

# In-School Prevention of Obesity and Disease (IsPOD)

Edgar G. Villanueva, MHA

**T**he Kate B. Reynolds Charitable Trust has committed to invest more than \$3 million over the next four years in an effort to transform the physical education system in North Carolina elementary and middle schools. The ultimate goal is to influence students to make lifestyle changes that include higher levels of physical activity and improved nutritional behaviors.

The grant will support an initiative called the In-School Prevention of Obesity and Disease (IsPOD), which is being administered by the North Carolina Alliance for Health, Physical Education, Recreation, and Dance (NCAAHPERD) in partnership with physical education teachers in all 100 counties of the state. School systems in approximately 32 counties are using the program this year, and 25 additional systems will be added annually through the 2011-2012 school year. When implementation is complete, North Carolina will be the only state in the nation delivering a consistent, research-based physical education curriculum to all public school students in kindergarten through 8th grade.

Through this program, the Trust, NCAAHPERD, and state school systems have the potential to improve the overall health of the next generation of North Carolinians. Due to the increase in obesity and its associated diseases, the life expectancy for American children is declining for the first time in more than 100 years. If successful, IsPOD will help reverse that downward trend and will effect attitudinal and behavioral change among one million young people.

The IsPOD program is built around a specialized curriculum called Sports, Play & Active Recreation for Kids (SPARK), a research-based physical education curriculum for K-12 students. It is designed to combine healthy lifestyle messaging and take-home materials with physical activity exercises that promote participation among students on all grade levels. The program was developed by San Diego State University and includes training sessions for physical education teachers before they introduce SPARK in their classrooms.

Several benefits distinguish the IsPOD initiative from earlier efforts. First, the program is long-term. As kindergartners, students will be introduced to an active physical education class with emphasis on general health and fitness. Both the level of activity and the healthy lifestyle messages will continue and be reinforced for nine years. This is not a one-semester or one-year program. Children will have time to make lasting lifestyle changes. Second, Trust funding will cover staff training, manuals,

technology, equipment, evaluation, and follow-up. There will be no cost to schools, and the program will reach all children, regardless of their family's income level.

NCAAHPERD introduced IsPOD as a pilot program two years ago with support from the North Carolina Health and Wellness Trust Fund and the Blue Cross Blue Shield of North Carolina Foundation. It was implemented with kindergarten through 8th grade students in seven counties: Duplin, Durham, Robeson, Union, Iredell, Macon, and Jackson. More than 126,000 children experienced the pilot program, and preliminary data showed positive indicators of attitudinal and behavioral change.

From pre-test to post-test, results showed a slight increase in students' exposure to physical activity. Students reported spending less time on TV or video games and a greater likelihood of choosing activities such as bicycling, dancing, and outdoor games during their free time. Participating students reported enjoying physical activity and wishing they had more physical education classes. Eating habits also showed improvement. Students indicated greater consumption of fruit, fruit juice, green salad, and vegetables. Their post-tests also reflected less preference for sweets or high fat snacks.

Although body mass index (BMI) did not change significantly from pre-test to post-test, the lack of a significant increase in BMI as students aged seemed to indicate a positive program effect. However, interpretation of results was difficult without a nonparticipant comparison group.

During the pilot, NCAAHPERD trained more than 280 physical education teachers in using the SPARK curriculum. Simultaneously, NCAAHPERD representatives began working with the physical education departments of 16 university education programs to include preparation for their student to teach the SPARK curriculum with their students. Over the next four years, new physical education teachers will graduate fully prepared to implement the program in their first year of teaching.

"The SPARK curriculum provides teachers with sequential lessons that will help improve both fitness and skill levels of our students and is designed to encourage maximum participation during class time," said Lisa Queen, MA, NBCT, and physical education teacher at Troutman Middle School in Iredell County. "The program gives teachers the tools to provide better daily physical education for their students."

---

**Edgar G. Villanueva, MHA**, is a program officer in the Health Care Division of the Kate B. Reynolds Charitable Trust. He can be reached at [edgar \(at\) kbr.org](mailto:edgar@kbr.org).

Surprisingly, traditional physical education classes provide an average of only 17.8 minutes of moderate to vigorous physical activity per student each week. IsPOD-trained teachers using the SPARK curriculum have increased the level of moderate to vigorous physical activity to 40.2 minutes per student per week.

Evaluating the program is an important part of the initiative. All tools utilized in the program are evidence-based and have embedded evaluation components. Participating teachers also receive FITNESSGRAM, a software tool that is a critical evaluation component. FITNESSGRAM tracks fitness results such as aerobic capacity, body composition, muscular strength, endurance, and flexibility and then facilitates communicating the findings to students and parents. Two times each year, students also complete surveys on physical activity and fruit and vegetable intake.

“The pool of data collected over the next four years will be the largest and most comprehensive ever made available for evaluating the success of a physical education program. It will be a gold-mine for researchers, educators, and public policymakers,” said Ron Morrow, executive director of NCAAHPERD.

This grant is one of the largest ever given by the Trust’s Health Care Division. Our partnership with NCAAHPERD

and school systems statewide makes it possible for us to work proactively to reverse the trend toward obesity and its associated diseases among school-age children. We believe IsPOD can improve the long-term health of North Carolina families while yielding evidence-based data that will be invaluable to educators and state legislators as they make decisions that set the course for physical education in our schools for decades.

*NCAAHPERD is a not-for-profit organization whose mission is to provide advocacy, professional development, and unity for professionals and students in order to enhance and promote the health of North Carolinians.*

*The Kate B. Reynolds Charitable Trust is one of North Carolina’s largest private foundations with assets of more than \$500 million. The mission of the Trust is to improve the quality of life and quality of health for the financially needy of North Carolina. Based on free and reduced lunch records, 57% of the K-8 students who will benefit from this program meet the criteria for funding to the “financially needy of North Carolina” as stated in the mandate governing the Trust.*

**ORGAN & TISSUE DONORS  
SAVE LIVES**



**For More Information Contact**

*Carolina*   
**Donor Services**  
1-800-200-2672

[www.carolinadonorservices.org](http://www.carolinadonorservices.org)