OFFICE OF THE STATE COMPTROLLER
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Soaring Health Care Costs Highlight Need To Address Childhood Obesity

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Overview

Obesity rates in New York State and the nation have jumped sharply in recent decades. Childhood obesity, in particular, has become much more common – nearly tripling nationwide since 1980. According to the New York State Department of Health (DOH), 17 percent of New Yorkers under the age of 18 – or approximately 735,000 young people – are obese. An estimated 32 percent, or 1.4 million, are overweight or obese.[1] The sharp rise in obesity places tens of thousands more children at higher risk of serious physical health problems such as diabetes and asthma, as well as psychological issues including depression.

The increased prevalence of obesity is also an important factor in burgeoning health care costs for employers, consumers, and taxpayers. Total obesity-related costs in New York State are estimated at more than $11.8 billion annually. Some $4.3 billion of such expenditures are funded by Medicaid, with roughly half of that cost paid by New Yorkers' State and local taxes. Another $7.5 billion of obesity-related costs are paid by Medicare, employers' and workers' health-insurance premiums, and uninsured individuals.[2]

Obesity-related expenditures for children are a comparatively small part of the overall picture. However, childhood and the teen years are the period when many individuals enter a long-term struggle with their weight – as well as the time when health care costs associated with obesity start to mount. National data show that the percentage of children aged 10 to 17 who are classified as overweight or obese is higher in New York than in two-thirds of the 50 states.[3] The increased prevalence of childhood obesity can be expected to add billions of dollars more to health care costs in the years ahead, as overweight children and teens become adults. Some of these costs may be avoidable, given the right mix of public policies and personal choices throughout society.

New York State has taken some initial steps to address the obesity epidemic. Examples include legislation enacted in 2007 that requires reporting of weight status for school students outside New York City.[4] Such reporting is one important step toward measuring trends among overweight and obese children. The State also

revised its Women, Infants and Children (WIC) nutrition program in 2009 to promote the consumption of skim or low-fat milk rather than whole milk, and to increase consumption of vegetables year-round. The State Education Department (SED) has issued regulations restricting the sale of candy and soda in schools. However, audits by the Office of the State Comptroller (OSC) have found that school districts often failed to comply with these rules, as well as other regulations intended to ensure regular physical activity.

The magnitude of the obesity challenge demands a more comprehensive, more sustained, and vigorous response. Specifics of such an initiative should be identified by DOH, which bears primary responsibility for promoting public health in the State. New York is in the midst of a broad restructuring of its Medicaid policy. This "Medicaid redesign" is defined as pursuing three major goals: improving quality of care, addressing root causes of poor health, and controlling costs.[5] The obesity epidemic represents a significant threat to the State's efforts to improve health outcomes and control health care costs. At the same time, the redesign of Medicaid offers a clear opportunity to address the obesity epidemic more comprehensively, as increased research by academics and health care professionals identifies the most effective solutions to the problem.

DOH has proposed a new initiative, to be funded with federal dollars, to provide intensive behavioral counseling for an estimated 5.0 percent of Medicaid beneficiaries who are obese. If the federal government approves the plan, it would represent the State's most ambitious effort yet to reduce obesity, but would still leave much of the problem unaddressed. DOH has declared that obesity and overweight status may soon overtake tobacco consumption as America's leading preventable cause of death. To date, the State's response to the growing threat of obesity is not proportionate to DOH's own assessment of the problem. If New York fails to act more aggressively and effectively, the costs of obesity – both human and fiscal – will continue to rise in the years ahead.

Rising Prevalence of Childhood Obesity

According to the Centers for Disease Control and Prevention (CDC), a component of the U.S. Department of Health and Human Services, the terms "overweight" and "obese" refer to ranges of weight that are greater than what is generally considered healthy for a certain height. A calculation known as the body mass index (BMI), based on the ratio of a person's weight to height, generates a figure that typically correlates to the amount of body fat, and determines whether the person is classified as overweight or obese.[6] Even children as young as six months of age may be considered obese. Nationally and in New York, childhood obesity has now reached epidemic proportions.[7]

During the 1980s and 1990s, nationwide obesity prevalence among children and teens tripled, from around 5.0 percent to approximately 15 percent. According to CDC, the rate of increase has slowed nationally over the last decade, and may be leveling off.[8]

