



# Physical Education and Colorado

*A report on the state of PE across Colorado's public school system*

DECEMBER 2016



# Every child deserves a chance to succeed

An active lifestyle that includes adequate physical activity can increase a child's chance of success. Supporting increased physical activity and physical education for all children will help ensure that future generations reach their full potential. One key to increasing physical activity and wellness across the lifespan is to make physical education part of every child's complete education.

The PE for All Colorado Coalition was formed to increase and improve physical education in Colorado schools. Coalition members represent a broad and diverse group of organizations committed to the concept that physical education is an essential building block for ensuring healthy, successful children and adults and thriving communities.

The coalition is committed to the following principles:

- Physical education, taught by skilled professionals in regular, structured physical education classes, is one of the most effective ways to build lifelong skills in physical activity, as well as an understanding of their value.
- Quality physical education is particularly important to Colorado's most at risk students whose opportunities for other means of physical activity and physical education may be limited.
- All students should receive daily physical education.
- The coalition is seeking interested school district partners to assist in identifying and overcoming potential barriers to implementation, building public support for the cause and securing sustainable funding for programs.



## Members of the PE for All Colorado Coalition include:

- American Heart Association
- Athletic Excellence, LLC
- Children's Hospital Colorado
- The Colorado Children's Campaign
- Colorado Health Foundation
- Healthier Colorado
- LiveWell Colorado
- Padres & Jóvenes Unidos
- SHAPE Colorado

# EXECUTIVE SUMMARY

The health and overall well-being of students across Colorado is a fundamental concern for communities and schools. What opportunities for quality physical education and activity are available to students during the school-day across grade-levels and between demographic groups is not easily known, however. This report is a comprehensive attempt to determine the “State of PE in Colorado”. Looking forward, the PE for All Colorado Coalition has outlined concrete steps to improve the quality of PE programs offered to Colorado students. Our students, schools, and communities benefit when health is a priority. Improving PE is not easy – as this report makes clear – but there are creative solutions that school districts can, and do, employ. We highlight four schools that are making PE a top priority and providing high quality programs to their students.

To fully address the current state of PE in Colorado, this report centers on two primary questions:

- 1 What are the current PE programs in school districts across Colorado and where do inequities exist?
- 2 What are the barriers to improving quality PE and addressing these inequities?

To first give context to these questions, the report articulates the status of children’s health across the state, most notably the troubling trend in increased childhood obesity.

A look at national, accredited research also provides clarity on the role of PE and regular physical activity in relation to the academic achievement objectives of schools.

Additionally, the report establishes the bar for what quality PE programs look like.



More than

**1 in 4 children**

in Colorado were overweight or obese in 2013.<sup>7</sup>



**95% of parents**

believe that physical activity improves the academic performance of kids.<sup>12</sup>



Nationally,

**44% of schools**

reported making significant cuts to PE and PA since the passage of No Child Left Behind in 2001.

# EXECUTIVE SUMMARY



## *The key findings of this report include:*

- PE programs in Colorado vary widely. Whether that is a result of different policies, classroom schedules and school calendars, physical space limitations, or teacher shortages, PE is not the same in any two places. It is challenging to assess the quality of PE in the state as a result.
- There are limited tools to determine the nature of each PE program and how they differ from each other. The only data regularly collected by the State of Colorado is a series of questions on student health and wellness embedded in the school performance reporting.
- From anecdotal evidence and conversations with school district leadership across the state, children are not receiving adequate time in PE class or moving enough throughout the day.
- The most significant barrier to implementing and maintaining quality PE programs in Colorado are constitutional fiscal limitations leading to limited financial resources within district budgets.
- On one end, school districts do not have enough funds. On the other end, they have increased pressure to improve academic achievement, which has squeezed out other priorities, including PE programs.

With a starting point established, concerted efforts should be made within every school district in Colorado to improve the quality of PE programs offered to students. The PE for All Colorado Coalition has created a set of recommendations to achieve this goal. Put succinctly, Colorado should adopt robust standards for health and PE. The most effective way for schools to meet those standards is to provide regular, structured PE classes, taught by skilled professionals, to all students, including those with disabilities.

## **Key recommendations include:**

- 1 Students should receive dedicated minutes of quality physical education daily throughout their K-12 education.
- 2 Physical education should be taught by a licensed instructor and employ standards-based curriculum.
- 3 Physical education should not be replaced by physical activity and schools should not substitute athletic participation for physical education or use withholding participation in physical education as a form of punishment.
- 4 Physical education is equitable for all students within each school, the school district and across the entire state of Colorado.
- 5 Districts and the state of Colorado provide adequate funding for providing equitable, quality physical education as well as policy support for physical education in schools.

The PE for All Colorado Coalition is dedicated to working towards a better future for Colorado's students that makes health and well-being a priority that is adequately funded. Understanding the differences and nuances among school districts, we are committed to working in collaboration with each district to find creative ways to tackle the challenges that are standing in the way of improved PE for Colorado's children.

# TABLE OF CONTENTS

Introduction .....	5
Health of Colorado Children.....	6
Value and Importance of Physical Education .....	8
Research Review .....	9
Recommended Physical Education.....	12
Components of Quality PE .....	12
Recommended PE Policy.....	13
Status of Physical Education Programs .....	14
Physical Education Programs Across the State.....	18
State and Other Support for PE .....	19
Barriers to Quality PE: Data Tracking.....	26
Barriers to Quality PE: Lack of Funding and Budget Priorities .....	27
Colorado School Finance.....	30
Limits to Outside Grants for PE .....	30
What School Districts Are Saying .....	35
Recommendations for Improving PE in Colorado.....	39
Conclusion .....	40
APPENDIX ITEM A – Grant Funding to School Districts.....	45
APPENDIX ITEM B – CDE Sample Unit .....	46
Sources .....	49



# INTRODUCTION

Quality physical education and dedicated time to physical activity during the school day are crucial to the well-being and success of children, especially in their formative younger years. Any parent, teacher, or coach will tell you that concentration and attentiveness improve and behavior is better when children have an opportunity to constructively move and exercise every day. National research also consistently demonstrates the link between exercise and higher academic achievement. Physical education (PE) programs are much more than just exercise, however. Learning competency in motor skills, movement patterns, and the necessary components for a healthy life, help to ensure children grow up to become healthy and active adults. National agencies, like the Center for Disease Control, therefore stress the importance of high quality, school-based PE programs.<sup>1</sup> The physical and mental well-being of students are paramount concerns for parents and schools, both of which are positively impacted by ensuring adequate physical activity and education during the school day.

---

*National agencies, like the Center for Disease Control, therefore stress the importance of high quality, school-based PE programs.*

---

While Colorado is a healthy state overall, the alarming rates of childhood obesity present a health concern for many communities across the state. It is imperative to teach our young children today how to live a healthy life with proper nutrition and physical activity. One of the best ways to provide this instruction is through the PE programs offered in the public school system. Still, PE programs have been cut from school schedules and are no longer part of the school day at the same level they used to be; some districts have even eliminated PE requirements. The slow removal of PE from a child's education has multiple causes, including state fiscal constraints and shifting priorities in school budgets. This is a multi-faceted problem that will require more than one solution.

A hurdle to improving the quality and quantity of PE that students receive in Colorado today is the lack of information and data about current PE programs. Across the state, PE programs and schedules vary significantly and there is limited information about the programs, including how many minutes students spend in PE every week.

A second barrier is the limited funding for Colorado schools and the difficult decisions each school district must make to balance their budget. Colorado ranks 42<sup>nd</sup> in the nation for per-pupil funding, after adjusting for regional cost differences.<sup>2</sup> Due to decreasing funding and increased pressures, many districts in the state have pursued mill levy overrides and bond initiatives to build schools, improve technology and safety, and pay for teachers, among other needs. These initiatives must be voter approved and are generally based on local property value, and have therefore created disparities around the state with some districts securing more resources than others. With such limited resources come difficult decisions about what programs to fund, especially when the district is stretched thin just to meet minimal staff salary needs. Resource disparities between school districts become exaggerated when looking at PE programs. Some pioneering districts have found creative solutions, sought out grant funding and pursued partnerships to ensure students have access to quality PE. However, that approach is not sustainable, nor equitable.

# HEALTH OF COLORADO CHILDREN

Children in America should engage in moderate to vigorous physical activity for at least 60 minutes every day, according to the Centers for Disease Control and Prevention. Regular activity is necessary for healthy development and establishes healthy habits for adulthood. However, many of Colorado's youth do not meet this threshold. The Colorado Child Health Survey in 2014 concluded that 45.2 percent of Colorado kids, aged 5 through 14, actually achieve 60 minutes of physical activity every day.<sup>3</sup> And looking at young adolescents, the numbers fall precipitously. Data from the Youth Risk Behavior Surveillance System in 2015 found that only 27.1 percent of students nationally in grades 9-12 achieved 60 minutes or more of physical activity seven days a week.<sup>4</sup> Additionally, there are clear inequities among Colorado youth engaging in physical activity. The 2015 Healthy Kids Colorado Survey found that there are inequities among race, gender, and geographical location. For example, 61 percent of males reported engaging in at least 60 minutes of physical activity in the last week, compared to just 42 percent of females.<sup>5</sup> Many advocacy programs have been launched across the country to encourage more activity and offer easy ways to engage in daily exercise, including the well-known "Play 60."

Children in Colorado are fortunate to live in a state with good weather for outdoor activities and play that will benefit their health. However, the data on childhood obesity and health reveals a troubling trend where large inequities exist for children across the state. Access to safe areas to play, resources to fund activities and participate in extra-curriculars are a barrier for many families. The 2016 Kids Count Report prepared by the Colorado Children's Campaign found that the highest rates of obesity among children are in Pueblo (40 percent) and Denver (36 percent) counties.

Lack of physical activity and poor nutrition pose a serious danger to the health of the youngest members of our community. In Colorado, this health concern is rising. The Colorado Department of Public Health and



In 2014, the Colorado Child Health Survey found  
**only 45.2%**  
of Colorado kids, aged 5 through 14,  
exercise for 60 minutes every day.<sup>3</sup>

# HEALTH OF COLORADO CHILDREN

Environment reviewed the findings of a nationwide report on childhood obesity conducted by the Centers for Disease Control and Prevention and found that, “Colorado was one of three states that experienced a small but statistically significant increase in early childhood obesity from 9.4% in 2008 to 10.0% in 2011.”<sup>6</sup> This same data set (from 2013) revealed that more than 1 in 4 children in Colorado were overweight or obese.<sup>7</sup> Obesity in childhood is directly correlated with chronic diseases in adulthood. According to the CDC, physical activity reduces the risk of dying prematurely from heart disease, developing diabetes, high blood pressure, developing colon cancer, and promotes psychological well-being. If more youth and adults increased time spent being physically active, the positive health impacts could be profound. Currently in the United States, 13.5 million people have coronary heart disease, 8 million people have adult-onset diabetes and 50 million have high blood pressure.<sup>8</sup> All of these illnesses can be prevented or improved with physical activity.

