

School Health Policy in North Carolina

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On any given school day, you will find 93% of North Carolina's children in one of more than 2,400 North Carolina public schools and charter schools. These 1.4 million students are taught by 190,000 teachers and staff in one of 115 local education agencies (LEAs) governed by a local board of education. North Carolina students are transported to and from schools in 14,000 school buses and eat over 1.8 million school meals per day.¹

In North Carolina, as in the nation, health issues in schools are reaching an acute level and demanding the focus of local education agencies as well as employers, colleges, universities, and other institutions. Academic achievement is at the heart of the purpose of public schools, while health care and wellness activities are not core functions of K-12 public schools. But there are ways that schools can and must support student and teacher wellness.

Academic achievement is the focus of the school day as North Carolina students are being prepared with 21st century skills to compete in a global economy. The North Carolina State Board of Education (NCSBE) and the North Carolina Department of Public Instruction (NCDPI) work collaboratively and continuously to raise the educational standards and expectations for North Carolina students and teachers, ultimately leading to higher graduation rates.

In North Carolina schools, three markers—poverty, poor educational attainment, and poor health—can create obstacles to succeeding in school. We know that children who come from poor families with parents who have low education levels are more likely to suffer from poor health. And at the end of the day, these youngsters are also more likely to struggle with the academics of school.

In North Carolina, more than 15% of our residents live below the poverty rate; this percentage is higher for African American, Asian, and Latino groups. In some regions of our state—especially in the rural areas—

the poverty rate is as high as 26%. In terms of educational attainment, one-fifth of North Carolinians do not have a high school diploma, and only 23% have earned a bachelor's degree or higher.² That means many parents of public school children have a low educational attainment. While schools cannot directly address the poverty level of students and their families, schools can play a supportive role in improving the health of children and fostering their desire to learn.

The guiding mission of the North Carolina State Board of Education is that every public school student will graduate

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from high school, be globally competitive for work and postsecondary education, and be prepared for life in the 21st century. To accomplish this mission, the State Board of Education has five goals, one of which specifically focuses on the health of students (see Table 1).

The North Carolina State Board of Education has long recognized the positive link between a student's health status and academic gains in addition to the link between health

Table 1.
The Five Goals of the North Carolina State Board of Education

- NC public schools will produce globally competitive students
- NC public schools will be led by 21st century professionals
- **NC public school students will be healthy and responsible**
- Leadership will guide innovation in NC public schools
- NC public schools will be governed and supported by 21st century systems

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behaviors in childhood and the development of chronic diseases and health problems later in life. Thus, the State Board of Education has implemented policies aimed at reducing and preventing obesity, diabetes, teen pregnancy, sexually transmitted diseases (STDs), and substance use and improving the mental health and well-being of North Carolina public school students. The State Board of Education also has recognized the unique challenges faced by students with special education needs. Mary N. Watson writes about these children and the role of special education in North Carolina's public schools in her commentary in this issue of the *Journal*. In addition, the NCSBE is the only state board in the nation to appoint a senior advisor for Healthy Responsible Student issues to monitor and advance health policies, programs, and legislative practices to benefit students.

In order for students in North Carolina's public schools to be successful, educators realize that educating the whole child is the key. Former US Senator William Cohen (Maine) perhaps said it best: "It is clear that children must be healthy to be educated and they must be educated to be healthy."³ While this might appear to be the old chicken or the egg quandary, educators must simultaneously address student health status as well as readiness to learn. A high-quality, coordinated school health program does just this by effectively addressing students' health issues and improving their ability to learn.

For 10 years, North Carolina has been fortunate to be one of 20 states in the nation to receive competitive funding from the Centers for Disease Control and Prevention (CDC) to promote Coordinated School Health Programs (CSHP) at the state and local levels. This funding made possible the development of the North Carolina Healthy Schools Initiative. Through this CDC model, the state education agency receives funding to establish CSHPs while working collaboratively with the state health department in order to evaluate health behavior change among school students and the school environment. The North Carolina Department of Public Instruction monitors student health and health behaviors through the Youth Risk Behavior Survey (YRBS) and the School Health Education Profiles Survey (see sidebar).

