

# Healthy Living Cambridge KIDS

How the Cambridge Healthy Children Task Force  
brought a community together to work toward  
healthy weight – and succeeded

Healthy Children Task Force  
Cambridge, Massachusetts

November 2007



## **More Children at a Healthier Weight**

In September 2007, the Healthy Living Cambridge Kids program reported that for three consecutive years, the prevalence of overweight\* declined 3.6%, from 20.8% in 2004 to 17.2% in 2007 while the prevalence of healthy weight increased 5.0%, from 59.2% to 64.2%. In addition, during the same period from 2004 to 2007, fitness scores increased 10.6%, from 28.4% passing all tests to 39.0%.

## **Background of the Program**

Cambridge has been addressing childhood obesity since the 1990s, through extensive collaborations between schools, researchers, public health officials, and city partners. Over time, Healthy Living Cambridge Kids policies and programs have matured into a comprehensive, multidisciplinary approach, successfully impacting children's weight.

In 2000, the Cambridge Healthy Children Task Force identified "5-2-1" guidelines to direct policy, programming and evaluation for healthy living for children: 5 servings of fruits and vegetables, 2 hours or less of screen time, and 1 hour of physical activity. Numerous agencies and municipalities have since adopted these guidelines.

## **Key Components of Healthy Living Cambridge Kids**

Key components of the Healthy Living Cambridge Kids intervention are: 1) the Health and Fitness Progress Report, documenting BMI for age and fitness scores; 2) improved physical education through expanded, nontraditional programming, professional development, and equipment purchases; 3) partnership between school nutritionists, a consultant chef and school food services to develop healthful recipes, cafeteria taste tests with students, and staff training; 4) CitySprouts school garden program; 5) FITtogether family outreach nights ; 6) farm to school activities; 7) school nutrition policy including vending machine guidelines; 8) expanded extracurricular nutrition and fitness programming and staff training; 9) public health outreach (Golden Shoes, Fitness Buddies programs); and 10) new community partnerships (Cambridge Youth Sports Commission). Lastly, the Institute for Community Health provides the research, monitoring and evaluation arm of the Healthy Children Task Force. The Institute for Community Health is a national leader in the "BMI report card", due to its pioneering scientific evaluation.

## **The Healthy Children Task Force**

Since 1990, the Healthy Children Task Force has brought diverse agencies together to address children's health issues collaboratively in Cambridge, Massachusetts. Dr. David Link, Chief of Pediatrics (Cambridge Health Alliance) and Henrietta Davis (Cambridge City Councilor) chair the Healthy Children Task Force. Uniting academia, community organizations, city agencies and healthcare leaders, the Healthy Children Task Force identifies children's health issues and mobilizes action through programmatic research and policy. The Healthy Children Task Force provides community input to the Institute for Community Health, Cambridge Health Alliance, and the City of Cambridge on health priorities.

## Partners in Healthy Living Cambridge Kids

One of the Healthy Children Task Force committees, the 5-2-1 Action Group, has provided a forum for partners to move programming and policy forward. Key members of the 5-2-1 Action Group are Cambridge Public Schools, Institute for Community Health, Cambridge Public Health Department, the School Health Program of the Cambridge Public Health Department, and CitySprouts. Other partners include the City of Cambridge's Department of Human Services, Cambridge Green Streets Initiative, Blue Cross Blue Shield of Massachusetts, and the Federation of Massachusetts Farmers' Markets. Together, these Healthy Children Task Force partners have contributed substantially to the success of Healthy Living Cambridge Kids.

## Other Accomplishments of the Healthy Children Task Force

Besides the work of the 5-2-1 Action Group, which focuses on addressing fitness, nutritional and inactivity needs of Cambridge children, there are two other working groups: the Mental Health Subcommittee; and the School Food Service Advisory Committee. Accomplishments include the Children's Mental Health Report (Spring 2002); a dental screening program in public elementary schools, and the creation of Violence Prevention Coordinator and Healthy Living Cambridge Coordinator positions.