The negative impacts of childhood obesity go beyond the health effects. Currently, nearly 1 in 3 young Americans is too overweight to serve in the military.<sup>9</sup> A report prepared by Mission Readiness notes that, “in less than two generations, physical activity time among adults in the US has declined 32 percent and is on track to drop 46 percent by 2030.”<sup>10</sup>

The US Department of Health and Human Services has found that physical inactivity and unhealthy dietary behaviors have a negative association with academic achievement, after controlling for sex, race/ethnicity and grade level. “This means that students with higher grades are less likely to be physically inactive and engage in unhealthy dietary behaviors than their classmates with lower grades, and students who are physically active and do not engage in unhealthy behaviors receive higher grades than their classmates who are physically inactive and engage in unhealthy dietary behaviors.”<sup>11</sup>

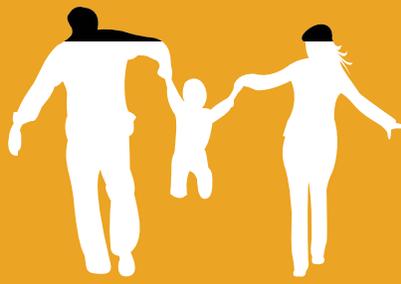
On the importance of PE and PA during the school day, almost everyone is in agreement. In a 2012 Shape of the Nation Report, 95 percent of parents believe that physical activity improves the academic performance of kids.<sup>12</sup> All children deserve the opportunity to grow up healthy and strong, supported by our community.



More than

# 1 in 4 children

in Colorado were overweight or obese in 2013.<sup>7</sup>



# 95% of parents

believe that physical activity improves the academic performance of kids.<sup>12</sup>

## VALUE & IMPORTANCE OF PHYSICAL EDUCATION

Physical education (PE) is distinct from physical activity (PA), which is also different from exercise. To highlight these differences, SHAPE America – Society of Health and Physical Educators – provides apt definitions:

**Physical activity** is any bodily movement that results in energy expenditure.

**Exercise** is any physical activity that is planned, structured and repetitive for the purpose of improving or maintaining one or more components of fitness.

**Physical Education** is an academic subject that provides a planned, sequential, K-12 standards-based program of curricula and instruction designed to develop motor skills, knowledge and behaviors for healthy, active living, physical fitness, sportsmanship, self-efficacy and emotional intelligence.

---

*While physical activity is essential to kids' healthy development, PE cannot and should not be substituted for physical activity.*

---

While physical activity is essential to kids' healthy development, PE cannot and should not be substituted for physical activity. Free reading time is a helpful analogy. This time can be really beneficial for students in their learning and growth, but only if they have already had reading instruction and can properly take advantage of the time. Similarly, physical activity time is most valuable when students know how to use it, based on lessons learned through PE instruction.

National studies have validated the importance of physical education and regular activity for children's lifelong health and academic performance. Additionally, recent research comparing PE programs has demonstrated the importance of curriculum-based PE programs over physical activity alone.

# VALUE & IMPORTANCE OF PHYSICAL EDUCATION

## Research Review

Physical activity has a significant impact on the brain and affects the ability to process information and learn material. Additionally, physical activity helps with focus and concentration and decreases behavioral outbursts in young children. Beyond these known and unquestioned benefits, reputable studies clearly show a link between physical activity and improved academic achievement – the main priority for school districts. Thoughtful and constructive exercise each day is key to the health, well-being, and academic performance of children.

For physical activity to have the intended impact on a child’s well-being, the manner in which they engage in PA and the quality of the instruction they receive is important. A study published in the Journal of Teaching in Physical Education titled “Effects of a Physical Education Program on Children’s Manipulative Skills” found strong evidence demonstrating that teaching of a skill by a trained and qualified teacher makes a marked difference in the advancement of skills for children. The study “assessed effects of a physical education professional development program on 3 manipulative skills of 4<sup>th</sup> and 5<sup>th</sup> graders.” They randomly selected over 700 students from 56 classes and tested their development in throwing, catching, and kicking when exposed to three different teaching environments – Physical Education Specialists, Trained Classroom Teachers, and a control group. “The results indicate that children’s manipulative skills can be improved by quality physical education programs delivered by PE specialists and classroom teachers with substantial training.” Students taught by PE specialists improved by 21 percent, and by 19 percent for students learning from trained classroom teachers, in comparison to just 13 percent for the control group.<sup>13</sup>

Most children, both in Colorado and nationally, do not get the recommended amount of daily physical activity. In fact, Colorado ranks 24<sup>th</sup> in the nation for percentage of children who participate in at least 20 minutes of MVPA four times or more per week.<sup>14</sup> This trend worsens as students enter high school. Additionally, these



Colorado ranks

# 24<sup>th</sup> in the nation

for percentage of children who participate in at least 20 minutes of MVPA four times or more per week.<sup>14</sup>





# VALUE & IMPORTANCE OF PHYSICAL EDUCATION

same reports confirm that middle and high school students who did not get PE were less than half as likely to be physically active as those who received one or more days of physical education a week.

In a number of states across the country, demonstrated through many different studies, physical fitness has been found to be highly correlated with higher academic achievement. A review of 2.4 million students in Texas using physical fitness test results from FITNESSGRAM found “significant school-level correlations between physical fitness achievement and better performance on state standardized tests.”<sup>15</sup> This analysis controlled for socioeconomic status, race and school size. Moreover, removing PE time in the school day to increase classroom time to boost academic performance has not resulted in improved scores. “Within the United States, results from a national longitudinal study and observational data from two studies that compared test scores of children who were exposed to different amounts of PE instructional time have shown that more time in PE does not adversely affect academic performance.”<sup>16</sup>

## Recommended Physical Education

### Components of Quality PE

For students to receive the maximum benefits of PE, there are a number of necessary features. SHAPE America defines 4 essential components for quality PE. They are: policy and environment; curriculum; appropriate instruction; and student assessment.

**Policy and environment** are necessary for setting standards and ensuring equity among all students. “Well defined policy helps create an environment that ensures that all students receive physical education that defines student outcomes clearly.”<sup>17</sup> PE should be valued in equal measure to other core academics, like reading and writing. A basic necessity for quality PE is time in the school day calendar.

**Curriculum** is the detailed plan for how the skills outlined in the Colorado Academic Standards (CAS) PE standards will be achieved. To be most effective, this plan should be tailored to the individual needs of each school district. There are a number of helpful curriculum resources, such as SPARK, but they are not personalized.

**Appropriate instruction** ensures that students are learning important skills and also being physically active during class time. This hinges on the knowledge and skill of the teacher, which is why it is important that PE teachers be certified and highly qualified. A well-run PE class balances two priorities: keeping students moving at a moderate to vigorous pace for at least 50 percent of the time – known as MVPA (moderate-vigorous physical activity) – and teaching skillsets. If either one is too heavily weighted, then the students are not receiving the full benefit.

**Student assessment** is a critical feedback component that can impact policy, curriculum and instruction. “Appropriate assessments provide concrete evidence on whether students have achieved grade-level outcomes, allow teachers to reflect on effectiveness of instruction and provide evidence of program success.”<sup>18</sup> SOFIT (System for Observing Fitness Instruction Time) is a good example of a quality assessment tool that collects data on “student activity levels, the lesson context, and teacher behavior.”<sup>19</sup>

# VALUE & IMPORTANCE OF PHYSICAL EDUCATION

These core components are the building blocks for quality and successful PE programs. In addition, schools should consider their equipment needs and dedicate a space for PE, even if a gym is not an option. Considering that the skills taught in PE are integral to a child's health over the course of their lifetime, it is imperative that appropriate time is dedicated within the school day.

## Recommended PE Policy

The CDC and American Pediatrics recommend children engage in 60 minutes of moderate to vigorous physical activity every day. Due to inequities in access to safe environments to engage in physical activity outside of school, schools should aim to provide time and structure for students to complete half of that prescribed activity. A quality PE program is the appropriate place to do that. As defined by SHAPE America, a PE program, "...provides students with a planned, sequential, K-12 standards-based program of curricula and instruction designed to develop motor skills, knowledge and behaviors for active living, physical fitness, sportsmanship, self-efficacy and emotional intelligence." <sup>20</sup>

The PE for ALL Colorado Coalition has created the following school district policy recommendations:

- 1 PE should be required for 30 minutes daily or, at a minimum, 150 minutes per week for all students in preschool through 5<sup>th</sup> grade
- 2 PE should be required for 45 minutes daily or, at a minimum, 225 minutes per week for all students in 6<sup>th</sup> through 12<sup>th</sup> grade
- 3 Class size for PE should be comparable to class size for other academic subjects
- 4 Instruction should include moderate to vigorous physical activity for at least one half of physical education class time
- 5 Recess minutes may not be substituted for physical education time
- 6 Physical activity breaks may not be substituted for physical education time
- 7 Physical activity during physical education courses may be included when calculating physical activity in order to meet the requirements of HB 11-1069
- 8 Students should not be removed from physical education for academic reasons, including special education and English language acquisition
- 9 Students will not have physical education opportunities removed as a form of punishment

# STATUS OF PHYSICAL EDUCATION PROGRAMS

## Policies and Requirements

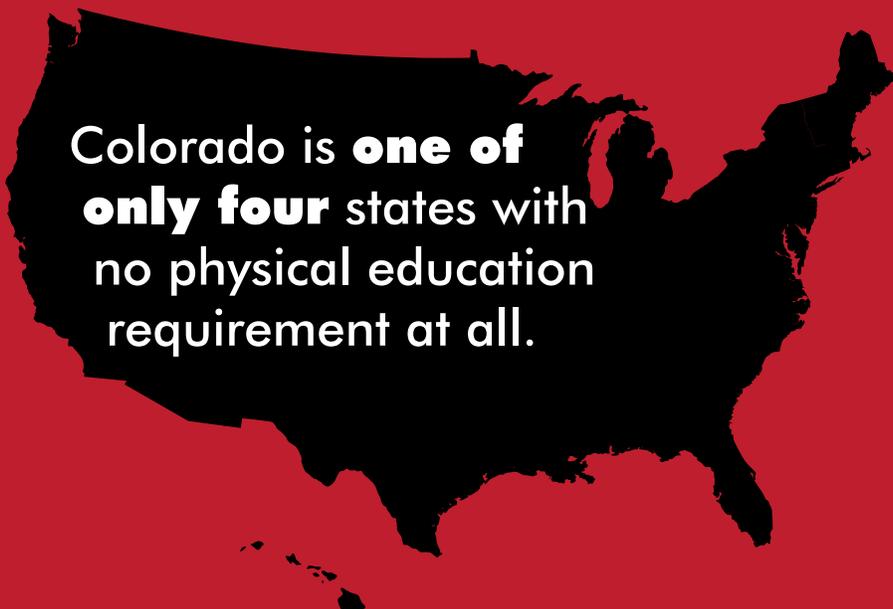
The lack of requirements for PE in Colorado places it in a small minority of states in the nation. In 2016, 39 states required PE in Elementary, 37 in Junior High, and 44 in High School, according to the 2016 Shape of the Nation Report compiled by SHAPE America. Only three states, including Colorado, do not require PE at any grade level.

