Recommendations to Prevent and Reduce Childhood Obesity in Minnesota

Minnesota Task Force on Childhood Obesity

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Acknowledgements

The recommendations outlined in this report were developed through the guidance of the Minnesota Task Force on Childhood Obesity. We offer our sincere gratitude for the commitment of time and expertise provided by each of our members and to the organizations our Task Force members represent.

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Executive Summary

The proportion of children classified as overweight or obese is growing at an alarming rate in the United States and in Minnesota. Prevalence of obesity among children and adolescents in the United States quadrupled among 6-11 year-olds and more than tripled among 12-19 year-olds between 1971-74 and 1999-2002 according to the National Health and Nutrition Examination Survey (NHANES) (1).

Minnesota does not have a statewide data monitoring system to track overall population trends in child and youth obesity. However, Minnesota-specific data from the Pediatric Nutrition Surveillance System shows that the prevalence of obesity in children aged 2 to 5 years enrolled in the Women, Infants and Children Supplemental Food Program (WIC) increased 41 percent between 1995 and 2004, from 9.8 percent to 13.8 percent, respectively (2).

This increasing rate of overweight and obesity threatens the health of our children and younger generations, placing them at much greater risk for future development and early onset of a wide variety of chronic diseases and health conditions. As children and youth continue to grow into overweight and obese adults, they are at greater risk for (3):

-Hypertension (high blood pressure)
-Dyslipidemia (high total cholesterol, high triglycerides)
-Type 2 diabetes
-Coronary heart disease
-Stroke
-Gallbladder disease
-Depression
-Osteoarthritis
-Sleep apnea and respiratory problems
-Cancers (endometrial, breast, and colon)

The overall financial burden of obesity in Minnesota, based on national estimates, was $1.3 billion in 2004 (5). The financial burden of childhood obesity in Minnesota is difficult to estimate. However ties have been made between childhood obesity and future adult weight-related disease and healthcare costs (6). Trends show diagnosis of weight-related disease occurring at younger and younger ages, which will likely lead to increased healthcare and other costs over larger portions of the lifecycle.

In June 2006, as a response to the growing concern about childhood obesity, the Minnesota Commissioner of Health convened the Minnesota Task Force on Childhood Obesity with the Commissioners of Human Services and Education to study and make recommendations for reducing the rate of obesity among children in Minnesota. The Task Force was comprised of representatives of key organizations and stakeholder groups throughout the state who are notably engaged in addressing the health of children and youth. Members met three times from June 2006 through October 2006.

Members of the Task Force on Childhood Obesity self-selected into one of five workgroups: government; education; industry and media; community organizations and worksites; and healthcare. Strategies for encouraging parents and families to adopt healthier lifestyles were also addressed. Members were asked to develop evidence-based recommendations for their topic areas as well as to create corresponding objectives and list strategies stating how those objectives could be achieved.

"An estimated 5 - 10% of America's 127,000-255,000 obese adolescents have a body mass index (BMI) that is greater than 40. This means that severe obesity is more common than the combined incidence of adolescent cystic fibrosis, juvenile diabetes, HIV and cancer."

Johnson & Johnson Pharmaceutical Research and Development Corporation (4).

In the process of developing recommendations, Task Force members identified four focus areas common to all five workgroups (Appendix A).

1. Encourage Healthy Eating Habits
2. Increase Physical Activity
3. Create Healthy Environments
4. Increase Monitoring and Measurement

The intention of identifying focus areas was to begin to recognize core areas for action that multiple stakeholders, regardless of sector, could collaborate on.

The focus areas identified are woven throughout the document and will be used to help identify priorities and opportunities for partnerships. The goal was to create meaningful and useful recommendations for all sectors in Minnesota to address the complex and multifactorial nature of the obesity epidemic.

The recommendation for increased data monitoring, surveillance and research can also be found throughout the report. The Task Force on Childhood Obesity stressed that Minnesota is in need of statewide measured data on the heights and weights of children and youth in order to monitor the problem of overweight and obesity, identify solutions, and track progress.

Members of the Childhood Obesity Task Force also noted that successful implementation of the recommendations will require dedication and commitment from a variety of sectors, including government, education, industry, healthcare and other community organizations and partners across the state. They also emphasized that many of the recommendations, corresponding objectives and strategies will also need allocated resources and funding if they are to be implemented successfully so that Minnesota achieves a reduction in childhood obesity.

The key recommendations and objectives identified by each workgroup are outlined below.

Workgroup 1: Government

Recommendation(s)	Objective(s)
Advocate for and initiate legislation and policies that contribute to healthy lifestyles and reduce overweight and obesity	Expand and promote opportunities for physical activity in the community through changes to ordinances, capital improvement programs, and other planning practices
	Legislate policy and program guidelines for schools on physical activity and nutrition
	Support community-based partnerships that increase the availability of healthful foods
	Assure neighborhood environments are safe for communities to be active
	Increase participation in school meal programs
Convene and connect stakeholders interested in obesity prevention	Advocate for government and private partnerships that promote being physically active and eating well
	Encourage community organizing around obesity prevention and the built environment
Support public health surveillance systems, program evaluation and research to track obesity trends and develop best practices	Expand funding for prevention research, behavioral research and community-based population-level research
	Implement a statewide public health obesity data monitoring system
Eliminate health disparities in obesity and its complications	Support monitoring, evaluation and research with populations at highest risk for health disparities to assess childhood obesity, and to identify effective behavioral and environmental prevention strategies
	Promote community-based partnerships and programs to address social, economic, and environmental barriers that contribute to increased obesity prevalence in certain populations

Workgroup 2: Education: Schools and Childcare

Recommendation(s)	Objective(s)
Support measurement systems to track and monitor student health progress	Explore options for tracking body mass index (BMI) in children and youth for monitoring and research purposes
	Expand obesity risk factor monitoring measures in the school setting
Implement a coordinated school health approach to obesity prevention	Part 1: Promote Positive Role Models and School Wellness (Objectives relate to piloting programs for teaching about wellness, healthful eating, and physical activity; collaborating among all school professionals; serving as role models; and reducing food and beverage advertising)
	Part 2: Promote a Healthy Eating Environment (Objectives relate to supporting healthy food choices; developing statewide school nutrition standards; decreasing availability of sugar-sweetened beverages and low-nutrient, energy-dense foods; providing age-appropriate portion sizes; involving parents; and including nutrition education in school curriculum)
	Part 3: Promote Increased Physical Activity (Objectives include establishing policies to ensure adequate time for and participation in daily physical activity; implementing programs that reach all children and youth; implementing before- and after-school programs to encourage physical activity; and creating an environment that supports being physically active)
Assure that childcare environments support good nutrition and age-appropriate physical activities	Ensure toddlers participate in at least 30 minutes of physical activity daily
	Ensure preschoolers participate in at least 60 minutes of physical activity daily
	Create environments that support and encourage healthy food choices and physical activity for childcare and preschool settings

Workgroup 3: Industry and Media

Recommendation(s)	Objective(s)
Implement age-appropriate marketing messages and practices that promote healthy food and activity patterns for children and youth (Packaged Food and Beverage)	Expand consumer nutrition and physical activity information
	Provide clear, consistent and realistic media messages and images
	Convene a dialog with food and beverage industry leaders regarding marketing best practices as they relate to promoting children's health
Improve availability of healthy food choices in cafeterias and restaurants (Restaurant and Food Service Industry)	Encourage individual awareness of the nutritional content of foods consumed
	Provide menu options that increase consumption of healthy foods
Promote physical activity and healthy eating throughout the media (Media)	Collaborate with public health partners to develop effective communication strategies and messages related to childhood and youth obesity
	Provide clear, consistent and realistic media messages and images
	Implement ongoing social marketing campaigns to promote healthy eating and physical activity

Workgroup 4: Community Organizations and Worksites

Recommendation(s)	Objective(s)
Implement proven programs and initiatives that promote physical activity and good nutrition in community settings	Provide an environment that supports healthful eating and physical activity in existing and new community programs, particularly for populations at risk for obesity
	Work with cultural groups to provide support and tailor healthful eating and physical activity education materials and programs to assure messages and activities are culturally appropriate
Implement effective worksite wellness programs with a family-centered focus	Implement family-focused health initiatives within an overall worksite wellness campaign

Workgroup 5: Healthcare

Recommendation(s)	Objective(s)
Advocate for and incorporate prevention and treatment of obesity in the healthcare system	Provide access to and reimbursement for counseling on healthy lifestyles, including nutrition and physical activity
	Educate policy makers on the impact of obesity
Establish body mass index as a vital sign	Promote a national standard for BMI as a vital sign and use consistent language when discussing BMI with patients and families
Support data collection systems in the clinical setting to monitor patients and track trends in obesity	Monitor weight status among children and youth
	Develop and implement tools to incorporate BMI measurement into clinic flow
Encourage healthcare providers to address healthy weight behaviors with patients	Develop healthy lifestyle talking points and simple messages for preventive care with all children regardless of weight status
	Support providers and clinics to model healthy habits
	Provide prenatal education to expectant mothers
Promote and provide support for breastfeeding	Create awareness in the benefits of breastfeeding for new parents
	Encourage and support prenatal care providers to promote breastfeeding

The solution to reversing the obesity epidemic is not simple. The increase in obesity results from a complex interplay of environmental, social, economic, genetic and behavioral factors. Because of the multifactorial nature of obesity, many entities will be required to help formulate a variety of approaches to prevent and reduce obesity in Minnesota. Many of these approaches will require collaboration; financial support; dedication to research and evaluation; and the commitment to communicate lessons learned to avoid duplication and make the best use of available resources.

