



POLICY BRIEF

The Massachusetts Health Policy Forum

Childhood Obesity in Massachusetts:

Costs, Consequences and Opportunities for Change

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Findings from the forum on Childhood Obesity in Massachusetts, sponsored by the Massachusetts Health Policy Forum and Harvard Pilgrim Health Care Foundation, June 2008.

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Introduction

More than 30 percent of Massachusetts children are overweight or obese, increasing their risk of developing diabetes, heart disease, and hypertension and of having a shorter lifespan than their parents. While recent data suggest the problem may be stabilizing, the number of overweight adolescents has tripled in the last thirty years. The health and economic consequences of this epidemic are severe. The solution is to make better nutrition and increased physical activity a part of our children's everyday routine. This sounds simple, but making the necessary changes is anything but. Significant hope for a solution lies in the success of a number of initiatives around the state, the commitment of stakeholders, and the leadership of the Massachusetts Department of Public Health.

The problem and potential solutions were discussed at the June 19, 2008, Massachusetts Health Policy Forum, Childhood Obesity in Massachusetts: Costs, Consequences and Opportunities for Change, cosponsored by the Harvard Pilgrim Health Care Foundation. The details of the problem including trends in Massachusetts, costs and consequences, and innovative programs and policies in the Commonwealth and throughout the country were outlined by Jennifer Sacheck, Ph.D., Assis-

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Commissioner Auerbach pledged that within a year the Department of Public Health will propose a statewide plan to address childhood obesity.

tant Professor at the Friedman School of Nutrition Science and Policy, Tufts University, and can be found at

<http://masshealthpolicyforum.brandeis.edu/forums/forum-pages/Childhood%20Obesity.html>.

This policy brief will focus on the potential solutions and policy challenges posed at the forum by our panel of speakers, which included Senator Susan Fargo, Senate Chair of the Public Health Committee; John Auerbach, Massachusetts Commissioner of Public Health; Joseph A. Curtatone, Mayor of Somerville; and James A. Caradonio, Superintendent, Worcester Public Schools.

Tipping the Scales in Favor of Our Children, a recent report sponsored by the Harvard Pilgrim Health Care Foundation, concluded that many people and organizations in Massachusetts are working to reduce childhood obesity, including schools, community centers, health plans and others. Karen Voci, Executive Director of the Foundation, said at the Forum, “there is a lot of energy and an emerging grassroots movement to work on this issue. What we need now is a public policy strategy to combat childhood obesity, to sustain this effort.” John Auerbach, Commissioner of the Massachusetts Department of Public Health, rose to the challenge, saying “We have to think big,” and pledged that within a year the Department of Public Health will propose a statewide plan to coordinate and lead the effort to address childhood obesity. Funding for a Governor’s Commission on Childhood Obesity to help pay for the development of a coordinated strategy is currently being considered in the state legislature.

From left, Senator Susan Fargo, Senate Chair, Public Health Committee; John Auerbach, Mass. Commissioner of Public Health; Somerville Mayor Joseph Curtatone; Superintendent James Caradonio, Worcester Public Schools.



Causes and Costs of Childhood Obesity

Obesity is determined by the individual, interpersonal factors, organizations, the community and the broader social environment. The rise in obesity is due to a growing imbalance of energy intake through diet, and expenditure through physical activity, resulting in extra calories that lead to weight gain. On the diet side of the equation, children have widespread access to cheap unhealthy food, large portion sizes, and eat away from home more frequently than in the past. On the physical activity side, children spend more time in front of the TV and computer and less time outside playing. Schools are cutting down on recess and physical education. Efforts to address childhood obesity must consider each of these factors, and how these factors work together to create an environment that leads to obesity rather than healthy energy balance.

The costs of childhood obesity include health effects such as diabetes, cardiovascular disease, sleeping problems and sleep apnea, and social effects such as stigmatization and teasing. Annual medical costs are \$200 more for an overweight or obese child compared to a healthy weight child in Massachusetts. Overweight and obese children are more likely to become obese adults, creating an increasing burden of health costs and consequences over the life course. Children's productivity is impacted when they are obese or overweight, and academic performance and test scores may suffer.