Colorado places very few curriculum requirements on school districts, instead leaving most decisions to each individual district. The primary direction provided to school districts is comprised within the Colorado Academic Standards (CAS). These standards delineate the skills and knowledge school children should achieve in each grade level, but the curriculum and methods for teaching are left up to the districts, schools, and individual teachers. Physical education – one of the ten content areas included in these standards – is described as:

“The Comprehensive Health and Physical Education standards focus on personal decision-making around emotional and social well-being, positive communication, healthy eating, physical activity, tobacco, drug, and alcohol abuse prevention and violence prevention. The standards underscore important skills for navigating today’s society with its complex and often confusing messages around health, beauty, and happiness.”

These standards are accompanied by additional guidelines available to school districts as a resource.

Additional statewide policies impacting physical activity and education are imbedded within the rules on wellness policies and comprehensive health education, as well as school accountability. Regarding wellness policies, Colorado Revised Statute (C.R.S.) 22-32-136 lays out that “...each school district board of education is encouraged to adopt a local wellness policy.”<sup>21</sup> It goes on to describe that these policies should, “include goals for nutrition education, physical activity, and other school-based activities that are designed to promote student wellness...”<sup>22</sup> These wellness policies are the only current policy tools that specifically address the expected number of minutes that students spend physically active during the school day. *Continued on Page 17 >*



Colorado is **one of only four** states with no physical education requirement at all.

# AURORA PUBLIC SCHOOLS - SUCCESS STORY

**Aurora Public Schools use physical education to improve school performance**  
*Large urban district finds value in physical education and makes the change school by school*

To say that Chris Strater is on a mission to promote quality physical education is an understatement by any measure.

The veteran teacher with 29 years of experience under her belt started the 2015 school year teaching 12 sections of physical education every day, so that each of the 312 children that attend Lyn Knoll Elementary School could have PE every day. She has since cut back to four days a week of physical education so she has some planning and preparation time.

“We know the science. We know the long term benefits of learning to live a healthy life,” she said. “We need to be doing this for our kids. It’s what gets me out of bed in the morning. When people see the real results in our kids, they come onboard with the movement.”

Strater supplements her classroom teaching by participating on a SWAT team of PE teachers that travel the state on behalf of the Colorado Department of Education to help other teachers improve their skills and share ideas. When all of that isn’t keeping her busy, she teaches a PE certification class for elementary teacher candidates working their way through Metropolitan State University of Denver’s School of Education.

Just over 87 percent of the students who attend Lyn Knoll qualify for free and reduced lunch. Four years ago, Strater left a much more affluent school in the district to bring her passion for PE and movement to students



# AURORA PUBLIC SCHOOLS - SUCCESS STORY

in this lower income area. She wanted to prove a point and have an even greater chance to see the results of what she has been advocating for.

“We have never seen this much growth in our kids, on tests, in the classroom setting, with decreased behavior referrals. In every category, the outcomes are showing us that what we are doing and what Chris has pushed for is demonstrating results,” said Assistant Principal Moran Stone. “And the classroom teachers are taking it up and they are working with it as well. I’ve got teachers applying for grants to help make their classrooms more friendly to movement and exercise.”

Stone acknowledges that initial attempts to schedule the kind of time it takes to make sure every student gets physical education each day were challenging. But she is adamant that the results are worth the work.

“I wouldn’t say it was easy. But if you want to make it happen, it is certainly doable,” Stone said. “It really comes down to integrating it into the fabric of what you are doing with the kids and getting your priorities straight.”

Kenny Webb, the PE coordinator for Aurora Public Schools, has seen more and more schools organically picking up on the value of physical education and physical activity for their students. Those schools, some of them on turn around status, are building the work into their ongoing efforts to improve overall student performance.

“I would love to see every kid have the opportunity to take PE at every level and that movement is starting to happen in the district,” Webb said. “It’s not a top down effort. These are individual schools seeing the value and making the change.”

Webb said the district decision to eliminate PE as a graduation requirement for high school students had a real trickle-down effect on how much PE students got in middle and elementary schools. This drop in participation was particularly high among girls, nearly 50 percent of whom opted not to take physical education in high school according to Webb’s data. This, coupled with the pressures of fitting increasing amounts of academic instructional time into the school day, was limiting the PE, and in some cases general physical activity, students were getting.

“Things are changing and momentum is building,” Webb said.

For Strater, things can’t change fast enough. She will be adding parents’ nights to her busy roster of activities so she can begin to educate them on the value of physical education to their children and hopefully, gain support for her work in each student’s home.

“It is so right for our kids. Every one of them. Every day,” Strater said. “The benefits are clear.”

# STATUS OF PHYSICAL EDUCATION PROGRAMS

*Continued from Page 14* > In 2008, the State Legislature amended this rule to encourage school districts to expand their wellness policies to “increase the availability of courses in physical education.”<sup>23</sup> Then in 2011, House Bill 1069 was passed addressing physical activity minutes. HB 1069 sought to establish an average of 30 minutes of physical activity per day for every student attending a full-time/5 day per week school. The general assembly explained their motivations saying, “Healthy children are more likely to be engaged learners, they do better in school, they have improved attendance, and they are less likely to have behavioral problems inside and outside of the classroom.”<sup>24</sup> The resulting rule, C.R.S. 22-32-136.5, states that elementary students should receive 600 minutes of physical activity per month. This can include recess, PE classes, fitness breaks, classroom activities that include physical activity, exercise programs, and field trips that include physical activity.

Many school districts have created wellness policies and regularly involve their local communities in the revision and development of those policies. Should a district seek funds from the Colorado Department of Education (CDE), they are subject to further requirements around PE. As stated in C.R.S. 22-25-105, “A school district or board of cooperative services may receive funding for a local student wellness program that includes physical education only if each person who teaches one or more physical education courses in the school district or for the board of cooperative services is licensed and endorsed pursuant to article 60.5 of this title in physical education.”<sup>25</sup> Furthermore, any district that receives funding for a student wellness policy program must file a written report with the CDE each year on the status of the program, pursuant to C.R.S 22-25-107.

Embedded in C.R.S. 22-25-104 are the expectations for the creation of local comprehensive health education programs. These are voluntary for school districts, but highly encouraged. It states that any guidelines developed as part of the creation of a local comprehensive health education program shall include, “the recommended hours of instruction in physical education required to ensure that students not only develop healthy muscular and cardiovascular systems, but that they also develop skills and knowledge to enable them to remain active and healthy throughout their lifetimes.”<sup>26</sup> This rule also instructs the Colorado department of education and the Colorado commission on higher education to cooperatively develop “course work or instructor endorsements” in physical education.<sup>27</sup>

“Healthy children are more likely to be **engaged learners**, they do **better in school**, they have **improved attendance**, and they are **less likely to have behavioral problems** inside and outside of the classroom.”

# STATUS OF PHYSICAL EDUCATION PROGRAMS

Colorado law mandates school performance reporting that is made available to the public annually. The content of this reporting is enumerated in C.R.S. 22-11-503. It states that, “The department shall publish on the data portal a school performance report for each public school in the state.”<sup>28</sup> Additionally, “Information concerning whether the following courses [including physical education] are available to students enrolled in the public school.”<sup>29</sup> This rule also encourages the school performance report to include information on the incorporation of physical activity into the school day. The current legislation (SB-163) determining school performance reporting and accreditation was passed in 2009.

PE is also listed among the “broad categories of student interests and economic needs” in C.R.S. 22-2-106, which addresses the duties of the state board. The rule states that the state board shall “recognize and address the multiple and diverse pathways to diplomas offered by school districts in the state. The guidelines for high school graduation shall accommodate [these categories].”<sup>30</sup>

These rules and recommendations are vague and limited. It is therefore not surprising that the PE programs created in school districts across Colorado vary significantly.

## Physical Education Programs Across the State

The only data regularly collected by the State of Colorado is a series of questions on student health and wellness embedded in the school performance reporting. As established by Code of Colorado Regulations rule 301-1-11.05(G), school districts report whether “physical education is required for all students (yes/no)”, if “all students in grades K through 6 have access to recess (yes/no);” and if “comprehensive health education is required for all students (yes/no).”<sup>31</sup> Looking at the 2014-15 school year data, 85.53 percent of districts self-reported that yes, physical education is required for all students.<sup>32</sup> On the question of physical activity, 84.71 percent of districts reported that they met the PA requirements expressed in HB11-1069 during the 2014-15 school year.<sup>33</sup>

The data collected through these questions does not give an accurate or clear picture of the PE programs and opportunities for physical activity offered to Colorado students during the school day. To adequately evaluate PE programs, more data is needed, including participation levels and demographics. Physical activity throughout the day is important for all children, but there are clear inequities associated with economic status. “In 2012, nearly 75 percent of children from families with incomes above 400 percent of the federal poverty level (FPL) met the standard for vigorous physical activity compared with 58 percent of children from families with incomes below 99 percent of FPL.”<sup>34</sup> This is reflected in the health outcome data. “Children in lower-income families are more likely to be overweight or obese. Thirty-two percent of children living at or below 250 percent of the federal poverty level are overweight or obese, compared to 23 percent of children living above 250 percent of the federal poverty level.”<sup>35</sup> This exacerbates the need for quality PE programs within the school, which help address these gaps and promote healthy living for all children.

