



# We Run This City Youth Marathon Program 2011 Evaluation Report

## Partners



## Funders



## What is the We Run This City Youth Marathon Program?

The We Run This City (WRTC) Youth Marathon Program is a collaboration of the YMCA of Greater Cleveland, Steps to a Healthier Cleveland, the Cleveland Metropolitan School District and the Rite-Aid Cleveland Marathon.

The WRTC program runs for 14 weeks during the last 2 quarters of the school year. In 2011, 27 schools within CMSD were recruited to participate in the program, resulting in a total of 714 participants. Students chose to train for a 1.2 miles run, a 10K (6.2 miles), or a Half-Marathon (13.1 miles). Participants joined other Marathoners on race day for the 4th year in a row and finished the race together.



This program was created to motivate students from the Cleveland Metropolitan School District (CMSD) to set goals, achieve those goals, and gain the confidence, support, and efficacy to continue to accomplish future achievements outside of the program.

## What does the WRTC Evaluation Measure?

### Cognitive and Behavioral Measures:

- Self-Reported Grades in School
- Motivation for Physical Activity
- Self-Confidence and Efficacy
- Peer and Family Support
- Environmental Support for Healthy Behavior

### Physical Measures:

- Blood Pressure
- Height
- Weight
- Sit-to-stand Test
- PACER Test
- Waist and Hip Circumference

# Impact on Physical Health



Baseline Demographics		
	Mean	SD
Age	12.72	1.22
Gender		
	Mean	SD
Male	54%	
Female	46%	
Race		
	Mean	SD
White	12%	
Black	68%	
Hispanic or Latino	13%	
Other	7%	
Grade		
	Mean	SD
5th and 6th	31%	
7th	32%	
8th	35%	
9th thru 12th	3%	

Based on 6th, 7th and 8th graders assessed at both pre- and post-test (n=362), significant changes were observed on a number of health outcomes. These health outcomes include blood pressure, body mass index (BMI) and physical endurance.

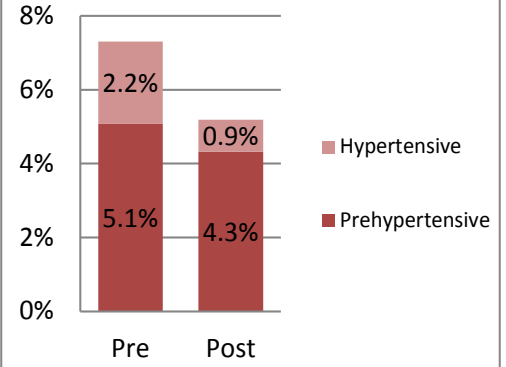
**Blood Pressure:** Consistent with findings from previous years, a significant number of runners had elevated blood pressure readings that were considered to be pre-hypertensive or hypertensive by National Heart, Lung and Blood Institute standards. At baseline, 7.3% of all followed 6th, 7th and 8th graders had blood pressures that met the NHLBI criteria. This overall number is lower than in past years.

**Post-Race Blood Pressure:** (top right): The number of followed runners with elevated blood pressure dropped from baseline to post-race, with the most significant change among those students with the highest blood pressure readings at baseline.

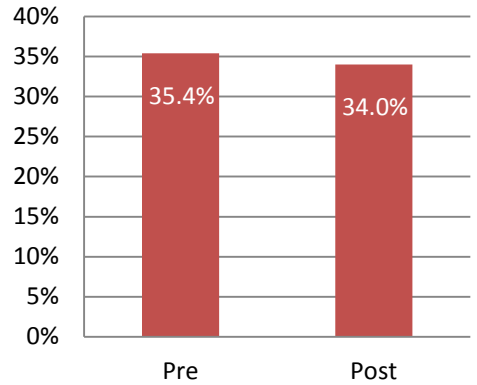
**Body Mass Index** (middle right): Results indicate a slight decrease in the total number of students who were overweight or obese from pre-test to post-test. Among the 126 runners (35%) who were either overweight (>85th percentile) or obese (>95th percentile) at baseline, 11% moved one entire BMI category (obese to overweight, overweight to normal weight, or obese to normal).

**Long Term Impact of BP** (middle right): The true impact of a fitness program is the long-term impact. As shown in the figure to the right, among students who have participated in the program for two years and began the program with elevated blood pressure, there is a significant and sustained reduction in blood over the two years of the program.

