

Results from the School Health Policies and Practices Study 2012



Results from the School Health Policies and Practices Study 2012

**U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
2013**

Contents

Chapter 1: Background and Introduction	1
<i>Authors of Chapters 3-10</i>	
Chapter 2: Methods.....	13
<i>Nancy D. Brener, Alice M. Roberts, Tim McManus, Jill Trott, Kevin Lacy, Annah Ngaruro, Will Robb, Wen Song</i>	
Chapter 3: Health Education	21
<i>Laura Kann, Susan Telljohann, Holly Hunt, Pete Hunt, Elizabeth Haller</i>	
Chapter 4: Physical Education and Physical Activity.....	33
<i>Sarah M. Lee, Allison J. Nihiser, Janet E. Fulton, Bridget Borgogna, Francesca Zavacky</i>	
Chapter 5: Health Services	49
<i>Nancy D. Brener, Mary Vernon-Smilely, Sandra Leonard, Rebekah Buckley</i>	
Chapter 6: Mental Health and Social Services	65
<i>Zewditu Demissie, J. Terry Parker, Mary Vernon-Smilely</i>	
Chapter 7: Nutrition Services and the School Nutrition Environment.....	75
<i>Caitlin L. Merlo, Diane M. Harris, Kimberly G. Lane</i>	
Chapter 8: Safe and Healthy School Environment	91
<i>Sherry Everett Jones, Lisa C. Barrios, Marci Feldman Hertz, Luke H. Hall-Jordan</i>	
Chapter 9: Physical School Environment	111
<i>Sherry Everett Jones, Alisa M. Smith, Robert Axelrad, Arthur M. Wendel</i>	
Chapter 10 Faculty and Staff Health Promotion	123
<i>Zewditu Demissie, Nancy D. Brener, Susan F. Goekler</i>	
Appendix 1: National Reviewers	129
Appendix 2: Estimated Standard Errors for District-Level Questionnaires	141

Disclaimer: The views expressed herein are solely those of the authors and do not represent the official position of the Centers for Disease Control and Prevention or the U.S. Environmental Protection Agency.

Chapter 1

Background and Introduction: School Health Policies and Practices Study 2012

Students in the United States engage in behaviors that place them at risk for the leading causes of morbidity and mortality among youth and adults.¹ These behaviors often are established during childhood and adolescence and extend into adulthood. Preventing such behaviors during childhood is easier and more effective than trying to change unhealthy behaviors during adulthood. Because schools have direct contact with more than 95 percent of our nation's young people aged 5–17 years, for about six hours a day, and for up to 13 years of their social, psychological, physical, and intellectual development, schools play a critical role in promoting the health and safety of young people and helping them establish lifelong healthy behavior patterns.²

Coordinated school health (CSH) is recommended by the Centers for Disease Control and Prevention (CDC) as a strategy for improving students' health and learning in our nation's schools.² CSH includes eight interrelated components: health education, physical education, health services, mental health and social services, nutrition services, healthy and safe school environment, faculty and staff health promotion, and family and community involvement. With the exception of family and community involvement, which is integrated into the other components, each of these components is explicitly assessed by the School Health Policies and Practices Study (SHPPS) and is described in greater detail below. SHPPS is a national survey periodically conducted by CDC to assess school health policies and practices at the state, district, school, and classroom levels. SHPPS was conducted at each of these levels in 1994, 2000, and 2006. In 2012, SHPPS was conducted only at the state and district levels. CDC will conduct SHPPS at the school and classroom levels in 2014.

HEALTH EDUCATION

Health education includes teaching strategies and learning experiences that provide students with opportunities to acquire the knowledge, attitudes, and skills necessary for making health-promoting decisions, achieving health literacy, adopting health-

enhancing behaviors, and promoting the health of others. Health education is best taught by qualified, trained teachers. It includes sequenced courses of study (curricula) for students in pre-K through grade 12 that address a variety of developmentally appropriate topics such as alcohol and other drug use prevention, nutrition and dietary behavior, emotional and mental health, physical activity and fitness, injury prevention and safety, human sexuality, tobacco use prevention, and violence prevention. High-quality health education curricula also address the National Health Education Standards (NHES)³ and incorporate the Characteristics of an Effective Health Education Curriculum.

The NHES were developed to establish, promote, and support health-enhancing behaviors for students in all grades—from pre-K through grade 12. The NHES provide a framework for teachers, administrators, and policy makers in designing or selecting curricula, allocating instructional resources, and assessing student achievement and progress. They are written expectations for what students should know and be able to do by grades 2, 5, 8, and 12 and provide a framework for curriculum development and selection, instruction, and student assessment in health education:

1. Students will comprehend concepts related to health promotion and disease prevention to enhance health.
2. Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
3. Students will demonstrate the ability to access valid information, products, and services to enhance health.
4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
5. Students will demonstrate the ability to use decision-making skills to enhance health.
6. Students will demonstrate the ability to use goal-setting skills to enhance health.

7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
8. Students will demonstrate the ability to advocate for personal, family, and community health.

Today's state-of-the-art health education curricula reflect the growing body of research that emphasizes teaching functional health information, shaping personal values and beliefs that support healthy behaviors, shaping group norms that value a healthy lifestyle, and developing the essential health skills necessary to adopt, practice, and maintain health-enhancing behaviors. According to reviews of effective programs and curricula and experts in the field of health education,⁴⁻¹⁷ these are the Characteristics of an Effective Health Education Curriculum:

1. Focuses on clear health goals and related behavioral outcomes.
2. Is research-based and theory-driven.
3. Addresses individual values, attitudes, and beliefs.
4. Addresses individual and group norms that support health-enhancing behaviors.
5. Focuses on reinforcing protective factors and increasing perceptions of personal risk and harmfulness of engaging in specific unhealthy practices and behaviors.
6. Addresses social pressures and influences.
7. Builds personal competence, social competence, and self-efficacy by addressing skills.
8. Provides functional health knowledge that is basic, accurate, and directly contributes to health-promoting decisions and behaviors.
9. Uses strategies designed to personalize information and engage students.
10. Provides age-appropriate and developmentally appropriate information, learning strategies, teaching methods, and materials.
11. Incorporates learning strategies, teaching methods, and materials that are culturally inclusive.
12. Provides adequate time for instruction and learning.
13. Provides opportunities to reinforce skills and positive health behaviors.
14. Provides opportunities to make positive connections with influential people.
15. Includes teacher information and plans for professional development and training that enhance effectiveness of instruction and student learning.

Healthy People 2020 recognizes the importance of effective school health education and the NHES with two objectives: “increase the proportion of elementary, middle, and senior high schools that provide comprehensive school health education to prevent health problems in the following areas: unintentional injury; violence; suicide; tobacco use and addiction; alcohol or other drug use; unintended pregnancy, HIV/AIDS, and STD infection; unhealthy dietary patterns; and inadequate physical activity” (Educational and Community-Based Programs [ECBP]-2) and “increase the proportion of elementary, middle, and senior high schools that have health education goals or objectives which address the knowledge and skills articulated in the National Health Education Standards (high school, middle, and elementary)” (ECBP-3).¹⁸

PHYSICAL EDUCATION AND ACTIVITY

In 2008, the *Physical Activity Guidelines for Americans* were released. These guidelines recommended that school-aged youth participate in at least 60 minutes of physical activity every day. The recommendations further stated that most of the 60 minutes should be moderate- or vigorous-intensity physical activity and include muscle- and bone-strengthening activities at least three days per week.¹⁹ Regular physical activity is an essential component of a healthy lifestyle; it can play a powerful role in helping prevent chronic diseases, including heart disease, cancer, and stroke. It also builds strong bones and muscles and may reduce anxiety and depression.²⁰ In addition to the physical benefits, physical activity can impact academic performance and behavior. In 2010, CDC released a report focused on school-based physical activity and academic performance. The report concluded that school-based physical activity does not negatively impact, and in many cases can help improve, academic performance, including attention,

concentration, time-on-task, attendance, grades, and standardized test scores.²¹

Schools can play a significant role in supporting youth to be physically active by providing time for both structured and organized physical activity (e.g., physical education) and free-time physical activity (e.g., recess) throughout the school day. Additionally, research has revealed that well-designed, multi-component school-based physical activity programs can improve and increase youth physical activity.²² Multi-component programs consistently include quality physical education and other activity opportunities before, during, and after school. Quality physical education encompasses the following characteristics: the opportunity to learn (e.g., daily physical education, qualified physical education teachers), meaningful content (e.g., cognitive concepts, promotion of regular physical activity, fitness education and assessment), and appropriate instruction (e.g., full inclusion of all students, well-designed lessons to facilitate physical activity time in class).²³ CDC and the National Association for Sport and Physical Education recommend that schools develop and implement a comprehensive school physical activity program (CSPAP).^{24,25} A CSPAP consists of quality physical education, before- and after-school physical activity, physical activity during school, staff involvement, and family and community engagement. States and school districts play an important role in promoting a CSPAP by supporting schools through professional development, technical assistance, and other resources.

HEALTH SERVICES

School health services have two important functions: 1) to support student health and educational success by providing day-to-day health care management for all students, and 2) to provide comprehensive health services to students who would not otherwise have access to health care. The first of these functions typically falls under the purview of school nurses, while the second function is accomplished mainly through school-based health centers and linkages with community partners and resources.²⁶

The important role that school nurses play in supporting student health and educational success is underscored by multiple policy and position statements from the American Academy of Pediatrics (AAP) and the National Association of School Nurses (NASN). For example, the AAP's

policy statement on the role of the school nurse notes the core services school nurses should provide: 1) assessment of health complaints and medication administration, 2) a system for managing emergencies, 3) mandated screening programs, verification of immunizations, and reporting of infectious diseases, and 4) identification and management of students' chronic health care needs that affect educational achievement.^{27,28} The NASN's position statement on the role of the school nurse states that the school nurse should provide health care for all children within the school setting through assessment, intervention, and follow-up. The school nurse also should address the health care needs of students to support their achievement in the learning process.²⁹ Further, the importance of having sufficient school nurses for all students is reflected in Healthy People 2020 objective ECBP-5: "to increase the proportion of elementary, middle, and high schools that have a full-time registered school nurse-to-student ratio of at least 1:750."¹⁸

The AAP and other experts in the field of adolescent health services have noted that schools can play a valuable role in providing access to health care for students not receiving this care elsewhere.^{26,30,31} Services in such specialties as sexual and reproductive health, oral health, and substance abuse treatment are not easily accessible to many adolescents;³¹ therefore, it makes sense to consider schools as a place to implement programs and practices that meet such needs, since schools exist in all communities and are where at least 52 million children and adolescents spend most of their waking hours.³⁰ These services can be provided through different models, including "integrated school health services," a community-based approach to identifying the health needs of children and adolescents and matching them to educational, health care, and social service resources including school-based health centers and providers not located on school property.²⁶ The importance of this approach is underscored in a recent publication of the Council of State Governments Healthy States Initiative, which calls for state legislators to provide financial resources to create additional school-based health centers and maintain and expand existing ones,³² as well as the 2010 Affordable Care Act, section 4101(a), which allowed funds to be used for capacity-building activities in order to increase the number of students served, especially those eligible for Medicaid and other public health insurance.³³

MENTAL HEALTH AND SOCIAL SERVICES

The provision and expansion of school mental health programs and services play a vital role in addressing the unique needs of students who come to school every day with a myriad of mental health issues. Approximately 7.4 million children and adolescents have been diagnosed with an emotional, behavioral, or developmental condition.³⁴ School-based programs are positioned not only to screen for mental health conditions, but also to offer access to diagnoses and treatment. According to a policy statement from the AAP, schools should have a multidisciplinary student support team that includes school nurses, school counselors, and school physicians to provide interventions for students identified with a mental health problem.³⁵ Mental health services may be offered by schools based on one of three models: 1) school-supported with a separate mental health unit in the school, 2) formal community connections and linkages through contracts with mental health professionals, and 3) comprehensive and integrated health and mental health services through school-based health centers and programs that address prevention, screening, referral, and direct care.³⁵ Relatedly, the American School Health Association recommends 1) providing mental health services within a coordinated school health context that includes educational programs and other school-based services to ensure access, transition, and follow-up and 2) joining with the larger community to ensure that appropriate mental health assessment is available and accessible with a full spectrum of mental health services.³⁶

As members of a multidisciplinary team, school nurses and school counselors can provide early assessment, intervention, planning, and follow-up of students in need of mental health services. School nurses are often the first to identify students with mental health needs, advocate for their care, and link them to school counselors.³⁷ If appropriate, schools can also refer students to community-based mental health services and help provide additional care and follow-up.^{38,39}

Given the overwhelming need for mental health services for children and adolescents, the New Freedom Commission on Mental Health published a report that highlighted the vital role that schools play in the mental health system and recommended improvement and expansion of school mental health programs.^{40,41} However, it is important to emphasize that while schools have a role, they cannot be held

responsible for addressing all of the mental health needs of students as many may not have the resources to do so. Still, schools can provide safe and confidential access to services that allow for involving parents and educators to support improved cognitive, behavioral, and emotional functioning of all students.^{42,43}

NUTRITION SERVICES AND THE SCHOOL NUTRITION ENVIRONMENT

A growing body of research shows that the school food environment is associated with youth dietary behaviors and obesity.⁴⁴⁻⁴⁸ Schools are in a unique position to provide students with healthy dietary choices and help students learn about healthy food choices. Students have access to foods and beverages in multiple venues across the school campus during the school day.^{49,50} Foods and beverages provided through the U.S. Department of Agriculture's (USDA) reimbursable school meal programs, including the National School Lunch Program and School Breakfast Program, must meet specific nutrition standards for schools to receive federal reimbursement.^{51,52} However, most students also have access to other foods and beverages during the school day called competitive foods. These competitive foods are subject to minimal federal nutrition standards and are often relatively low in nutrient density and relatively high in fat, added sugars, and calories.^{46,53}

The Child Nutrition and WIC Reauthorization Act of 2004 required school districts participating in the USDA school meal programs to establish a local wellness policy that included goals for nutrition education and physical activity and provided nutrition standards for all foods available on school campuses.⁵⁴ While the wellness policy mandate provided a policy framework for districts to address the school nutrition and physical activity environment, the strength of district wellness policies, and the implementation of these policies has not been consistent across districts.⁵⁵

As a result of the Healthy, Hunger-Free Kids Act of 2010, the USDA revised the meal patterns (requirements for school meals) for the National School Lunch Program and School Breakfast Program to include more fruits, vegetables, and whole grains; proposed new federal nutrition standards for competitive foods sold on school campus during the school day that are consistent with the Dietary Guidelines for Americans;

developed a national farm to school grant program; and established requirements that schools provide students with access to free drinking water during the lunch period. Additionally, the USDA was given the authority to establish professional standards for school nutrition professionals and strengthen implementation, evaluation, and reporting requirements for local wellness policies.⁵⁶

The implementation of these changes, and other initiatives, helps to support the achievement of Healthy People 2020 objective Nutrition and Weight Status (NWS)-2, to “increase the proportion of schools that offer nutritious foods and beverages outside of school meals.” Specifically, this objective aims to “increase the proportion of schools that do not sell or offer calorically sweetened beverages to students” (NWS-2.1) and “increase the proportion of school districts that require schools to make fruits or vegetables available whenever other food is offered or sold” (NWS-2.2).¹⁸

SAFE AND HEALTHY SCHOOL ENVIRONMENT

Schools promote well-being among students and staff by providing them with a safe and healthy school environment. A safe school environment is one that is free from hazards such as ill-maintained playing fields and poor lighting that can contribute to unintentional injuries and violence. A healthy school environment reflects more than an absence of hazards. A healthy school environment is one with a positive school climate that supports health-promoting behaviors such as conflict resolution, positive social skills, use of protective sports equipment, safe sun practices, and avoidance of tobacco, alcohol, and other illegal drugs.