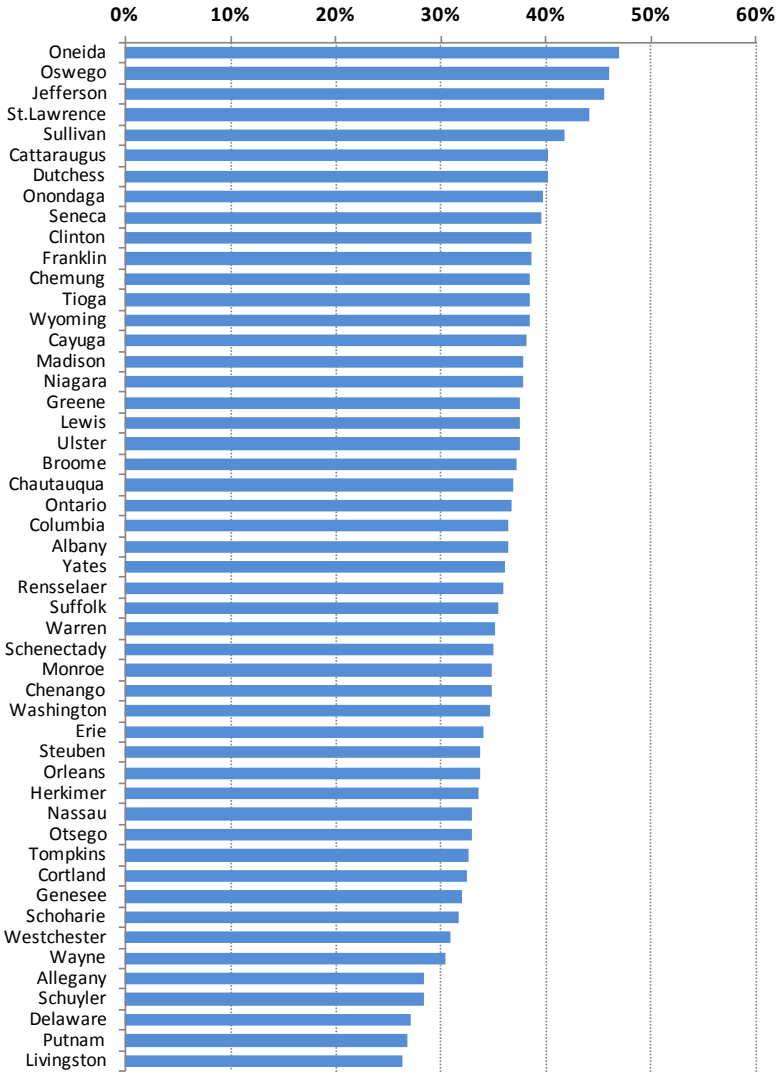
DOH reports a similar jump in childhood obesity rates in New York. The Department estimates that 17 percent of students in pre-kindergarten through high school were obese during the two school years from 2008 to 2010, while another 15 percent were overweight. ("Obese" indicates BMI at or above the 95th percentile for a student's age group, while "overweight" refers to those above the 85th percentile.) Generally, children who are African-American or Hispanic are more likely than non-Hispanic whites to suffer from obesity, although such variations are also associated with income and education. Low-income children and adolescents are proportionally more likely to be obese than their higher-income counterparts, although low-income youth represent a minority of all obese children and adolescents in absolute terms.[9]

An estimated 17 percent of New York students were obese during the 2008 to 2010 school years.

A separate measure of obesity rates at the county level emerges from amendments to State Education Law, enacted in 2007, which require student health certificates to include body mass index and weight status information for pupils in kindergarten and grades 2, 4, 7 and 10. Such information is based on a physical examination (usually performed by the student's personal physician) and sent by schools to DOH.

Based on the DOH weight status data by county outside New York City, a median of 20 percent of students in 7th and 10th grades were classified as obese in school years 2008-09 and 2009-10 (districts are on a biennial reporting cycle).[10] Including overweight as well as obese students, the median reaches 36 percent; in seven counties that proportion rose to more than 40 percent of enrollment. Figure 1 illustrates DOH's county-level data on the proportion of students in 7th and 10th grades who were reported as either overweight or obese in the 2008-09 and 2009-10 school years; Appendix A presents such estimates numerically as well as data on obesity only. (Data for some students – roughly one in three, in the typical county – were not reported to DOH for reasons including confidentiality restrictions in smaller schools, lack of documentation from health care providers or other factors. Appendix A includes the percentage of students in each county for whom data were reported; such percentages vary and should be considered along with the proportion of students reported as overweight or obese.) New York City schools collect data separately. As of the 2010-11 school year, an estimated 20.7 percent of elementary and middle school students in the City were considered obese.[11]

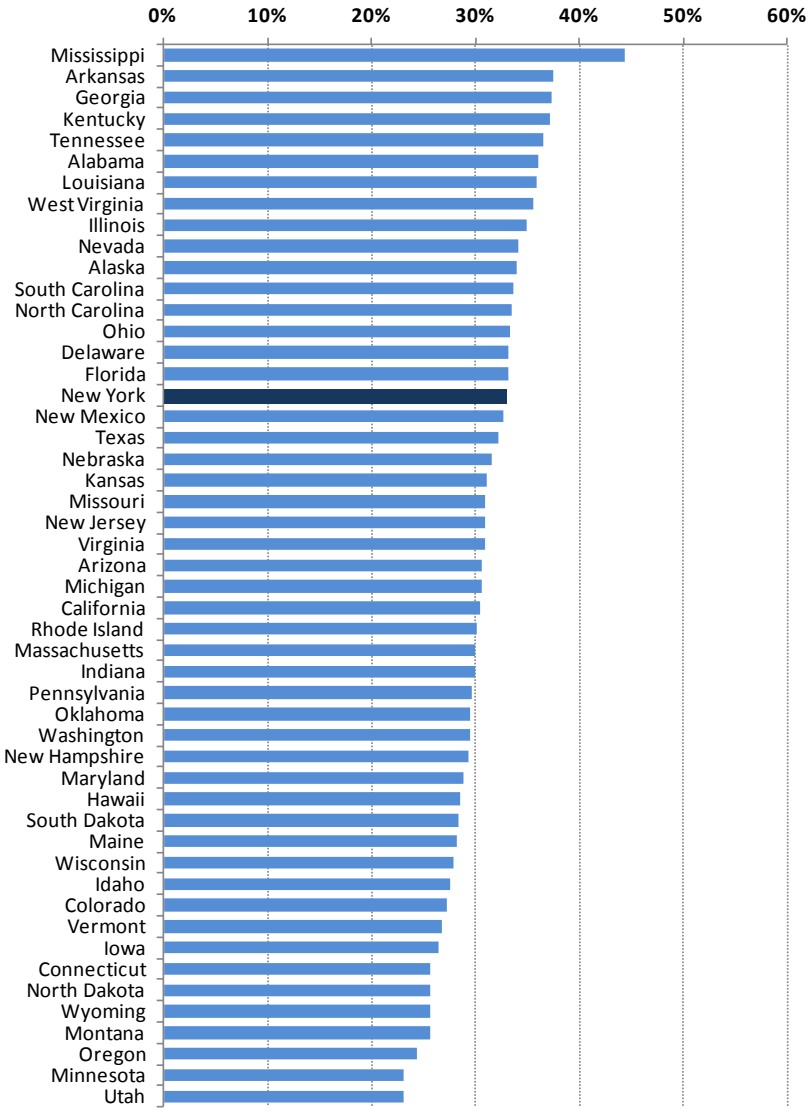
Figure 1: Student Weight Status By County
Percentage of 7th- and 10th-Grade Students Reported as Overweight or Obese



