

Overweight and Obesity in Massachusetts: *A Focus on Physical Activity*



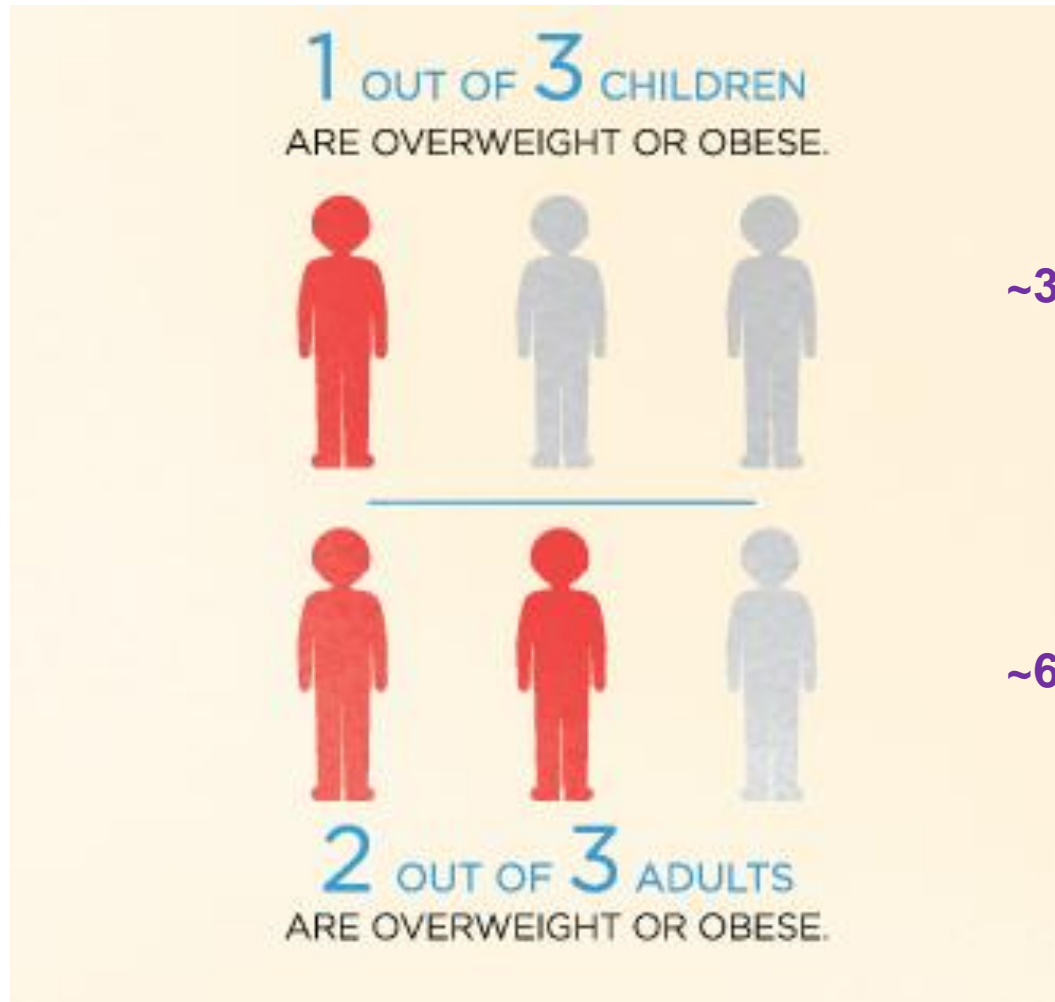
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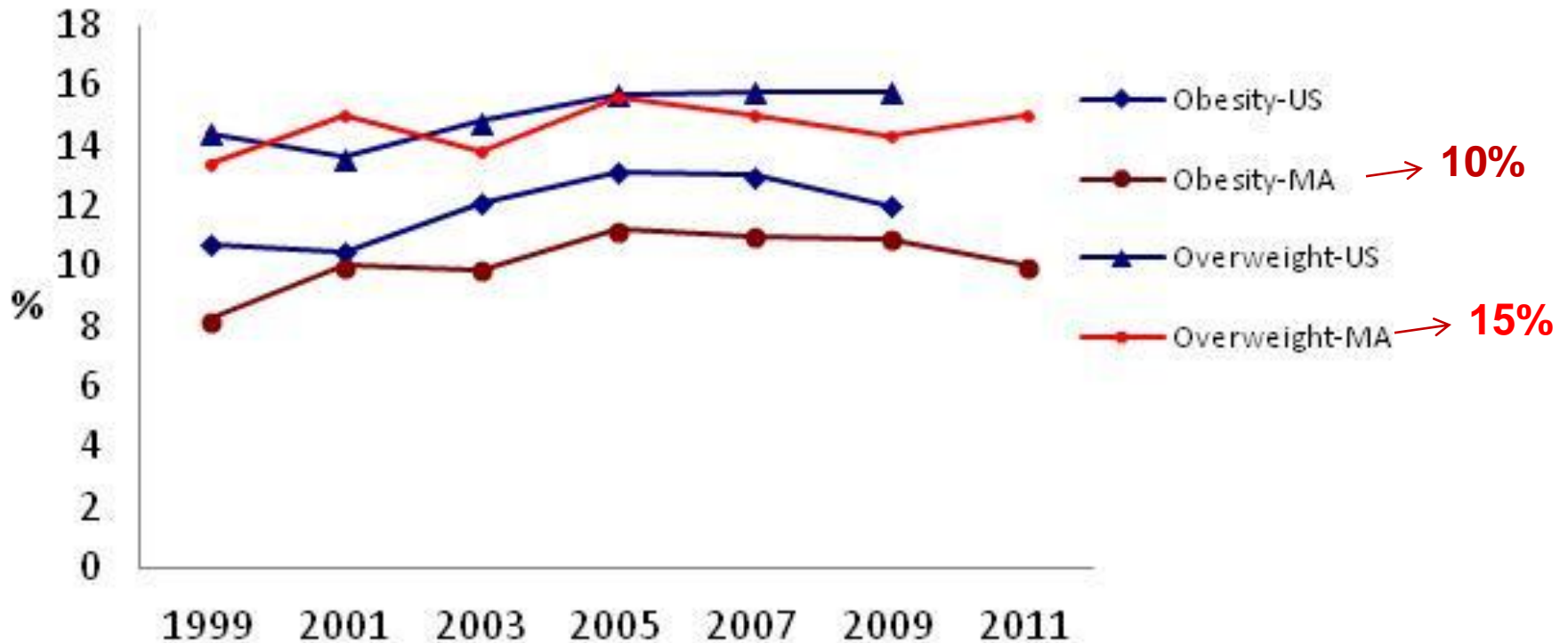
Friedman School of Nutrition Science & Policy

