MICHIGAN Department of Education

Office of School Excellence

The Role of Michigan Schools in Promoting Healthy Weight

A Consensus Paper

The Michigan Department of Education
In Cooperation With
The Michigan Department of Community Health,
The Governor's Council on Physical Fitness, Health and Sports
and
The Michigan Fitness Foundation

September 2001

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MDCH

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Introduction

School personnel in Michigan have expressed serious concerns about childhood weight and have asked for guidance in promoting healthy weight among students. Ideally, statewide recommendations would be based on proven, research-validated procedures. Several school-based interventions to reduce excessive weight gain have been evaluated for effectiveness. Some of them have shown positive short-term results, especially in increasing student physical activity and improving student nutrient intake.[1-5] Unfortunately, none of the controlled long-term studies of school-based approaches in the United States have shown continued success in reducing overweight.[1, 2] Despite that limitation, it is important to assist schools with state-of-the-art information.

In order to provide guidance to schools, the Michigan Department of Education, Michigan Department of Community Health, and the Michigan Governor's Council on Physical Fitness, Health and Sports invited a group of experts in children's health issues to serve on a Healthy Weight Advisory Group. The committee's work has resulted in this consensus paper. The purpose of the paper is to provide practical guidelines and policy recommendations to school districts for promoting healthy weight for all students. Implementation of the recommendations will involve school administrators, physical education teachers, health and life management teachers, school nurses, food service directors/managers, parents, students, and community members.

The Healthy Weight Concept

Defining 'healthy weight' is not simple. Excessive weight places children at an increased health risk. The physical and emotional well-being of students is also jeopardized when they develop poor self-esteem because of their body size, when they experience weight discrimination, or when they use unsafe weight loss practices. If schools focus only on reducing weight, they could inadvertently cause damage to students in these areas. Three separate but related problems need to be considered jointly:

1. Excessive weight and weight gain;
2. Social pressure for excessive slenderness and weight discrimination; and
3. Unsafe weight loss practices.

In order to address these three problems, the Healthy Weight Advisory Group suggests that schools adopt the Michigan Healthy Weight Concept Model (see Figure 1). This model promotes the overall goal of *healthy students of all shapes and sizes,* which may be realized when students receive consistent messages and support for:

- Self respect;
- Respect for others;
- Healthy eating; and
- Physical activity.

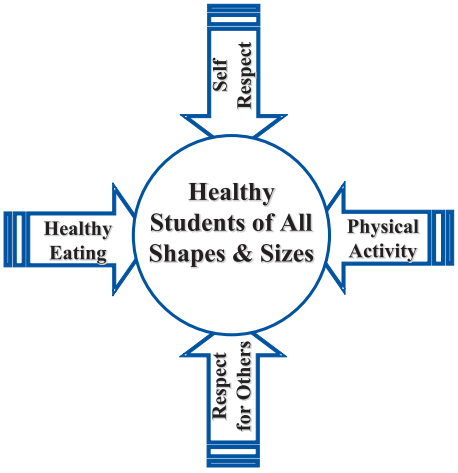
These messages should be delivered consistently throughout the school day by staff, faculty, students, and parents.

Adoption of the Michigan Healthy Weight Concept Model may provide three benefits. First, it can have positive effects on student health, since improving physical activity and eating habits decreases risk for chronic diseases at any weight and any age.[6-8] Second, it can improve the learning environment for all children. Third, it will most likely help prevent excessive weight gain among students.

The School's Role in Promoting Healthy Weight

The Healthy Weight Advisory Group acknowledges that schools cannot completely solve all weight-related problems faced by Michigan students. The family's influence on a student's weight is far more powerful than that of the school. However, schools can become part of the solution. The primary role of schools in promoting healthy weight is prevention. Michigan schools are urged to establish local policies that support the prevention measures summarized in this paper. Some schools may go beyond prevention and initiate weight screening along with limited intervention for students whose weights place them at increased health risk. Weight screening must not be initiated without addressing specific safeguards. The National Association of State Boards of Education[9] and the Michigan State Board of Education[10] have issued policy statements consistent with the recommendations in this paper.

Figure 1
The Michigan Healthy Weight Concept Model



Adapted from the Health at Any Size model in "Children and Teens Afraid to Eat: Helping Youth in Today's Weight-Obsessed World," by Frances M. Berg, 2001:23-26. Hettinger, ND: Healthy Weight Network.

Three Weight-Related Problems Affecting Michigan Students

The Healthy Weight Advisory Group recognizes that Michigan students are dealing with three potentially dangerous issues. The first and most critical is the high percentage of students who are medically classified as overweight or obese. The second issue is the social pressure for excessive slenderness and weight discrimination affecting students. The third issue is the percent of students who are attempting to lose weight by using unsafe weight loss practices. This paper addresses all three issues. However, the major focus is on overweight and obesity issues.

1. Excessive Weight & Weight Gain

Twenty to thirty percent of children can be classified as overweight* or at risk of overweight.**[11] Over the past three decades, the proportion of students that are classified as overweight has almost tripled (see Figure 2). Currently, 11 percent of Michigan students are classified as overweight.[12] The same alarming increase in the prevalence of overweight children has been seen in the adult population (see Figure 3).

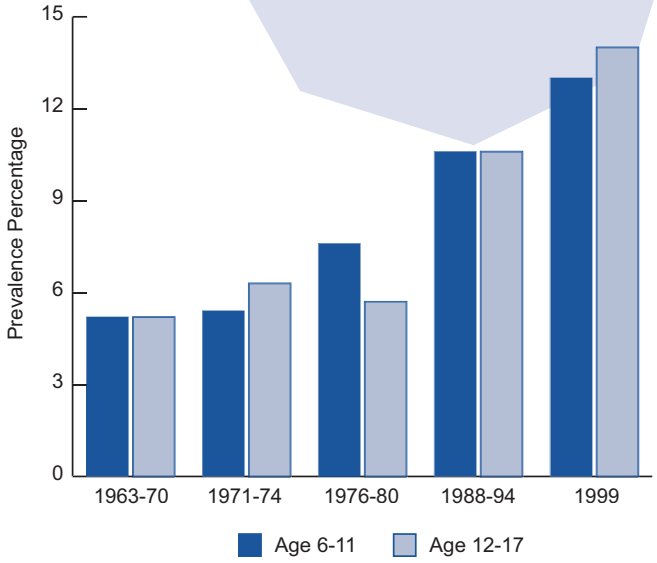
Many factors play a role in determining an individual's weight. Some people are born with body types that naturally carry more weight than others. Although a range of healthy weights exists, excessive accumulation of fat is associated with increased health risks. The heaviest children are more likely than their leaner counterparts to have heart disease risk factors such as high cholesterol and high blood pressure.[13] They are also at greater risk for developing Type II diabetes, a serious condition that was seldom seen in youth before the number of overweight children increased so dramatically.[14-15]

* The Centers for Disease Control and Prevention (CDC) defines "overweight" for children as having a Body Mass Index-for-Age at or above the 95th percentile compared to CDC Growth Charts.

** The CDC defines "at risk of overweight" for children as having a Body Mass Index-for-Age between the 85th and 95th percentile compared to CDC Growth Charts.

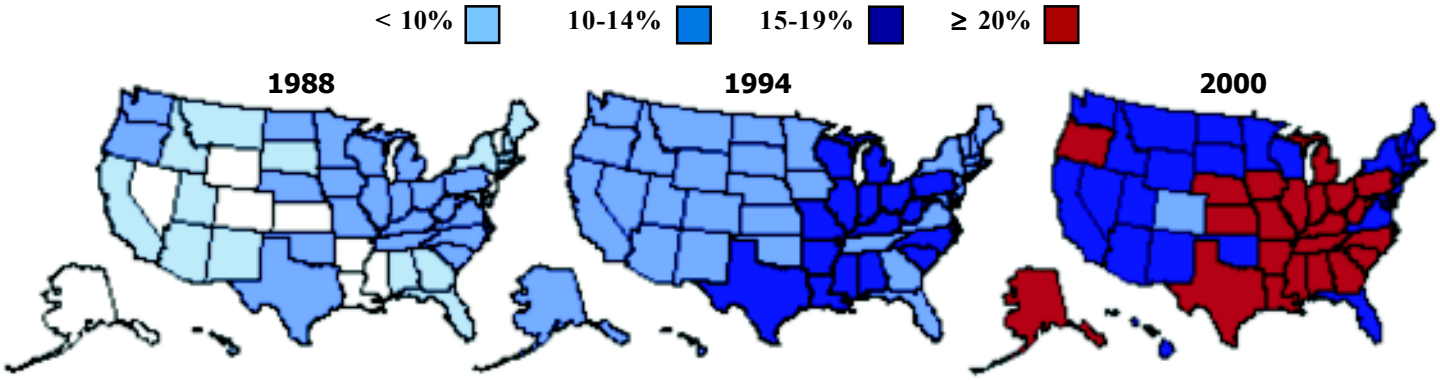
Not all children who are classified as overweight grow up to be overweight adults. However, many of them do. Over one-half of the children at the highest weight percentiles at age six will persist in being heavy into young adulthood;[16] 70-80 percent of overweight adolescents will remain overweight throughout adulthood.[17]

Figure 2
Prevalence of Overweight*
U.S. Children and Adolescents, 1963-1999



Source: National Center for Health Statistics
http://www.cdc.gov/nchs/products/pubs/pubd/hestats/overwght99.htm

Figure 3
Prevalence of Obesity* Among U.S. Adults, 1988-2000
***Approximately 30 pounds overweight**



Source: U.S. Behavioral Risk Factor Surveillance System, reported in Mokdad AH, et al. J. Am. Med. Assoc. 1999; 282:16
White areas indicate states for which no data were available.