A school health coordinator and a school health council or team at the state and district levels are important resources for schools in developing, implementing, and sustaining a safe and healthy school environment.⁵⁷ A school health coordinator is a “certified or licensed professional at the state, district, or school level responsible for managing, implementing, and evaluating all school health policies, activities, and resources.”⁵⁸ This position can play a key role in building the infrastructure for school health at the district level. For example, the school health coordinator can promote a district-wide advisory committee, referred to as a school health council or team. The scope of work for a school health council is generally to:

- “assess the health status, issues, and concerns of children and their families district-wide;
- obtain input from the community about the overall direction of the school health program;
- develop a shared vision for the health of children and their families;
- make policy recommendations to the board of education;
- identify and help coordinate community resources;
- help secure district-level support for coordinated school health programs; and
- initiate planning for district-wide adoption [of school health programs].”⁵⁷

Ideally, a school health council or team will be comprised of representatives from all levels of administration, community leaders with expertise in a variety of health-related domains, and representatives from organizations with a focus on youth or families.⁵⁷ A state-level school health council or team can be beneficial by addressing many of the same kinds of issues at the state level.

To address alcohol and drug use among students, some schools have adopted student drug-testing programs. If done properly, student drug testing is legal,^{59–61} but whether student drug testing is effective in reducing drug use or will be accepted by a school’s students and parents is unclear.^{62,63} It is widely accepted that if a student drug-testing program is undertaken, it should be part of a more comprehensive drug use prevention effort.^{63,64}

States and districts can find guidance about how to develop a safe and healthy school environment from a variety of resources. For example, CDC’s *School Health Guidelines to Prevent Unintentional Injuries and Violence*⁶⁵ and the National Association of State Boards of Education’s *Fit, Healthy and Ready to Learn*⁶⁶ recommend schools conduct regular safety and hazard assessments; maintain vehicles and facilities; actively supervise all student activities; and ensure that the school environment, including school buses, is free from weapons. Both of these guides also emphasize the importance of a safe and supportive social environment as a way to prevent unintentional injuries, violence, and suicide. These guidelines as well as the U.S. Department of Education’s *Practical Information on Crisis Planning: a Guide for Schools and Communities*⁶⁷

recommend adopting policies and plans related to crisis preparedness, response, and recovery to ensure schools are prepared for natural disasters, infectious disease, and acts of terrorism. CDC's *Guidelines for School Programs to Prevent Skin Cancer* recommend strategies to address policies, the environment, education, professional development, family involvement, and health services as a comprehensive approach to preventing skin cancer.⁶⁸ CDC's *Guidelines for School Health Programs to Prevent Tobacco Use and Addiction* similarly address policy, education, family, and professional development strategies, as well as cessation supports, to prevent tobacco use among youth.⁶⁹ A healthy and safe school environment, in the context of coordinated school health, sends signals to students and staff about the importance of health and provides ample opportunities to make healthy choices and reduce injuries and violence.

PHYSICAL SCHOOL ENVIRONMENT

Educational facilities are one of the largest investments that many state and local governments and communities make with implications not only for students and school staff, but also for the surrounding community.⁷⁰ School siting, design, maintenance, and management choices impact how well the school functions to support health and academic performance.⁷⁰⁻⁷⁴ Improved air quality can reduce illness and absenteeism^{72,73} and joint use agreements permitting the use of school grounds for recreational activities can support physical activity.^{70,75,76}

Schools face unique challenges in providing a safe and healthy environment for students and staff. They are more crowded than most indoor environments and they support a range of activities from food preparation to physical activity. Further, children are more vulnerable than adults to hazardous environmental exposures because, compared to adults, they breathe more air, eat more food, and drink more water per pound of body weight.⁷⁷ A school that has good indoor air quality, thermal comfort, and good acoustics and is maintained appropriately, free of hazardous chemicals, and clean is arguably best equipped to support student and teacher health, learning, and overall productivity.^{77,78}

FACULTY AND STAFF HEALTH PROMOTION

Elementary and secondary schools in the United States employ an estimated 7.2 million workers⁷⁹ and therefore are ideal settings for promoting adult health through faculty and staff health promotion programs, more generally known as employee wellness programs. Moreover, many schools already have facilities and staff available to support such programs.⁸⁰

Studies of employee wellness programs in the private sector have found improvements in employee health and well-being,^{81,82} and it is likely that the findings from these studies are generalizable to school settings.^{83,84} Faculty and staff health promotion programs have been associated with reduced staff absenteeism,⁸⁵ improved teacher morale,⁸⁶ increased physical activity, weight loss, lowered blood pressure, and higher levels of general well-being.⁸⁷ These programs also have been shown to be cost-effective.^{85,88,89}

Two Healthy People 2020 objectives demonstrate federal-level support for employee wellness programs and activities. Objective ECBP-8 is to “increase the proportion of worksites that offer an employee health promotion program to their employees” and objective ECBP-9 is to “increase the proportion of employees who participate in employer-sponsored health promotion activities.” In addition, objective Occupational Safety and Health (OSH)-9, to “increase the proportion of employees who have access to workplace programs that prevent or reduce employee stress,” is relevant.¹⁸ Several organizations, including the Directors of Health Promotion and Education, the Alliance for a Healthier Generation, ASCD (formerly the Association for Supervision and Curriculum Development), and the National Education Association Health Information Network, also emphasize the importance of faculty and staff health promotion programs.^{83,90-92}

*School Employee Wellness: A Guide for Protecting the Assets of Our Nation's Schools*⁸³ describes the components of a comprehensive faculty and staff health promotion program; a systematic approach to implementing such a program, including health education and health-promoting activities; screenings to identify chronic disease risk factors; organizational policies that support such programs; and employee assistance programs. The guide recommends that these programs be integrated into the school or district structure, include individual

follow-up interventions to support behavior change for health risks that are identified through health screenings, provide education and other resources that help inform health care decision making among staff, and include a mechanism for evaluating effectiveness and efficiency.

OVERVIEW OF REPORT

This report provides results from the School Health Policies and Practices Study (SHPPS) conducted in 2012. Chapter 2 provides an overview of the methods used in the study. Chapter 3 reports results on health education, Chapter 4 reports results on physical education and activity, Chapter 5 reports results on health services, Chapter 6 reports results on mental health and social services, and Chapter 7 reports results on nutrition services and the school nutrition environment. Results related to a safe and healthy school environment are divided into two chapters. Chapter 8 covers general school environment topics, such as violence prevention; tobacco use prevention; and crisis preparedness, response, and recovery; Chapter 9 reports results specific to the physical school environment. Finally, Chapter 10 reports results on faculty and staff health promotion.

REFERENCES

- Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance—United States, 2011. *Morbidity and Mortality Weekly Report*. 2012;59(SS-4).
- Centers for Disease Control and Prevention. *Coordinated School Health*. Available at: <http://www.cdc.gov/healthyyouth/cshp/index.htm>
- Joint Committee on National Health Education Standards. *National Health Education Standards, Second Edition, Achieving Excellence*. Atlanta, GA: American Cancer Society, 2007. Available at: <http://www.cdc.gov/healthyyouth/sher/standards/>.
- Botvin GJ, Botvin EM, Ruchlin H. School-based approaches to drug abuse prevention: evidence for effectiveness and suggestions for determining cost-effectiveness. In: Bukoski WJ, ed. *Cost-Benefit/Cost-Effectiveness Research of Drug Abuse Prevention: Implications for Programming and Policy*. NIDA Research Monograph No. 176. Washington, DC: U.S. Department of Health and Human Services; 1998:59–82. Available at: http://archives.drugabuse.gov/pdf/monographs/monograph176/059-082_Botvin.pdf
- Contento I, Balch GI, Bronner YL. Nutrition education for school-aged children. *Journal of Nutrition Education*. 1995;27(6):298–311.
- Eisen M, Pallitto C, Bradner C, Bolshun N. *Teen Risk-Taking: Promising Prevention Programs and Approaches*. Washington, DC: Urban Institute; 2000. Available at: http://www.urban.org/UploadedPDF/TeenRiskTaking_2.pdf.
- Gottfredson DC. School-based crime prevention. In: Sherman LW, Gottfredson D, MacKenzie D, Eck J, Reuter P, Bushway S, eds. *Preventing Crime: What Works, What Doesn't, What's Promising*. National Institute of Justice; 1998. Available at: <https://www.ncjrs.gov/works/chapter5.htm>.
- Kirby D. *Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy*. Washington, DC: National Campaign to Prevent Teen Pregnancy; 2001.
- Kirby D, Coyle K, Alton F, Roller L, Robin L. *Reducing Adolescent Sexual Risk: A Theoretical Guide for Developing and Adapting Curriculum-Based Programs*. Scotts Valley, CA: ETR Associates; 2011. Available at: http://pub.etr.org/upfiles/reducing_adolescent_sexual_risk.pdf.
- Lohrmann DK, Wooley SF. Comprehensive school health education. In: Marx E, Wooley S, Northrop D, editors. *Health Is Academic: A Guide to Coordinated School Health Programs*. New York: Teachers College Press; 1998:43–45.
- Lytle L, Achterberg C. Changing the diet of America's children: what works and why? *Journal of Nutrition Education*. 1995;27(5):250–60.
- Nation M, Crusto C, Wandersman A, Kumpfer KL, Seybolt D, Morrissey-Kane, E, Davino K. What works: principles of effective prevention programs. *American Psychologist*. 2003;58(6/7):449–456.
- Stone EJ, McKenzie TL, Welk GJ, Booth ML. Effects of physical activity interventions in youth. Review and synthesis. *American Journal of Preventive Medicine*. 1998;15(4):298–315.
- Sussman S. Risk factors for and prevention of tobacco use. Review. *Pediatric Blood and Cancer*. 2005;44:614–619.
- Tobler NS, Stratton HH. Effectiveness of school-based drug prevention programs: a meta-analysis of the research. *Journal of Primary Prevention*. 1997;18(1):71–128.

Chapter 1: Background and Introduction

16. U.S. Department of Health and Human Services. *Preventing Tobacco Use Among Young People—An Update: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2011: 6-22–6-45.
17. Weed SE, Erickson I. *A Model for Influencing Adolescent Sexual Behavior*. Salt Lake City, UT: Institute for Research and Evaluation; 2005. Unpublished manuscript.
18. U.S. Department of Health and Human Services. *Healthy People 2020*. Washington, DC: U.S. Department of Health and Human Services; 2010. Available at: <http://www.healthypeople.gov/2020>.
19. U.S. Department of Health and Human Services. *2008 Physical Activity Guidelines for Americans*. Washington, DC: U.S. Department of Health and Human Services; 2008. Available at: <http://www.health.gov/paguidelines/guidelines/>.
20. Physical Activity Guidelines Advisory Committee. *Physical Activity Guidelines Advisory Committee Report, 2008*. Washington, DC: U.S. Department of Health and Human Services; 2008. Available at: <http://www.health.gov/paguidelines/report/>.
21. Centers for Disease Control and Prevention. *The Association Between School Based Physical Activity, including Physical Education, and Academic Performance*. Atlanta, GA: U.S. Department of Health and Human Services; 2010. Available at: http://www.cdc.gov/healthyyouth/health_and_academics/pdf/pa-pe_paper.pdf.
22. Physical Activity Guidelines for Americans Midcourse Report Subcommittee of the President’s Council on Fitness, Sports & Nutrition. *Physical Activity Guidelines for Americans Midcourse Report: Strategies to Increase Physical Activity Among Youth*. Washington, DC: U.S. Department of Health and Human Services; 2012. Available at: <http://www.health.gov/paguidelines/midcourse/>.
23. National Association for Sport and Physical Education. *Moving into the Future: National Standards for Physical Education*. 2nd edition. Reston, VA: National Association for Sport and Physical Education; 2004.
24. Centers for Disease Control and Prevention. School Health Guidelines to Promote Healthy Eating and Physical Activity. *Morbidity and Mortality Weekly Report*. 2011;60(5):27–33.
25. National Association for Sport and Physical Education. *Comprehensive School Physical Activity Programs*. Reston, VA: National Association for Sport and Physical Education; 2008. Available at: <http://www.aahperd.org/naspe/standards/upload/Comprehensive-School-Physical-Activity-Programs-2008.pdf>.
26. American Academy of Pediatrics. Committee on School Health. School health centers and other integrated school health services. *Pediatrics*. 2001;107(1):198–201.
27. American Academy of Pediatrics. Council on School Health. Role of the school nurse in providing school health services. *Pediatrics*. 2008;121:1052–1056.
28. American Academy of Pediatrics. *School Health: Policy and Practice*. Elk Grove Village, IL: American Academy of Pediatrics; 2004. Available at: <http://ebooks.aap.org/product/school-health-policy-practice>.
29. National Association of School Nurses. *Position Statement: Role of the School Nurse*. Silver Spring, MD: National Association of School Nurses; 2011. Available at: <http://www.nasn.org/portals/0/positions/2011psrole.pdf>.
30. Richardson JW, Juszczak LJ. Schools as sites for health-care delivery. *Public Health Reports*. 2008; 123:692–694.
31. National Research Council and Institute of Medicine. Committee on Adolescent Health Care Services and Models of Care for Treatment, Prevention, and Healthy Development. *Adolescent Health Services: Missing Opportunities*. Lawrence RS, Gootman JA, Sim LJ, eds. Washington, DC: The National Academies Press; 2009. Available at: http://www.nap.edu/catalog.php?record_id=12063.
32. Council of State Governments Healthy States Initiative. *Addressing Adolescent Health Disparities through Schools*. Available at: <http://www.healthystates.csg.org/NR/rdonlyres/DE2D0429-8B4A-49DB-BC25-E7A191335CA5/0/AdolescentHealthDisparitiesLPB.pdf>
33. The Patient Protection and Affordable Care Act of 2010, Section 4101(a), 111th Congress, H.R. 3590.

