Healthy People in a Healthy Economy

A Blueprint for Action in Massachusetts

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Dear Friends,

The New England Healthcare Institute is delighted to join the Boston Foundation in presenting *Healthy People in a Healthy Economy: A Blueprint for Action in Massachusetts*. This is a report of singular importance to both our health and the health of our economy here in the Commonwealth—and its call to action is all the more urgent in these difficult economic times.

The foundation for this *Blueprint* was laid in 2007 with the publication of *The Boston Paradox: Lots of Healthcare, Not Enough Health.* In that report, we warn that rising levels of obesity, diabetes and other preventable chronic diseases present not just a health challenge, but also a challenge to our region's economic competitiveness, as rising levels of chronic disease reduce our productivity, drive up our health care costs and squeeze our ability to invest in other key priorities like education and public safety. The silver lining is that these threats can indeed be reversed if we work together to build a healthier future for the Commonwealth.

The current recession has served to put these challenges into stark relief, given that economic hard times only exacerbate the unhealthy behaviors that drive our soaring rates of chronic illness and, in turn, make our spending on health care even higher.

Against this sobering backdrop, the *Blueprint* tells us tells us several things:

- We must take action to improve our health behaviors, not despite the recession, but *because* of it.
- Changing behaviors to improve nutrition and fitness is possible; the latest empirical evidence shows how.
- Effective action must come about through collaboration across many fields – schools, the workplace, the community, policymakers, every one of us.
- We have much to build on, including innovative programs throughout the Commonwealth and a strong commitment by Governor Patrick and the Massachusetts Department of Public Health through its new *Mass in Motion* campaign.

Now more than ever, it is time for Massachusetts leaders to harness the remarkable assets of our region, including world-class institutions, a pioneering community of health professionals and a heritage of activism, innovation and accomplishment in public health, to catalyze a revolution in our health even as the economy makes it more challenging, and more essential, to succeed.

With all of your support, we can generate a historic, region-wide collaborative effort to build a healthier Massachusetts—indeed, the future of our health and our economy depend on it. At the New England Healthcare Institute, we stand ready to work with leaders and innovators throughout the Commonwealth to bring this *Blueprint* into action in the months ahead.

Sincerely,

Valerie Fleishman
Executive Director
New England Healthcare Institute

Dear Friends,

Healthy People in a Healthy Economy: A Blueprint for Action in Massachusetts is the second report researched and written by the New England Healthcare Institute for the Boston Foundation. The previous report, published in the spring of 2007 and titled *The Boston Paradox: Lots of Health Care, Not Enough Health*, was the first-ever overview of health and health care in Boston.

With stunning statistics, *The Boston Paradox* drew our attention to a growing crisis of preventable chronic disease that not only threatens the physical health of Greater Boston's residents but—as health care costs rise—is crowding out investment in other crucial priorities. That report made the case that if we don't reverse these trends, Greater Boston will become not only less healthy, but less competitive in the 21st century global economy.

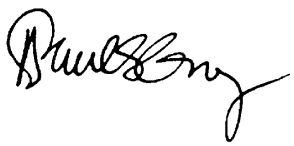
The recent economic downturn only heightens the need for action. One startling statistic in this report powerfully illustrates the close relationship between our physical and economic well being. Massachusetts residents and insurers spend more than $3 billion annually on the treatment and management of diabetes alone, even though most diabetes is preventable or reversible through diet and exercise.

The alarming increase in preventable chronic illness, reiterated in these pages, presents our city and state with an enormous challenge and an equally enormous opportunity. As a center of innovation, Greater Boston and Massachusetts can lead the way in shifting the focus—not only in our region, but nationally and even internationally—from health care to health. This report offers a blueprint for doing just that.

The Boston Paradox showed that whether we are healthy is far more a consequence of lifestyle and environmental factors than access to medical care—even in a world class health care hub like Boston and Massachusetts. While medical care is a necessity at critical times in our lives, the major advances in human health throughout history have more often come from public health initiatives that affect whole populations than from medical science or care.

The Boston Foundation and our partners at NEHI believe that the time has come to launch a comprehensive effort to address the rise in health care costs and the rising tide of preventable chronic disease through a campaign to improve overall health and fitness, building on the initial success of the Commonwealth's *Mass in Motion* campaign. I encourage you to read this report and then to join the chorus of voices calling for the health reforms prescribed in these pages.

Sincerely,



Paul S. Grogan
President and CEO
The Boston Foundation

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Executive Summary

The current recession is not just an economic crisis, it is also a health crisis.

The Boston Paradox: Lots of Health Care, Not Enough Health, a report published in 2007 by the Boston Foundation and the New England Healthcare Institute (NEHI), juxtaposed the state of the Massachusetts health care economy with the state of residents' physical well being. It described a double threat: rising health care costs combined with a rising tide of preventable chronic illness. It also found that high health care costs are crowding out investment in the fundamental determinants of health—from education and community safety to access to a healthy diet and exercise and health promotion initiatives.

The economic downturn is only making things worse. As people lose their jobs or see their incomes decline, they find it more difficult to afford out-of-pocket medical costs and health insurance premiums— premiums that they are now mandated to pay in Massachusetts. As times get tight, people lose the means to eat healthfully and exercise regularly—while health care costs continue to climb.

A recent American Heart Association survey underscored the link between health and hard times. More than half the respondents said that the economy is already affecting their ability to take care of their health needs, one quarter had cancelled their gym memberships and four out of ten were eating less healthy meals.

These recession-related repercussions could not come at a worse time in the state's battle against both rising health care costs and the rising tide of preventable chronic illness. Today, more than half of all Massachusetts residents are either overweight or obese. Diabetes has jumped nearly 40 percent in a decade, and three out of every five people with Type 2 diabetes will develop complications such as heart disease, stroke or eyesight problems.

Meanwhile, Massachusetts recently managed to extend health insurance coverage to nearly all residents with only modest increases in state funding. However, state spending on health care overall increased by more than 60 percent from 2001 to 2009 in contrast to total state spending, which increased barely more than 20 percent over the same period.

The confluence of these trends suggests that rates of preventable chronic disease will rise to historic levels at just the time we can least afford it:

- A recent study by the actuarial firm Milliman, Inc. indicates that the cost of health care in Massachusetts continues to increase at rates in excess of the national average—by 11.3 percent for a family of four compared to 7.4 percent nationally.

- Rising levels of obesity, Type 2 diabetes, hypertension, heart disease and stroke will have an especially severe impact on Massachusetts because our health care costs are high, our population is rapidly aging, and our workforce relies on older workers to keep the economy prosperous.

- A recent study by the Milken Institute estimated that chronic disease takes a $34 billion toll on the Massachusetts economy every year.[1] Massachusetts residents and their health plans spend more than $3 billion annually on the treatment and management of diabetes alone, most of which is Type 2 diabetes. Many Type 2 diabetes cases could be prevented or controlled through diet and fitness.

There is good news. Recent research indicates that personal behaviors and environmental factors have a much greater impact on health status than access to health care. Indeed, health care alone, while critical at key points of illness or injury, accounts for only about 10% of overall health status, while lifestyle and environmental factors together account for about 70%.

Moreover, new research on the success factors of behavioral interventions suggest that wide-scale, population-wide improvements can be achieved through comprehensive, sustained efforts across many domains—from schools to workplaces to physicians' offices. That means that much of the chronic disease burden in Massachusetts could be prevented or reduced through a culture shift that encourages and makes possible wellness and fitness across the population.

NEHI and the Boston Foundation believe that the time has come to launch a comprehensive effort to address both rising health care costs and the rising tide of preventable chronic disease through a campaign to improve overall health and fitness, building on initial progress with the Commonwealth's *Mass in Motion* campaign. This effort should include the following sectors and strategies:

- **Schools**
  - Lawmakers and educators should implement new approaches to replace unhealthy foods with nutritious options in schools.
  - Educators, health experts and lawmakers should encourage physical activity by reconciling health promotion with increasing academic requirements.
  - As BMI reporting becomes mandatory, both educators and clinicians in Massachusetts should learn from the experience of states like Arkansas and Pennsylvania and act to maximize communication with families.

- **Municipalities**
  - The state's transportation strategy should promote physical activity over a continued over-reliance on automobiles.
  - Housing policy should extend smart growth principles to create more walkable, fitness-friendly communities and housing developments.
  - Organizations that actively promote green building practices should also incorporate design standards that promote health through increased physical activity.

- **State Government**
  - The Commonwealth should work with insurers and employers to encourage adoption of wellness incentives (such as those in the state's health insurance reform law, Chapter 58 of 2006) that will be both effective and equitable for individual employees.

- **Payers**
  - Massachusetts payers should form a coalition to test effective, comprehensive approaches to promoting health and wellness interventions through health plans.

- **Employers**
  - Employer associations and the state should promote awareness of best practices in employee health management, as demonstrated by leading firms in the area.
  - Small- and mid-sized employers should work with the state's health insurers to effectively bring evidence-based health promotion to fully-insured firms.

- **The Food Industry**
  - Supermarkets and restaurants in the state should begin a direct dialogue to determine options for voluntary health-oriented food labeling.
  - The Commonwealth should end the current sales tax exemption for snack foods and soft drinks.
  - Massachusetts' network of community and neighborhood development corporations should work to expand the availability of healthy food options in urban communities.

- **Physicians**
  - Physicians and payers should leverage the renewed attention to payment reform to identify new opportunities to reimburse physicians for promoting healthy behaviors.
  - Health promotion and achievement should be an essential part of any move towards health care payment reform.

- **Philanthropies**
  - Grantmakers should continue to identify ways to coordinate with other like-minded organizations to share best practices and optimize funding for health promotion initiatives.