2. Social Pressure for Excessive Slenderness & Weight Discrimination

Students are flooded with messages from the media implying that a 'normal' body shape should be extremely slender. This so-called 'normal' or desirable body shape is biologically unachievable for the vast majority of people. Students who are overweight are often treated disrespectfully, and subjected to bullying and name-calling.* Thirty percent of U.S. students in grades 6 - 10 have reported involvement in bullying.[18] Research has also documented societal discrimination against young people who are overweight.[19]

The social pressure for excessive slenderness and the social discrimination against heavy students threatens the self-esteem of great numbers of students.[20-21] It is generally recognized that a child who grows up with a poor self-image is less likely to achieve his or her potential role in society as a healthy, productive individual.[22] Schools that do not counteract these social forces are not providing the safe and supportive learning environment that all schools value. Schools that tolerate rude behavior or bullying toward any students are failing those students.

Observations In Your Building

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- ☐
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Please list your observations in the space provided.

3. Unsafe Weight Loss Practices

Attempts to conform to an unrealistic 'ideal' can be counter-productive to health, leading to under-nutrition, unsafe diets, use of appetite suppressants,[23] and cigarette smoking to reduce appetite.[24-25]

There is no question that students in Michigan are attempting to conform to unrealistic body weight goals. As shown in Table 1, almost twice as many students report trying to lose weight than are actually classified as overweight or even at risk of becoming overweight. Females are more likely to see themselves as being overweight and more likely to be trying to lose weight. A large percentage of Michigan high school girls report using dangerous weight loss practices including fasting, vomiting, and taking laxatives.[26]

Table 1
Weight-Related Data
Michigan High School Students (N=2,690)

Results	Total %	Males %	Females %
Students who are at risk for becoming **overweight**	15	17	13
Students who **are overweight**	10	12	8
Students who described themselves as **slightly or very overweight**	32	24	39
Students who were **trying to lose weight**	45	27	63
Students who **exercised to lose weight** or to keep from gaining weight during the past 30 days	60	51	70
Students who went **without eating for 24 hours or more** to lose weight or to keep from gaining weight during the past 30 days	13	8	19
Students who **took diet pills, powders, or liquids without a doctor's advice** to lose weight or to keep from gaining weight during the past 30 days	8	6	11
Students who **vomited or took laxatives to lose weight** or to keep from gaining weight during the past 30 days	6	4	8
Students who **watched 3 hours or more of TV per day** on an average school day	37	38	35

Source: Michigan Youth Risk Behavior Survey, 1999[26]

The most serious concern with extreme weight loss practices, such as fasting, vomiting, or taking laxatives, is that the students using them may develop eating disorders such as anorexia or bulimia. Eating disorders are psychological in nature, difficult to treat, and need professional attention. They can also be fatal. The prevelance of eating disorders among Michigan youth is not known, but with such a great number of Michigan high school girls engaging in unsafe weight loss practices, there is reason for concern. Dieters have been found to be at greater risk for later development of eating disorders.[27-28] Cigarette smoking is another dangerous weight control strategy. Many adolescents believe that tobacco is an effective weight control method.[24-25, 29]

* See *Children and Teens Afraid to Eat: Helping Youth in Today's Weight-Obsessed World* by Berg, F.M., in Appendix B.

Contributing Trends

It is generally accepted by researchers that the increases in weight in Michigan students over the past three decades cannot be attributed to changes in the genetic pool or in biologic control mechanisms. Explanations must be found in changes in the environment that affect health behaviors. Some factors thought to contribute to the weight increases are summarized below.

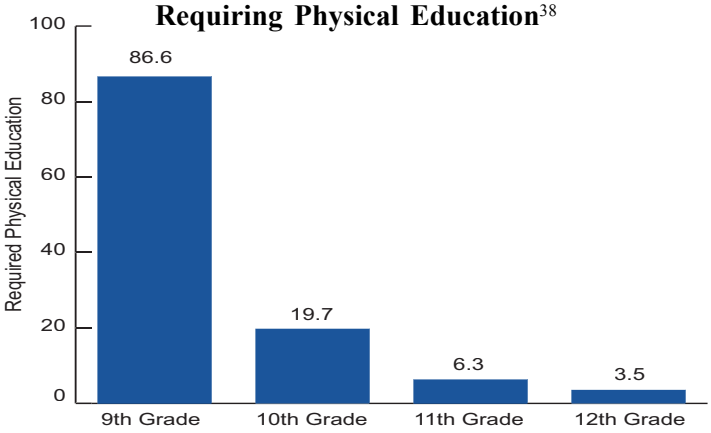
Physical Activity Trends

Decreased physical activity in day-to-day occupations has been well documented. Children are pursuing sedentary activities that simply were not available several decades ago, before new technologies offered attractive sedentary pastimes. Children, ages 2 to 18, spend an average of four hours a day watching television or videotapes, playing video games, or using a computer.[30] Most of this time is spent watching television. Seventeen percent of American children are watching television more than five hours each day.[30] These youth are 8.3 times more likely to be overweight than children who watch television for two hours or less.[31]

The national recommendation for physical activity is that people of all ages participate in physical activity at a moderate intensity level for a minimum of 30 minutes on most, if not all, days of the week.[32] For adolescents, vigorous physical activity is recommended three times per week, at least 20 minutes per occasion.[33] Many Michigan students do not meet these recommendations. The physical activity levels of Michigan children decline rapidly after the early teen years. Regular participation in vigorous physical activity drops from 70 percent of ninth grade students to 59 percent of twelfth grade students.[26] Overall, more than one-third of Michigan high school students do not participate regularly in vigorous physical activity.[26]

Safety is a major issue affecting the amount of physical activity that children receive outside of school. In many communities children who do not have safe places to walk, ride a bike, or play, must rely on sedentary activities to fill their time.

Figure 4
Percent of Michigan High Schools Requiring Physical Education[38]



Physical Activity & Physical Education in Schools

Unfortunately, sedentary behavior is a necessary part of the school experience. Once children get to school, there may be few opportunities for movement during the day. In many schools, pressure to improve academic performance has led to a reduction in time allocated for recess. This situation makes physical activity outside of school vital to the health of our children. Walking or riding a bike to school could contribute to daily physical activity, but it is rare. As of 1995, fewer than one-third of trips to school of one mile or less were made on foot, and only 2.4 percent of trips to school less than two miles are made by bike.[34] Between 1977 and 1995, the number of walking and bicycling trips made by children, aged 5-15, dropped 40 percent.[34]

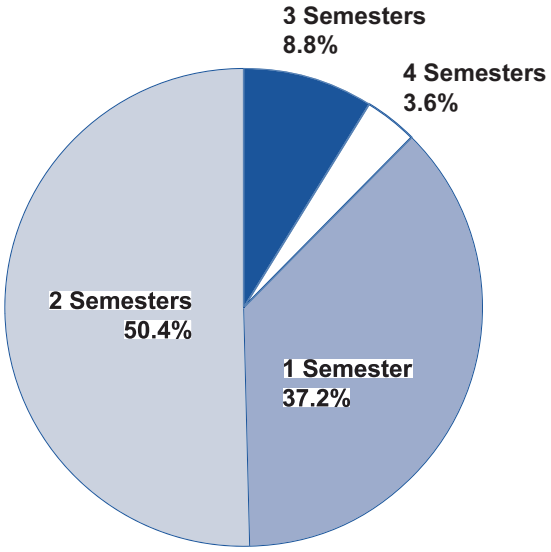
Physical education class is the one reliable opportunity for physical activity during the school day, yet it is not available to students as fully as it should be. Several national organizations have made recommendations for strengthening physical education in schools, including the American Academy of Pediatrics[35] and the American College of Sports Medicine.[36] The National Association of State Boards of Education and the Centers for Disease Control and Prevention recommend that schools provide students with physical education on three to five days a week, with elementary and high school students receiving 150 and 225 minutes per week respectively.[9, 37]

Michigan students clearly are not meeting these national recommendations. At the elementary level, the majority of Michigan schools offer physical education classes for an average of two days per week, for approximately 60 minutes per week.[38] Half of sixth, seventh and eighth grade students receive physical education five days per week, for an average of 48 minutes for more than 25 weeks during the school year.[38] Unfortunately, the other half receives far less than that. For example, 23 percent of sixth grade students receive no physical education for the entire year.[38]

Not one Michigan high school meets the national recommendations. Two-thirds of Michigan high school students are not enrolled in a physical education class.[26] The number of high schools requiring physical education plummets sharply after the ninth grade[38] (see Figure 4).

Further, only 12.4 percent of Michigan high schools require more than two semesters of physical education for graduation (see Figure 5).[38]

Figure 5
Physical Education Semester Requirements for Michigan High Schools, 2000[38]



One of the most recent and troubling trends is the increasing number of schools that allow extracurricular activities and marching band participation to substitute for physical education credit. Substitution was permitted in 41 percent of high schools surveyed in 2000.[38] Although substitution is allowed under Michigan law, students who opt out of physical education class miss the opportunity to learn the skills and fitness concepts needed for physically active lifestyles after high school. [Michigan law states in Section 380.1502(2) of the Michigan School Code that: "a school district may credit a pupil's participation in extracurricular athletics or other extracurricular activities involving physical activity as meeting the physical education requirement for the pupil under subsections (1)." See Resource 1 in Appendix A.]