Introduction

In 2001, the *U.S. Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity* noted that overweight and obesity have reached epidemic proportions among all population groups (7). In 2003-2004, an estimated 17 percent of children and adolescents 2-19 years of age in the United States were overweight (1).

The increasing rate of obesity among youth raises concern because it threatens the health of our younger generations, placing them at greater risk for the future development and early onset of many diseases and health conditions, including the following (3):

-Hypertension (high blood pressure)
-Dyslipidemia (high total cholesterol, high levels of triglycerides)
-Type 2 diabetes
-Coronary heart disease
-Stroke
-Gallbladder disease
-Depression
-Osteoarthritis
-Sleep apnea and respiratory problems
-Some cancers (endometrial, breast, and colon)

Overweight and obesity in children and adolescents is generally caused by lack of physical activity, unhealthy eating patterns, or a combination of the two, with genetics and lifestyle both playing important roles in determining a child's weight. Problems associated with overweight and obesity in children and adolescents include (7):

- Increased risk factors for heart disease, such as high blood cholesterol and high blood pressure
- A 70 percent chance of becoming overweight or obese in adulthood, which increases to 80 percent if even one parent is overweight or obese
- The perception of social discrimination, which is associated with poor self-esteem and depression

The solution to reversing the obesity epidemic is not simple. The increase in obesity results from a complex interplay of environmental, social, economic, and behavioral factors. Because of its complex nature, many entities will be required to help formulate a variety of approaches to prevent obesity in Minnesota.

Centers for Disease Control and Prevention Definitions: Weight Status Categories in Youth
The percentile indicates the relative position of the child's body mass index (BMI) number among children of the same sex and age. BMI is a measure of weight in relation to height that is used to determine weight status.

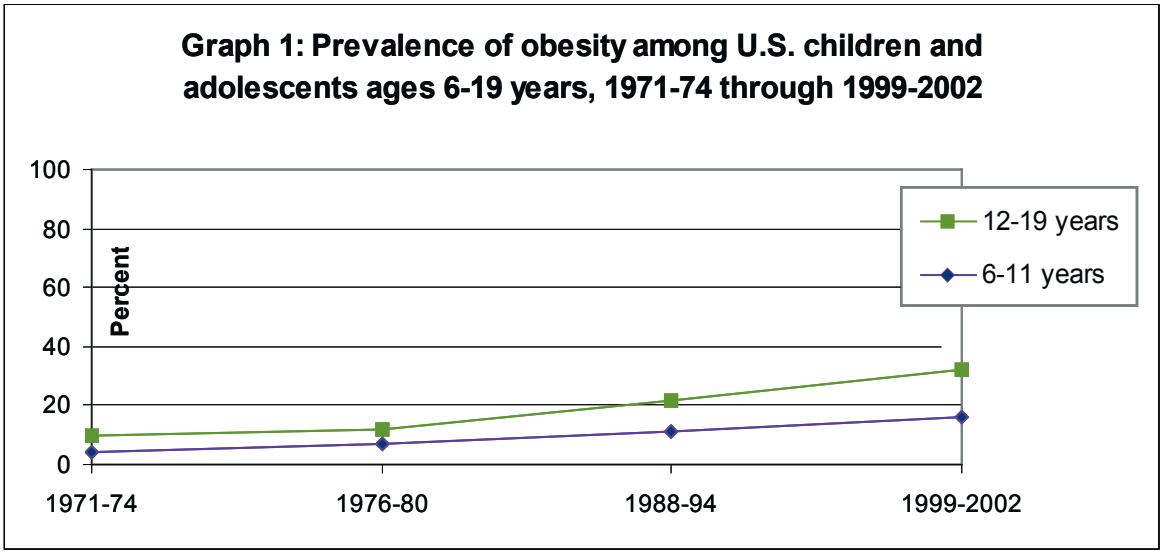
Underweight: Less than the 5th percentile
Normal: 5th percentile to less than the 85th percentile
At Risk for Overweight: 85th percentile to less than the 95th percentile*
*Overweight**: Equal to or greater than the 95th percentile*

**"At risk for overweight" is classified as "overweight" in this report*

***"Overweight" is classified as "obese" in this report*

The Burden of Childhood Obesity in Minnesota

The proportion of children classified as overweight or obese is growing at a striking rate in the United States. The prevalence of obesity among children and adolescents in the United States quadrupled among 6-11 year-olds and more than tripled among 12-19 year-olds between 1971-74 and 1999-2002 according to the National Health and Nutrition Examination Survey (NHANES) (1). The NHANES measures height and weight from a representative sample of children and adult participants around the United States to calculate BMI. Unfortunately, there is no state data monitoring system to track overall population trends in childhood and youth obesity in Minnesota.



Data Source: 2003-2004 National Health and Nutrition Examination Survey (NHANES)

The availability of statewide measured height and weight data is the exception rather than the rule across the United States. State level estimates of weight status using measured data are not available for many states. One source of Minnesota-specific data is the Pediatric Nutrition Surveillance system, which tracks health indicators for Minnesota children enrolled in the Women, Infants and Children Supplemental Food Program (WIC). Minnesota-specific data from the Pediatric Nutrition Surveillance System shows that the prevalence of obesity in children aged 2 to 5 years enrolled in the WIC program increased 41 percent between 1995 and 2004, from 9.8 percent to 13.8 percent, respectively (2).

Many states, lacking measured data for children and youth, utilize high school students' self-reported heights and weights collected through the Centers for Disease Control and Prevention Youth Risk Behavior Survey (YRBS). Nationally, YRBS data shows that in 2005 15.7 percent of high school students (9^{th}-12^{th} grades) were at-risk for becoming overweight and an additional 13.1 percent of students were overweight (8).

Minnesota Needs Overweight and Obesity Data

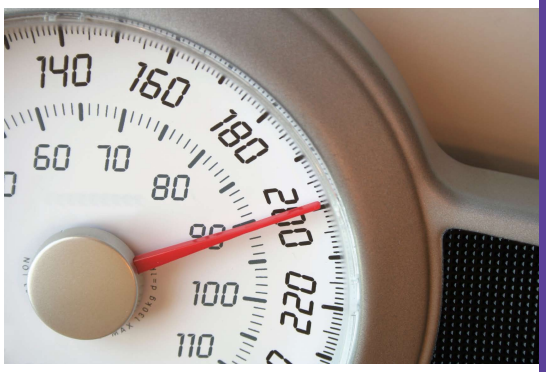
Minnesota is in need of statewide measured data on the heights and weights of children and youth in order to monitor the problem of overweight and obesity, identify solutions, and track progress. Due to the sensitivity of weight information, it is necessary to carefully decide the correct venue through which to collect this data.

While trend data representative of Minnesota children and youth are not available, it is quite likely that obesity among children and youth in Minnesota parallels the national increases. Obesity rates of Minnesota adults increased dramatically over the past few decades. Nationally, the growth in adult overweight and obesity rates parallel rates of overweight among U.S. children and youth (9). Additionally, national data demonstrate dramatic increases in rates of childhood and youth obesity.

Health Consequences of Obesity

The childhood obesity epidemic appears in both boys and girls and among all racial and ethnic groups. National data demonstrates that certain groups, including Hispanics, non-Hispanic Blacks, Native Americans and children in low socioeconomic groups, are particularly affected by obesity (9). Disparities appear to be growing over time.

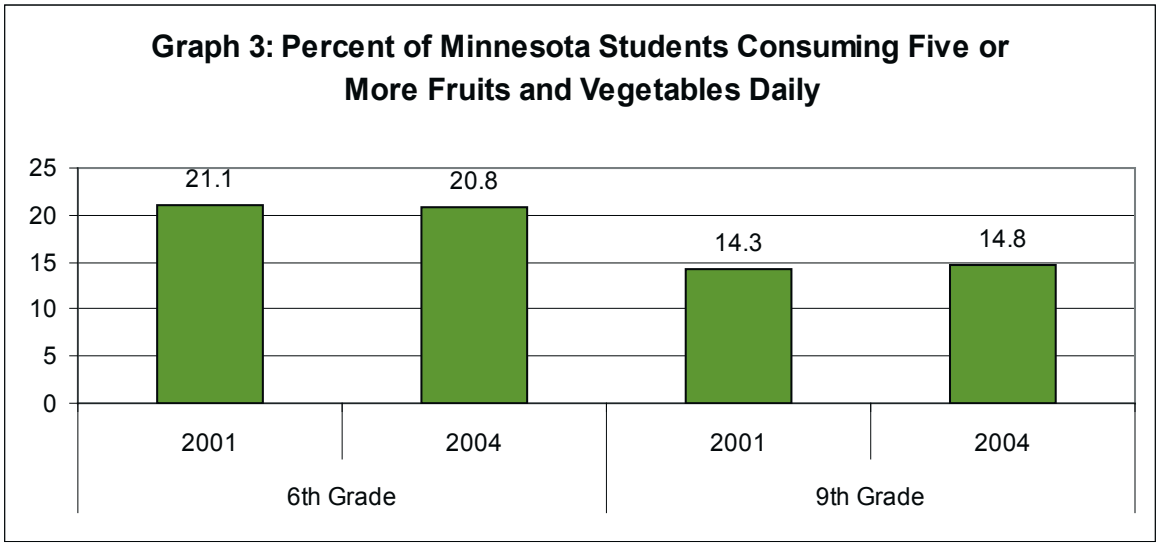
Increasing rates of obesity among children result in growing rates of health problems related to weight status. While the majority of health problems resulting from childhood obesity are not realized until adulthood, youth are experiencing hypertension, dyslipidemia, glucose intolerance/insulin resistance, fatty liver, gall bladder disease, sleep apnea, menstrual abnormalities, impaired balance, and orthopedic problems (9). Type 2 diabetes has received the most attention among the obesity-related diseases on the rise. Despite the fact that an accurate prevalence of type 2 diabetes is difficult to arrive at, due to the low prevalence in this age group, the national estimate of prevalence is currently .41 percent. Impaired fasting glucose, often a precursor to type 2 diabetes, is more prevalent in this age group and is estimated to be around 1.76 percent (9).