John Hancock Center on Physical Activity, Nutrition, and
Obesity Prevention

The National Crisis

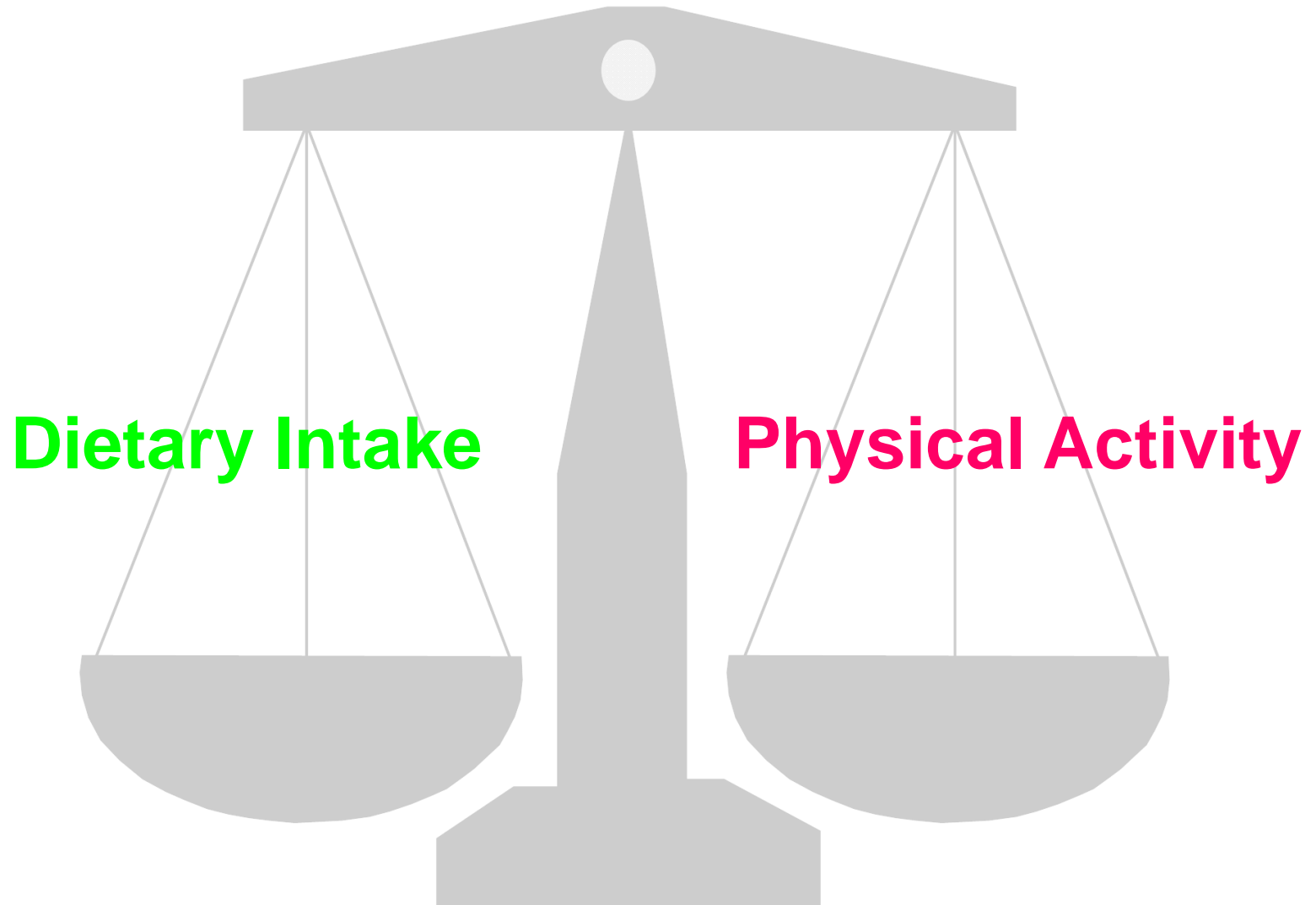


Prevalence of Overweight & Obesity in American Students