Source: School district data for 2008-09 and 2009-10 school years reported to New York State Department of Health

Forty-one states have adult obesity rates higher than New York's, according to CDC data analyzed by the Trust for America's Health (TfAH) and the Robert Wood Johnson Foundation.[12] Yet when it comes to childhood obesity, New York's position is mixed. The 32.9 percent of children aged 10 to 17 who are overweight or obese is 17th highest among the 50 states, TfAH's analysis found. Meanwhile, among high-school students, New York ranks 30th in the nation. Figure 2 illustrates estimates of the proportion of overweight and obese children aged 10 to 17 in each state; Appendix B provides state-by-state comparisons for both high-school students and for children aged 10 to 17.

Figure 2: Childhood Obesity and Overweight Status, by State
Percentage of Children Aged 10-17 Reported as Overweight or Obese



Source: Trust for America's Health, 2007 National Survey of Children's Health

The Financial and Human Costs of Obesity

"Childhood obesity often tracks to adulthood and, in the short run, childhood obesity can lead to psychosocial problems and cardiovascular risk factors such as high blood pressure, high cholesterol, and abnormal glucose tolerance or diabetes," according to a CDC research brief.[13] Obesity also drives higher rates of heart disease, asthma and several forms of cancer, according to DOH.[14]

Beyond these human costs, obesity also has significant financial consequences. New York's Medicaid program – funded by federal, State, and local tax dollars – spends

more than $4.3 billion a year as a result of obesity, according to one widely cited estimate.[15] These costs include obesity-related treatment for diseases such as diabetes, hypertension, asthma, arthritis, and high cholesterol. In addition, private health insurance and Medicare pay out an estimated $7.5 billion more for obesity-related expenditures each year in New York, according to the study. The study is based on data from the Medical Expenditure Panel Survey, a nationally representative survey of individuals' medical spending, height and weight, and other factors.

While the majority of obesity-related costs support services for adults, the Office of the State Comptroller estimates that, in New York, children's medical costs that are attributable to overweight status and obesity totaled $327 million in 2011. This figure reflects Department of Health estimates of the number of obese and overweight individuals and Medical Expenditure Panel Survey data on per-child medical costs attributable to obesity.[16]

Causes, Solutions and New York State's Response

While New York has taken some steps to address the epidemic, policy actions to date may not be sufficient to influence the prevalence of obesity significantly.

Health care experts generally agree on many of the causes of the increase in obesity, including lifestyle, environmental, and genetic factors. Decisions influencing the number of calories consumed, as well as calories used in physical activity, are inherently matters of individual choice. Thus, public policy responses alone will not entirely solve the problem. Yet federal, state, and local governments all have key roles in shaping health care policy, the daily experiences of school children, and other factors that can influence personal choices.

Identifying specific public policy solutions is also complicated by sometimes conflicting research regarding causal factors and potential solutions. For example, some researchers have concluded that obesity rates are higher than average in neighborhoods that lack full-service supermarkets – often called "food deserts" – and where fast-food restaurants are readily available.[17] Other studies have found little or no relationship between the kinds of food sold in a given neighborhood, and obesity among children and adolescents who live there.[18] Further research is needed to resolve such questions.

The National Academies' Institute of Medicine (IOM), the nonprofit research organization chartered by the federal government to provide authoritative advice on health care matters, issued a report in April 2012 on "Accelerating Progress in Obesity Prevention." Among other findings, the report concluded that "The causes of increased obesity in the United States – the influences that have led people to consume more calories (or energy) through food and beverages than they expend through physical activity – are multifactorial, ranging from cultural norms, to the availability of sidewalks and affordable foods, to what is seen on television. Many causes of obesity are the result of multiple changes in U.S. society that have affected various aspects of contemporary life, including physical activity and food consumption patterns." The IOM report outlined principles to guide work on obesity prevention, calling for "cultural and

societal changes" involving a wide variety of public- and private-sector activities. Its recommended principles also included this admonition: "The cost, feasibility, and practicality of implementing prior and further recommendations must be considered." [19]

CDC and other experts consistently recommend healthier school meals as one means of improving children's food consumption. SED allows New York school districts to set their own guidelines for the kinds of foods and beverages sold outside of the school lunch program (through vending machines, school stores, etc.), known as competitive products. However, SED regulations restrict sales of some competitive foods to after the last lunch period. In 2008 and 2009, the Office of the State Comptroller conducted statewide audits of school lunch services. Auditors found that New York City schools were routinely selling junk food, including candy and soda;[20] a follow-up audit issued in September 2010 found that City schools had made significant progress in correcting problems identified in the original audit.[21] Another audit of school meals at 20 districts across the State found that nearly 40 percent of competitive foods and beverages did not meet the district's own nutritional guidelines.[22]

An estimated 27.6 percent of New Yorkers aged 6 to 17 participate in vigorous physical activity daily.

Data from the 2007 National Survey of Children's Health show that 27.6 percent of New Yorkers aged 6 to 17 participate in vigorous physical activity every day, according to the TfAH report. However, in two-thirds of the states, the proportions of young people who were physically active were higher than in New York. Given the direct connection between obesity and lack of exercise, SED regulations require school districts to provide students with physical education classes that meet a minimum frequency and duration by grade level. For example, regulations require all children in grades kindergarten through 3 to participate in daily physical education programs, totaling at least 120 minutes per week.[23] Audits by the Office of the State Comptroller, released in December 2008, found that only 1 of 20 school districts reviewed were in compliance with these requirements.[24] Elementary school students were especially likely to miss out: for grades K through 3, 18 of the 20 school districts failed to meet the minimum physical education requirements and, on average, children in grades K through 6 received only 72 percent of the required class time.