---

***Children in lower-income families are more likely to be overweight or obese.***

---

# STATUS OF PHYSICAL EDUCATION PROGRAMS

As a means of better filling out this picture of PE and PA in the school day, the Colorado Department of Public Health and Environment conducted a study in 2014 to determine the ways in which the school districts approach wellness and what was offered to students in the way of physical activity and education, and nutrition services.<sup>36</sup> To accomplish this, they looked at the local wellness, physical activity, PE, and school nutrition policies and graduation requirements of 41 school districts, representing 80 percent of the students in the state. These findings, while informal, are the best available information about PE programs in Colorado, beyond whether PE is offered at the school.

---

*Of the districts reviewed, only 13% included language in their policies that required or encouraged specific minutes for PE.*

---

Of the districts reviewed, only 13 percent included language in their policies that required or encouraged specific minutes for PE. Regarding physical activity, 73 percent had a specific policy to meet the requirements of the state statute (CRS 22-32-136.5), which states that elementary schools will provide opportunities for at least 600 minutes of physical activity per month. On the topic of teacher certification, seven districts addressed the criteria for PE teachers. Two of those indicated that PE teachers should be “highly qualified”, as is required for core subjects, and the other five set the bar at “staff qualifications”. None of the districts reviewed addressed prohibiting waivers and exemptions for PE, and 32 percent had policies prohibiting taking away PE class time as a punishment.

PE programs are also in constant flux. In the case of some districts, the school board has changed the graduation requirements regarding PE. For example, Aurora Public Schools eliminated their high school PE requirement in 2011. Following this change, the district found that roughly 50 percent of female high school students were opting out of physical education entirely.<sup>37</sup>

PE programs in Colorado vary widely. Whether that is a result of different policies, classroom schedules and school calendars, physical space limitations, or teacher shortages, PE is not the same in any two places. It is challenging to assess the quality of PE in the state as a result. Further complicating matters, there are limited tools to determine the nature of each PE program and how they differ from each other.

## State and Other Support for PE

Understanding the need, the Colorado Department of Education has striven to make some additional resources available – including unit samples and awarding funding grants – to support the efforts of school districts in raising the bar on PE. A sample instructional PE unit for the 6<sup>th</sup> grade can be found in the appendix.

Money is available to school districts to enhance their PE programs and overall health goals via two primary grants: Student Wellness Program and the School Health Professionals Program. Currently, eight districts have been awarded money for their Student Wellness Program. One of the requirements of this grant is that PE teachers are 100 percent certified or endorsed if the district is larger than 1,500 students. In FY-15, the CDE awarded school



# MEAD ELEMENTARY SCHOOL - SUCCESS STORY

## St. Vrain School District moves the needle with quality physical education

*Front Range elementary school sees benefits from active students*

At Mead Elementary School, it all started about four years ago with a shared reading project for all staff and a belief that the schools situation could improve with more focus on movement. At that moment, it was a leap of faith. The school was on improvement status.

Today, test scores have risen steadily. Discipline referrals are down. And a sense of community is building around what can be accomplished through quality physical education, increased physical activity and student and family understanding that healthy living is a school priority.

"Four years ago, Mead elementary was on improvement status and now we are a performance school. That's the reality we've seen," said Betsy Ball, school principal. "The main things we did were that we really became intentional about what we are doing with instructional minutes so that we could also be intentional with constructive movement breaks and increasing physical education."

Each elementary student gets physical education classes every third day. Those classes are taught by Robin Sagel, a highly experienced and dedicated physical education teacher who has 20 years of experience teaching physical education, 13 at Mead Elementary. The gym where he teaches incorporates all aspect of learning including reading and problem solving activities that require movement. The activities he incorporates, intentionally make it impossible for students to hang back and not participate.

"This is about building a lifetime of understanding around health and wellness," Sagel said. "It's about building these skills and knowledge in the kids while also supporting their academic success."

Sagel also runs a 100 mile club from 8:20 a.m. to 8:50 a.m. for any student who wants to participate. More than 100 kids signed up to come in early and exercise before heading to class and Sagel hopes to increase that number as well as the number of parents that participate with their children or volunteer to help him



# MEAD ELEMENTARY SCHOOL - SUCCESS STORY

staff it each morning. He credits the success he has had in the classroom with administrative support he finds crucial.

"I couldn't do what I do without the support of my principal, who understands the importance of this and helps elevate it throughout our school," he said. "And the district, which helps to provide the resources we couldn't get on our own."

Sagel has also been able to bring more variety to his classroom activities and learning because the St. Vrain School District receives some physical education and physical activity grants that allows the district to fill in gaps in funding in creative ways. For example, the district has a rotating library of higher cost more interactive PE equipment that would be too expensive for any one school to own. But by pooling the district grant money, teachers from across the district can plan their lessons around the equipment which is delivered to their school for two to three week blocks and then stored at a central district facility.

"It is undeniable that there is just huge value in physical education. I think it is the cornerstone of comprehensive physical activity and a healthy life," said Paige Jennings, PE coordinator for the school district. "There is a whole emotional and social piece. It is essential if our kids are going to understand why they should be physically active for a lifetime and how to be active for a lifetime."

Jennings is responsible for administering the private grants that the district has received to improve physical education and physical activity. It wouldn't have been possible to accomplish all that the district has in terms of resources and equipment within the existing per-pupil funding, so the district made the additional effort to gather other financial support.

"The brain research is clear. You really can't argue with the link between physical activity and learning readiness, academic achievement, behavior and overall health and wellness," she said.



# MEAD ELEMENTARY SCHOOL - SUCCESS STORY

The St. Vrain School District requires two PE credits for high school graduation, one of the highest requirements in the state. While students who participate in high school athletics or have academic course loads that won't accommodate the requirement can apply for a waiver, the majority of students fulfill the requirement.

At Mead Elementary School, the practical application of the district emphasis has brought its own rewards. Music, art and physical education teachers find ways to blend their efforts so that these classes, typically called "specials" and often provided less frequently than their core academic classes, find their way into the overall educational effort on a more regular basis.

The entire school of 500 participates in coordinated movement breaks twice a day, 15 minutes in the morning and 10 minutes each afternoon. On a rotating schedule, one grade level will go to Sagel's gym. Another will head outside for structured game or activity. Some will stay in the classrooms and get out of their seats for movement. These 15 minute breaks are credited, in part, with helping the school improve academics as well as helping to deal with behavioral challenges.

Shortly into the effort, Ball noticed that behavioral referrals spiked around 1:50 p.m. in the afternoon. The scheduled, school wide movement break was at 1 p.m. So with a small shift in the time of the break to 1:50 p.m., the behavioral referrals dropped dramatically.

"We are a staff and school committed to this. We've seen the real results," said Ball. "This isn't just some kind of new idea we are trying out. This is the application of what we know works in a real way to improve the education of all of our kids. This is a movement."







# STATUS OF PHYSICAL EDUCATION PROGRAMS

*Continued from Page 19* > districts \$3,543,113 from the School Health Professionals Grant. While CDE does provide monetary support to school districts that impact PE programs, not all districts are beneficiaries and each district must compete for the available funds each year. Additionally, it is not known what the funding needs are in each district for their PE program needs and therefore difficult to assess the impact of these grants.

A main focus of CDE is also to provide professional development. For PE, they provide this through the Colorado Department of Education's cadre of physical education trainers. During the 2014-15 school year, the cadre provided 39 trainings to 1,833 teachers in 84 of the 178 school districts in the state. These trainings focused on these four priorities:

- Highly effective teaching in physical education
- Using technology in physical education
- Physical education assessment strategies
- Brain-based learning in physical education

The State has also developed community partnerships that can lend support to school districts when designing and implementing quality PE programs. These include: Action for Healthy Kids, American Association for Physical Activity and Recreation, Head Start Body Start, and Society of Health and Physical Education America Colorado (SHAPE Colorado).

Another source of support to school districts are the regional Boards of Cooperative Educational Services (BOCES), which provide shared educational programming and resources to districts. The availability of resources among the BOCES varies, but in some places in Colorado they provide administrative support to all PE teachers. This allows the teachers to spend more time in the classroom teaching students. This administrative support can include everything from designing curriculum to tracking data to applying for grants.

While these kinds of resources are helpful to school districts and PE programs, they are too little and too dispersed to have a significant impact.

## Barriers to Quality PE: Data Tracking

From anecdotal evidence and conversations with school district leadership across the state, children are not receiving adequate time in PE class or moving enough throughout the day. It is necessary to take an accurate assessment of the current offerings to make improvements. Without a clear baseline, any improvements will be hard to implement and nearly impossible to track change over time.

*One of the only measurable outcomes from PE is the total number of minutes... The input and the output are the same. Without data tracking to collect this measurement of PE minutes, there is no real accountability.*

# STATUS OF PHYSICAL EDUCATION PROGRAMS

Additionally, notably different than other subjects, one of the only measurable outcomes from PE is the total number of minutes a student spends in PE during the school year. The input and the output are the same. Without data tracking to collect this measurement of PE minutes, there is no real accountability.

## Barriers to Quality PE: Lack of Funding and Budget Priorities

The most significant barrier to implementing and maintaining quality PE programs in Colorado are constitutional fiscal limitations leading to limited financial resources within district budgets. Funding challenges for PE are also seen in school districts across the nation. According to a survey conducted by SHAPE America in 2016, the median PE budget for schools across the country was just \$764 per school year with 60 percent of PE teachers reporting annual budgets of less than \$1,000.<sup>38</sup> In Colorado, schools are simply not adequately funded – ranking 42<sup>nd</sup> in per pupil spending – and it continues to get worse. The available share of funds for PE in each district is consequentially quite small.

On one end, school districts do not have enough funds. On the other end, they have increased pressure to improve academic achievement, which has squeezed out other priorities, including PE programs. Anecdotally, several Colorado school districts have reported changes to their budget priorities and school schedules to spend more time and resources on core academic subjects (such as Math and English Language Arts) that are included in the federally mandated tests under the 2001 No Child Left Behind legislation. As a result, PE and other important areas of study have been elbowed out. Nationally, 44 percent of schools reported making significant cuts to PE and PA since the passage of No Child Left Behind in 2001.<sup>39</sup>

Colorado school districts are faced with a list of priorities and needs that far outpaces their funding levels. And when it comes to PE, there are a number of challenges that have direct implications for their budgets. In some districts, there are facility needs to run quality PE programs. For others, one PE teacher is shared across multiple schools and scheduling is a real barrier.