The North Carolina Department of Public Instruction receives funding from the CDC through a competitive cooperative agreement process for staffing and program activities. Four staff positions including a section chief; an HIV/AIDS consultant; a physical activity, nutrition, and tobacco consultant; and a unit administrative assistant are housed in NCDPI and focus on designing, implementing, and sustaining Coordinated School Health Programs. An abstinence education consultant, funded through separate federal funds, is joined by a health education and drivers' education consultant and a physical education, athletics, and sports medicine consultant to complete the North Carolina Healthy Schools Team at NCDPI. In addition, these CDC funds allow the North Carolina Healthy Schools Initiative to fund a senior advisor for the Healthy Schools Program—housed in the North Carolina Division of Public Health—who is the counterpart of the section chief for the Healthy Schools Section in NCDPI. This infrastructure

Health Data Collection

Data collection is important in helping to plan professional development and determine curriculum needs and updates. In the spring of odd-numbered years, North Carolina Healthy Schools implements the statewide Youth Risk Behavior Survey (YRBS) in randomly-selected middle and high schools. The YRBS helps to assess youth health behaviors. Annual and trend data are located at <http://www.nchealthyschools.org>.

In even-numbered years, the statewide School Health Education Profiles Survey is conducted. The Profiles Survey has two parts. The Principal survey assesses policies related to health education and school climate, and the Lead Health Educator survey looks at health programs and student skill development.

enhances the cooperative working relationship between education and health at both the state and local levels.

While state-level infrastructure for North Carolina Healthy Schools was being developed and implemented, the same collaboration was being encouraged at the local level through a variety of strategies. For example, North Carolina Healthy Schools designed the Leadership Assembly which brought together the LEA superintendent and the health department director from each county, providing this local partnership the time and technical assistance to jointly plan health projects for their communities. In 2005, North Carolina Healthy Schools received the prestigious Distinguished Health Education Program Award from the CDC and the Public Health Education and Promotion Network and was recognized as a national model for Coordinated School Health Programs. The NCDPI was recently awarded another five-year cycle of CSHP funding from the CDC totaling around one million dollars annually.

Complementing the North Carolina Healthy Schools Initiative is the North Carolina Comprehensive School Health Training Center (NCCSHTC) which has been located at Appalachian State University for 15 years. Its primary mission is professional development in health education for teachers, other school personnel (counselors, nurses, administrators), and community health educators. A cadre of 18 trainers with rich and diverse professional health backgrounds serves as a professional development model for other states as recognized by the CDC. The Training Center is funded primarily by the HIV Prevention Grant awarded to NCDPI. Over the years, additional North Carolina Healthy Schools funding and supplemental grant awards have enhanced the capacity of NCDPI by assisting with grant writing, presentations, needs assessments, survey reports, instructional materials, technical assistance, and evaluation. The Training Center's services are based on up-to-date content skills and strategies and are consistent with the North Carolina Standard Course of Study in Healthful Living Education and with state laws.

The Coordinated School Health Model promotes eight components of a healthy school with school professionals

working together to address health issues. The eight components of a Coordinated School Health Program (CSHP) include the following: comprehensive school health education; physical education; school nutrition services; school health services; a healthy school environment; school counseling, psychological and social services; school-site health promotion for staff; and family and community involvement (see Figure 1).

Comprehensive school health education focuses on the health information, strategies, and skills taught to students. This classroom-based instruction, provided as part of the Healthful Living Standard Course of Study, provides age-appropriate information about physical, mental, social, and emotional dimensions of health. It is designed to motivate and assist students to maintain and improve their health, prevent disease, and reduce health-related risk behaviors by helping the children develop health knowledge, attitudes, and skills (see Table 2). Health education promotes an understanding of the scientific basis for health status, the role of human behavior on health status, and the impact of public policy upon health status. Donna Breitenstein discusses the Standard Course of Study in Healthful Living Education in more detail on page 467.

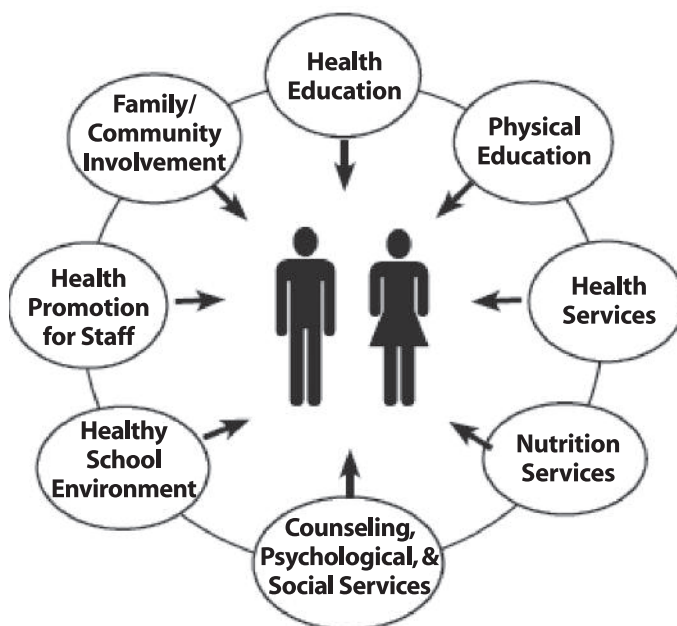
Typically, North Carolina elementary students receive health instruction taught by their classroom teachers in lessons often integrated into other subjects. Time for health instruction competes with other equally important and tested subjects during the elementary students' day. The NCDPI has written the Balanced Curriculum Document to assist educators in pacing and balancing class time to allow the entire curriculum to be taught.

