

# **An Investigation of Coordinated School Health and Safety in Elementary Schools in Stanislaus County**

**Stephanie Wurz**

Health problems in children have increased in recent years. The most common of these health problems is childhood obesity—currently fifteen percent of children are considered to be obese, or have “a BMI that is higher than the 95<sup>th</sup> percentile” (Okie 2005). Body Mass Index (BMI) is measured by taking a person’s weight and dividing it by the square of their height. This measurement gives the healthy weight that corresponds to that specific person’s height. If a child has a BMI that is greater than eighty-five percent of his peers’ BMIs, he is considered overweight and in danger of becoming obese. If his BMI falls above more than ninety-five percent of his peers’, that child is considered obese. It is this condition that leads to growing health problems in youth and all of America today. In fact, obesity is considered the number two cause of preventable death in America second only to cigarette smoking; however, if current trends continue, scientists believe that obesity will become the number one cause of preventable death (Okie 2005). Besides the increasing risk of mortality, obesity is also linked to a number of other problems—high blood pressure and cholesterol, depression, Type II Diabetes, heart disease, stroke, and certain types of cancers (AHA 2009). With Type II Diabetes, numerous co-morbidities are inevitable, such as heart disease, kidney disease, circulation problems, and more, as diabetes affects every system in the body.

However, obesity and its corresponding ailments are not the only factors of poor health in children. Schools are seeing a rise in diagnoses of mental problems and learning disabilities in students (Dryfoos 1994). Students also continue to make poor health choices such as teen pregnancy, substance abuse, and gang violence, to name a few. The

problem found in most school systems is that all the components of total wellness, complete physical, mental, and emotional health, is being addressed by schools in a disorganized and disjointed manner. There is no cohesiveness amongst wellness programs; these are instead treated as separate health components, when in reality they should be working together to achieve total body health (Murray et al. 2007). The coordinated school health program is a model that was recently developed by researchers to combine the different aspects of health and address them as one complete problem faced by schools all over.

The goal of a coordinated school health program is to reverse the poor-health trends within the public school systems by addressing “comprehensive school health education; physical education; school health services; school nutrition services; school counseling, psychological, and social services; healthy school environment; school-site health promotion for staff; and family and community involvement in schools” (McKenzie 4). For the purpose of this paper, the writer will look at the different components in a coordinated school health program and analyze whether schools within Stanislaus County are implementing such a program. The program will be viewed in light of current literature on the subject of overall student health addressed by the coordinated health system.

## **Literature Review**

The coordinated school health program model suggests that “the teaching of health information alone is insufficient for children and youths to achieve health literacy”; rather, it claims, schools must provide scientifically-based knowledge of health and safety into

every component of the school system (Curriculum 11). This program advocates an interconnected system that gives children the knowledge and resources for mental, physical, and emotional health. This is accomplished by involving teachers, families, and the community together under the same cause. Children with low-income backgrounds who do not otherwise have access to the resources they need to live a healthy lifestyle can reach these resources through this suggested school program. Schools have an enormous amount of influence over their children and can play a beneficial role in the health and safety of their children, especially when they have charge of these children on average five days a week for seven hours a day. Educating children is the monumental task given to schools and teachers and it is necessary to address every area of students' lives, including physical, mental, and emotional well-being. These are only a few reasons why the implementation of a coordinated school health program is necessary to reverse current trends in health and safety of children.

The California State Board of Education has listed specific reasons to address health issues in the school setting (10). It makes economical sense to provide proper health education to children at a young age. Preventive care is more cost-effective than medical care in later years; by implementing health policies, schools have the opportunity to check growing numbers of diseases and consequences of choices brought on by poor health, thus decreasing the need for costly medical attention in the future. For example, if a child is taught successful eating habits in elementary school and continues to practice these habits throughout his adult life, the cost of the health program the school used to teach him is significantly less than medical bills that child would have to pay if he is hospitalized due to poor health brought on by poor nutrition. But more importantly, averting bad health habits early on in life reduces

numerous medical conditions from occurring as frequently within these children. Children that are given ways of overcoming obesity earlier on in life are less likely to remain obese into adulthood. (*Refer to Appendix A-I, published by the CDC, which shows the correlation between age and the percentage of children that retain their weight into adulthood*).

Recommended exercise for children ages four to eighteen has been extensively addressed by the American Heart Association (AHA). Children should receive thirty consecutive minutes per day. If necessary, these thirty minutes may be broken up into fifteen or even ten minute time periods. This activity should be vigorous, raising heart levels for an extended amount of time and exercising the heart muscle (AHA 2009). Sedentary time spent in front of the television and computer should be limited, and more active alternatives should be given to children.