34. U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. *The Mental and Emotional Well-Being of Children: A Portrait of States and the Nation 2007*. Rockville, MD: U.S. Department of Health and Human Services; 2010. Available at: <http://mchb.hrsa.gov/nsch/07emohealth/moreinfo/pdf/nsch07.pdf>.
35. American Academy of Pediatrics. Council on School Health. Policy statement—school-based mental health services. *Pediatrics*. 2004;113(6):1839–1845.
36. American School Health Association. *School-based Mental Health Services*. Kent, Ohio: American School Health Association; 2006. Available at: http://www.ashaweb.org/files/public/Resolutions/School_Based_Mental_Health_Services.pdf.
37. National Association of School Nurses. *Position Statement—Mental Health of Students*. Silver Spring, MD: National Association of School Nurses; 2008. Available at: <http://www.nasn.org/Portals/0/positions/2008psmentalhealth.pdf>.
38. American School Counselors Association. *The Role of the Professional School Counselor*. 2009. Available at: <http://ascatemp.membershipsoftware.org/files/rolestatement.pdf>.
39. American Counseling Association, American School Counselor Association, and National Education Association. *Who are School Counselors?* 2008. Available at: <http://www.schoolcounselor.org/files/WhoAreSchoolCounselors.pdf>.
40. New Freedom Commission on Mental Health. *Achieving the Promise: Transforming Mental Health Care in America*. Final Report. Rockville, MD: U.S. Department of Health and Human Services; 2003. DHHS Pub. No. SMA-03-3832. Available at: <http://govinfo.library.unt.edu/mentalhealthcommission/reports/FinalReport/downloads/downloads.html>.
41. Stephan SH, Weist M, Kataoka S, Adelsheim S, Mills, C. Transformation of children’s mental health services: the role of school mental health. *Psychiatric Services*. 2007;58(10):1330–1338.
42. Evans SW. Mental health services in schools: utilization, effectiveness, and consent. *Clinical Psychology Review*. 1999;19(2):165–178.
43. Paternite CE. School-based mental health programs and services: overview and introduction to the special issue. *Journal of Abnormal Child Psychology*. 2005;33:657–663.
44. Briefel RR, Crepinsek MK, Cabili C, Wilson A, Gleason PM. School food environments and practices affect dietetic behaviors of US public school children. *Journal of the American Dietetic Association*. 2009;109(Suppl 1):S91–S107.
45. Fox MK, Dodd AH, Wilson A, Gleason PM. Association between school food environment and practices and body mass index of US public school children. *Journal of the American Dietetic Association*. 2009;109(Suppl 2):S108–S117.
46. Fox MK, Gordon A, Nogales R, Wilson A. Availability and consumption of competitive foods in US public schools. *Journal of the American Dietetic Association*. 2009;109:S57–S66.
47. Kubik MY, Lytle LA, Hannan PJ, Perry CL, Story M. The association of the school food environment with dietary behaviors of young adolescents. *American Journal of Public Health*. 2003; 93(7):1168–1173.
48. Storey ML, Forshee RA, Anderson PA. Associations of adequate intake of calcium with diet, beverage consumption, and demographic characteristics among children and adolescents. *Journal of the American College of Nutrition*. 2004;23(1):18–33.
49. Government Accountability Office. *School Meal Programs: Competitive Foods Are Widely Available and Generate Substantial Revenues for Schools*. Washington, DC: Government Accountability Office; 2005. GAO Publication number GAO-05-563. Available at: <http://www.gao.gov/new.items/d05563.pdf>.
50. Fox MK, Condon E, Crepinsek MK, Niland K, Mercury D, Forrestal S, Cabili C, Oddo V, Gordon A, Wozny N, Killewald A. *School Nutrition Dietary Assessment Study IV, Vol. I: School Foodservice Operations, School Environments, and Meals Offered and Served*. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, Office of Research and Analysis; 2012.
51. National School Lunch Program. *Federal Register*. 2006. To be codified at 7 CFR §210.
52. School Breakfast Program. *Federal Register*. 2006. To be codified at 7 CFR §220.
53. O’Toole TP, Anderson S, Miller C, Guthrie J. Nutrition services and foods and beverages available at school: results from the School Health Policies and Programs Study 2006. *Journal of School Health*. 2007;77(8):500–521.

Chapter 1: Background and Introduction

54. Child Nutrition and Women, Infants, and Children Reauthorization Act of 2004, Pub. L. No. 108-265. Available at: http://www.fns.usda.gov/cnd/governance/legislation/historical/pl_108-265.pdf.
55. Chriqui JF, Resnick EA, Schneider L, Schermbeck R, Adcock T, Carrion V, Chaloupka FJ. *School District Wellness Policies: Evaluating Progress and Potential for Improving Children's Health Five Years after the Federal Mandate. School Years 2006–07 through 2010–11*. Volume 3. Chicago, IL: Bridging the Gap Program, Health Policy Center, Institute for Health Research and Policy, University of Illinois at Chicago; 2013. Available at: http://www.bridgingthegapresearch.org/_asset/13s2jm/.
56. Healthy, Hunger-Free Kids Act of 2010, Pub L 111-296, 124 Stat 3183, Sec 201, 203, 204, 208, 209, 243, 306.
57. Fetro JV. Implementing coordinated school health programs in local schools. In: Marx E, Wooley SF, Northrop D, eds. *Health Is Academic: A Guide to Coordinated School Health Programs*. New York, NY: Teachers College Press; 1998:15-42.
58. Gold RS, Miner KR. Report of the Joint Committee on Health Education and Promotion Terminology. *Journal of School Health*. 2002;72(1):3–7.
59. *Vernonia School District, 47J v Acton*, 515 US 646 (1995).
60. *Board of Education of Independent School District No. 92 of Pottawatomie County v Earls*, 536 US 822 (2002).
61. Sanney KJ, Christy KM, Kovar SR. Mandatory steroid testing of high school athletes: a synthesis of state initiatives and federal constitutional rights. *Journal of Legal Aspects of Sport*. 2012;21:239–264.
62. Burns, T. From reasonable suspicion to random testing: how do state constitutions view student drug testing. *Inquiry & Analysis*. December 2003;5–6.
63. Roach CA. What are the odds? Random drug testing of students: two perspectives. A legal perspective. *The Journal of School Nursing*. 2005;21(3):186–191.
64. National Institutes of Health. *Frequently Asked Questions about Drug Testing in Schools*. Washington, DC: National Institutes of Health, National Institute on Drug Abuse; 2012. Available at: <http://www.drugabuse.gov/related-topics/drug-testing/faq-drug-testing-in-schools>.
65. Centers for Disease Control and Prevention. School health guidelines to prevent unintentional injuries and violence. *MMWR Recommendations and Reports*. 2001;50(RR-22):1–74.
66. Meyer L, Chiang RJ. Chapter I: Policies to promote safety and prevent violence. In: *Fit, Healthy and Ready to Learn: A School Health Policy Guide*. Arlington, VA: National Association of State Boards of Education; 2012. Available at: http://www.nasbe.org/wp-content/uploads/FHRTL-I_SafetyandViolencePrevention_NASBE_November2012.pdf
67. U.S. Department of Education. *Practical Information on Crisis Planning A Guide For Schools And Communities*. Washington, DC: U.S. Department of Education; 2007. Available at: <http://www2.ed.gov/admins/lead/safety/emergencyplan/crisisplanning.pdf>.
68. Centers for Disease Control and Prevention. Guidelines for school programs to prevent skin cancer. *MMWR Recommendations and Reports*. 2002;51(RR-4):1–20.
69. Centers for Disease Control and Prevention. Guidelines for school health programs to prevent tobacco use and addiction. *Morbidity and Mortality Weekly Reports*. 1994;43(No. RR-2):1–18.
70. U.S. Environmental Protection Agency. *School Siting Guidelines*. Washington, DC: U.S. Environmental Protection Agency; 2011. Publication number EPA-100-K-11-004. Available at: <http://www.epa.gov/schools/siting/download.html>.
71. U.S. Environmental Protection Agency. *Improved Academic Performance: Evidence from Scientific Literature*. Washington, DC: U.S. Environmental Protection Agency; 2013. Available at: http://www.epa.gov/iaq/schools/student_performance/evidence.html.
72. U.S. Environmental Protection Agency. *Student Health and Academic Performance, Quick Reference Guide*; Washington, DC: U.S. Environmental Protection Agency; 2012. Available at: http://www.epa.gov/iaq/schools/pdfs/student_performance_findings.pdf.
73. Lawrence Berkeley National Laboratory. *Indoor Air Quality Scientific Findings Resource Bank*. Berkeley, CA: Lawrence Berkeley National Laboratory; 2013. Available at: <http://www.iaqscience.lbl.gov/sfrb.html>.
74. U.S. Environmental Protection Agency. Voluntary Guidelines for States: *Development and Implementation of a School Environmental Health Program*. Washington, DC: U.S. Environmental Protection Agency; 2012. Publication number EPA-100-K-12-007. Available at: <http://www.epa.gov/schools/ehguidelines/downloads/ehguidelines.pdf>.

75. White House Task Force on Childhood Obesity. *Solving the Problem of Childhood Obesity Within a Generation: White House Task Force on Childhood Obesity Report to the President*. Washington, DC: Executive Office of the President of the United States; 2010. Available at: http://www.letsmove.gov/sites/letsmove.gov/files/TaskForce_on_Childhood_Obesity_May2010_FullReport.pdf.
76. Kuhlman R. *Helping Johnny Walk to School: Policy Recommendations for Removing Barriers to Community-Centered Schools*. Washington, DC: National Trust for Historic Preservation; 2008. Available at: http://www.bestfacilities.org/best-home/docuploads/pub/214_helping-johnny-walk-to-school.pdf.
77. Frumkin H. Introduction. In: Frumkin H, Geller R, Rubin IL, eds. *Safe and Healthy School Environments*. New York, NY: Oxford University Press; 2006.
78. National Research Council of the National Academies. *Green Schools: Attributes for Health and Learning*. Washington, DC: National Academy Press; 2007. Available at: http://www.nap.edu/catalog.php?record_id=11756.
79. Snyder TD, Dillow SA. *Digest of Education Statistics 2011*. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education; 2012. Publication number NCES 2012-001. Available at: <http://nces.ed.gov/pubs2012/2012001.pdf>.
80. Allegrante JP. School-site health promotion for staff. In: Marx E, Wooley SF, Northrop D, eds. *Health Is Academic: A Guide to Coordinated School Health Programs*. New York, NY: Teachers College Press; 1998:224–243.
81. Pelletier KR. A review and analysis of the health and cost-effective outcome studies of comprehensive health promotion and disease prevention programs at the worksite: 1991-1993 update. *American Journal of Health Promotion*. 1993;8:350–362.
82. Heaney CA, Goetzel RZ. A review of health-related outcomes of multi-component worksite health promotion programs. *American Journal of Health Promotion*. 1997;11:290–307.
83. Directors of Health Promotion and Education. *School Employee Wellness: A Guide for Protecting the Assets of Our Nation's Schools*. Reston, VA: Directors of Health Promotion and Education; 2007. Available at: http://www.healthyschools.org/staff_health/documents/EntireGuide.pdf.
84. Allegrante JP. School-site health promotion for faculty and staff: a key component of the coordinated school health program. *Journal of School Health*. 1998;68(5):190–195.
85. Aldana SG, Merrill RM, Price K, Hardy A, Hager R. Financial impact of a comprehensive multisite workplace health promotion program. *Preventive Medicine*. 2005;40:131–137.
86. Allegrante JP, Michela J. Impact of a school-based workplace health promotion program on morale of inner-city teachers. *Journal of School Health*. 1990;60(1):25–28.
87. Blair SN, Collingwood TR, Reynolds R, Smith M, Hagan D, Sterling CL. Health promotion for educators: impact on health behaviors, satisfaction, and general well-being. *American Journal of Public Health*. 1984;74(2):147–149.
88. Blair SN, Smith S, Collingwood TR, Reynolds R, Prentice MC, Sterling CL. Health promotion for educators: impact on absenteeism. *Preventive Medicine*. 1986;15:166–175.
89. Kaldy J. Schools shape up with employee wellness. *The School Administrator*. 1985;42(4):12–15.
90. Alliance for a Healthier Generation. *Healthy School Programs Framework. Criteria for Developing a Healthier School Environment*. 2009. Available at: <http://www.niost.org/pdf/host/HealthySchoolsProgramFramework.pdf>.
91. ASCD. *Healthy Indicators*. 2013. Available at: <http://www.wholechildeducation.org/assets/content/mx-resources/wholechildindicators-all.pdf>.
92. National Education Association Health Education Network. *Physical Health and Wellness*. Available at: <http://www.neahin.org/health-safety/physical/>.

