



A Community-based Participatory Approach to Wellness Policy Implementation and Process Evaluation: A Case Study

Donald M. Lucente, MEd, Leslye T. Jones, M.S.Ed., Caitlin Kelly, MA, April Bouzan, MEd, Mary Driscoll, MEd, and Stephanie Shapiro Berkson, PhD, MPH

APHA
November 6, 2013

Presenter Disclosures

No relationships to disclose

Presentation Overview

- Purpose of study
- Background
 - Obesity prevalence in Boston, MA
 - BPS Wellness Policy
 - Edison K-8 School
 - Edison Wellness Council
- Methods
- Results
- Assets
- Challenges & barriers
- Lessons learned
- Future steps

Edison K-8 School

Purpose

- To conduct a process evaluation of one school's nutrition and physical activity environment improvements, pre- and post- establishment of a participatory wellness committee.

Edison K-8 School

Background: Obesity Prevalence

- MA adult obesity rate (23%) ranks 3rd lowest in US.^{1,2}
- But, MA youth obesity rate (13%) ranks 17th lowest in US.²
 - And, in Boston, approximately 15-25% of Boston Public School Students (BPS) are obese!^{3,4}
 - Compared to approximately 9% of Brookline Public School students⁴

1. Boston Moves for Health: An Action Plan for Healthy Weight and Healthy Community. Boston: 2012.
2. Trust for America's Health. Fat is in Fat: How Obesity Threatens America's Future. Washington D.C.: Trust for America's Health: 2011.
3. Boston Moves for Health: An Action Plan for Healthy Weight and Healthy Community. Boston: 2012.
4. Katz, Deborah. Obesity rates down for infants, toddlers. Boston: Boston.com, 2012.

Edison K-8 School

Background: Physical Activity and Nutrition

In 2011:

- 29% of MA public high school students engaged in regular physical activity.
- 19% ate at least five servings of fruits and vegetables daily.
- 24% consumed at least one soda daily.⁵

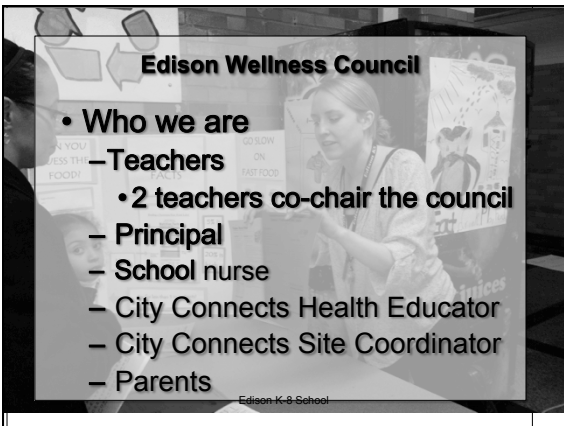
5 Youth Risk Behavior Survey 2011, Youth Risk Behavior Surveillance System (YRBS), Centers for Disease Control and Prevention (CDC); DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office.

Edison K-8 School

BPS Health and Wellness

- BPS Wellness Policy first passed on June 30, 2006 and was updated during the 2012-2013 school year.
- BPS Health and Wellness Department established in 2010
- As stated in the BPS Wellness Policy:
"A wellness Council shall be established and/or maintained both for the district and for each school. These councils shall consist of members who are representative and inclusive of the Boston school community. They shall recommend, review, and implement school district policies addressing wellness related issues that affect student health."

Edison K-8 School



Edison Wellness Council

- **Who we are**
 - Teachers
 - 2 teachers co-chair the council
 - Principal
 - School nurse
 - City Connects Health Educator
 - City Connects Site Coordinator
 - Parents

Edison K-8 School

Case Study Setting

BPS: Edison K-8 School

- Total enrollment: 850
- Diverse student body

Students from 65 countries; over 25 languages

- African American or black: 24%
- Asian: 14%
- Hispanic: 44%
- White: 15%
- Other: 3%

- Eligible for free or reduced-priced lunch: 85%
 - Universal breakfast and lunch

Edison K-8 School

Edison Wellness Council Objectives

By the end of the school year:

- **Begin a formal tracking process** specific to Edison students of **student BMI**, using state mandated school BMI data
 - By the end of the 2015-2016 school year, **decrease overall BMI of Edison students by 2%**
- **Increase minutes spent engaged in physical activity in classrooms by 20 minutes/day**
- **Improve the school nutrition environment** as measured by changes influenced by the implementation of at least three new school policies implemented or proposed
- **Increase the awareness** of Edison teachers and families of health and wellness and the **BPS wellness policy** as measured by wellness council event attendance and knowledge change assessed on surveys.

Edison K-8 School

Methodology

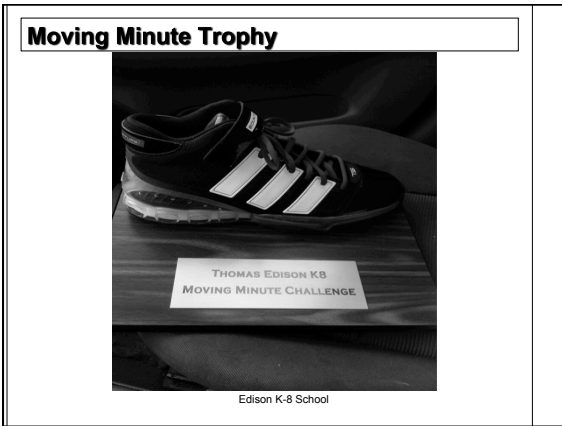
- A wellness team including parents, students, teachers, the school nurse, and the principal determined needs, assets, and likely uptake of best practice intervention.
- Process Documentation
 - Nutrition and physical activity environment improvements and student exposure were implemented and documented.