Along with the proper amount of physical activity, children should also be given the chance to receive proper nutrition. Current research conducted by the Stanislaus Community Health Assessment claims that the rate of obesity in Stanislaus County is higher than the average for the state of California. In a 2005 study, 21 percent of Californians were considered obese, while 32 percent of Stanislaus County populace was considered obese (Stanislaus 2008). This is due largely in part to the poor socio-economic status of county residents; a large majority of these people have limited access good nutrition. The AHA has published information regarding appropriate nutrition for children ages four to eighteen years old: calories eaten should be equal to the amount of calories expended (about 1,800 calories per day for girls and 2,200 calories a day for boys), and about 30 percent of these calories should be derived from healthy fats. Lean proteins and foods high in fiber are important

components of a child's diet, and children should eat about five cups of fruits and vegetables a day. Foods should be low in saturated fats, sodium, and added sugars (AHA 2009). Current research has pointed out a number of nutritional factors leading to this increase in childhood health problems. These factors include the availability of fast food, larger food portions, sedentary living, and improper modeling at home by parents. One of the major contributing factors, however, is the public school system. In 2000, it was estimated by the Centers for Disease Control (CDC) that 43 percent of elementary schools in the nation contained vending machines that sold unhealthy foods (Dalton 2004). These foods are still available on many campuses due to the large amount of revenue received from their sales. When San Francisco decided to ban junk-food sales on its campuses, it met with a half-million dollar decrease in annual school budget. Another concern is that although the USDA has published food guidelines for schools to use, it is only required for low-income meals; schools can and often do opt out of the USDA program altogether for regular-priced meals, serving high calorie, low-nutrient foods (Dalton 2004).

Equally as important to overall physical health is the psychological health of an individual. There are eight accepted stages of development proposed by Erik Erikson that represent the social-emotional development of humans from birth through adulthood (*Refer to Appendix A-1 for a complete summary of these eight stages*). Erikson, a child psychologist, developed this theory in the 1960s after extensive research on the normal development of human individuals. He found that humans develop basically in the same way, beginning with developing their trust in others as an infant and proceeding to expand in their ability to become autonomous, take initiative, use industry to complete tasks, maintain an identity, become intimate,

produce a legacy, and then gain integrity (CDI 2009). Of course not all of these stages apply to every person, and some skip stages in between while some never reach the last stage. Erikson maintained, however, that a completely healthy individual will proceed through each of these steps, using previous steps to build upon future ones. The most important stage for elementary school children is the stage entitled industry versus inferiority (CDI 2009). In this stage, the child begins to develop peer relationships, having had limited peer contact prior to school. Children begin to learn social and structural rules and are expected to follow them under reasonable circumstances. Self-discipline is a difficult skill to develop at this stage, as children are expected to gain a higher level of self-control. If a child is unable to complete this stage, according to Erikson, he will develop feelings of inferiority. The job of school psychologists is to perceive if healthy development is taking place in the children attending the school and to determine if unhealthy psychological problems such as depression or anger are presenting themselves. According to Joy Dryfoos, however, school counseling services are often unable to fully meet the needs of students because the high ratio of students to school counselors (Dryfoos 1994). Some schools have district-level school counselors, while others have a counselor that is employed by the county and regularly visits different district school locations. Off-site counselors are clearly not as readily available to meet the needs of the many children within their large numbers of schools.

Another component that is addressed in a coordinated school health system is health education, and schools are being pressured to place stronger emphasis on this facet of education in the school system. In March of 2008, California came out with a list of state standards in health education that are required to be taught in elementary schools. The major

topics addressed in the standards are as follows: nutrition, physical activity, human development, sexual health, injury prevention, drugs and tobacco, personal health, and community health (California 2008). Each of these topics is presented in some form for one or a few different grade levels. For each specific grade, these topics are identified further by giving specific subtopics. For example, in grade two, children are expected to learn the proper foods to eat daily and how to make decisions to get proper nutrition each day. They are also told ways to increase physical activity and get their family and friends involved in physical activity with them. However, according to a 2006 study presented in the *Journal of School Health*, only 66.7 percent of schools supplied students with student-accessible health resources (Kann 2007). And only 70.6 percent of students were clearly taught how to make decisions for themselves regarding healthy choices.