In middle school, grades six to eight, students receive health instruction from a licensed health education specialist and/or a licensed health and physical education teacher. Instruction in health education and physical education is blended into one curriculum known as Healthful Living Education. Students usually receive health education in a classroom setting while physical education is taught in a gymnasium, in another activity facility, or in outdoor and athletic spaces.

In high schools, students are required to pass one Healthful Living Education unit to graduate. This unit typically includes instruction equally divided to meet standards for both health and physical education. Over 95% of North Carolina's high school students complete the Healthful Living graduation requirement in the 9th grade.

Although the Healthful Living Curriculum focuses on a wide array of health-related topics, sexuality education has attracted a lot of attention over the years. The North Carolina General Assembly has directed the state to implement an abstinence until marriage curriculum, as required under NCGS §115C-81.¹² North Carolina's sexuality education focuses on abstinence until marriage as the only 100% effective method of preventing teen pregnancy and eliminating the risk of HIV/STDs. Kay Phillips offers a commentary with a different perspective about the incidence of teen pregnancy in North Carolina and the nation,

Figure 1.
Coordinated School Health Model



Source: Marx E, Wooley S, Northrop D. *Health is Academic: A Guide to Coordinated School Health Programs*. Reston, VA: National Association of Secondary School Principles; 1998.

its economic and social costs, and teen pregnancy prevention programs in North Carolina.

The North Carolina Healthful Living Standard Course of Study provides grade-level health objectives, but does not provide specific course curricula that must be taught each year. As mentioned previously, while health is its own discipline, health objectives are frequently integrated into other subjects. Examples of this integration include the following:

- Examining the nutritional composition of foods in a foreign culture through a social studies class
- Plotting a graph during math class of the number of steps recorded on a pedometer
- Reading a book about an unhealthy rabbit in language arts
- Discovering in a biology class the effects of a compromised immune system due to an HIV infection

Physical education is planned, sequential instruction that promotes lifelong physical activity. It is designed to develop basic motor skills, sports skills, and physical fitness as well as to enhance students' mental, physical, social, and emotional abilities.

Physical education is taught by a licensed physical education specialist and/or a health and physical education teacher. Physical education involves teaching students the skills, knowledge, and confidence they need to lead physically active lives. On the other hand, physical activity is actual bodily movement that may be practiced as part of a physical education curriculum. The CDC recommends children receive a minimum requirement of 60 minutes of moderate to vigorous activity each day for optimal health.¹³ In North Carolina, K-8 students receive 30

Table 2.
Health Risks for Adolescents that Result in Mortality, Morbidity, and Social Problems

Alcohol and Drug Use

Nationwide, alcohol use is a factor in approximately 40% of deaths from motor vehicle crashes.⁴ In North Carolina, 24.7% of high school students report they have ridden in a vehicle with someone who had been drinking alcohol, and 9.6% of high school students reported driving while under the influence. In 2007, 17% of high school students report that they have taken prescription drugs one or more times during their life without a doctor's prescription. Marijuana use one or more times during their lifetime was reported by 36.4% of high school students and 11.9% of middle school students.⁵

Injury and Violence, Including Suicide

Injury and violence is the leading cause of death among youth ages 5 to 19, including motor vehicle crashes (35.7% of all deaths), all other unintentional injuries (12.1%), homicide (11.3%), and suicide (7.6%).⁶

Tobacco Use, Poor Nutrition, and Physical Activity

Tobacco use, a poor diet, and physical inactivity cause 7 in 10 preventable deaths in the state.⁷ In 2007, 16% of 6-17 year-olds were overweight, and 15.9% were obese.⁸ When it comes to tobacco use, 19% of high school students and 4.5% of middle school students smoke cigarettes.⁹