- **The Media/Opinion Leaders**
  - Organizations promoting healthy behaviors should join forces to reduce fragmentation, pool resources and strengthen and reinforce their messages.
  - Massachusetts' 'newsmaker cluster' should serve as an important partner in efforts to communicate positive messages around diet and fitness, helping to reinforce proven messages from other stakeholders.

The partnerships and collaboration required to create a culture of health will need to go well beyond the precedent-setting coalition that created the Massachusetts health reform plan. It will mean integrating wellness opportunities and incentives into physician and hospital practices, insurance plans, the public health community, community organizations, schools, workplaces and philanthropies.

Health promotion and the prevention of preventable chronic illness are the missing links in our strategy to contain cost increases while providing high quality, affordable and sustainable health care for all. The time has come to forge those missing links.

Preventable Chronic Illness:
The Threat to Our Health and Our Economy

Massachusetts and the rest of the U.S. are mired in the worst recession since the Great Depression, but there is one commercial sector that is doing well: the fast food industry. The consumption of fast food is actually increasing during the downturn, and for good reason: it is cheap and it is filling.[2]

The rising popularity of fast foods is just one of the factors, exacerbated by the current recession, that threatens to accelerate disturbing trends in Greater Boston's health and health care which have been gathering speed for decades. *The Boston Paradox* report, published in 2007 by the Boston Foundation and the New England Healthcare Institute, demonstrated that Massachusetts, in spite of having near-universal health care coverage, some of the best medical facilities in the world and one of the highest rates of per capita health spending, is nevertheless vulnerable to the same pervasive effects of unhealthy diet, inadequate exercise and unhealthy weight as the rest of the United States.

The impact is felt disproportionately by Greater Bostonians with lower incomes and by residents of color. But all races and income groups in Massachusetts are experiencing rising levels of unhealthy weight and consequent health risks, now made worse as the recession renders people out of work and out of coverage, reduces family incomes and drives reliance on cheap-but-unhealthy food choices. In previous generations poverty was associated with under-nourished people, but research shows that in modern America there is a strong coincidence between poverty and obesity—an association that the current recession will only exacerbate.[3]

The Rise of Diabetes: A Bellwether

Nothing epitomizes the rising threat of preventable chronic disease more than the relentless march of diabetes. Self-reported cases of diabetes in Massachusetts jumped nearly 40 percent in a decade, exceeding six percent of the population in 2007. Diabetes among adults 55-64 years old grew over 40 percent in ten years, to 12.8 percent. And it increased by almost 75 percent (to a prevalence of 10.5 percent) among the state's growing Hispanic population.[4]

Virtually all of the increase is due to Type 2 diabetes, the so-called 'adult onset' diabetes that is now increasingly found among adolescents. A reported three out of every five people with Type 2 diabetes will eventually develop at least one of the serious complications associated with the disease, including heart disease, stroke, kidney disease, degeneration of eyesight or foot problems.[5]

The nationwide upsurge in obesity and diabetes is already having a major impact on health care costs. Research by Dr. Kenneth Thorpe at Emory University suggests that obesity-related health care costs alone added 12 percent to private health insurance spending between 1987 and 2002.[6] And research from the RAND Corporation suggests that treatment for the consequences of obesity will consume 20 percent of overall U.S. health care spending by 2020 if current rates of overweight and obesity persist.[7]

Just as troubling, chronic disease has a direct impact on the Massachusetts economy. Recent research, conducted in part by Professor Ronald Kessler of the Harvard Medical School, confirms that the costs to employers from absenteeism and 'presenteeism' are more than twice direct medical costs incurred by employees through their employer-based health plans.[8] Measured in lost or unproductive work days, for instance, diabetes drains $2.2 billion from the state's economy every year, according to the Milken Institute.[9] Milken researchers estimate that the fiscal impact of diabetes will triple by the year 2023 if the current trends in Massachusetts persist. These estimates suggest that the total financial impact on the state economy from preventable forms of chronic disease will reach $62 billion by the year 2023.[10]

Behavior Change: Easier Said Than Done?

Much of the chronic disease we now confront in Massachusetts could be prevented or reduced if we could find ways to reduce the unhealthy behaviors causing the illnesses in the first place. Poor diet, inadequate physical activity, smoking, alcohol abuse, inadequate sleep and stress are all behaviors that create risks for chronic diseases. Ongoing research has even revealed the biological connections between several cancers and poor diet and inadequate fitness.[11] Epidemiologists call these 'modifiable risk factors' to indicate that these behaviors can often be modified to reduce health risks, if not prevent or eliminate them altogether.

Reducing unhealthy behaviors by creating a culture that encourages health and fitness will not be quick or easy; personal habits are always difficult to change. An accumulating body of research illustrates that personal motivation and responsibility can only go so far: high costs, declining incomes, neighborhoods that offer few safe opportunities for physical activity or access to healthy food, and even some genetic predispositions may conspire against people. [12]

Yet change is possible—and necessary. The latest science indicates that wide scale improvements in behaviors can be achieved through comprehensive, sustained efforts across many domains, including schools and workplaces. Social scientists call this a "multi-factor" approach to changing behaviors. The Commonwealth's long-running campaign against smoking embodies just such an approach—and it has been successful. It is now projected that poor diet and physical inactivity will soon overtake smoking as the most important underlying cause of death and disability in the U.S.

Mass in Motion: A Good Start

To its credit, under the leadership of Gov. Deval Patrick, the Commonwealth has recognized this threat and taken action. In January 2009 it launched a statewide campaign for healthy behaviors called *Mass in Motion.* The campaign is a multi-part effort, informed by the most current clinical evidence and by detailed plans developed outside of state government, such as the *Strategic Plan for the Prevention and Control of Overweight and Obesity,* developed by Dr. Walter Willett of the Harvard School of Public Health for the New England Coalition for Health Promotion and Disease Prevention.

Mass in Motion is designed to inspire adoption of innovative new approaches to health promotion by highlighting and channeling some limited financial support to pioneering programs created by a wide array of organizations throughout the Commonwealth.

What *Mass in Motion* does not yet have, unfortunately, is resources that are commensurate to the task, such as funds for the paid media advertising that proved so effective in the Commonwealth's campaign against smoking in the 1990s. These resources were generated by a 1992 statewide referendum that raised tobacco taxes to fund a comprehensive tobacco control campaign, and were later augmented by the state's share of national tobacco litigation proceeds. No such sources exist for *Mass in Motion*, and prospects for new resources have greatly worsened as state revenues have plunged in the current recession.

Mass in Motion is an important start, but we believe that the recession makes further, broader action on healthy behaviors even more imperative. This *Blueprint* makes the case for action by outlining a broad, multi-factor, multi-stakeholder campaign that will build on and extend *Mass in Motion* and similar initiatives across the state.

We cannot allow the current economic crisis to further accelerate the troubling and costly rise of chronic disease. Chronic disease is highly preventable—if we muster the ingenuity to help the people of Massachusetts successfully change behaviors and create a culture that encourages health and fitness.

Learning from the Campaign Against Smoking

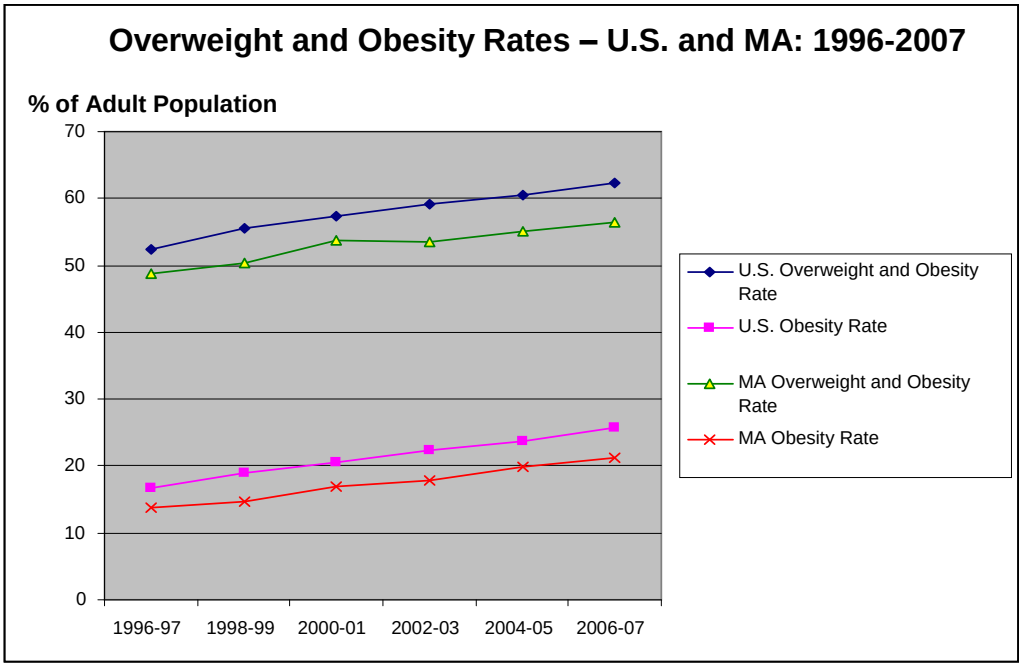
The effectiveness of a multi-factor approach to behavior change has been demonstrated by the Commonwealth's success in reducing smoking rates. While the state's tobacco control program is best known for its aggressive 'Let's Make Smoking History' advertising campaign, success has also linked to a host of parallel interventions—in schools, medical practice, health benefit design, taxation and smoking regulation.[13]

To be sure, the fight against smoking in Massachusetts is not over (approximately 18 percent of the state's adult population still smokes). And difficult as it is, the fight against smoking may well prove easier than the fight against poor diet and fitness habits: smokers don't have to smoke to live, but everybody has to eat.