An October 2011 audit of 31 schools by the New York City Comptroller found "limited evidence that any of the sampled schools were in compliance with the SED physical education requirements for all of its students."[25] Among reasons reported for lack of compliance were principals' lack of awareness of State physical education requirements, lack of funding, and lack of space for physical education classes.

Needed: Continued Leadership from the Health Department

The State Department of Health is charged with broad responsibility for promoting public health in New York. On its website, DOH includes this urgent statement of concern:

> Obesity and overweight are currently the second leading preventable cause of death in the United States and may soon overtake tobacco as the leading cause of death. Failing to win the battle against obesity will mean premature death and disability for an increasingly large segment of New York residents. Without strong action to reverse the obesity epidemic, for the first time in our history children may face a shorter lifespan than their parents.[26]

This statement reflects the increasing national consensus that the obesity epidemic requires broad and forceful response. Yet, in the context of a leading cause of illness and preventable deaths, the Department's efforts to address the epidemic have been relatively modest. The limited scale of such activities reflects both policy direction and funding from the Legislature, and the Department's own choices regarding staff, budget, and other resource allocations.

DOH's Center for Community Health spent $6.7 million on obesity and diabetes services in SFY 2011-12, and is expected to spend a similar amount in SFY 2012-13 on programs that focus, in part, on improving pediatric care for at-risk children. In November 2011, DOH announced awards of up to $4.5 million to nine regional organizations combating obesity in 36 counties. Organizations receiving childhood obesity program grants include Maimonides Medical Center (for services in Kings County), the Clinton County Department of Health (Clinton, Essex, Franklin and Hamilton counties), and the University of Rochester (Livingston, Monroe, Ontario, Seneca and Wayne counties). Recipients receive initial awards of $150,000 for an 18-month period and may qualify for additional awards to a maximum of $500,000 over five years.

From February to October 2011, DOH engaged in a media campaign on the theme of "iChoose600" to encourage restaurant customers to order meals of 600 calories or less. Billboard, bus, and shopping mall advertisements were placed in four counties (Albany, Schenectady, Suffolk and Ulster) where local laws require some chain restaurants to post calorie labels. The priority audience was low-income, minority women with children. The campaign, funded by a $1.5 million federal grant from CDC, increased restaurant customers' use of publicly posted calorie labels, according to DOH.[27] In October 2012, with $400,000 in State dollars, DOH relaunched the campaign on buses, digital billboards and shopping malls in Albany and Schenectady counties, as well as on the Internet. The new campaign will continue into December 2012.

As highlighted in the website statement mentioned above, DOH considers the health threat posed by obesity to be at least roughly comparable to the long-recognized dangers caused by use of tobacco. Compared to its efforts regarding obesity, the State funds and undertakes more extensive programs to discourage tobacco

consumption. DOH spent $40.6 million in State Health Care Reform Act funds for such purposes in SFY 2011-12. Separately, the State's Medicaid program covers smoking cessation therapies such as nicotine patches.

DOH recently outlined plans for its most ambitious anti-obesity initiative to date. As part of an application for a five-year, $10 billion federal waiver to restructure New York's Medicaid program, the Department has proposed an obesity treatment initiative for Medicaid eligible adults and children age 6 or older. If the federal government approves the State's waiver application, clinicians would screen Medicaid recipients for obesity and offer intensive counseling and behavioral interventions to promote sustained weight loss, starting in 2013.

DOH expects about 38,500 adults and 10,000 children to enroll in the first full year of this initiative, at a total cost of $81 million in new federal funding. DOH expects the program to generate long-term savings based on fewer chronic conditions such as diabetes, heart disease, and hypertension, as well as fewer obesity-related office visits and hospitalizations.

The Health Department is seeking federal approval for a new anti-obesity initiative to cover 48,500 adults and children initially.

If approved, this new initiative would represent a significant step forward in attacking obesity. Experience from the program could provide valuable insights for broader State efforts in future years, and for private-sector health plans that wish to address obesity more aggressively. DOH's proposal is designed to deal with cases where behavioral therapy is considered most likely to succeed – instances where "there is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial."[28] Such targeting may make sense from an immediate cost perspective. Still, the proposed initiative would cover only one in 20 eligible beneficiaries in the first year. That would leave the needs of hundreds of thousands of obese adults and children unaddressed – along with those of overweight individuals who are at risk of obesity. DOH has not indicated specific plans as to how many individuals would be covered in succeeding years.

DOH's obesity-related initiatives of recent years follow the publication, in 2005, of the Department's statewide "Strategic Plan for Overweight and Obesity Prevention."[29] The plan, developed with funding from CDC and representing two years of research and community engagement, identified these overall priorities:

- Increase the proportion of New Yorkers who are physically active;
- Increase perception of obesity as a public health risk and use of Body Mass Index to improve early recognition; and
- Increase access to healthy food choices, particularly by low-income populations.

DOH has indicated that its plan is not intended to define the multiple actions needed to fully implement effective strategies, but to provide New Yorkers with a road map to

guide that work. However, if responsibility is not assigned to specific actors, and if specific goals and timeframes to meet such goals are not identified, analyzing and reporting on accomplishments becomes difficult if not impossible. It is not surprising, then, that over the more than six years the plan has been in place, there has been no formal evaluation of progress to date.

In contrast to the lack of reportable progress on the State's efforts to battle obesity, New York State has reported significant strides over the last decade in decreasing the rates of underage smoking. During that time, the proportion of middle-school children who smoke decreased by nearly 70 percent, and that of high-school students by more than 50 percent.[30] Tobacco use prevention programs have been in place much longer than programs addressing obesity, and can offer useful guidance. Assessing progress of such prevention efforts regularly and carefully can help to keep results and goals in the public discussion.