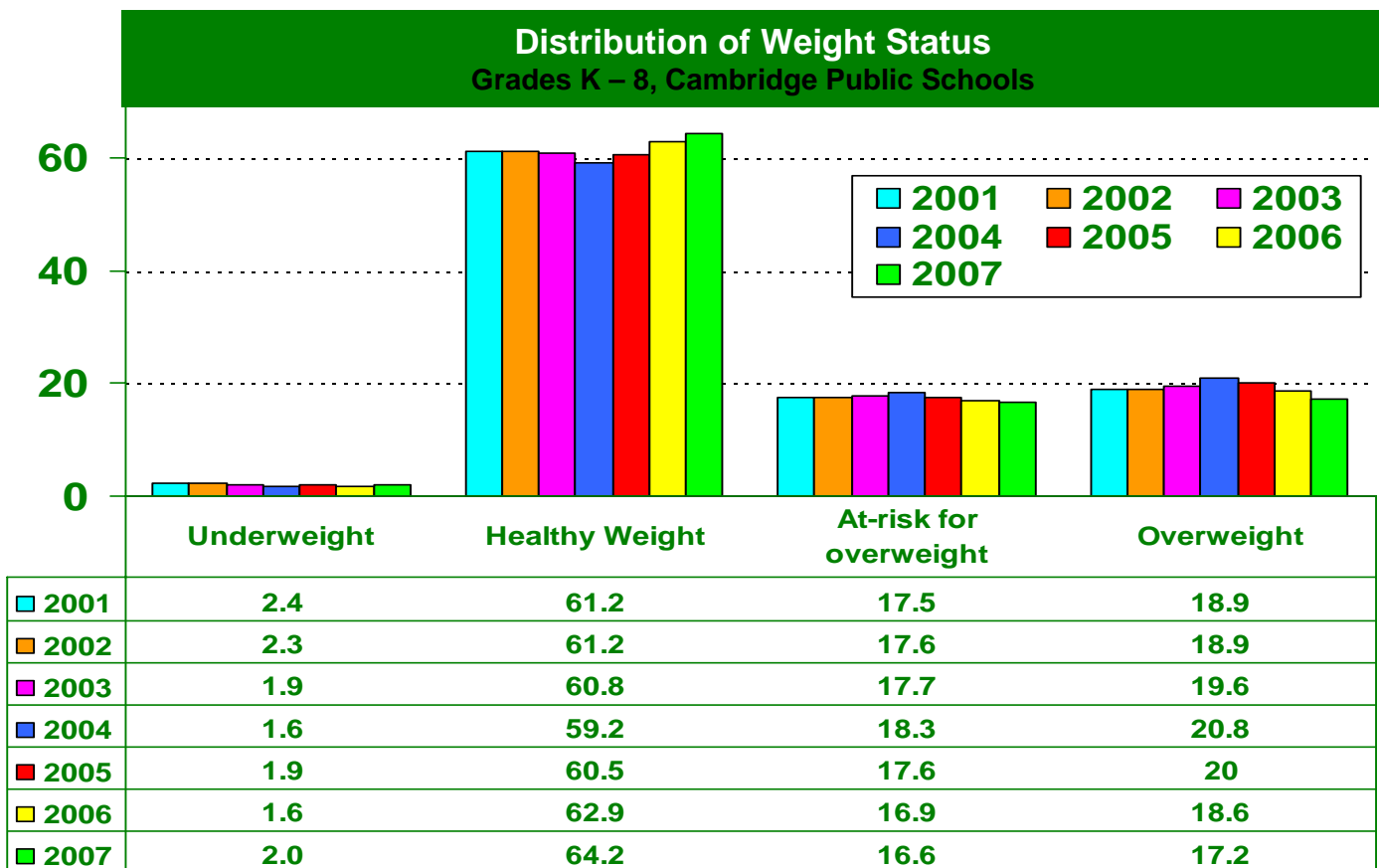
## Healthy Living Cambridge Kids: Elements for Success



\*In this document, overweight is defined as at or above the 95th percentile of BMI-for-age.

## Healthy Weight Tracking

Annual height and weight data collected by Cambridge Public Schools Physical Education staff is analyzed by the Institute for Community Health. Over time, Cambridge has been able to track its steady progress in addressing childhood obesity.



n = 3,744 in 2007

**Note:**

Overweight defined as at or above 95<sup>th</sup> percentile; At risk of overweight as between 85<sup>th</sup> and 95<sup>th</sup> percentile; Healthy weight as between 5<sup>th</sup> and 85<sup>th</sup>; Underweight as less than 5<sup>th</sup> percentile for BMI from NCHS reference.