---

*The median PE budget for U.S. schools was just \$764 per school year with 60% of PE teachers reporting annual budgets of less than \$1,000.<sup>38</sup>*

---



Nationally, **44% of schools** reported making significant cuts to PE and PA since the passage of No Child Left Behind in 2001.





# STATUS OF PHYSICAL EDUCATION PROGRAMS

## Colorado School Finance

The Colorado public school system is primarily funded through the Public School Finance Act of 1994. This comes from a combination of state and local property taxes. The amount that each of the 178 school districts receives is calculated on a per pupil basis.

This per pupil funding has been negatively impacted over the last three decades by a morass of conflicting constitutional amendments that control the state budget and how funding is allocated. For example, the Gallagher Amendment in the Colorado Constitution severely limits the amounts of money collected through local property tax revenues, traditionally a key area of financial support for public schools. Amendment 23 requires the state to automatically increase the amount of money flowing to K-12 schools while another constitutional amendment known as TABOR caps the total amount of money the state can collect in taxes and spend. These conflicting directives have prompted many to compare Colorado's budget process as having one foot on the gas pedal, and the other on the brakes. Taken together, these three constitutional provisions leave Colorado and its individual school districts with low funding and little opportunity to increase it. In 2013, Colorado spent \$2,681 less per pupil than the national average, according to the Colorado School Finance Project. In 2003, that same data point was just \$551.<sup>40</sup>

Bond and mill elections provide one of the only avenues for additional revenue generation currently available to schools. In the 2016 election cycle, for example, 34 school districts asked local voters for nearly \$4 billion in bonds and mill levy overrides to compensate for recent cuts.<sup>41</sup> Previously, some school districts, including Denver Public Schools, Adams 14 and Poudre, have opted to include funding for wellness or PE into their mill levy override ask to voters. While bond and mill elections are one of the most accessible ways for school districts to increase their funding levels, not all communities will support increased taxes at the local level, especially smaller districts or those in lower income areas. And in districts that typically do support increased taxes, mill and bond collections are limited by maximum spending caps.

Due to these funding limitations, PE programs, oftentimes along with arts and music classes, receive very little funding or are cut entirely. Because educators know the value of these programs, administrators in many Colorado school districts have sought external sources of funding to sustain the programs. This is not sustainable, however, and presents a major barrier to improving PE for all students across the state. Along with questions of sustainability of revenue generated in this way, is the equal question of accountability. Because many districts don't have systems in place to track PE for students nor district-level policies to require PE standards, it is hard to tell if the money districts have raised with the intent of improving PE has had an effect on either quality or quantity of programming.

## Limits to Outside Grants for PE

Many districts have pursued outside grants to fund programs, including PE. These grant opportunities are both national and local. *Continued on Page 35 >*

# ARCHULETA SCHOOL DISTRICT - SUCCESS STORY

School district in the heart of the mountains puts a focus on physical education  
*Tiny Archuleta School District puts emphasis on healthy living for life*

In the Archuleta School District in Pagosa Springs, Captain America is alive and well. And so is a passion for quality physical education and encouraging an active, healthy lifestyle.

On just about any given morning, you can find Coach Lindsey Kurt-Mason dressed as Captain America and perched on his specially-built podium high atop Pagosa Springs Elementary School. As the buses and cars roll in to deliver students to school, he encourages exercise. Even the teachers come outside to join in in the minutes before school starts as Kurt-Mason calls out encouragement from his microphone.

"It's amazing really, to see a whole playground full of students and teachers and sometimes even some parents out there exercising," says Elementary Principal Justin Cowan. "One thing I'm certain of is that kids enter our building ready to focus and learn after those 20 minutes with Coach Mason."

This scene really captures the spirit of the Archuleta School District's commitment to educating students on an active healthy lifestyle: Everyone is expected to go above and beyond to make it a part of educating the whole child. And that emphasis starts at the top.

Superintendent Linda Reed saw it when she arrived in the district as assistant superintendent in 2009. Already, the district's three schools and roughly 1,300 students were receiving a minimum of 40 minutes



# ARCHULETA SCHOOL DISTRICT - SUCCESS STORY

in elementary and middle school and two years of PE was required for high school graduation. The school board saw these kinds of efforts as a means of helping students leave the district well rounded and well equipped for a successful future.

"The philosophy that health and wellness and physical education are important is going to be an underpinning of everything we do," Reed says. "Our board is clear on that. Our community supports it, and honestly, we see its benefits across our classrooms."

The road to this kind of commitment hasn't been easy for the district. With the commitment has come grant writing to make up the gap in funding for everything from equipment to teacher training. It has come with scheduling issues. And it has come with an expectation that everyone will be going above and beyond when it comes to including physical activity and health and wellness opportunities in everything they do.

Alongside the emphasis the district is placing on formal physical education, it is also supporting physical activity and healthy eating. A wealth of afterschool activities from a mountain bike club just in formation to a ski club that has existed for years are available to students. And scratch cooking in the cafeteria is well underway. To help expand these efforts to families, monthly potlucks are held for the whole school community. Recently, local hunters donated the elk for chili. And students who come from lower income families have access to backpacks full of healthy food for the weekend from the local Rotary Club.

"This effort is definitely a communitywide effort," said Cowan. "We work hard here, every teacher, and every staffer. But we couldn't do it without the support of our parents and our wider community. It's a good feeling to know that we are all in this together to help all our students reach their goals."

Connie O'Donnell, the Pagosa Springs High School Physical Education and Health teacher, attributes a great deal of her success to the administrative support she receives for everything from training to just trying new ideas that will help her students succeed. But most importantly, she values the emphasis the leadership of her district places on physical education as an important part of developing well rounded students and future adults.

"I think they really understand health and wellness and the important impact that has on all of us for our whole lives," O'Donnell said. "I've heard other districts they only have PE once a week and I think Oh, my gosh, how do the students ever focus in the classroom setting? And how do they learn about the important health connections they'll need for their whole lives?"

O'Donnell's classes are exercises in fitness and exercise, certainly, but they also include team building and problem solving as well as making the connections between what students know about how their bodies function and how they apply that to healthy living choices she hopes they will make.

"I hope that they remember things they are learning how much they should be moving each day and why," she said. "I hope they think about labels on food and the kinds of foods they are putting in their bodies. I want them to want to be healthy. I guess there's really a piece of me that hopes they don't have to think about all of these things and that they just become habit."

# ARCHULETA SCHOOL DISTRICT - SUCCESS STORY

Talk to any member of the district leadership or staff and they are quick to tell you they could not have made these important transformations happen alone. Financial constraints on the district would have made it impossible to provide the training and support for teachers as well as provide the staffing – both during and after school – necessarily to provide the host of opportunities the district does. In many cases, equipment costs were also beyond the district’s means.

That’s where the San Juan BOCES came in. These Boards of Cooperative Education Services (BOCES) exist across Colorado and support multiple school districts who want to pool resources and opportunities. The San Juan BOCES includes nine small school districts including the Archuleta School District. At the request of these districts, the San Juan BOCES applied for grants and is providing staff support and training support to help all districts improve their physical education offerings. The district supplements this support through additional grant writing it does on its own.

The Archuleta School District has taken full advantage of that support, according to Cindy Erickson, project manager for the BOCES health and wellness program. In her role, she does everything from scheduling teacher trainings for the 45 PE teachers across the districts to providing equipment and organizational support for individual PE teachers and schools.

“If you are trying to get that low hanging fruit in terms of helping districts really improve their PE and get more quality PE time for students, then collaboration is the key,” Erickson says. “The equipment was nice to





## ARCHULETA SCHOOL DISTRICT - SUCCESS STORY

have but the trainings were a need to have for these teachers who can otherwise be pretty isolated because they often times are the only PE teacher at their school.”

Erickson has watched as the Archuleta School District has shifted its focus and improved outcomes across the board. Something she has seen replicated across the years she has been involved with physical education in Colorado.

“It’s huge. You see fewer behavior referrals. The cognitive test scores go up,” she says. “Some of it might be empirical data, but it is there. If you interview the classroom teachers, I bet they will say that things have changed in their schools.”

Superintendent Reed seems to agree. The district dedicates one teacher and one full time aide who is PE certified in the elementary school, two and a half teachers in the middle school and two and a half teachers in the high school to meet its physical education and physical activity goals. It actively seeks training for credentials for other teachers as well.

“We see the gains and we understand the real value. If we didn’t, we wouldn’t be putting in the time and effort it takes to cobble together resources for this. But when we think about moving our district forward and improving outcomes for every one of our students every day, this is a clear path,” Reed says. “We’re invested. We’re staying the course and we’re demonstrating results.”

# STATUS OF PHYSICAL EDUCATION PROGRAMS

*Continued from Page 30* > Several of these districts have been successful in their grant bids for the Carol M. White Physical Education Program,\* Department of Education (Denver 1 awarded \$508,006 in 2014) and the Presidential Youth Fitness Program which provides funding to individual schools, including: Calhan School, Cheyenne Mountain Charter School, Eagle Valley Elementary School, Kearney Middle School, Ortega Middle School, Red Hill Elementary School.

Local grant opportunities have historically offered the best opportunities for school districts. However, the funding is rarely dedicated narrowly to improving PE, but rather towards physical activity in general, or to remodeling playgrounds. The Colorado Health Foundation awarded grants to Adams 50 and Center 26J School Districts in 2014 and St. Vrain Valley and Aurora School Districts in 2015 totaling almost \$2 million. Details of those grants can be found in the appendix.

The other primary source for outside funding in Colorado for physical activity and education is the Kaiser Permanente Thriving Schools grant. These grants range in size between \$5,000 - \$200,000. Over 18 school districts from all four corners of the state have won a grant from Kaiser. Still, none of these grant opportunities are sustainable. They are a stopgap measure, not a solution.

Looking ahead, there will be significant grant opportunities available under the new federal legislation known as the Every Student Succeeds Act (ESSA). PE and PA programs will have access to funding under Title IV.

## What School Districts Are Saying

The PE for All Colorado Coalition, in the interest of acquiring input regarding PE from the people closest to the programs in school districts, conducted outreach to multiple stakeholders across the state. In 2014, 23 interviews were conducted with external stakeholders who represented a variety of roles in schools, districts, and community organizations. This initial outreach yielded great insight into the challenges school districts face in achieving all of their priorities and how PE might be improved.