Chapter 2

Methods: School Health Policies and Practices Study 2012

*Nancy D. Brener, PhD; Alice M. Roberts, MS; Tim McManus, MS; Jill Trott; Kevin Lacy;
Annah Ngaruro, MS; Will Robb, MS, MBA; Wen Song, MA**

The School Health Policies and Practices Study (SHPPS) 2012 was conducted by the Division of Adolescent and School Health (DASH), National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention (CDC) through a contract with ICF Macro, Inc., an ICF International Company. SHPPS 2012 examined eight components of school health: health education, physical education and activity, health services, mental health and social services, nutrition services, healthy and safe school environment, faculty and staff health promotion, and family and community involvement.

SHPPS, formerly known as the School Health Policies and Programs Study, was previously conducted in 1994, 2000, and 2006. SHPPS 2012 shared some methodological characteristics with the previous studies, such as collecting data from the most knowledgeable respondent for each component of school health at each level, but there were some important changes for 2012. First, while the previous cycles collected data at the state, district, school, and classroom levels, SHPPS 2012 collected data at the state and district levels only. In addition, SHPPS 2012 collected data using Web-based questionnaires, while the previous cycles used paper-and-pencil mail questionnaires and computer-assisted telephone interviewing (CATI) for the state- and district-level components. Finally, the focus of the state-level questionnaires used in SHPPS 2012 was markedly different from that of the state-level questionnaires fielded in the previous cycles. Specifically, while the state-level questionnaires used in the previous cycles mainly assessed state policies, CDC revised these questionnaires for the 2012 cycle to assess how states assisted districts and schools with school health.

This chapter describes how SHPPS 2012 was planned and conducted. Information is provided on

questionnaire development; sampling; recruitment and data collection; and data cleaning, weighting, and analysis. The chapter also includes a section on limitations and future plans for SHPPS.

QUESTIONNAIRE DEVELOPMENT

CDC developed 13 questionnaires for SHPPS 2012: six state-level questionnaires and seven district-level questionnaires. A state-level and a district-level questionnaire were developed for six of the eight school health components listed above. Because of the change in the focus of the state-level questionnaires, only a few state-level questions pertained to faculty and staff health promotion. As a result, those questions were included in the state-level Healthy and Safe School Environment questionnaire rather than in their own questionnaire. As in the previous SHPPS cycles, questions pertaining to family and community involvement were integrated into the questionnaires measuring the other components of school health.

For SHPPS 2012, CDC deleted questions on state policies from the state-level questionnaires. It had become clear that asking state officials about the existence of policies was no longer the optimal way of gathering this information. In contrast to the early 1990's when SHPPS was first developed, state policies now are readily available on the Internet and have even been compiled into searchable databases.^{1,2} Further, state policies may be updated regularly, so in previous SHPPS cycles, state policy data often were outdated by the time the report was published. In place of state policy questions, CDC added questions assessing how states assisted districts and schools with school health, such as by providing technical assistance and developing and distributing model policies, policy guidance, and other resource materials.

* **Nancy D. Brener** is Team Lead, Survey Operations and Dissemination Team, Division of Adolescent and School Health, CDC; **Tim McManus** is a Survey Statistician, Division of Adolescent and School Health, CDC; **Alice M. Roberts** is Project Director, **Jill Trott**, **Kevin Lacy**, **Annah Ngaruro**, and **Wen Song** are Project Assistants, and **Will Robb** is a Statistician with ICF International, Inc.

The questionnaire development process for SHPPS 2012 began in May 2010. CDC led this process and was responsible for all decision-making. CDC used the 2006 questionnaires as a starting point. First, policy-related questions were deleted from the state-level questionnaires. Remaining items on both the state-and district-level questionnaires then underwent a question-by-question review. The 2006 results were reviewed and used to determine which questions did not yield useful data, such as those with very high or very low prevalence. These questions were flagged for deletion or revision. Next, CDC convened a series of conference calls. Each call covered a different component of school health. These calls were led by CDC/DASH’s surveillance staff; participants included one to four content experts from within CDC. During each call, participants discussed questions to delete or revise and suggested questions to add. This process, plus the development of new state-level questions to measure state assistance to districts and schools, resulted in a draft set of questionnaires.

Next, all new questions and those that had been revised substantially were subjected to cognitive testing. This testing was conducted as a series of telephone interviews with state education agency staff in four states and school district staff in six districts. At the state level, four to six interviews were conducted for each of the six questionnaires, for a total of 29 state-level interviews. At the district level, because of questionnaire length and the possibility for different respondents to answer different sets of items within the Healthy and Safe School Environment questionnaire, a total of eight distinct sets of questions were developed for testing across each of the seven content areas. Five to seven interviews were conducted for each of these eight sets of questions, for a total of 49 district-level interviews. To simulate the Web-based administration used in SHPPS 2012, respondents viewed a PowerPoint presentation during the interview that contained the questions being tested. Trained interviewers asked respondents to answer each question and then asked follow-up questions to ascertain the respondents’ understanding of the question and response options.

Subsequent to the cognitive testing, the draft questionnaires were distributed to reviewers representing federal agencies, national associations, foundations, universities, and businesses nationwide. Appendix 1 contains the list of reviewers invited to

provide comments; not all reviewers did so. Based on the comments that were received and the results of the cognitive testing, CDC revised the questionnaires. Four of these revised questionnaires were then divided into modules: Health Education, Physical Education and Activity, Healthy and Safe School Environment, and Mental Health and Social Services (Table 1). The purpose of modularization was to group together related items so that a single respondent could complete each module and to allow different respondents to complete different sections of each questionnaire. In addition, the state-level Mental Health and Social Services questionnaire was modularized to create a separate module for the mental health and social services coordinator. This change was implemented because in SHPPS 2006, respondents to the state-level Mental Health and Social Services questionnaire were not typically those persons overseeing or

Table 1. Modularized District Questionnaires

Questionnaire	Module Contents
Health Education	Module 1—Standards
	Module 2—Elementary School Instruction
	Module 3—Middle School Instruction
	Module 4—High School Instruction
	Module 5—Staffing and Professional Development, Collaboration and Promotion, and Evaluation
	Module 6—Health Education Coordinator
Physical Education and Activity	Module 1—Standards
	Module 2—Elementary School Instruction
	Module 3—Middle School Instruction
	Module 4—High School Instruction
	Module 5—Students with Disabilities, Use of Protective Gear, Physical Activity and Discipline, Staffing and Professional Development, Collaboration and Promotion, Evaluation and Interscholastic Sports
	Module 6—Physical Education Coordinator
Healthy and Safe School Environment	Module 1—General School Environment (Elementary Schools, Middle Schools, High Schools), Transportation, Joint Use Agreements, Violence Prevention, Tobacco Use Prevention, Student Drug Testing, Injury Prevention and Safety
	Module 2—Physical School Environment
	Module 3—Crisis Preparedness, Response, and Recovery
	Module 4—Community Service and Service Learning, Foods and Beverages Available Outside of the School Meal Programs, Professional Development and School Health Coordination
	Module 5—Health and Safety Coordinator
Mental Health and Social Services	Module 1—Mental Health and Social Services
	Module 2—Mental Health and Social Services Coordinator

coordinating mental health and social services at the state level. Therefore, this module was created to capture data specifically related to the mental health and social services coordinator.

For each module or questionnaire, the intended respondents were those responsible for or most knowledgeable about the component. The specific content of each questionnaire is described in more detail in the chapters that follow. A complete set of questionnaires is available at <http://www.cdc.gov/shpps>.

SAMPLING

Education agencies for all 50 states and the District of Columbia, which was considered a state for the purposes of this study, were invited to participate in SHPPS 2012. At the district level, a nationally representative sample of public school districts was selected in a single phase as described below.

District Sampling Frame

The district sampling frame was constructed from a database obtained from MDR, Inc. (<http://www.schooldata.com>). This database is updated quarterly; SHPPS 2012 used the fourth-quarter 2010 database. Eligible districts were defined as those in operation during the time of recruitment and included regional supervisory unions in places where local school boards only provided funding and limited curriculum guidance.

Primary sampling units (PSUs) were defined broadly as groupings of contiguous school districts and were constructed to meet both minimum and maximum size limitations to ensure that requirements were met for an equal probability sample and to facilitate weighting and variance estimation. A total of 5,407 PSUs were created containing 12,784 school districts.

The PSUs were classified into four strata by crossing two levels of urbanicity (urban and non-urban) and two levels of socioeconomic status (high-poverty and low-poverty). These levels were determined using data at the ZIP code level from Census Summary File 3, or SF-3.³ Strata were defined for all PSUs in the frame using the median percentages for urbanicity such that ZIP codes in which the percentage of persons living in a non-urban area exceeded the median non-urban percentage for all ZIP codes were classified as non-urban, and all other ZIP codes were classified as urban. Similarly, ZIP codes in which the percentage of children aged 6-17

years living below the federal poverty level exceeded the median percentage below the poverty level for all ZIP codes were classified as high poverty, and all other ZIP codes were classified as low poverty. A quality check ensured that all districts within a ZIP code were assigned to the same stratum.

District Sample Selection

To select the district sample, PSUs were sampled with equal probability without replacement within each first-stage stratum. The probability of selection for each PSU was calculated as the number of PSUs selected from its stratum divided by the total number of PSUs in that stratum. The PSUs were allocated to strata in proportion to PSU frame counts to minimize the impact of unequal weights on variance. All districts in the sampled PSUs were included in the sample. In addition to these sampled PSUs, 20 certainty PSUs were added to the sample. These PSUs were the 20 districts funded by DASH at the time. They formed their own stratum and were selected with a probability of 1.0 before the other PSUs were sampled.

In total, 448 PSUs were sampled containing 1,057 districts, including the 20 districts selected with certainty. The initial sample was validated to ensure that the sampled districts met eligibility criteria. Districts were considered ineligible if they only served a special population of students, such as special education students, if they only contained schools that had a shared student population, such as vocational/technical schools, or if they only functioned for administrative purposes and did not contain schools. Of the 1,057 sampled districts, nine were deemed ineligible for participation during sample validation. These districts were replaced by similar districts in neighboring PSUs assigned to the same stratum in order to minimize distortions in the selection probabilities. Nine additional districts were deemed ineligible after recruitment began. Four of these districts had merged with another sampled district and five did not have their own student body. These districts were not subsequently replaced, resulting in a total of 1,048 districts in the sample.

Response Rates

For each state-level questionnaire and module, the response rate was 100%. District-level response rates were calculated by questionnaire and module and are shown in Table 2. At the district level, 76.7% completed at least one module or

Table 2. District-level Response Rates

Questionnaire/Questionnaire Module	Eligible Districts	Ineligible Districts	Responding Districts	Responding Districts (%)
Health Education (Overall)	1048	0	719	68.6*
Standards and Non-instructional Topics	1048	0	640	61.1
Elementary School Instruction	884	164	585	66.2
Middle School Instruction	864	184	586	67.8
High School Instruction	777	271	543	69.9
Health Education Coordinator	1048	0	623	59.4
Physical Education and Activity (Overall)	1048	0	708	67.6*
Standards and Non-instructional Topics	1048	0	591	56.4
Elementary School Instruction	884	154	603	68.2
Middle School Instruction	864	14	561	64.9
High School Instruction	777	263	513	66.0
Physical Education Coordinator	1048	0	601	57.3
Health Services	1048	0	660	63.0
Mental Health and Social Services (Overall)	1048	0	684	65.3*
Mental Health and Social Services	1048	0	623	59.4
Mental Health and Social Services Coordinator	1048	0	637	60.8
Healthy and Safe School Environment (Overall)	1048	0	697	66.5*
General School Environment	1048	0	630	60.1
Physical School Environment	1048	0	598	57.1
Crisis Preparedness	1048	0	615	58.7
Health and Safety Coordinator	1048	0	627	59.8
Nutrition Services	1048	0	660	63.0
Faculty and Staff Health Promotion	1048	0	655	62.5

* Percentage of districts that completed at least 1 module in that questionnaire.

questionnaire. Not every district was eligible to complete every module. For example, if a district did not contain elementary schools, that district was not eligible to complete any elementary school modules.

RECRUITMENT AND DATA COLLECTION

State recruitment began in June 2011 with the mailing of information packets to contacts in each state's Department of Education and Department of Health. These packets and follow-up telephone calls asked the contacts for help in identifying the most knowledgeable state-level respondents for each questionnaire, and in those states with sampled districts, asked the contacts to facilitate a letter of support for the study from the head of their agency. Another packet inviting the state's participation was then sent to the heads of the state departments of education and health. Beginning in July 2011, after a state sent a letter of support or made it clear that no letter of support would be forthcoming, an information packet was mailed to the superintendents of the selected districts in that state. The district packets and follow-up telephone calls sought each district's agreement to participate in the study, identification of the most knowledgeable respondent for each of the district-level questionnaires and modules, and identification of

questionnaires and modules not applicable to the district.

After contacts agreed that their state or district would participate in the study and identified respondents for each questionnaire and module, respondents were contacted directly by both e-mail and overnight mail. These e-mails and letters contained information about the study and provided respondents with instructions for accessing the secure data collection Web site, including a unique identification code. When respondents logged into the Web site using their code, they were asked to confirm the name of their state or district and were then presented with an on-screen consent statement. After acknowledging consent, each respondent was presented with a home page that displayed the questionnaire(s) and module(s) assigned to him or her. Respondents assigned to complete multiple questionnaires or modules could complete them in any order. Within each questionnaire or module, respondents could leave questions blank and still advance to the next question. Upon completing a questionnaire or module, respondents could review their responses, edit any previous responses, and fill in any blanks before submitting the questionnaire or module.

Data collection began in October 2011. State- and district-level respondents who had been identified, but had not submitted all of their completed questionnaires or modules, received a reminder e-mail every 10 business days. State-level respondents also received reminder telephone calls if they had not submitted all of their questionnaires. By March 2012, all state-level questionnaires had been submitted, but district-level data collection transitioned to a mixed mode of administration to increase response rates. That is, district respondents who had not yet submitted questionnaires via the Web received a series of mailings that offered them the option of completing paper-and-pencil versions of the questionnaires and returning them in pre-paid envelopes. In addition, districts that had agreed to participate but had not yet identified respondents, as well as districts that had not yet indicated a decision about participating, also received paper-and-pencil questionnaires via mail even though the Web-based system remained available. In total, four rounds of non-response mailings were sent to respondents and districts. After the first round, varying levels of monetary or gift card incentives at the respondent and district levels also were offered. Recruiters followed up with district contacts and respondents by telephone after each mailing to ensure that the questionnaires were received and to answer questions.