Are Managed-Care Plans Managing Obesity?

New York may be better positioned than most states to deal with the rising tide of obesity. Some research shows that uninsured children are more likely to be overweight or obese. The proportion of children who are uninsured is relatively low in New York. Census data showed approximately 6.6 percent of children in New York were uninsured in 2011, compared to 9.4 percent nationally.

In recent years, health plans doing business in New York – including those participating in Medicaid managed care – have taken steps to help address the obesity epidemic, according to managed care performance reports issued by DOH. These reports show improvement in the plans' efforts to provide weight assessment and nutrition counseling for children and adolescents, as well as adult BMI assessment. Plans participating in Medicaid managed care showed more improvement on both measures of weight assessment and nutrition counseling, which are critical first steps in identifying and addressing risks of overweight status and obesity. As shown in Figure 3, from 2008 to 2010, rates of children and adolescents receiving weight counseling for nutrition increased from 57 to 71 percent in the Medicaid managed care program. Rates of adult BMI assessment in Medicaid managed care increased from 45 to 70 percent over the two-year period.[31]

Figure 3: New York Health Plans' Steps to Address Obesity and Overweight

Percentage of plan participants receiving selected services, 2008-10

	2008	2009	2010
Children and adolescents			
Weight Assessment			
Commercial HMO	51	55	62
Medicaid Managed Care	43	51	65
Child Health Plus	47	55	64
Weight Counseling for Nutrition			
Commercial HMO	65	66	66
Medicaid Managed Care	57	61	71
Child Health Plus	61	65	70
Weight Counseling for Physical Activity			
Commercial HMO	57	57	59
Medicaid Managed Care	43	48	58
Child Health Plus	51	56	61
Adults			
Body Mass Index (BMI) Assessment			
Commercial HMO	40	48	56
Medicaid Managed Care	45	55	70

Source: NYS Department of Health Quality Assurance Reporting Requirements (QARR) reports, 2009 through 2011

Potential for Other Policy Initiatives

DOH's proposal for additional federal funding, focused on a relatively small cohort of obese Medicaid beneficiaries, illustrates a key challenge in addressing the epidemic. Investing more dollars in prevention today may well pay off in better health outcomes and in reduced health care expenditures in the future. But at a time when the State faces continuing budget challenges, more dollars for even highly desirable new initiatives are not readily available.

Given the rising costs of obesity, State policy makers may consider devoting more resources to prevention efforts. In addition, New York, its local governments, and school districts generally have several kinds of authority that can be brought to bear on health-related issues without additional budgetary resources. Each such type of authority involves significant policy choices based on economic, social, and other concerns. Examples of potential options for addressing the obesity epidemic include:

- ***Better collection and use of data.*** Policy analysts, economists, and others have argued for years that the U.S. health care system can be made more cost-efficient through more intensive use of available data to identify potential improvements in medical systems and practices. The State already uses health care data for a limited number of such purposes – information on hospitals' treatment of heart disease, for example.

- ***Regulatory authority.*** The State and local authorities may adopt regulatory actions that limit or promote certain behaviors. Examples include the local laws or regulations that New York City and several counties in the State have adopted to require that restaurants publicly post nutritional information on the foods they serve.
- ***The taxing power.*** The State and certain local governments (if authority is granted by the Legislature) may impose consumption taxes on certain goods both to generate revenue and to reduce consumption. For example, both the State and New York City impose high cigarette taxes, partly for the purpose of discouraging smoking.
- ***Ability to influence public debate and private conversations.*** The State, local governments, and school districts may use advertising and other communications to educate families, businesses and individuals about various health care issues. Such marketing efforts have been another important tool in the battle against smoking.

Better collection and use of data can significantly aid the struggle to prevent obesity.

Each of these approaches may have some negative as well as positive implications. For example, higher cigarette taxes are believed to have helped drive down the proportion of New Yorkers who smoke – an important step forward for public health. But the State has concluded that New York's comparatively high tobacco taxes may also contribute to illegal trafficking in cigarettes.[32]

In 2009, Governor Paterson advanced a five-point obesity prevention plan that included a proposed revolving loan fund to increase the number of healthy food markets in underserved communities, a ban on trans fats in restaurant foods, a requirement that chain restaurants post calorie counts, a ban on the sale of junk food in schools, and an 18 percent increase in the sales tax on sugared soda and certain fruit drinks. The Legislature did not act on most elements of the proposal.

In October 2010, the State Office of Temporary and Disability Assistance requested, on behalf of the City of New York, that the U.S. Department of Agriculture (USDA) allow a demonstration project that would restrict the use of Supplemental Nutrition Assistance Program (SNAP) benefits – also known as "Food Stamps" – for purchases of sugar-sweetened beverages. USDA rejected the request in 2011. The USDA cited concerns over the size and complexity of the proposed program and its support of incentive-based approaches to reducing obesity.[33]

New York City has implemented a number of steps to battle obesity, with some apparent success. In December 2011, CDC reported that from the 2006-07 school year to the 2010-11 school year, the prevalence of obesity among New York City public elementary and middle school students decreased from 21.9 percent to 20.7 percent.[34] The study analyzed annual school fitness exams for grades K through 8, based on BMI. The declines correlated with socioeconomic status and ethnicity, with sharply larger declines concentrated among middle-class children compared to poorer

children, and among white and Asian children relative to black and Hispanic children. Declines in obesity were more pronounced for younger than for older children. CDC noted that, from 2003 to 2009, New York City implemented a variety of steps intended to reduce overweight status and obesity – providing physical education equipment and nutrition education to child-care centers, training school nurses to identify children at risk for obesity and refer them for medical attention, and other initiatives. While "a causal relationship cannot be inferred between the BMI and fitness interventions implemented by New York City in schools and the decrease in prevalence of child obesity," positive results may indicate that some of the City's changes achieved desired effects, CDC concluded.

