



Impact of the Healthy Eating Reimbursable Vending Machines Program Intervention on Availability, Access and Consumption of Nutritious Meals in Miami-Dade County Public High Schools, 2017-2018

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Overview

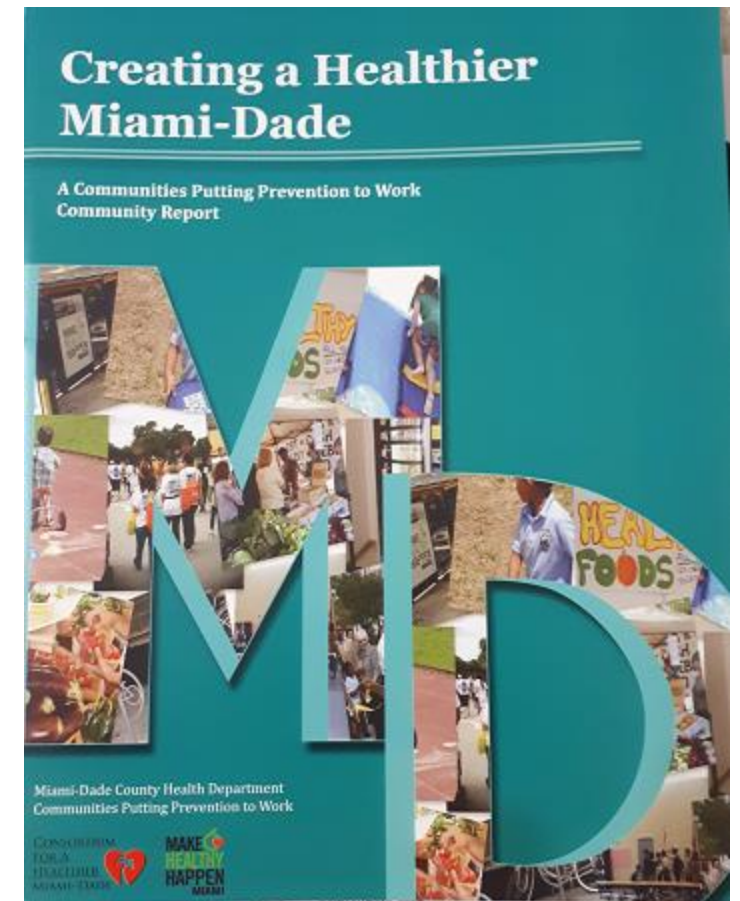
2

- Background
- Objectives
- Methods
- Expected Results
- Limitations
- Conclusion
- References

Background

3

- ❑ Communities Putting Prevention to Work (CPPW) Grant (2010-2012)
- ❑ 2-year initiative funded by the Department of Health and Human Services
- ❑ DOH-Miami-Dade awarded \$14.7 million
 - ❑ To reduce obesity and its associated risk factors
 - ❑ By creating environments that encourage healthy eating and physical activity
- ❑ Local CPPW Initiative → Make Healthy Happen Miami



Background

4

CPPW Initiatives (2010-2012)

- **Where We Learn**
 - ▣ Childcare Centers, School Nutrition, School Physical Activity, Safe Routes to Schools
- **Where We Work**
 - ▣ Worksite Wellness, Worksite Lactation Support, School Wellness Centers
- **Where We Live**
 - ▣ Baby-Friendly Hospitals, Farmers' Markets, Active Transportation & Recreation
- **Where We Play**
 - ▣ Park & Recreational Facilities



Background

5

□ CPPW Outcome Evaluation

■ Conducted November 2012 by Health Council of South Florida

Nutrition and Physical Activity in Public Schools

CPPW worked with the Food and Nutrition Department of the Miami-Dade County Public Schools (MDCPS) to improve the School Wellness Policy. The policy underwent two rounds of amendments in November 2010 and in January 2012 and was approved by the School Board. The revision addresses both physical activity and nutrition for students and staff. It reinforces the District's Healthy Beverages and Food Guidelines developed through CPPW, which restricts fat, saturated fat, sugar and sodium intake and prohibits trans-fat in public school meals and snacks. School menus were revised in keeping with these guidelines.