In order for all of the above-mentioned ideas to become a reality, students need support from family and community. According to Pauline Carlyon (1998), "The school, the family, and the community each has its own unique resources; each can reach students in ways the others cannot; and each influences young people's behaviors in different ways. Together, as participants in a coordinated school health program, they can provide an environment in which students can learn and mature successfully." When students have parents who are actively involved in their learning, they receive encouragement and support. Another part of parental involvement includes appropriate modeling for their children. For example, when children learn about a certain topic in health class such as proper diet, it is important that parents model correct nutrition for their children. Students flourish most when they receive community support as well (Carlyon 1998). Communities need to provide

resources for their schools such as after-school care and community involvement for children. All of these things are important in developing a child's identity in relation to his family, his peers, and his community. There are barriers, however, in fostering parental involvement within the school such as diverse cultural backgrounds and family members who are non-native speakers of English.

A study published in 2007 analyzed the effects of a coordinated school health program on academic achievement (Murray). The researchers published a meta-analysis on current studies of different programs implementing a coordinated school approach. This research came to the conclusion that a coordinated school health and safety program does have a positive influence on academics. A control group of Latino and African-American children in a low-income area who attended a school using a coordinated health system saw a 4 percent average increase in their overall school grades (Murray 2007). Another control group consisting of 835 students with frequent absences due to asthma-related conditions reported a significant decrease in sick days after the implementation of a coordinated health program (Murray 2007). These findings demonstrate that a coordinated school health program is effective in reaching the full health of all students because it addresses the physical, mental, and emotional well-being of children.

### **Methodology**

My research will comprise of a qualitative analysis of Coordinated School Health programs within the northern San Joaquin Valley area. Because there is little research on Coordinated School Health within this region, this study will be an initial inquiry into whether the program is being implemented into northern San Joaquin Valley's elementary schools. I have selected ten schools within the previously defined area to evaluate. Based upon my research, I have

generated a list of questions with which to interview school site administrators such as the school's principal (*see following interview question guide Appendix 1—B*). These initial questions are open-ended and leave significant room for interpretation by the interviewee. I will submit any necessary information to California State University, Stanislaus' Institutional Review Board (IRB) before seeking interviews at each school site. Before interviewing, each interviewee will sign a consent form that will permit me to use any dialogue I obtain within my research.

After an initial interview, I will analyze interview transcripts and look for any emergent themes such as common directions or difficulties with program development. If more information is needed to reach a comprehensive conclusion, a second interview will be conducted with each interviewee. Once all interviews are completed and interview transcripts are analyzed, I will conclude my research by stating how the Coordinated School Health Program is being implemented into elementary schools within northern San Joaquin Valley schools.

### **Findings**

Because this project is in its beginning stages, there is no conclusive evidence of whether or not Coordinated School Health programs are being integrated properly into Northern San Joaquin Valley schools, if at all. However, based on preliminary research, Stanislaus County appears to be on the lower end of a complete health approach. Due to recent budget cuts and already limited funds within these school systems, Stanislaus County schools lack proper services, especially in regards to school psychological

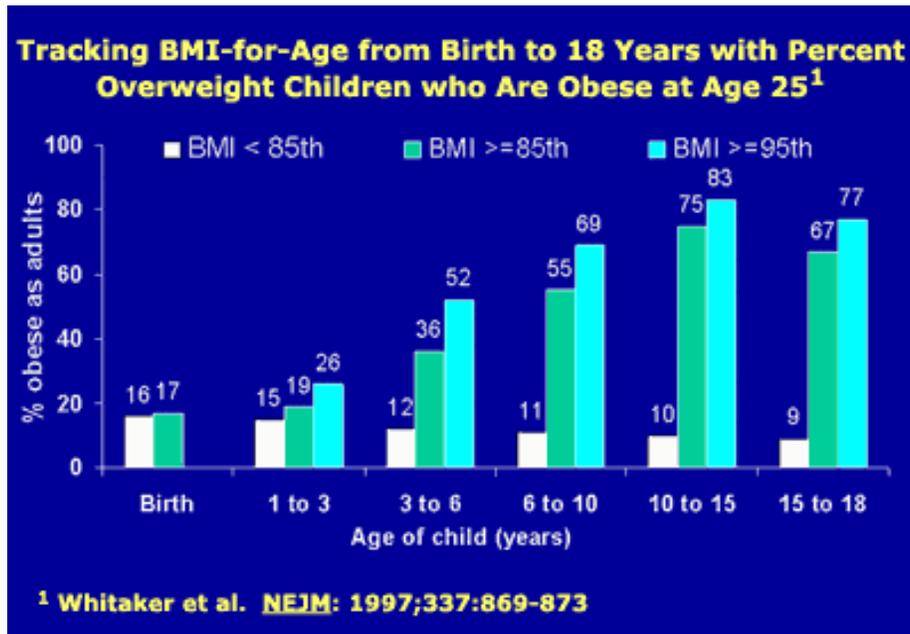
counseling. On average, the schools that were reviewed had one district-level psychologist who was strained over a larger population of students. These schools do not receive adequate funds to hire multiple psychologists who can develop greater individualized attention with students and foster personal relationships with the children.