Nonetheless, the anti-smoking campaign shows what can be accomplished when business, government and communities all collaborate in the interests of improving public health.

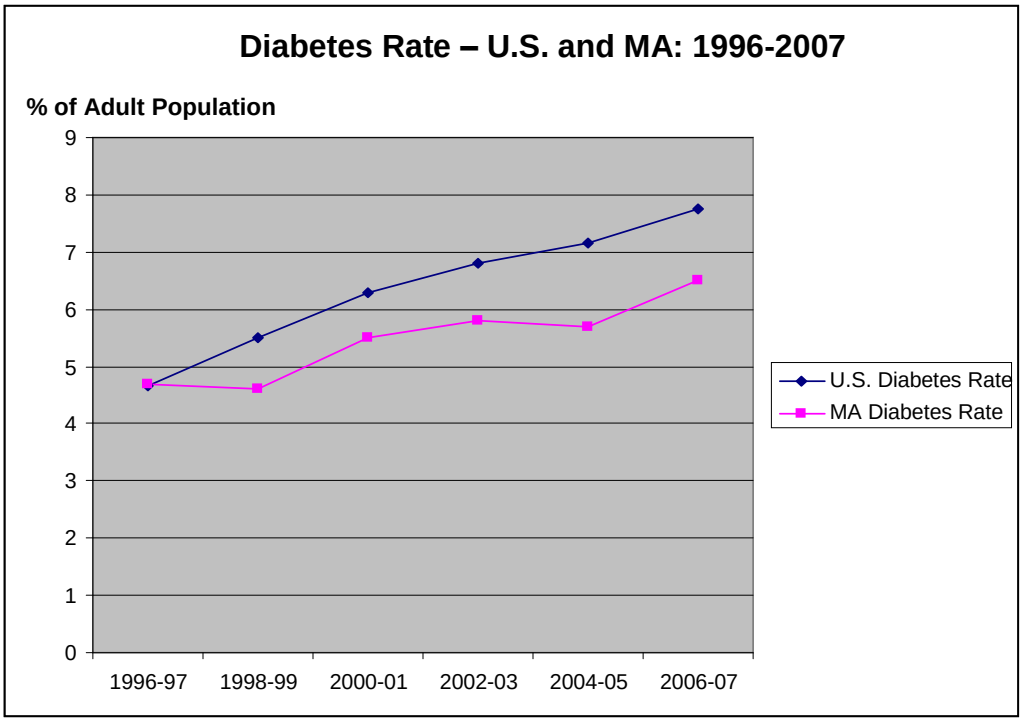
Chronic Disease: The Health Impact

Health risks—such as overweight and obesity—continue to rise…



Source: CDC Behavioral Risk Factor Surveillance System

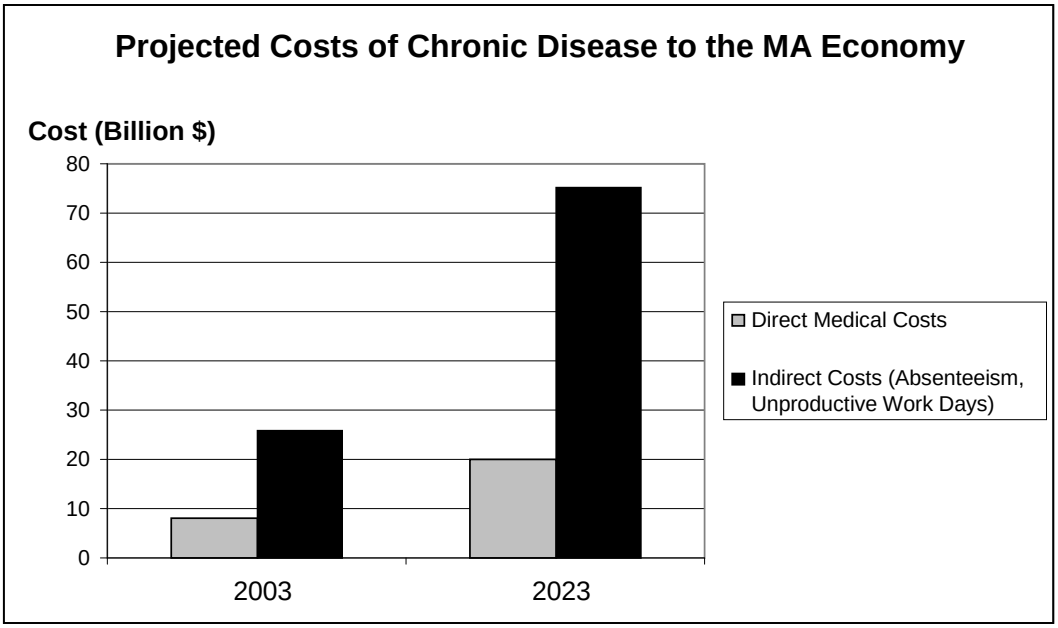
…increasing the prevalence of chronic diseases such as diabetes.



Source: CDC Behavioral Risk Factor Surveillance System

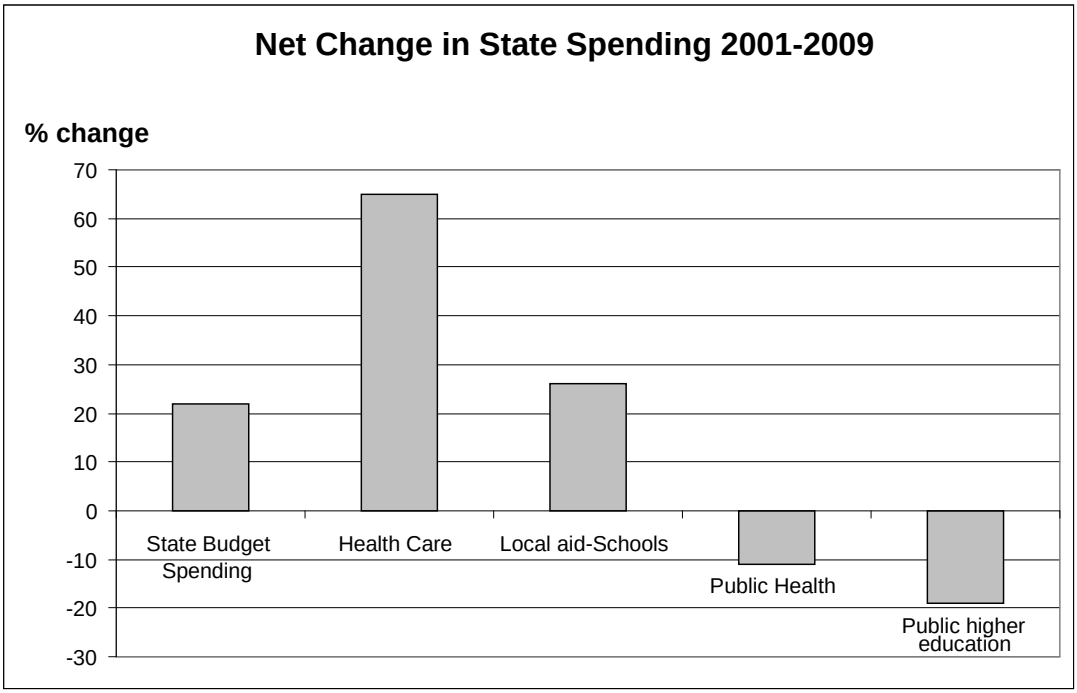
Chronic Disease: The Financial Impact

Uncontrolled increases in chronic diseases will fuel a substantial increase in costs to our economy over the next 15 years…



Source: Milken Institute, "An Unhealthy America," 2008; data on seven major categories of chronic disease

…and threaten our commitment to good, affordable health care for all.



Source: NEHI calculations from MA Budget and Policy Center data (in 2001 $)

The Case for Change: New Perspectives, New Opportunities

There is skepticism among policymakers and the public as to whether changing health risk behaviors is actually possible. The scientific evidence on effective weight control, for instance, has been weak, erratic and contradictory over the years.

However, the evidence for effective interventions to promote health, including promotion of healthy weight, is starting to firm up, just as the costs of inaction become more apparent. The evidence now suggests that effective action to improve health behaviors, including diet and fitness, is indeed possible, and that doing nothing is no longer an option if we are to sustain both public health and economic competitiveness.