More immediate health effects of childhood obesity include the toll on social and emotional health. Stigmatization, negative stereotyping of obese children by peers and adults, may lead to low self-esteem, negative body image, and depressive symptoms (9).

Causes of Obesity

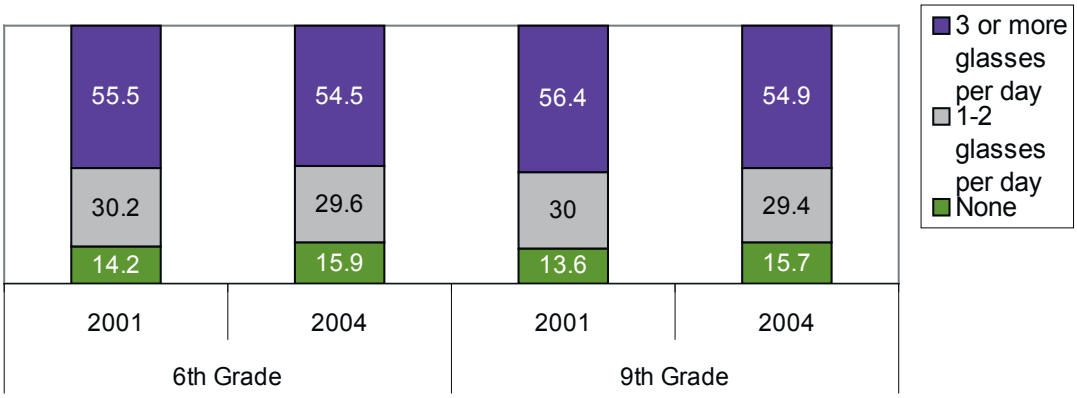
Obesity results from an imbalance of energy expenditure (physical activity) and consumption (dietary habits). Fruit and vegetable consumption is associated with healthy body weight, however Minnesota youth consume far below the recommendations for daily fruit and vegetable intake. It is recommended that children and youth consume at least five servings of fruit and vegetables daily (10). According to the Minnesota Student Survey, only 21percent of 6th graders and 15 perccent of 9th graders reported consuming five or more fruits and vegetables per day in 2004 (Graph 3).



Data Source: Minnesota Student Survey, 2001 & 2004

The Global Strategy on Diet, Physical Activity and Health developed by the World Health Organization (11) and the United States Department of Agriculture (USDA) food pyramid (12) recommend limited consumption of refined sugars. Data from the Minnesota Student Survey demonstrates that Minnesota youth consume significant amounts of refined sugar on a daily basis with 55 percent of 6th and 9th graders consuming 3 or more glasses of sugar sweetened beverages per day in 2004 (Graph 4). These consumption patterns likely contribute to the childhood obesity epidemic.

Graph 4: Percentage of Glasses of Soda and Sweetened Beverages Consumed Daily Among Minnesota Youth



Data source: Minnesota Student Survey, 2001 & 2004

The other important variable in the energy equation is physical activity. The CDC recommends that children and adolescents participate in at least 60 minutes of moderate intensity physical activity most days of the week, preferably daily (3). Data from the Minnesota Student Survey indicate that a high percentage of Minnesota youth, especially girls, fail to meet national physical activity recommendations. In 2004, the percentage of Minnesota students reporting being active five or more days per week for at least 30 minutes per day of moderate-intensity physical activity were:

	Grade 6	Grade 9	Grade 12
Boys	52%	60%	45%
Girls	40%	46%	28%

In 2004, the percentage of Minnesota students reporting participating in an activity that made them sweat or breathe hard 3 or more days per week for at least 20 minutes per day were:

	Grade 6	Grade 9	Grade 12
Boys	69%	72%	61%
Girls	67%	64%	46%

Financial Cost of Obesity

The overall financial burden of obesity in Minnesota in 2003, based on national estimates was $1.3 billion (5). The financial burden of childhood obesity in Minnesota is difficult to estimate. However ties have been made between childhood obesity and future adult weight-related disease and healthcare costs (6). Trends show diagnosis of weight-related disease occurring at younger and younger ages which will likely lead to increased healthcare and other costs over larger portions of the lifecycle.

In comparison to other nations, the United States spends a disproportionate percentage of its Gross National Product on healthcare, yet only approximately five percent of that healthcare spending is spent on prevention. Prevention could significantly reduce chronic disease healthcare expenditures (13).

Obesity Recommendations Development Process

The Minnesota Task Force on Childhood Obesity was first convened in June 2006. The charge from the Minnesota Commissioner of Health was to convene an interagency Task Force with the Commissioners of Human Services and Education to study and make recommendations on reducing the rate of obesity among children in Minnesota. Two specific requests were made:

- The task force shall determine the number of children who are currently obese and set a goal, including measurable outcomes for the state in terms of reducing the rate of childhood obesity.
- The task force shall make recommendations on how to achieve this goal, including, but not limited to, increasing physical activities; exploring opportunities to promote physical education and healthy eating programs; improving the nutritional offerings through breakfast and lunch menus; and evaluating the availability and choice of nutritional products offered in public schools.

The Task Force was comprised of representatives of key organizations and stakeholders throughout the state who are notably engaged in addressing the health of children and youth. Members met three times from June 2006 through October 2006.

Through the work of the Task Force it became evident that Minnesota, like other states, has a great need for reliable data sources to determine the impact of obesity on the state's youth. Therefore, the recommendation for increased surveillance and research measures is found throughout this report. This report contains recommendations to help decrease the rise in childhood obesity in Minnesota as well as a description of the burden of childhood obesity in Minnesota and throughout the United States.

Members of the Task Force of Childhood Obesity self-selected into one of 5 workgroups:

1. Government: focused on the role of local, state and federal government
2. Education: focused on grades K-12 as well as childcare settings
3. Industry and Media: focused on the role of media, advertising, industry and marketing
4. Community Organizations and Worksites: focused on worksites and communities
5. Healthcare: focused on the role of providers, patients, clinical settings and healthcare systems

Workgroups were organized according to the structure offered in the 2005 Institute of Medicine report *Preventing Childhood Obesity: Health in the Balance* (9). Workgroups were asked to develop evidence-based recommendations for their topic area as well as to create corresponding objectives and list strategies stating how those objectives could be achieved. Recommendations and objectives from each workgroup were made available to all members of the Task Force for further review.

In the process of developing recommendations, Task Force members identified four focus areas common to all five workgroups (Appendix A).

1. Encourage Healthy Eating Habits
2. Increase Physical Activity
3. Create Healthy Environments
4. Increase Monitoring and Measurement

The intention of identifying focus areas was to begin to identify core areas for action that multiple stakeholders, regardless of sector, could collaborate on.

The themes identified are woven throughout the document and will be used to help identify priorities and opportunities for partnerships. The goal of the Task Force was to create recommendations that are meaningful and useful to all sectors in order to address the multifactorial nature of the obesity epidemic.

To successfully implement the recommendations within this report commitment from a variety of sectors will be needed. In addition, many of the recommendations and corresponding objectives and strategies will need allocated resources and funding if they are to be implemented successfully and achieve a reduction in childhood obesity.

The solution to reversing the obesity epidemic is not simple. As stated previously, because of the complex nature of obesity, many entities will be required to help formulate a variety of approaches to prevent obesity in Minnesota. Many of these approaches will require collaboration; financial support; dedication to research and evaluation; and the commitment to communicate lessons learned in order to best leverage available resources.

Key Recommendations

The table below outlines the key recommendations developed by each workgroup of the Minnesota Task Force on Childhood Obesity. Workgroups were asked to develop recommendations for their topic area and to create corresponding objectives and strategies. Please refer to the Recommendations to Action section for examples of specific strategies for addressing each recommendation and objective.