Date of data collection:  
Spring 2007

**Data Source:**

Cambridge Public Schools  
Analysis and Presentation:  
Institute for Community Health

## Key Findings: Weight Status 2007

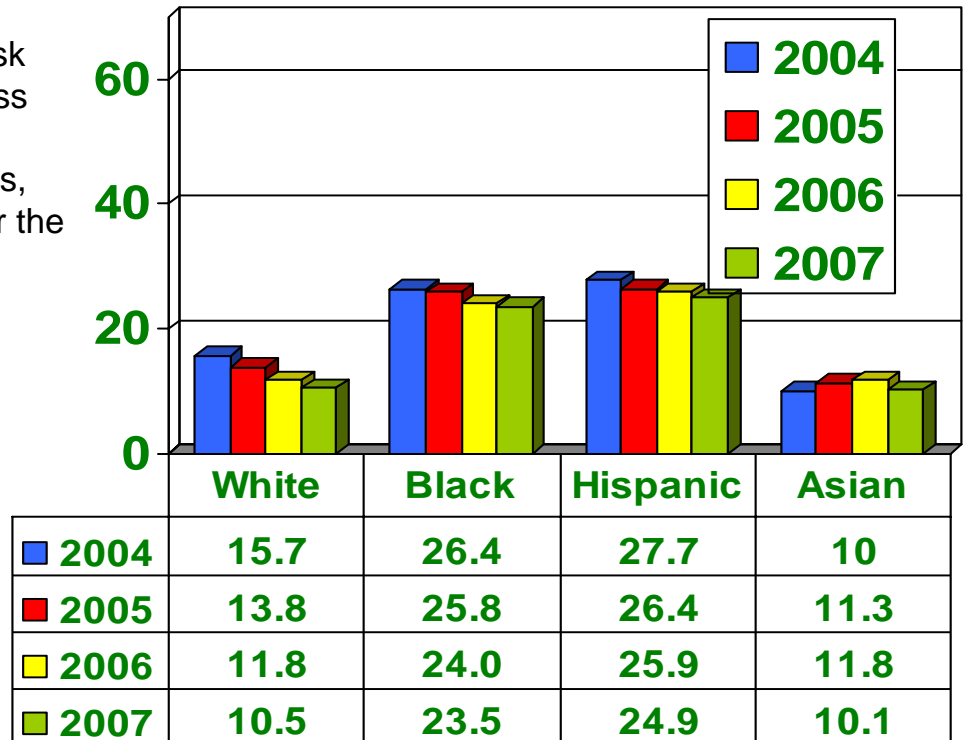
- From 2004 to 2007, the percentage of K-8th grade students who were **overweight\*** decreased **3.6%**; and the percentage of students categorized as **at-risk for overweight\*** decreased **1.7%**.
- From 2004 to 2007, the percentage of K-8th grade students who were categorized as having a **healthy weight\*** increased **5.0%**.

## Key Findings Continued

• From 2004 to 2007, similar drops in overweight and at-risk for overweight are seen across the board for boys and girls, Whites, Blacks, and Hispanics, and those who are eligible for the federal free/reduced lunch program.

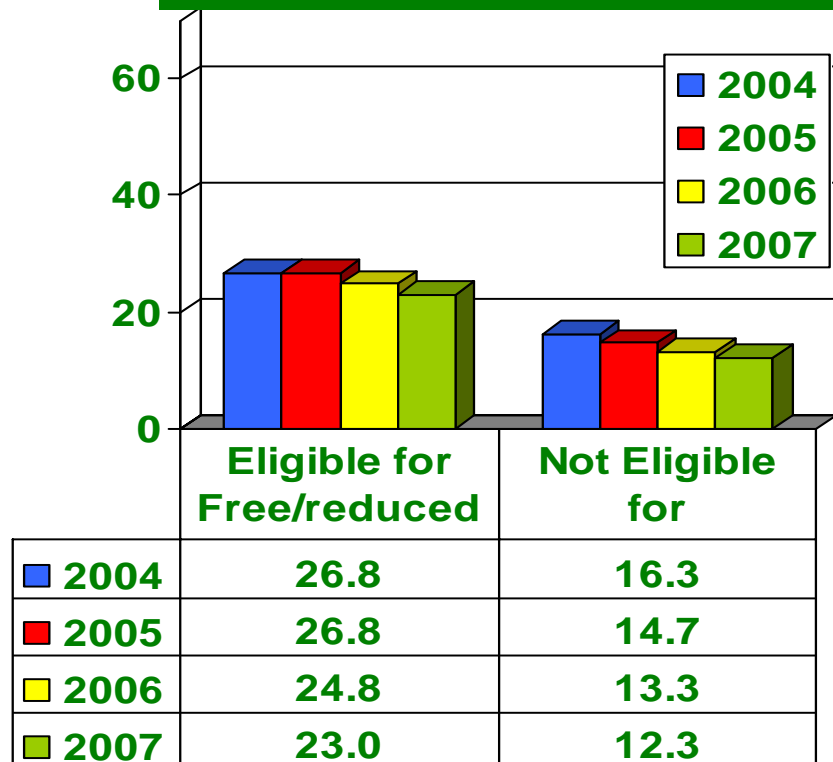
### Distribution of Overweight by Race / Ethnicity