Food Consumption Trends

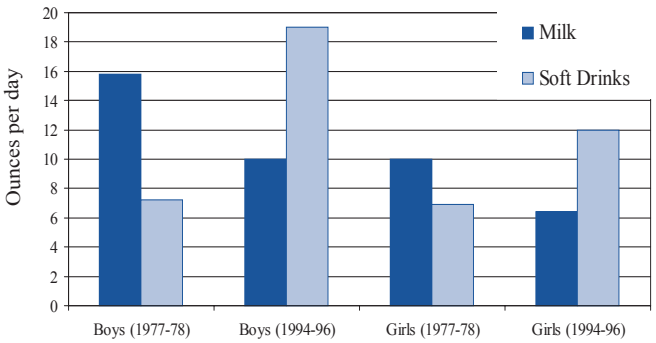
While physical activity has been decreasing among children, eating patterns have also shifted in an unhealthy direction. Increased serving sizes, availability of convenience foods, and more meals eaten away from home have increased the likelihood of weight gain.[1]

The total caloric intake and the proportion of calories from fat in adolescent diets has decreased from 1965 to 1996 from 39 to 32 percent.[39] Although reduced fat consumption is a positive trend, the fat content of the adolescent diet still exceeds national recommendations, with increases in the consumption of higher fat potatoes and higher fat mixed dishes.[39,40]

The overall quality of the adolescent diet has deteriorated. The number of total servings of fruits and vegetables is still well below the recommended minimum of five per day. Only 19 percent of Michigan high school students report eating five or more servings of fruits and vegetables.[26] Lower fat milk has replaced higher fat milk, but total milk consumption decreased by 36 percent.[39] The decrease in milk consumption has been accompanied by an increase in consumption of soft drinks and non-citrus juices (see Figure 6). Iron, folate and calcium intake continue to be below recommendations for girls.[39] Half of all girls, ages 12-15, get less than two-thirds of the Recommended Dietary Allowance for calcium.[41]

The same nutrition trends that have increased the likelihood of weight gain have other very serious health implications. Deficient intake of iron and folate by young women of child-bearing age could result in more babies born with impaired mental ability[42] and neural tube defects.[43] The low calcium intake and widespread dietary behavior observed among adolescent females further increase the risk of osteoporosis. If diet and weight are severely restricted during the crucial period of bone density development, peak bone mass will not be achieved.[44]

Figure 6
Teens' Consumption of Milk and Non-diet Soft Drinks (Ages 12-19)



Source: USDA: National Food Consumption Surveys (NFCS), 1977-78; Continuing Survey of Food Intake of Individuals (CSFII), 1994-96

School-Related Food Trends

The two most striking school-related food trends over the past decade are:

- decreased student participation in the USDA-regulated National School Meals Program (School Meals) and
- increased availability of foods with lower nutrient quality that compete with School Meals.[45]

School Meals Quality

In 1995, the United States Department of Agriculture (USDA) launched an initiative to promote consistency of School Meals with its *Dietary Guidelines for Americans, 2000*. Since that time, there have been substantial improvements in the nutritional quality of the School Meals. There has been an increase in the percentage of schools that offer lunches that are consistent with the recommendations for fat and saturated fat in the *Dietary Guidelines for Americans, 2000*. On average, lunches served to students in 1998-1999 provided more than one-third of the Recommended Dietary Allowances (RDAs) for targeted nutrients. School breakfasts have shown comparable improvements in relative fat and saturated fat content. Children who participate in school meals are more likely than non-participants to consume vegetables, milk, and protein-rich foods at lunch and over 24 hours. They also consume less soda and/or fruit drinks.[46]

Competitive Foods

At most schools in Michigan, children buying meals can select either meals prepared as part of School Meals or items that compete with School Meals. While studies show that School Meals do contribute to better nutrition,[46] competitive foods tend to bring down the quality of the food environment at schools and discourage participation in School Meals.[47]

Powerful social, financial, and academic pressures on schools have influenced schools to provide competitive foods over the past decades. School food service programs were once regular line items in school operating budgets. Now they are often required to be completely self-supporting. Many schools are compensating for the loss of funds by increasing the sale of competitive a-la-carte foods and fast foods in the school dining room.[47] With no nutrition standards in place for competitive foods, they are typically of lower nutrient density, relatively high in fat, and high in added sugars and calories.[47]

Given access to competitive foods, students with available cash are likely to choose them because students come to school with established preferences for fast foods, sweetened beverages, and salty snacks.[47] These preferences have been developed through direct multi-million dollar marketing to children by utilizing sophisticated advertising campaigns.

An additional problem related to competitive foods is that they may contribute to stigmatization of lower income children. Since only students with cash can buy competitive foods, students may perceive that there is a stigma of poverty attached to School Lunch or School Breakfast programs. There is concern that low-income children may go without food rather than be seen with a school lunch or school breakfast.[47]

The increase in the sale of competitive foods, with its corresponding decrease in student participation in the School Meals program, results in decreased commodity and cash support from the USDA, which makes it even more difficult to maintain the quality of the School Meals.[47]

Inadequate Space and Meal Periods

When school populations grow and budgets shrink, a higher priority is given to building classrooms than to expanding the food service facilities, which are often inadequate for preparing and serving appealing School Meals. A lack of space is also a factor in eating areas. Lunch periods should be scheduled as near the middle of the school day as possible.

In an attempt to provide additional classroom time during the existing school day, schools, particularly high schools, frequently reduce the length of meal periods. With inadequate dining facilities and insufficient time to eat, many students turn to less nutritious foods that can be eaten quickly and are readily accessible in vending machines and snack bars.[47]

Pouring Rights Contracts

There has been a trend for school districts to negotiate exclusive 'pouring rights' contracts with soft drink companies. The sale of popular carbonated beverages represents an additional source of income that can benefit all areas of the school, not just the food service program. Many of the contracts have provisions to increase the percentage of profits to schools when sales volume increases. This is a substantial incentive to promote soft drink consumption by adding vending machines, increasing the times during which they are available, and marketing the products to students.[47]

Implications for the Learning Environment

Every teacher would like to have classrooms full of students who are fit, healthy, and ready to learn. The weight-related issues that Michigan students are facing have direct implications for their learning environments.

Social Environment

A respectful and caring climate makes it possible for students to feel safe and secure in school and enables learning to take place.[10] Students who are subjected to bullying or weight discrimination in school cannot feel safe and secure.

Physical Activity & Physical Education

Some schools are reducing time for recess and physical education in response to demands to improve students' academic performance. Ironically, this shift in school time allocation may be having the opposite effect on academic achievement. Research shows that school-based physical activity programs can help students increase concentration, reduce disruptive behaviors, and improve scores in mathematics, reading, and writing.[48-50] In two separate controlled studies, class time for academics was reduced by about 250 minutes per week in the experimental groups to increase exposure to physical education. In both studies, academic test scores were either improved or unchanged when compared to control groups that did not have increased time for physical activity.[48,51]

Research also suggests a critical relationship among movement/attention, spatial perception, and learning/memory in youth and adults, including those with special needs.[52-53] Beyond the academic benefits, physical activity and physical education contribute to the maintenance of positive interpersonal relationships and reduce the incidence of depression, anxiety, and fatigue.[54] Vigorous physical activity can help reduce anxiety, tension, depression, and reaction to stressors.[50]

Nutrition

In its December 2000 *Policies on Creating Effective Learning Environments*, the State Board of Education recognized that nutrition plays an important role in the learning process (see Resource 2 in Appendix A).[10] For example, it has been well documented in several studies that students who eat a nourishing breakfast are better prepared to participate in the day's learning activities than those who come to school without breakfast.[56-60] These same studies have shown that children, especially from low-income families, improve their academic achievement and attention span and decrease their tardiness and absences when they participate in a school breakfast program.

Besides the positive effects on learning, breakfast eaters are less likely to overeat due to excessive hunger and less likely to binge on low nutrient snack foods, which may contribute to weight gain.[61,62] Students who are trying to lose weight by skipping meals, fasting for long periods of time, or eating very low calorie fad diets are unlikely to be able to concentrate fully on classroom activities. It has been reported that up to 80 percent of students using unsupervised diets from magazines suffered ill effects, some of which included weakness, headaches, fatigue, nausea, and fainting.[63]

PREVENTION RECOMMENDATIONS

The primary role of schools in promoting healthy weight is prevention. All Michigan schools are urged to consider the following prevention recommendations.

1. Create a Safe & Supportive Learning Environment

Schools should take aggressive action to create a respectful and caring climate for all students, regardless of their size. Such an environment makes it possible for students to feel safe, secure, and ready to learn.[10]

Respectful Behavior

- School staff should model respectful behavior by refraining from making disparaging comments about their own weight or the weights of other adults.
- Create a policy that all students and staff are to be treated with respect.
- Educate athletic coaches, cheerleading coaches, drama directors, and other program advisors in body weight and size sensitivity to eliminate weight discrimination from all school activities. Refrain from using labels for students such as "overweight," "fat," "obese," "underweight," "too thin," or "anorexic."

Bullying

- The Michigan State Board of Education has issued policy statements consistent with the recommendations in this paper; *Policies on Bullying*, adopted July19, 2001 and *Policies on Safe Schools*, adopted May 18, 2000 (see Resource 3 in Appendix A).
- Create a zero-tolerance policy for criticizing, bullying, name-calling, and shaming others about weight or size (see Resource 3 in Appendix A).
- Define and enforce clear consequences for disrespectful behavior.
- Create a process for students to report bullying or disrespectful behavior. The process should protect the victims and those who report the behaviors from reprisal.

The Role of Michigan Schools in Promoting Healthy Weight: Prevention Recommendations Overview

1. Create a safe & supportive learning environment.
2. Create an environment where students can be physically active.
3. Create a healthy nutrition environment.
4. Increase student participation in physical education.
5. Strengthen nutrition education.
6. Work with families to promote physical activity & healthy eating.

2. Create an Environment Where Students Can Be Physically Active

Schools should provide opportunities for students to engage in enjoyable physical activity throughout the day.

Within the School Day

- Offer time within the school day for all students to be physically active.
- Provide recess at least twice each day for elementary school students and once each day for middle school students.
- Offer extracurricular and recreational activities that promote moderate to vigorous physical activity at recess and at lunchtime.
- Avoid substituting recess for physical education class.
- Refrain from denying recess as a form of discipline.
- Avoid using physical activity as a form of discipline. Instead, use physical activity as a form of reward. For example, one principal in Michigan rewards students for special accomplishments by taking a walk with them.
- Use physical activity in the classroom to help students make transitions between lessons and subject areas (see *Fitness Breaks,* Resource 2 in Appendix A).
- Encourage adults to model physical activity by providing worksite wellness opportunities to faculty and staff.