At the end of the data collection period (August 2012), 85.4% of the completed district-level questionnaires or modules were completed using the Web-based system, and 14.6% were completed using paper and pencil. Ninety-four percent of districts completed at least one questionnaire module using the Web-based system, and 28.9% completed at least one module using paper and pencil.

DATA CLEANING, WEIGHTING, AND ANALYSIS

Cleaning

The Web-based data collection system contained built-in checks to limit out-of-range and invalid entries. For example, if a question was supposed to be skipped by the respondent based on the answer to a previous question, that question was never displayed, so the respondent did not have an opportunity to enter an invalid response. After verifying that all programming logic was implemented correctly, data were edited for logically inconsistent responses.

Weighting

State-level estimates are based on a census and therefore are not weighted. District-level data are based on a representative sample and are weighted to produce national estimates.

The base district weight, or sampling weight, was computed as the inverse of the selection probability. Base weights were adjusted for nonresponse using a simple ratio adjustment, computed as the ratio of weighted totals within weight adjustment classes. The ratio used was the total of the base weights computed over all the sampled districts to the same total computed over all the participating districts. The five sampling strata (the four strata defined by urbanicity and poverty plus the stratum that included the DASH-funded districts selected with certainty) were used as weight adjustment classes.

Because response rates were calculated for each questionnaire, the weight for nonresponse was calculated separately by questionnaire, resulting in a set of questionnaire-specific weights for each district to be used for questionnaire-specific analyses. In addition, an overall weight was computed for use in analyses that merged data from two or more questionnaires. Weight trimming was not necessary because coefficients of variation for each component's weights all were below 26%.

As a final step, the district weights were post-stratified to control totals. Post-stratum cells coincided with the four strata defined by urbanicity and poverty for which population totals are known from the sampling frame. A ratio adjustment was used such that the final adjusted weights summed to the total number of districts in the post-stratum. Although the weights for each component were post-stratified independently, they shared a common set of control totals.

Analysis

At the district level, variances were estimated using generalized linear variance estimators. This method of computing variances takes into account the complex nature of the sampling design. SUDAAN was used to compute standard errors for each of the district-level questionnaires. The estimated standard errors associated with observed estimates for each of the district-level questionnaires are shown in Appendix 2. Approximate standard errors for any estimate can be obtained by either (1) locating on the appropriate figure the intersection of the x- and y-

axes on the predicted value line or (2) inserting the estimate of interest into the estimated regression equation shown on each figure for the appropriate questionnaire.

To analyze changes between SHPPS 2000 and later cycles, many variables from SHPPS 2000 were recalculated so that the denominators used for all years of data were defined identically. In most cases, this denominator included all states or districts rather than a subset of states or districts, which had been used in previous reports of SHPPS 2000 results. As a result of this recalculation, percentages previously reported for SHPPS 2000 might differ from those reported in the chapters that follow. Only estimates that use the same denominator should be compared.

Secular trend analyses were performed using regression analysis to determine whether changes over time were statistically significant. Time was treated as a continuous variable; orthogonal coefficients reflected a linear time component and equal spacing between the study years. For variables with data available for 2000, 2006, and 2012, trend analyses were performed that took all three years of data into account. For variables with data available only for 2006 and 2012 (i.e., variables calculated from questions that were added to the questionnaires in 2006), analyses included only these two years of data.

As was done when reporting changes over time between 2000 and 2006,⁴ several criteria were used to determine which changes over time to highlight in this report. To account for multiple comparisons, changes were reported only if the *p*-value from the regression analysis was less than .01, and either the difference between the two endpoints (2000 and 2012 or 2006 and 2012) was greater than 10 percentage points, or the 2012 estimate increased by at least a factor of two or decreased by at least half as compared to the 2000 or 2006 estimate.

LIMITATIONS AND FUTURE PLANS

Unlike previous SHPPS cycles, SHPPS 2012 collected data only at the state and district levels. School- and classroom-level data collection is planned for 2014, but without simultaneous data collection, the types of analyses that can be performed are limited. That is, in previous SHPPS cycles, schools and classrooms were sampled within the nationally representative sample of districts, allowing analyses to examine associations between district policies and school and classroom practices.

As in previous cycles, SHPPS 2012 also is limited in its ability to provide data on the quality of the policies and practices measured. Respondents were asked only to report whether certain policies existed. It is possible that a policy could exist but not reflect best practices in its implementation. In addition, as with any study that relies on self-report, it is possible that the data reflect some amount of overreporting or underreporting, as well as actual lack of knowledge on the part of the respondents. For example, a content analysis of written policies might have resulted in different findings because self-report relies on both the knowledge of the respondents and their interpretation of existing policies.

The use of Web-based self-administered questionnaires for data collection was a notable improvement over the CATI method used in 2006. Web administration was more acceptable to respondents, as evidenced by the fact that all state-level questionnaires and 85% of district-level questionnaires were completed using this method. In contrast, only 84% of state-level questionnaires and 61% of district-level questionnaires were completed using CATI in SHPPS 2006. While it was still necessary to allow respondents to complete paper-and-pencil questionnaires to increase response rates, future cycles of SHPPS will continue to use Web-based questionnaires at the district level.

To date, SHPPS has been conducted every six years since 1994, but 2012 marks the final cycle using that model. Beginning in 2014, a less comprehensive version of SHPPS will be conducted every two years. Specifically, only school- and classroom-level data will be collected in 2014, and in 2016, only district-level data will be collected. This change will allow SHPPS to provide better baseline data and subsequent updates to measure changes taking place in our nation's schools and school districts.

REFERENCES

1. National Association of State Boards of Education. *State School Health Policy Database*. Arlington, VA: National Association of State Boards of Education. Available at: http://www.nasbe.org/healthy_schools/hs/index.php
2. National Cancer Institute. *Classification of Laws Associated with School Students (C.L.A.S.S.)*. Bethesda, MD: National Institutes of Health. Available at: <http://class.cancer.gov/>

3. U.S. Census Bureau. *Census Summary File 3—United States*. Washington, DC: U.S. Census Bureau; 2002. Available at: <http://www.census.gov/prod/cen2000/doc/sf3.pdf>
4. Kyle TM, Brener ND, Kann L, Ross JG, Roberts AM, Iachan R, Robb WH, McManus T. Methods: School Health Policies and Programs Study 2006. *Journal of School Health*. 2007;77(8):398–407.

Chapter 3

Health Education: Results from the School Health Policies and Practices Study 2012

*Laura Kann, PhD; Susan Telljohann, HSD, CHES; Holly Hunt, MA;
Pete Hunt, MPH, MEd; Elizabeth Haller, MEd**

This chapter describes the findings from the 2012 School Health Policies and Practices Study (SHPPS) related to health education. It includes state-level information on health education standards; state assistance to districts and schools; certification, licensure, and endorsement; professional development; collaboration; and state health education coordinators. At the district level, this chapter describes health education standards and guidelines, health education instruction, staffing and staff qualifications, professional development, collaboration, promotion, evaluation, and district health education coordinators. The chapter also describes significant trends over time at both the state and district levels.

STATE-LEVEL RESULTS

Health Education Standards

Nationwide, 90.2% of states had adopted national or state health education standards, and 74.0% had adopted health education standards that were based on the 2007 National Health Education Standards (NHES).¹ At least 87% of states had adopted standards for elementary, middle, and high school health education that specifically addressed each of the NHES (Table 1).

State Assistance to Districts and Schools

States may offer multiple types of assistance to help districts and schools provide health education. During the two years before the study, less than one half of states developed, revised, or assisted in developing model policies, policy guidance, or other materials to inform district or school policy on any of the six topics listed in the questionnaire (Table 2). Similarly, less than one half of states distributed or provided to district or school staff model policies,

policy guidance, or other materials on any of these topics. In contrast, during the 12 months before the study, more than one half of states provided technical assistance (one-on-one, tailored guidance to meet the specific needs of the district or school that may be provided through phone, e-mail, Internet, or in-person meetings) to district or school staff on using data to plan or evaluate health education policies or practices; characteristics of effective health education curricula; assessing or evaluating students in health education; using the Health Education Curriculum Analysis Tool (HECAT)² to help assess health education curricula; graduation requirements for high school health education; professional development or continuing education requirements to maintain licensure or certification; certification or licensure requirements for health education teachers; and time requirements for elementary, middle, and high school health education.

The content of health education instruction (i.e., what is taught in the classroom) may be based on such factors as scientific evidence, best practices, or state law or policy. During the two years before the study, more than two thirds of states developed, revised, or assisted in developing model policies, policy guidance, or other materials to inform district or school policy on the content of instruction for human immunodeficiency virus (HIV) prevention, human sexuality, nutrition and dietary behavior, other sexually transmitted disease (STD) prevention, physical activity and fitness, pregnancy prevention, and violence prevention (Table 3). More than two thirds of states also distributed or provided to district or school staff model policies, policy guidance, or other materials to inform district or school policy on the content of instruction for HIV prevention, human

* **Laura Kann** is Chief, School-Based Surveillance Branch, Division of Adolescent and School Health, CDC; **Susan Telljohann** is Professor, Department of Health and Rehabilitative Services, University of Toledo; **Holly Hunt** is Chief, School Health Branch, Division of Population Health, CDC; **Pete Hunt** is Team Lead, Adolescent Development and Population Approaches, Division of Adolescent and School Health, CDC; and **Elizabeth Haller** is Acting Chief, Program Development and Services Branch, Division of Adolescent and School Health, CDC.

Table 1. Percentage of states that adopted specific standards for health education and districts that followed specific standards for health education, by school level, SHPPS 2012

Standard	States (%)			Districts (%)		
	Elementary School	Middle School	High School	Elementary School	Middle School	High School
Accessing valid information, products, and services to enhance health	90.0	90.2	92.0	70.9	83.4	88.8
Advocating for personal, family, and community health	90.0	90.2	90.2	74.5	83.7	89.6
Analyzing the influence of family, peers, culture, media, technology, and other factors on health behaviors	92.0	92.2	92.2	74.9	86.4	91.3
Comprehending concepts related to health promotion and disease prevention to enhance health	94.0	92.2	92.2	80.7	88.1	92.8
Practicing health-enhancing behaviors to avoid or reduce health risks	89.8	90.0	90.2	79.6	88.3	92.3
Using decision-making skills to enhance health	92.0	92.2	92.2	80.5	88.5	92.7
Using goal-setting skills to enhance health	87.8	88.2	88.2	74.5	85.9	89.3
Using interpersonal communication skills to enhance health and avoid or reduce health risks	92.0	92.2	92.2	76.7	86.2	91.5

sexuality, infectious disease prevention, injury prevention and safety, nutrition and dietary behavior, other STD prevention, physical activity and fitness, pregnancy prevention, suicide prevention, tobacco use prevention, and violence prevention. During the 12 months before the study, more than two thirds of states provided technical assistance to district or school staff on the content of instruction for emotional and mental health, HIV prevention, human sexuality, infectious disease prevention, nutrition and dietary behavior, other STD prevention, physical activity and fitness, pregnancy prevention, suicide prevention, tobacco use prevention, and violence prevention.

During the two years before the study, states developed, revised, or assisted in developing or improving the following materials: lesson plans or learning activities for health education (70.0%); plans or strategies for assessing or evaluating students in health education (66.7%); health education curricula (56.9%); and health education standards (47.1%).

States also provided a variety of resources to districts or schools for school health education during the two years before the study (Table 4). More than one half of states provided lesson plans or

learning activities for elementary, middle, and high school health education or plans or strategies for assessing or evaluating students in elementary, middle, and high school health education. In addition, during the two years before the study, 68.6% of states distributed or provided the HECAT² to district or school staff.

Certification, Licensure, or Endorsement

States may offer several types of certification, licensure, and endorsement for health education teachers. States were most likely to offer certification, licensure, or endorsement for health education for grades K-12 (76.5%), health education for high school (60.8%), and health education for middle school (60.0%). Less than one half of states offered certification, licensure, or endorsement for combined health education and physical education for grades K-12 (45.1%), health education for elementary school (37.5%), combined health education and physical education for high school (29.4%), combined health education and physical education for middle school (28.6%), and combined health education and physical education for elementary school (26.0%).

Table 2. Percentage of states that provided policy-related assistance to districts and schools, by type of assistance, SHPPS 2012

Topic	States (%)		
	Developed, Revised, or Assisted in Developing Model Policies, Policy Guidance, or Other Materials*	Distributed or Provided Model Policies, Policy Guidance, or Other Materials*	Provided Technical Assistance†
Assessing or evaluating students in health education	NA	NA	70.6
Certification or licensure requirements for health education teachers	43.1	46.0	64.7
Characteristics of effective health education curricula	NA	NA	76.5
Graduation requirements for high school health education	41.2	47.1	70.0
Professional development or continuing education requirements to maintain licensure or certification	45.1	49.0	66.7
Time requirements for elementary school health education	23.5	29.4	58.8
Time requirements for middle school health education	30.0	35.3	60.8
Time requirements for high school health education	27.5	38.0	60.0
Using data to plan or evaluate health education policies or practices	NA	NA	88.2
Using the Health Education Curriculum Analysis Tool to help assess health education curricula	NA	NA	70.6

* During the two years before the study.

† One-on-one, tailored guidance to meet the specific needs of the district or school that may be provided through phone, e-mail, Internet, or in-person meetings during the 12 months before the study.

