

SHIP School Physical Activity Interventions

Progress report: January 2011 – June 2011

Prepared for Brown-Nicollet Community Health Board as part of their SHIP evaluation

Brown-Nicollet Community Health Board (CHB) is working with schools to improve physical activity education throughout Brown and Nicollet Counties through two interventions aimed at improving the quality of physical activity education and providing more opportunities for students, faculty, and families to be physically active throughout the day. The project is part of a larger effort by Brown-Nicollet SHIP, which is funded by the Minnesota Department of Health's Statewide Health Improvement Program (SHIP).

This report provides a snapshot of progress from January to June 2011. It was prepared by Wilder Research. Brown-Nicollet CHB compiled existing data and collected original data as a part of this evaluation, using tools developed by Wilder Research.

Reach

There are a total of 9,102 students in Brown and Nicollet Counties. Brown-Nicollet Community Health Board is working with the following 12 school sites, or mini-grantees, on the School Physical Activity Intervention. This is 33 percent of schools in Brown and Nicollet Counties.

Eight of the school sites are improving the quality of physical education through the Spark curriculum or Polar Heart Rate Monitors. Spark is a research-based physical education curriculum. Polar is a tool that allows students to monitor heart rate and provides instant feedback as well as tracks progress, allowing students and teachers to set goals to reach a target heart rate.

Five sites have worked to increase access to physical activity opportunities and recreation facilities. Some sites chose to implement Take 10 or Energizers programming. Take 10 and Energizers are classroom-based physical activity interventions that combine physical activity with academic learning. Other sites worked to improve access recreation facilities and/or get students moving through the Walking School Bus (see Figures 1 and 2).

Quality physical education

Of the eight schools that have implemented Spark or Polar, between 8 percent and 87 percent of the total student populations have been directly affected. Overall, an estimated 28 percent of the total combined student population in Brown and Nicollet Counties is directly affected by this intervention. These students are receiving between 20 to 65 minutes of quality physical activity each session (see Figure 1).

1. Schools involved in improving the quality of physical education

Schools Involved	Intervention	Students directly affected	Total student population		Average minutes of physical activity per session
			#	%	
Lafayette Charter	SPARK Equipment	79	91	87%	40
Nicollet Public Schools	SPARK	127	147	86%	25-50
Minnesota Valley Lutheran	POLAR	71	238	30%	30
St. Paul's Lutheran	POLAR	19	228	8%	30
River Bend Alternative	POLAR	32	85	38%	35-50
Sleepy Eye Public	POLAR	104	275	38%	40-45
Immanuel Lutheran Courtland	SPARK	48	62	77%	20-25
St. Peter Public Middle/High	POLAR	101	950	11%	35-65
Total	-	581	2,076	28%	20-65

Improving access to physical activity opportunities

Of the five schools working to increase access to facilities, between 5 percent and 88 percent of the total student populations have been directly affected. Overall, an estimated 29 percent of the student population of all of the school sites combined is directly affected by this intervention. In addition, 30 staff members at New Ulm Area Catholic Schools (NUACS) are using the physical activity facilities on a regular basis.

Students participating in Take 10 exercises receive about 2.5-10 minutes of physical activity each session. Students and staff using physical education facilities are estimated to get about one hour of physical activity four times per week. With the Walking School Bus project, between June 2010 and October 2010, children participated in six walking field trips, a 34 mile community scavenger hunt, and walked to fitness classes on a regular basis. These trips were an average distance of one mile, providing between 30-90 minutes of physical activity (see Figure 2).

2. Schools involved in increasing access to physical activity opportunities

Schools Involved	Intervention	Students directly affected	% of total student population		Range of minutes of physical activity per session
			#	%	
St. Peter Public Elementary	TAKE 10	27	507	5%	12
Nicollet Public Schools	TAKE 10	116	147	79%	2.5-10
St. John's Lutheran	TAKE 10	38	60	63%	Unknown
New Ulm Area Catholic Schools (NUACS)	Facilities	30	303	10%	60/wk
New Ulm Public Kids Connection	Energizers, TAKE 10, Walking School Bus	120	136	88%	90
Total		331	1,153	29%	3-90

In total, the SHIP Physical Activity Interventions directly impacted approximately 796 children at 12 school sites and approximately 25 percent of the total combined population of these schools. Looking at the total population of these schools, these interventions have the potential to impact an estimated 34 percent of the total student population in Brown-Nicollet CHB's service area.

Activities

From January through June 2011, SHIP staff has provided technical assistance and training to schools to help them to evaluate their capacity and develop strategies for implementing the School Physical Activity Interventions.

Quality physical education

Three of the schools have implemented the Spark curriculum and five have added the Polar Heart Rate Monitors into their physical education program. A total of 14 classrooms from pre-kindergarten to 12th grade are actively using these new tools, with positive impacts on students, faculty, and families.

In addition to physical education classes, Lafayette Charter and other schools have expanded the Spark curriculum to the regular classroom where Spark games and activities are used as a reward to turn in homework. All faculty members at Lafayette Charter have participated in a Spark curriculum training as well to learn how to use Spark in their classrooms.

Other schools report that as a result of their work with Polar, faculty, and staff are more aware of what is going on in the physical education classrooms.

Staff are all aware of the heart rate monitors and understand what the kids are doing in PE. Our principal understands the importance of the monitors and deems them critical to the class.

Spark has inspired physical activity outside of the regular school day as well. One school has even opened their gym for students and families to use as a part of a new six week program focused on a fit and healthy lifestyle. With this program, around 90 students and families have been exposed to the Spark curriculum.

Improving access to physical activity opportunities

Four schools and one school-site are actively using the Take 10 and/or Energizers activities in their classrooms. The activities allow teachers to incorporate physical activity throughout a student's day. At St. Peter Public Elementary, teachers presented information about the Physical Activity Intervention to the school Parent Teacher Organization, engaging parents around the issue.