Some of the issues at the center of the debate, often inhibiting policy action, include the following:

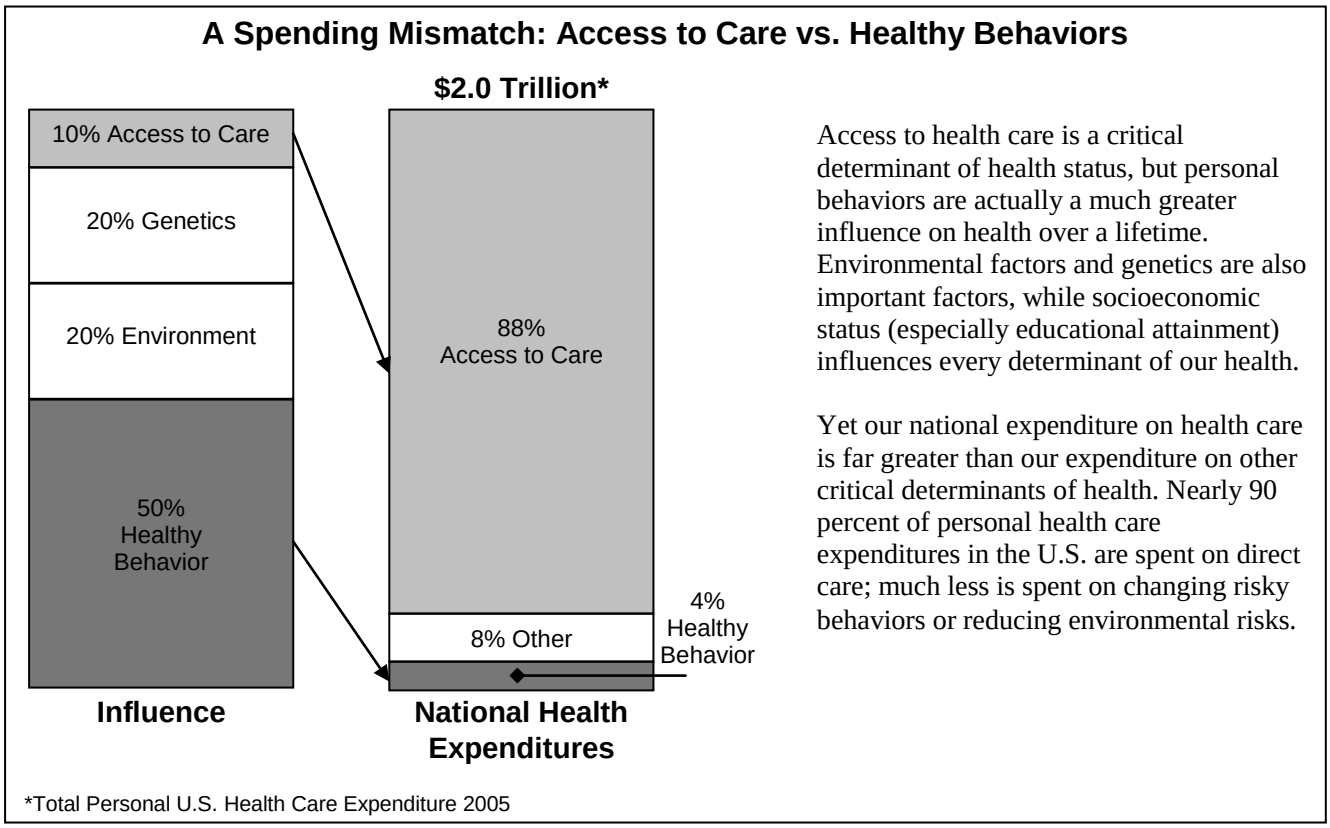
- ***Issue: Are there really proven interventions for sustained behavior change relative to diet and fitness?***

  Traditional view: The scientific evidence base for changing behaviors around diet and fitness historically has been thin. Relatively few interventions appear to be successful over long periods of time when subjected to rigorous evaluation.[14]

  New perspective: The latest evidence recognizes that people fall into distinct "states of readiness to change"—from mild curiosity about behavior change to a deep commitment to change.[15] Multi-factor interventions that tailor services to these states of readiness have been found to be more successful than one-size-fits-all programs. The most successful programs promote healthy diet and fitness, give people frequent opportunities to gauge their success and provide some form of group reinforcement.

  Other important attributes for successful behavior interventions include:

  - **Pervasiveness**: Promoting behavior change should happen in all the places that influence health—at home, at work, in the media, in doctors' offices, in schools and in the community.
  - **Supportive Environment**: Support should extend to the *physical* environment (neighborhoods that encourage safe recreation, for example, or school lunch programs that offer healthy eating options) and to the *policy* environment (such as state policy to regulate healthy eating options in schools).
  - **Rewards**: Incentives can be effective, such as offering financial inducements for employees to participate in employer-sponsored wellness programs.
  - **Education**: There should be ample opportunity to learn about behavior changes and to receive prompts that reinforce behavior change (through media campaigns promoting healthy weight, for example).
  - **Customization and Cultural Competency**: Giving people the flexibility to tailor programs to their own unique circumstances (for example, health promotion programs that build on the unique cultural attributes of ethnic groups) is critical.



- ***Issue: If we succeed in helping people lose unhealthy weight, how confident can we be that they will keep it off?***

  Traditional view: A recent public opinion survey found that at least half of all Americans attempted to lose weight during 2007.[16] However, data suggests that about 80 percent of people who succeed in losing weight regain the weight in time.[17]

  New perspective: Research findings from Brown University's National Weight Control Registry have isolated core characteristics of people who succeed in maintaining weight loss. These people tend to train themselves to consciously balance daily food intake with daily energy expenditure, frequently as part of a regular routine shared with a group or through face-to-face programs.[18]

  For many people, the ability to consciously maintain healthy weight has been undermined by trends in work, home and neighborhood environments. Research on food policy and food industry practices in the U.S. has demonstrated that in the last 30 years an 'obesogenic environment' (i.e. an environment that nurtures unhealthy weight gain) has taken hold in the U.S. Among the leading characteristics of this trend are cheap and plentiful quantities of highly caloric, processed food, often heavily promoted through advertising, compared to more expensive, less plentiful and less-promoted healthy foods such as fruits and vegetables.[19]

For that reason, a well-grounded, multi-factor campaign to attack poor diet and fitness must include measures that will reverse these trends promoting an obesogenic environment.

- ***Issue: Since overweight and obesity aren't illnesses, won't a campaign for better diet and fitness only serve to stigmatize heavy people?***

  Traditional view: Health and fitness policies that emphasize weight often stigmatize overweight and obese people who already face social stigmas and suffer negative consequences in stress and inferior opportunities for good jobs and social advancement.[20]

  New perspective: Emerging evidence suggests that the U.S. obesity epidemic is fueled by many factors that are largely beyond the control of individuals. Genetic predispositions play a role, as do the huge shifts in the U.S. food market and policy that have created the obesogenic environment cited above. Many people have had little choice but to live on foods that provide high calories at lost cost.[21]

  The correct objective for a new campaign on healthy behaviors is the reduction of health risks. The evidence that links unhealthy weight with health risks is very strong.[22]

- ***Issue: Because resources are limited, shouldn't any new campaign to promote health be targeted to those people who are already at high risk or already suffer from chronic disease?***

  Traditional view: Targeting resources makes a great deal of sense, particularly in times like these when health care costs are increasing rapidly and resources are limited. Prevention makes the most economic sense when measures that are believed to be cost effective are targeted at the most appropriate patients or sub-populations,[23] particularly those high-cost individuals with serious chronic disease.

  New perspective: A solid body of evidence suggests that behavior change initiatives aimed at high-risk people will be all the more successful if families, neighbors and co-workers (most of whom may be at lower risk) are participating as well.[24] New initiatives that include low-risk people will slow down or reverse the gradual increase in health risks borne by many people as they age. Recent research conducted by political scientist James Fowler and Dr. Nicholas Christakis of Harvard Medical School provides powerful evidence that increasing acceptance of unhealthy weight within networks of family and friends has been a major force in the obesity epidemic—and that reversing the trend should be a social process as well.[25]

- ***Issue: Aren't the forces that undermine unhealthy behaviors simply too powerful?***

  Traditional view: Market forces that promote unhealthy behaviors easily overwhelm other trends or initiatives that promote healthy behaviors. For example, heavy marketing and promotion of cheap, highly-caloric food vastly outweigh promotion of more expensive but healthy foods such as fresh fruit and vegetables.[26]

  New perspective: The relative abundance of cheap, highly-caloric food is in no small part a result of deliberate government policy—not the unfettered free market—to subsidize the

production of corn. Since the 1970s, converting corn into high-fructose sugar substitutes has made processed foods and soft drinks more appetizing, more calorie-dense and cheaper. In contrast, U.S. agriculture policy does not subsidize the production of fruits and vegetables.

While reform remains difficult, a movement to reverse the most damaging aspects of agriculture policy has made headway in recent years, fueled by accumulating evidence that the current trajectory of obesity and chronic disease is fiscally unsustainable. Reversing the obesity epidemic could generate $283 billion over just ten years, according to a special Commonwealth Fund commission chaired by Dr. James Mongan of Boston's Partners HealthCare System.[27]

- ***Issue: Isn't the science around nutrition, fitness and weight gain still evolving?***

  Traditional view: The scientific understanding of how nutrition, fitness and weight gain interact is by no means a settled matter. Some research suggests that excess weight might not be a health risk for every person, always and everywhere.[28]

  New perspective: Discoveries in molecular biology are gradually revealing that the human body's mechanisms for storing and conserving energy are far more complex than previously thought. Familiar controversies over such issues as the role of carbohydrates in nutrition or the wisdom of specific diets could intensify before they are resolved.[29]

  Nevertheless, the preponderance of evidence continues to show a strong association between obesity and serious chronic illness, and a clear—if less strong—association between being overweight and elevated health risks. As the number of overweight and obese people rise, the cases of chronic illness will rise, creating higher levels of disease-related mortality and increasing health care spending throughout the population.[30]

The Case for Change

One major hurdle to changing the poor behaviors that compromise our health is convincing ourselves that we can do it. In the past, a lack of evidence coupled with old and sometimes stereotypical arguments have perpetuated inaction even as the trend lines and costs of obesity, diabetes and other chronic illnesses soared upwards.

Today, new perspectives on weight gain and loss, new research on the success factors of behavioral interventions, and the growing scourge of costly but preventable chronic illness combine to bring new urgency to the case for action.

The time has come for a comprehensive campaign for health and fitness, with the goal of reversing unhealthy behaviors and fostering a new and sustainable statewide culture of health.

Building on Our Track Record for Innovation in Health

Massachusetts innovators who have pioneered new approaches to health promotion and fitness can teach valuable lessons for the creation of an effective, statewide campaign to improve health throughout the Commonwealth.

