



World Fit: A United States Olympians Fitness Program Targeting Middle School Youth

Jonathan Zebrowski¹; Tracie Miller, MD¹; Christie Vila, PhD¹; Sarah Messiah, PhD¹; Deannria Seavers, MPH¹; Jayne Greenberg, EdD²; Gary Hall, MD³



Abstract

Purpose: Obesity and sedentary behavior among children remain major public health problems in the United States regardless of gender, socioeconomic status or ethnicity. The success of fitness interventions has been limited owing to low participation rates, minimal reduction in body mass index (BMI), and lack of long-term improvement in physical activity. Schools provide an opportunity to implement obesity prevention strategies among large and diverse pediatric populations.

Methods: World Fit, a partnership among middle schools and the United States Olympians, employs the strategies of role modeling and friendly competition to encourage and sustain interest in physical activity. Each participating middle school is adopted by an Olympian/Paralympian who initially speaks to the student body about the importance of physical fitness and also participates in the core of the program, the World Fit Walk. For six weeks, students engage in a daily walking program on a measured course on school grounds and log their daily miles into an online interface. Alternatively, students who participate in other school-sponsored athletic activities receive mile credits based on a conversion table. Students who walk with a partner such as a parent or teacher receive bonus miles.

The web interface updates in real time as miles are logged, and its design facilitates the competitive aspect of World Fit. Students can view individual student miles within their school as well as overall mileage for schools in their district. At the end of each annual program, the Olympian/Paralympian awards certificates to all students who have met the minimum physical activity requirement and bestows special honors upon the top participants in each school as well as the school with the most overall miles. Students, teachers and families are encouraged to live up to the Olympic principles of fitness and fair play throughout the year.

Results: World Fit was inaugurated in 2009 as a pilot program in two Florida middle schools. During the six-week period, 61% of students, 70% of teachers and a small number of parents participated in the walk. Over 112,000 total miles were logged, with an average of 3 miles per day per student. School administrators, teachers and students provided largely positive feedback and indicated they would continue participating annually. In 2010, World Fit expanded to 17 middle schools in six U.S. states and aims to be active in 200 schools in 2011. World Fit plans to conduct a formal evidence-based clinical research study in selected participating middle schools in 2011 to evaluate the program's impact on BMI and blood pressure. Both measures will be monitored over the course of the six-week program and longitudinally as participants repeat the program annually.

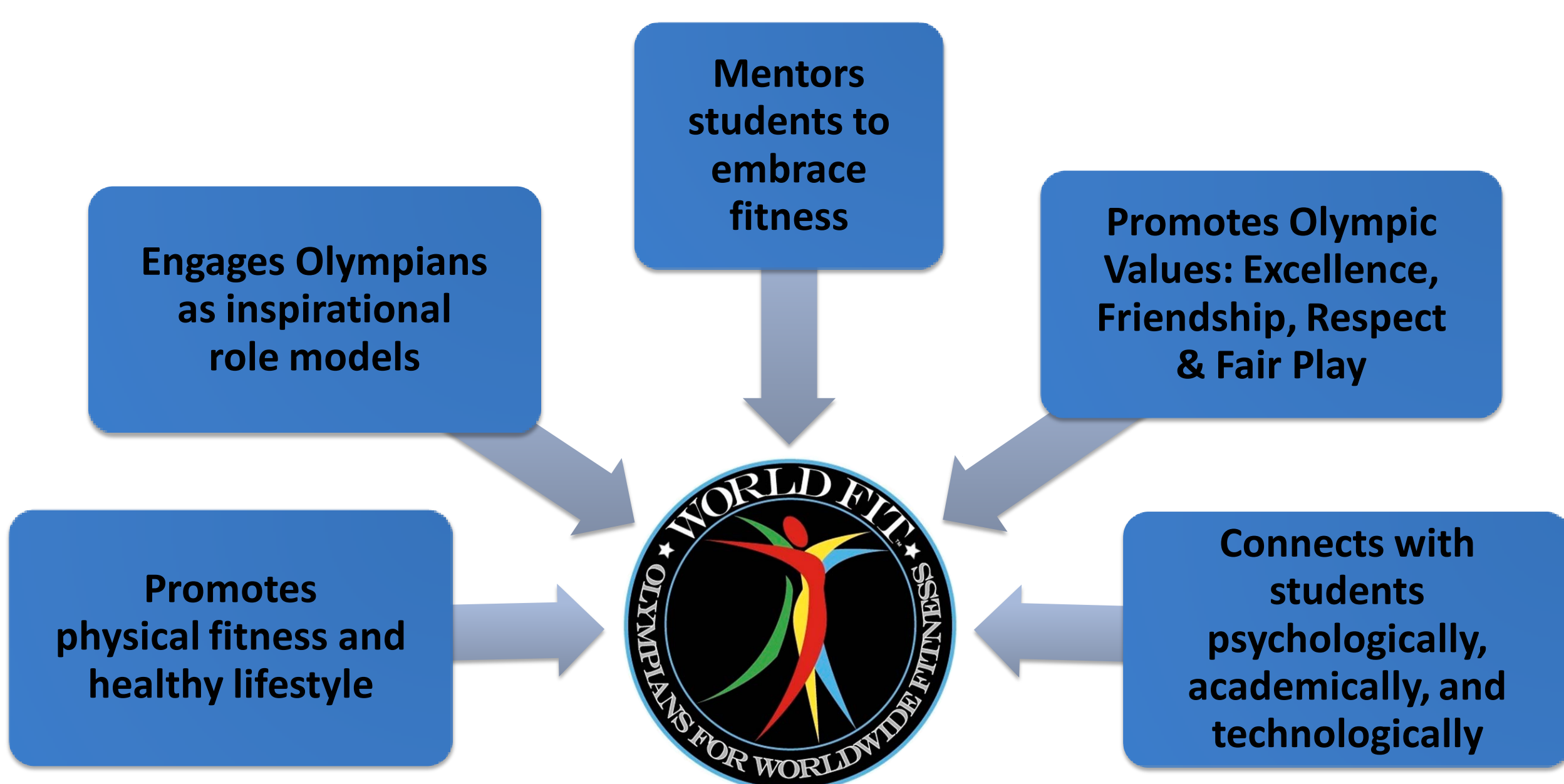
Conclusion: School-based programs employing role-modeling and competition show promise in encouraging daily physical activity among students.