Workgroup	Recommendation(s)
I. Government	
	1. Advocate for and initiate legislation and policies that contribute to healthy lifestyles and reduce overweight and obesity
	2. Convene and connect stakeholders interested in obesity prevention
	3. Support public health surveillance systems, program evaluation and research to track obesity trends and develop best practices
	4. Eliminate health disparities in obesity and its complications
II. Education: Schools and Childcare	
	1. Support measurement systems to track and monitor student health progress
	2. Implement a coordinated school health approach to obesity prevention
	3. Assure that childcare environments support good nutrition and age-appropriate physical activities
III. Industry and Media	
	1. Implement age-appropriate marketing messages and practices that promote healthy food and activity patterns for children and youth
	2. Improve availability of healthy food choices in cafeterias and restaurants
	3. Promote physical activity and healthy eating throughout the media
IV. Community Organizations and Worksites	
	1. Implement proven programs and initiatives that promote physical activity and good nutrition in community settings
	2. Implement effective worksite wellness programs with a family-centered focus
V. Healthcare	
	1. Advocate for and incorporate prevention and treatment of obesity in the healthcare system
	2. Establish body mass index as a vital sign
	3. Support data collection systems in the clinical setting to monitor patients and track trends in obesity
	4. Encourage healthcare providers to address healthy weight behaviors with patients
	5. Promote and provide support for breastfeeding

Recommendations to Action

I. Government

Federal, state and local governments each have an important role to play in the prevention of childhood obesity. Through the administration of targeted funding, development of policies and implementation of programs, each governmental sector can help to assure that children achieve a healthy weight. A large number of children, youth and families can be reached at the national, state and local levels through public health efforts. Coordinated, collaborative governmental efforts are needed to prevent the rise in childhood obesity.

The Task Force on Childhood Obesity examined roles for Minnesota's local and state government. As stated in the 2005 Institute of Medicine's, *Preventing Childhood Obesity: Health in the Balance* report, "state and local governments should make childhood obesity prevention a priority by devoting resources to this issue and providing leadership in launching and evaluating prevention efforts" (9). To achieve this goal, Task Force members identified the following four recommendations:

1. Advocate for and initiate legislation and policies that contribute to healthy lifestyles and reduce overweight and obesity
2. Convene and connect stakeholders interested in obesity prevention
3. Support public health surveillance systems, program evaluation and research to track obesity trends and develop best practices
4. Eliminate health disparities in obesity and its complications

Recommendation 1: Advocate for and Initiate Legislation and Policies that Contribute to Healthy Lifestyles and Reduce Overweight and Obesity

Overweight and obesity are caused by an energy imbalance which results from a complex interplay of behavioral, environmental, and genetic factors. Broad policy initiatives can play a role in helping to decrease the rise in obesity. Examples of policy initiatives range from regulating the food environment and mandating physical activity and nutrition education for children in schools, to supporting urban planning for increased physical activity through transportation and public safety provisions.

Objective A: Expand and promote opportunities for physical activity in the community through changes to ordinances, capital improvement programs, and other planning practices	
Strategies	1. Provide funding to support land acquisition and construction of new trails and paths for walking and bicycling
	2. Connect green spaces through integrated trail systems, thus providing easy and safe access to these spaces
	3. Develop policies and programs that encourage and support outdoor activities
	4. Provide funding to support safe walking and biking routes to schools
	5. Provide funding and implement policies that utilize school facilities for the public to engage in physical activity
Objective B: Legislate policy and program guidelines for schools on physical activity and nutrition	
Strategies	1. Pursue avenues for providing free or low-cost fresh fruits and vegetables in schools in addition to those served in school meal programs
	2. Support policies to improve the nutritional profile of competitive foods and beverages on school campuses
	3. Implement guidelines for schools that include requirements for nutrition curricula in health education
	4. Develop a system for supporting the implementation of school wellness policies and monitoring their effect
	5. Require and support quality physical education

Objective C: Support community-based partnerships that increase the availability of healthful foods	
Strategies	1. Identify and pursue avenues for providing fresh fruits and vegetables in neighborhoods which have limited access to grocery outlets
	2. Provide incentives for full-service grocery stores to operate in low-income neighborhoods
Objective D: Assure neighborhood environments are safe for communities to be active	
Strategies	1. Ensure walking paths are well-lit and pedestrian crossings are well-marked
	2. Provide additional funding for increased law enforcement in high-crime neighborhoods
	3. Implement community-traffic calming programs to slow motor vehicles in residential, commercial, or other zones where walking and biking are encouraged
Objective E: Increase participation in school meal programs	
Strategies	1. Develop systems to support farm-to-school programs
	2. Increase funding for school meal programs to support the consumption of healthy foods
	3. Provide funding to support pilot programs aimed at increasing participation in the school meal programs

Recommendation 2: Convene and Connect Stakeholders Interested in Obesity Prevention

Governmental agencies should adopt the role of convening community or regional-level task forces to provide coordinated leadership in preventing childhood obesity. This could be done by increasing resources, collaborating with engaged partners, and developing or strengthening policies and programs that promote opportunities for physical activity and healthful eating in communities and neighborhoods. By convening interested stakeholders, the issue not only gains momentum, but helps to create an organized and coordinated state approach to preventing obesity.

Objective A: Advocate for government and private partnerships that promote being physically active and eating well	
Strategies	1. Increase access to supermarkets and farmers' markets in underserved areas
	2. Provide funding for school and community programs that promote physical activity before, during and after-school
	3. Provide parent education classes that incorporate nutrition education and stress being active as a family
	4. Provide nutrition education for childcare providers
Objective B: Encourage community organizing around obesity prevention and the built environment	
Strategies	1. Promote and implement the Walkable Communities design
	2. Provide funding to support Safe Routes to School Programs

Recommendation 3: Support Public Health Surveillance Systems, Program Evaluation and Research to Track Obesity Trends and Develop Best Practices

The extent of the burden of obesity on Minnesota's youth is difficult to measure due to the lack of statewide monitoring systems. The creation of systems to monitor relevant outcomes and trends in childhood obesity for the state is a priority that was identified by members of the Task Force on Childhood Obesity. A mechanism to monitor childhood obesity prevalence, physical activity levels, dietary factors, and lifestyle behaviors is necessary to track progress and trends in Minnesota.

Objective A: Expand funding for prevention research, behavioral research and community-based population-level research	
Strategy	1. Investigate determinants of and environmental influences on overweight, physical activity and dietary intake in children and youth
Objective B: Implement a statewide public health obesity data monitoring system	
Strategies	1. Create a data collection system for measuring obesity and related risk factor data statewide
	2. Enhance data systems to monitor physical activity and healthy eating behaviors, infrastructure and policies
	3. Assess and report healthcare and other costs related to obesity, its related risk factors and chronic disease outcomes

Recommendation 4: Eliminate Health Disparities in Obesity and its Complications

The second goal of *Healthy People 2010* is "to eliminate health disparities among segments of the population, including differences that occur by gender, race or ethnicity, education or income, disability, geographic location, or sexual orientation" (14).

Healthy People 2010 states "inequalities in income and education underlie many health disparities in the United States. Income and education are intrinsically related and often serve as proxy measures for each other. In general, population groups that suffer the worst health status also are those that have the highest poverty rates and the least education. Disparities in income and education levels are associated with differences in the occurrence of illness and death, including heart disease, diabetes, obesity, elevated blood lead level, and low birth weight. Higher incomes permit increased access to medical care, enable people to afford better housing and live in safer neighborhoods, and increase the opportunity to engage in health-promoting behaviors. Higher levels of education also may increase the likelihood of obtaining or understanding health-related information needed to develop health-promoting behaviors and beliefs in prevention" (14).

According to *Healthy People 2010*, people with disabilities have lower rates of physical activity and higher rates of obesity. People with disabilities also often lack access to health care services. In addition, people living in rural communities have higher rates of heart disease, cancer, and diabetes. They also are less likely to use preventive screening services and to exercise regularly and are more likely to be uninsured (14).

In order to effectively address the obesity epidemic in Minnesota and the United States, government and its public and private partners must give special attention to children and youth who are at higher risk for becoming obese; this includes populations living in poverty, with low education attainment, in rural communities and with disabilities. In Minnesota, where many racial/ethnic health disparities exceed national rates, this includes African American, Hispanic American, American Indian and Asian American children, youth and their families.

Objective A: Support surveillance, monitoring, evaluation and research with populations at highest risk for health disparities to assess childhood obesity, and to identify effective behavioral and environmental prevention strategies	
Strategies	1. Incorporate populations at most risk for obesity and its complications into surveillance system monitoring and reporting activities
	2. Conduct consumer research to maximize use of the nutrition label and other food-guidance systems with populations at high risk for obesity and its complications
	3. Fund community-based population-level research to examine the impact of changes to the socioeconomic and built environment on the levels of physical activity and dietary behavior in communities and populations at high risk for obesity and its complications, including ethnic and cultural influences on behavioral change
	4. Evaluate interventions and programs that focus on reducing obesity prevalence, improving dietary behaviors, increasing physical activity levels, and reducing sedentary behaviors in populations at high risk for obesity
Objective B: Promote community-based partnerships and programs to address social, economic, and environmental barriers that contribute to increased obesity prevalence in certain populations	
Strategies	1. Improve access to and affordability of fruits and vegetables for low-income populations, through supermarkets, farmers' markets, and community gardens
	2. Develop, implement, and evaluate pilot programs to extend school meal funding in schools with a large percentage of children at high risk of obesity
	3. In at-risk communities, provide parent education and skillful parenting models to promote healthful eating behaviors and a physically active lifestyle for families
	4. Promote reinforcing health promotion messages through diverse community and cultural media outlets and coordinate these messages with health promotion community events and programs
	5. Provide professional education and resources to help health care providers effectively counsel and treat overweight patient and parent populations in a culturally competent, non-threatening way

II. Education: Schools and Childcare

Educational environments play an especially important role in helping to prevent childhood obesity because over 95 percent of young people are enrolled in schools (15). Because youth spend much of their day in schools or childcare settings, the childhood obesity epidemic is unlikely to be solved without strong school-based policies and programs. The promotion of physical activity and healthy eating in schools has long been a part of education, and research has shown that well-designed, well-implemented programs can effectively promote these behaviors.