Dr. Jennifer Sacke presented the science to guide policy to address childhood obesity.

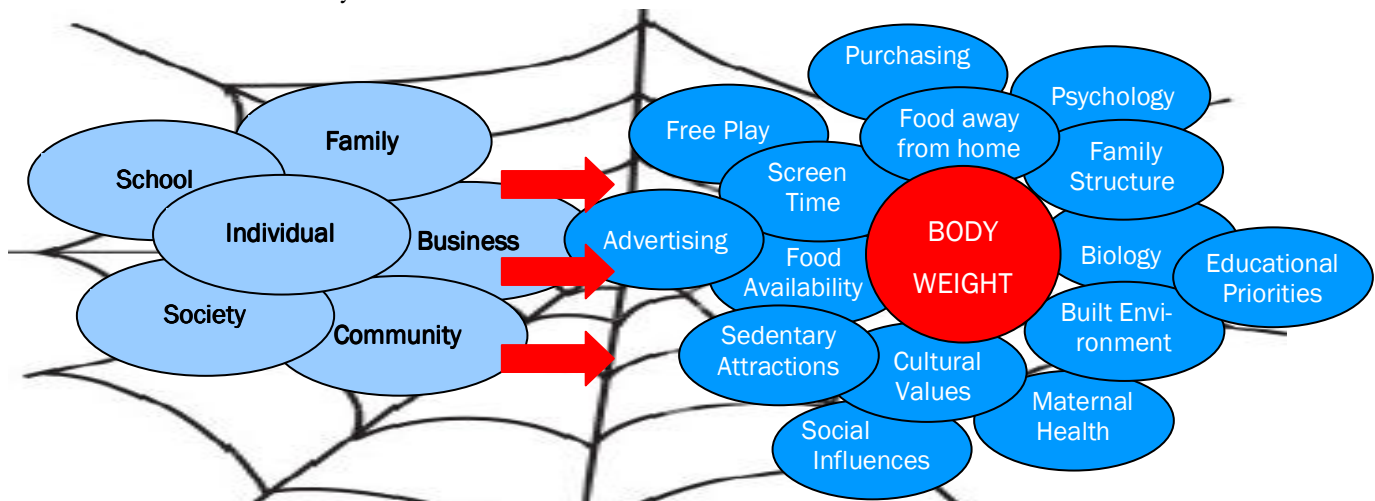


Figure 1: The inter-connected web of environmental factors that contribute to energy imbalance and obesity.¹



Representative Peter Koutoujian's school nutrition bill would help address some factors associated with childhood obesity.

Key Policy Suggestions

Dr. Sacheck emphasized the need to work toward long term results and sustainability in order to have the greatest impact. This requires addressing the root causes of obesity. Policy must be coordinated to consider food availability, educational priorities, the built environment, advertising, family structure, psychology, biology, recreation, and transportation.

School Nutrition

According to research, the energy gap that leads to weight gain in children is as small as a can of soda or a small bag of chips a day, and better school nutrition can help close this gap. Currently just 30 percent of Massachusetts schools have wellness policies that meet minimum federal requirements for nutrition and physical activity. About a third of those wellness policies do not include plans for evaluation and communication of findings. There are resources available to help schools develop their wellness policies,² and increased enforcement of standards and evaluation of the plans' effectiveness could enhance students' health statewide.

Other promising school nutrition policy options include increasing school participation in breakfast programs, changes in nutritional standards to limit the availability of junk foods, and increasing the nutrient content of meals and the number of servings of healthy foods such as milk, fruits and vegetables and whole grains. The number of low-nutrient food choices available in schools is crowding out more nutritious foods as children select snack and desert items over healthier options. The school nutrition bill sponsored by Representative Peter Koutoujian would address some of these issues. It would direct the Department of Public Health to set standards to limit junk foods in accordance with Institute of Medicine guidelines, increase the availability of fresh foods in schools, and establish a Governor's Commission on

Childhood Obesity to develop a coordinated statewide plan to reduce childhood obesity.