Youth Risk Behavior Survey, 2009, 2011

Energy In vs. Energy Out

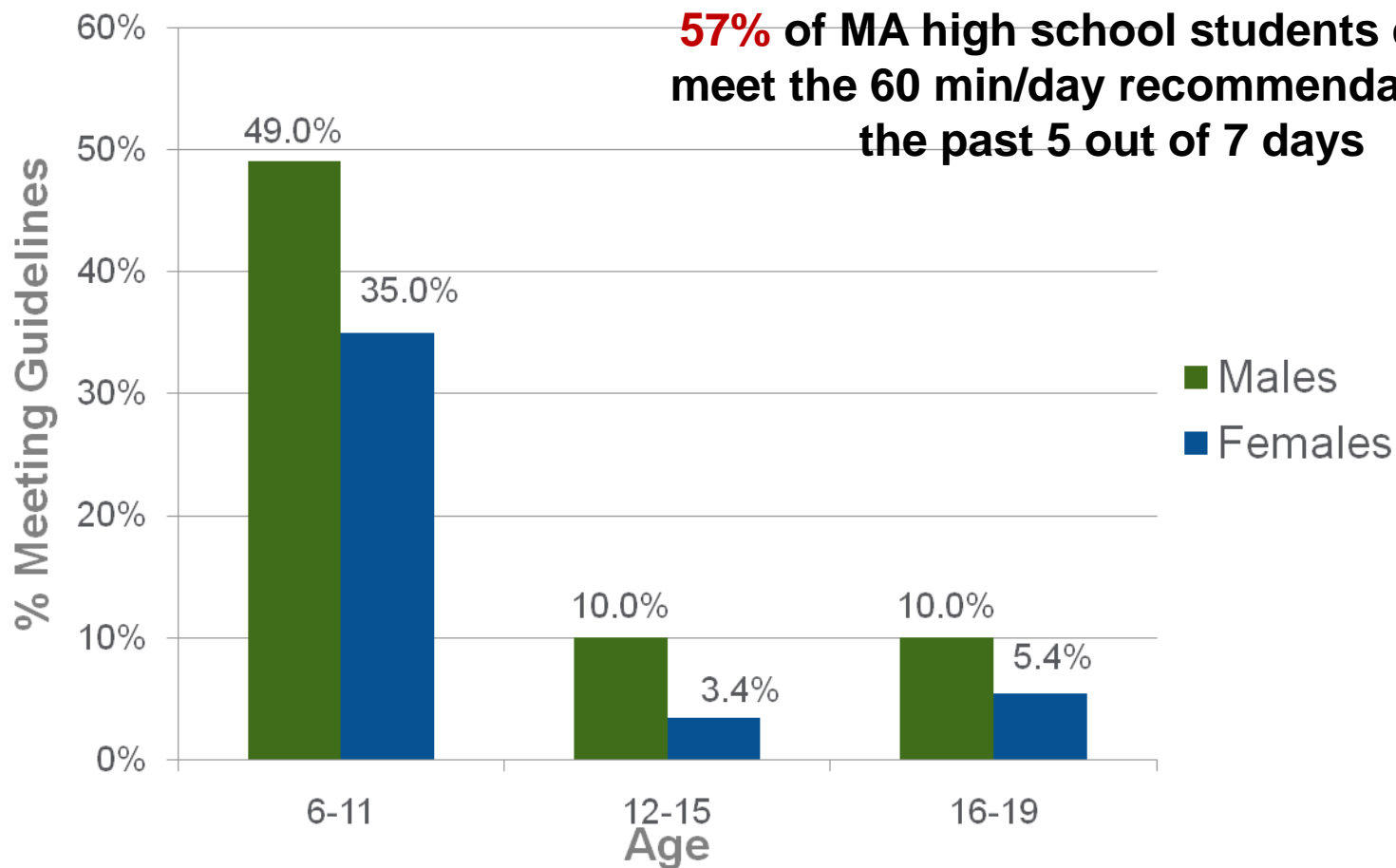


Lack of Physical Activity



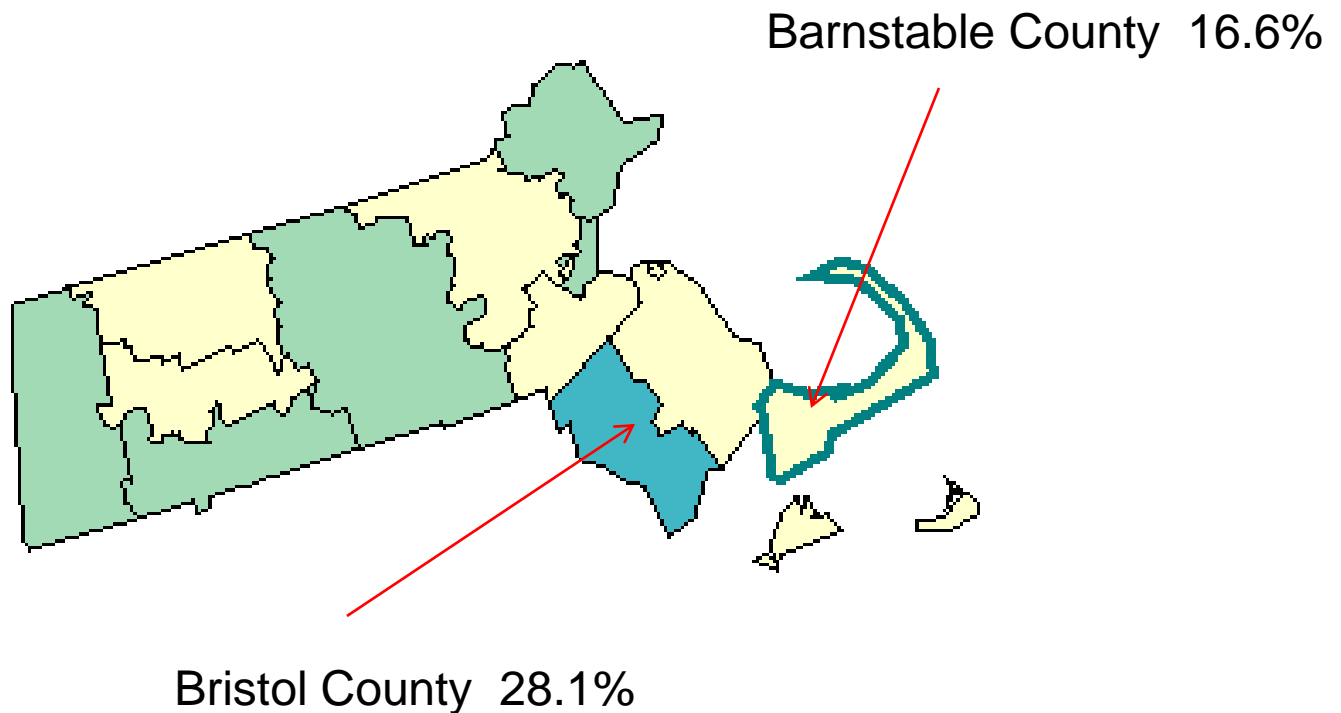
Can Johnny Come Out and Eat?