Before and After School

- Encourage students to walk or ride bikes to school where it is safe for them to do so. Encourage parents to assess routes for safety. If unsafe conditions are found, the Coordinated School Health Team (CSHT) may be able to take steps to improve them (see The CSHT Approach on page 18 and Resource 4 in Appendix A).
- Install bike racks outside the school building.
- Offer intramural and physical activity programs that feature a range of competitive, cooperative, and individual physical activities (see Resource 5 in Appendix A).
- Offer interscholastic athletic programs.
- If fees are charged for sports participation, sliding fee scales should be used so that no child is excluded from a sport for financial reasons.
- Collaborate with recreation agencies and community organizations to identify physical activity opportunities for students and families; promote the opportunities through newsletters, bulletin boards, etc. (see Resource 6 and 7 in Appendix A).
- Open school recreation and exercise facilities for families and community members for use during non-school hours. Encourage the community to utilize school facilities as safe places to be physically active.

3. Create a Healthy Nutrition Environment

Schools should make it easy for students to select foods that are consistent with healthy weight. All food available in the school should be consistent with what students are taught in nutrition lessons. The school cafeteria should be a laboratory for demonstrating healthful eating.

School-Wide Policies

- Establish a school Nutrition Advisory Council (NAC). The NACs are school clubs chartered by the American School Food Service Association. They bring students together to spread the word about how good nutrition and school food service programs contribute to a healthy lifestyle. By involving students, a NAC reinforces the idea that school nutrition programs are for them (see Resource 8 in Appendix A). The NAC can be linked to the School Improvement Team and/or the Coordinated School Health Team. Such a linkage can bring nutrition policies under the umbrella of other school improvement efforts.
- Create a Nutrition Integrity Policy. A Nutrition Integrity Policy would spell out the principle that all foods available in the school should be consistent with what students are taught in nutrition lessons. Such a policy can help school administrators make decisions that are consistent with good nutrition that are backed up by students and parents. The policy can address food-related issues, such as vending machines, fund-raisers, concession stands, school parties, etc. Sample nutrition policies can be found in *Fit, Healthy, and Ready to Learn: A School Health Policy Guide* (see Resource 9 in Appendix A).
- Enroll in the Michigan Team Nutrition program (see Figure 7 and Resource 10 in Appendix A).

Figure 7
Michigan Team Nutrition[4]

Team Nutrition brings together students, parents, teachers, food-service staff and community members. It provides tools for nutrition and physical activity education for students.

School Meals and the Cafeteria

- Ensure that school meal menus for lunch and breakfast meet relevant *Dietary Guidelines for Americans, 2000* and other National School Lunch and Breakfast Program standards (see Resource 11-14 in Appendix A).
  - ✓ Offer 1 percent and fat-free milk products.
  - ✓ Offer a whole-grain product daily.
  - ✓ Offer a choice of fruits each day.
  - ✓ Offer a choice of vegetables each day.
  - ✓ Offer a daily entrée low in saturated fat.
  - ✓ Balance high-fat entrees with lower-fat side dishes.
  - ✓ Use cooking techniques to increase fiber and reduce fat, sugar, and sodium in school meals.
  - ✓ Encourage the consumption of milk and 100 percent fruit/vegetable juice with school meals.
- Ensure that lunch is provided at reasonable times around mid-day.
- Give students adequate time to consume a complete meal, at least 10 minutes to eat breakfast and 20 minutes to eat lunch, beginning when the student is seated.
- Encourage administrators, teachers, food service staff, and parents to serve as role models by practicing healthy eating on the school premises.
- If the school lunch budget is inadequate to initiate positive changes, seek alternative, commercial-free funding sources (see Resource 15 in Appendix A).
- Use marketing techniques to promote healthy school meals and snacks to students.
- Develop healthy menu suggestions for lunches brought from home by students.
- Advertise healthy eating messages throughout the school.
- Ensure that all food service directors, managers, and staff attend training to learn about nutrition, healthy weight management, preparing healthier meals, and marketing healthy choices.

Other Food Venues

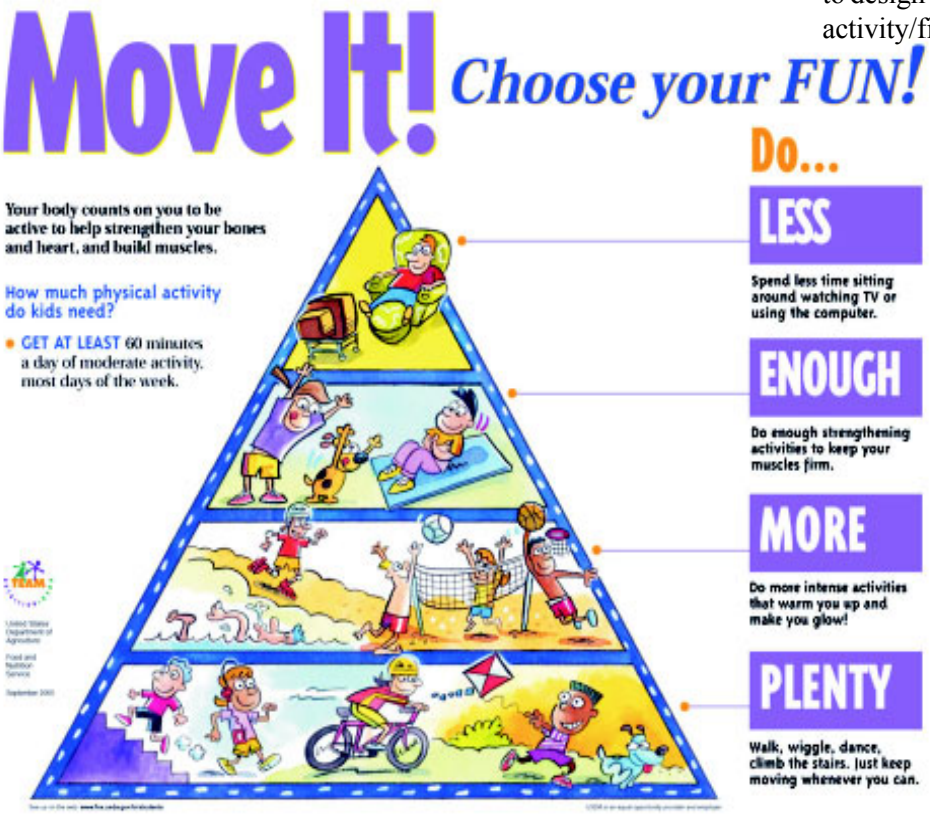
- Restrict student access to vending machines, school stores, snack bars, and other venues that compete with healthy school meals.
  - ✓ Do not allow access in elementary schools at any time.
  - ✓ Do not allow access until after the school day for middle and junior high schools.
  - ✓ Do not allow access until after the end of the last lunch period in senior high schools.
- If competitive foods are allowed, replace foods of minimal nutritional value[4] with healthier choices. For example, water, 100 percent fruit/vegetable juice, and low-fat milk products could replace carbonated beverages, teas, fruit drinks, and sport drinks. Peanuts, crackers, pretzels, and fruit are also more nutritious and

should replace potato chips and candy bars. Suggestions can come from a variety of sources including students, the school's Nutrition Advisory Council, health classes, sports teams, and parent organizations.

- ✓ If carbonated beverages or any foods of minimal nutritional value are eliminated from the school building, develop a local policy to support this action.
- ✓ If foods of minimal nutritional value are offered, require that the portion sizes be the smallest commercial sizes available. For example, offer 12-ounce rather than 24-ounce soft drinks, or 1.5-ounce candy bars instead of "king size" bars.
- ✓ Promote the sale of the most healthful foods by adjusting prices to encourage the more healthful alternative. For example, an apple should cost less than a snack cake and should be priced low enough for all students to afford.

- Encourage school organizations to sell non-food items at fund-raisers. If foods are used for fund-raising, choose foods that support healthy eating.
- Avoid using high-fat or high-sugar foods as a reward. For example, school staff should not give candy bars or coupons for fast food meals as a reward for high performance on a class project.
- Provide opportunities for students to obtain healthy snacks during after-school activities.

Figure 8
(Resource 10, Appendix A)



4. Increase Student Participation in Physical Education

Schools should provide high quality physical education to all students and allocate ample time for physical education class.

Curriculum

- Utilize the *Michigan Content Standards and Benchmarks for Physical Education* as a foundation for the curriculum (see Resource 2 in Appendix A).*
- Adopt the *Exemplary Physical Education Curriculum* (EPEC). EPEC is a planned, sequential physical education curriculum that equips students with the knowledge, skills, fitness, and personal/social character traits that are necessary to lead an active lifestyle (see Resource 6 in Appendix A).
- Assess the quality of the physical education curriculum by conducting a self-study available through the Governor's Council on Physical Fitness, Health and Sports (see Resource 6 in Appendix A).

Content

- Teach the importance of physical activity and define what constitutes physical activity (see Figure 8).*
- Teach the healthy weight concept as described in this paper (see *The Healthy Weight Concept,* page 1).
- Teach skills needed for participation in competitive and non-competitive physical activities.*
- During physical education class, keep students moderately to vigorously active or "on task" during skill development activities for at least 50 percent of the time.*
- Help students develop the knowledge and skills needed to design and implement an individualized physical activity/fitness plan.*

Things to Consider When Writing Local Policy

- Allow and encourage physical education teachers to attend professional development trainings and workshops, including in-service training on EPEC.
- Provide daily physical education for all students for a minimum of 150 minutes per week for grades K-5 and 225 minutes per week for grades 6-12.
- Avoid substituting participation in school athletics or marching band for physical education.
- Refrain from using exercise as punishment during physical education class.
- Keep the student/teacher ratios of physical education classes comparable to ratios in other classes.

* Schools that fully implement the Exemplary Physical Education Curriculum (EPEC) will automatically meet this recommendation.

5. Strengthen Nutrition Education

The nutrition education curriculum should positively influence the understanding, skills, and behaviors of students related to healthy food choices. As part of a comprehensive health education course, nutrition instruction should give students the knowledge and motivation to develop lifelong, healthful eating habits.