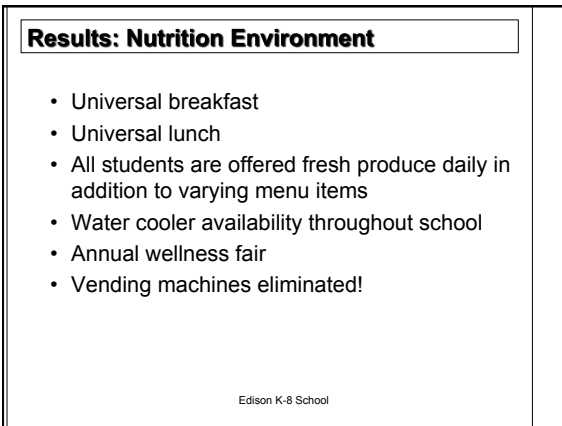
Edison K-8 School

Results: Physical Activity

- Physical education
 - K1-5: >1 time/week
 - 6-8: 1 time/week
- Health and Movement Class
 - K1-5: >1 time/week
- Moving minute
 - K1-8: Daily
- Playworks
 - K1-5: 2 times/month

Grade	Increase Minutes of Physical Activity/week
K1-5	105 minutes (n=493)
	130 extra minutes/month
6-8	70 minutes (n=345)







2013 Wellness Fair



Edison K-8 School

- 12 community vendors
- 150 attendees (> 70 families)
- Survey
- 54% knew recommended servings of fruits & veggies/day
 - 21% consumed recommended servings
 - Small correlation: knowing recommendation & meeting requirements
- 43% knew recommended physical activity
 - 33% met recommendation
 - Small correlation: knowing recommendation & consuming recommended amounts
- 20% knew both recommended servings of fruit & veggies/day AND recommended amount of PA
- 36% knew maximum amount of recommended screen time
- Only 12% knew all three.



Edison K-8 Health and Wellness Fair 2013

Health and Wellness Fair Evaluation

- Participants reported that they learned:
 - Soda has a lot of sugar
 - Importance of eating healthily and relationship with overall wellness
 - Importance of whole grains and
 - Importance of eating minimum of 5 fruits & veggies/day
 - Importance of walking at least 20 min/day
- Direct quotes from survey
 - "Eating unhealthy can cause problems."
 - "Eat fresh"
 - "Food can taste good and be healthy at the same time."
- Participants reported that they enjoyed:
 - Food (especially Haley House food and chocolate avocado pudding)
 - Raffle
 - Fun physical activities (lots of attendees like learning how to play Switch),
 - Variety of vendors
 - Community building, including meeting other Edison families and meeting the school nurse

Discussion: Assets

- Boston (Resources in Boston!)
- State and municipal policy
- District support
 - School Wellness Department created
- Internal school support
 - Principal, nurse, (some) teachers, family council
 - Participatory wellness council
- Urban school yard
 - Boston Schoolyard initiative recipient
- Rich cultural diversity

Edison K-8 School

Challenges and Barriers

- Implementing culturally tailored healthy eating and physical activity opportunities
- Changing the thinking regarding food rewards and celebrations:
“On the ‘Nutrition’ item, I ...strongly disagree with not being able to give out candy, have birthday/holiday celebrations with a cupcake, etc. ...” – *Edison teacher*
- Food offered in cafeteria
- School-specific effect evaluation is costly (both in regard to financial and personnel resources)

Edison K-8 School

Lessons learned

- Strong support from school and district administration is needed for successful implementation (case example: removal of vending machines).
- Physical activity must be embedded throughout the day and into K-8 curriculum.
- Changing food culture is harder among school staff and parents than among students. Full implementation of district policy regarding competitive foods will be most successful if implemented gradually.
 - Teacher and parent frustrations must be acknowledged and addressed.
- School health and wellness program implementation works best when overseen by a participatory coalition.

Future steps

- Ensuring that School Food Service plays a larger roll on the wellness council
- Nutrition environment
- Ensuring physical activity intervention sustainability

Edison K-8 School

Conclusion

A participatory school wellness committee is a powerful strategy to implement district wellness policy and sustainable health promoting school environment change.

Edison K-8 School

References

1. Boston Moves for Health. An Action Plan for Healthy Weight and Healthy Community. Boston: 2012. Web. 20 Oct 2013. <http://www.bphc.org/programs/cib/chronicdisease/bostonmovesforhealth/Documents/BMH%20Action%20Plan%20-%20April%202012.pdf>
2. Trust for America's Health. F as in Fat: How Obesity Threatens America's Future. Washington D.C.: Trust for America's Health, 2011. Web. 20 Oct 2013. < <http://www.healthymamericans.org/assets/files/TFAH2011FasInFat10.pdf>
3. Boston Moves for Health. An Action Plan for Healthy Weight and Healthy Community. Boston: 2012. Web. 20 Oct 2013. <http://www.bphc.org/programs/cib/chronicdisease/bostonmovesforhealth/Documents/BMH%20Action%20Plan%20-%20April%202012.pdf>
4. Kotz, Deborah. Obesity rates down for infants, toddlers. Boston: Boston.com, 2012. Web. 20 Oct 2013. http://www.boston.com/lifestyle/health/articles/2012/04/23/obesity_rates_drop_in_states_youngest_children_study_shows/?page=2
5. Youth Risk Behavior Survey 2011, Youth Risk Behavior Surveillance System (YRBS), Centers for Disease Control and Prevention (CDC). DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office.