“How do we make nutritious delicious?” asked Worcester Public Schools Superintendent James Caradonio, adding that controlling foods in schools is a challenge because banning items and constraining choice goes against the grain of American culture. School nutrition policy should involve food service providers, who are essential to the effort to encourage children to choose more nutritious foods. Additional resources may be needed to enable school nutrition staff to make needed changes. Healthier food service methods and fresh foods may require more preparation time or new equipment, and different storage and purchasing strategies.

Caradonio pointed to the tension between aiming to increase revenue by increasing school lunch participation, and creating stigma experienced by lower income children who qualify for a free lunch. He suggested providing universal healthy lunches for all students, observing, “If meals were made free for everyone, it would save money now spent on administration and monitoring of meals subsidies, and remove the stigma of having a free lunch.” The superintendent advocated creating an improved system to deliver healthy school meals with the resources at hand, rather than “waiting for a cash infusion to make ourselves a healthy nation.”

Physical Activity

“It is easier to increase MCAS scores than it is to decrease BMI. But it’s not either/or, we have to do both,” said Superintendent Caradonio. Just increasing student participation in physical education classes from one to three times a week is enough to close the energy gap, according to Dr. Scheck. Physical activity policy options include increasing mandatory attendance and frequency of physical education in school; school-



Dr. James Caradonio discussed the challenges associated with offering more healthy school food choices, asking, “How do we make nutritious delicious?”



Dr. Caradonio cautioned against “waiting for a cash infusion to make ourselves a healthy nation.”

based administration of annual fitness testing; and utilization of BMI and fitness data to drive physical education programs.

In Massachusetts, educational priorities are a key public issue, and the trend in physical activity participation among students shows the effect: in 1993, 80 percent of students attended physical education class in an average week, but by 2007, this percentage had fallen to just over 60 percent.¹ Fewer than half of Massachusetts students are physically active for at least 60 minutes a day, and activity decreases as children progress from 9th to 12th grade.¹ According to Sacheck, Massachusetts is not alone in providing insufficient physical activity in schools, in fact Illinois is the only state that requires physical education for all grades, every day.

Healthy Communities

Dr. Sacheck pointed out that the energy gap can be closed through measures such as decreasing children’s television viewing by 1.4 hours daily or by walking 1.9 hours instead of sitting. These changes can be implemented at the individual level and/or through environmental changes. Policy targeting the environment includes regulation of food marketing to children, zoning changes to improve access to affordable healthy food, and promotion and increased public acceptance of breastfeeding.

Almost a third of high school students report three or more hours per day of non-school related computer usage, and 28 percent report three or more hours daily of TV viewing. Environmental improvements that increase walkability and cyclability of neighborhoods are needed, such as attractive sidewalk networks, schoolyards, playgrounds and trails that are safe and accessible, and bike-friendly areas. Commissioner Auerbach cautioned that these improvements be targeted to address the needs of disproportionately affected communities with higher rates of childhood obesity. “Well-resourced recreational facilities are more

prevalent in affluent communities, and kids are more likely to use these facilities when they are within walking distance,” observed Auerbach.

Audience members pointed out that cultural differences in attitudes toward obesity and practices related to food choices and physical activity must be understood, respected and accommodated through culturally adaptive approaches. Healthy adaptations of culturally-preferred foods and cooking methods must be sought and encouraged by those working to promote healthy eating and activity among a diverse population, and in order to reduce racial, ethnic and socioeconomic disparities in overweight and obesity.

Early Intervention

Senator Fargo called for modification of a current Massachusetts statute that makes public breastfeeding illegal. Obesity is a problem over the life cycle, often developed early in life and creating lasting effects, so preventive interventions can begin even before birth. Research shows a decrease in BMI among young children who are breast fed compared to those who are not. Promotion of breastfeeding among mothers is needed, and environmental accommodation can be improved in businesses and the workplace, and in communities. Legislation to address this issue has been passed by the House and the Senate.

Tracking Success

Tracking success is critical to any initiative. BMI indicators and fitness assessments provide data that can be used to communicate the nature of the problem and raise awareness. State regulation of standards and requirements for collection and reporting of BMI measurements should be considered. Privacy protections should be included, so that schools avoid exacerbating the stigma associated with being overweight. Commissioner Auerbach suggested that the state and foundations can reinforce the use of BMI assessments by requiring that measurements be tracked by grantees as program outcomes.