Through the school or childcare center environment, education, role modeling and peers influence a child's behavior and development of lifelong patterns. However, successfully implementing educational programs that aim to maintain good health among students often offer challenges. Some challenges include 1) pressures to raise standardized test scores and 2) limited school budgets which lead to pressures to sell popular high calorie, low-nutrient foods and beverages to raise money for special projects or basic functions. It will take many parties collaborating with schools to help overcome these challenges in order to implement effective programs to alter the course of the obesity epidemic.

The Task Force on Childhood Obesity examined roles for school and childcare settings in Minnesota. To aid in reversing the obesity trend among children and youth, Task Force members identified the following three recommendations:

1. Support measurement systems to track and monitor student health progress
2. Implement a coordinated school health approach to obesity prevention
3. Assure that childcare environments support good nutrition and age-appropriate physical activities

Recommendation 1: Support Measurement Systems to Track and Monitor Student Health Progress

Some schools throughout the United States, including those in Minnesota, have begun to identify options for measuring and monitoring childhood obesity. These efforts call for additional funding to support schools and staff for data collection; sensitivity in data handling and adherence to data privacy regulations; training for staff in how to accurately analyze results; and the ability for schools to connect students and families in need with the appropriate resources.

Obesity prevention efforts in schools have often focused on changes to the lunchroom; integrated nutrition education programs; improvements to the school lunch; and increased parent involvement. Because evaluating the impacts of these programs can be difficult, increased measures for monitoring and evaluating progress are needed.

Objective A: Explore options for tracking BMI in children and youth for monitoring and research purposes	
Strategies	1. Identify best practices for monitoring weight in children (BMI)
	2. Provide funding for Minnesota-based pilot projects for tracking BMI among students which would include resources for cost analysis and reimbursement plans
Objective B: Expand obesity risk factor monitoring measures in the school setting	
Strategies	1. Administer a statewide physical activity and nutrition survey to document nutrition and physical activity patterns
	2. Develop a system for monitoring and supporting the implementation and evaluation of school wellness policies and other policies related to physical activity and nutrition

Recommendation 2: Implement a Coordinated School Health Approach to Obesity Prevention

A coordinated school health approach is a planned, sequential, and integrated set of courses, services, policies, and interventions designed to meet the health and safety needs of K-12 students. It features efforts to improve the quality and interconnectedness of eight school components: health education; physical education; health services; nutrition services; counseling, psychological, and social services; a healthy and safe environment; parent/community involvement; and staff wellness. A successful and well-coordinated school health program is characterized by administrators, teachers, and school board members who view health protection and promotion as an essential part of the school's mission. A coordinated school health approach is a systematic approach to promoting student health that emphasizes the implementation of a needs assessment; planning based on data, sound science, and analysis of gaps and redundancies in school health programming; and evaluation.

Part 1: Promote Positive Role Models and School Wellness

Creating a school in which wellness is valued translates into creating an environment that focuses on encouraging and educating students and staff to make healthy choices around nutrition and physical activity. Promoting the concept of lifelong wellness can be achieved through a collaboration between curriculum; before- and after-school activities; staff health promotion programs; decreased advertising of high-calorie, energy-dense food and beverages to youth; and community connections. All of these components can make important contributions to the health of students and staff by giving them the skills they need to not only become positive role models for good health, but to adopt healthy behaviors for life.

Objective A: Develop, implement and evaluate innovative pilot programs for teaching about wellness, healthful eating, and physical activity and allocate needed resources, such as staffing	
Strategy	1. Review and assess the success of schools currently utilizing the Coordinated School Health Model
Objective B: Ensure collaboration among all school professionals to create a healthy eating and active environment	
Strategies	1. Support programs that empower students to develop and maintain healthy behaviors
	2. Conduct ongoing school-based campaigns/messages around healthy eating, portion distortion, and maintaining a physically active lifestyle
	3. Implement nutrition curricula and physical activity programs that have been proven effective in promoting healthy lifestyles
Objective C: Encourage staff to serve as role models for healthy eating and active lifestyles	
Strategies	1. Provide incentives for staff to maintain healthy and active lifestyles, such as reductions in athletic club membership price
	2. Provide school staff with worksite wellness opportunities
	3. Participate in school nutrition and health efforts
Objective D: Reduce food and beverage advertising aimed at kids	
Strategy	1. Encourage schools, childcare centers and youth-friendly recreation centers to remove product advertising from their environments

Part 2: Promote a Healthy Eating Environment

Schools play a crucial role in promoting and supporting children as they develop healthy eating habits. Simply said, nutrition clearly has a major impact on children – on their health, their ability to learn, and on their potential for becoming healthy and productive adults. School meals make an important contribution to the nutrition of school-aged children. Since 1996, when schools were required to serve meals that are consistent with the Dietary Guidelines for Americans, schools have reduced levels of fat and saturated fat in meals, while continuing to meet federal standards for energy and key nutrients (16).

A healthy nutrition environment should adhere to the Dietary Guidelines for Americans; encourage students to make healthy food choices by limiting availability of foods of minimal nutritional value; reinforce nutrition education provided in the classroom; and provide funding for a food service program that employs well-prepared staff.

Objective A: Create food environments that support and encourage healthy food choices	
Strategies	1. Ensure that National School Lunch and School Breakfast Program meals meet and/or exceed the national standards
	2. Remove food product advertising from the school environment
	3. Ensure school menus identify healthy items and/or nutrition content of food items
	4. Use the internet and school website to promote healthy foods among students, parents and school staff
Objective B: Develop statewide nutrition standards for all foods and beverages available on school campuses	
Strategy	1. Adopt policies that assure all foods and beverages available on school campuses and at school events contribute toward eating patterns that are consistent with the Dietary Guidelines for Americans
Objective C: Decrease availability of sugar-sweetened beverages in schools	
Strategies	1. Ensure water and low-fat milk are available
	2. Prohibit the sale of sugar-sweetened beverages during the school day
	3. Implement a school policy which allows only water to be brought into classrooms
Objective D: Decrease availability of low-nutrient, energy-dense foods in schools	
Strategy	1. Ensure adequate resources for schools to increase the availability of food options that meet the Dietary Guidelines for Americans
Objective E: Provide age-appropriate portion sizes of foods and beverages	
Strategy	1. Set standards for maximum portion sizes of foods and beverages sold in vending machines and as school cafeteria a la carte menu items
Objective F: Involve parents in their children's food consumption during the school day	
Strategy	1. Explore technology for parent monitoring of childrens' purchases in the school cafeteria
Objective G: Include nutrition education in school curriculum at each grade level to help develop healthy eating patterns among children and youth	
Strategy	1. Identify and provide training and support for implementation of proven nutrition curricula in schools

Part 3: Promote Increased Physical Activity

The school setting offers multiple opportunities for students to enjoy physical activity outside of physical education class. A comprehensive school-based physical activity program includes quality physical education, recess, intramurals, interscholastic sports, staff wellness, and walk- and bicycle-to-school initiatives (17). Such opportunities enable students to apply the knowledge and skills learned in physical education classes.

Current physical activity recommendations stress that youth ages 6-19 should accumulate at least 60 minutes of daily physical activity (10, 18). Because children spend the majority of their day at school, they should be given the opportunity to participate in at least 30 minutes of the recommended amount during each school day, and a daily physical education course can help them meet this recommendation (14, 19). A high-quality course requires adequate time (i.e., at least 150 minutes per week for elementary schools and 225 for secondary schools), adequately prepared teachers (including opportunities for professional development), adequate facilities, use of proven curricula, age-appropriate activities, and reasonable class sizes.

Objective A: Establish policies to ensure adequate time in the school setting for physical activity, including physical education and recess	
Strategies	1. Adopt and follow local policy that exceeds the state's minimum requirement for physical education
	2. Promote the use of curricula that have been research-tested and proven to increase physical activity time and intensity
Objective B: Implement programs that reach all children and youth, including those who are most at-risk	
Strategy	1. Customize physical activity programs to make them more attractive to different segments of the student population
Objective C: Ensure all children and youth participate in at least 30 of the recommended 60 minutes of physical activity each day	
Strategy	1. Incorporate opportunities for physical activity during the school day through such opportunities as increasing the quality of daily physical education in schools for all children; promoting safe walking and biking routes to schools; implementing a daily walking program during the school day, and providing daily recess breaks for unstructured active play
Objective D: Implement before- and after-school programs which encourage children and youth to be more physically active	
Strategies	1. Provide affordable opportunities and access for students to increase physical activity in the school setting before- and after-school
	2. Expand offerings of affordable physical activity such as league sports, gymnastics, dance, swimming, martial arts classes and access to outdoor recreation activities
Objective E: Create an environment that supports being physically active	
Strategies	1. Provide recreation programs that involve parents
	2. Educate parents on safe ways to interact and incorporate structured and unstructured play outside of school on a daily basis
	3. Support ongoing media campaigns to increase physical activity

Recommendation 3: Assure that Childcare Environments Support Good Nutrition and Age-Appropriate Physical Activities

Childcare settings are heavily utilized throughout the United States, including Minnesota. Childcare environments, just like schools, can play an important role in helping to instill healthy behaviors at an early age as well as educating parents and families about the importance of being active and eating healthy.

