

Overweight and Obesity in Massachusetts: A Focus on Physical Activity

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Introduction

Inadequate physical activity is a driving force behind the childhood obesity epidemic. Overall, Massachusetts ranks 33rd for percentage of overweight and obese children compared to the rest of the country, and dead last with the lowest percentage of high school students who meet the recommendation for 60 minutes of daily physical activity.¹ The state also ranks in the bottom 25% for overall policy environment to promote physical education.² With one in three children and two out of three adults in the nation overweight or obese,³ we are amidst a crisis of obesity-related disease, societal stress, and economic burden. Reversing this dangerous trend requires making physical activity a higher priority. Change needs to come through state-wide action, school initiatives, community-based intervention and requires support from a broad-based coalition of engaged stakeholders.

Potential actions and solutions were discussed at the May 16, 2012, Massachusetts Health Policy Forum, "Overweight and Obesity in Massachusetts: A Focus on Physical Activity," cosponsored by Blue Cross Blue Shield of Massachusetts, The Harvard Pilgrim Health Care Foundation, and The Boston Foundation. The details of the problem, including obesity and physical activity trends in Massachusetts, contributors to physical inactivity, costs and consequences were outlined by Jennifer Sacheck, Ph.D., Assistant Professor at the Friedman School of Nutrition Science and Policy, Tufts University. Dr. Sacheck described the range of state

Massachusetts ranks 33rd for percentage of overweight and obese children compared to the rest of the country, and dead last with the lowest percentage of high school students who meet the recommendation for 60 minutes of daily physical activity. activities aimed at addressing this crisis and outlined recommendations for further progress. She was joined by Virginia Chomitz, Assistant Professor also from Tufts, who emphasized the link between childhood physical activity, physical fitness and academic achievement. Chairman Jeffrey Sánchez, Commissioner of the MA Department of Public Health John Auerbach, Superintendent of Plymouth Public Schools Gary Maestas, and Chairman and CEO of William Gallagher Associates Philip Edmundson followed in a panel discussion about potential solutions which was moderated by Karen Voci, Executive Director of The Harvard Pilgrim Health Care Foundation. The full issue brief and conference presentations can be found at: http://masshealthpolicyforum.brandeis.edu/ forums/forum-pages/Physical-Activity.html.

Commissioner of Public Health, John Auerbach stressed the importance of integrating physical activity in daily routines. This is bolstered by the Institute of Medicine's (IOM) recommended strategies which include: 1) integrate physical activity every day in every way, 2) market what matters for a healthy life, 3) make healthy foods and beverages available everywhere, 4) activate employers and health care professionals, and 5) strengthen schools as the heart of health.⁴ Accordingly, efforts to address the obesity epidemic need to be coordinated on multiple fronts. The Massachusetts Department of Public Health has already launched several initiatives to make increased physical activity a more natural choice for residents, but budget cuts continue to undermine the scope and scale of programs. Additionally, legislation regarding improved physical activity requirements and enhanced physical education quality are currently pending in the state, and need to be aggressively promoted through increased public awareness of the benefits of daily physical activity.

Causes and Costs of Overweight and Obesity

Obesity is a complex issue with no single cause or solution. Physical activity helps maintain a healthy weight and improves one's overall health, self-esteem, cognitive development, psychological happiness, and academic performance. Despite these benefits, more than a quarter of U.S. adults do not engage in any leisure time activity.⁵ Among Massachusetts high school students, 67% are not engaging in the recommended 60 minutes of physical activity daily.⁶ Physical inactivity is rampant in large part due to several factors: increased screen time, lack of safe open spaces and walkable areas, overscheduled days, and cuts to physical education and recess time. Dr. Chomitz highlighted research that shows a positive relationship between physical activity and academic performance, however, the benefits of physical activity in schools continues to be neglected likely due to budget constraints and pressure on schools to achieve high standardized test scores.

The costs and consequences of overweight and obesity for individuals and communities are enormous. In 2012, obesity-related health care expenses reached a staggering \$190 are enormous. In 2012, obesity-related health care expenses reached a staggering \$190 billion, 21% of all medical spending.⁸ It is estimated that overweight and obese children's medical expenditures are about \$200 more per year when compared to their healthy weight



Figure 1. Physical Education Weighted Summary Score (2010) from the Classification of Laws associated with School Students, C.L.A.S.S. (National Cancer Institute).⁷

counterparts.⁹ Overweight and obese individuals are more prone to chronic diseases such as coronary heart disease, diabetes, and certain types of cancer not to mention higher rates of depression and lower self-esteem. Currently, one out of four high school students are now diabetic or pre-diabetic.¹⁰ Increasing opportunities for physical activity can make people healthier and may also save money. For example, for every \$1 spent on building biking and walking paths, nearly \$3 in medical expenses can be saved.¹¹ Obesity also has

major implications on businesses and productivity. Obese employees miss more days of work than non-obese employees. National security is also at risk with 27% of Americans aged 18-24 years who are too unfit to join the military.¹²

Promising Policy Solution

Dr. Sacheck emphasized the need for a coordinated approach to make engaging in enough physical activity the natural default. This requires statewide physical education and physical activity policies, funding for schools to enhance innovative initiatives, and change to the built environment that enhances access to safe routes to walk, open spaces, and public transportation. We need to retrofit communities so that they are more pedestrian and cyclist friendly, and step up our ability to evaluate programs and then promote best practices.

