

ALLEGHENY COUNTY: Active Physical Education (Active PE)



This brief summarizes findings from the CHOICES Learning Collaborative Partnership simulation model of implementing an Active Physical Education (PE) program in school districts participating in the *Live Well Allegheny* initiative in Allegheny County, Pennsylvania. *Live Well Allegheny* Schools will commit that 50% of PE class time be dedicated to moderate-to-vigorous physical activity (MVPA).

The Issue

One objective of the Allegheny County Health Department (ACHD) Community Health Improvement Plan is to decrease obesity in school-age children. Research shows that physical activity helps kids grow up at a healthy weight and reduces the risk of future chronic disease.¹ However, many kids do not get enough daily physical activity,² and without action, a majority of today's children will have obesity at age 35.³ This has substantial financial implications. The health care costs for treating obesity-related health conditions like heart disease and diabetes were \$147 billion in 2008.⁴

PE programs in schools can help students get the recommended amount of physical activity per day.¹ However, research shows that children often spend less than half of PE class being physically active.⁵ Improving the quality of PE classes in ways that ensure that children are more active during class time will not only help children get more physical activity, but can also encourage children to develop habits to ensure an active and healthy lifestyle.¹ The purpose of this study is to estimate the cost-effectiveness of implementing Active PE, which requires that at least 50% of PE class time be spent in MVPA.

About Active PE

The ACHD envisions that Active PE could be implemented in school districts that have partnered with *Live Well Allegheny*, a county-wide campaign to improve the health and wellness of Allegheny County residents. Implementation of Active PE would include dissemination of the evidence-based program SPARK PE to eligible elementary and middle schools. SPARK is a well-evaluated and widely used curriculum and training program that has been found to increase MVPA time in PE class.⁶

SPARK trainers would lead two-day workshops to train PE teachers on how to use and implement the SPARK PE curriculum. Participating schools would receive SPARK curricula, instructional materials, and equipment. Implementation would include a county-level PE Educational Specialist to provide oversight and monitoring of policy implementation, as well as ongoing training and support for teachers and schools each year.

Comparing Costs and Outcomes

CHOICES cost-effectiveness analysis compared the costs and outcomes of the implementation of the Active PE program in designated *Live Well Allegheny* school districts over a 10-year time horizon with the costs and outcomes of not implementing the intervention. We assumed that all elementary and middle schools serving grades K-8 that are part of the 18 designated *Live Well Allegheny* school districts would receive training from SPARK. The model assumes that 70% of the PE teachers trained would implement Active PE program in their schools.^{7,8}

Implementing Active PE is an investment in the future. By the end of 2027:



62,100 CHILDREN REACHED

over 10 years



\$37

COST PER CHILD

to implement Active PE



7 MORE ACTIVE MINUTES

per school week

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Conclusions and Implications

The implementation of Active PE using the evidence-based program SPARK within *Live Well Allegheny* Schools is projected to improve the health of many children in Allegheny County. The intervention would help ensure that 62,100 children attend schools with more active PE classes and would cost \$2.29 million dollars to implement over 10 years, at an average of \$37 per child. In schools that implement the Active PE program, on average we estimate that students would get 7 additional minutes of MVPA per school week, which is a 3% increase in MVPA. We estimate there will be 13 fewer cases of childhood obesity in the final year of the model as a result of implementation of Active PE.

SPARK training offers a professional development opportunity for teachers to improve instructional strategies to foster a fun and enjoyable environment where children can gain lifelong skills to engage in physical activity.¹⁰ There are also other likely positive benefits from physical activity related to improved bone health, aerobic and muscular fitness, cognition, and academic performance¹ that are not quantified in this analysis but are important outcomes for children's education and well-being.

Active PE is one evidence-based strategy that can benefit the majority of students in a school where most children attend PE classes and can be incorporated into a comprehensive plan to address childhood obesity. Leaders should use the best available evidence to select strategies to help children be more active.



PE class at Duquesne City School District, the first *Live Well Allegheny* School

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