Youth Meeting Physical Activity Guidelines

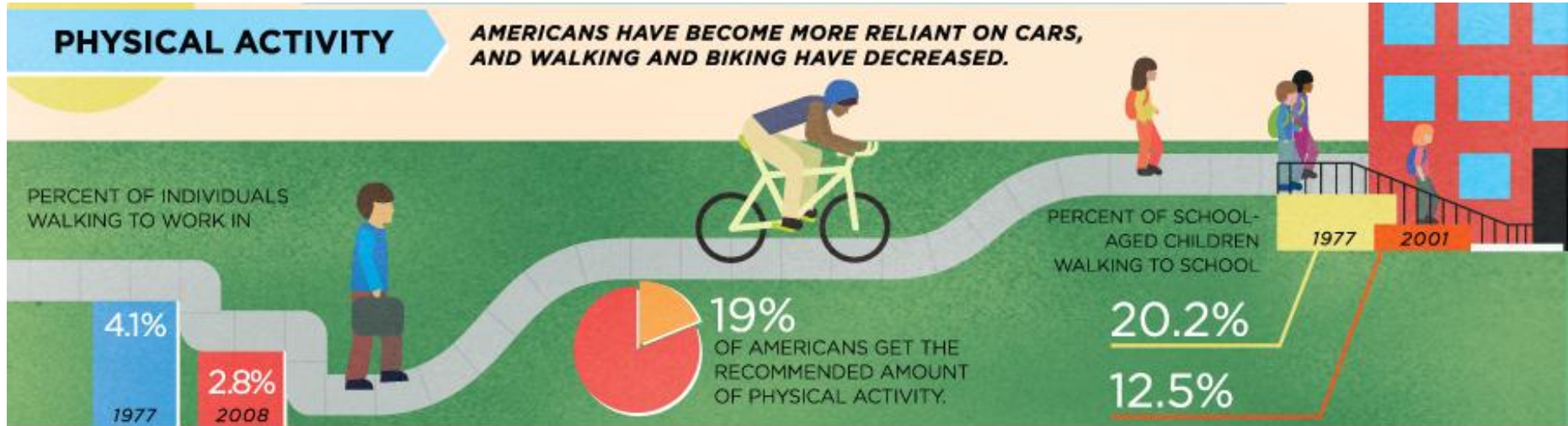


Adult Physical Inactivity

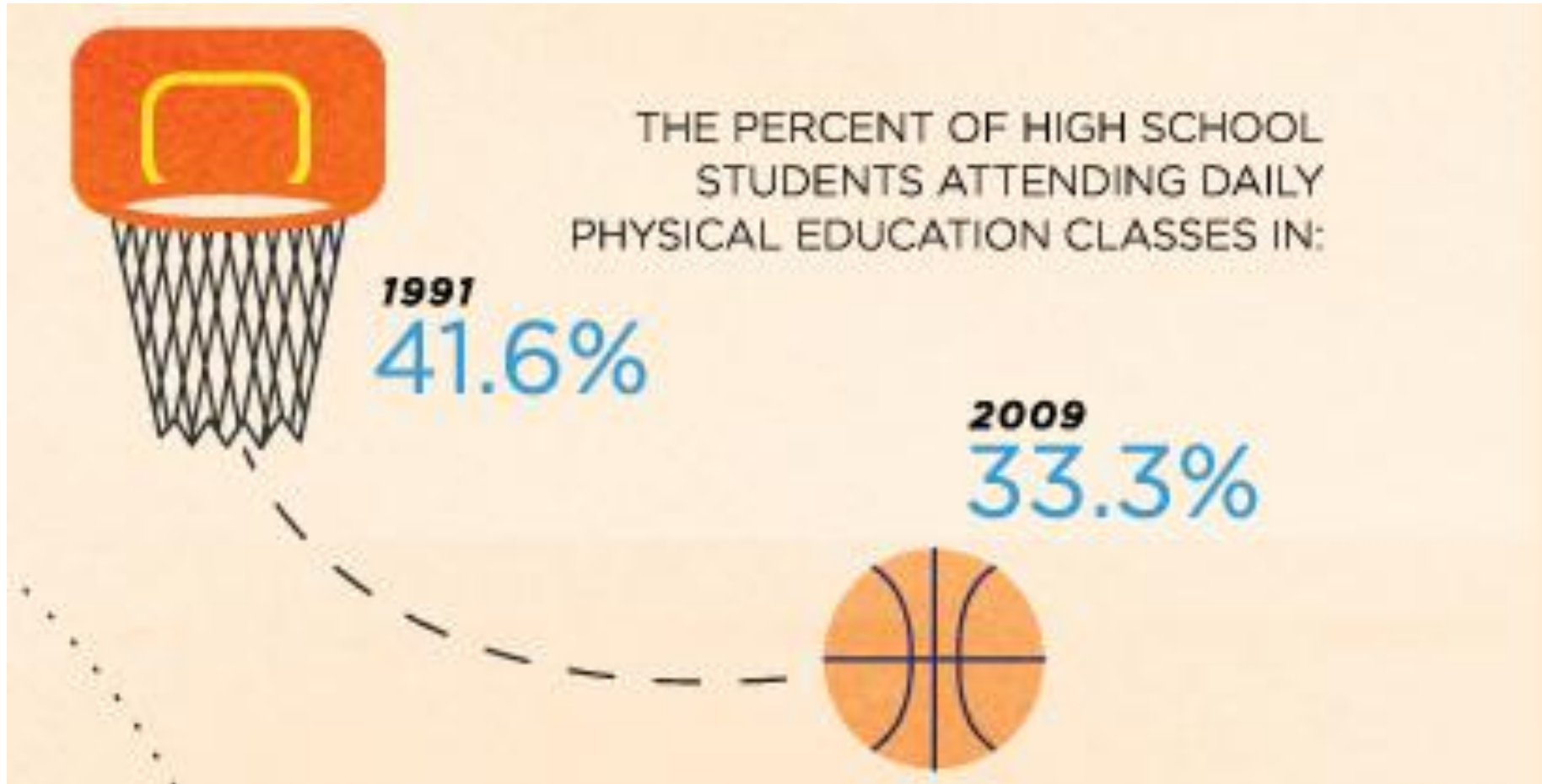
Reported NO LEISURE TIME PA IN THE LAST MONTH