Innovation by Health Plans

Blue Cross Blue Shield of Massachusetts (BCBSMA) has gained a national reputation for its work combating childhood obesity. BCBSMA has invested about $12 million in its *Jump Up & Go!* program, including investments in school-based health that have reached more than 100,000 children.[31] BCBSMA also has begun to connect school and community-based anti-obesity initiatives to the health care system, including incentive payments for physician counseling of obese children.

Harvard Pilgrim Health Care and its affiliated foundation began *Growing Up Healthy* to identify and support effective programs that combat childhood obesity in Massachusetts, Maine and New Hampshire. Harvard Pilgrim outlines a strategy against childhood obesity in *Tipping the Scales*, a report commissioned from Professors Jeanne Goldberg and Christina Economos of the Tufts Friedman School of Nutrition.[32]

Innovation in Schools and Communities

Researchers from Tufts University's Friedman School of Nutrition have won national recognition for the *Shape Up! Somerville* campaign, which has offered over 1,000 Somerville schoolchildren healthy eating options and increased physical activity before, during and after school. The program has prevented unhealthy weight gain and is being replicated in communities throughout the U.S. through a spin-off organization, "Children in Balance."[33]

The City of Cambridge achieved a similar success in 2005-2007 with the "Healthy Living Cambridge Kids" program initiated by the City's Healthy Children Task Force. The program achieved a 1.7 percent decrease in the prevalence of overweight among participating children and a 5 percent increase in healthy weight overall. The U.S. Surgeon General recognized the Cambridge program with his 2007 "Pioneers in Innovation" award.

Innovation by Employers

Large, self-insured Massachusetts employers are deploying innovative approaches to health promotion, including EMC Corporation, Fidelity Investments, Raytheon and AstraZeneca. EMC's collaboration with Boston University's DASH anti-hypertension program involved 6,000 employee-participants and resulted in $1,000 in estimated savings in company health benefit expenditures per employee. EMC is now collaborating with Partners HealthCare's Center for Connected Health in enrolling employees in an Internet-based home monitoring system for hypertension control.

Entrepreneurial Innovation

Industry analysts project that private firms targeting disease management, health promotion and wellness services will generate nearly $3 billion in revenue by 2009, more than doubling their revenues from 2005. Until its recent sale to a UK-based parent, Boston-based Health Dialog was the fastest-growing privately held firm in Boston. Other prominent local start-ups include Tangerine Wellness and VirginHealthMiles. Teams from Boston University's DASH program, the BU-administered Framingham Heart Study and the Harvard School of Public Health have all spun off commercial health promotion start-ups in recent years.

A Blueprint for Healthy People in a Healthy Economy

In order to significantly impact behavior and foster sustainable habits that improve health across the Commonwealth, we must begin an effort that is pervasive and coordinated across the numerous institutions that touch our citizens' lives. A Tufts study for the U.S. Surgeon General in 2000 identified dozens of potential touch points that impact health behaviors at varying stages of life[34]; a campaign promoting healthy behaviors must reach all of these touch points.

The *Mass in Motion* campaign launched by Governor Deval Patrick is a significant start (see sidebar). But as noted earlier, this effort lacks the necessary resources, and prospects for new resources have greatly worsened as state revenues have plunged in the current recession.

As a result, it is imperative that leaders of all relevant sectors in the state come together to collaborate on policies that will promote healthy behaviors at the many touch points identified by Tufts.

Specifically, the following sectors should work collaboratively to promote healthy behavior:

- Schools
- Municipalities
- State Government
- Payers
- Employers
- The Food Industry
- Physicians
- Philanthropies
- The Media/Opinion Leaders

Mass in Motion

In January 2009 the Patrick Administration announced a comprehensive initiative on diet, fitness and obesity known as *Mass in Motion.* Key action areas include:

State Government – Eliminate the current 5% sales tax exemption on soft drinks and candy via the FY10 state budget; require menu labeling in large chain restaurants, by action of the Public Health Council; coordinate efforts across the Commonwealth to promote health and wellness.

Cities and Towns – Create a public-private partnership to promote healthy community strategies through a new "*Mass in Motion* Active Living/Healthy Eating by Design" program, co-funded by the Department of Public Health and the state's major health grantmakers.

Worksite – Expand the Department of Public Health's *Working on Wellness* Initiative for worksite wellness from 11 to 22 sites in 2009.

Schools – Require Body Mass Index (BMI) measurements on public schoolchildren, with reports sent directly to parents, by action of the state's Public Health Council. Promote walking through a new Safe Routes to Schools program.

Schools

Much of the current dialogue on health promotion and fitness, in and beyond Massachusetts, centers on schools. Schools are where children are apt to eat one or more meals each day. It is where they participate—or not—in physical education and sports. Schools also help to educate children on healthy behavior through health curricula and programs. Therefore, schools should actively ensure that they consistently deliver positive messages to children around healthy eating and exercise.

Improve School Nutrition: Only 15 percent of high school students responding to the state's Youth Risk Behavior Survey in 2007 reported that they routinely eat the recommended daily allowances of fruits and vegetables.[35] To combat the problem, members of the Massachusetts Legislature have introduced several bills aimed at removing unhealthy foods such as soda from public schools and substituting healthier alternatives.[36]

Beyond legislation, innovative researchers have begun to test evidence-based methods for improving nutrition and physical activity in schools. These efforts include the *Shape Up! Somerville* project designed by Tufts researchers and the Harvard School of Public Health-designed *Planet Health* project, which is the subject of a controlled trial in Massachusetts middle schools by the Department of Public Health and Blue Cross Blue Shield of Massachusetts.[37] Additionally, some school systems have begun to act on their own by removing vending machines, restricting soft drinks and introducing new, healthy options to school lunch programs.[38]

⇒ **Lawmakers and educators should continue to identify and implement new approaches to replace unhealthy foods with nutritious options in schools.**

Promote Physical Activity: Formal physical education in the state's schools has been cut dramatically over the years in response to requirements of Massachusetts' 1993 education reform law[39] and additional Board of Education academic and testing requirements.[40] However, current legislative activity, such as the Act to Improve Quality Physical Education, seeks to reinstitute and increase physical activity in schools.[41]

⇒ **Educators, health experts and lawmakers should work together to identify more opportunities for physical activity throughout the school day by reconciling health promotion with the increasing academic requirements and fiscal pressures facing public schools.**

Effectively Implement Body Mass Index (BMI) Reporting: Massachusetts law requires annual height and weight measurements of public school students. In recent years the state's school nurses have pushed for the authority to convert these measurements into BMI measurements so as to alert parents of at-risk children. As part of the state's *Mass in Motion* campaign, the Department of Public Health recently sought and won approval of a new regulation from the Public Health Council that will now require BMI reporting for students in grades 1,4,7 and 10. BMI reports will be communicated directly to parents with accompanying educational materials.[42]

Massachusetts is following several states (Arkansas most notably) that have adopted programs to systematically measure BMI among students and report results directly to parents.[43] BMI reporting programs are designed to encourage follow-up action by parents and primary care physicians on behalf of obese students. Pennsylvania has a similar program that benefits from the introduction of Web-based technology – which greatly reduces the administrative workload of BMI reporting on school nurses.

⇒ **As BMI reporting in the schools becomes mandatory, Massachusetts educators, the state's school nurses, other educators and primary care practitioners should maximize communication, and should collaborate to learn from established programs in states such as Arkansas and Pennsylvania.**

Municipalities

The 'built environment' shapes every person's level of physical activity. The configuration of roads and transportation systems, neighborhoods, and even the architectural design of homes and workplaces may promote or discourage walking and physical exercise.

Massachusetts is a densely settled, urban state that relies on an increasingly congested, auto-dependent transportation system. A recent analysis estimated that from 2000 to 2005, person-hours lost to traffic delays in Greater Boston increased by 36 percent to 93 million hours—a significant increase in time that is neither productive nor physically active.[44] To combat this trend, *Mass in Motion* plans to create a public-private partnership that will fund municipalities to become "*Mass in Motion* Active Living/Healthy Eating by Design" communities. These communities will implement such initiatives as zoning changes and afterschool transportation to encourage sports involvement for students.

Beyond the *Mass in Motion* initiative, municipalities should work with the Commonwealth to identify ways to make infrastructure more conducive to walking and other physical activity.

Redesign Transportation: Massachusetts is currently in the throes of the first comprehensive rethinking of its transportation planning and funding priorities since the design of the Big Dig over twenty years ago. Even before the current recession and fiscal crisis, Governor Patrick and the Legislature had begun the process of creating a long-term strategy for the state's capital infrastructure and its funding.[45]

⇒ **The current deliberations on the state's long-term transportation infrastructure needs should incorporate measures that will promote fitness, favoring physical activity (safe walking and cycling) over a continued over-reliance on automobiles.**

Build Smart: While the current housing market is troubled, housing policy reforms adopted over the last five years—many promoted by the Commonwealth Housing Task Force, a broad coalition of industry leaders[46]—have significantly increased the number of housing units in the region's development pipeline.[47] Housing production remains a major policy goal for the Commonwealth, as housing costs remain high despite the current decline. As production continues, some leaders are emphasizing 'smart growth' principles popularized during the

Romney Administration, which create incentives to locate new housing within walkable distances of mass transit to reduce congestion costs.

⇒ **Housing policy should extend these smart growth principles to create more walkable, fitness-friendly communities and housing developments.**

Promote Green Building: Massachusetts has earned a national reputation for innovative green building practices. The green building movement is best known for introducing energy conservation and alternative energy technologies into building design and construction, but green building standards also emphasize the construction of healthy home and workplace environments.[48] In practice, new green building construction offers an opportunity to construct facilities that encourage physical activity, such as at Genzyme's corporate headquarters in Cambridge.