Grades K – 8, Cambridge Public Schools



### Distribution of Overweight by Lunch (Socioeconomic) Status

Grades K – 8, Cambridge Public Schools



n = 3,774 in 2007

**Note:**

Overweight defined as at or above 95<sup>th</sup> percentile; At risk of overweight as between 85<sup>th</sup> and 95<sup>th</sup> percentile; Healthy weight as between 5<sup>th</sup> and 85<sup>th</sup>; Underweight as less than 5<sup>th</sup> percentile for BMI from NCHS reference.

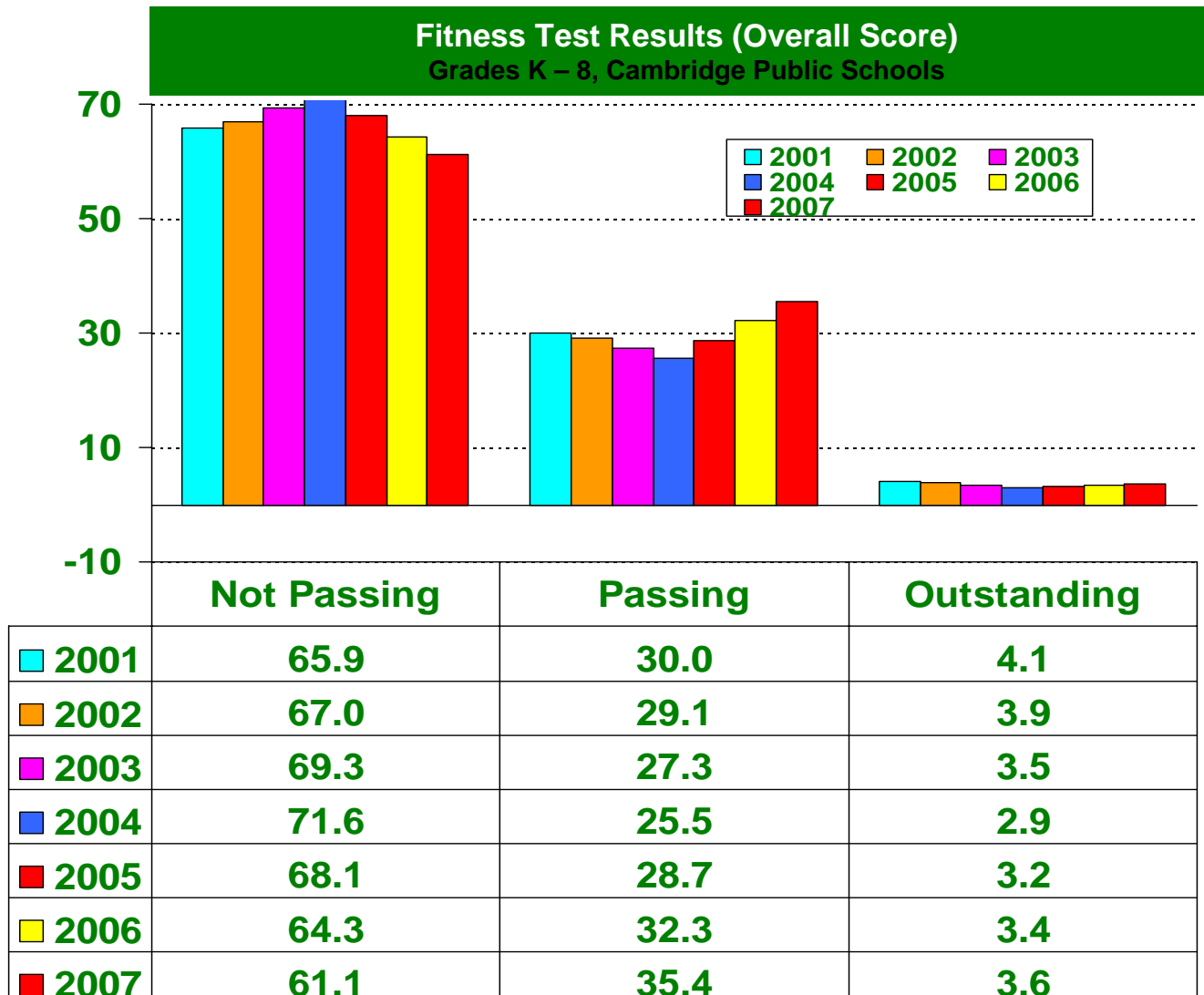
Date of data collection: Spring 2007

**Data Source:**

Cambridge Public Schools  
Analysis and Presentation:  
Institute for Community Health

## Key Findings: Fitness Testing

- From 2004 to 2007, the percentage of K-8<sup>th</sup> grade CPS students who passed the overall fitness test increased 10.6%.
- From 2004 to 2007, fitness scores improved for boys and girls, all racial and ethnic groups, and those who were eligible for the federal free/reduced lunch program.
- In 2007, students passed an average of 3.7 out of 5 fitness tests.



Date of data collection:  
Spring 2007  
Data Source:  
Cambridge Public Schools  
Analysis and Presentation:  
Institute for Community Health

n = 3924 in 2007

# Physical Education



## PE Program

The department teacher's physical education programs for all students grades K-12. Elementary grade students receive 45 minutes of instruction twice a week (except grade K only 30 minutes: 2x) while the high school teaches PE within the block schedule. All classes are taught in accordance with the Massachusetts Comprehensive Curriculum Frameworks.



## Physical Education Research

The department has provided a leadership role in the country in the area of childhood obesity research. This includes height, weight, and BMI data collection, fitness / health report cards to parents, and community collaborations that cities and states across the country now use a model.



## Professional Development for Staff

Just last year the grant provided over 61 professional development opportunities for the PE staff and other CPS staff in areas of Wellness. These professional development workshops provided teachers a means to improve curriculum and engaged the student in programs that they can be successful in and enjoy.