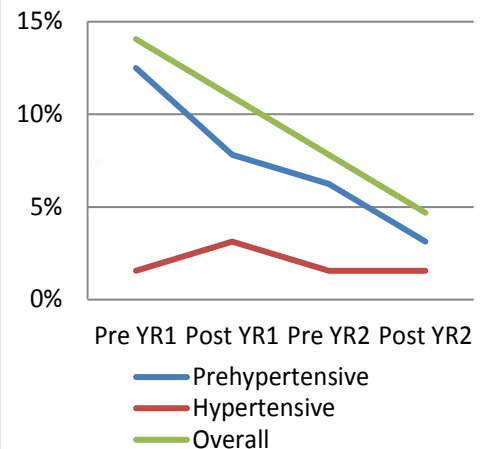
**Hypertension risk for all followed 6th, 7th and 8th grade runners**



**Percent of all 6th, 7th and 8th graders who were overweight/obese**



**Elevated blood pressure of students who participated in the WRTC for 2 years in a row**



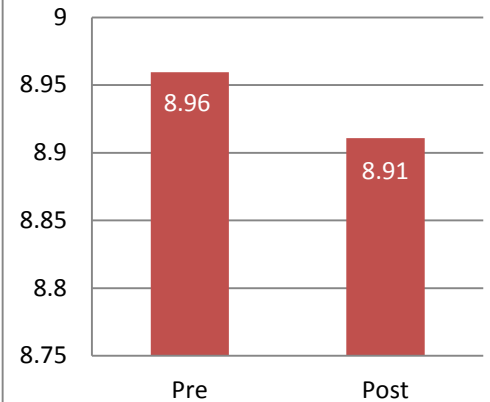
# Impact on Lower Body Strength, Balance and Endurance

## Lower Body Strength and Endurance

(top right): For the third year in a row, results indicate an improvement in lower body strength and balance from baseline to post-race, although 2011 results show a smaller change. The sit-to-stand test (the amount of time it takes to go from a sitting to standing to sitting position ten times) on average, took runners less time from pre-test to post-test.

continuous running between two markers, spaced 20-meters apart, before 9 seconds (a beeping noise indicates when 9 seconds are up and it is time to start a new segment). The time between each beep decreases by 1/2 a second each minute. Students continue to run between the two markers until they cannot finish before the beep. We assess the total number of segments the student is able to complete.

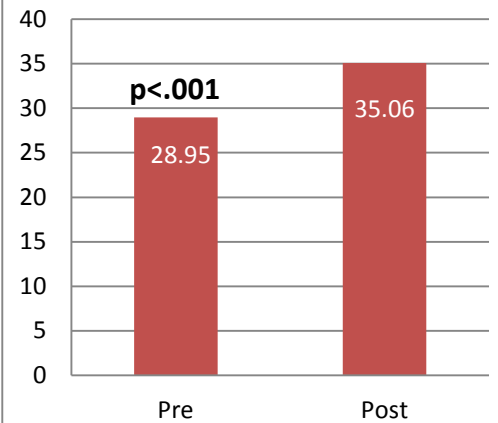
How long (in seconds) does it take to complete 10 sit-to-stands



**Endurance** (middle right): To test changes in overall endurance, participants completed the Progressive Aerobic Cardiovascular Endurance Run Test (PACER test), or Beep Test. This test involves

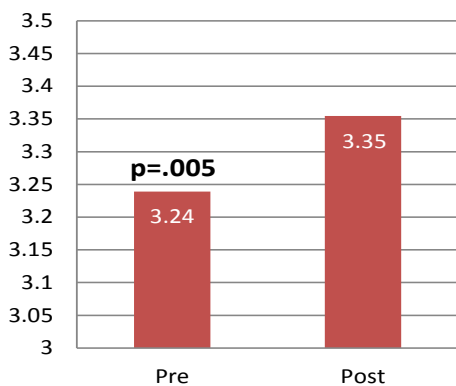
Prior to training, the average number of segments completed was 29. After the training and the race, these same runners completed 6 additional segments ( $p < .001$ ).

How many laps were completed during the PACER test



# Support from Family and Coaches

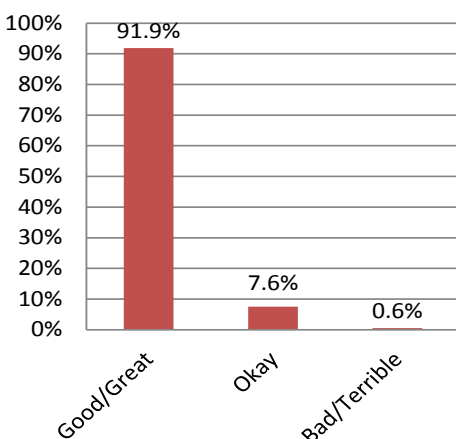
Family support for physical activity



**Family Support** (top left): As shown consistently over the past three years, runners reported a significant increase in the support for healthy behaviors received from their parents and family ( $p < .005$ ).