⇒ **Organizations that actively promote green building practices in the Commonwealth (such as the state's Renewable Energy Trust) should incorporate strategies for health promotion through increased physical activity.**

State Government

The Commonwealth has a significant role to play in partnering with other sectors to promote healthy behavior, and many examples of the state's role are included in other sections of this *Blueprint*. Beyond these examples, the state can significantly promote health and wellness through the health insurance reform law (Chapter 58 of 2006). Chapter 58 provides the state's health plans with the legal authority to expand health promotion and wellness programs as part of the insurance products they offer to small- and mid-sized businesses.

To realize the potential of Chapter 58 in promoting health and wellness, the Commonwealth should work with insurers and employers to clarify outstanding questions and promote the legal expansion of wellness programs.

Clarify Employer Health Promotion Incentives: Chapter 58 gives the state Commissioner of Insurance new tools to encourage the inclusion of health promotion and wellness programs as covered benefits in health insurance plans. Health plans can offer reduced premiums to small employers based on the level of employee participation in approved health promotion activities. And both the state's Medicaid program and small- and mid-sized employers can offer reduced premiums based on individuals' participation in approved wellness services.[49] These incentives are specifically for health plan subscriber *utilization* of health promotion and wellness services; they are not tied to the employee's health status. Thus, employees cannot be rewarded or punished based on health factors such as weight.

Federal law does allow large, self-insured employers to tie incentives to health status, as long as the incentives do not discriminate against employees with pre-existing health conditions or disabilities. Despite the new regulations, no major Massachusetts employer appears to have tied health insurance premiums to employee health status to date.[50]

Insights from employers suggest that a number of major questions must be answered before incentives for health promotion and wellness are fully utilized by employers in the state:

- Will health plans and employers be able to offer large enough incentives to attract meaningful employee participation? Incentives now offered by some large, self-insured firms total several hundred dollars per employee per year.

- What kind of programs will the Commissioner of Insurance approve? Research suggests that discrete, 'siloed' interventions are not effective, while comprehensive, multi-factor programs are. Is the Department of Insurance prepared to consider and approve health promotion programs that are this complex?[51]

- Will these incentives allow health plans to reach firms in industries that are less apt to adopt health promotion and wellness programs, with workforces that may be hard to reach? For example, retail industry workers, who tend to have lower educational levels and earn lower wages than workers in self-insured firms, are potentially an important target for health promotion in Massachusetts. Yet only 28 percent of Massachusetts' retail industry employees were covered by self-insured plans in 2005,[52] and retail workers are less apt to work at desks with access to secure, Web-based wellness programs.

⇒ **To advance worksite health in Massachusetts, the Commonwealth should collaborate with the state's insurers and employers to clarify unresolved questions surrounding Chapter 58 and employer-sponsored health promotion.**

Payers

Little-noticed provisions of Chapter 58 (the Massachusetts health insurance reform law) authorize the use of financial incentives by health plans to encourage health promotion and wellness. Yet as of now these provisions have not been utilized by the state's health plans and employers. (The state's health plans do offer a range of free or contract-based wellness services.) Adoption of more comprehensive services would undoubtedly require new investment by health plans at a time when business conditions are bad and the health plans have numerous other commitments (such as to health care quality initiatives.)

For all these reasons and more, active collaboration among the state's health plans and employers may be the most prudent way to promote adoption of effective wellness services.

Foster Collaboration to Overcome Churn and Promote Wellness: Investment in health promotion and wellness by any single health plan has, to date, been inhibited by subscriber 'churn'. Business strategists Michael Porter and Elizabeth Teisberg have noted that up to 25 percent of health plan subscribers may change health plans within five years.[53] Payer investment in health promotion may also be inhibited by the fact that nearly 30 percent of the state's employers offered employees a choice of coverage from two or more competing health plans (as of 2005), although smaller employers were far more likely to offer only one plan.[54]

On issues ranging from the adoption of computerized physician order entry (CPOE) to the creation of benchmark measures of physician quality, the state's health insurance industry has

joined with other stakeholders to support well-developed research and pilot projects that build a case for more aggressive, statewide action. A similar coalition of payers and employers to promote healthy behaviors would help overcome the challenges individual payers face in building wellness programs. A collaborative approach to health promotion by all major health plans is likely to benefit each one by offsetting subscriber churn and by standardizing services that may be available to firms offering more than one health plan to employees. This collaborative approach could have several other advantages for accelerating the adoption of health promotion programs in workplaces, including:

- Increasing employer awareness by creating a unified message from the state's health plans on the benefits of employer-sponsored health promotion activities.

- Creating common standards for the design of wellness benefits, based on the best evidence available, thus reducing the time and cost of implementation.

- Creating a common approach to implementation of wellness benefits into industries less apt than others to adapt these practices, including industries such as retail that have lower-paid and less educated workforces.

- Simplifying the evaluation and approval process within the state Division of Insurance.

- Creating an open process for the approval and implementation of health and wellness benefits in Massachusetts that is fair and non-discriminatory, and perceived as such by the public.

⇒ **Massachusetts payers should form a coalition to identify effective, comprehensive approaches to employee health promotion and wellness.**

Employers

Employers in Massachusetts have a significant stake in the health of their employees, for two reasons.

First, the overall population of the Commonwealth is aging faster than the U.S. population, as younger workers continue to migrate from Massachusetts to other locations. Older workers are naturally subject to a higher burden of chronic disease, and immigrants—who are vulnerable to the health care disparities that promote poor health—are offsetting the outflow of younger workers.[55] Thus, the Massachusetts workforce is becoming unhealthier.

Second, employers in Massachusetts are more likely to offer employee health benefits—and thus cover health care costs—than employers in other states. Even before the enactment of the state's 2006 health insurance reform law, over 70 percent of Massachusetts employers offered health insurance,[56] versus the 60 percent of U.S. employers offering health benefits nationwide.[57] The reform law requires all Massachusetts employers with ten or more employees to offer employee health insurance or pay a per-employee fee. Thus, good employee health has become even more of a competitive priority for the state's employers. And with 81 percent of employed adults in

Massachusetts receiving health care benefits through their employer, employees also have a large stake in the success of employer-led health promotion.[58]

The Patrick Administration has recognized the strategic importance of employee health in its health care strategy, the "Healthy Massachusetts Compact." Early in 2008, Public Health Commissioner John Auerbach launched a pilot program called "Working on Wellness," which is testing the effectiveness of a 'worksite toolkit' at 11 worksites across the Commonwealth, including public, private and nonprofit agencies. As part of the *Mass in Motion* campaign, the number of businesses participating in the DPH pilot program will double to 22 in 2009.

Massachusetts employers can augment state efforts to increase and enhance employee wellness programs by sharing best practices and increasing awareness of effective approaches to worksite wellness programs.

Share Best Practices Among Self-insured Employers: Recent national employer surveys have shown a rising level of commitment to employee health management as a strategy among larger firms to improve employee health, enhance productivity and restrain health care cost inflation.

Because larger employers are invariably self-insured, they cover employee health care costs directly. Any year-to-year reductions in health care costs, therefore, accrue directly to the firm.

Most recently, a January 2009 survey of 343 large U.S. firms by Hewitt Associates showed that two-thirds of responding firms are making significant investments in employee health despite the ongoing recession.[59] Several firms with a large employee base in Massachusetts have been recognized as national leaders, including EMC Corporation, AstraZeneca, Raytheon, Fidelity Investments, General Electric and Hannaford Brothers.[60]

Today's employee health management programs go considerably beyond the occupational health and safety programs or employee assistance programs traditionally offered, including:

1. **Comprehensive strategies**: the new programs bundle multiple services directed at both the high-risk employees most likely to incur health care costs and the much larger number of low-risk employees whose health employers want to sustain. Bundled services allow employers to target specific problems such as hypertension while achieving the multi-factor approach to health improvement that research suggests is most effective.

2. **Covered health insurance benefits that promote disease prevention**: employers may choose to offer health insurance benefits that favor disease screening, prevention and primary care services.

3. **Third-party services**: employers are frequently purchasing services outside their health insurance plans and utilizing vendors who provide targeted services, such as telephone- and web-based health coaching, to employees.

4. **Direct investment in company facilities and on-site services**: employers are investing in on-site fitness centers and in healthy eating options at worksite cafeterias.

5. **Incentives**: employers are offering financial incentives to employees who participate in health management programs. The most common incentives are financial rewards for all employees who complete a Health Risk Assessment (HRA), which both promote broad HRA participation and help employers target follow-on health promotion programs. Annual HRA participation at EMC and AstraZeneca exceeds 90 percent.

In the past, rigorous evidence on the effectiveness of employer-sponsored programs in improving employee health has been difficult to collect and analyze; programs are idiosyncratic, as companies tailor them to their corporate culture, their budget and attributes of their workers. Nevertheless, general results have been positive. Comprehensive, worksite programs are the only class of 'community-based' programs found by the CDC's Task Force on Community Preventive Services to be effective in reducing overweight and obesity.[61]

Reliable evidence on the financial impact of employer-sponsored programs has been even more difficult to attain, but here again the overall findings have been positive. Major local employers such as EMC and AstraZeneca have reported that their employee health management programs have cut as many as 2 percentage points off the annual health spending inflation rate of 8 percent or more in recent years.[62]

The most recent federal data suggests that over 47 percent of the state's private workforce receives health insurance benefits through self-insured employer-sponsored plans.[63] There are no data available to suggest how many firms have adopted comprehensive employee health promotion and wellness programs, but data on U.S. employers generally suggest that no more than a third of large employers have adopted comprehensive plans.[64]

⇒ **Large, self-insured employers should share best practices in employer-sponsored health promotion programs, and the Commonwealth should work to increase employer awareness of ongoing innovations and success stories among these programs.**

Increase Adoption Among Small and Mid-sized Employers: About 75 percent of Massachusetts employers are not self-insured, and they employ half of all private sector employees in the Commonwealth. These employers, mostly small- and mid-sized firms, must purchase health insurance coverage from commercial health insurance plans. These employers are fully insured, meaning that the health plans assume the financial risk of covering their employees, while a self-insured firm takes full risk upon itself.