Senator Susan Fargo pointed to the importance of breastfeeding to early prevention of childhood obesity; she has filed legislation to address the issue.



Mayor Joseph Curtatone encouraged other communities to apply Shape-Up Somerville's model to promote healthy living.

Somerville: A Model Healthy Community

“We took research and developed it into policy,” said Somerville Mayor Joseph Curtatone. With CDC sponsorship, Shape-Up Somerville: Eat Smart, Play Hard was initiated by Tufts University, engaging schools, business and the community in cooperative efforts to promote healthful diet and lifestyles. Consisting of more than 11 initiatives and 25 stakeholders, Shape-Up Somerville has effectively controlled childhood overweight and obesity, as evidenced by a decrease in children’s BMI compared to other communities.³

What began as a school-focused study has grown into a community-based wellness initiative, including wellness policies and programs at the municipal level. Children in Somerville Public Schools have access to fresher, healthier food options, in addition to a revised, active curriculum and enhanced opportunities for nutrition and physical activity inside and outside of the school environment. changes encourage healthy living by providing safer walking environments, including newly-painted crosswalks with long-lasting paint, increased lighting, amended street regulations that allow for more one way corridors around school buildings, and employee benefit incentives and wellness programs.

Mayor Curtatone discussed his city’s challenges in holding the line on zoning and city planning requirements to maintain a healthy environment. He credited Shape Up Somerville for changing the mindset of planners, resulting in a more holistic, longer-term view of planning that takes greater consideration of the health of the community than in the past. Auerbach echoed the mayor’s perspective, citing the role of local planning in prioritizing the location of supermarkets in low-income neighborhoods to provide a wider range of lower cost healthy food choices than those often provided by neighborhood convenience stores.

In addition to Somerville, a number of existing collaborative programs in Massachusetts are highlighted in the issue brief *Childhood Obesity in Massachusetts: Cost, Consequences and Opportunities for Change*, found on our website at <http://masshealthpolicyforum.brandeis.edu/forums/forum-pages/Childhood%20Obesity.html>.

Conclusion: Collaboration is Key

The obesity crisis must be dealt with on multiple, coordinated fronts and will require changes in the community to support changes in the schools and in our homes. “It can’t be addressed as a health issue alone. We have to think big,” stated Commissioner Auerbach, underscoring the importance of having all stakeholders at the table, spanning the health system, community and infrastructure development, and including education and transportation departments. The Commissioner gave his commitment to find a collaborative, comprehensive solution, saying, “We pledge that within a year we will come up with a proposal for a statewide plan that will complement all these activities and knit them together.”⁴

Senator Fargo called for a centralized statewide approach that wouldn’t impose a model from the top down, but encourage communities to band together to share resources and reinforce each other’s progress in reducing obesity. Mayor Curtatone, championing his city’s success in improving health community-wide, assured the panel that collaboration works and that “Massachusetts can be a model of best practices and innovation to address this issue.”

According to Karen Voci, “If we really want to cut costs and preserve Massachusetts as a model for the rest of the country on the health insurance issue, we have to get a handle on childhood obesity.” Senator Fargo added that government leadership and action is needed at both the state and local levels. Continued the Senator, “The window of pol-



Senator Fargo said that now is the time to pass good public health legislation to fight childhood obesity.



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icy opportunity is open to strike now and pass good public health legislation,” to halt the childhood obesity epidemic.

A critical mass of attention to the problem of childhood obesity may be forming. Growing community participation, stakeholder commitment, legislative attention and Commissioner Auerbach’s leadership are focused to address the issue. The school nutrition bill before the Massachusetts House proposes to address some of the key factors that contribute to the problem, and the bill has been approved by two legislative committees, Public Health and Health Care Financing, and is currently in the House Ways and Means Committee. More than 90 organizations have endorsed the bill, which has generated hundreds of op-eds and media stories. Somerville’s model of community collaboration may offer a statewide solution, said Mayor Curtatone. “We want to see a statewide, cross-sector, coordinated approach; it’s not hard, it takes an investment and a commitment to cultural and social values, and improved quality of life.”

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