Also lacking from Coordinated School Health Programs within Stanislaus County is adequate time available for physical education. Many teachers shorten physical education time in favor of longer periods of mathematics and language arts, the two subjects that appear most predominately on state testing standards. When physical education time is available to students, activities often contain long periods of time standing around while children wait their turn to participate. This does not allow students to elevate their heart rate for the recommended period of time.

While there are healthy options available within school cafeterias such as fruits and vegetables, there is still a plethora of high-calorie, high-sodium foods. Food is often prepared in ways to give it a longer shelf-life; food service companies often include additives and unnecessary ingredients to prolong the time food items can be sold.

Based on the research available to the writer at this time, Stanislaus County has significant improvement to make in reaching its potential as a system that engages the Coordinated School Health Program. Although there are some positive factors in many of these schools' programs, more funding needs to be directed towards student health services in the schools.

## Appendix 1 – A



*From the Center For Disease Control (CDC)*

Approximate Ages	Stage	Positive Characteristics Gained and Typical Activities
Birth to 1 year	Trust versus mistrust	Hope; trust in primary caregiver and in one's own ability to make things happen (secure attachment to caregiver is key)
1 to 3	Autonomy versus shame and doubt	Will; new physical skills lead to demand for more choices, most often seen as saying "no" to caregivers; child learns self-care skills such as toileting
3 to 6	Initiative versus guilt	Purpose; ability to organize activities around some goal; more assertiveness and aggressiveness (harsh parental criticism may lead to guilt)
6 to 12	Industry versus inferiority	Competence; cultural skills and norms, including school skills and tool use (failure to master these leads to sense of inferiority)
12 to 18	Identity versus role confusion	Fidelity; a unified and consistent sense of self that integrates pubertal changes into a mature sexual identity, assumes adult social and occupational roles, and establishes personal values and attitudes
18 to 30	Intimacy versus isolation	Love; person develops intimate relationships beyond adolescent love; many become parents
30 to old age	Generativity versus stagnation	Care; people rear children, focus on occupational achievement or creativity, and train the next generation; turn outward from the self toward others
Old age	Integrity versus despair	Wisdom; person conducts a life review, integrates earlier stages and comes to terms with basic identity; develops self-acceptance

*From the Child Development Institute*

## Appendix 1 – B

### Interview Question Guide

1. How does your school implement its Coordinated School Health and Safety Program?
2. Who heads/facilitates this program?
3. What challenges have you encountered while putting this program into action?
4. Where have you seen success with this program?

### References

- American Heart Association. 2009. Dietary Recommendations for Healthy Children. <http://www.americanheart.org/presenter.jhtml?identifier=4575>
- California State Board of Education. Health Education Content Standards for California Public Schools. Sacramento: California Department of Education, 2008.
- Carlyon, Pauline; Carlyon, William; McCarthy, Alice R. Family and Community Involvement in School Health. Health Is Academic. Pp 67-95. New York: Teachers College Press, 1998.
- Centers for Disease Control. 2008. Using the BMI for Age-Growth Charts. Centers for Disease Control and Prevention. <http://www.cdc.gov/nccdphp/dnpa/growthcharts/training/modules/module1/text/module1print.pdf>
- Child Development Institute. 2009. Stages of Social-Emotional Development in Children and Teenagers. <http://www.childdevelopmentinfo.com/development/erickson.shtml>
- Curriculum Development and Supplemental Materials Commission. Health Framework for California Public Schools. Sacramento: California Department of Education, 2003.
- Dalton, Sharron. Our Overweight Children: What Parents, Schools, and Communities Can Do to Control the Fatness Epidemic. Berkeley: University of California Press, 2004.
- Dryfoos, Joy. Full-Service Schools. San Francisco: Jossey-Bassey Inc., 1994.
- Kann, Laura; Telljohann, Susan K.; Wooley, Susan F. Health Education: Results From the School Health Policies and Programs Study 2006. Journal of School Health. Vol. 77, No. 8. 2007.
- McKenzie, Floretta Dukes, Richmond, Julius B. Linking Health and Learning: An Overview of Coordinated School Health Programs. Health Is Academic. New York: Teachers College Press, 1998.
- Murray, Nancy G.; Low, Barbara J.; Hollis, Christine; Cross, Alan W.; Davis, Sally M. Coordinated School Health Programs and Academic Achievement: A Systematic Review of the Literature. Journal of School Health. Vol. 77, No. 9. 2007.
- Okie, Susan, M.D. Fed Up! Winning the War Against Childhood Obesity. Washington, D.C: Joseph Henry Press, 2005.