Why? The Staggering Stats

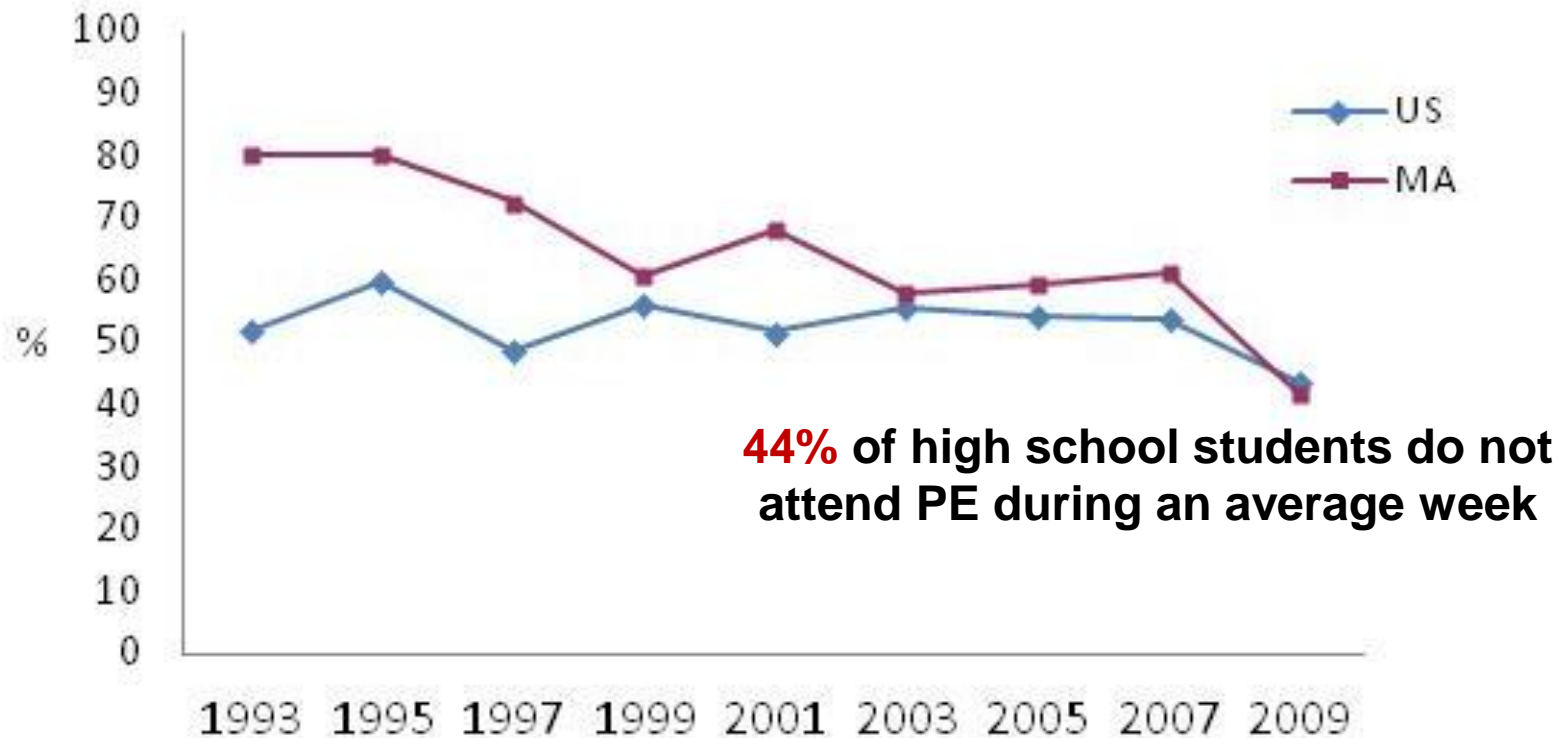


Physical Education



150 min/week of PE for elementary and 225 min/week for middle and high school students

Adolescents Who Attend PE Class in an Average Week



Physical education attendance in high school students, 1993-2009 (YRBS).

Recess, Physical Fitness



- MA does not have a recess requirement for elementary school students
- 43% of schools do not administer fitness tests in any grade



The Somerville FIT Study



	BMI		Fitness	
	<85th %tile (n=236)	>85th %tile (n=194)	Fit (n=192)	Unfit (n=206)
Cholesterol (mg/dL)	155.1 (24.4)	158.8 (26.1)	157.1 (26.0)	156.2 (24.7)
Triglycerides (mg/dL)	73.3 (26.1)	106.8 (61.4)**	76.0 (25.9)	100.5 (62.2)**
HDL (mg/dL)	56.1 (11.4)	49.6 (10.6)**	55.7 (10.7)	50.9 (11.6)**
LDL (mg/dL)	84.4 (20.1)	87.8 (22.7)	86.3 (22.3)	85.3 (20.6)

**P<0.001

Built Environment & Free Play



Out of School Time – Organized Sports

Time spent at various intensities of physical activity during a 50-min soccer match

Intensity	Males		Females	
	Time		Time	
	Min	%	Min	%