Being active is a natural part of a young child's play and development. Childcare settings offer an opportunity to instill healthy physical activity habits in even the youngest of children. These environments should continue to encourage young children's tendencies to be active through activities that are not only fun, but safe.

The healthy eating habits formed during childhood can carry into adulthood and decrease the risk for chronic disease. The food served in childcare settings contributes significantly to children's overall nutritional intake. A key focus during early childhood is on development of food preferences and formation of healthy eating patterns. Childcare settings should offer healthy foods, model the eating of these foods by staff and provide children with positive food-related experiences through the curriculum and special events.

Objective A: Ensure toddlers participate in at least 30 minutes of physical activity daily	
Strategy	1. Ensure that appropriate equipment and materials are available to give toddlers opportunities to actively develop their gross motor skills
Objective B: Ensure preschoolers participate in at least 60 minutes of physical activity daily	
Strategy	1. Incorporate planned physical activity into the daily preschool schedule
Objective C: Create environments that support and encourage healthy food choices and physical activity for childcare and preschool settings	
Strategies	1. Adopt policies to ensure foods meet the Dietary Guidelines for Americans
	2. Provide family education programs to support healthy family eating and physical activity behaviors

III. Industry and Media

Effective media partnerships and industry efforts can raise public awareness and ignite discussions around the health and economic concerns related to childhood obesity. Industry can also play an important role in promoting health by selling healthy food products and limiting advertising and promotion of high-calorie, energy-dense products to children.

The Task Force on Childhood Obesity examined roles for industry and media environments in Minnesota. To aid in reversing the obesity trend among children and youth, Task Force members identified one recommendation for each of the following sectors: packaged food and beverage industry; restaurant and food service industry; and media. The recommendations are as follows:

1. Implement age-appropriate marketing messages and practices that promote healthy food and activity patterns for children and youth (packaged food and beverage industry)
2. Improve availability of healthy food choices in cafeterias and restaurants (restaurant and food service industry)
3. Promote physical activity and healthy eating throughout the media (media)

Not all community organization and business efforts were discussed by the Task Force on Childhood Obesity. This is report is not meant to be comprehensive in nature with regard to the role of industry in helping to decrease and prevent childhood obesity. Additional industry efforts could include partnerships with YMCAs, private health clubs, sporting good manufacturers and retailers as well as grocery stores and food producers. These partnerships could increase access to healthful nutrition and physical activity options for many Minnesota residents.

(Packaged Food and Beverage Industry)
Recommendation 1: Implement Age-appropriate Marketing Messages and Practices that Promote Healthy Food and Activity Patterns for Children and Youth

Food and beverage sales to young consumers exceeded $27 billion in 2002 (20). Many children are filling up on foods and drinks that are high in calories and low in nutrients, such as soft drinks or sweet or salty snacks. Research supports that children are often consuming energy-dense snacks and in-turn are not meeting the minimum recommended daily servings of fruits and vegetables. The food and beverage industry can provide consumers with clear and consistent messages to help them make healthy nutritional choices and can promote consumer health by selling healthy products in appropriate portion sizes.

Objective A: Expand consumer nutrition and physical activity information	
Strategy	1. Promote resources and programs for childhood overweight prevention
Objective B: Provide clear, consistent, and realistic media messages and images	
Strategies	1. Inventory and assess marketing messages to children currently utilized by the food and beverage industry
	2. Develop and market images and messages that support a healthy lifestyle
Objective C: Convene a dialog with food and beverage industry leaders regarding marketing best practices as they relate to promoting children's health	
Strategies	1. Advocate for age-appropriate portion sizes
	2. Limit marketing of high-calorie, energy-dense food products to children and youth

(Restaurant and Food Service Industry)
Recommendation 2: Improve Availability of Healthy Food Choices in Cafeterias and Restaurants

Consumption of food away from home has risen in the last three decades. Food consumed by American children away from home comprised 20 percent of total dietary intake in 1977, rising to 32 percent by 1996 (9). Youth aged 11 to 18 years visit fast food outlets an average of twice a week and tend to consume less fruit, vegetables and milk than those who do not consume fast food (21). Cafeterias and restaurants can help support healthy nutritional choices by offering age-appropriate portion sizes and healthier meal options. Also, by making nutrition information available on each meal consumers can make informed decisions about which food to consume.

Objective A: Encourage individual awareness of the nutritional content of foods consumed	
Strategies	1. Work with local cafeterias and restaurants to note the nutritional content of menu choices
	2. Advocate for and serve age-appropriate portion sizes
Objective B: Provide menu options that increase consumption of healthy foods	
Strategies	1. Work with food outlets to ensure that whole grains and low-fat dairy products are available to consumers
	2. Work with local cafeteria and restaurant owners to include a fruit and vegetable alternative to high-calorie menu items such as French fries or chips at no additional charge to the consumer

(Media)
Recommendation 3: Promote Physical Activity and Healthy Eating Throughout the Media

Media is in a position to help raise awareness of the childhood obesity epidemic. The generation of multiple, consistent media messages portraying healthful eating habits and promoting daily physical activity can alter social norms. In addition, media outlets can help garner support for policy changes around nutrition and physical activity and can help educate parents, families and youth about the importance of a healthy diet and daily physical activity.

Objective A: Collaborate with public health partners to develop effective communication strategies and messages related to childhood and youth obesity	
Strategies	1. Share education messages with local media outlets for distribution statewide
	2. Build mutually beneficial and sustainable partnerships with state media; writers; journalists; TV and radio producers; and other media and health professionals
Objective B: Provide clear, consistent, and realistic media messages and images	
Strategies	1. Create specific messages for parents and across sectors such as limit screen time, limit sweetened beverages, etc.
	2. Increase positive nutrition messages such as increase consumption of fruits and vegetables; whole grains; and low-fat dairy
Objective C: Implement ongoing social marketing campaigns to promote healthy eating and physical activity	
Strategy	1. Coordinate a multifaceted campaign promoting healthy eating and physical activity and discuss the potential consequences resulting from overweight in childhood

IV. Community Organizations and Worksites

Communities reflect the priorities of their residents. Communities and their members can come together to raise issues of concern and take action. Communities can also create physical and social environments that support families to be healthy. Worksites, similar to communities, have a role to play in helping to keep individuals healthy as well. With increasing evidence supporting health promotion programs in the workplace, more companies than ever are implementing health and wellness strategies to promote employee health and reduce injuries, healthcare costs, and long-term disability.

The Task Force on Childhood Obesity examined roles for worksites and community organizations in helping to decrease obesity among children and youth in Minnesota. Task Force members identified two recommendations for worksites and community organizations. The recommendations are as follows:

1. Implement proven programs and initiatives that promote physical activity and good nutrition in community settings (community organizations)
2. Implement effective worksite wellness programs with a family-centered focus (worksites)

Recommendation 1: Implement Proven Programs and Initiatives that Promote Physical Activity and Good Nutrition in Community Settings

Communities affect the health and well-being of children and youth in many ways, ranging from how streets and sidewalks are designed to the perceived safety of the neighborhood to whether there is access to affordable fruits, vegetables and other nutritious foods. Moving communities toward better health will require changes in both the social and built environment as well as collaboration among many partners to address the existence of health disparities.

Objective A: Provide an environment that supports healthful eating and physical activity in existing and new community programs, particularly for populations at risk for obesity	
Strategies	1. Increase availability and access to local community gardens for youth and their families
	2. Create opportunities for outdoor recreation
	3. Provide parents with educational opportunities to learn how to create a healthy nutrition and active environment within the home
	4. Expand the capacity of food shelves to provide healthy food options through the creation of sustainable partnerships devoted to increasing healthy food donations
	5. Encourage community organizations to provide healthy foods and promote physical activity as part of their programs, activities and meetings
Objective B: Work with cultural groups to provide support and tailor healthful eating and physical activity education materials and programs to assure messages and activities are culturally appropriate	
Strategies	1. Identify means to address language barriers to increase healthful eating and activity levels
	2. Create a network of accessible, family-based and culturally relevant interdisciplinary weight management services for children and youth who are overweight or at risk for overweight

Recommendation 2: Implement Worksite Wellness Programs with a Family-Centered Focus

Many employers are turning to worksite wellness programs in an effort to lower healthcare costs, reduce absenteeism, increase productivity, reduce injuries and improve employee morale and retention. However, worksite wellness programs can also be designed to reach the families of employees. Because families are often also covered under the employee's insurance, it is in the best interest of all parties to invest in the family unit as a whole.

Objective A: Implement family-focused health initiatives within an overall worksite wellness campaign	
Strategies	1. Provide breastfeeding-friendly worksites
	2. Explore options for providing club memberships for employees and their families

V: Healthcare

The healthcare system is a critical setting for interventions aimed at reducing the prevalence and consequences of childhood obesity. Healthcare professionals have the opportunity to influence the dietary and physical activity patterns of their patients and families. They can also serve as advocates for change in their communities and enhance media and industry efforts. Creative, multi-disciplinary, and culturally sensitive approaches to the prevention of childhood obesity are essential.