Curriculum

- Utilize the *Michigan Health Education Content Standards and Benchmarks* as a foundation for the curriculum (see Resource 16 in Appendix A).*
- Teach developmentally appropriate nutrition concepts at every grade level. This can be achieved by implementing the *Michigan Model for Comprehensive School Health Education* curriculum (see Resource 17 in Appendix A).

Content

- Use active learning strategies and activities that students find enjoyable and personally relevant.*
- Use homework assignments and projects that encourage students to discuss nutrition lesson information with family members.*
- Provide opportunities or activities for students to make healthy food selections and prepare foods consistent with a healthy lifestyle.
- Develop self-assessment skills in food selection, particularly among older students.*
- Develop skills for evaluating the scientific validity of health claims made for fad diets, foods, herbs, and supplements.*
- Encourage collaboration between food service staff and nutrition teaching faculty so students can apply classroom nutrition instruction in the school cafeteria by making healthier food choices (see Resources 10 and 12 in Appendix A).

Things to Consider When Writing Local Policy

- At a minimum, health education instruction should be offered:
  - ✓ Two to three hours per week at the elementary level;
  - ✓ Sixty to seventy hours per year at the middle school level; and
  - ✓ Two semesters over four years at the high school level.[64]
- Allow nutrition educators to attend in-service training conducted by a qualified nutrition professional to receive accurate and current nutrition information.

* Schools that fully implement the Michigan Model for Comprehensive School Health Education curriculum will automatically meet this recommendation.

6. Work with Families to Promote Physical Activity & Healthy Eating

Schools should work beyond in-school prevention activities and reach out to parents by providing helpful information regarding family-based healthy weight practices.

Family Information Resource

- Offer parents an information resource that includes recognized principles for family-based approaches to maintaining healthy weight,** including the following types of suggestions:
  - ✓ Make healthful changes together so a child does not feel deprived or stigmatized.
  - ✓ Avoid low-calorie diets.
  - ✓ Eat at regular meal and snack times.
  - ✓ Be role models for physical activity and healthy eating.
  - ✓ Find activities and recreational pastimes that the whole family can enjoy, such as family walks and family fitness programs.
  - ✓ Limit television time to a maximum of two hours per day.
  - ✓ Plan for healthy snacks.
  - ✓ Prepare healthier meals for the entire family.
  - ✓ Suggest ways to give positive emotional support for children with weight issues.

Community Resources

- Offer families information about recreational opportunities in the community that support family-based physical activity such as group walks in parks, group bike rides, bike rodeos, family swim times, and sport leagues (see Resources 6 and 7 in Appendix A).
- Offer families classes relevant to healthy eating, such as heart-healthy cooking.

** The Michigan Department of Community Health and Michigan Governor's Council on Physical Fitness, Health and Sports, along with the Michigan Department of Education are developing such a resource, with anticipated availability in 2002. The Michigan Department of Education will notify all schools when the family information packet becomes available.

INTERVENTION RECOMMENDATIONS

Some schools may wish to go beyond prevention, providing support for students whose weights place them at increased health risk. The following recommendations apply to such schools.

1. Identify Referral Mechanisms & Community Resources to Help Families with Weight Concerns

Schools should identify sources of help in the community for families with weight concerns.

Referral Mechanisms

- Refer children and families who have weight concerns to their family physician for assessment and help. The physician, in turn, will be able to make further referrals if warranted.
- Develop procedures that can be followed when families do not have a family physician, do not have money to seek help, or where there is no source of specialized help for weight issues available in the community.

Community Resources

- Identify multidisciplinary weight treatment resources in the community, if they exist. Research has shown that the most promising approach to dealing with childhood weight problems is multidisciplinary, involving physicians, dietitians, exercise professionals, mental health professionals, and families. This multidisciplinary model may not be available in every community.
- Identify resources available to families in the community for nutrition and physical activity. Information on local physical activity walks and events can be accessed by contacting the local Regional Fitness Council (see Resource 6 in Appendix A) and/or the local Recreation and Parks department (see Resource 7 in Appendix A). Both organizations have web site addresses and a calendar of events posted.
- Publicize resources on bulletin boards, in school newsletters, and in physical education classes. Resources could include:
  - ✓ Family-based physical activity tools such as the *Families in Training Kit, Follow the Lights to Fitness* program, and *Walk Michigan* (see Figure 9 and Resources 6 and 7 in Appendix A).
  - ✓ Local classes available on parenting or good health habits such as healthy cooking. Such classes may be available through the local community education office or through the local county Michigan State University Extension Office (listed in the government pages of the phone book).

2. Provide Supportive Intervention for Families with Weight Concerns

The first priority for supportive intervention is to make sure concerned parents have the knowledge and tools to promote healthy weight for all members of the family. Research has shown that family-based approaches to weight change are the most successful.[65-66] All family members work together to improve individual food choices and participate in physical activity. If parents are concerned about their children's weight and ask teachers for help, several forms of supportive intervention can be offered.

Supportive Intervention

- Offer the concerned parent the family information resource described on page 11. The recommendations for preventing weight problems in the resource are also the most important elements of dealing with weight problems after they have arisen.
- Direct parents to community resources that have been identified by the school.

Figure 9
Follow the Lights to Fitness

The Follow the Lights to Fitness is a physical activity program available from the Michigan Governor's Council on Physical Fitness, Health and Sports, Regional Fitness Council (see Resource 6 in Appendix A).

3. Give Positive Guidance for Students Who Request Help with Weight Reduction

It is inappropriate for teachers to provide weight loss treatment. However, there are positive ways in which teachers can provide guidance to students who are concerned about their weight.

Readiness

- Teachers should not offer weight-related suggestions to individual students unless the student asks for guidance. Lifestyle changes will not be possible until a child is emotionally ready to make the changes.

Goal of Intervention

If a student does approach a teacher for guidance with weight-related concerns, the following should be kept in mind:

- The goal of any weight-related intervention should be to identify lifestyle changes that will promote healthy eating and appropriate physical activity. Weight loss should never be the goal. National experts agree that the goal of weight treatment for growing children is to keep weight stable or to slow the rate of weight gain until a child's height "catches up" with his/her weight.[67]
- If a student asks a teacher to help him/her lose weight, the teacher could make a neutral comment such as, "It may be that your present weight is the one that is normal and healthy for you. I'm not sure you need to lose weight. But I can help you look at the choices you are making about food and exercise to find out whether there are healthier ones you could be making."

Recommended Topics for Discussion

If a student has asked for guidance with weight, the following topics of discussion are recommended:

- **Realistic body image.** Promote positive body image and body satisfaction, reassuring students of their personal worth regardless of their size or shape. Help students revise body image goals when such goals are based on unrealistic ideas of normal size and shape. Help adolescents identify the changes in their bodies that are a normal part of puberty. Body fat usually increases temporarily for boys in early puberty, then they become leaner as they approach their peak height spurt. Girls normally have a persistent increase in fatty tissue throughout their adolescence, but they also experience a weight gain six to nine months before the peak in their growth spurt. Many boys get transient breast tissue development in early puberty and girls get fat deposition in their hips and thighs causing them to feel 'fat' for the first time and to blame themselves. Temporary increase in body fat before major growth spurts is a normal process.[21]
- **Nutrition problem-solving.** Teachers can help a student identify eating habits that do not support good health, such as overuse of high-fat fast foods or soft drinks. Identify foods of minimal nutritional value that could be eliminated without making the student feel hungry or deprived. Identify situations where students are most likely to eat less nutritious foods (movie theaters, while watching TV, etc.), and help them plan strategies to make different choices. Be alert to the possibility that students who feel desperate to lose weight may be using unsafe dieting practices like going without food for extended periods, vomiting, using laxatives, or following fad diets. Stress the importance of not skipping meals and getting the right kinds of foods to stay healthy.
- **Problem solving for physical activity.** Help the student identify physical activities that are genuine sources of fun and ways to incorporate such activities into the week. Identify current daily patterns to see where the student believes that physical activities could be substituted for sedentary activities. Help the student voluntarily set a limit on television or computer time. Encourage the student to make a change or learn a skill that will result in regular activity such as taking up intramural sports, joining a bicycling club, taking a dancing class, etc.
- **Social support.** Help the student identify friends who will participate with him or her in new healthier eating and physical activities. Additionally, identify individuals who will provide moral support and encouragement such as a counselor, teacher, friend, or parent.
- **Coping skills.** Help the student identify non-confrontational or humorous responses that they can use when faced with rude teasing and criticism related to weight (e.g., "I didn't know you cared." or "If you were a friend of mine, you would not be saying such mean things."[68]) If a teacher learns that a student is being subjected to systematic abuse or bullying because of weight, it is appropriate for the teacher to take action to stop the behavior (see *Prevention Recommendation 1, page 8*).
- **Documenting success.** Help the student identify measures of success in his or her healthy weight efforts using criteria other than weight loss. For example, the student could keep a log that tracks the number of hours he/she watched television, number of minutes walked, hours of computer time, servings of low-fat milk or yogurt eaten, servings of fruits and vegetables eaten, healthy snacks that were substituted for candy bars or potato chips, and/or the number of times the student chose to walk rather than ride in a car or bus. This log could be shared with the teacher on a weekly basis.

4. Implement Six Safeguards Before Conducting Weight Screening

Screening children to identify potential weight problems can contribute to positive health outcomes but, if done without sensitivity, can have negative effects on emotional well-being. On the positive side, students at both ends of the weight spectrum can be objectively identified and referred for additional evaluation and possible intervention. On the negative side, weight screening that results in labeling a child as 'too fat' can damage self-esteem and may increase susceptibility to eating disorders.

The decision to conduct weight screening should be made by the local school board after careful review of proposed screening procedures.

Schools should not initiate weight screening unless the following six safeguards are in place.

Safeguard 1: Learning Environment

Schools have fully implemented the recommendations for *Creating A Safe and Supportive Learning Environment* (see *Prevention Recommendation 1, page 8*).