## School Activities

Project Adventure	Ballroom Dancing
Polar Heart Rate	Yoga
CycleKids	Gymnastics
Rollerblading	8 <sup>th</sup> Grade Transition Program

## Before and After School Activities

Soccer	Lifesaving	Fitness/Wellness
Hip Hop	Water Polo	Weight Training
CPR	Golf	Mentoring
Nutrition	Table Tennis	Leadership

# Health & Fitness Progress Report



## Annual assessment of height, weight and fitness of Cambridge K-8 children

Physical Education teachers, school nurses and student interns collect height, weight, and fitness test results. With technical assistance from the Institute for Community Health, data is entered into a spreadsheet and merged with student records to create individualized results.



## Personalized results shared with families

- Accessible, user friendly format
- 80% of parents surveyed want this information annually

## Follow-up by School Health Program

- School-based family events – Fit Together held in all schools
- Individual, clinical education, referral and follow-up





# Cambridge received national attention in 2003 for the first scientific evaluation of a “health report card”

## Promoting Healthy Weight Among Elementary School Children via a Health Report Card Approach

Virginia R. Chomitz, PhD; Jessica Collins, MS; Juhee Kim, MS; Ellen Kramer, ScD, RD; Robert McGowan, EdD

*Arch Pediatr Adolesc Med.* 2003;157:765-772.

**Background** As overweight continues to rise among children, schools seek effective and sensitive ways to engage parents in promoting healthy weight.

**Objective** To evaluate a school-based health report card on the family awareness of and concern about the child weight status, plans for weight control, and preventive behaviors.

**Design** Quasi-experimental field trial with a personalized weight and fitness health report card intervention (PI), a general-information intervention (GI), and a control group (CG). Outcomes were assessed using a postintervention telephone survey, including process and outcome measures.