The Task Force on Childhood Obesity examined roles for Minnesota's healthcare system. As stated in the 2005 Institute of Medicine's, *Preventing Childhood Obesity: Health in the Balance* report, "treatment of obesity is rarely considered a reimbursable interaction between patient and doctor, and our current healthcare system is not yet focused on the preventive measures for childhood obesity" (9). To help make obesity prevention a part of routine care, Task Force members identified the following five recommendations:

1. Advocate for and incorporate prevention and treatment of obesity in the healthcare system
2. Establish body mass index as a vital sign
3. Support data collection systems in the clinical setting to monitor patients and track trends in obesity
4. Encourage healthcare providers to address healthy weight behaviors with patients
5. Promote and provide support for breastfeeding

Recommendation 1: Advocate for and Incorporate Prevention and Treatment of Obesity in the Healthcare System

Obesity is a serious disease and is well-established scientifically as an independent cause of extensive mortality and morbidity. Obesity's impact on health is as great as that from smoking, poverty and problem drinking (22). The diseases caused by obesity – type 2 diabetes, several cancers, osteoarthritis of the knee and hip, sleep apnea, hypertension, high cholesterol, and heart disease and stroke – are among the most serious and costly in society (22). In addition, overweight and obese individuals may experience psychosocial problems including depression and discrimination in education, employment and healthcare (22).

Obesity has been recognized as a major health problem by the Surgeon General of the United States, the World Health Organization, the National Institutes of Health and the Centers for Disease Control and Prevention.

According to the American Obesity Association, everything it takes to become overweight in our society is cheap and plentiful while to manage one's weight effectively costs time or money, and usually both (22). It is critical to encourage Minnesota healthcare systems to prioritize the prevention and treatment of obesity to improve citizens' health and deter healthcare costs.

Objective A: Provide access to and reimbursement for counseling on healthy lifestyles, including nutrition and physical activity	
Strategies	1. Provide reimbursement for prevention and treatment of obesity in the healthcare system
	2. Implement science-based obesity prevention programs to help reduce obesity-related morbidity and healthcare costs
Objective B: Educate policy makers on the impact of obesity	
Strategy	1. Advocate for public policies that promote healthy weight in children

Recommendation 2: Establish Body Mass Index as a Vital Sign

Body Mass Index (BMI) is a number calculated from a child's weight and height. BMI is a reliable indicator of body fatness for most children and teens. BMI can be considered an alternative for direct measures of body fat. Additionally, BMI is an inexpensive and easy-to-perform method of screening for weight categories that may lead to health problems.

After BMI is calculated for children and teens, the BMI number is plotted on the Centers for Disease Control (CDC) BMI-for-age growth charts to obtain a percentile ranking. Percentiles are the most commonly used indicator to assess the size and growth patterns of individual children in the United States. The percentile indicates the relative position of the child's BMI number among children of the same sex and age. CDC and the American Academy of Pediatrics (AAP) recommend the use of BMI to screen for overweight in children beginning at 2 years old.

Objective A: Promote a national standard for BMI as a vital sign and use consistent language when discussing BMI with patients and families	
Strategies	1. Provide training to healthcare professionals on current pediatric screening recommendations and anthropometric measurement protocols
	2. Educate patient and families about BMI
	3. Add BMI to the standard form in clinics so that it can easily be recorded and tracked

Recommendation 3: Support Data Collection Systems in the Clinical Setting to Monitor Patients and Track Trends in Obesity

In order to document the extent of childhood obesity in Minnesota, it is necessary to clearly understand the problem. With the collection of measured heights and weights, aggregate healthcare data could be tapped for public health monitoring purposes to help measure change in childhood obesity in Minnesota over time. This information is essential for accurate patient treatment, program planning and evaluation, and can also be used to help determine the long-term impact of interventions.

Through discussions with Task Force members, it was evident that Minnesota's healthcare providers need continued education related to preventing, assessing and managing childhood obesity. It was suggested that a toolkit be created that could help to standardize measurement and treatment of childhood obesity throughout the state.

Objective A: Monitor weight status among children and youth	
Strategy	1. Encourage providers to measure BMI and utilize electronic record systems and growth charts to track weight in children and youth
Objective B: Develop and implement tools to incorporate BMI measurement into clinic flow	
Strategy	1. Develop a toolkit to educate healthcare professionals about issues related to screening, prevention, assessment, referral, and management of childhood overweight

Recommendation 4: Encourage Healthcare Providers to Address Healthy Weight Behaviors with Patients

Overweight children and teens may experience health consequences during their youth and be at risk for weight-related health problems later in life. Maintaining a healthy weight during childhood and adolescence may reduce the risk of becoming overweight or obese as an adult (3).

Healthcare providers can promote the development and maintenance of healthy lifestyle behaviors by encouraging children and teens to maintain healthy eating habits and participate in physical activity on most (preferably all) days of the week. In addition, working to create an environment in which weight can be addressed in a non-threatening way; helping to educate parents about what defines a child as "overweight;" and educating individuals, particularly expecting parents, before weight even becomes a problem, are helpful methods for raising awareness and preventing childhood obesity.

Objective A: Develop healthy lifestyle talking points and simple messages for preventive care with all children regardless of weight status	
Strategies	1. Create messages that address the perceptions of parents/caregivers regarding the label of "overweight" assigned to children and youth
	2. Identify, promote and implement a curriculum for healthcare professionals that focuses on counseling patients and parents in a concise, effective, non-threatening way about overweight in children
	3. Engage in anticipatory guidance techniques with patients
Objective B: Support providers and clinics to model healthy eating habits	
Strategies	1. Act as physical activity and nutrition role models for young children and parents
	2. Attend professional development programs on current guidelines, evidence-based programs, and resources in the prevention of early childhood overweight
	3. Ensure clinics and hospitals provide healthy food and physical activity options for staff, patients and visitors

Objective C: Provide prenatal education to expectant mothers	
Strategies	1. Identify and disseminate information on breastfeeding support groups, including resources such as La Leche League and local lactation consultants
	2. Develop healthy lifestyle talking points and simple messages for providing preventive care to expectant mothers
	3. Provide information and counseling to expectant mothers on healthy eating and physical activity during pregnancy
	4. Seek opportunities to actively engage fathers in discussions around healthy nutrition and physical activity behaviors

Recommendation 5: Promote and Provide Support for Breastfeeding

Breastfeeding has many benefits for both mothers and babies. Breastfeeding reduces the risk of breast and ovarian cancer in women and appears to reduce risk for overweight in childhood (23). Breastfeeding also protects children against infectious diseases. Children who have been breastfed have lower rates of childhood asthma and both type 1 and type 2 diabetes, on average, compared with children who were bottle-fed (24).

Objective A: Create awareness about the benefits of breastfeeding for new parents	
Strategies	1. Provide supportive environments for breastfeeding in Neonatal Intensive Care Units
	2. Provide lactation support and services in hospital or outpatient clinics
	3. Develop and implement a birth plan that promotes mom-baby connections
Objective B: Encourage and support prenatal care providers to promote breastfeeding	
Strategies	1. Offer written materials in offices that convey the benefits of breastfeeding
	2. Implement culturally specific and sensitive approaches to promoting breastfeeding

Strategies for Working with Parents and Families

The recommendations in this report have been structured around 5 key areas: government; education; industry and media; community organizations and worksites; and healthcare. All of these sectors have a role to play in supporting parents and families in their quest to raise healthy children and help reduce the rise of childhood obesity.

This section provides strategies for working with parents and families to prevent overweight and obesity in children. The messages are not exhaustive, but merely represent some of the key areas of focus needed to successfully promote the adoption of healthy behaviors within the home environment.

Parents and families are essential in efforts to prevent and manage overweight and obesity in children and youth. Structuring a home environment that is supportive of healthy eating and physical activity helps children to develop and maintain lifelong healthy behaviors (25). Parents and families can also serve as advocates for environmental and policy changes that support active and healthy lifestyles for their children and youth outside the home.

The Minnesota Task Force on Childhood Obesity examined messages for organizations to use when addressing obesity prevention with parents and families. To help make obesity prevention a part of routine family life, Task Force members identified the following recommendation to be included in each of the five key areas outlined in this report:

Recommendation 1: Encourage Families and Children to Adopt Healthier Lifestyles

There are a number of things parents and families can do to help decrease the likelihood that their children will become overweight or obese – for example, serving as role models by incorporating physical activity and good nutrition into their daily routine. By creating an environment that supports healthy eating and physical activity at home, at school and in the community, parents and families can help their children adopt a healthy lifestyle.

Parents and families can help to ensure children meet the national recommendation of engaging in at least 60-minutes of physical activity every day. Decreasing sedentary time by limiting television and other screen time; enjoying activities that can be done as a family, such as biking, swimming, or walking; and visiting local community centers or schools to learn whether they are available for family recreational use are options to increase the activity levels of all family members.

Setting guidelines around nutrition is also important for parents and families. Eating a daily breakfast has been proven to help children perform better academically. Eating meals together at home has also been shown to increase family togetherness and improve dietary intake. Furthermore, serving appropriate portion sizes; limiting the amount of sweetened beverages; choosing to dine-out at establishments which offer healthy menu options; and involving family members in growing and preparing foods are also critical to instilling lifelong healthy eating and physical activity patterns.