Safeguard 2: Classroom Instruction

Teachers have instructed students in a way that counteracts social pressure for excessive slenderness and enhances the students' understanding of the healthy weight concept. Important concepts that need to be conveyed to students include:

- There are different body types; some body types are naturally associated with more body weight.
- A range of weights is normal. People can be healthy at many weights and look very different from one another. It is not normal and it is not possible for every person to be the same size and shape.
- Students have the ability to make healthy food choices.
- Daily physical activity contributes to overall health and a healthy weight.
- Sedentary behaviors can contribute to weight gain.
- Normal growth and development patterns affect body shapes and sizes, especially at puberty.
- Subtle media messages suggesting that only thin people are happy or attractive should be challenged.[18]

Safeguard 3: Parental Permission

A system is in place to notify parents of impending weight screening and to obtain parental permission for the weight screening. Have an active parent/student signed permission form on file. This permission form would allow the student to participate in the screening process.

Safeguard 4: Referral System

A system is in place for referring students for further evaluation and help. It is inappropriate and possibly harmful to identify a child as having a potential problem with weight unless some source of referral for further assessment and help can be offered (see *Intervention Recommendation 1, page 12*).

Safeguard 5: Staff Training

All school staff participating in weight screening have received training and have demonstrated proficiency in screening techniques and interpretation of screening results (see *Intervention Recommendations 5 and 6,* pages 15-16).

Safeguard 6: Respectful Screening

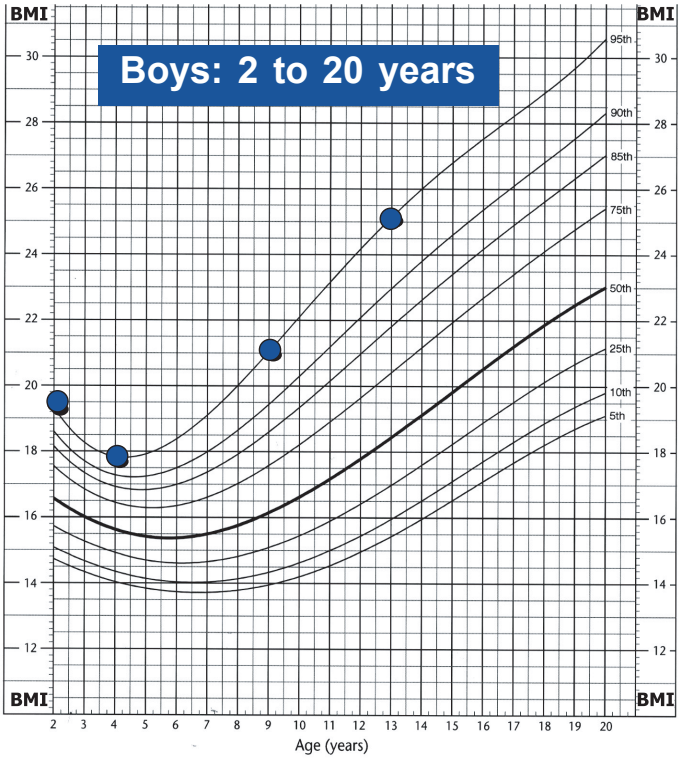
A screening process has been designed that protects the self-esteem of students:

- Avoid labeling students. Whatever the results of the weight screening, school personnel should not label any child as overweight, obese, underweight, too thin, or anorexic. For the purpose of school weight screening, if a child's Body Mass Index-for-Age (BMI) exceeds the 85th percentile or falls below the 5th percentile on the BMI-for-Age growth chart, the Healthy Weight Advisory Group recommends the wording, "weight which may place a child at health risk." (See *Intervention Recommendation 5, page 15* for BMI definition and procedures.)
- Maintain privacy in the assessment process. Only the teacher screening the student observes the results. For example, the teacher can use an office or a screen to help maintain privacy. Height and weight should not be announced.
- The results of screening should be kept confidential. For younger children in grades K-3, the teacher should not tell the students the results of the screening. Results should only be shared with the child's parents. Younger students do not have the cognitive skills to process the results and use them to shape personal behavior. For older children in grades 4-12, the teacher can share the screening results individually with the student and their parents. When sharing the results, teachers should use language that does not label or diagnose the child.
- A respectfully worded letter should be developed to notify parents if a child's weight may present a health risk. The letter should not label the child but should request that the parents seek further assessment by a health professional. A sample letter to parents is included in Appendix C. Parents should be sent a letter when the student's weight falls below the 5th percentile or above the 85th percentile on the BMI-for-Age charts published by the Centers for Disease

Control and Prevention.

- No comments on weight should be offered during the measurement process. Neutral comments such as, "Thanks, you can get off the scale now," are appropriate. Younger children and students who are anxious about the weighing process can be positioned with their backs to the scale during measurement. If a student makes a negative remark about his or her own weight, it is appropriate to respond with a supportive response such as, "Good bodies come in all shapes and sizes," or "I wish you felt more positive about your body. Your body is a good body. I hope you will take good care of it."
- All students should undergo the same measurement procedures. No one child should be singled out for additional measurements because of physical appearance or weight. To minimize teasing, all students should line up in the screening area, even if their parents have excused them from the screening process.

Figure 10
BMI-for-Age Chart
Sample Growth Record of One Student



National Center for Chronic Disease Prevention and Health Promotion
Nutrition and Physical Activity, 2000
www.cdc.gov/nccdphp/dnpa/bmi/bmi-for-age.htm

5. Conduct Weight Screening Based on BMI-for-Age

If weight screening is conducted, the process must assure that results are accurate. Ideally, growth assessment is conducted over a student's entire K-12 career. The assessment should be conducted by a health professional such as a school nurse or a trained teacher (physical education, health education, or life management).

Reference Norms

- Convert student height and weight measurements to Body Mass Index (BMI) and plot results on the BMI-for-Age percentile charts, published in 2000 by the CDC. BMI-for-Age provides a guideline based on weight and height to screen for underweight and overweight. BMI is calculated: [weight in pounds] ÷ [height in inches] ÷ [height in inches] x 703. Tables to convert heights and weights to BMI and charts for plotting them are available for free (see Resource 18 in Appendix A).
- Create a system to track each student's BMI-for-Age over the entire K-12 career. It is recommended that schools take two measurements each year. The first measurement should be taken between September and October and the second measurement between April and May (see Figure 10).

Equipment

- Measure weight on a platform scale. This may be a beam balance scale or a digital (electronic load cell or strain gauge) scale. Scales should be calibrated on a routine basis. Measure height using a standing height board or stadiometer. This device has a flat vertical surface with an accurate measuring rule attached. It has a movable headpiece and either a permanent surface to stand on or the entire device is mounted on the wall of a room with a level floor.

Training

- Use trained professionals to conduct weight screening. It is preferred that if a school nurse is available in the district, he or she would work collaboratively with the physical education teacher, health education teacher, and/or life management teacher in the screening process. The Michigan Department of Education will conduct statewide training workshops on techniques for screening body composition, interpretation, and reporting (see Resource 2 and 6 in Appendix A).

6. Assure that Screening Results are Not Misinterpreted

Even an accurate height and weight plotted correctly on a BMI-for-Age chart can be misinterpreted.

Screening Versus Diagnosis

- The BMI-for-Age charts are designed to *screen* for weight problems, not to *diagnose* them. A BMI above the 85th percentile or below the 5th percentile on the BMI-for-Age charts suggests that further assessment is appropriate but does not mean that a student is too fat or too thin.
- BMI does not directly measure body fatness. A very muscular child can have a high BMI-for-Age percentile and have very little body fat. Conversely, a child can fall into 'average' percentiles and have excessive body fat.
- BMI-for-Age interpretation is complicated by the fact that there are sudden shifts in height and weight during growth spurts. When both height and weight are changing, the BMI is unstable.
- BMI-for-Age can be misinterpreted in children because height and weight growth spurts occur at different times. A normal, temporary accumulation of weight preceding a height spurt can be misinterpreted as an impending weight problem.

Pattern of Growth

- The pattern of growth is far more informative than the height and weight at any given time. To accurately interpret BMI, a series of measurements is needed.
- All measurements for one student, grades K-12, should be plotted on the same BMI-for-Age chart.

Evaluation

- Changes in BMI-for-Age percentile should never be used as the basis for evaluation in physical education programs.
- Neither the student's performance in physical education class nor the teacher's success in teaching should be measured by changes in a student's BMI because many factors outside of class affect a student's weight.

Calculating Body Mass Index

(See Resource 18 in Appendix A)

Body Mass Index provides a guideline based on weight and height to screen for underweight and overweight.

English Formula: BMI = [weight in pounds ÷ height in inches ÷ height in inches] x 703. For example: A 33 pound 4 ounce child is 37 5/8 inches tall. 33.25 pounds divided by 37.625 inches, divided by 37.625 inches x 703 = 16.5 BMI.

Notes to Keep in Mind

Please record your thoughts in the space provided.

Getting Started: Establishing Infrastructure

In order to begin the promotion of healthy weight, schools must create an infrastructure that will allow the changes to take place.

Initial Steps

There are three basic steps that buildings/districts need to take prior to instituting changes that may be required to address healthy weight issues.

1. **Create a Coordinated School Health Team (CSHT).** Team members should be respected leaders who can create social support for the changes that are identified. The building-level team can address building issues and concerns, while the district-level team can work to create district-level policy changes to support all of the building-level concerns. The district-level team should be given the authority to institute necessary changes (See Figure 11, Figure 12 and page 18 for details about the CSHT Approach.)
2. **Conduct an assessment.** The team would assess the strengths and weaknesses of the school building and/or district with respect to the healthy weight recommendations outlined in this paper. An excellent tool for conducting the assessment is the *School Health Index for Physical Activity and Healthy Eating: A Self-Assessment and Planning Guide (SHI)*,[37] developed by the Centers for Disease Control and Prevention (see Resource 19 in Appendix A). Some of the recommendations in this consensus paper go beyond the issues addressed in the SHI. In these cases, the teams could use the recommendations in this paper as a guide. Additional resources for assessment are found in the *Changing the Scene Kit* (see Resource 10 in Appendix A). Michigan's Governor's Council on Physical Fitness, Health and Sports also provides tools for assessing school physical education programs through their Exemplary Physical Education Award Program (see Resource 6 in Appendix A).
3. **Plan improvements.** The SHI describes a clear process for creating a plan to make school improvements. Teachers, administrators, parents, and most importantly, students need to be involved in planning strategies to improve the school's ability to promote healthy weight.