In addition to the menu changes, the nutrition program in the schools also involved the installation of 57 reimbursable healthy meal vending machines in high schools across the county. These machines serve complete meals developed by chefs and tested with the students, creating an additional lunch line and increasing access to healthy food options for students. The MDCPS also expanded their Farm-to-School Program as part of CPPW, piloting a program in 40 schools in South Miami-Dade and leveraging the US Department of Agriculture funding to reach 335 schools in the county.



Background

6

□ Evaluation Methodology Used in 2012

Goal 4: Nutrition in Schools & Parks and Farm-to-Schools

Methods:

- Analysis of purchase levels of improved offerings through the vending machines
- Documentation of policy changes

Evaluation questions:

1. How have the menu changes and vending machines increased access to healthy food options?

Background

7

- **Reimbursable Vending Machines**
 - Select nutritious menu items cooked fresh daily and placed in machines for purchase
 - All healthy menu items cooked by school cafeteria
- **Evaluation Results, 2012**
 - Analysis of purchase levels of healthy meal options offered through reimbursable vending machines
 - Changes to School Wellness Policy (as of January 2012)

School Nutrition



Childhood obesity remains a growing concern in Miami-Dade County, emphasizing a need for improved nutrition. To increase access to healthy reimbursable meals in public schools, Miami-Dade County Public Schools (MDCPS), Department of Food and Nutrition implemented several changes through CPPW.

The funding allowed for the installation of 57 refrigerated reimbursable vending machines within high schools and K-8 centers. The reimbursable vending machines offer fresh, healthy meals to students and meet guidelines for the federally reimbursable meals program. Meals included salads, healthy wrap sandwiches, oven grilled vegetables, and low-fat yogurt and fruit parfaits. Installation of the machines not only altered the physical environment of the cafeterias but it also helped to:

- Alleviate the lunch line burden (some schools only offer one lunch period for well over one thousand students, which takes a toll on time to stand in line)
- Provide an additional access point for students who may not have been participating in the school lunch program prior to installation
- Provide more varied healthy, delicious lunch options for students to enjoy

Food service staff were trained on the proper handling and preparation of local fresh farm-to-schools produce used to prepare reimbursable vending machine meals, and lunch line meals. In addition, MDCPS selected forty schools located in South Miami-Dade to participate in the CPPW Farm-to-Schools initiative. Farm-to-school programs seek to improve student nutrition, support local farmers and reduce negative environmental impact of food distribution. Participating schools had the opportunity to consume locally grown fruits and vegetables. Due to their close proximity to the Redlands farms, produce was purchased directly from farms/companies in the area.



Freshly prepared reimbursable vending machine meals
Dr. Michael Krop Senior High School, 2011.

Background

- ❑ Yogurt parfaits
- ❑ Turkey and ham sliders
- ❑ Chicken chef salad
- ❑ Montego chicken wrap
- ❑ Rosemary chicken salad
- ❑ Grilled buffalo chicken salad
- ❑ Tuna salad
- ❑ Asian lettuce wraps

Healthy Eating Reimbursable Vending Machines

A total of 57 of these machines were installed in 53 High Schools in Miami-Dade County between March 2010 and June 2012. The vending machines disbursed 370,318 meals over the project period per Table 6 below.

Table 6
Total number of meals disbursed from CPPW funded Healthy Eating Vending Machines

Jan- March 2011			Apr-June 2011	July-Aug 2011	Oct-Dec 2011	Jan- March 2012	Apr-June 2012	TOTAL
2,843	52,337	39,841	93,632	95,587		86,123		370,298

These machines served complete meals developed by chefs and tested with the students, creating an additional lunch line in which students could utilize their student and lunch number to purchase meals and increasing access to healthy food options for students. The most popular meals disbursed were yogurt parfaits, followed by turkey and ham sliders as per Figure 10 below:

Changes to School Wellness Policy (as of January 2012)