Background

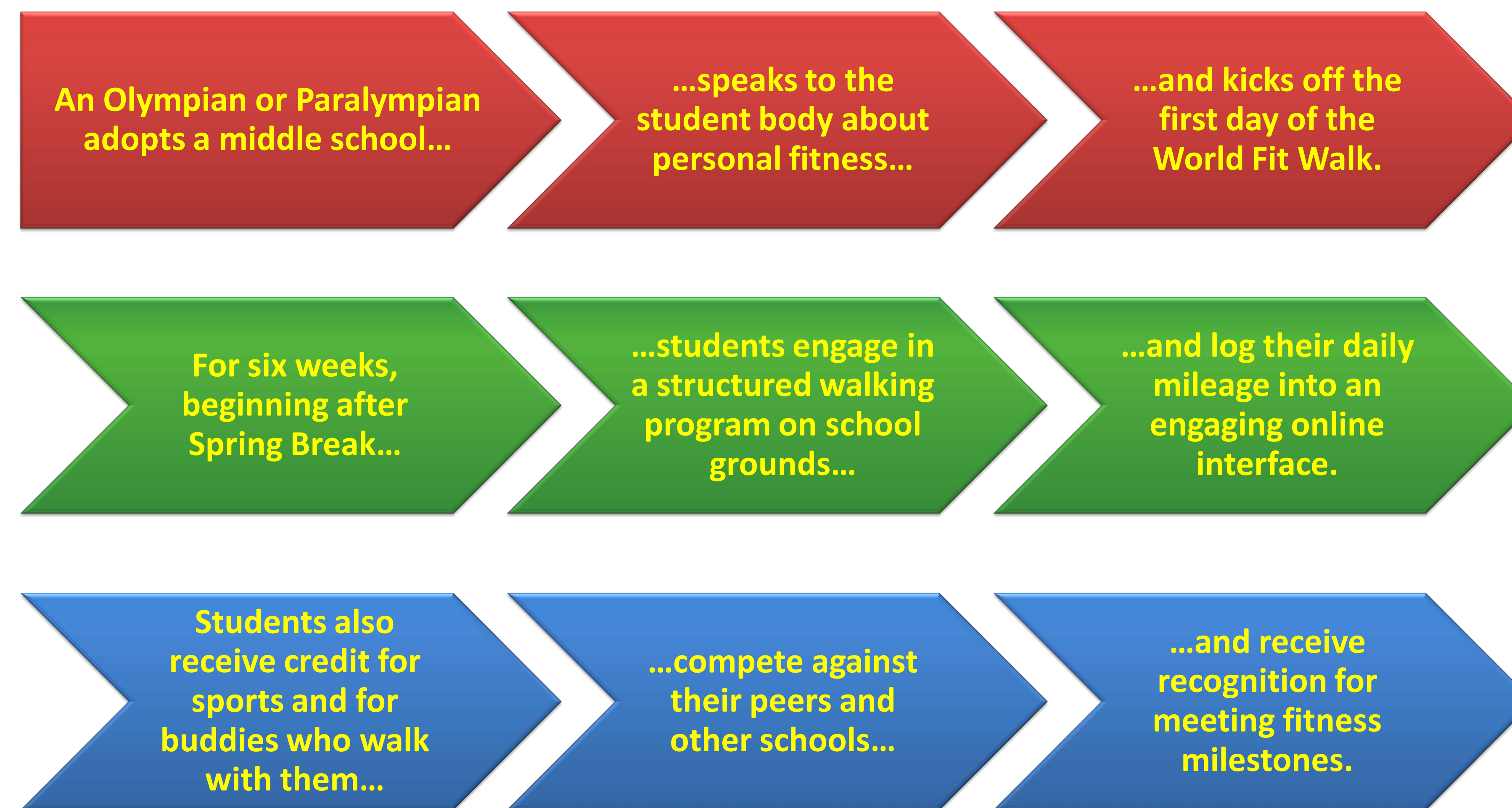
- Childhood obesity is an increasing problem in the United States
- Obese children are more prone to develop hypertension, dyslipidemia and insulin resistance, which are linked to the onset of Type 2 diabetes and cardiovascular problems later in life
- National public health stakeholders have identified regular exercise as a primary mechanism for maintaining healthy weight
- Walking is an effective intervention for reducing body weight, decreasing blood pressure and improving aerobic fitness
- School-based fitness interventions have shown promise in engaging large numbers of students in development of active lifestyles