Objective A: Encourage healthful eating habits	
Strategies	1. Limit the amount of sweetened beverages available in the home
	2. Encourage eating a daily, healthful breakfast
	3. Encourage families to eat meals together
	4. Serve as role models for healthy eating
	5. Offer reasonable portion sizes
	6. Support fruit and vegetable consumption
	7. Choose exclusive breastfeeding as the method for feeding infants for the first six months of life, if possible
	8. Support the wellness policy of the school district by adhering to guidelines when providing food for a child to bring on the school campus
Objective B: Promote more active lifestyles	
Strategies	1. Limit sedentary time; for example, decrease television and other screen time
	2. Encourage physical activities that can be done as a family
	3. Ensure all children and youth participate in at least 60-minutes of physical activity each day
	4. Serve as role models for active living
Objective C: Encourage parents to actively participate in promoting their children's health	
Strategies	1. Discuss weight status with child's healthcare provider
	2. Participate in a community education class on healthy lifestyles for youth and families

Evaluation and Communication

Evaluation is a critical component to assuring that resources are focused on obesity prevention strategies that are effective. The 2006 Institute of Medicine report, *Progress in Preventing Childhood Obesity: How Do We Measure Up?* stressed the need for better evaluation of prevention initiatives as well as a mechanism for communicating outcomes and learning (26). The recommendations, as written in the Institute of Medicine report are listed below.

Recommendation 1: All Recommended Action Steps Need Evaluation

Evaluation serves to foster collective learning, accountability, responsibility and cost-effectiveness to guide improvements in childhood obesity prevention policies and programs. Multiple sectors and stakeholders should commit adequate resources to conduct evaluations. Surveillance, monitoring and research are fundamental components of childhood obesity prevention evaluation efforts.

Objective A: Multiple sectors and stakeholders should commit adequate resources to conduct evaluations	
Strategy	1. Conduct evaluations of different types and levels to continually assess and stimulate progress to decrease childhood obesity and improve the health of children and youth

Recommendation 2: Develop Mechanisms for Communicating Outcomes and Learning

Current data and evidence are inadequate to comprehensively assess progress in preventing childhood obesity across the United States. Although the best available evidence should be used to develop an immediate response to the childhood obesity epidemic, a more robust evidence base should be developed that identifies promising practices so that such interventions can be supported in diverse settings.

Objective A: Develop a system to identify and communicate promising practices in preventing childhood obesity	
Strategy	1. Foster information-sharing activities and disseminate evaluation and research findings through diverse communication channels and media to actively promote the use of effective childhood obesity prevention policies and interventions

Minnesota Task Force on Childhood Obesity members recognize the importance of evaluation and how important communication efforts are to the state's desire to be successful in reducing childhood obesity. Evaluation and communication of promising practices will be incorporated into future efforts of the Task Force. All partners are encouraged to deliberately weave evaluation and communication plans into their own efforts as well.

Summary

The vision of the Minnesota Task Force on Childhood Obesity was to create a document that was useful to all sectors throughout Minnesota. While the report is not meant to be an exhaustive list of recommendations, it lays the foundation for collaboration and movement in the state to address a growing area of concern – childhood obesity.

It is the hope of Task Force members that other agencies, organizations and stakeholders throughout the state will aid the work of the group by committing themselves to the importance of childhood obesity and dedicating themselves to the recommendations outlined in this report.

The Task Force on Childhood Obesity members are committed to working together to help reverse the trend of childhood obesity. The Task Force will continue to meet to begin to prioritize areas for immediate action and identify opportunities for partnerships, across multiple sectors, as a way to respond to the increasing rates of overweight and obese children in Minnesota. Future efforts will also include the addition of evaluation measures as well as a plan for communicating promising practices. Task Force members are hopeful that through mindful collaboration and dedicated resources the trend of rising obesity among Minnesota children and youth can be reduced.

References

1. Centers for Disease Control and Prevention (CDC). National Center for Health Statistics (NCHS). National Health and Nutrition Examination Survey Data. 2003-2004
2. Pediatric Nutrition Surveillance System Report: Health Indicators Minnesota Children Enrolled in WIC 1995 to 2004. Minnesota Department of Health.
3. Centers for Disease Control and Prevention. U.S. Department of Health and Human Services. http://www.cdc.gov/
4. Strauss, R. Johnson & Johnson Pharmaceutical Research & Development Corporation
5. Obesity Research; 12:18-24; 2004
6. Moran, R. American Family Physician. Evaluation and Treatment of Childhood Obesity. 1999
7. U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General; [2001]. Available from: US GPO, Washington. U.S. Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity.
8. Youth Risk Behavior Survey http://www.cdc.gov/mmwr/PDF/SS/SS5505.pdf
9. Koplan JP, Liverman CT, and Kraak VI. Institute of Medicine, Preventing Childhood Obesity: Health in the Balance. 2005
10. U.S. Department of Health and Human Services and U.S. Department of Agriculture. (2005). Dietary Guidelines for Americans, 2005 (6th ed.),Washington, DC: U.S. Government Printing Office.
11. World Health Organization. Global Strategy on Diet, Physical Activity and Health. 2004. http://www.who.int/dietphysicalactivity/strategy/eb11344/strategy_english_web.pdf
12. U.S. Department of Agriculture (USDA). Steps to a Healthier You. www.mypyramid.gov
13. Steps to a HealthierUS. U. S. Department of Health and Human Services. http://www.healthierus.gov/STEPS
14. U.S. Department of Health and Human Services. (2000). Healthy people 2010: health goals for the nation. Washington, DC: U.S. Department of Health and Human Services.
15. National Center for Education Statistics. (2005). Digest of education statistics, 2004. Retrieved from http://nces.ed.gov/programs/digest/d04/
16. Fox, M.K., Crepinsek, M.K., Connor, P., & Battaglia, M. (2001). School Nutrition Dietary Assessment Study II: Summary of Findings. U.S. Department of Agriculture.
17. National Association for Sport and Physical Education. (2005). Understanding the difference: Is it physical education or physical activity?
18. Strong, W.B., Malina, R.M., Blimkie, C.J.R., Daniels, S.R., Dishman, R.K., Gutin, B., et al. Evidence based physical activity for school-age youth. Journal of Pediatrics, 146, 732-737. 2005
19. National Association for Sport and Physical Education. Moving into the future: National standards for physical education (2nd ed.). 2004
20. US Market for Kids' Foods and Beverages, 2003
21. Paeratakul S, Ferdinand DP, Champagne CM, et al. Fast-food consumption among US adults and children. J Am Diet Assoc.; 103:1332-1338; 2003
22. American Obesity Association, www.obesity.org
23. American Cancer Society, www.cancer.org
24. Infant Feeding Act Coalition, http://www.infactcanada.ca/news_releases_Romanow.htm
25. National Library of Medicine, http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat5.section.21
26. Koplan JP, Liverman CT, Kraak VI, and Wisham SL. Institute of Medicine, Progress in Preventing Childhood Obesity: How Do We Measure Up? 2006

Appendix A: Focus Areas Common to All Workgroups

The Figures next to each recommendation indicate which section the suggested action item can be found within. In the process of developing recommendations, Task Force members identified four focus areas common to all five workgroups.

1. Encourage Healthy Eating Habits
2. Increase Physical Activity
3. Create Healthy Environments
4. Increase Monitoring and Measurement

The intention of identifying focus areas was to begin to recognize core areas for action that multiple stakeholders, regardless of sector, could collaborate on.

Encourage Healthy Eating Habits
2.2 Implement a coordinated school health approach to obesity prevention
2.3 Assure that childcare environments support good nutrition and age-appropriate physical activities
3.1 Implement age-appropriate marketing messages and practices that promote healthy food and activity patterns for children and youth
3.2 Improve availability of healthy food choices in cafeterias and restaurants
3.3 Promote physical activity and healthy eating throughout the media
4.1 Implement proven programs and initiatives that promote physical activity and good nutrition in community settings
5.4 Encourage healthcare providers to address healthy weight behaviors with patients
5.5 Promote and provide support for breastfeeding
Increase Physical Activity
2.2 Implement a coordinated school health approach to obesity prevention
2.3 Assure that childcare environments support good nutrition and age-appropriate physical activities
3.1 Implement age-appropriate marketing messages and practices that promote healthy food and activity patterns for children and youth
3.3 Promote physical activity and healthy eating throughout the media
4.1 Implement proven programs and initiatives that promote physical activity and good nutrition in community settings
5.4 Encourage healthcare providers to address healthy weight behaviors with patients
Create Healthy Environments
1.1 Advocate for and initiate legislation and policies that contribute to healthy lifestyles and reduce overweight and obesity
1.2 Convene and connect stakeholders interested in obesity prevention
1.4 Eliminate health disparities in obesity and its complications
2.2 Implement a coordinated school health approach to obesity prevention
2.3 Assure that childcare environments support good nutrition and age-appropriate physical activities
3.1 Implement age-appropriate marketing messages and practices that promote healthy food and activity patterns for children and youth
4.1 Implement proven programs and initiatives that promote physical activity and good nutrition in community settings
4.2 Implement effective worksite wellness programs with a family-centered focus
5.1 Advocate for and incorporate prevention and treatment of obesity in the healthcare system
5.4 Encourage healthcare providers to address healthy weight behaviors with patients
Increase Monitoring and Measurement
1.3 Support public health surveillance systems, program evaluation and research to track obesity trends and develop best practices
2.1 Support measurement systems to track and monitor student health progress
5.1 Advocate for and incorporate prevention and treatment of obesity in the healthcare system
5.2 Establish body mass index as a vital sign
5.3 Support data collection systems in the clinical setting to monitor patients and track trends in obesity