Introduction
The Centers for Disease Control and Prevention’s (CDC) Health Impact in 5 Years (HI-5) initiative highlights community-wide approaches that can improve the places where we live, learn, work, and play. The following example from the Georgia Department of Public Health was implemented before CDC developed the HI-5 initiative, but this example shows the components that may be needed to carry out one of the HI-5 evidence-based approaches, the introduction or expansion of school-based programs to increase physical activity. Georgia Shape is a statewide, multifaceted childhood obesity initiative that grew out of a 2009 policy, the Student Health and Physical Education (SHAPE) Act. The SHAPE Act requires K-12 students to undergo an annual fitness assessment. Using that requirement as a springboard, one of Georgia Shape’s physical activity components, Power Up for 30, integrates 30 minutes of physical activity into each school day; aligns with CDC’s Comprehensive School Physical Activity Program and provides schools with baseline data, training, resources, technical support, individual action plans, and statewide recognition.

Problem
The 2008 Physical Activity Guidelines for Americans recommend that children and adolescents should get at least 60 minutes of physical activity each day. School-based programs to increase physical activity - including programs to expand school-based physical education, as well as programs that incorporate physical activity into regular classroom curricula - have been recommended as important strategies to increase physical activity and address childhood obesity. Unfortunately, many children and adolescents do not get enough daily physical activity for a number of reasons. Regular activity in childhood and adolescence is important for promoting lifelong health and well-being and can help children and...
adolescents improve cardiorespiratory fitness, build strong bones and muscles, control weight, reduce symptoms of anxiety and depression, and reduce the risk of developing multiple health conditions, including heart disease, diabetes, and obesity.\textsuperscript{12}

### Making the Case

In 2011, the Georgia Office of the Governor identified childhood obesity prevention as Georgia’s number one public health priority and recognized the need to bring together partners to support implementation of the components of the SHAPE Act in schools. The state formed a multi-sector governing council that included diverse private and public sector partners.

The council used an “obesity systems” modeling program developed with Georgia data to identify and take action on many factors that can contribute to obesity, including a lack of physical activity which was addressed through the Power Up for 30 program.\textsuperscript{13} The Georgia Department of Public Health worked with researchers to expand and improve the model and strategically focus its efforts. The model tracked evidence of the impact of obesity prevention efforts funded by the legislature to determine how increasing physical activity in schools, individually or in combination with other interventions, could impact children in Georgia.

### Creating a Win-Win

To find champions within the school district, the Shape program offered a win-win solution, communicating to schools the connection between physical activity, academic achievement, and increased test scores for schools. This was supported by research that showed physically active academic lessons, of moderate intensity, improved performance on a standardized test of academic achievement by about 6\% compared to a decrease of 1\% for controls.\textsuperscript{14} Shape invited school principals, physical education teachers, and classroom teachers to participate, using tailored outreach that emphasized the benefits each group prioritized: improved attendance and discipline, improved health, or improved academic performance. The Georgia Department of Education was a critical partner, and the state superintendent of schools promoted Shape through e-mail, public service announcements, and social media.

Designed as a component of Georgia Shape that could increase physical activity, the Power Up For 30 intervention began in 2012-2013 among nearly 40 elementary schools from five Georgia school districts. First, the Georgia Shape program assessed health knowledge, classroom physical activity time, time spent doing moderate to vigorous activity during physical education, availability of before-school activity programs, aerobic capacity, and body mass index. The pilot study schools then scoured their survey data to determine effective resources that fit their environment to increase PA by 30 minutes before, during, or after school. In each school, an administrator, physical education teacher, and classroom teacher participated in all-day training and led the program during the pilot study.

### Four Ways to Get Kids Moving

- After-school Physical Activity
- Daily Physical Education
- Classroom-based Physical Activity
- Recess
- Safe Routes to Schools
HI-5: School-Based Programs to Increase Physical Activity:

• **The goal:** Increase physical activity before, during, and after school.

• **The strategy:** Show that physical activity isn’t just about running laps or playing dodgeball. Expanding or enhancing existing physical education programs and bringing physical activity into classrooms can improve health outcomes. Elementary or middle school programs that add additional physical activity to the school day for students also have the ability to yield a $33 return for every dollar invested.¹⁵

* Over 50 years, in 2016 dollars; calculated from decreased health care costs due to reductions in obesity and increased labor market earnings due to the positive impact of physical activity on academic achievement”

Overcoming Barriers

There were schools that were concerned with the time physical activity might take away from test preparation or core subjects. Other schools were concerned that physical activity could disrupt classes and cause discipline problems, or that it would reduce attendance. The Shape program in Georgia used data to address these concerns and show that increased physical activity could improve academic performance, reduce discipline issues, and increase attendance. Georgia Shape’s solution was to identify perceived barriers and tailor the message around data that answered the school’s unique concerns. Georgia Shape used research to frame Power Up for 30 as a way to help teachers and administrators achieve their goals.