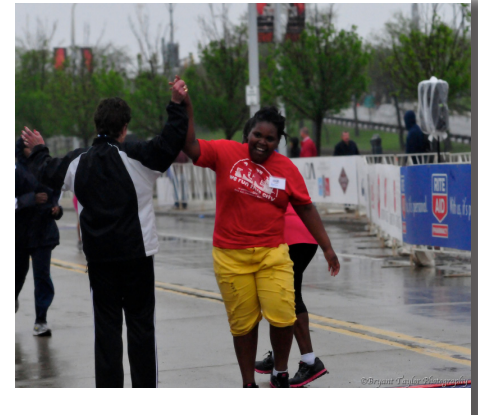
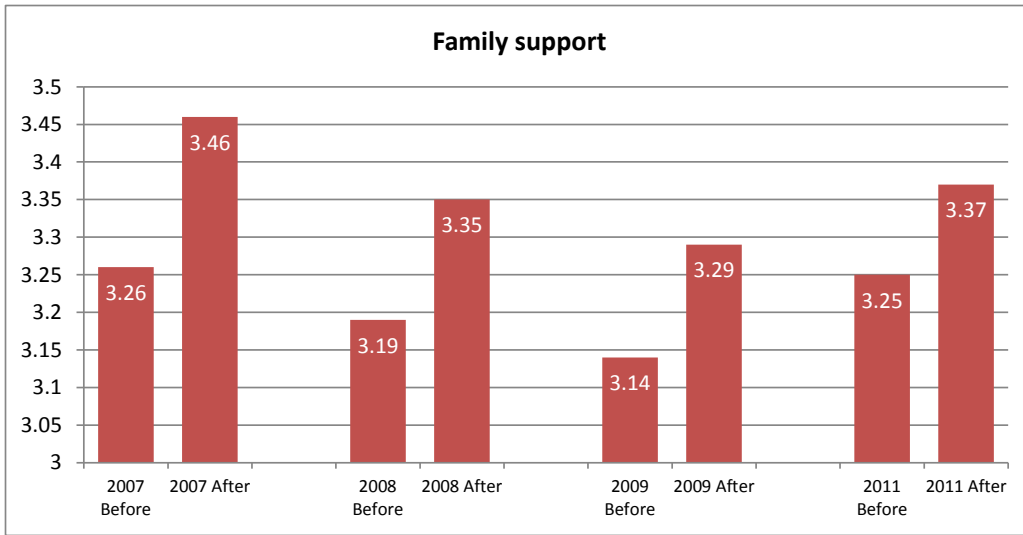
**Coach Support** (bottom left): Similar support was reported by coaches. Over 90% of runners reported that their coaches were highly supportive of them.

Coaches support for runners

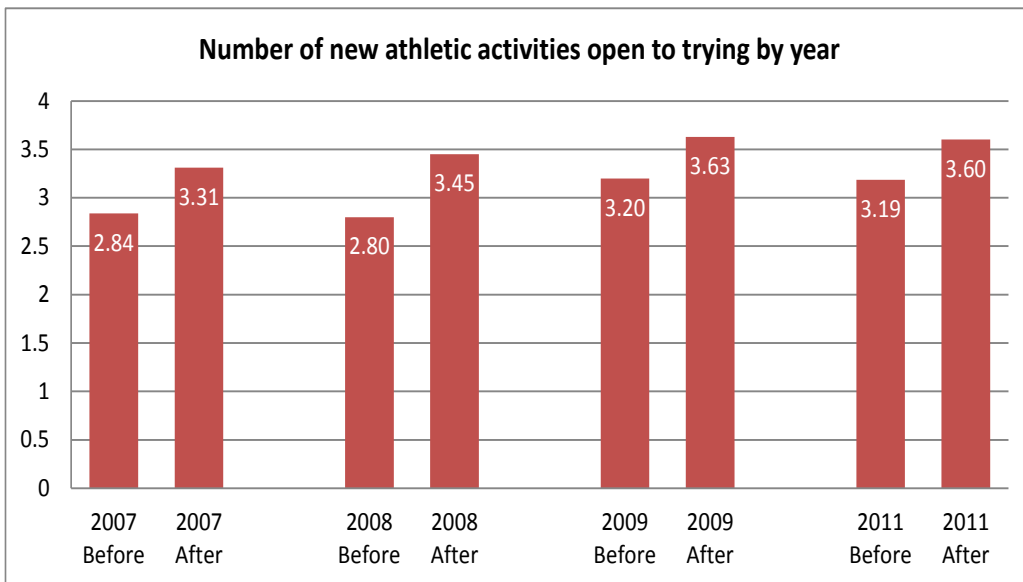


# Other Findings From 4 Years of Evaluation

**Family Support:** When all four years of evaluation data of the WRTC program are considered, we find a consistent and significant increase each year in the reported family support by WRTC students from baseline to post-race (see below).



**Athletic Activities:** Every year the students are asked if they are interested in playing or trying a list of activities, some that are new and unfamiliar to students, including hockey, soccer, rock climbing, karate/judo, golf and tennis. Every year the students have reported a significant increase in their interest and willingness to try a new activity. We believe this is related to their experience of participating in the Marathon, which is a unique experience for most students.



This data brief was prepared by the Prevention Research Center for Healthy Neighborhoods and authored by Elaine A. Borawski, Ph.D., Daniel Post, and Laura Danosky, MPH. For more information contact or Dr. Elaine Borawski (elaine.borawski@case.edu).

**The Prevention Research Center for Healthy Neighborhoods**  
**Case Western Reserve University**  
 BioEnterprise Building, 4th Floor  
 11000 Cedar Avenue  
 Cleveland Ohio 44106