The need for action to address rising obesity levels has not diminished since DOH advanced its most recent major policy proposals. Given the Department's responsibilities to promote public health, the continuing epidemic of obesity suggests the need for new actions using DOH's existing authority, and/or new departmental recommendations for consideration by the State's elected policy makers. Such initiatives should reflect evolving scientific understanding of the causes of excess weight and obesity, recent research regarding effective policy approaches, and the State's own budgetary realities.

Obesity and Medicaid

Historically, New York State has often missed opportunities to use its Medicaid program to drive improvement in health care practices and health outcomes. The Medicaid Redesign Team (MRT) initiative charges DOH with a new approach – using the $50 billion-plus program to improve quality of care, address root causes of poor health, and control costs. The MRT approach represents a promising opportunity to attack New York's obesity epidemic, which drives up costs and poses increasing dangers to health.

Ideally, DOH's implementation of the MRT initiative would be informed by comprehensive data on Medicaid recipients and expenditures. Research by the Office of the State Comptroller, conducted for this report, raises questions about the usefulness of currently available data.

In an effort to determine how much the State's Medicaid program spends on recipients diagnosed as obese, OSC reviewed the five most recent years of fee-for-service and managed care claims in DOH's Medicaid Data Warehouse (MDW) for indications of an obesity diagnosis anywhere on the claims. The MDW is a healthcare information system that includes various tools to support the analysis of Medicaid data.

OSC's review of this data identified a maximum of approximately 400,000 Medicaid recipients as obese in any of the five years reviewed for this study. That figure represents roughly 7.5 percent of the 5.4 million total recipients enrolled in the Medicaid program in State Fiscal Year (SFY) 2011-12. DOH and CDC estimate that 20 percent of New Yorkers are obese. Obesity is generally found to be more common among lower-income individuals than in the overall population. In this context, the 7.5 percent figure appears to capture only a fraction of New York Medicaid recipients with

obesity. This may be a reflection of underreporting by physicians and other health care professionals submitting Medicaid claims to the data warehouse. Such underreporting may result in some weakness in the capacity of the data warehouse to inform analysis of obesity-related Medicaid expenditures and health care policy going forward.

DOH is in the process of establishing an all payer database which will serve as a repository of claims data drawn from all major public and private payers, including insurance carriers, health plans, Medicare, and Medicaid. This database is expected to build on and enhance existing databases such as the Medicaid data warehouse, and permit a broader view of the health of all New Yorkers, as well as the performance of the State's health care system. As the Department develops this comprehensive, all payer database, it must take steps to strengthen the capabilities of its own Medicaid data warehouse. Otherwise, weakness in the MDW could hinder use of the all payer database to address cost, access and quality issues and efforts to strengthen the State's overall health care system.

Conclusions and Recommendations

Health care experts agree that obesity poses an increasing threat to New Yorkers' health – rivaling tobacco as a leading cause of preventable illness. And health care costs arising from obesity and overweight status are contributing to rising costs for federal, State and local taxpayers. To date, New York's policy responses have not matched the severity of the health and budgetary threats posed by obesity.

Nearly a decade ago, DOH undertook a broad strategic planning effort to address the problem of obesity in New York. That initiative was federally funded by CDC. Today, DOH's plan for a new obesity treatment initiative is also contingent on federal funding. While such steps are valuable, budget realities in Washington may mean that any comprehensive effort to reduce obesity in the near future will depend partly on the State's own resources and policy decisions. The State's continuing budget challenges require DOH and other State agencies to consider existing resources that could be redirected to support an all-out attack on the second-leading cause of preventable deaths. The Department should also examine low- or no-cost means to educate the public, health care professionals and policy makers about the increased health risks and budgetary consequences of the obesity and overweight epidemic.

While much is known about the causes of obesity, broad consensus on the most effective and cost-efficient policy responses remains incomplete. In terms of State policy, DOH bears primary responsibility for assessing the effectiveness of various options that could be considered by the Executive, the Legislature, local governments, and school districts. SED should also review New York's K through 12 education policies and programs – and the level of compliance with existing regulations such as those regarding students' physical activity – and identify the most promising ways to improve school-based initiatives targeting childhood obesity.

Finally, DOH should analyze how its ongoing Medicaid Redesign Team (MRT) initiative can address the obesity epidemic more aggressively. MRT is intended to control Medicaid costs while improving health care outcomes. Obesity represents a

broad threat to New Yorkers' health, contributing significantly to deadly and costly diseases ranging from asthma to cancer, and from orthopedic problems to depression. MRT provides the State with an opportunity to use its $52 billion annual Medicaid budget to drive improvements in the fight against obesity. DOH should analyze whether financial incentives for managed-care plans could increase insurers' efforts to address obesity. In partnership with private health plans, the State should identify more effective ways to use available data on health status, care, expenditures, and outcomes to inform strategies for attacking obesity. Improving the capacity of the Medicaid Data Warehouse and other large data sets to inform policy decisions regarding obesity, as well as other diseases, could be a vitally important tool in this effort.

For children who are at risk of obesity, parents and caregivers are uniquely important in shaping health-related behaviors early in life. Health professionals continually urge families to consume healthy foods including fruits and vegetables; to avoid heavy use of sugary foods; and to develop lifetime habits of physical activity. Public policy initiatives have helped to shape kitchen-table conversations about tobacco use, alcohol, seat-belt use, and other personal practices that have significant health implications. As with tobacco and alcohol consumption, eating and exercise ultimately are personal choices. Families and individuals, in New York and elsewhere, owe it to themselves to learn the facts about obesity and make appropriate choices.

