paper on Dietary Guidance for Children

www.eatright.org/Member/PolicyInitiatives/index_21022.cfm

This 2004 ADA position paper outline ways that children 2-11 years can achieve optimal physical and cognitive development, attain a healthy weight, enjoy food, and reduce the risk of chronic disease.

American Psychological Assoc: Task Force on Advertising and Children

www.apa.org/releases/childrenads.pdf

Released in February 2004, this report outlines the effect of food and beverage advertising on children’s eating habits and their contribution to youth obesity. It also offers extensive recommendations for healthful changes.

The Body Positive

www.thebodypositive.org/

Through videos, workshops and consulting, the creators of Body Positive teach young people how to have a positive body image and a healthy relationship with food. Their recent video *BodyTalk 3* (2004) is targeted at ages 6 to 8.

Centers for Disease Control and Prevention (CDC)

www.cdc.gov/nccdphp/dnpa/ and www.cdc.gov/HealthyYouth/index.htm

The CDC site is an essential resource for nutrition and activity issues. Search for surveillance data (like maps of obesity prevalence); pediatric growth charts; and several national campaigns, like *Kids Walk-to-School* and *Turn Off Your TV*.

Center for Weight and Health (University of California, Berkeley)

www.cnr.berkeley.edu/cwh/

The center sponsors conferences and coalitions in California. The site features links to literature, research, surveys, funding, and information on *Reversing Childhood Obesity Trends: Helping Children Achieve Healthy Weights*.

Institute of Medicine – Preventing Childhood Obesity

www.iom.edu/report.asp?id=22596

IOM’s Committee on Prevention of Obesity in Children and Youth has a national strategy with specific actions for communities, families, schools, industry, and government in *Preventing Childhood Obesity: Health in the Balance*.