



Healthy
HotSpot

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Schools in Suburban Cook County, Illinois Increase Student Physical Activity

SUMMARY OF KEY FINDINGS

- Schools participated in a variety of opportunities offered as part of the Healthy HotSpot initiative.
- Students increased moderate to vigorous physical activity time in P.E. class.
- The percent of schools with students spending 50% or more of P.E. class time in MVPA increased.
- Changing the way P.E. is taught can improve student MVPA during class.

Schools are one of the many places being strengthened as part of the Healthy HotSpot initiative, led by the Cook County Department of Public Health (CCDPH) that aims to make suburban Cook County a healthy place to live, work, learn, worship, play and receive healthcare. This brief shares key findings from an evaluation examining the impact of the Healthy HotSpot initiative's activities (described below) to support enhanced Physical Education (P.E.) and student physical activity during P.E. class in suburban Cook County schools.

Importance of Physical Activity

Regular physical activity has many benefits for children and youth, including helping to build and maintain healthy bones and muscles; reducing the risk of developing obesity and chronic diseases such as diabetes, heart disease and some cancers, reducing depression and anxiety; and improving academic performance and school behaviors¹. The U.S. Department of Health and Human Services recommends that children and youth (ages 6 to 17 years of age) participate in at least 60 minutes of physical activity daily². Most school-aged children in suburban Cook County do not get the recommended amount of physical activity daily. Students attending schools where the majority of students are low income, Hispanic, or African-American are even less likely to get the recommended amount of physical activity³. This puts low income, African-American and Hispanic students at increased risk of physical and mental health problems, and academic and school behavioral issues. Suburban Cook County schools have an opportunity to improve health, behavior and learning by offering all students high quality enhanced P.E. Enhanced P.E. utilizes school policies and teaching methods to increase student physical activity during P.E. class.

Opportunities to Support Schools in Implementing Enhanced P.E.

To support schools in implementing enhanced P.E. aligned with revised Illinois learning standards, partners of the Healthy HotSpot initiative --- Alliance for a Healthier Generation, Illinois Public Health Institute, and the regional Intermediate Service Centers --- provided the following opportunities to schools.

- **Healthy School Summits.** These professional trainings launched the Healthy HotSpot initiative in schools, addressing the link between physical activity and learning; discussing the revised learning standards for physical development and health; and providing skill-based workshops for implementation of enhanced P.E. Schools were encouraged to register for Let's Move! Active Schools.

PHYSICAL ACTIVITY GIVES KIDS A LEG UP IN SCHOOL

- Improves health
- Improves behavior
- Improves learning



¹ CDC, Division of Population Health, National Center for Chronic Disease Prevention and Health Promotion, <http://www.cdc.gov/healthyschools/physicalactivity/facts.htm>, accessed 8/3/2016.

² U.S. Department of Health and Human Services. 2008 Physical Activity Guidelines for Americans. Washington, DC: U.S. Department of Health and Human Services; 2008.

³ Cook County Department of Public Health and CLOCC. 2010-2012 School Day Physical Activity among Children in Suburban Cook County, Illinois. <http://www.cookcountypublichealth.org/files/pdf/publications/physical-activity-brief-100113-final.pdf>, accessed on 8/29/16.

- **Pump Up P.E. trainings.** These trainings for elementary, middle and high school physical educators provided participants with practical teaching methods designed to increase the time students are physically active during P.E. class.
- **One-on-one or group-based technical assistance (TA).** TA was offered to physical educators who participated in a Pump Up P.E training to help them overcome barriers to putting what they learned at the training into practice.
- **Enhanced P.E. workshops.** Two half-day workshops were organized for administrators that shared information and strategies for creating and implementing policy improvements at the school level that would support high-quality enhanced P.E.
- **On-going professional development sessions.** These sessions focused on implementation of policies and programs that support physical activity, including enhanced P.E., during the school day, and were provided to select schools through Let's Move! Active Schools and the Alliance for a Healthier Generation's Healthy Schools Program.

The Evaluation

The Consortium to Lower Obesity in Chicago Children (CLOCC) at Ann and Robert H. Lurie Children's Hospital of Chicago evaluated quantity, quality and content of P.E.; student physical activity (PA); and school-level P.E. policies.

Methods

Student physical activity and P.E. class content data were collected at participating schools using the validated System for Observing Fitness Instruction Time (SOFIT) tool. SOFIT tracks lesson context, student activity levels, and teacher promotion of moderate to vigorous physical activity (MVPA).