Sedentary	25.9 (4.5)	50.0 (8.6)	25.1 (6.2)	48.4 (11.1)
Light	10.2 (3.7)	19.7 (6.6)	9.2 (2.6)	17.8 (5.1)
Moderate	11.9 (3.0)*	23.0 (5.6)**	13.7 (3.7)	26.6 (7.4)
Vigorous	3.9 (2.7)	7.4 (5.0)	3.7 (2.3)	7.2 (4.5)
MVPA	15.8 (4.4)	30.4 (8.0)	17.5 (4.7)	33.8 (9.5)

Values are means (SD). Moderate-to-vigorous activity (MVPA).

* P < 0.05, ** P < 0.01, vs. females



Media Blitz



TV & Screen Time

In MA High School Students....

- 32% played video games or used the Internet for non-school activities 3+ hrs/day
- 28% reported 3+ hrs/day of TV viewing





Consequences & Costs

Poor Health Outcomes



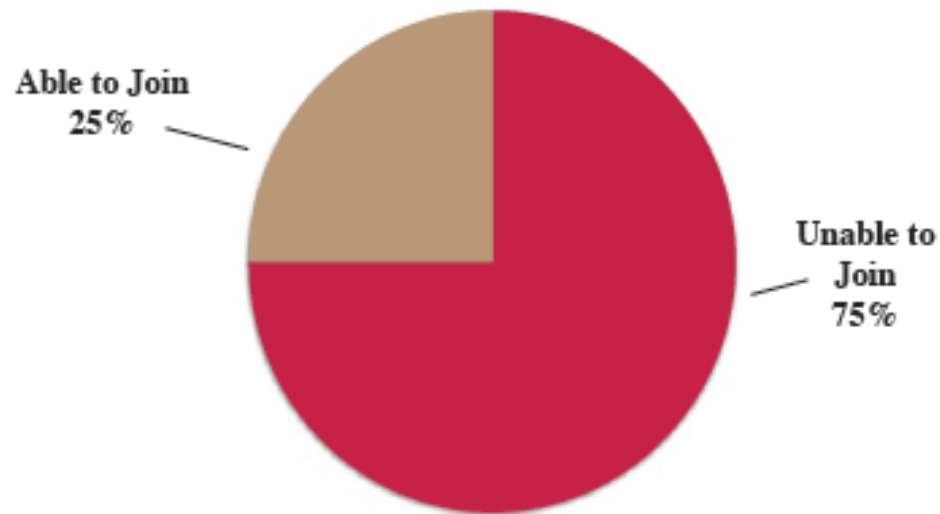
WHO estimates that 1.9 million deaths worldwide are attributable to physical inactivity

Student Academic Achievement



National Security: *Too Fat to Fight*

**75 Percent of Young Americans
Cannot Join the Military**



17- to 24-year-old Americans

Source: Dr. Curtis Gilroy, Director of Accessions
Policy, U.S. Department of Defense



Economic Costs

\$190.2 BILLION
ESTIMATED ANNUAL COST OF
OBESITY-RELATED ILLNESS.