Georgia Shape also collaborated with former teachers as subject-matter experts, ensuring that program designers understood the realities of what would work in the classroom. And the intervention was designed to be flexible and meet the needs of diverse school environments—rural, urban, and suburban. Using each school’s data and unique situation, Georgia Shape helped each school create a customized action plan that fit their needs and learning environment.

Support from Multi-Sector Partners

The Governor wanted to build on the success of the SHAPE Act, and in 2011 selected the Georgia Department of Public Health to lead a broad initiative to reduce childhood obesity across the state with the support of a governing council. The council included businesses, healthcare organizations, charitable foundations, government agencies, professional sports teams, and others. A diverse group of subject-matter experts helped ensure a range of views were included.

The Power Up for 30 pilot was funded through HealthMPPowers, a nonprofit that provides technical assistance and training. Corporate sponsors funded the program’s statewide rollout, first to elementary schools, and later to middle schools. The Department of Family and Child Services funds after-school Power Up for 30, and a CDC block grant helps fund a full-time employee and technical assistance support for all of Georgia Shape’s initiatives. These partnerships helped Power Up for 30 quickly expand from an initial five-county pilot program to statewide application by the 2013–2014 school year.
Benefits to Integrating Health and Education:

- Research shows a positive relationship between physical activity and school attendance, concentration and attention in the classroom, and academic performance.
- **Power Up for 30** allows each school to increase physical activity in a way that fits their environment using their current resources and personnel.
- **Power Up for 30** can add physical activity before, during, and after the school day in fun and innovative ways.
- **Power Up for 30** complements but does not replace regular physical education.
- Every school that takes the **Power Up Pledge** receives free training, low- or no-cost resources, and ongoing technical support.

The reason we have been so successful in Georgia is due to our vast partnerships. By inviting diverse and passionate organizations to the table, we have been able to discover innovative solutions and spread excitement throughout the state.

Emily Anne Vall, PhD, Georgia Shape Program Manager

Impact and Sustainability

As of 2016, more than 880 schools have engaged in **Power Up for 30**, and the overarching Georgia Shape initiative had provided professional development for nearly 1,900 teachers and administrators—benefitting more than 467,600 elementary school students, or close to 18,700 classrooms.

One component of a comprehensive school physical activity program is assessment. Studies have shown that students in the “healthy fitness zone” score higher on the statewide competency test in math and reading and end-of-course exams than students who are less fit. They also have fewer discipline referrals and better school attendance than students who are less fit.

To sustain the effort, **Power Up for 30** developed an electronic training module to support new staff, rural schools, and new schools joining the program. The program is now embedded in the elementary school curriculum. **Power Up for 30** is now expanding to incorporate a middle school pilot, after-school training, and a preservice teacher certificate in partnership with the University of West Georgia.

Currently, more than 120 partners work on Georgia Shape’s subgroups and the Georgia Shape Council. They meet quarterly to provide advice, cultivate connections and relationships, break down barriers, and provide sponsorship and funding.

**Power Up for 30 schools increase:**

- Before and after-school student physical activity programs.
- Days of recess.
- Minutes of physical activity integrated into the classroom.
- Professional development related to physical activity.
- Students achieving the healthy fitness zone for aerobic capacity.
Progress and partnerships for Georgia Shape:

- Over $57 million in grants provided from federal and private foundations to Georgia Shape and partners.
- Childhood obesity in Georgia: stopped increasing and started decreasing.
- Created over 120 active statewide partnerships to improve child health and wellness.
- Numerous national awards from the President’s Council on Fitness, Sports and Nutrition, the Association of Maternal and Child Health, and the Harvard Kennedy School of Government.
- Over 1.14 million Georgia students receive annual fitness assessments.
- 99% of the school districts in Georgia participate in Georgia Shape and partners’ programming.

About CDC’s HI-5 (Health Impact in 5 Years) Initiative

HI-5 strategies can help you achieve healthy outcomes in your community in 5 years or less, providing good economic value for the investment. CDC reviewed the science to focus on 14 proven approaches that rose to the top as attainable wins for public health. School-based programs to increase physical activity is just one of the 14 evidence-based interventions identified. CDC’s HI-5 initiative can help you make decisions about what works and where to focus efforts to improve public health. To find out more about how your community can use the HI-5 initiative to improve the health of all people, visit the HI-5 website: [www.cdc.gov/hi5](http://www.cdc.gov/hi5).

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References


For more case examples of HI-5 approaches, please refer to www.cdc.gov/hi5