Fully-insured firms are free to spend their own money on employee health promotion and wellness. Some may do so in order to attract and retain employees, but due to health insurance regulation for small- and mid-sized firms, they can have little expectation that health promotion and wellness programs will help them with their health benefits costs. And these companies rely on health insurance plans that, at least for now, offer limited financial incentives for the adoption of employee health promotion and wellness programs.

Most important, the state's health insurers can offer few guarantees to mid-sized employers that employer health insurance premiums will be cut if employee health improves and health care demand is reduced. Currently, there are pilot projects underway throughout the country—including the Health Benefits Program of the HealthCare 21 coalition in Knoxville, Tennessee,

Employer-Sponsored Health Promotion and Wellness Programs: Do They Improve Health and Cut Costs?

Evidence from large employers suggests that well-run programs can be effective in improving health and saving health care costs. Rigorous evaluation has proven difficult to achieve for logistical and methodological reasons[65], which means that results reported to date are often heavily qualified. Researchers have found it nearly impossible to conduct randomized, controlled trials of complex employer programs that adopt employee health management practices. A World Health Organization panel in 1998 declared that such 'gold standard' experimental design would be 'inappropriate, misleading, and unnecessarily expensive.[66] As an alternative, researchers have sought to analyze corporate programs by comparing the experience of program participants against non-participants on a controlled, if not entirely randomized, basis.

In reality, the employee health management programs sponsored by large firms have changed so dramatically in recent years that existing research does not accurately reflect their performance.[67] Technology has become increasingly dominant, and is likely to make these programs both more effective and easier to evaluate. Web-based programs such as online health coaching and personal health records will improve the performance of employer-sponsored programs by making personalized services for employees easier to access and cheaper to deliver. And employers can correlate data on employee health trends with medical claims data while preserving employee confidentiality, to show whether programs are succeeding in improving employee health and restraining costs. In the near future these technology-based approaches to data analysis may enable large employers to conduct rigorous evaluations of their own programs.

The evidence currently available is promising, suggesting that well-designed programs:

- **Reduce health risks** among employees. Researchers have documented reduction of health risks in multiple categories among participants in programs at firms such as Johnson & Johnson, Citibank and General Motors.[68] Worksite programs are the only class of community-based programs found by the CDC's Task Force on Community Preventive Services to be effective in reducing overweight and obesity.

- **Create savings in the form of avoided costs:** Researchers have shown that comprehensive programs can reduce health care utilization among participants, thus averting health care expenditures. A 2005 meta-analysis of 56 journal articles on employee health management found an average cost savings of 26 percent among employee participants when compared to non-participants.[69]

- **Likely yield a positive return on investment (ROI):** Very few robust studies of the ROI on employee health management programs exist, as companies have been unable to identify and publicly report the direct costs of their programs. However, a new study controlling for health risks among employees of the Highmark health insurance plan in Pennsylvania finds that Highmark enjoyed a $1.65 return per dollar on a net present value basis. Previous studies reporting on programs from the 1990s found average returns as high as $5.80, although these studies are suspected of bias in evaluating only the most successful programs.[70]

- **Likely reduce inflation in employer health care costs:** Among major Massachusetts employers, both EMC Corporation and AstraZeneca credit their employee health management programs with cutting as many as two percentage points off the firms' yearly increase in health care costs in recent years. A 2003 analysis of the General Motors program conducted by the Commonwealth Fund that per-person health care costs increased 37 percent less among program participants compared to non-participants.[71]

which has won backing from CIGNA and Blue Cross Blue Shield of Tennessee—to prove that health promotion can be profitable for both insurers and mid-sized employers.[72]

⇒ **Small- and mid-sized employers in Massachusetts should work with the state's health insurers to find effective ways to bring evidence-based health promotion to fully-insured firms. The Commonwealth should work to clarify financial incentives for small- and mid-sized firms that establish health promotion programs.**

The Food Industry

Government food policy and food industry practices have become important, if contentious, factors in the debate over diet and weight. Public health advocates point to increasing evidence that over-consumption of high calorie food in the U.S. is not simply a result of consumer choice, but a result of policies that have made calorie-packed foods cheap, ubiquitous and nearly impossible to avoid for many people.

In a January 2007 paper the Massachusetts Health Policy Forum summarized four long-term trends that have encouraged higher consumption of food: a long-term decrease in the real cost of food; a trend away from meals at home towards meals eaten at restaurants and the workplace; a marked increase in the size of portions served in restaurants; and the lack of affordably priced healthy foods in many low-income neighborhoods.[73]

The long-term decrease in food costs has been led by the decreasing real cost of energy dense, highly caloric food, including soft drinks, which have become the largest source of calories in the average American diet.[74] These high-calorie foods are marketed more heavily than highly nutritious foods such as fruits and vegetables,[75] while their cost is lowered by innovations encouraged through government agriculture policy. The most well reported example is the substitution of high fructose corn syrups for sugar in the production of processed foods, spurred by longstanding government farm subsidies for corn production and high government tariffs on sugar.[76] Meanwhile, few government subsidies help promote fruits and vegetables.

Through the *Mass in Motion* program, the Department of Public Health plans to establish a state policy requiring food contractors that supply state-run facilities to adhere to nutrition standards developed by DPH. The proposed restructuring of food contracts with the state could have multiple benefits. First, it would serve as an example that purchasing healthy foods can be done in an affordable manner. Second, it would help create a market for healthy foods that producers and distributors would strive to fill, helping generate growth and innovation in the way we provide and purchase healthy foods.

Meanwhile, the state Legislature has examined policy options to promote healthier eating. In June 2008 the Massachusetts House of Representatives voted overwhelmingly to ban transfats—fat found in processed foods that increases the risk for coronary heart disease—from the state's restaurants (the state Senate did not act on the bill by the end of its session).

Food policy must be considered as part of a multi-stakeholder effort to promote healthy behaviors; government and industry should work together to identify effective policies to improve health.

Examine Food Labeling: Nutritional information posted on restaurant menus and on foods stocked on supermarket shelves can serve to prompt consumers to think hard about their food choices. These labeling measures reinforce messages that consumers hear from other sources as well, including doctors and the media.

In May (2009), the Commonwealth took a major step forward in the battle to promote healthy behaviors. The state's Public Health Council adopted a regulation to require fast food restaurants to post the calorie content of menu items in a clearly visible place. The new regulation emulates a similar regulation in New York City that withstood a court challenge and went into effect in January 2008. The Massachusetts regulation will take effect in November 2010.

The region's supermarket industry has responded with voluntary action, most notably with Hannaford Brothers Supermarkets' "Guiding Stars" program, which uses a storewide rating system to label products for their nutritional value. Hannaford Brothers announced in 2007 that sales of highly rated items increased measurably during the first year of the Guiding Stars program.[77]

⇒ **Supermarkets and restaurants in the state should begin a direct dialogue to determine options for voluntary, health-oriented food labeling.**

Consider Food Taxation: 'Snack taxes,' currently levied by 15 states,[78] are taxes levied on junk foods and soft drinks to discourage consumption of these products. Snack taxes can also be levied to generate revenue to support health promotion initiatives, in the same way that revenues from the 1992 cigarette tax increase were used in anti-smoking programs.

As of 2008, 40 states taxed snack foods and soft drinks under general sales taxes.[79] In Massachusetts, snack foods and soft drinks are specifically exempted from the state's sales tax. Governor Patrick has proposed to eliminate the sales tax exemption on snack foods and soft drinks in order to generate about $40 million annually for a state wellness fund that would support the cost of health promotion activities throughout the Commonwealth.

⇒ **The Commonwealth should end the current sales tax exemption on unhealthy food items such as soft drinks and candy.**

Increase Neighborhood Access to Healthy Options: For many high-risk populations, including lower-income residents and residents of color, what you eat depends on where you live. Few supermarkets locate in urban neighborhoods, prompting reliance on fast food restaurants and small stores, and limiting access to affordable, healthy food choices. Restricted food choices in low-income neighborhoods contribute to high levels of chronic disease in communities of color and help perpetuate health disparities.[80]

Over the last 15 years, the City of Boston and Boston neighborhood organizations have made a concerted effort to attract new supermarkets to Boston neighborhoods.[81] There is little information about fresh food availability in low income communities elsewhere in the state, however.

⇒ **Massachusetts' considerable network of community and neighborhood development corporations in urban communities should create strategies to expand healthy food options, including strategies to improve neighborhood small business owners' access to capital investment, suppliers and marketing expertise.**

Physicians

In the past, many doctors did not actively work with patients to improve their diet and fitness. Published research suggests that many doctors were reluctant to counsel patients on their weight unless the patients were already severely obese. Even recent studies suggest that half or more primary care physicians are unlikely to assess a patient's Body Mass Index (BMI) or counsel patients on their diet and fitness habits.[82] Studies suggest that weight-related counseling is often a low priority task, given increasing demands on primary care physicians due to a provider shortage, and pressures to complete other tasks that fill up a typical patient visit.[83] Physician counseling is also an example of a 'cognitive' service that is frequently not reimbursable, or under-reimbursed by health care payers. A bias against cognitive services is thought to be a major reason why physicians have increasingly left primary care practices in recent years, gravitating to more procedure-intensive fields.[84]

However, research also indicates that doctors can be very influential on matters of diet, fitness and unhealthy weight. Studies indicate that overweight and obese patients are more apt to take corrective action if their doctors screen them for overweight and obesity and counsel them on the behavior changes necessary to sustain a healthy weight.[85] In fact, physician counseling is considered to be fundamental to all medical treatment of unhealthy weight. Clinical practice guidelines developed by the National Institutes of Health for the treatment of the overweight and obese stipulate that active diet, fitness and behavior change counseling should be provided to patients at-risk from overweight and obesity, including patients whose obesity warrants anti-obesity drug treatment or weight reduction (bariatric) surgery.[86]

Physicians, in partnership with payers, should seek ways to increase weight- and wellness-related counseling during primary care visits.