Professional Development

Professional development was defined as workshops, conferences, continuing education, graduate courses, or any other kind of in-service on health topics or instructional strategies for those who teach health education. During the two years before the study, 96.1% of states provided professional development on at least one of the 15 health topics included in the questionnaire and 70.6% provided professional development on at least eight of the 15. These topics were chosen to reflect the leading causes of morbidity and mortality among both youth and adults and other important public health issues. More than one fourth (27.4%) of states provided professional development on all 15 health topics. More than one half of states provided professional development on alcohol or other drug use prevention, emotional and mental health, HIV prevention, human sexuality, infectious disease prevention, injury prevention and safety, nutrition and dietary behavior, other STD prevention, physical activity and fitness, pregnancy prevention, suicide prevention, tobacco use prevention, and violence prevention (Table 5). In addition, 96.1% of states

provided professional development on at least one of the 15 instructional strategies included in the questionnaire and 64.7% provided professional development on at least eight of the 15. Only 3.9% of states provided professional development on all 15 instructional strategies. More than one half of states provided professional development on aligning health education standards to curriculum; assessing or evaluating students in health education, instruction, or student assessment; how to involve students' families in health education; how to involve the community in students' health education; teaching skills for behavior change; teaching students of various cultural backgrounds; using classroom management techniques; using data to plan or evaluate health education policies or practices; using the HECAT² to help assess health education curricula; using interactive teaching methods; and using technology such as computers in the classroom.

Collaboration

State-level health education staff may work on health education activities with other state-level staff

Table 3. Percentage of states that provided assistance to districts and schools on the content of instruction on health education topics, by type of assistance, SHPPS 2012

Health Topic	States (%)		
	Developed, Revised, or Assisted in Developing Model Policies, Policy Guidance, or Other Materials*	Distributed or Provided Model Policies, Policy Guidance, or Other Materials*	Provided Technical Assistance†
Alcohol or other drug use prevention	49.0	56.9	64.7
Asthma	43.1	54.9	64.0
Emotional and mental health	43.1	60.8	70.6
Foodborne illness prevention	35.3	49.0	54.0
HIV prevention	74.0	80.4	86.3
Human sexuality	70.6	80.0	90.2
Infectious disease prevention	52.9	76.0	78.0
Injury prevention and safety	47.1	66.0	64.7
Nutrition and dietary behavior	74.5	76.5	84.0
Other STD prevention	72.5	80.4	88.2
Physical activity and fitness	70.6	74.5	86.3
Pregnancy prevention	66.7	74.5	88.2
Suicide prevention	54.0	66.7	80.4
Tobacco use prevention	56.9	68.6	74.5
Violence prevention	70.6	85.7	94.0

* During the two years before the study.

† One-on-one, tailored guidance to meet the specific needs of the district or school that may be provided through phone, e-mail, Internet, or in-person meetings during the 12 months before the study.

and with staff or members from other organizations and agencies. During the 12 months before the study, state-level health education staff worked on health education activities with health services staff in 92.2% of states, with child nutrition or nutrition services staff in 88.2% of states, with physical education staff in 88.0% of states, and with mental health or social services staff in 68.6% of states.

In addition, state-level health education staff in more than two thirds of states worked on health education activities with the state health department (98.0% of states), colleges or universities (92.2%), a state-level school nurses' association or organization (84.3%), a state-level health organization (e.g., the American Heart Association or the American Cancer Society) (82.0%), Action for Healthy Kids (72.5%), a state-level parents' organization (e.g., the PTA) (68.6%), the state mental health or social services agency (68.6%), and foundations (66.7%). State-level health education staff in less than two thirds of states worked on health education activities with businesses (64.0%), Alliance for a Healthier

Generation (62.0%), a state-level physicians' organization (e.g., the American Academy of Pediatrics) (56.9%), the state juvenile justice department (56.9%), and the state-level American School Health Association (44.0%).

State Health Education Coordinators

Nationwide, 88.2% of states had someone to oversee or coordinate health education. The health education coordinator served as the respondent for the state-level health education SHPPS questionnaire in 82.2% of these states. Among these respondents (representing 72.5% of states nationwide), 100% had an undergraduate degree, 59.5% had an undergraduate minor, and 78.4% had a graduate degree. The most common undergraduate major was health education (43.2% of respondents).* Nearly one fourth (24.3%) majored in physical education, 5.4% majored in other education, 5.4% majored in biology or other science, 5.4% majored in nursing,

* Respondents were able to select more than one option for the undergraduate major, minor, and graduate degree, as applicable.

Table 4. Percentage of states that provided resources for districts and schools and districts that provided resources for schools for health education during the two years before the study, by school level, SHPPS 2012

Resource	States (%)			Districts (%)		
	Elementary School	Middle School	High School	Elementary School	Middle School	High School
Lesson plans or learning activities for health education	60.8	64.7	68.0	57.9	65.8	63.0
List of one or more recommended health education curricula	41.2	43.1	41.2	51.9	61.3	57.6
List of one or more recommended health education textbooks	32.0	33.3	33.3	30.2	46.7	50.0
Plans or strategies for assessing or evaluating students in health education	58.8	66.7	68.6	47.9	58.3	63.9

and 16.2% had some other undergraduate major not listed on the questionnaire. Among respondents with undergraduate minors, the most common minor was biology or other science (22.7%). Health education (13.6%), other education (13.6%), and physical education (4.5%) also were selected as undergraduate minors. Almost one half (45.5%) of respondents with undergraduate minors had some other minor not listed on the questionnaire. Among respondents with graduate degrees, the most common focus of graduate work was health education (41.4% of respondents) or some area of study not listed on the questionnaire (31.0%). In addition, other education (13.8%), physical education (6.9%), and biology or other science (6.9%) also were selected as areas of study for graduate work. Nearly one half (41.2%) of the respondents were certified, licensed, or endorsed by the state to teach health education at the elementary school level, 59.5% were certified, licensed, or endorsed by the state to teach health education at the middle school level, and 59.5% were certified, licensed, or endorsed by the state to teach health education at the high school level. Only 8.1% of the respondents were Certified Health Education Specialists.

Trends Over Time

At the state level, only one variable met the criteria for significant difference over time outlined in Chapter 2. Between 2006 and 2012, the percentage of states that provided funding for professional development or offered professional development during the two years before the study to those who teach health education on using classroom management techniques (e.g., social skills training, environmental modification, conflict resolution and

mediation, or behavior management) decreased from 77.1% to 51.0%.

DISTRICT-LEVEL RESULTS

Health Education Standards and Guidelines

Most (82.4%) districts had adopted a policy stating that schools will follow national, state, or district health education standards or guidelines. An additional 4.3% of districts had adopted a policy encouraging schools to follow national, state, or district health education standards or guidelines. Among all districts, 64.8% required or recommended health education standards or guidelines that were based on the 2007 NHES.¹

Nationwide, 84.1% of districts followed standards for elementary school health education, 90.7% followed standards for middle school health education, and 93.8% followed standards for high school health education. At least 70% of districts that provided elementary school instruction, at least 83% that provided middle school instruction, and at least 88% that provided high school instruction had standards that addressed each of the NHES¹ (Table 1).

Health Education Instruction

Districts used many ways to describe how much health education students were required to receive (e.g., minutes per week, hours per quarter, or hours per school year). Nationwide, 41.2% of districts had specified time requirements for health education at the elementary school level, 58.7% of districts had specified time requirements at the middle school level, and 78.7% had specified requirements at the high school level.

Table 5. Percentage of states and districts that provided funding for professional development* or offered professional development for those who teach health education during the two years before the study, by health topic and instructional strategy, SHPPS 2012

Health Topic or Instructional Strategy	States (%)	Districts (%)
Health Topics		
Alcohol or other drug use prevention	60.8	66.0
Asthma	39.2	44.1
Emotional and mental health	64.0	59.8
Foodborne illness prevention	43.1	45.1
HIV prevention	88.2	48.6
Human sexuality	84.3	47.4
Infectious disease prevention	60.0	59.1
Injury prevention and safety	54.0	63.6
Nutrition and dietary behavior	73.5	62.9
Other STD prevention	86.0	47.5
Physical activity and fitness	76.0	74.6
Pregnancy prevention	75.5	44.3
Suicide prevention	64.7	62.6
Tobacco use prevention	64.0	62.0
Violence prevention	79.6	82.7
Instructional Strategies		
Aligning health education standards to curriculum, instruction, or student assessment	78.0	63.6
Assessing or evaluating students in health education	60.8	49.8
How to involve students' families in health education	56.9	39.0
How to involve the community in students' health education	60.0	38.5
Teaching online or distance education courses	37.3	27.3
Teaching skills for behavior change	68.6	60.9
Teaching students of various cultural backgrounds	52.9	52.6
Teaching students with limited English proficiency	35.3	51.0
Teaching students with long-term physical, medical, or cognitive disabilities	43.1	60.0
Using classroom management techniques	51.0	73.4
Using data to plan or evaluate health education policies or practices	78.4	52.4
Using the HECAT to help assess health education curricula	58.8	14.5
Using interactive teaching methods	74.5	60.0
Using peer educators for health education	41.2	31.1
Using technology such as computers in the classroom	60.8	81.7

* Workshops, conferences, continuing education, graduate courses, or any other kind of in-service on health topics or instructional strategies.

Nationwide, 93.4% of districts that provided elementary school instruction had adopted a policy stating that elementary schools will teach at least one of the 15 health topics included in the questionnaire and 64.3% of districts had adopted a policy stating that elementary schools will teach at least eight of the 15. Only 10.9% of districts had adopted a policy stating that elementary schools will teach all 15

health topics. More than one half of districts had adopted a policy stating that elementary schools will teach alcohol or other drug use prevention, emotional and mental health, foodborne illness prevention, human sexuality, infectious disease prevention, injury prevention and safety, nutrition and dietary behavior, physical activity and fitness, tobacco use prevention, and violence prevention

Table 6. Percentage of districts that had adopted a policy stating that schools will teach specific health topics, by school level, SHPPS 2012

Health Topic	Districts (%)		
	Elementary School	Middle School	High School
Alcohol or other drug use prevention	78.4	86.6	86.1
Asthma	46.1	53.4	54.3
Emotional and mental health	61.8	77.5	80.5
Foodborne illness prevention	50.9	59.8	64.2
HIV prevention	40.1	75.7	82.2
Human sexuality	52.6	78.3	71.0
Infectious disease prevention (e.g., flu)	70.5	71.5	74.7
Injury prevention and safety	77.1	75.8	79.8
Nutrition and dietary behavior	82.1	82.7	85.8
Other STD prevention	29.1	73.1	81.6
Physical activity and fitness	69.1	76.7	86.0
Pregnancy prevention	26.0	66.2	78.1
Suicide prevention	35.7	65.1	75.0
Tobacco use prevention	79.7	86.9	85.0
Violence prevention (e.g., bullying, fighting, or dating violence)	85.8	86.3	88.3

(Table 6). Among the 61.5% of districts that had adopted a policy stating that elementary schools will teach HIV prevention, human sexuality, other STD prevention, or pregnancy prevention, 78.4% also had adopted a policy stating that elementary schools will notify parents or guardians before students receive instruction on any of these topics and 83.4% had adopted a policy stating that elementary schools will allow parents or guardians to exclude their children from receiving instruction on these topics.

Among districts that provided middle school instruction, 94.1% had adopted a policy stating that middle schools will teach at least one of the 15 health topics included in the questionnaire and 78.9% had adopted a policy stating that middle schools will teach at least eight of the 15. Nearly one third (30.4%) of districts had adopted a policy stating that middle schools will teach all 15 health topics. More than three fourths of districts had adopted a policy stating that middle schools will teach alcohol or other drug use prevention, emotional and mental health, HIV prevention, human sexuality, injury prevention and safety, nutrition and dietary behavior, physical activity and fitness, tobacco use prevention, and violence prevention (Table 6). Among the 85.9% of districts that had adopted a policy stating that middle schools

will teach HIV prevention, human sexuality, other STD prevention, or pregnancy prevention, 76.8% also had adopted a policy stating that middle schools will notify parents or guardians before students receive instruction on any of these topics and 82.3% had adopted a policy stating that middle schools will allow parents or guardians to exclude their children from receiving instruction on these topics.

Among districts that provided high school instruction, 94.4% had adopted a policy stating that high schools will teach at least one of the 15 health topics included in the questionnaire and 83.0% had adopted a policy stating that high schools will teach at least eight of the 15. More than one third (38.4%) of districts had adopted a policy stating that high schools will teach all 15 health topics. More than three fourths of districts had adopted a policy stating that high schools will teach alcohol or other drug use prevention, emotional and mental health, HIV prevention, injury prevention and safety, nutrition and dietary behavior, other STD prevention, physical activity and fitness, pregnancy prevention, suicide prevention, tobacco use prevention, and violence prevention (Table 6). Among the 85.3% of districts that had adopted a policy stating that high schools will teach HIV prevention, human sexuality, other STD prevention, or pregnancy prevention, 66.0%

also had adopted a policy stating that high schools will notify parents or guardians before students receive instruction on any of these topics and 78.0% had adopted a policy stating that high schools will allow parents or guardians to exclude their children from receiving instruction on these topics.

During the two years before the study, districts provided a variety of resources for health education (Table 4). Districts were most likely to provide lesson plans or learning activities for elementary and middle school health education and lesson plans or learning activities and plans or strategies for assessing or evaluating students in high school health education. In addition, 10.9% of districts used a curriculum analysis tool (e.g., the HECAT²) to assess one or more health education curricula for elementary schools, 10.5% used a curriculum analysis tool to assess middle school curricula, and 12.3% used a curriculum analysis tool to assess high school curricula.

Staffing and Staff Qualifications

Nationwide, 39.1% of districts had adopted a policy stating that each school will have someone to oversee or coordinate health education at the school (e.g., a lead health education teacher). Districts also had adopted policies that set minimum standards for health education staff qualifications. Nationwide, 30.3% of districts had adopted a policy stating that newly hired staff who teach health education at the elementary school level will have undergraduate or graduate training in health education, 55.0% of districts had this policy at the middle school level, and 67.2% had this policy at the high school level. Further, 35.1% of districts had adopted a policy stating that newly hired staff who teach health education at the elementary school level will be certified, licensed, or endorsed by the state to teach health education, 61.6% had this policy at the middle school level, and 79.8% had this policy at the high school level. Finally, 14.9% of districts had adopted a policy stating that newly hired staff who teach health education at the middle school level will be Certified Health Education Specialists and 13.2% had adopted this policy for newly hired staff who teach health education at the high school level.