Sexual Behaviors

Adolescents 13-19 years of age represented 37% of all chlamydia cases and 26% of all gonorrhea cases in North Carolina in 2006.¹⁰ Also in 2006, over 19,000 teens ages 15-19 in North Carolina were pregnant. Nearly one-third of those pregnancies were repeat pregnancies. During that same year, 405 10-14 year-olds were pregnant.¹¹

These behaviors are usually established during childhood, persist into adulthood, and are interrelated. Many are preventable. In addition to causing serious health problems, these behaviors also contribute to the educational and social problems that confront the nation, including failure to complete high school, unemployment, and crime.

minutes of physical activity during the school day as required by the Healthy Active Children Policy (HSP-S-000). To meet this requirement, physical activity can be incorporated into other classroom activities. Creative teaching methods and materials such as "energizers," which are classroom-based physical activities for elementary and middle schools, are available at no charge to teachers and may be accessed at <http://www.nchealthyschool.org>.

In addition to the 30 minutes of physical activity, the Healthy Active Children Policy encourages but does not mandate that elementary schools offer 150 minutes of physical education weekly and that middle schools provide 225 minutes of Healthful Living Education every week. The policy further states that students may not be withheld from participating in recess as a form of punishment nor should they be required to do excessive physical activity as punishment. Significant research has been conducted about the merits and differences between physical activity and physical education, but researchers agree that active students make greater academic gains than inactive students. In his commentary, Ernest Holcomb

discusses how a number of LEAs have successfully implemented the Healthy Active Children Policy in their schools with resultant positive health outcomes. The Healthy Active Children Policy is available at http://www.ncpublicschools.org/State_Board.

In addition to comprehensive health education and physical education, the remaining six components of a Coordinated School Health Program are equally important to student success. These remaining components are school nutrition services; school health services; the healthy school environment; school counseling, psychological services, and social services; school-site health promotion for staff; and family and community involvement in schools.

School nutrition services focus on the integration of nutritious, affordable, and appealing meals; nutrition education; and the creation of an environment which promotes healthy eating behaviors for all children. The school meals program is designed to maximize each child's education and health potential. In her commentary, Lynn Hoggard discusses the role of schools in providing nutritious meals and food and beverage offerings. Good nutrition along with physical activity are essential to preventing chronic disease and obesity among North Carolina's youth, which is currently receiving a great deal of media attention. A peer-reviewed article in this issue of the *Journal* by Natalie Digate Muth and colleagues discusses the IMPACT program, a school-based pilot intervention for improving meals and physical activity in children and teens.

School health services include preventive services, education, emergency care, and referral and management of acute and chronic health conditions. These services are designed to identify and prevent health problems and injuries as well as to care for

students. Dave Tayloe describes his efforts in Wayne County to engage primary care physicians in school health by forming partnerships with primary care providers. In two additional commentaries, Rebecca S. King and R. Gary Rozier focus on school-based dental disease prevention and oral health education, while Beth Rowe-West and Amy Caruso explain state and federal immunization requirements and the successful school-based programs designed to immunize North Carolina's children.

The healthy school environment addresses the physical, emotional, and social climate of the school. It is designed to provide a safe physical facility, as well as a healthy and supportive environment that fosters learning. In his commentary, Representative Rick Glazier makes a case for the need for a more vigorous approach to stop bullying in North Carolina schools. In addition, given that tobacco use is the leading cause of preventable death in the state,¹³ North Carolina has successfully eliminated tobacco and second-hand smoke from the school environment. North Carolina Healthy Schools works with a variety of partners to combat this health threat and

promotes 100% tobacco-free school campuses at all times. Unfortunately, however, tobacco is not the only substance that North Carolina schools must confront. In their commentary, Anne Thomas and Sheila Davies describe Dare County's school-based substance abuse prevention program that aims to address the growing problem of drugs and alcohol among school-aged youth.

School counseling, psychological services, and social services include activities that focus on the cognitive, emotional, behavioral, and social needs of individuals, groups, and families. These services are designed to prevent and address problems, facilitate positive learning, and enhance health behavior development. In their commentary, Tony Troop and Carol P. Tyson write about the role of school nurses, counselors, and child and family support teams in North Carolina's schools and efforts to help youngsters and families access necessary health services.

School-site health promotion for staff includes assessment, education, and fitness activities for school faculty and staff. Its purpose is to maintain and improve the health and well-being of school faculty and staff who serve as role models for the students and their families.

Family and community involvement in schools creates partnerships among schools, families, community groups, and individuals. This involvement maximizes the resources and expertise available in addressing the healthy development of children, youth, and their families.