Reimburse for Better Outcomes: Overall health care payment reform is now a high-priority issue in Massachusetts health policy. A rough consensus has emerged in favor of shifting the state's health care system away from traditional fee-for-service reimbursement and toward 'global' forms of payment that reward providers for achieving good health care outcomes among patients. A shift towards this goal will provide a new impetus for doctors to provide patients with effective prevention and health promotion measures.

As such, the new movement will build on initiatives that payers have already instituted to give physicians incentives to provide patients with more counseling on overweight and obesity issues. Blue Cross Blue Shield of Massachusetts has paid out approximately $3.75 million in incentive payments to pediatricians since 2005 to prompt BMI screenings for children, and Harvard Pilgrim Health Care has instituted a similar program.

An additional incentive is under consideration through the National Committee for Quality Assurance (NCQA), which has proposed creating two new standards of health care quality

pertaining to weight screening and obesity management. NCQA develops the so-called HEDIS (Healthcare Effectiveness Data and Information Set) indicators that are the basis for yearly report cards on the quality of U.S. health insurance plans. The new HEDIS measures under consideration would rate physicians based on BMI screening of both children and adults, and the extent to which they provide appropriate counseling to children diagnosed as obese.

The Commonwealth's major commercial health insurance plans consistently rank among the top five plans in the country as measured by HEDIS benchmarks, so the eventual inclusion of obesity-related HEDIS measures in the yearly NCQA rankings could prove to be an important stimulus for the more systematic utilization of physician services in BMI screening and weight counseling throughout the Commonwealth.

⇒ **Physicians and payers should leverage the renewed attention to payment reform and to the primary care crisis to identify new opportunities to reimburse physicians for promoting healthy behaviors.**

Philanthropies

Many philanthropic foundations have made the rise in overweight and obesity a specific target of their funding efforts in recent years. In 2007, the Robert Wood Johnson Foundation announced a $500 million campaign to reverse the prevalence of childhood obesity by 2015 through grantmaking at the local level. Also in 2007, the W.K. Kellogg Foundation announced a nationwide "Food and Fitness" campaign to support comprehensive community planning that will support healthy eating and increased physical activity. The Kellogg campaign supports the Boston Collaborative, a coalition of 52 Boston-based organizations that is now planning a comprehensive food and fitness campaign in the city.

Closer to home, the Robert Wood Johnson Foundation funds the "Shape Up Somerville" project launched by Tufts University and the City of Somerville. And in 2007, the Harvard Community Health Foundation announced a 5-year campaign to support evidence-based strategies to reverse childhood obesity; the MetroWest Community Health Foundation has made a similar commitment to improve healthy eating and fitness habits in MetroWest schools. These initiatives follow fitness and anti-obesity campaigns launched by several statewide organizations, including the Massachusetts Medical Society and the Massachusetts Hospital Association.

The upsurge in grantmaking targeted at overweight and obesity is a reflection of just how seriously grantmakers view the obesity crisis. To maximize the contributions of philanthropic foundations to promote wellness and prevention, grantmakers should work in coordination.

Share Best Practices Through Collaboration: National grantmakers have begun to come together around the critical need for coordination.[87] Coordination and collaboration will help grantmakers achieve the maximum impact on local communities, and more effectively share best practices.

A movement toward coordination among funders is underway in Massachusetts. Through the Mass in Motion campaign, the Department of Public Health has brought together six Massachusetts organizations to support the new Municipal Wellness and Leadership Grant

Program. [88] And the Boston Foundation has begun to actively convene and coordinate like-minded foundations in order to attract new grants to Massachusetts and achieve the greatest possible impact.

⇒ **Philanthropies and other grantmakers should continue to identify ways to coordinate with other like-minded organizations to optimize funding sources and share best practices in funding health promotion initiatives.**

The Media/Opinion Leaders

Public awareness is essential to any effort that seeks to change health behaviors. Messages delivered to consumers through advertising, marketing, earned media and from opinion leaders reinforce messages communicated through other means, and can be used to promote healthy behaviors. This kind of social marketing has been a critical element of the campaign against smoking in Massachusetts,[89] and in the progress against heart disease begun over 50 years ago through findings from the Framingham Heart Study and other research projects.[90]

Raising public awareness of the risks of inadequate diet and fitness will require a real effort to overcome at least two major obstacles: marketing messages promoting unhealthy behaviors and the conflicting messages on diet and fitness in the media almost every day.

Redirect Marketing and Media Messages: An overwhelming preponderance of marketing messages in our society promote unhealthy choices for diet and fitness. Food and beverage marketing in the U.S. totals over $11 billion per year. To be sure, some of this marketing promotes nutritious foods, but the bulk of it supports branded products, which the Institute of Medicine estimates to be 80 percent processed food (only 20 percent of fruit and vegetable items are branded).[91] By comparison, the yearly marketing budget for the U.S. Government's 'Five-A-Day' program totals less than $5 million per year.[92]

Similarly, messages on diet, fitness and weight control are among the most heavily reported in the mass media, which does not consistently report on or promote a lifelong balance of good nutrition and physical activity to minimize health risks. Further, the stories are frequently based on new scientific studies that sometimes report conflicting results, for example the potential link between cancer and obesity, creating what *The Washington Post* has described as 'whiplash' in the public's understanding of healthy behavior.[93]

As noted throughout this report, many organizations and industries in Massachusetts are promoting messages about healthy diet and fitness. Tighter collaboration and coordination among these stakeholders should not only make these voices louder and more powerful, but their messages more coordinated and consistent.

⇒ **Organizations promoting healthy behaviors, including public health agencies, schools, employers, health care providers, health plans and nonprofit organizations, should join forces to reduce fragmentation, strengthen and reinforce their messages, and pool resources as anti-tobacco marketing did in the 1990s. These groups should partner with marketers and news sources to promote healthier messaging in mass media.**

Harness the Influence of Opinion Leaders: Much of the cutting-edge research now underway in the U.S. on nutrition, fitness, chronic diseases and interventions to reduce obesity is clustered in the Boston area in institutions such as the city's teaching hospitals, the Tufts/Friedman School of Nutrition, the Joslin Diabetes Center and the Framingham Heart Study. As a result, Boston-area researchers are frequent national newsmakers on issues of diet, fitness and weight, and are called on as opinion leaders to comment on these topics in the media and in public forums. As recognized experts, they could serve to interpret the often-conflicting news on diet and fitness, and promote messages around healthy behaviors.

⇒ **Massachusetts' 'newsmaker cluster' should serve as an important partner in efforts to communicate positive messages around diet and fitness, helping to reinforce proven messages from other stakeholders, such as the "5-2-1" messaging developed by Blue Cross Blue Shield of Massachusetts in its "*Jump Up & Go*'' program.**

Conclusion

Health promotion and prevention are the missing links in the Massachusetts health reform strategy.

To be sure, the Commonwealth has made a significant start with its *Mass in Motion* campaign. And the state's health plans—among the nation's top performers—are in many respects leaders in good health care prevention practice.

But we have not yet taken action to address the link between improved public health and improved fiscal health in the Commonwealth. We have not examined how, by working together, we can overcome barriers to improve our health, reduce our need for medical care and become more economically competitive as a result.

In creating this *Blueprint*, we surveyed a wide range of current research, which consistently suggests that changing health risk behaviors in Massachusetts will require a sustained, multi-sector effort that is not only intensive, but pervasive. Massachusetts residents are not likely to adopt healthier behaviors simply because their doctors recommend it. They are more likely to adopt healthier behaviors if their entire environment—at work, at school, at home, in the community—supports healthier behaviors, and if we adopt creative public policies that will allow residents to overcome very real barriers to sustaining a healthy lifestyle.

To do this will require forging partnerships and coalitions that go well beyond the precedent-setting coalition that created the Massachusetts health reform plan. It will mean integrating wellness opportunities and incentives into the public health community, among community organizations, in our schools and workplaces and among the state's philanthropies. Everyone must do their part.

Meanwhile, there is growing national awareness of the risks of overweight and obesity, and that the long-term success of national health reform will be determined in part by whether we attack those risks with an effort that "is commensurate with the scale of the problem," as several national associations recently described it in a letter to President Obama.[94] To that end, a new payment system that rewards good health outcomes and promotes prevention is necessary—and the movement to reform Massachusetts' payment system is encouraging.

The time for this effort is now. The current recession threatens to intensify the health risks that are driving health care spending upward, as increased unemployment, the loss of health insurance and declining incomes all contribute to unhealthy behaviors and lack of medical care. We simply cannot afford to put off this fight, and the economic challenges we face only fuel the urgency of improving our health.

It is important to seize this opening by targeting the most effective actions to reduce health risks. The key conclusion of this *Blueprint* is that an effective solution will mean taking action across many different sectors at once, acting in tandem with, but mostly *outside,* the health care delivery system. Health promotion and prevention are the missing links in our strategy to provide good, affordable and sustainable health care for all. It is time to forge those missing links.

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Notes