Professional Development

Nationwide, 35.5% of districts had adopted a policy stating that those who teach health education are required to earn continuing education credits on health education topics or instructional strategies.

During the two years before the study, 90.7% of districts provided professional development on at least one of the 15 health topics included in the questionnaire and 56.7% provided professional development on at least eight of the 15. One out of five (20.2%) districts provided professional development on all 15 health topics. More than one half of districts provided professional development on alcohol or other drug use prevention, emotional and mental health, infectious disease prevention, injury prevention and safety, nutrition and dietary behavior, physical activity and fitness, suicide prevention, tobacco use prevention, and violence prevention (Table 5). In addition, 92.1% of districts provided professional development on at least one of the 15 instructional strategies listed in the questionnaire and 48.4% provided professional development on at least eight of the 15. Only 5.3% of districts provided professional development on all 15 instructional strategies. More than one half of districts provided professional development on aligning health education standards to curriculum, instruction, or student assessment; teaching skills for behavior change; teaching students of various cultural backgrounds; teaching students with limited English proficiency; teaching students with long-term physical, medical, or cognitive disabilities; using classroom management techniques; using data to plan or evaluate health education policies or practices; using interactive teaching methods; and using technology such as computers in the classroom.

Collaboration

District-level health education staff may work on health education activities with other district-level staff and with staff or members from other agencies and organizations. During the 12 months before the study, district-level health education staff worked on health education activities with general curriculum coordinators or supervisors in 62.7% of districts, with physical education staff in 61.6% of districts, with health services staff in 54.9% of districts, with nutrition or food service staff in 52.8% of districts, and with mental health or social services staff in 43.0% of districts. In addition, district-level health education staff in more than one half of districts worked on health education activities with staff or members from a local health department (62.9%), a health organization (e.g., the American Heart Association or the American Cancer Society) (60.8%), a local law enforcement agency (54.7%), a

local mental health or social services agency (54.4%), and local fire or emergency medical services (51.4%). District-level health education staff in less than one half of districts worked on health education activities with staff or members from a local juvenile justice department (36.8%), a local college or university (36.1%), a local hospital (36.1%), a local business (35.4%), a local youth organization (e.g., the Boys and Girls Clubs) (28.6%), a local service club (e.g., the Rotary Club) (28.0%), Action for Healthy Kids (15.8%), and the Alliance for a Healthier Generation (9.1%).

Promotion

District-level health education staff may promote health education in a variety of ways. During the 12 months before the study, 66.5% of districts provided district or school personnel (e.g., classroom teachers, administrators, or school board members) with information on school health education, 65.2% of districts provided families of all students with information on school health education, 40.0% of districts offered health education to families of all students, and 38.5% of districts sought positive media attention for school health education.

Evaluation

During the two years before the study, districts evaluated various aspects of health education. Specifically, 76.3% of districts evaluated health education teachers, 62.7% of districts evaluated health education curricula, 51.6% evaluated health education policies, and 48.6% evaluated professional development or in-service programs for health education.

District Health Education Coordinators

Nationwide, 62.1% of districts had someone to oversee or coordinate health education. Unfortunately, the percentage of these coordinators who served as the respondent to the district-level health education questionnaire was too small for meaningful analysis of the data about the coordinators' qualifications.

Trends Over Time

Many variables met the criteria for significant difference over time outlined in Chapter 2. Between 2000 and 2012, the percentage of districts that had adopted a policy stating that schools will follow any national, state, or district health education standards increased from 68.8% to 82.4%. Further, among all

districts the percentage that had adopted a policy stating that schools will follow the NHES increased from 53.8% to 64.8%.

Between 2000 and 2012, changes also were detected in the percentage of districts that had adopted a policy stating that schools will teach about specific health topics. Specifically, decreases were detected in the percentage of districts that had adopted a policy stating that elementary schools will teach about HIV prevention (from 58.6% to 40.1%) and other STD prevention (from 39.4% to 29.1%). Increases were detected in the percentage of districts that had adopted a policy stating that violence prevention will be taught in elementary schools (from 73.4% to 85.8%), middle schools (from 71.6% to 86.4%), and high schools (74.5% to 88.3%). Further, increases also were detected in the percentage of districts that had adopted a policy stating that elementary schools will teach about injury prevention and safety (from 66.2% to 77.1%) and middle schools will teach about suicide prevention (from 53.8% to 65.1%). The percentage of districts that had adopted a policy stating that high schools will allow parents or guardians to exclude their children from receiving instruction on pregnancy prevention, HIV prevention, other STD prevention, or human sexuality increased from 62.2% in 2000 to 78.0% in 2012.

Changes also were detected in professional development between 2000 and 2012. The percentage of districts that provided funding for professional development or offered professional development during the two years before the study to those who teach health education increased for the following health topics: emotional and mental health (from 44.0% to 59.8%), injury prevention and safety (from 40.0% to 63.6%), nutrition and dietary behaviors (43.3% to 62.9%), physical activity and fitness (from 43.3% to 74.6%), suicide prevention (from 41.5% to 62.6%), and violence prevention (from 62.1% to 82.7%). The percentage of districts that provided funding for or offered professional development during the two years before the study to those who teach health education also increased during the same time period for the following topics: teaching students of various cultural backgrounds (from 37.9% to 52.6%), teaching students with limited English proficiency (from 27.7% to 51.0%), and teaching students with long-term physical, medical, or cognitive disabilities (from 47.0% to 60.0%).

Collaboration between district-level health education staff and some other groups increased between 2000 and 2012. Specifically, increases were detected in the percentage of districts in which district-level health education staff worked on health education activities during the 12 months before the study with the following groups: district-level nutrition or food service staff (from 27.8% to 52.8%), a local business (from 24.2% to 35.4%), and a local health department (from 53.0% to 62.9%).

Changes also were detected in how health education was promoted and evaluated at the district level. Between 2000 and 2012, the percentage of districts that offered any health education to families of all students during the 12 months before the study increased from 27.8% to 40.0%, while between 2006 and 2012 the percentage of districts that provided district or school personnel (e.g., classroom teachers, administrators, or school board members) with information on school health education during the 12 months before the study decreased from 79.2% to 66.5%. Between 2000 and 2012, the percentage of districts that evaluated health education policy during the two years before the study increased from 37.3% to 51.6% and the percentage that evaluated health education professional development or in-service programs increased from 36.6% to 48.6%.

DISCUSSION

SHPPS 2012 identified both strengths and weaknesses in how states and districts are supporting health education at the elementary, middle, and high school levels nationwide. Despite significant budget restrictions in state education agencies and in most districts, these agencies are still finding ways to support school-level policies and practices. SHPPS 2012 indicated support for the 2007 NHES¹ nationwide. Almost three fourths of all states had adopted health education standards based on these standards and almost two thirds of districts required or recommended health education standards or guidelines based on these standards. Further, the percentage of districts that had adopted a policy stating that schools will follow the NHES increased between 2000 and 2012. In addition, although most districts had adopted standards for elementary, middle, and high schools that specifically addressed each of the eight NHES, further progress in the adoption of the NHES at the state and district levels can be made.

SHPPS 2012 results demonstrate the important role that states play in assisting districts and schools with health education. This assistance is focused on developing, revising, or assisting in developing model policies, policy guidance, and other materials to inform district or school policy; distributing or providing to district or school staff model policies, policy guidance, and other materials; and providing technical assistance on a variety of topics. States are generally more likely to provide technical assistance than they are to develop, revise, or assist in developing policies or distribute or provide policies. States also are generally more likely to provide any of the three types of assistance on specific health education topics than they are on certification or licensure requirements or time requirements for health education. In addition, states provide a considerable amount of professional development to those who teach health education. With additional resources from public or private sources, it is possible that even more professional development could be offered.

Districts also can support schools by providing resources for health education including lesson plans or learning activities, lists of recommended health education curricula or textbooks, and plans or strategies for assessing or evaluating students in health education. While more than one half of districts provided a list of recommended health education curricula to elementary, middle, and high schools it is unclear from the data what these recommendations were based on. Only about one in 10 districts employed a curriculum analysis tool, such as the HECAT.² Increased use of a science-based tool to evaluate health education curricula would increase the chances that districts were recommending effective curricula and consequently improve the quality of instruction.

Since 2000, districts have changed the focus of professional preparation for those who teach health education to reflect issues of national concern. For example, increases were detected in the percentage of districts providing funding for professional development or offering professional development on two topics related to the obesity epidemic: nutrition and dietary behavior and physical activity and fitness. Increases also were detected in the percentage of districts providing funding for professional development or offering professional development on three topics relevant to the outbreaks of violence in our society: emotional and

mental health, suicide prevention, and violence prevention. Similarly, increases were seen in the percentage of districts that had adopted a policy stating that elementary, middle, and high schools will teach about violence prevention and that middle schools will teach about suicide prevention. In recognition of the leading cause of death among children, the percentage of districts that had adopted a policy stating that elementary schools will teach injury prevention and safety also increased.

Perhaps reflecting decreased concern about the AIDS epidemic or increased concerns about the appropriateness of teaching children about topics related to human sexuality, the percentage of districts that had adopted a policy stating that elementary school will teach about HIV prevention and other STD prevention declined since 2000. Relatedly, the percentage of districts that had adopted a policy stating that high schools will allow parents or guardians to exclude their children from receiving instruction on pregnancy prevention, HIV prevention, other STD prevention, or human sexuality increased. The number of parents that choose to exclude their children from this type of instruction, however, is low³ and, in 2012, at least two thirds of districts had adopted a policy stating that middle and high schools would teach about HIV prevention, other STD prevention, pregnancy prevention, and human sexuality.

SHPPS 2012 provides a much needed update on the characteristics of effective health education at the state and district levels nationwide. Despite evidence of supportive policies and practices, these data indicate that there is room to increase the percentage of states and districts that implement the policies and practices that support effective health education and are most likely to help students establish lifelong healthy behaviors. SHPPS 2014, which will assess health education practices at the school and classroom levels, will help assess progress in this area.

REFERENCES

1. Joint Committee on National Health Education Standards. *National Health Education Standards*, Second Edition, Achieving Excellence. Atlanta, GA: American Cancer Society; 2007. Available at: <http://www.cdc.gov/healthyyouth/sher/standards/>.
2. Centers for Disease Control and Prevention. *Health Education Curriculum Analysis Tool*. Atlanta, GA: Centers for Disease Control and Prevention; 2007. Available at: <http://www.cdc.gov/HealthyYouth/hecat/>.
3. Kann L, Telljohann SK, Wooley SF. Health education: Results from the School Health Policies and Programs Study 2006. *Journal of School Health*. 2007; 77(8):408–434.

Chapter 4

Physical Education and Physical Activity: Results from the School Health Policies and Practices Study 2012

*Sarah M. Lee, PhD; Allison J. Nihiser, MPH; Janet E. Fulton, PhD;
Bridget Borgogna, MEd; Francesca Zavacky, MEd**

This chapter describes the findings from the 2012 School Health Policies and Practices Study (SHPPS) related to physical education and physical activity. It includes state-level information on physical education standards; state assistance to districts and schools; certification, licensure, and endorsement; professional development; fitness testing; collaboration; and state physical education coordinators. At the district level, this chapter describes physical education standards, physical education requirements, physical education curriculum, student assessment, students with disabilities, physical activity, use of protective gear, physical activity and discipline, interscholastic sports, staffing and staff qualifications, professional development, collaboration, promotion, evaluation, and district physical education coordinators. The chapter also describes significant trends over time at both the state and district levels.

STATE-LEVEL RESULTS

Physical Education Standards

Nationwide, 98.0% of states had adopted national or state physical education standards. Among all states, 86.0% had adopted standards that were based on the National Standards for Physical Education from the National Association for Sport and Physical Education (NASPE).¹ Further, 98.0% of states had adopted standards for elementary school physical education, 96.1% had adopted them for middle school physical education, and 98.0% had adopted them for high school physical education. More than 95% of states had adopted standards for elementary, middle, and high school physical education that specifically addressed each of the six National Standards for Physical Education (Table 1).

State Assistance to Districts and Schools

States may offer multiple types of assistance to help districts and schools improve and provide physical education. This assistance included developing or revising model policies, policy guidance, or other policy-related materials on physical education and physical activity topics to inform district or school policy and distributing or providing such materials to district or school staff. During the two years before the study, the percentage of states that distributed or provided model policies, policy guidance, or other materials was higher than the percentage of states that developed, revised, or assisted in the development of these items for every physical education and physical activity topic (Table 2). In addition, during the two years before the study, 53.1% of states distributed or provided the Physical Education Curriculum Analysis Tool (PECAT)² to district or school staff.

States also provided technical assistance (one-on-one, tailored guidance to meet the specific needs of a district or school that may be provided through phone, e-mail, Internet, or in-person meetings) to district or school staff on both physical education and physical activity topics. During the 12 months before the study, 70% or more of states provided technical assistance to district or school staff on characteristics of effective physical education curricula; exemptions or waivers for physical education requirements; graduation requirements for high school physical education; professional development or continuing education requirements to maintain certification or licensure; time requirements for elementary and middle school physical education; using data to plan or evaluate physical education policies or practices; using fitness tests; physical activity outside of physical education

* Sarah M. Lee is Lead Health Scientist, Allison J. Nihiser is a Health Scientist, and Bridget Borgogna is a Health Education Specialist, School Health Branch, Division of Population Health, CDC; Janet E. Fulton is Team Lead, Epidemiology and Surveillance Team, Physical Activity and Health Branch, Division of Nutrition, Physical Activity, and Obesity, CDC; and Francesca Zavacky is Senior Program Manager, American Alliance for Health, Physical Education, Recreation, and Dance. Shellie Pfohl, MS and Meredith Aronson, MPS served as reviewers from the President's Council on Physical Fitness and Nutrition, where Ms. Pfohl is Executive Director and Ms. Aronson is an ORISE Fellow.