**Participants** The intervention included 1396 ethnically diverse students at 4 elementary schools in an urban area. Telephone surveys were completed by 399 families from an evaluation sample of 793.

**Intervention** Families were randomly assigned to the PI, GI, or CG and mailed intervention materials. The CG was mailed GI materials after the survey.

**Main Outcome Measures** Parent awareness of child weight status, concerns, weight control plans, and preventive behaviors. Group effects were significantly different by the child's weight status, so results were stratified.

**Results** Among overweight students, intervention parents were more likely to know their child's weight status (PI, 44%; GI, 41%; CG, 23%) ( $P = .02$ ). The PI parents planned medical help (PI, 25%; GI, 7%; CG, 9%) ( $P = .004$ ), dieting activities (PI, 19%; GI and CG, <5 cases) ( $P = .02$ ) and physical activities (PI, 42%; GI, 27%; CG, 13%) ( $P < .001$ ) for their overweight children. No group effect on concern or preventive behaviors was detected. Most parents of overweight children who read materials requested annual weight and health information on their child (PI, 91%; GI, 67%).

**Conclusions** Among overweight children, the PI was associated with increased parental awareness of their child's weight status. Although parents wanted PI for their children, more research is needed to test this approach on children's self-esteem and plans for weight control.

From the Institute for Community Health (Drs Chomitz and Kramer and Ms Kim) and the Physical Education Department, Cambridge Public Schools (Dr McGowan), Cambridge, Mass; and Gerald J. and Dorothy R. Friedman School of Nutrition Science and Policy, Tufts University (Ms Collins), and the Harvard School of Public Health (Ms Kim), Boston Mass.

# School Food Service



## Menu Upgrades

Over the last three years, the Cambridge Public Schools Food Service department has significantly upgraded its menus, by including more fresh vegetables, items cooked from scratch and by purchasing healthier foods and seasonal produce from a local farm. School Food Service is working with the Public Health Department and a consultant chef on recipe development and taste testing.



## Lunch

- Exciting new lunch offerings including: lentil soup, veggie wrap, chicken Caesar salad, broccoli and cheese pasta, and chicken fajitas
- Fresh vegetable items: fresh salads, tomato, basil and mozzarella salad, fresh broccoli, local butternut squash, oven roasted potatoes, and baked sweet potato fries
- Seasonal local produce, including apples, peaches, pears, pickles, tomatoes and butternut squash



## Whole Grains

- Higher fiber, lower sugar cereals
- Whole wheat sliced bread, rolls, buns, wraps and whole wheat French toast.

## Milk and Yogurt

- Low-fat milk (1%, 2% and skim)
- Yogurt with real fruit and without artificial color



### **Farm to School**

- Food Service works with a local farmer to procure fresh local produce in season.
- New recipes are developed with an eye to seasonal availability of fresh produce.
- Farmer visits to schools educate children about food; special events at Farmers' Markets outreaches to parents about food service changes.

### **Cambridge Rindge and Latin School (High School)**

- Food Service staff and consultant chef developing and testing new meals prepared from scratch.
- Rindge School of Technical Arts culinary students prepare and serve freshly cooked reimbursable meals.

### **Food Service Advisory**

- Three meetings per year for schools and families to talk with School Food Service and the School Health team.



# Community Outreach



## Healthy Living Cambridge

In 2005, the City of Cambridge endorsed the healthy living goals of “5-2-1 Every Day!”: 5 servings of fruits and vegetables, 2 hours or less of TV/screen time, and 1 hour of physical activity.

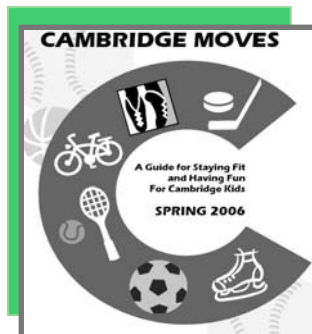
## Expanding 5-2-1 programming



- *Cambridge Fitness Buddies*, a free community-wide healthy living program, was introduced in 2006. It has since expanded to numerous organizations – including the Peabody School and Area IV Youth Center – as well as the City of Somerville.

- *Latinas Living Better*, a targeted obesity prevention program for young Latina women, launched in January 2007, and included high school girls.

- Financial and technical support has been provided to groups interested in expanding 5-2-1 programming, such as afterschool programs at the Baldwin School and the Margaret Fuller Neighborhood House.