Mission Statement and Concept

World Fit's mission is to promote a healthy fitness culture for children that will decrease serious health risks associated with obesity. Through Olympian and Paralympian role models, World Fit provides mentors who teach the importance of lifelong fitness and the Olympic values of perseverance, respect and fair play.



Program



Foundation of a lifelong active lifestyle

What Participants Are Saying about World Fit:

My favorite part of the World Fit Program was that we got to take a break from sitting in a class all day. It was a great way for me to get more alert, so that I **have better learning habits** when I go back inside to learn.

It feels good logging my miles and being in first place!

My parents always encouraged me to get outside and get active, but I never used to listen to them that much. With World Fit, it was the **friendly competition that made me get up and exercise more**, to beat the other schools, and my friends.



Olympic sprinter Tyson Gay (Beijing 2008) at Beaumont Middle School in Lexington, KY

Results

- World Fit began in 2009 as a pilot program in two Florida schools
 - 61% of students, 70% of teachers and a small number of parents participated in the walk
 - Students logged approximately 112,000 miles
 - Students averaged around 3 miles per day
 - Official survey feedback was largely positive, with students and administrators indicating they would continue participating in World Fit
- In 2010, the World Fit program expanded to 17 schools in six states around the nation (California, Florida, Kentucky, Illinois, Idaho and New York)
 - **Total students registered:** 7,239
 - **Total miles logged:** 769,148
 - Four schools achieved **100 percent registration**
 - The 2010 World Fit champion school averaged **5.8 miles per student per day** (including sport and buddy miles)

Why World Fit Works

- It **speaks the same language as children today** by tapping into their communication tools (computers, mobile phones, Facebook, Twitter)
- Website's **social media functions** allow participants to interact by sharing photos and comparing stats while logging their daily miles
- It **sets goals and holds children accountable** for their actions
- It employs the unique combination of **competition, inspiration, education, technology and socialization** to sustain participation
- It enables children to **interact personally with world-class athletes** who exemplify fitness ideals

Conclusions

- School-based programs employing role-modeling and competition show promise in encouraging daily physical activity among students.
- Future studies should evaluate the effectiveness of the program in sustaining increased levels of physical activity and improving cardiovascular risk endpoints

Contact Information

Jonathan Zebrowski, University of Miami Miller School of Medicine
jzebrowski@med.miami.edu
(305) 243-1722

For additional information about World Fit: www.worldfit.org

¹University of Miami Miller School of Medicine, Miami, FL

²Miami-Dade County Public Schools, Miami, FL

³World Fit, Tavernier, FL