A common sentiment expressed in the interviews was that PE comes at the expense of time spent on core academic subjects and that, due to funding and time constraints, the length of the school day is a “zero sum” game that pits PE against other subjects. Nearly every person interviewed commented on the extreme financial pressures that schools are facing in the wake of funding cuts. As explained earlier and echoed in conversations with stakeholders, there are simply not enough financial resources to sustain important and necessary programs.

\* The Carol M. White Physical Education Program grant, which was a significant source of funding, is no longer active and has been replaced as part of the overhaul with the Every Student Succeeds Act.

“It’s shocking to do the numbers. At a best case scenario, kids are typically getting **less than 45 days** out of the 180-day school year—that’s something like **less than a one third** of the school year. And then the minutes of actual PE are insufficient.”





# STATUS OF PHYSICAL EDUCATION PROGRAMS

In 2015, the Coalition leveraged the findings from this outreach effort and conducted a detailed and thorough opinion research project in six school districts. The objectives of this project included exploring the perceptions of PE and their underlying drivers, gauging perceptions about the quality of current PE programs and gathering reactions to proposals to increase and improve PE. All of the interviews – which included a selection of individuals from school board members to superintendents to teachers and community members – were conducted by a third-party under the guarantee of anonymity to elicit honest feedback and input. Many of the sentiments collected in the first effort in 2014 were also heralded in these interviews. Namely, consistent among all of the interviews was a frustration with the limitations imposed by declining financial resources and a struggle to pay competitive teacher salaries. One respondent noted that for their school district, “We have had to reduce staff to ensure that we have a sustainable funding level because 80 percent of our budget is salaries.” Speaking directly to the financial pressures tied to increasing student achievement, one interviewee said that “I’m hoping things are changing, but as a result of No Child Left Behind [the previous iteration of federal K-12 legislation], the school district moved to problem solving efforts for academic issues and it took its toll on PE. It’s shocking to do the numbers. At a best case scenario, kids are typically getting less than 45 days out of the 180-day school year—that’s something like less than one third of the school year. And then the minutes of actual PE are insufficient.”

When it comes to overcoming barriers, and working to improve PE, many of the stakeholders expressed an interest in considering policy changes that they see as beneficial to the student, but were hesitant towards any statewide change that would act as a mandate. While they often conveyed their personal belief in the importance of PE, they noted that the district would need more education and why it should be given higher priority. “PE is on the bottom of the totem pole, for lack of a better word... Kids need it more now and it’s a struggle for them to get it,” said one respondent. Another person said that, “If you could show that [requiring a minimum number of PE hours] will increase academic achievement, then we would be remiss in not looking at it. To just do it ‘because it’s good for kids’, then no. There are so many demands on teachers’ times now and we wouldn’t put more time on their plates without knowing it was necessary.” Furthermore, Colorado is a local control state and most respondents made a point to say that any statewide policy change without additional resources would not be received well. In one case, an interviewee said, “Districts should be in charge of their own policy. Sometimes dictates don’t always work the same for all districts.”

Overall, the findings of this in-depth interview process centered on three core tenets: school districts view PE minutes as time away from core academic study and a possible hindrance to improving student achievement; financial resources are too limited to implement any sweeping policy changes for PE; and any path forward must be a locally constructed approach and not a state requirement unless state financial resources were provided.

These accounts and perspectives from people closest to the PE programs in school districts are important guideposts for all efforts to improve PE in Colorado. Despite clear hurdles, though, there are feasible ways to improve PE and a couple of pioneering school districts have designed some creative solutions. Denver Public Schools has engaged in a partnership with PE for All Colorado Coalition to collaboratively think through ways to improve PE for students in the district. The approach has consisted of working with a small number of pilot schools and closely tracking results with the goal of creating a replicable and scalable plan. Other school districts are also tackling the question of improved PE and increased PA in the school day, as highlighted in their report.

# RECOMMENDATIONS FOR IMPROVING PE IN COLORADO

---

Colorado should adopt robust standards for health and PE. The most effective way for schools to meet those standards is to provide regular, structured PE classes, taught by skilled professionals, to all students, including those with disabilities. Following are recommendations aimed at supporting schools in improving PE for all students.

---

- 1 All elementary students receive 30 minutes daily or a minimum of 150 minutes per week of quality physical education.
- 2 All middle and high school students receive 45 minutes daily or a minimum of 225 minutes per week of quality physical education.
- 3 Physical education is taught by a licensed instructor with an endorsement in physical education.
- 4 Physical education programs implement a standards-based curriculum.
- 5 Students are engaged in moderate to vigorous physical activity at least fifty percent of physical education class.
- 6 Physical education cannot be replaced with other physical activity opportunities such as recess, classroom movement time, before/after school activities, etc. OR
- 7 Physical activities such as recess, classroom movement time, before/after school activities, etc. cannot be a substitute for physical education.
- 8 Waivers from all physical education requirements are not granted for participation in athletics or other activities.
- 9 The number of students in physical education classes should be approximately the same as the number of students in other academic classes.
- 10 Students are not withheld from physical education for academic or disciplinary reasons.
- 11 Physical education attainment is assessed regularly throughout the school year.
- 12 Physical education is equitable for all students within a school, the district, and across the state.
- 13 Students with disabilities receive adaptive physical education that is equitable with that of their peers.
- 14 Districts enact district-level policy encouraging quality physical education and provide supports for schools working to improve physical education for all students. District policy includes accountability measures for all schools.
- 15 The State of Colorado adequately funds districts and schools so that quality physical education is attainable for all schools. Districts include physical education in all local funding opportunities including planned mill and/or bond activities.
- 16 Colorado policy makers create incentives, such as increased resources or recognition, for schools that meet or exceed Colorado's existing physical education standards.

# CONCLUSION

The health and overall well-being of students is a priority for all schools in Colorado. It is clear, however, that more can be done to provide quality PE programs and ensure adequate time for physical activity during the school day. Beyond the benefits to student health, research has shown a positive impact on academic performance. All students should be physically active during the school day, and our communities can and should work to improve the opportunities and programs for Colorado's students. It is first necessary to begin collecting data on the available programs currently offered in schools to create a baseline from which to work. Any sustainable effort must also tackle the question of funding and securing resources to implement improved programming around physical activity and education. Underscoring this work should be a persistent effort to identify and eradicate inequities within school districts, and between them. The PE for All Colorado Coalition is dedicated to working towards a better future for Colorado's students that makes health and well-being a priority that is adequately funded. Understanding the differences and nuances among school districts, we are committed to working in collaboration with each district to find creative ways to tackle the challenges that are standing in the way of improved PE for Colorado's children.



# DENVER CHARTER SCHOOL - SUCCESS STORY

## Denver charter school makes physical education a foundational element

If you were building a school from the ground up and hoping to attract students typically seen as at-risk, what elements would you include beyond the traditional academic components?

If you are Sally Sorte, the founder and now executive director of Academy 360 in Denver's Montbello neighborhood, you would bring a strong focus on health and wellness as well as a deep commitment to expanding those concepts to support the entire community, not just the students in your school.

Sorte has already seen that this focus, and particularly the school's commitment to daily physical education for every student, has been a draw for neighborhood families.

"We really see physical education as being in service of learning. So we've prioritized it here. We've made it a daily priority and we know, it's helping our kids," Sorte said.

Academy 360 serves a population of students that many schools don't. The student population is 85 percent free and reduced lunch and Sorte said about 40 percent of the pre-K through 5th grade students the school serves turn over year to year due to difficult issues like homelessness and extreme poverty that makes it difficult for caregivers to build stability for their children.



# DENVER CHARTER SCHOOL - SUCCESS STORY

"We find that physical education and physical activity is a place where our students can find success on a daily basis and that's really important to keeping them and their families engaged with us," she said. "Also, most of our families cannot afford expensive afterschool teams and programs, so our ability to get students physical activity and structured physical education during the school day is key."

No school can offer this level of physical education without a dedicated – and often times particularly determined – teacher. Enter Marc Venisse. He heads the school's physical education and wellness work, but the students just call him coach. Each and every day, he teaches seven sections of physical education.

"I really see my role as two important parts. First, I want to instill in these kids a life-long love of physical activity. I really want them to see the value in it for them, not just drill them on specific sports-related skills," Venisse said. "And second, I want to improve their ability to do well in the classroom."

This translates into physical education classes that provide a mixture of academic skills like rolling Venisse's huge dice and summing the two numbers to discover how many jumping jacks you will do, to a structured warm up that helps students learn how to participate in physical activity safely. Venisse throws in incentives like Wellness Wednesday, where students participate in a physical challenge like a pull up or sit up competition. The winner gets to select their favorite activity for an upcoming PE class.

"I'm always thinking about how I can build the relationship with each student so they can see that what I am teaching them can become a lifestyle, not just something they do while they are in school," Venisse said.

That's really a good way to sum up what all the staffers at Academy 360 are focused on every day. Lunches there are healthy and sugary drinks are not allowed. Students who bring their lunch are asked to conform to the schools healthy foods efforts. And teachers walk the walk as well. You won't find treats in the teachers' break room and all sugar-sweetened beverages are banned for them as well.

"We all come every day asking ourselves, what should we be doing today to meet our students' needs?" said Becky McLean, director of wellness and operations for the school. "How can we help them with healthy habits that will just become second nature?"

The 215 students in the school often struggle with health disparities associated with lower income communities, including limited access to grocery stores with fresh produce. So the school goes beyond their own lunch room to provide school families with access to fresh produce. With its partner, Denver Food Rescue, the school hosts a pop up grocery store once a week.

Among the other hats she wears, McLean is tasked with pulling together some of the grant writing and other fundraising necessary to move the school's health and wellness focus forward. She continues to look for opportunities to build out additional play space for the students. Right now, the school – located in a converted office building – uses outdoor facilities for physical education and recess. McLean is hopeful her proposal to add a soccer field to the converted parking lot will be accepted soon.

# DENVER CHARTER SCHOOL - SUCCESS STORY

Wedged into her already full schedule, McLean serves on cooperative committees both within Denver Public Schools and across districts in the Denver metro area aimed at sharing best practices and resources to help make physical education and physical activity a given for all students.