## Promoting 5-2-1 through community partners

- *Cambridge Moves*, a physical activity directory for kids, is distributed annually to all K-8 students. This year, we are working with the new Cambridge Youth Sports Commission to create an on-line catalogue.

- Promotion of community-based healthy activities for kids and families, through schools and after-school programs

- Seasonal e-letter keeps the community up-to-date on fitness and nutrition accomplishments in the schools, and fun 5-2-1 family opportunities in Cambridge

# More about 5-2-1

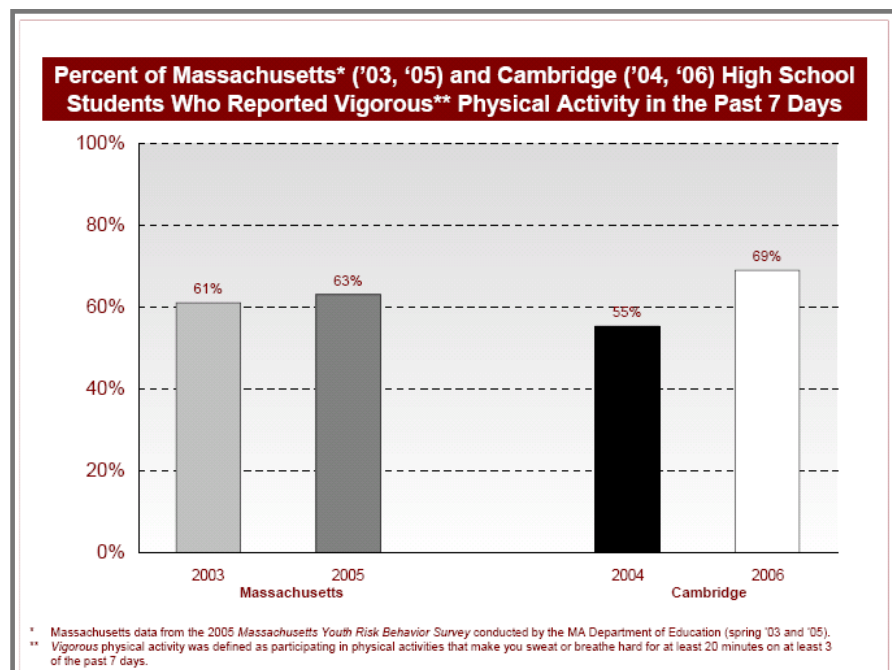
**You may have heard about 5-2-1 before. It's a slogan with roots right here in Cambridge. It's a smart, simple way for both kids and adults to take steps toward healthy living.**

As the childhood obesity epidemic was gaining recognition, researchers began to look for the common benchmarks for healthy weight kids, compared with children who were overweight or at risk of overweight.

Out of a long list of behaviors that affect weight, the "5-2-1 Every Day!" goals focus on 3 key areas: fruit and vegetable consumption, recreational TV or screen time, and physical activity.

**Measuring 5-2-1 behaviors in Cambridge youth allows city agencies to track trends and tailor programming.**

The 2006 Teen Health Survey, for example, reveals a larger percentage of 2006 Cambridge high school students reported engaging in vigorous physical activity than 2005 Massachusetts students (69% Cambridge, 63% MA). The Massachusetts rate increased between 2003 (61%) to 2005 (63%). The rate in Cambridge also rose between 2004 (55%) and 2006 (69%).





# Contact Information

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## **Partners in Cambridge's Success**

Boston University  
Cambridge Health Alliance  
Cambridge Police Department  
Cambridge Public Health Department  
Cambridge Public Schools  
Cambridge Youth Sports Commission  
City of Cambridge  
CitySprouts  
Cambridge Department of Human Service Programs  
Federation of Massachusetts Farmers' Markets  
Green Streets Initiative  
Harvard University  
Institute for Community Health  
Massachusetts Institute of Technology  
Cambridge School Health Program  
Tufts University

## **With special thanks to the following organizations for funding:**

Blue Cross Blue Shield of Massachusetts  
US Department of Education  
Massachusetts Department of Public Health  
Massachusetts Vitamin Litigation Settlement Fund  
Office on Women's Health, US Department of Health and Human Services  
USDA Community Food Projects Grant  
Whole Foods Market