SOFIT data were collected at three time points throughout the 2015-2016 school year. Time one data (baseline) collection occurred before a school's physical educator(s) participated in a Pump Up P.E. training. Time two (Post 1) data collection occurred 4-15 weeks after participation in the P.E. training; and time three (Post 2) data collection occurred 20-30 weeks after participation in the P.E. training. For each data collection time point, SOFIT observations were made at each participating school during every period a P.E. class was taking place for two consecutive days.

Data on P.E. quantity and P.E. policies were collected from P.E. teacher surveys immediately after they attended a Pump Up P.E. training, and again in spring 2016; and through interviews with district or school administrators in the fall and spring of school year 2015-2016.

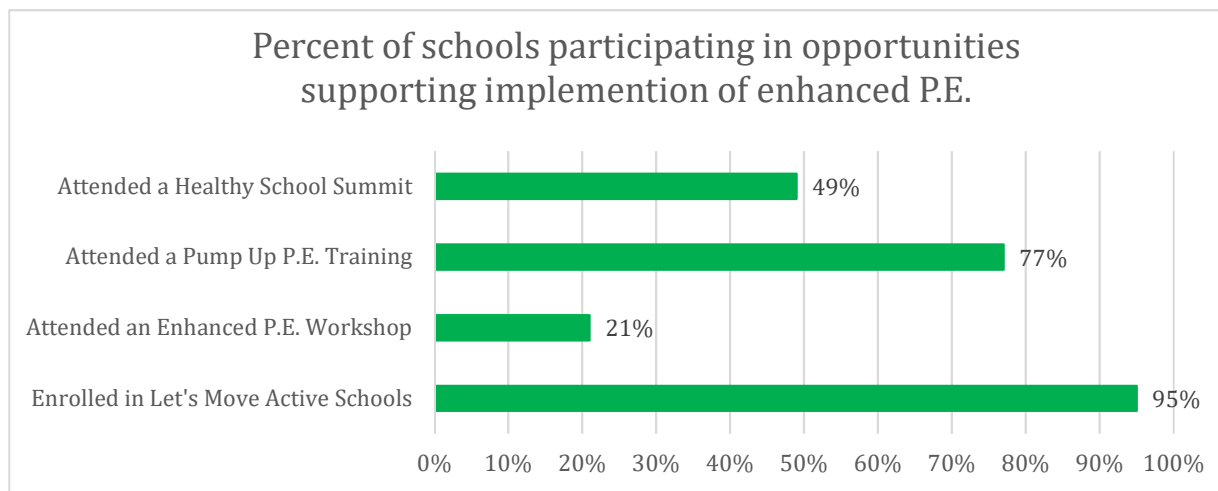
Data were analyzed using frequency analysis, and mean and tests of significance over two or more time points with ANOVA procedures. Comparisons were made by school type (elementary, middle, high school). Findings for statistical significance were tested to detect the probability that observed differences between time points or groups could have occurred by chance. Statistical significance is reported as a numerical value for 'p' (probability value). If a p-value is less than 0.05, there is 95% or more certainty that the difference observed is not due to chance. The cutoff level to determine statistical significance was set at 0.05.

PARTICIPATING SCHOOLS IN THE EVALUATION

- A total of **42** public schools in suburban Cook County participated in the evaluation.
- Schools represent nine different school districts across the region.
- Each school district has enrollments of >40% of students eligible for free and reduced lunch.
- Evaluation data for **36** of the 42 schools are included in this report.

What was found

KEY FINDING. Schools participated in a variety of opportunities offered as part of the Healthy HotSpot initiative to support schools in implementing enhanced P.E.



KEY FINDING. Students increased in MVPA time in P.E. class.