“We are just using the research that is already there. Research that tells us that physical education and physical activity improve academic performance and helps our littles over the long run. We aren’t inventing something new here, we are implementing what we already know. We seek to show other schools that prioritizing physical activity helps serve the whole child – their academics grow as does their physical and emotional health,” McLean said.

No one had to sell Emily Stelling, the school’s 5<sup>th</sup> grade teacher, on the benefits. She believes she has seen them in her classroom. With access to quality physical education and her own efforts to add physical activity into typical classroom work – her students must race to the front of the classroom to solve a multiplication problem – she says she has seen data that proves the point. She is quick to note that in just one year, she saw her students move from 15 percent approaching or meeting standards to 56 percent approaching or meeting standards on the rigorous new state tests.

“I don’t need to prove it to my students. They know that exercise helps them focus and learn better,” Stelling said. “They just know it works.”

Stelling talked about her commitment to the school’s health and wellness focus from a conference room dressed in workout clothes. It was Wellness Wednesday, and teachers are expected to participate in their classes’ wellness challenge.



# DENVER CHARTER SCHOOL - SUCCESS STORY

“They need to know that we care about our bodies as teachers,” she said. “They need to see us modeling these healthy behaviors.”

She immediately recounts the story of one of her students. He struggles with obesity and when he came to the school, he refused to participate in physical education classes as well as recess. His classroom focus was limited. With the right mentoring, he’s now an active participant in all facets of his school life. Recently, he even challenged Stelling to a plank competition.

“He would never have thought of that just a year ago,” Stelling said. “Now he feels engaged enough to think up competitions on his own. It’s just been really rewarding to see that kind of transformation in another person.”

On this day at the school, Stelling’s 5th graders are engaged in an intense game of “Junk Cars” in Venisse’s PE class. The game is a variation on dodgeball, but it incorporates more continual movement and less opportunity for students to hide in the background or intentionally knock themselves out of participation quickly. Not that any of the students would try that anyway. The game drew cheers from the students when Venisse announced they would be playing it. Then it was off to the playground to hold their Wellness Wednesday pull up competition. Not every student could do a pull up. But every student tried.

The winner completed 10 total pull ups and everyone left with a smile on their face.



# APPENDIX A

## Grant Funding to School Districts

The Colorado Health Foundation granted funds to 4 school districts between 2014 and 2015 to assist with their wellness and physical activity goals. The specific details of each of these grants are provided below.

### **Adams County School District 50 (2014)**

- Project Title: School District 50 Learning Landscapes Elementary School Improvements
- Amount: \$230,000
- Description: Create and develop a new playground environment that is conducive to increased physical activity at Metz Elementary school that also will be used heavily by the surrounding community

### **Center Consolidated School District 26J (2014)**

- Project Title: Center Health and Wellness Programs
- Amount: \$151,460
- Implement various health focused programs in an effort to increase fruits and vegetable consumption and physical activity. Proposed programs include providing fruits and vegetable snacks, after-school physical activity programming, summer recreation programming, healthy vending options, and updating current equipment and supplies to meet demand

### **St. Vrain Valley School District (2015)**

- Project Title: Physical Activity Grant
- Amount: \$1,405,671
- Increase the amount of daily moderate to vigorous physical activity of over 16,000 elementary and K-8 students throughout the school day

### **Aurora Public Schools (2015)**

- Project Title: Virginia Court Playground Remodel
- Amount: \$200,000
- Transforming the playground areas at Virginia Court Elementary School into an engaging and stimulating experience for both students, and families in the surrounding areas. The project will include opportunities for increased play, provide more options for physical activity and enhance the handicapped-accessible portions of the playgrounds to be more inclusive and interactive.

## CDE Sample Unit

Colorado Teacher-Authored Instructional Unit Sample

Physical Education  
6<sup>th</sup> Grade

## Unit Title: Sport Related Activities

### INSTRUCTIONAL UNIT AUTHORS

Adams 12 Five Star Schools  
Aprille Vasu

Denver Public Schools  
Bryan Lindstrom

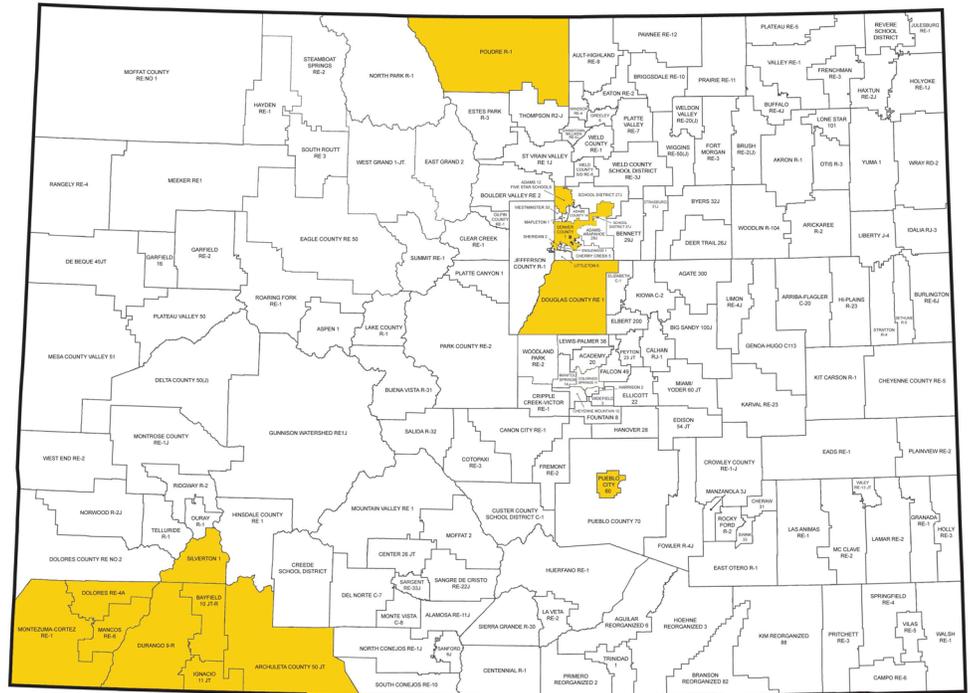
Douglas County School District  
Tyson Allen

### BASED ON A CURRICULUM OVERVIEW SAMPLE AUTHORED BY

Poudre School District  
Jo Dixon

Pueblo City Schools 60  
Andrew Cura

San Juan BOCES  
Cindy Erickson



Colorado's District Sample Curriculum Project

*This unit was authored by a team of Colorado educators. The template provided one example of unit design that enabled teacher-authors to organize possible learning experiences, resources, differentiation, and assessments. The unit is intended to support teachers, schools, and districts as they make their own local decisions around the best instructional plans and practices for all students.*

DATE POSTED: APRIL 3, 2015

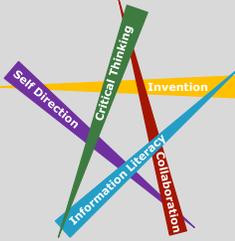
# APPENDIX B

## CDE Sample Unit

### Colorado Teacher-Authored Sample Instructional Unit

<b>Content Area</b>	Physical Education	<b>Grade Level</b>	6 <sup>th</sup> Grade
<b>Course Name/Course Code</b>			
<b>Standard</b>	<b>Grade Level Expectations (GLE)</b>	<b>GLE Code</b>	
1. Movement Competence and Understanding	1. Demonstrate beginning strategies for a variety of games and sports 2. Participate in activities that require problem-solving, cooperation, skill assessment, and teambuilding 3. Use information from a variety of resources to improve performance	PE09-GR.6-S.1-GLE.1 PE09-GR.6-S.1-GLE.2 PE09-GR.6-S.1-GLE.3	
2. Physical and Personal Wellness	1. Set personal goals for improving health-related fitness 2. Demonstrate the ability to perform self-paced cardiovascular endurance activities 3. Identify opportunities in school and in the community for regular participation in physical activity to enhance physical fitness	PE09-GR.6-S.2-GLE.1 PE09-GR.6-S.2-GLE.2 PE09-GR.6-S.2-GLE.3	
3. Emotional and Social Wellness	1. Recognize diverse skill performance in others and how that diversity affects game, activity, and sport participation 2. Work cooperatively and productively in a group	PE09-GR.6-S.3-GLE.1 PE09-GR.6-S.3-GLE.2	
4. Prevention and Risk Management	1. Demonstrate knowledge of safe practices in a physical activity setting	PE09-GR.6-S.4-GLE.1	

**Colorado 21<sup>st</sup> Century Skills**



**Critical Thinking and Reasoning:** *Thinking Deeply, Thinking Differently*

**Information Literacy:** *Untangling the Web*

**Collaboration:** *Working Together, Learning Together*

**Self-Direction:** *Own Your Learning*

**Invention:** *Creating Solutions*



**Colorado's Comprehensive Health and Physical Education Standards**

<b>Unit Titles</b>	<b>Length of Unit/Contact Hours</b>	<b>Unit Number/Sequence</b>
Sport Related Activities	6 weeks	2

### Colorado Teacher-Authored Sample Instructional Unit

<b>Unit Title</b>	Sport Related Activities		<b>Length of Unit</b>	4 weeks
<b>Focusing Lens(es)</b>	Manipulatives	<b>Standards and Grade Level Expectations Addressed in this Unit</b>	PE09-GR.6-S.1-GLE.1 PE09-GR.6-S.2-GLE.1 PE09-GR.6-S.2-GLE.2 PE09-GR.6-S.2-GLE.3 PE09-GR.6-S.4-GLE.1	
<b>Inquiry Questions (Engaging-Debatable):</b>	<ul style="list-style-type: none"> <li>Why is it important to learn fundamental skills before advanced skills? (PE09-GR.6-S.1-GLE.1-EO.a,b,c,d,e,f; IQ.2; RA.1,2; N.1,3)</li> <li>What are the different components of fitness? (PE09-GR.6-S.2-GLE.1-EO.b; IQ.3; RA.1; N.2)</li> <li>How would your unsafe behavior affect your friends? (PE09-GR.6-S.4-GLE.1-EO.a,b,c,d,e; IQ.2,3; RA.4; N.1,2)</li> </ul>			
<b>Unit Strands</b>	Movement Competence and Understanding in Physical Education Physical and Personal wellness Prevention and Risk Management			
<b>Concepts</b>	Safe Behavior, Application, Analysis, Personal Responsibility, Knowledge, Object Control, Patterns.			