Original (prior to November 2010)	Revised
No specifications made regarding the reimbursable meal program	Meals served within the federally reimbursable meal program will be designed to feature fresh fruits from local sources to the greatest extent possible.
No specifications regarding healthy fundraisers or healthy celebrations.	The District will encourage parents and staff to have healthy fundraisers/ healthy celebrations by providing recommendations and resources.
<p>Department of Food and Nutrition will serve food that is high in fiber, free of added trans-fat, low in added fats, sugar, and sodium, respectful of cultural diversity and served in appropriate portion sizes consistent with U.S. Department of Agriculture standards with adequate time allotted for meal consumption and in an environment conducive to making nutritional choices.</p> <p>This excerpt is also in the updated version but has specific numbers in the Healthy Beverages and Food Guidelines that are not mentioned in the original.</p>	<p>The Department of Food and Nutrition will assist in the implementation of the District's Healthy Beverages and Food Guidelines.</p> <p>This document specifies the following:</p> <ul style="list-style-type: none"> • No more than 35% of total calories from fat • No more than 10% of total calories from saturated fat • No more than 35% added sugar by weight • No added trans fat • No more than 480mg of sodium <p>The revised wellness policy also updates the rule on food and beverages sold on campus and in vending machines district-wide.</p>
No additional physical education elective courses offered.	Senior High Schools will have an opportunity to offer two (2) physical education elective courses immediately following the end of the regular school day. These courses are in addition to the one (1) credit required for high school graduation.
Policy geared toward students.	<p>Addition of Staff Wellness Goal to the policy.</p> <p>Encourages staff to eat healthy and be physically active</p>

Background

10

- Currently, one of the most serious and preventable health threats in the United States is obesity. (CDC, 2017)
- Obesity prevalence in the US is higher than the Healthy People 2020 Goals of 30.5% among adults and 14.5% among youth. (Hales et al., 2017)
- In 2015, 27.9% of youth in Miami-Dade County were overweight or obese, much higher than the national rate at 18.5%. (Miami Matters, 2015)
- Unhealthy diets and the school environment play an important role in preventing childhood obesity.
- CPPW focused on prevention.
 - What is the continued impact of the Healthy Reimbursable Vending Machines Program?

Objectives

11

- Conduct an Impact Evaluation of the Healthy Eating Reimbursable Vending Machines Program (School Nutrition)
- Identify appropriate measurable indicators
- Gather 2017-2018 data (5 years after initial evaluation)
- Assess impact of program on availability, access and consumption of nutritious meals in Miami-Dade County Public High Schools