Maintaining Progress

Following the initial steps, it is important that the work does not stop. It is recommended that schools work in the following ways to ensure that the team continues to address concerns.

- **Review policies.** Following the assessment, the team may decide that the building or district would benefit from additional policy changes and/or additions. An excellent tool for writing policies is *Fit, Healthy, and Ready to Learn: A Policy Guide*, produced by the National Association of State Boards of Education (see Resource 9 in Appendix A).
- **Continue Improvement.** Re-assess and re-address issues regularly. The environment will not change after one effort so there must be continuous effort to create a healthy and supportive environment for students of all shapes and sizes. Quarterly meetings of the CSHT are one way to keep the effort going.
- **Advocate.** Share the findings and accomplishments of the CSHT. Support will come from the community and more successes will result when there is support behind the efforts. Parent organizations, board members, and booster clubs will be interested in the discoveries and progress made by the team. One of the primary functions of the CSHT is to advocate for the health and safety of all students.

Figure 11
Coordinated School Health Program Model[69]

Supporting and Promoting Healthy Weight Through Infrastructure

To achieve the goal of healthy students of all shapes and sizes, all students must receive consistent messages from every facet of the school environment.

Summary

The Healthy Weight Advisory Group sincerely hopes that the information provided herein will give school personnel enough guidance to begin to promote healthy weight for all students. The guidelines, recommendations, and tools in this paper can help schools to provide a safe and effective learning environment and build collaboration among staff in order to educate students to be healthy for life.

The Michigan Department of Education is committed to providing local school districts and teachers with the most up-to-date information, resources, and tools to foster success. For current information and newly available resources on this project, check the Michigan Department of Education web site, Office of School Excellence at: **www.mde.state.mi.us** or the Michigan Fitness Foundation and Governor's Council on Physical Fitness, Health, and Sports web site at: **www.michiganfitness.org**.

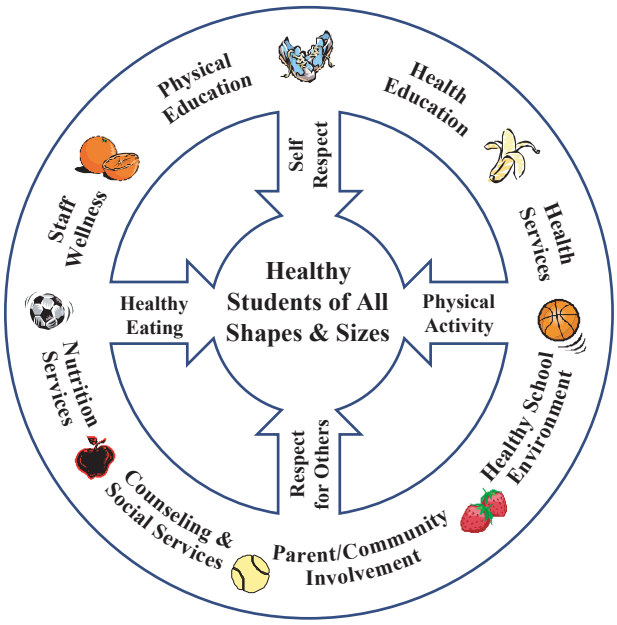
The Coordinated School Health Team Approach

The Coordinated School Health Team (CSHT) approach has been a successful process for schools to implement change at the school building or district level.[9,37] The CSHT should include individuals who care about health issues and who are in positions to propose change and implement policy. Ideally, the CSHT would include a representative from each of the eight components of the Coordinated School Health Program Model and have a clear link to the district's School Improvement Team (see Resource 16 in Appendix A). If a school district is not ready to create a full team, the minimum core team to address health issues could include an administrator, parent, student, school nurse, physical education teacher, health/life management teacher, and the food service director/manager. A Comprehensive School Health Education Coordinator is available at 26 intermediate school districts in Michigan and can offer technical assistance in developing and improving comprehensive school health education.

The CSHT concept is not new. It has been recommended by the Centers for Disease Control and Prevention[37] as a mechanism to advise school systems on all aspects of school health.[69] The overall goals of the CSHT are to identify health issues affecting the school environment, determine what services are needed to address the issues, and work together as a community to improve the issue and create a healthier environment for all students.[69] In other words, the CSHT strives to be sure that students are able to come to school fit, healthy, and ready to learn. In the case of promoting healthy weight, the team would work specifically to eliminate discrepancies between what students are taught in their health and physical education classes and what choices are offered in their school environment. The CSHT could also work to strengthen the four messages critical to healthy weight throughout the school: self respect, respect for others, healthy eating, and physical activity (see Figure 1).

Another critical issue for the CSHT is the role of the Staff Wellness component in the school building and school education community. This component can be a powerful tool to educate faculty and staff about healthy lifestyle choices including healthy eating and physical activity. Even more importantly, the Staff Wellness component strengthens the opportunity for the staff and faculty to serve as role models for all students. Students are more likely to listen to and model teachers' behaviors if they witness genuine dedication to practices that teachers advocate.

Figure 12
Supporting and Promoting Healthy Weight Through Infrastructure



Adapted from the Health at Any Size model in "Children and Teens Afraid to Eat: Helping Youth in Today's Weight-Obsessed World," by Frances M. Berg, 2001:23-26. Hettinger, ND: Healthy Weight Network.

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Action Plan

❒ What is your next step?

❒ List three recommendations for change?

1.

2.

3.

Appendix A ~ Resources

1. **Michigan School Code,** Michigan Legislature. Available online at: **http://www.michiganlegislature.org./** Search Michigan Compiled Law section 380.1502(2) **http://www.michiganlegislature.org/law/GetObject.asp?objName=380-1502&queryid=1714208&highlight=380%2E1502**

2. **Physical Education Consultant,** Michigan Department of Education, Office of School Excellence, Learning Support Unit, PO Box 30008, Lansing, MI 48909, (517) 373-4582. Available online at: **http://www.mde.state.mi.us./** or **http://www.emc.cmich.edu/**
   - Policies on Creating Effective Learning Environments (December 14, 2000) **http://www.state.mi.us/mde/off/board/policies/index.htm**
   - 2000 Michigan Physical Education Survey
   - 1997 Michigan Physical Education Survey
   - Michigan Physical Education Content Standards and Benchmarks at: **http://www.emc.cmich.edu/cshp/MIs&b.htm**
   - Fitness Breaks (available 2002)
   - Family Resource Packet (available 2002)
   - Healthy Weight Initiative Trainings and Workshops

3. **School Climate Resources,** Michigan Department of Education, Office of School Excellence, Learning Support Unit, Health Education Consultant, (517) 241-1500. Available online at: **http://www.state.mi.us/mde/off/board/policies/index.htm** and **http://www.emc.cmich.edu/climate/default.htm**

4. **Kids Walk-to-School: A Guide to Promoting Walking to School,** U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Nutrition and Physical Activity, Mailstop K-46, 4770 Buford Highway, NE, Atlanta, GA 30341-3717. Available online at: **http://www.cdc.gov/nccdphp/dnpa/kidswalk/index.htm**

5. **Promoting Physical Activity: A Guide for Community Action,** Center for Disease Control and Prevention, Human Kinetics Publishing, P.O. Box 5076, Champaign, IL 61825-5076, 1-800-747-4457. Available online at: **http://www.humankinetics.com./** (Go to Product Search by ISBN/ISSN and type in the following no. 0736001522.)

6. **Governor's Council on Physical Fitness, Health and Sports & The Michigan Fitness Foundation,** PO Box 27187, Lansing, MI 48909, 1-800-4FIT MICH or 800-434-8642. Available at: **http://www.michiganfitness.org/**
   - Regional Fitness Councils
   - All Children Exercising Simultaneously (ACES)
   - Exemplary Physical Education Curriculum (EPEC)
   - Exemplary Physical Education Awards Program
   - Families in Training Kit
   - Follow the Lights to Fitness
   - Healthy Weight Initiative Trainings and Workshops

7. **Michigan Recreation & Park Association,** 2722 E. Michigan Avenue, Lansing, MI, (517) 485-9888. Available at: **http://www.mrpaonline.org/** or e-mail at: **http://info@MRPAonline.org./**
   - Walk Michigan Program

8. **Nutrition Advisory Council,** American School Food Service Association, 700 South Washington Street, Suite 300, Alexandria, VA 22314. Starting a Nutrition Advisory Council? Available online at: **http://www.asfsa.org/morethanschoolmeals/**

9. **Fit, Healthy, and Ready to Learn: A School Health Policy Guide,** National Association of State Boards of Education, 277 South Washington Street, Suite 100, Alexandria, VA 22314 (2000). Available online at: **http://www.nasbe.org/healthyschools/fithealthy.html**

10. **Team Nutrition,** U.S. Department of Agriculture, Food and Nutrition Service, 3101 Park Center Drive, Room 1004, Alexandria, VA 22302. Available online at: **http://www.fns.usda.gov/tn/**
    - Educational materials for food service personnel, teachers, and parents
    - Changing the Scene Kit: Improving the School Nutrition Environment

    To enroll in the **Michigan Team Nutrition Program:** Michigan State University Extension, Team Nutrition Site, 240 Agriculture Hall, East Lansing, MI 48824, (517) 353-9102. Available online at: **http://www.msue.msu.edu/fnh/tn/**

11. **School Meals Unit,** Michigan Department of Education, Food & Nutrition Program, PO Box 30008, Lansing, MI 48909, School Meals Consultant, (517) 241-3884, (517) 241-2313, or (517) 241-3885. Available online at: **http://www.state.mi.us/mde/off/oss/index.htm#FoodNutrition**