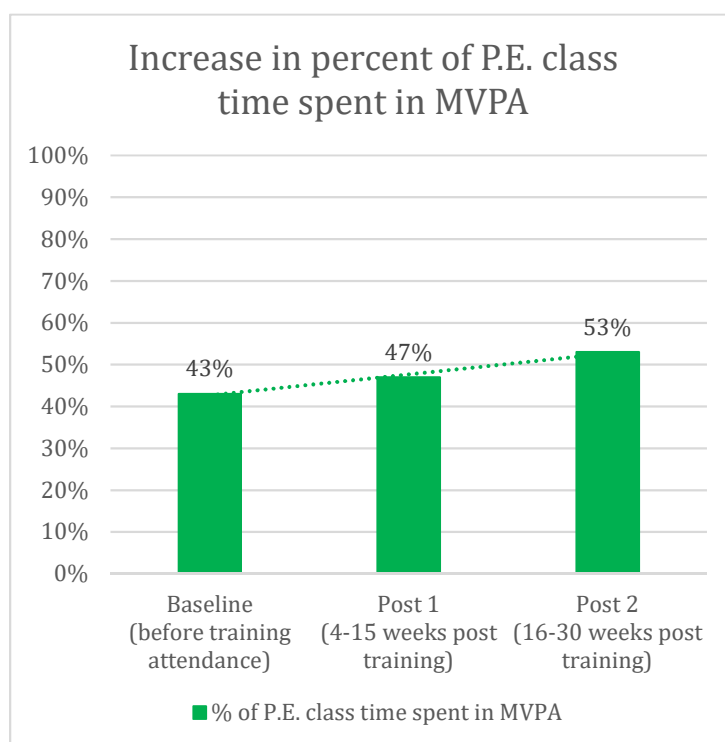
The percent of class time students are moderately-vigorously physically active (MVPA) increased by 23% from 43% of class time at baseline to 53% at post 2 time point ($p=.02$). This change is statistically significant, meaning it is unlikely that the difference noted occurred by chance.

MVPA
(Moderate to vigorous physical activity)

MVPA is recommended by the Centers for Disease Control and Prevention (CDC) to obtain health benefits. Moderate activity includes things like brisk walking. Vigorous activities include things like running

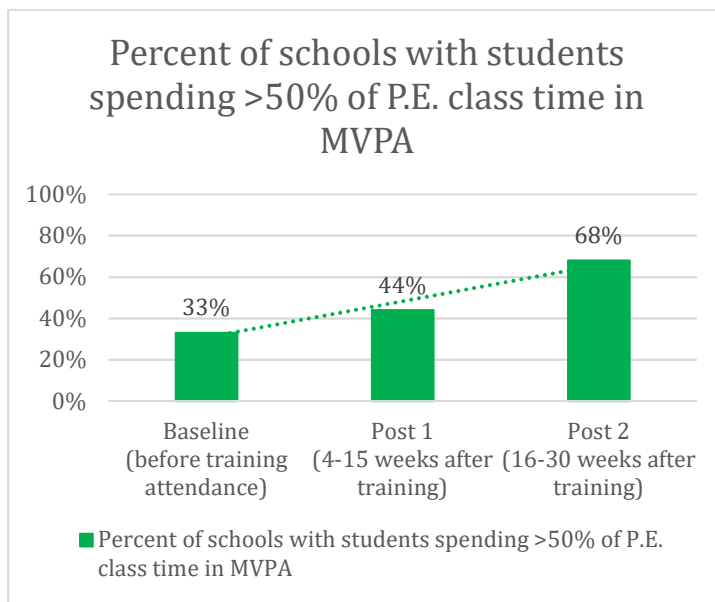
CDC recommends students engage in MVPA for at least 50% of the time they are in P.E. class—one critical outcome measure to determine quality of a P.E. program.

CDC, Strategies to Improve Quality of Physical Education, July 2010
https://www.cdc.gov/healthyschools/pecat/quality_pe.pdf



KEY FINDING. The percent of schools with students spending 50% or more PE class time in MVPA increased.

The percent of schools with students spending at least 50% of P.E. class time in MVPA increased by 200% from 33% of schools at baseline to 68% at post 2 time point (p=.0452). This change is statistically significant, meaning it is unlikely that the difference noted occurred by chance.



KEY FINDING. Changing the way PE is taught can improve student P.E. class MVPA.

More P.E. class time allocation to context fitness, skill practice, and game play was associated with higher percentages of in-class MVPA (p<0.01). Additionally, more time allocation to promotion of physical activity by teacher was associated with MVPA percent (p<0.01).

Next Steps

Schools who have not already done so are encouraged to register for Let’s Move! Active Schools or the Alliance for a Healthier Generation’s Healthy Schools Program (<https://schools.healthiergeneration.org/>) for resources and tools to increase physical education and physical activity opportunities for their students. In addition, Pump Up P.E. trainings and technical assistance with curriculum alignment will continue to be available during the 2016-2017 school year.

If you have any questions or would like more information about this report, please contact Sarah Welch of CLOCC at swelch@luriechildrens.org. For more information about the Healthy HotSpot initiative, email healthyhotspot@cookcountyhhs.org.



Healthy HotSpot is an initiative led by the Cook County Department of Public Health that aims to build healthy places in suburban Cook County through community partnerships. For more information, visit healthyhotspot.org.

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