Impact Evaluation

Mixed-Methods Approach

Methods

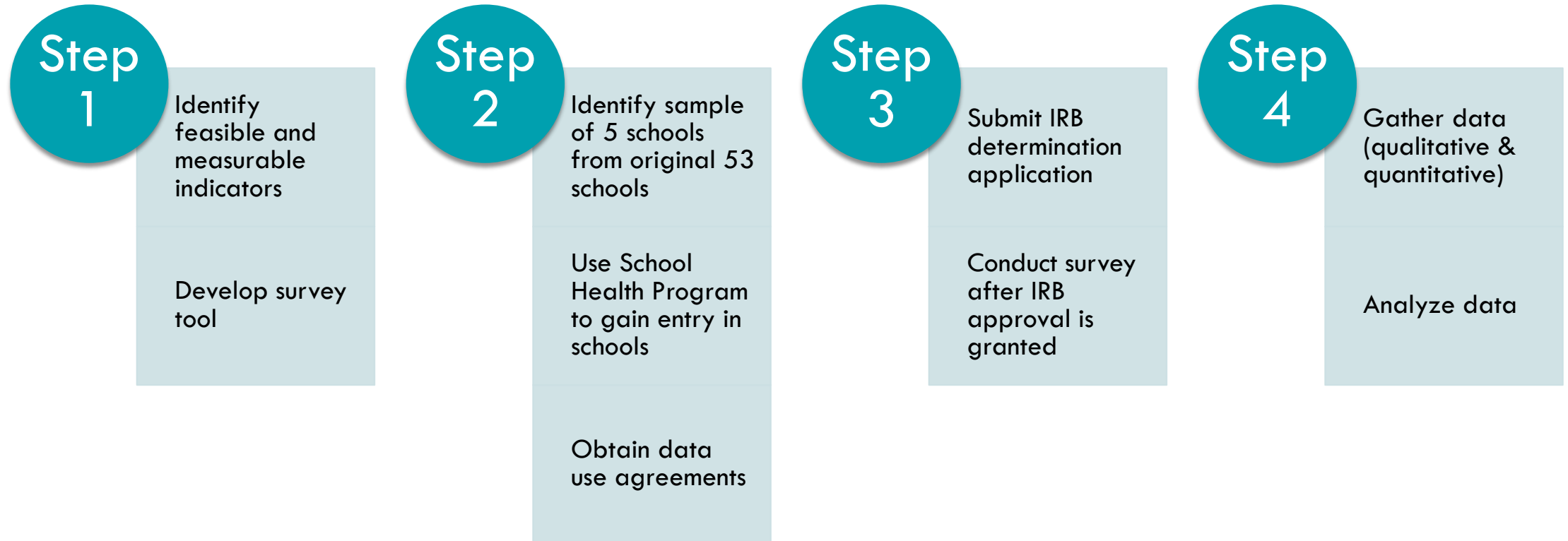
13

Impact Evaluation: Assesses program effectiveness in achieving its ultimate goals.

Mixed-Methods Approach: Research that involves collecting and analyzing both quantitative and qualitative data.

Methods

14



Methods

15

- Survey Tool
 - ▣ School name
 - ▣ Student enrollment
 - ▣ Are reimbursable vending machine(s) still in use?
 - ▣ Are healthy menu items from 2012 still offered? If so, which ones?
 - ▣ Are any new healthy menu items offered?
 - ▣ Do snacks and beverages continue to adhere to the revised School Wellness Policy from 2012?
 - ▣ How did the Healthy Eating Reimbursable Vending Machines Program impact students' access and consumption of healthy food options?
 - ▣ Did students buy and eat the healthy menu items?
 - Is any lunch data available?
 - ▣ Has the School Wellness Policy been revised?

Methods

16

- 53 schools → Select 5 schools to survey
- Cross check
 - ▣ CPPW Schools
 - ▣ School Health Program
- Obtain permission (meet with principal, vice principal)
- Conduct survey
 - ▣ Gather qualitative and quantitative data
 - ▣ Cafeteria manager

Expected Results

17

- **Increased availability of healthy food options**
 - New nutritious menu items have been added to the school menu
 - Some healthy menu items from the program are still offered
- **Decreased access to healthy meal options**
 - Many reimbursable vending machines are no longer in use in original schools
 - Broken
 - Beyond cost repair
 - Cannot be accounted for
 - Vending machines at schools with low enrollment were relocated to those with high enrollment
- **Increased consumption of nutritious meals**
 - More students have purchased healthy meals in high school
- **School Wellness Policy since 2012 is still in effect**
 - Beverages and snacks available on campus adhere to the policy
- Positive lasting impact of the Healthy Reimbursable Vending Machines Program
 - Healthy menu item(s) have been incorporated into the standard public school lunch menu (ex. yogurt parfait)

Limitations

18

- ❑ Original indicators were not feasible to obtain
- ❑ Cannot make direct comparison based on school lunch data
- ❑ A new survey tool was developed and used
- ❑ Some schools closed down due to low enrollment
- ❑ Some reimbursable vending machines broke and others are unaccounted for
- ❑ Recording keeping stopped after funding ended in 2012
- ❑ Staffing changes, no transfer of knowledge
- ❑ No direct Miami-Dade County Public Schools Contact

Conclusion

19

- ❑ The CPPW grant had a positive impact on Miami-Dade County.
- ❑ The Healthy Eating Reimbursable Vending Machines Program had a lasting impact on Miami-Dade County Public Schools.
- ❑ Through the School Policy Change, the program was able to increase its reach on more students.
- ❑ The evaluation indicators from the original grant were not sustainable or feasible to obtain.
- ❑ A new evaluation method and tool helped capture relevant data to assess the impact of the program.
- ❑ Collaboration with partners is paramount for evaluation purposes.

References

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Questions

Thank you!

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