21%

OF ANNUAL MEDICAL SPENDING IS
ON OBESITY-RELATED ILLNESS.

\$4.3 BILLION
IN ANNUAL LOSSES TO
BUSINESSES BECAUSE
OF OBESITY-RELATED
JOB ABSENTEEISM.





Policy & Program Landscape

IOM – Accelerating Progress in Obesity Prevention

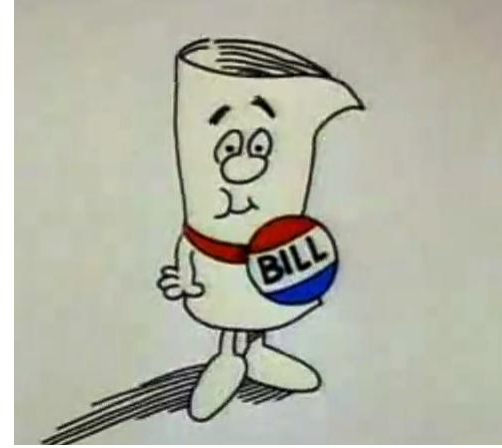


MA Department of Public Health Initiatives



- **Mass in Motion – statewide obesity prevention initiative that promotes physical activity and healthy eating**
 - Community-based wellness grants to 53 towns & cities
 - BMI testing in grades 1, 4, 7, 10
 - Working on Wellness Program
- **CORD Grant Funding from CDC**
 - to improve nutrition and physical activity levels among underserved children by investing in existing community efforts that combat childhood obesity
- **Coordinated School Health**
 - Coordinates between communities and schools to deliver health education, policies, and promotion of healthy school environments

Pending Bills



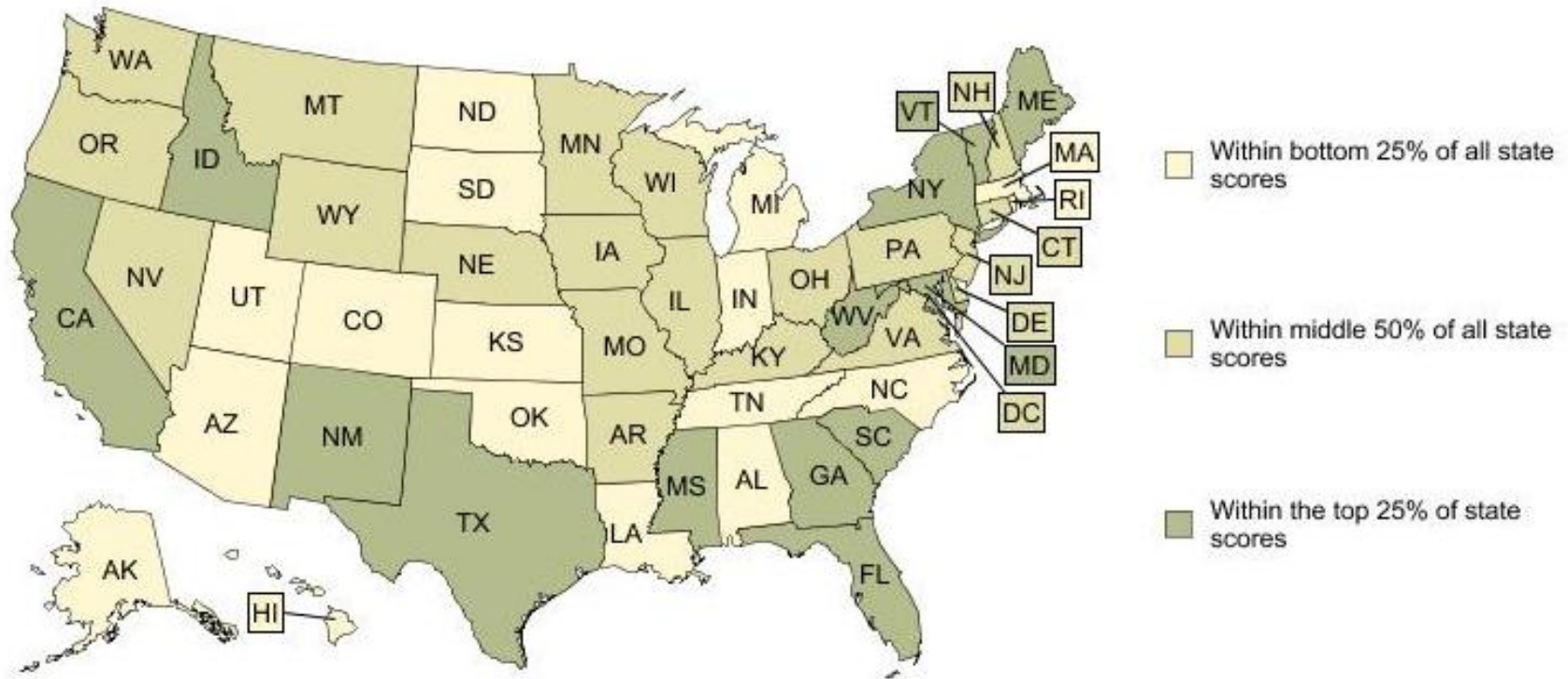
1. Mandatory Physical Activity Time in Schools (House Bill 1157 Sanchez)
2. Quality Physical Education in Schools, K-12 (House Bill 1053 Fox)
3. Zoning Regulations for Healthy Community Design (Senate Bill 1019 Eldridge)

School-Based Programs

UP TO $\frac{1}{2}$ OF CHILDREN'S
WAKING HOURS ARE
SPENT IN SCHOOL.