<b>Generalizations</b> My students will <b>Understand</b> that...	<b>Guiding Questions</b>	
	<b>Factual</b>	<b>Conceptual</b>
Safe behavior and responsible decision making demonstrates personal responsibility. (PE09-GR.6-S.4-GLE.1-EO.a,b,c,d,e; IQ.2,3; RA.4; N.1,2)	What does it look like for safety to be a personal responsibility for you?	How do you show safety as a priority?
Analysis of movement and the ability to apply the knowledge gained from analysis promotes mastery of object control. (PE09-GR.6-S.1-GLE.1-EO.a,b,c,d,e,f; IQ.2; RA.1,2; N.1,3)	What knowledge is needed for manipulative development?	Why is analysis of manipulative development important for object control? Which physical activities do you enjoy to help to improve cardio-respiratory and muscular endurance?
Skillful application of multiple movement patterns leads to success in a variety of physical activities. (PE09-GR.6-S.2-GLE.1-EO.b; IQ.3; RA.1; N.2)	How can you take multiple movement patterns and apply them to lead to greater success for you?	How can movement patterns grow in complexity? What are some sports that require more skill and strategy than others?

## CDE Sample Unit

### Colorado Teacher-Authored Sample Instructional Unit

Critical Content: My students will <b>Know</b> ...	Key Skills: My students will be able to <b>(Do)</b> ...
<ul style="list-style-type: none"> <li>Object control (PE09-GR.6-S.1-GLE.1-EO.a,b,c,d,e,f)</li> <li>Safe use of objects (PE09-GR.6-S.4-GLE.1-EO.a,c)</li> <li>Relationships to demonstrate complex movements (PE09-GR.6-S.1-GLE.1-EO.g)</li> <li>5 components of fitness. (PE09-GR.6-S.2-GLE.2-EO.a,b)</li> <li>Errors in movement patterns (PE09-GR.6-S.1-GLE.3-EO.b)</li> <li>Activities that will help to improve the 5 components of fitness. (PE09-GR.6-S.3-GLE.2-EO.b)</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate object control (PE09-GR.6-S.1-GLE.1-EO.a,b,c,d,e,f)</li> <li>Demonstrate the safe use of objects (PE09-GR.6-S.4-GLE.1-EO.a,c)</li> <li>Combine relationships to demonstrate complex movements (PE09-GR.6-S.1-GLE.1-EO.g)</li> <li>Demonstrate 5 components of fitness. (PE09-GR.6-S.2-GLE.2-EO.a,b)</li> <li>How to analyze and correct errors in movement patterns (PE09-GR.6-S.1-GLE.3-EO.b)</li> <li>Identify activities that will help to improve the 5 components of fitness. (PE09-GR.6-S.3-GLE.2-EO.b)</li> </ul>

<p><b>Critical Language:</b> includes the Academic and Technical vocabulary, semantics, and discourse which are particular to and necessary for accessing a given discipline.            EXAMPLE: A student in Language Arts can demonstrate the ability to apply and comprehend critical language through the following statement: <i>“Mark Twain exposes the hypocrisy of slavery through the use of satire.”</i></p>	
<p><b>A student in _____ can demonstrate the ability to apply and comprehend critical language through the following statement(s):</b></p>	<p><i>The student in physical education can safely control a variety of objects and implements in individual, dual and team activities.</i></p>
<p><b>Academic Vocabulary:</b></p>	<p>Consistency, accuracy, object control</p>
<p><b>Technical Vocabulary:</b></p>	<p>Volley, strike, dribble, throw, implements, self-selected, movement patterns, fitness goals, heart rate, intensity, max heart rate, target heart rate, muscular strength, muscular endurance, cardio-respiratory, flexibility, body composition, rackets, bats, backhand, forehand, levels, speed, relationships, direction, pathways, height, underhand, overhand, sidearm, applied force</p>

### Colorado Teacher-Authored Sample Instructional Unit

<p><b>Unit Description:</b></p>	<p>This unit cultivates the analysis and application of movement to promote mastery of object control. The focus is on analyzing the patterns within categories of games/activities, movement concepts, fitness components, rules of the game, and skill application. In addition, the ongoing learning experiences are focused on safe participation and responsible decision making. This unit culminates with students developing an original game encompassing movement analysis, application of skills, manipulation, and participation.</p>
<p><b>Considerations:</b></p>	<p>Assessment choices must be based upon the tactics or games/activities taught within the unit.            This can apply to a dance, gymnastics and jump rope units using different styles as the categories and using different routines as the final product. Teacher may choose to focus on one game at a time with a final culminating comparison or choose multiple games with ongoing comparison. Teacher may use a more direct teaching style by assigning the specific games/activities, tactics and skill components.</p>
<p><b>Unit Generalizations</b></p>	
<p><b>Key Generalization (s):</b></p>	<p>Analysis of movement and the ability to apply the knowledge gained from analysis promotes mastery of object control</p>
<p><b>Supporting Generalizations:</b></p>	<p>Skillful application of multiple movement patterns leads to success in a variety of physical activities            Safe behavior and responsible decision making demonstrates personal responsibility</p>

Performance Assessment: <i>The capstone/summative assessment for this unit.</i>	
<p><b>Claims:</b> (Key generalization(s) to be mastered and demonstrated through the capstone assessment.)</p>	<p>Analysis of movement and the ability to apply the knowledge gained from analysis promotes mastery of object control.</p>
<p><b>Stimulus Material:</b> (Engaging scenario that includes role, audience, goal/outcome and explicitly connects the key generalization)</p>	<p>You and a small group of fellow students are game-makers developing an original game that will demonstrate tactical concepts (striking/fielding, net/wall, target, invasion) associated with Invasion games. The objective is to analyze movement and apply your gained knowledge in a concise product (i.e. the game) that requires mastery of object control. You will teach the game to your peers. You and your team will also participate in your fellow classmates' created games.</p>
<p><b>Product/Evidence:</b> (Expected product from students)</p>	<ul style="list-style-type: none"> <li>The students will create an original game by applying the knowledge gained from movement analysis in a variety of physical activities. The game must include strategic tactics (i.e. creating space, defending against attack, getting on base, hitting proper distance), rules, equipment, and safety modifications (i.e. type of equipment, contact allowed, spatial awareness, ability levels, facilities, and safety equipment and padding). While playing their fellow students' games, students will demonstrate skillful application of object control (i.e.: stepping toward target, leading the receiver, follow-through, force concept, skill component of fitness)</li> </ul>
<p><b>Differentiation:</b> (Multiple modes for student expression)</p>	<ul style="list-style-type: none"> <li>Students can demonstrate application of knowledge by choosing an Invasion, Net/Wall, Striking/Fielding, Target, or Rhythm activity.</li> <li>Students can demonstrate through a YouTube video, team teach, Prezi, Poster, etc.</li> </ul>

# SOURCES

1. CDC: <http://www.cdc.gov/healthyschools/physicalactivity/facts.htm>
2. Great Education > (Ed Week, 2015 Quality Counts, 2012 data)
3. Nutrition, Physical Activity and Obesity Data, Trends and Maps web site. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Division of Nutrition, Physical Activity and Obesity, Atlanta, GA, 2015.
4. Youth Risk Behavior Surveillance – United States 2015. Morbidity and Mortality Weekly Report. June 10, 2016. <[http://www.cdc.gov/healthyyouth/data/yrbs/pdf/2015/ss6506\\_updated.pdf](http://www.cdc.gov/healthyyouth/data/yrbs/pdf/2015/ss6506_updated.pdf)>
5. Healthy Eating and Active Living Among Youth in Colorado. Healthy Kids Colorado Survey 2015. <[https://www.colorado.gov/pacific/sites/default/files/PF\\_Youth\\_\\_HKCS\\_HEAL-Infographic.pdf](https://www.colorado.gov/pacific/sites/default/files/PF_Youth__HKCS_HEAL-Infographic.pdf)>
6. Childhood Overweight and Obesity in Colorado. Colorado Department of Public Health and Environment. (original source: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6231a4.htm>)
7. CDPHE – Childhood Overweight and Obesity in Colorado [https://www.colorado.gov/pacific/sites/default/files/DC\\_fact-sheet\\_Childhood-Obesity\\_Mar\\_2015.pdf](https://www.colorado.gov/pacific/sites/default/files/DC_fact-sheet_Childhood-Obesity_Mar_2015.pdf)
8. CDC research -- <http://www.cdc.gov/nccdphp/sgr/pdf/mm.pdf>
9. Mission Readiness Report 2015
10. Mission Readiness Report 2015
11. "The Association Between School-Based Physical Activity, Including Physical Education, and Academic Performance." U.S. Department of Health and Human Services. Revised Version – July 2010.
12. Shape of the Nation Report 2012
13. Effects of a Physical Education Program on Children's Manipulative Skills
14. Supplement to the 2013 Colorado Health Report Card
15. ALR "Physical Education, Physical Activity and Academic Performance" – citation #42
16. ALR "Physical Education, Physical Activity and Academic Performance"
17. SHAPE Guidance Document 6.27.16
18. SHAPE Guidance Doc
19. SOFIT: <http://activelivingresearch.org/sofit-system-observing-fitness-instruction-time>
20. SHAPE America Guidance Document 2015
21. CRS 22-32-136 5
22. CRS 22-32-136 5-a
23. HB 08-1224
24. CRS 22-32-136.5
25. CRS 22-25-105
26. CRS 22-25-104
27. CRS 22-25-104
28. CRS 22-11-503
29. CRS 22-11-503
30. CRS 22-2-106
31. CCR 301-1-1.05(G)
32. CDE School View Data Accessed 10/5/2016
33. CDE School View Data Accessed 10/5/2016
34. Supplement to the 2013 Colorado Health Report Card - [http://www.coloradohealthinstitute.org/uploads/downloads/2013\\_Report\\_Card\\_Supplement\\_PDF.pdf](http://www.coloradohealthinstitute.org/uploads/downloads/2013_Report_Card_Supplement_PDF.pdf)
35. CCC Kids Count 2016 Report
36. 2014 Informal Local Wellness Policy Review Findings. Colorado Department of Public Health and Environment.
37. Shape America Report. "Status of Physical Education in the USA." 2016
38. Shape America Report. "Status of Physical Education in the USA." 2016
39. Get 60 website. <http://resources.iom.edu/FNB/infographic/get60minutes.html>. Accessed June 30, 2014.
40. Colorado School of Finance Project
41. <http://www.denverpost.com/2016/08/08/colorado-voters-school-funding-measures/>
42. CDE Sample Unit