12. **Nutrition and Your Health: Dietary Guidelines for Americans, 2000,** 5th edition, Federal Consumer Information Center – OIA, P.O. Box 100, Pueblo, CO 81002, Item: 147-G. Available online at: **http://www.usda.gov/cnpp/**

13. **Five A Day Program,** Produce for Better Health Foundation, 5301 Limestone Road, Ste 101, Wilmington, DE 19808, (302) 235-2329. Available at: **http://www.5aday.com./** National Cancer Institute/5 A Day Program, Public Inquiries Office: Building 31, Room 10A03, 31 Center Drive, MSC 2580, Bethesda, MD 20892-2580, (301) 435-3848, 1-800-4-CANCER. Available online at: **http://www.nci.nih.gov./**
    - 5-A-Day: Time To Take Five: Eat 5 Fruits and Vegetables Every Day (Brochure)
    - Action Guide for Healthy Eating (Brochure)
    - 5-A-Day My Way: Kid friendly puzzles, etc.
    - Snack Your Way to 5-A-Day (Brochure)

14. **Food Guide Pyramid,** U.S. Department of Agriculture, Food Guide Pyramid: A Guide to Daily Food Choices. Available online at: **http://www.usda.gov/cnpp/** and **http://www.nal.usda.gov/fnic/**

15. **The Center for Commercial-Free Public Education,** 1714 Franklin Street, Suite 100-306, Oakland, CA 94612, (510) 268-1100. Available online at: **http://www.commercialfree.org./**
    - Information Packet: *Exclusive-Rights Cola Deals*, March 2000
    - Information Packet: *Commercialism in Schools*, March 2000
    - Information Packet: *Sample School Board Policies and Procedures Regarding Corporate Advertising and Sponsorship in Public Schools, April 2000*

16. **Health Education Consultant,** Michigan Department of Education, Office of School Excellence, Learning Support Unit, PO Box 30008, Lansing, MI 48909, (517) 241-1500. Available online at: **http://www.mde.state.mi.us./** or **http://www.emc.cmich.edu/**
    - Michigan Health Education Content Standards and Benchmarks at: **www.emc.cmich.edu/cshp/MIs&b.htm**
    - Michigan Model for Comprehensive School Health Education Curriculum and Materials
    - Comprehensive School Health Education Coordinator Resource List
    - Character Education
    - Health Education School Improvement Goals

17. **Michigan Model Health Education Materials,** Educational Materials Center, Central Michigan University, 139 Combined Services Center, Mt. Pleasant, MI 48859. Available online at: **http://www.emc.cmich.edu./**

18. **Body Mass Index for Age-Growth Charts.** Available online at: **http://www.cdc.gov/nccdphp/dnpa/bmi/bmi-for-age.htm.**

19. **School Health Index: Self-Assessment and Planning Guide, January 2000,** U.S. Department of Health & Human Services, Centers for Disease Control and Prevention, Atlanta, GA 30333, 1-888-282-7681. Available online at: **http://www.cdc.gov/nccdphp/dash/** and **http://www.cdc.gov/nccdphp/dnpa/**
    - Elementary
    - Secondary

Appendix B ~ Additional Information

- **Children and Teens Afraid to Eat: Helping Youth in Today's Weight-Obsessed World** (3rd ed.) by Berg, F.M. (2001). Hettinger, ND: Healthy Weight Network. Available online at: **http://www.healthyweight.net./**
- **Youth Risk Behavior Survey,** Michigan Department of Education, HIV/STD and Health Education Consultant, Office of School Excellence, Learning Support Unit, PO Box 30008, Lansing, MI 48909, (517) 241-4437. Available online at: **http://www.mde.state.mi.us./** or **http://www.emc.cmich.edu**
  - ✓ Youth Risk Behavior Survey 1999
  - ✓ Youth Risk Behavior Survey 1997
- **American School Food Service Association.** Available online at: **http://www.asfsa.org./**
  - ✓ *Creating Policy for Nutrition Integrity in Schools, Revised edition, 1994*
  - ✓ *Keys to Excellence, Standards for School Food Service*
- **Health is Academic: A Guide to Coordinated School Health Programs,** Teachers College Press, 1234 Amsterdam Avenue, New York, NY 10027. Available at: **http://www.teacherscollegepress.com./**
- **National Association of State Boards of Education.** Available online at: **http://www.nasbe.org/**
  - ✓ Building Business Support for School Health Programs: An Action Guide, 1999
  - ✓ How Schools Work and How to Work With Schools: A Guide for Health Professionals, 1992
- **National PTA.** Available online at: **http://www.pta.org/programs/**
  - ✓ National Standards for Parent/Family Involvement Programs.
  - ✓ Building Successful Partnerships: A Guide for Developing Parent and Family Involvement Programs, 2000 (National Education Services, 2000).
- **Children and Weight: What Health Professionals Can Do: A Training Kit for Presenting Workshops for Health Professionals,** University of California Cooperative Extension, Division of Agriculture and Natural Resources, Communication Services, 6701 San Pablo Avenue, 2nd Floor, Oakland, CA 94608-1239, 1-800-994-8849. Publication 3416. Available at: **http://anrcatalog.ucdavis.edu./merchant.ihtml?id=85&step=2**
- **Am I Fat? Helping Young Children Accept Differences in Body Size** by Joanne Ikeda. Book is out of print, but used copies are available at Gurze Books, 5145-B Avenida Encinas, Carlsbad, CA 92118, (760) 434-7533, gurze@aol.com. Available online at: **http://www.amazon.com**
- **Healthy People 2010: Health Objectives for the Nation.** Healthy People 2010 resources and related materials. Available online at: **http://www.health.gov/healthypeople/**
- **Weight Control Information Network (WIN),** 1 Win Way, Bethesda, MD 20892-3665, 1-800-WIN-8098. Available online at: **http://www.niddk.nih.gov/health/edu.htm#win**
- **Eating Disorders Awareness and Prevention.** Available online at: **http://www.edap.org./**
- **Size Acceptance and Non-Diet Approach.** Available online at: **http://www.hugs.com/**
- **Helping Your Child Lose Weight the Healthy Way** (1996) by Judith Levine and Linda Bine (Book), Secaucaus, NJ: Carol Publishing Group, CALL NO: RJ399.C6L385-1996
- **Childhood and Adolescent Obesity in America: What's a Parent to Do?** (1998) by Betty Holmes (Booklet, 12 p.), Wyoming: Cooperative Extension Services, College of Agriculture, University of Wyoming. Available online at: **http://www.nal.usda.gov:8001/Resource/obesity.html**
- **American Obesity Association,** 1250 24th Street, NW, Suite 300, Washington, DC 20037, 1-800-98-OBESE. Available online at: **http://www.obesity.org./**
- **Child Nutrition and Health Campaign,** American Dietetic Association, 216 West Jackson Boulevard, Chicago, IL 60606, 1-800-877-1600. Available online at: **http://www.eatright.org/**
- **If Your Child Is Overweight: A Guide for Parents** (1993), by Sharon M. Kosharek (Booklet, 32 p.), Chicago, IL: American Dietetic Association, 1-800-877-1600 ext. 5000. Available online at: **http://www.eatright.com/catalog/cat.php?CatNum=0895**
- **California Project LEAN.** Available online at: **http://www.caprojectlean.org/** or **http://www.dhs.cahwnet.gov/lean**
  - ✓ Jump Start Teens
  - ✓ Playing the Policy Game: Preparing Teen Leaders to Take Action on Healthy Eating & Physical Activity

Appendix C ~ Sample Parent Letter

Dear {Parent/Guardian},

Your child was recently weighed and measured in our school to determine how he/she is growing. Your child's weight was found to be low/high for his/her height and age. This does not necessarily mean your child is underweight/overweight, but your child may be at risk for this condition. The best person to evaluate your child's weight status is his/her regular physician or health care provider.

We encourage you to make sure that your child has annual medical exams by a physician. The doctor should weigh and measure your child, may ask questions about your child's growth since birth, and may ask about the height and weight of your child's biological relatives. Your doctor is a good resource for advice about nutrition and physical activity.

If you do not have health insurance or access to health care, please contact us for information about possible health care services.

Please do not put your child on a weight gain/loss diet. Instead, we encourage good nutritional practices and daily physical activity. We are here to assist you with physical activity and nutrition ideas. Our objective is to assist parents in giving children incentive to practice healthy lifestyles and to provide the necessary tools to reach their physical and nutritional goals. Additional information on helping an underweight/overweight child is available {insert information on where a pamphlet can be obtained}.

If you have any questions, please do not hesitate to call me at {school contact name, position, and phone number}.

Cordially,
School Nurse, Physical Education Teacher, Health/Life Management Teacher, and/or Administrator

Acknowledgement and thanks to Joanne Ikeda for the sample letter provided in Guidelines for Collecting Heights and Weights on Children and Adolescents in School Settings, Center for Weight and Health College of Natural Resources, University of California, Berkley, CA., September 2000. To download Guidelines please visit the Center for Weight and Health web site at: http://cnr.berkeley.edu/cwh.

Appendix D ~ Sample Screening Permission Form

Dear Parents,

Our school is gearing up to weigh and measure all children in our school to determine how they are growing. The {school nurse, physical education teacher} will conduct this measurement on {date}.

The purpose of this measurement is to screen children for possible weight concerns. The screening tool used is the BMI-for-Age chart. This method uses a child's weight relative to his/her height. All measures will be taken to safeguard your child's privacy.

If a child is identified as having a weight that may place him/her at a health risk, parents will be notified within one week of the screening date and referred to seek further assessment by the child's physician. Because body weight and type are sometimes issues of extreme sensitivity for students and families, please indicate and sign below whether you wish your son or daughter to participate in the screening. Your child is asked to provide his/her consent as well.

Additional questions can be directed to {educators name, role, and phone number}.

Student's Name: _____ Teacher: _____ Grade: _____

❑ My child has my permission to be screened. ❑ My child does not have my permission to be screened.

Parent's Name: _____

Parent's Signature: _____

❑ I give permission to be screened. ❑ I do not give permission to be screened.

Student's Name: _____

Student's Signature: _____

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