Activity in Schools

Superintendent of Plymouth Public Schools, Gary Maestas, said "We only have six to seven hours in a school day yet regulations keep getting piled on - the real issue is how to work more efficiently and effectively." The research is out there that physical activity is positively correlated to academic achievement, yet with limited time and resources, budget cuts, and pressure to perform well, schools are feeling overwhelmed. Children spend more than half of their waking day in school, which underscores the



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importance of school policies and initiatives focused on obesity prevention. Maestas suggested working with public private partnerships to enhance funding and building coalitions to support innovative ways to get children active.

In this vein, as part of the *Healthy Hunger-Free Kids Act of 2010*, this August, school wellness advisory committees will be implementing additional guidelines which include: involving additional participants such as parents and physical education staff, planning for obesity



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prevention strategies, setting goals and implementing these changes, and evaluating the success of these programs. Physical activity options include increasing the requirement and frequency of physical education and physical activity in schools, requiring annual fitness testing, and incorporating fun activity bursts throughout the day to keep children focused and active. These strategies have demonstrated success. The next step is to find the resources and creative ways to incorporate activity into and around the school day.

Massachusetts has a law that requires that physical education be offered in schools, however, there are no rules regarding the time children spend in physical education classes. There are no policies for recess requirements or fitness testing. In total, 44% of high school students do not attend PE class during an average week and 57% are not physically active for a total of at least 60 minutes a day on 5 or more days during the prior 7 days.¹³ We need to offer more opportunities for our children to be

physically active, strengthen requirements, and enforce more accountability that at least the minimal requirements are met.

The House Chair of the Public Health Committee, Representative Jeffrey Sánchez, has a pending bill "An Act to promote healthy people and a healthy economy in Massachusetts" (H.B. 1157) that specifies the number of minutes students should engage in physical activity. Representative Fox also has a pending bill "An Act for mandatory physical education for all students grades K-12" (H.B. 1053) which focuses on improving the quality of

physical education classes by specifying what should be taught in PE classes at each grade level. These efforts are a start towards ensuring that children get closer to the recommended physical activity necessary for good health.

Transportation Planning

Commissioner Auerbach emphasized the importance of coordination between health and non-health agencies, and highlighted transportation and education as key partners to ensure health in all policies. Transportation planning provides a great opportunity to improve health and activity opportunities. Success has already been demonstrated in the GreenDOT initiative which incorporates healthy modes of transit including walking and cycling within town design planning in order to engage communities in obesity prevention efforts. Further coordination with the Department of Transportation regarding health impact assessments will improve access to activity options within each community.

Senator James Eldridge sponsored S.B. 1019 requiring zoning laws and new standards that better align state health, environmental, and housing goals. Policies and programs must address the obesity epidemic through various domains including transportation and economic development to achieve lasting results.



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Workplace Wellness Initiatives

CEO of William Gallagher Associates, Philip Edmundson, highlighted workplace wellness initiatives which focus on creating the infrastructure to maintain and support a healthy workforce. Dr. Sacheck discussed the loss of productivity and costs due to health complications of obese workers. Many employees acquire health insurance through their workplace, and organizations have been examining the health status of their workers and the impact on health care costs. With increasing health insurance expenditures, businesses are turning to preventive efforts to help reduce costs and keep employees and their dependents healthier. Edmundson noted significant success from larger companies, but that these programs are more challenging for smaller companies to implement. He suggested that employers are increasingly using incentives based on health data to encourage healthy action and discourage unhealthy behavior.



Philip Edmundson suggested that employers are increasingly using incentives based on health data to encourage healthy action and discourage unhealthy behavior. The MA Department of Public Health has implemented a Working on Wellness Program to incorporate wellness into companies' overall mission by providing them with tools to improve activity and nutrition, as well as, ways to maximize the effectiveness of their health benefits.

Nutrition and Public Health

In 2010, Massachusetts passed the School Nutrition Bill under the stewardship of Chairman Sánchez, which curtailed the sale of salty and sugary snacks, as well as, high-calorie sodas in public schools, and established school wellness advisory committees. Despite this successful law, candy and soda are still subsidized by the government. Edmundson supports removing this sales tax exemption to see what effect this would have on consumption. Furthermore, money from the removed subsidy could be used to fund a Public Health Trust. The inclusion of a Public Health Trust is currently being debated as part of the health care cost containment legislation working its way through the legislature. A

Public Health Trust would provide a stream of funding for community-based public health efforts. Public health budgets have been cut across the nation and Massachusetts is no exception. This lack of support for public health undermines programs at the state and community level which have demonstrated long term costs savings in addition to people being healthier. A Public Health Trust would fund community efforts such as wellness programs in schools, and infrastructure improvements to increase access to safe parks and recreational facilities, pedestrian and bike paths, farmers markets, community gardens and other means to promote healthy eating and staying active.¹⁴ A Public Health Trust would put resources into the community to implement obesity prevention efforts that target the need of their area.