Overall, staff is pleased with the activities, saying that they have sparked discussions among students and staff on the importance of physical activity. Here are some of their comments:

The feedback has been positive. We just keep incorporating more movement and health-conscious curriculum into our program.

The feasibility and flexibility are wonderful.

Additionally, NUACS has opened up their new exercise facility to staff and faculty. With the recommendation of a trainer or medical personnel, there are now physical rehabilitation services available to students.

The Walking School Bus intervention, implemented at New Ulm Public Kids Connection as an alternative to bussing summer program participants to and from field trips, is moving into their second season after a successful first season. Last summer, students walked to various community sites, including the puppet wagon, youth center, and on scavenger hunts. Staff reports a positive response to this intervention:

There were several people who have seen us at the fitness centers in the community and have given us positive feedback on the program we are providing. We are visible and that is wonderful!

Staff is very motivated and excited to develop and conduct these events.

The School Wellness Committees also continued their work between January and June 2011. In a survey of SWC members working on increasing Opportunities for physical activity and facilities, all four of those who responded to questions about the structure of

the SWC agreed or strongly agreed that members communicate openly and effectively and have a lot of respect for the other members. They also agreed that members work together, invest the right amount of time into SWC activities, and have realistic goals and objectives.

Policy, systems, and environments

One of the goals of SHIP is to change policies, systems, and environments to make the healthy choice the easy choice. In the case of the School Physical Activity Interventions, it means specifically changing policies, systems, and environments to create opportunities for healthier eating and learning about nutrition among students, parents, and school staff.

Two of the four schools participating in Take 10 have written the curriculum into their school wellness policy. One school has written Polar and another school Spark into their school wellness policies as well.

As mentioned above, the impact of the Access to School Recreation Facilities' intervention has extended its reach to faculty and staff as their facility is now open for their use during after-school hours.

Impact

The *Physical Activity Guidelines for Americans* recommends that children and adolescents engage in one hour or more of physical activity each day. Results from the 2010 Minnesota Student Survey found that among Minnesota students, less than one quarter of 6th grade males exercised or played sports that made them sweat or breathe hard for at least 20 minutes every day of the week, and only 14 percent of 6th grade females had exercised or played sports seven days of the week. Physical activity levels decreased as children grew older, especially among females. The large number of youth who do not meet the recommended amount of daily physical activity may contribute to the increasing rates of overweight and obesity among children and adults. Interventions related to school physical activity are one way to address the issue of childhood obesity, which may have a long-term impact of preventing adult obesity and chronic disease.

As a result of this intervention, many of the schools have met their projected short-term outcomes, including:

Quality physical education

- Eight schools in Brown-Nicollet Community Health Board's service area have implemented Spark and/or Polar, improving and supporting the quality of their physical activity education. The curricula have been a great asset to physical education staff as they look for ways to engage students.

Since implementing the Spark curriculum, my lesson quality has improved and my prep time has been significantly cut. This allows me to design more interesting and fun-filled activities.

- Staff report huge success in getting students excited about physical activity. Some of the successes mentioned include an increased interest in physical education from all students, not only athletes; students are pushing themselves harder to achieve their target heart rate; and students are more accountable for their own health and wellness.

Students are stopping me in the hall during the morning asking what we are doing for PE.

It has been a nice addition to our PE curriculum and greatly enhanced the interest our students have in improving their cardiovascular fitness levels.

- Along with more enthusiasm for physical activity, the quality and intensity of physical education classes have improved as well. Students of all athletic abilities are more active during class time and working harder to get a quality workout. Others have reported that teamwork skills have improved.

The quality of the class has risen dramatically.

Kids are always moving, not just standing waiting their turn. When they are in line or playing outfield in softball, they are jumping up and down to keep their heart rate up.

The kids are far more active than in the past. Since they have immediate feedback, they are more accountable for their actions in class.

- Parents are also more involved in and aware of their child's physical education.

Parents have enjoyed the increased communication and knowing what their child is learning in the classroom.

- Staff have started to see intermediate outcomes as well. At one school, students are reportedly reaching their target heart rate during PE class. At another, parents have been engaged in their child's physical education through handouts, with staff observing that this has increased students' physical activity outside of the school setting.

Improving access to physical activity opportunities

- Eighteen classrooms are using Take 10/Energizers' activities to infuse physical activity into daily lesson plans, giving students opportunities to be active throughout the day. Staff has been impressed with how easy it is to incorporate movement in their classroom.

Just from looking through some of the Take 10 materials, I've started changing my way of thinking and have tried to connect lesson reviews to movement, which I think is a positive change for physical movement and a better learning experience.

- Students are excited about being more active and staff has received positive feedback about the curricula.

Kids view it as a way to have fun and “play a game” versus structured learning. The feedback has been positive. We just keep incorporating more movement and health conscious curriculum into our program.

- School faculty and families are taking more opportunities to be physically active as well. At NUACS, staff use of recreation facilities during non-school hours has increased from a weekly average of five staff to approximately 30. At Kid's Connection, they have added a fitness class one day per week with an average of six staff participants.
- Parents of children who participated in the Kid's Connection Walking School Bus field trip activities indicate that it is having a positive impact on their children's health. Eight out of nine parents surveyed say that the walking field trips contribute “somewhat” or “a great deal” to their children's overall health. In addition, all nine parents reported that their child enjoyed walking field trip activities.

As efforts continue, longer-term outcomes will include, but are not limited to, improved student physical activity behaviors outside of school, a larger amount of youth getting the recommended amount of physical activity each day, increased physical activity among community members, and sustained policy and environmental changes that promote physical activity.



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