Appendix A: Student Weight Status, Counties Outside of New York City

COUNTY	Percent of survey students reported as obese	Percent of survey students reported as overweight or obese	Percentage of total students in survey
Albany	20.5	36.4	59.0
Allegany	15.3	28.4	56.3
Broome	20.4	37.2	89.6
Cattaraugus	21.8	40.2	86.1
Cayuga	22.3	38.1	82.4
Chautauqua	22.1	36.9	78.1
Chemung	18.6	38.5	59.3
Chenango	19.4	34.8	62.5
Clinton	20.5	38.7	61.0
Columbia	21.1	36.5	80.2
Cortland	19.9	32.5	59.8
Delaware	18.0	27.1	53.6
Dutchess	20.2	40.2	51.1
Erie	19.3	34.1	50.2
Franklin	20.6	38.6	73.9
Genesee	22.5	32.0	74.9
Greene	20.6	37.6	69.7
Herkimer	20.0	33.6	61.9
Jefferson	30.3	45.6	54.4
Lewis	25.6	37.6	74.3
Livingston	14.8	26.3	65.3
Madison	25.4	37.9	57.4
Monroe	19.1	34.9	51.6
Nassau	17.2	32.9	67.3
Niagara	21.3	37.9	75.0
Oneida	24.8	46.9	51.0
Onondaga	24.9	39.7	61.2
Ontario	20.7	36.8	60.0
Orleans	18.0	33.7	83.0
Oswego	25.5	46.1	56.6
Otsego	19.3	32.9	56.7
Putnam	13.7	26.8	55.6
Rensselaer	18.3	35.9	77.1
Schenectady	18.1	35.0	51.8
Schoharie	14.6	31.7	66.1
Schuyler	15.0	28.4	84.6
Seneca	22.0	39.6	84.3
St. Lawrence	27.7	44.2	70.2
Steuben	16.7	33.8	65.3
Suffolk	18.4	35.5	67.3
Sullivan	23.4	41.8	66.1
Tioga	20.3	38.5	65.1
Tompkins	19.8	32.7	62.7
Ulster	19.9	37.5	63.2
Warren	20.9	35.2	78.7
Washington	19.5	34.7	68.0
Wayne	15.5	30.5	54.4
Westchester	14.8	30.9	51.8
Wyoming	19.9	38.5	72.5
Yates	16.9	36.1	79.4

Source: School district data reported to New York State Department of Health
Data for Essex, Fulton, Hamilton, Montgomery, Orange, Rockland and Saratoga counties are not shown because percentage of students reported was below 50 percent.

Appendix B: Childhood Obesity by State

STATE	Percentage of Obese High School Students	Ranking	Percentage of Overweight and Obese Children Ages 10-17	Ranking
Alabama	17.0	1	36.1	6
Alaska	11.5	25	33.9	11
Arizona	10.9	33	30.6	25
Arkansas	15.2	7	37.5	2
California	N/A	N/A	30.5	27
Colorado	7.3	43	27.2	41
Connecticut	12.5	18	25.7	44
Delaware	12.2	19	33.2	15
Florida	11.5	25	33.1	16
Georgia	15.0	9	37.3	3
Hawaii	13.2	14	28.5	36
Idaho	9.2	40	27.5	40
Illinois	11.6	23	34.9	9
Indiana	14.7	10	29.9	30
Iowa	13.2	14	26.5	43
Kansas	10.2	36	31.1	21
Kentucky	16.5	3	37.1	4
Louisiana	16.1	4	35.9	7
Maine	11.5	25	28.2	38
Maryland	12.0	22	28.8	35
Massachusetts	9.9	37	30.0	29
Michigan	12.1	20	30.6	25
Minnesota	N/A	N/A	23.1	49
Mississippi	15.8	5	44.4	1
Missouri	N/A	N/A	31.0	22
Montana	8.5	42	25.6	47
Nebraska	11.6	23	31.5	20
Nevada	N/A	N/A	34.2	10
New Hampshire	12.1	20	29.4	34
New Jersey	11.0	30	31.0	22
New Mexico	12.8	17	32.7	18
New York	11.0	30	32.9	17
North Carolina	12.9	16	33.5	13
North Dakota	11.0	30	25.7	44
Ohio	14.7	10	33.3	14
Oklahoma	16.7	2	29.5	32
Oregon	N/A	N/A	24.3	48
Pennsylvania	N/A	N/A	29.7	31
Rhode Island	10.8	34	30.1	28
South Carolina	13.3	13	33.7	12
South Dakota	9.8	39	28.4	37
Tennessee	15.2	7	36.5	5
Texas	15.6	6	32.2	19
Utah	8.6	41	23.1	49
Vermont	9.9	37	26.7	42
Virginia	11.1	28	31.0	22
Washington	N/A	N/A	29.5	32
West Virginia	14.6	12	35.5	8
Wisconsin	10.4	35	27.9	39
Wyoming	11.1	28	25.7	44

SOURCES: For data on obese high school students, 2011 Youth Risk Behavior Surveillance reported on the website of the U.S. Centers for Disease Control and Prevention. For data on overweight and obese children ages 10-17, 2007 National Survey of Children's Health. Both data sets are contained in "F As In Fat: How Obesity Threatens America's Future 2012," published by the Trust For America's Health, September 2012.

[1] The Census Bureau reports that New York State was home to 4,324,929 individuals under the age of 18 as of 2010.

[2] Trogdon, J.G. et al., "State- and Payer-Specific Estimates of Annual Medical Expenditures Attributable to Obesity," *Obesity Journal*, January 2012, pp. 214-220. The Trogdon study provides estimates in 2009 dollars; estimates in this report are adjusted to 2011 dollars based on the Consumer Price Index for medical care costs.

[3] 2007 National Survey of Children's Health, cited in Trust for America's Health, *F as in Fat: How Obesity Threatens America's Future*, September 2012, p. 11.

[4] Chapter 58, Laws of 2007.