Conclusion: Health in All Policies

The obesity epidemic must be addressed through a coordinated approach that requires action at the state and community level and in schools and the workplace. "There needs to be a cultural change about what is the norm," stated Commissioner Auerbach, underscoring the importance of being more physically active and eating healthy. The Commissioner pointed to the success of the tobacco cessation movement which directly changed norms about smoking indoors as evidence that we can change behavior. He said, "This needs to happen for obesity prevention, and we are starting down this path." The data is out there: this may be the first generation of children not to outlive their parents due to obesity-related health complications, not to mention the economic burden placed on them.

A multi-faceted approach including public health officials, transportation departments, parents, schools, police forces, businesses, community centers, and others are required to change norms and make progress in reversing the obesity trend. Now is the time to act and implement some of these changes. Viable options include setting statewide policies that require quality physical education minutes in every grade, physical activity time in schools, and recess for elementary-aged children. Funding needs to be targeted towards communities to enhance these initiatives and bolster the work of the MA DPH. And we must implement zoning changes in the built environment around access to open spaces, public transportation, and walking routes, and build communities that are pedestrian and cyclist friendly. Continuous evaluation and monitoring to ensure the success of initiatives should be put into place. Attacking the problem from many angles will enable these efforts to positively impact the movement against obesity and make healthy living and staying active the norm.

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References

¹Trust for America's Health. *F as in Fat: How Obesity Threatens America's Future*. Washington D.C.: Trust for America's Health, 2011. Web. 3 March 2012.

< http://www.healthyamericans.org/assets/files/TFAH2011FasInFat10.pdf>

²National Cancer Institute. *Classification of Laws Associated with School Students*. Web Accessed May 2012.

<<u>http://class.cancer.gov/About.aspx</u> >

³Trust for America's Health. *F as in Fat: How Obesity Threatens America's Future*. Washington D.C.: Trust for America's Health, 2011. Web. 3 March 2012.

< http://www.healthyamericans.org/assets/files/TFAH2011FasInFat10.pdf>

⁴Committee on Accelerating Progress in Obesity Prevention, Food and Nutrition Board, Institute of Medicine (IOM) of the National Academies. *Accelerating Progress in Obesity Prevention Solving the Weight of the Nation*. The National Academies Press: Washington D.C., 2012.

⁵U.S. Centers for Disease Control and Prevention. "U.S. Physical Activity Statistics: Summary of Physical Activity, 2008." <u>http://apps.nccd.cdc.gov/PASurveillance/StateSumResultV.asp</u> ⁶Kaiser Foundation: State Health Facts. "Percentage of High School Students Not meeting Recommended Physical Activity Level, 2009." Kaiser Foundation: 2009. Web Accessed March 2012.

<a>http://www.statehealthfacts.org/comparemaptable.jsp?

typ=2&ind=766&cat=2&sub=27&sortc=1&o=a >

⁷lbid

⁸Cawley J, Meyerhoefer C. "The medical care costs of obesity: an instrumental variables approach." *Journal of Health Economics*, 31:219-30. 2012

⁹Finkenstein E, Trogdon J. "Public health interventions for addressing childhood overweight: analysis of the business case. *American Journal of Public Health*. 2008;98(3): 411-415 ¹⁰Sacheck, J., Glynn, A. "Overweight and Obesity: A Focus on Physical Activity." *Massachusetts*

Health Policy Forum. 2012.

 ¹¹Busko M. "As treatment costs soar, AHA preaches prevention as savvy investment." *Heartwire* July 26, 2011. <<u>www.theheart.org/article/1256761.do</u> > (assessed March 10, 2012)
¹²Mission: Readiness Military Leaders for Kids. "Too Fat to Fight: Retired Military Leaders Want Junk Food Out of America's Schools." Washington D.C.: 2010. Web March 2012.<<<u>http://cdn.missionreadiness.org/MR Too Fat to Fight-1.pdf</u> >

¹³Massachusetts Department of Elementary and Secondary Education. Massachusetts Department of Public Health. Health and Risk Behaviors of Massachusetts Youth. Youth Risk Behavior Surveillance Survey (YRBSS) 2009. Web Accessed March 2012. < http:// www.mass.gov/eohhs/docs/dph/behavioral-risk/2009-yrbs.pdf >

¹⁴Massachusetts Department of Health and Human Services. "Mass in Motion." 2011. Web Accessed March 2012.

<<u>http://www.mass.gov/eohhs/consumer/wellness/healthy-living/mass-in-motion-</u> english.html>

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The issue brief for this forum as well as all forum presentations and materials are available on the Massachusetts Health Policy Forum website at: <u>www.masshealthpolicyforum.brandeis.edu</u>

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