MA Policy Score for Physical Education



MA law requires PE in all grades, but regulations mandating minimum annual hours were repealed in 1996

Classification of Laws associated with School Students, C.L.A.S.S. (National Cancer Institute).

Healthy Hunger-Free Kids Act of 2010

School Wellness Advisory Committees (Aug 2012)

- Comprehensive inclusion
- Annual plan - nutrition, physical activity and obesity prevention
- Set physical activity goals & key strategies for implementation
- Evaluation



Most Promising *SCHOOL-BASED* Policy Options

1. Set state-wide policies for:

- Quality physical education
- Physical activity time
- Recess time
- Fitness testing



2. Provide funding to schools to enhance quality physical education and develop other innovative school-based initiatives

Most Promising *Built Environment Policy Options*

1. Implement zoning changes in the built environment around access to open spaces, public transportation, and safe routes to walk
2. Build communities that are pedestrian and cyclist friendly, create schoolyards, open spaces, and trails that are safe and accessible, and improve public transit systems to promote active living

Policy for Physical Activity Progress

1. GET A PLAN!

- Design and support a Massachusetts Physical Activity Plan to ensure that physical activity is a priority in our state

2. SUPPORT & ALLOCATE FUNDING

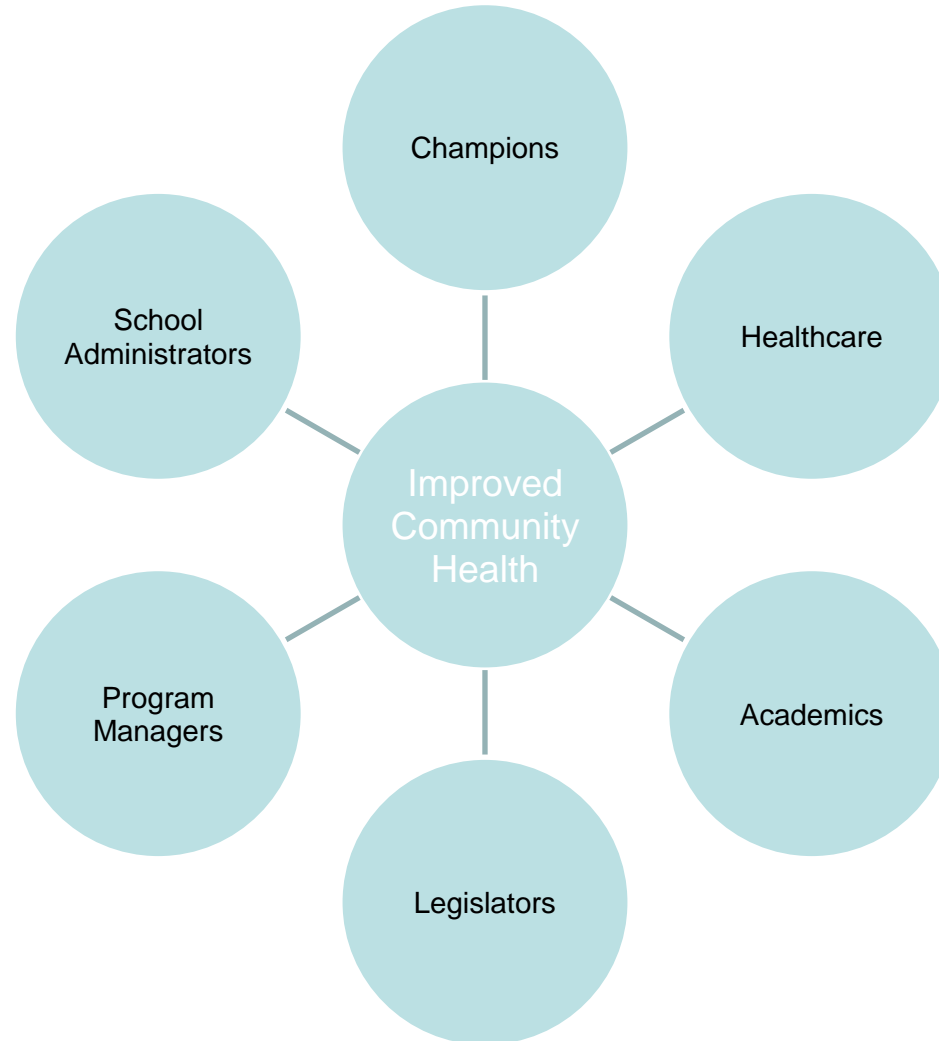
- Increase Department of Public Health funding for physical activity programs via *Mass in Motion*

3. SURVERY AND EVALUATE PROGRAMS

- Inform best practices and sustain the success of existing initiatives



Have a Plan! Raise Awareness, Build Support, and Catalyze Change!



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- *The Boston Foundation*
- *Blue Cross Blue Shield Massachusetts*





"The boss wants all money managers to exercise more. Get off your assets and move!"

Thank You