[5] New York State Department of Health, *A Plan to Transform the Empire State's Medicaid Program: Better Care, Better Health, Lower Costs*; http://www.health.ny.gov/health_care/medicaid/redesign/docs/mrtfinalreport.pdf.

[6] Centers for Disease Control and Prevention; http://www.cdc.gov/nccdphp/dpna/obesity/defining.htm.

[7] New York State Department of Health. "Prevention of Childhood Overweight and Obesity - Activ8Kids!" Request for Applications Number 0601261256: p 4. http://www.health.state.ny.us/funding/rfa/0601261256/0601261256.pdf.

[8] Centers for Disease Control and Prevention, "CDC Grand Rounds: Childhood Obesity in the United States," *Morbidity and Mortality Weekly Report*, January 21, 2011.

[9] Ibid.

[10] School districts outside New York City report such data every other year, so a two-year period is required to include data from all such districts. The figures cited here reflect data from counties for which SED received data on more than 50 percent of students.

[11] Centers for Disease Control and Prevention, "Obesity in K-8 Students – New York City, 2006-07 to 2010-11 School Years." *Morbidity and Mortality Weekly Report (MMWR*), 60(49):1673-1678 / December 16, 2011.

[12] "Issue Brief: Analysis of Obesity Rates by State," Trust for America's Health, August 2012.

[13] Ogden, C.L. et al., "Obesity and Socioeconomic Status in Children and Adolescents: United States, 2005-2008," NCHS Data Brief No. 51, December 2010.

[14] New York State Department of Health, "The Obesity Problem"; http://ww.health.ny.gov/prevention/obesity.

[15] Trogdon, J.G. et al., "State- and Payer-Specific Estimates of Annual Medical Expenditures Attributable to Obesity," *Obesity Journal*, January 2012. The Trogdon study provides estimates in 2009 dollars; estimates in this report are adjusted to 2011 dollars based on the Consumer Price Index for medical care costs.

[16] Estimate based on data in Finkelstein, E.A. and J.G. Trogdon. "Public Health Interventions for Addressing Childhood Overweight: Analysis of the Business Case" *American Journal of Public Health*, Mar. 2008, p 413. Per referenced survey data, the annual per-child medical costs attributable to obesity among children aged 8 to 19 is $220 according to Medical Expenditure Panel Survey (MEPS) consolidated data files from 2001 through 2003.

[17] See, for example, Whalen E. and M. Sesserman, "Looking for an Oasis in a Food Desert, Low-Income New Yorkers Lack Access to Health Food," Oct. 2011; and Currie J., S. DellaVigna, E. Moretti, V. Pathania, "The Effect of Fast-Food Restaurants on Obesity," January 2009, http://emlab.berkeley.edu/~sdellavi/wp/fastfoodJan09.pdf.

[18] Gina Kolata, "Studies Question the Pairing of food Deserts and Obesity," *The New York Times*, April 17, 2012.

[19] Committee on Accelerating Progress in Obesity Prevention, Institute of Medicine, Accelerating Progress in Obesity Prevention: Solving The Weight of the Nation, 2012.

[20] Office of the State Comptroller, Division of State Government Accountability, "New York City Department of Education School Nutrition," Report 2008-N-15, June 2009. http://www.osc.state.ny.us/audits/allaudits/093009/08n15.pdf

[21] Office of the State Comptroller, Division of State Government Accountability, "New York City Department of Education School Nutrition (Follow-Up Report), Report 2010-F-12, September 2010. http://osc.state.ny.us/audits/allaudits/093010/10f12.pdf.

[22] Office of the State Comptroller, Division of Local Government and School Accountability, "Nutrition in School Districts Across new York State," Report 2009-MS-3, September 2009. http://www.osc.state.ny.us/localgov/audits/swr/2009/nutrition/nutrition_final.pdf.

[23] New York Code, Rules and Regulations, Chapter 11, Section 135.

[24] Office of the State Comptroller, Division of Local Government and School Accountability, "School Districts' Compliance with Physical Education Regulations." Report 2008-MS-6, December 2008. http://www.osc.state.ny.us/localgov/audits/swr/2008/physical_ed/physical_edfinal.pdf.

[25] Office of the New York City Comptroller. "Audit Report on the Department of Education's Compliance with the Physical Education Regulations in Elementary Schools." MD11-083A, October 2011. http://comptroller.nyc.gov/bureaus/audit/PDF_FILES_2011/MD11_083A.pdf.

[26] http://www.health.ny.gov/prevention/obesity/, accessed October 1, 2012.

[27] New York State Department of Health, "Information for Action # 2012-3," September 19, 2012, http://www.health.ny.gov/prevention/obesity/ichoose600/.

[28] New York State Department of Health, "Medicaid Redesign Team Basic Benefit Review Work Group Final Recommendations," November 1, 2011.

[29] http://www.health.ny.gov/prevention/obesity/strategic_plan/.

[30] New York State Department of Health, Youth Prevention and Adult Smoking in New York, March 2011, http://www.health.ny.gov/prevention/tobacco_control/docs/2011-03-11_ny_state_brief_report_prevention.pdf.

[31] New York State Department of Health Quality Assurance Reporting Requirements (QARR) reports, 2009 through 2011.

[32] "Cigarette tax evasion is a serious problem in New York and throughout the Northeast," the Budget Division states in its annual summary of New York State taxes. See *2012-13 Executive Budget, Economic and Revenue Outlook*, p. 217.

[33] Jessica Shahin, Associated Administrator, Supplemental Nutrition Assistance Program, U.S. Department of Agriculture, letter to Elizabeth Berlin, Executive Deputy Commissioner, New York State Office of Temporary and Disability Assistance, August 19, 2011.

[34] Centers for Disease Control and Prevention, "Obesity in K-8 Students – New York City, 2006-07 to 2010-11 School Years." *Morbidity and Mortality Weekly Report (MMWR*), 60(49):1673-1678 / December 16, 2011.