School Health Advisory Councils (SHACs) have been mandated at the LEA level as part of the Healthy Active Children Policy to assist the schools in organizing their action plans and implementing their work within the Coordinated School Health Program. These councils are minimally composed of representatives from each of the previously described eight components of the coordinated school health program plus a school administrator and a public health partner. Effective SHACs are the perfect vehicle for addressing a variety of health issues within the school setting. The councils provide a long-term advisory function for school decision makers.

North Carolina schools have taken important steps to improve the health and well-being of students, faculty, and staff through the implementation of the eight components of a

healthy school. However, more can and should be done. Imagine a school of the future focused on academics as well as the overall well-being of each student and staff member. In this school, students would have water bottles at their desks to help them stay hydrated throughout the day. The school cafeteria would only serve healthy a la carte foods and beverages and ample fresh fruits and vegetables. More students would select meals offered through the school meals program, which are required to meet the 1995 Dietary Guidelines for Americans and other federal requirements. Candy and unhealthy treats such as those that are high in fat and sugar would not be used as rewards for students, and teachers would model healthy eating. Physical fitness would be encouraged by allowing more students to participate in sports and physical activities through intramural activities, clubs, and special interest groups. Positive exercise habits would be modeled by teachers who take the opportunity to enjoy physical activity alongside their students during their daily recess or physical education classes. Physical education for students would focus on activities that are fun and engaging. The teachers' lounge would be stocked with healthy alternatives to the usual vending machine fare, and there would be on-site wellness programs to help teachers focus on their own health needs. Staff wellness programs would include activities to promote reaching and maintaining a healthy weight, stress management, and smoking cessation. The school facility would be connected to the community by sidewalks or bike pathways to enable more students to walk safely to school. The outdoor campus of the school would be pleasant and inviting. Gardens on the school grounds would provide seasonal flowers, wildlife habitat, and even fruits or vegetables for consumption. These gardens would be tended by students, parents, or faculty volunteers. This vision represents the ideal. Parts of this vision already exist in our schools; other parts remain dreams for the future. Together, NCDPI and our partners can help realize this vision in all of our schools.

By implementing the eight essential components of the Coordinated School Health Model, we are moving toward a vision where schools can partner with broader community efforts to improve the health status of our young people. **NCMJ**

REFERENCES

- 1 North Carolina Department of Public Instruction website. <http://ncdpi.com>. Accessed November 13, 2008.
- 2 US Census Bureau. Education: Adult Education. http://www.census.gov/compendia/statab/cats/education/adult_education.html. Accessed November 13, 2008.
- 3 Collins PH. Coordinating school efforts to help address the obesity epidemic in North Carolina. *NC Med J*. 2006;67(4):293-295.
- 4 Centers for Disease Control and Prevention. Healthy Youth! Alcohol and drug use. <http://www.cdc.gov/HealthyYouth/alcoholdrug/index.htm>. Accessed November 5, 2008.
- 5 North Carolina Department of Public Instruction and Department of Health and Human Services. NC Youth Risk Behavior Surveillance Survey, 2007. <http://www.nchealthyschools.org/data/yrbs/>. Accessed November 5, 2008.
- 6 North Carolina State Center for Health Statistics website. <http://www.schs.state.nc.us/SCHS/data/lcd/getleadcauses.cfm>. Accessed November 5, 2008.
- 7 NC Prevention Partners. *North Carolina Prevention Report Card 2008: A Progress Report on Prevention and Health in North Carolina 2005-2007*. Chapel Hill, NC: Prevention Partners; 2008

- 8 NC State Center for Health Statistics. NC Child Health Assessment Monitoring Program (CHAMP), 2007 data. <http://www.schs.state.nc.us/SCHS/champ/2007/wtc.html>. Accessed November 5, 2008.
- 9 NC State Center for Health Statistics. NC Youth Tobacco Survey, 2007 data. State High School Fact Sheet and State Middle School Fact Sheet. <http://www.tobaccopreventionandcontrol.ncdhhs.gov/data/yts/index.htm>. Accessed November 5, 2008.
- 10 North Carolina Department of Public Instruction and Department of Health and Human Services. HIV/STD prevention. <http://www.nhealthyschools.org/hivstdprevention>. Accessed November 5, 2008.
- 11 North Carolina Department of Public Instruction and Department of Health and Human Services. Teen pregnancy prevention. <http://www.nhealthyschools.org/teenpregnancy>. Accessed November 5, 2008.
- 12 North Carolina General Statutes §115C-81
- 13 Centers for Disease Control and Prevention. State Tobacco Activities Tracking and Evaluation (STATE) System. <http://apps.nccd.cdc.gov/statesystem>. Accessed November 5, 2008.

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