Table 1. Percentage of states that had adopted specific standards for physical education and districts that followed specific standards for physical education, by school level, SHPPS 2012

Standard	States (%)			Districts (%)		
	Elementary School	Middle School	High School	Elementary School	Middle School	High School
Achievement and maintenance of a health-enhancing level of physical fitness	98.0	96.0	98.0	88.7	92.2	89.4
Competence in motor skills and movement patterns needed to perform a variety of physical activities	98.0	96.0	96.1	92.7	93.0	90.3
Regular participation in physical activity	95.9	95.9	98.0	92.0	93.2	92.7
Responsible personal and social behavior that respects self and others in physical activity settings	98.0	96.0	98.0	92.1	93.7	91.5
Understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities	96.0	96.0	98.0	92.2	93.3	90.3
Value for physical activity for health, enjoyment, challenge, self-expression, and/or social interaction	96.0	96.0	98.0	91.5	94.0	92.2

and recess (e.g., classroom-based physical activity); preventing, recognizing, and responding to concussions among students; and recess (Table 3). States also provided resources for districts and schools for physical education, including plans or tools for assessing or evaluating students in physical education (60.8% of states provided this for elementary school physical education, 64.0% for middle school, and 64.7% for high school), lesson plans or learning activities for physical education (60.8% of states provided this for elementary school physical education, 60.8% for middle school, and 56.9% for high school), and lists of recommended curricula (51.0% of states provided this for elementary school physical education, 49.0% for middle school, and 41.2% for high school).

During the two years before the study, states developed, revised, or assisted in developing or improving each of the following items: lesson plans or learning activities for physical education (66.7% of states), plans or tools for assessing or evaluating students in physical education (64.7% of states), physical education standards (51.0% of states), and physical education curricula (47.1% of states).

Certification, Licensure, and Endorsement

States may offer several types of certification, licensure, or endorsement for physical education teachers. Nationwide, 90.2% of states offered certification, licensure, or endorsement for physical education for grades K-12, 58.0% offered it for elementary school physical education, 58.8% offered

it for middle school physical education, and 60.8% offered it for high school physical education. In addition, 41.2% of states offered certification, licensure, or endorsement for combined physical education and health education for grades K-12, 24.0% offered it for combined physical education and health education for elementary school, 24.0% offered it for combined physical education and health education for middle school, and 25.5% offered it for combined physical education and health education for high school.

Professional Development

Professional development was defined as workshops, conferences, continuing education, graduate courses, or any other kind of in-service for those who teach physical education. During the two years before the study, states provided funding for professional development or offered professional development for those who teach physical education on a variety of physical education and physical activity topics (Table 4). Most (96.1%) states provided funding for or offered professional development on at least one of the 26 physical education and physical activity topics included in the questionnaire, 60.8% provided funding for or offered professional development on at least 13 of the 26, and 2.0% of states provided funding for or offered professional development on all 26 topics. During the two years before the study, the two most frequently offered topics for professional development were aligning physical education standards to curriculum, instruction, or student

Table 2. Percentage of states that provided policy-related assistance to districts and schools during the two years before the study, by type of assistance, SHPPS 2012

Topic	States (%)	
	Developed, Revised, or Assisted in Developing Model Policies, Policy Guidance, or Other Materials	Distributed or Provided Model Policies, Policy Guidance, or Other Materials
Physical education topics		
Assessing student achievement of physical education standards	45.1	52.9
Certification or licensure requirements for physical education teachers	40.0	56.0
Exemptions or waivers for physical education requirements	56.9	74.0
Graduation requirements for high school physical education	54.0	70.6
Professional development or continuing education requirements to maintain certification or licensure	44.9	62.0
Student-teacher ratios for physical education	23.5	43.1
Time requirements for elementary school physical education	39.6	64.7
Time requirements for middle school physical education	36.7	62.7
Time requirements for high school physical education	32.0	60.8
Time spent in moderate-to-vigorous physical activity during physical education class	46.0	56.0
Use of physical activity as a punishment during physical education class	37.3	47.1
Using fitness tests	47.1	60.0
Physical activity topics		
Joint use agreements for physical activity facilities	36.7	40.0
Measuring or monitoring student weight status (e.g., body mass index)	44.9	56.0
Physical activity outside of physical education and recess	60.8	74.0
Preventing, recognizing, and responding to concussions among students	68.6	68.0
Recess	49.0	58.8
Walking or biking to or from school	56.9	66.7

assessment and helping classroom teachers integrate physical activity into their classroom. In addition, during the two years before the study, 26.5% of states provided funding for professional development or offered professional development to coaches of interscholastic sports.

Fitness Testing

States may help districts and schools use fitness tests and report results from them. Specifically, in 27.4% of states, districts or schools reported fitness test data to the state education agency or state health department. Among these states, 50.0% made district- or school-level fitness test data available to the public (e.g., by posting it on a Web site). States also reported using fitness test data in a variety of

ways, such as to inform the development or improvement of policies and to monitor student fitness levels (Table 5).

Collaboration

State-level physical education staff may work on physical education activities with other state-level staff and with staff or members from other organizations and agencies. During the 12 months before the study, state-level physical education staff worked on physical education activities with health education staff in 84.3% of states, with child nutrition or nutrition services staff in 78.4% of states, with health services staff in 70.6% of states, and with mental health or social services staff in 43.1% of states.

Table 3. Percentage of states that provided technical assistance* to district or school staff on physical education and physical activity topics during the 12 months before the study, by topic, SHPPS 2012

Topic	States (%)
Physical education topics	
Assessing student achievement of physical education standards	66.0
Certification or licensure requirements for physical education teachers	67.3
Characteristics of effective physical education curricula	74.0
Exemptions or waivers for physical education requirements	72.5
Graduation requirements for high school physical education	77.6
Professional development or continuing education requirements to maintain certification or licensure	74.0
Student-teacher ratios for physical education	44.0
Time requirements for elementary school physical education	72.0
Time requirements for middle school physical education	70.0
Time requirements for high school physical education	64.0
Time spent in moderate-to-vigorous physical activity during physical education class	62.0
Use of physical activity as punishment during physical education class	52.0
Using data to plan or evaluate physical education policies or practices	74.0
Using fitness tests	70.0
Using the Physical Education Curriculum Analysis Tool to help assess physical education curricula	40.0
Physical activity topics	
Joint use agreements for physical activity facilities	32.0
Measuring or monitoring student weight status (e.g., body mass index)	58.0
Physical activity outside of physical education and recess (e.g., classroom-based physical activity)	79.2
Preventing, recognizing, and responding to concussions among students	70.0
Recess	70.0
Walking or biking to or from school	68.0

* One-on-one, tailored guidance to meet the specific needs of the district or school that may be provided through phone, e-mail, Internet, or in-person meetings.

In addition, state-level physical education staff in more than two thirds of states worked on physical education activities with a state affiliate of the American Alliance for Health, Physical Education, Recreation, and Dance (AAHPERD) (93.9% of states), the state health department (93.9%), colleges

or universities (89.8%), a state-level health organization (e.g., the American Heart Association or the American Cancer Society) (79.6%), Action for Healthy Kids (71.4%), and a state-level school nurses’ association or organization (69.4%). State-level physical education staff in less than two thirds of states worked on physical education activities with the Alliance for a Healthier Generation (62.5% of states), foundations (61.7%), the state department of transportation (54.2%), businesses (51.0%), state-level parents’ organizations (e.g., the PTA) (50.0%), the state parks or recreation department (45.8%), a state-level athletic training association (43.8%), the Governor’s Council on Physical Fitness and Sports (42.0%), a state mental health or social services agency (36.7%), a state-level physicians’ organization (e.g., the American Academy of Pediatrics) (35.4%), and a professional sports team (31.3%).

State Physical Education Coordinators

Eighty-two percent of states had someone to oversee or coordinate physical education. In 85.7% of these states, that person served as the respondent to the state-level physical education and activity SHPPS questionnaire. Among these respondents (representing 70.3% of states nationwide), 100.0% had at least an undergraduate degree and 88.9% had a graduate degree. The most common undergraduate major was physical education (80.6% of respondents).* Few (8.3%) majored in health education, 5.6% majored in another education topic, and 5.6% majored in some other undergraduate major not listed on the questionnaire. More than half (58.3%) of respondents had an undergraduate minor. Among respondents with minors, 19.0% had a minor in health education, 14.3% in other education, 9.5% in physical education, and 57.1% had a minor not listed on the questionnaire. Among the physical education coordinators with graduate degrees, the most common areas of graduate work were health education (28.1%) and physical education (25.0%). Three fourths (75.0%) of the respondents were certified, licensed, or endorsed by the state to teach physical education at the elementary school level, 83.3% were certified, licensed, or endorsed by the state to teach physical education at the middle school level, and 83.3% were certified, licensed, or endorsed by the state to teach physical education at the high school level.

* Respondents were able to select more than one option for the undergraduate major, minor, and graduate degree, as applicable.

Table 4. Percentage of states and districts that provided funding for professional development* or offered professional development for those who teach physical education during the two years before the study, by topic, SHPPS 2012

Topic	States (%)	Districts (%)
Administering or using fitness tests	64.7	71.1
Aligning physical education standards to curriculum, instruction, or student assessment	74.0	71.9
Assessing or evaluating student performance in physical education	70.6	66.3
Assessing student weight status using body mass index, skinfolds, or bioelectric impedance	42.0	46.5
Chronic health conditions (e.g., asthma or diabetes) including recognizing and responding to severe symptoms or reducing triggers	33.3	54.0
Developing and using student portfolios for physical education	32.0	20.3
Developing, implementing, and evaluating a comprehensive school physical activity program	49.0	42.2
Encouraging family involvement in physical activity	64.7	53.9
Establishing walking or biking to school programs	60.8	29.1
Helping classroom teachers integrate physical activity into their classrooms	73.5	39.4
Helping students develop individualized physical activity plans	54.9	52.9
How to prevent, recognize, and respond to concussions among students	43.1	72.7
Injury prevention and first aid	44.0	81.0
Methods for developing, implementing, and evaluating physical activity clubs or intramural sports programs	25.5	32.6
Methods to increase the amount of class time students are engaged in moderate-to-vigorous physical activity	66.7	55.1
Methods to promote gender equity in physical education and sports	41.2	46.1
Teaching individual or paired activities or sports	58.8	60.1
Teaching methods to promote inclusion and active participation of overweight and obese children during physical education	43.1	47.8
Teaching movement skills and concepts	66.7	61.9
Teaching online or distance education courses	26.0	16.5
Teaching physical education to students with long-term physical, medical, or cognitive disabilities	47.1	54.7
Teaching team or group activities or sports	60.8	66.0
Using data to plan or evaluate physical education policies or practices	68.0	48.4
Using physical activity monitoring devices (e.g., pedometers or heart rate monitors) for physical education	64.7	60.3
Using technology (e.g., computers or video cameras) for physical education	52.9	58.6
Using the Physical Education Curriculum Analysis Tool to help assess physical education curricula	42.0	14.0

* Workshops, conferences, continuing education, graduate courses, or any other kind of in-service on health topics or instructional strategies.

Trends Over Time

Several variables met the criteria for significant difference over time outlined in Chapter 2. Between 2000 and 2012, the percentage of states that provided lesson plans or learning activities for middle school physical education during the two years before the study increased from 30.6% to 60.8% and the percentage of states that provided plans or tools for assessing or evaluating students in middle school physical education increased from 33.3% to 64.0%. An increase also was detected in the percentage of states that provided plans or tools

for assessing or evaluating students in high school physical education (from 32.0% to 64.7%).

Between 2000 and 2012, the percentage of states that provided funding for professional development or offered professional development during the two years before the study to those who teach physical education increased for the following topics: administering or using fitness tests (from 30.6% to 64.7%), encouraging family involvement in physical activity (from 24.5% to 64.7%), methods to increase the amount of class time students are engaged in moderate-to-vigorous physical activity (from 28.0%

Table 5. Percentage of states* that used fitness test data for selected purposes, by purpose, SHPPS 2012

Purpose	States (%)
Assess student performance in physical education	9.8
Inform the development or improvement of policies, standards, or instruction for physical education	25.5
Monitor student fitness levels	25.5
Monitor student obesity rates	13.7

* Among the 27.4% of states where districts or schools in the state reported fitness test data to the state education agency or state health department.

to 66.7%), and teaching movement skills and concepts (from 38.8% to 66.7%).

Between 2000 and 2012, changes also were detected in the percentage of states in which state-level physical education staff collaborated with other state-level staff and staff or members from other agencies and organizations. Specifically, during the 12 months before the study, the percentage of states in which state-level physical education staff worked on physical education activities with state-level child nutrition or nutrition services staff increased from 42.0% to 78.4%, with state-level health education staff increased from 72.0% to 84.3%, with state-level health services staff increased from 48.0% to 70.6%, and with staff or members from an AAHPERD state affiliate increased from 70.0% to 93.9%.

DISTRICT-LEVEL RESULTS

Physical Education Standards

Most (86.1%) districts had adopted a policy stating that schools will follow any national, state, or district physical education standards, while 4.5% of districts had adopted a policy encouraging this practice. Among all districts, 65.6% had standards that were based on the National Standards for Physical Education.¹ In addition, among the 90.6% of districts that had adopted a policy requiring or encouraging schools to follow any national, state, or district physical education standards, 61.4% also had adopted a policy requiring schools to assess student achievement of the physical education standards used by their district.

Nationwide, 93.7% of districts followed standards for elementary school physical education, 95.3% of districts followed standards for middle school

physical education, and 94.3% of districts followed standards for high school physical education. At least 88% of districts that provided elementary school instruction, at least 92% that provided middle school instruction, and at least 89% that provided high school instruction had standards that addressed each of the National Standards for Physical Education (Table 1).

Physical Education Requirements

Nationwide, 93.6% of districts had adopted a policy stating that elementary schools will teach physical education, 91.9% had such a policy for middle schools, and 92.4% had such a policy for high schools. Districts used many ways to describe how much health education students were required to receive (e.g., minutes per week, hours per quarter, or hours per year). Nationwide, 78.3% of districts had specified time requirements for elementary school physical education, 72.0% had specified time requirements for middle school physical education, and 79.8% had specified time requirements for high school physical education.

Among districts that had adopted a policy requiring schools to teach physical education, 46.9% of these districts had adopted a policy describing reasons that elementary school students may be exempted from physical education, 44.4% of these districts had adopted such a policy for middle school physical education, and 47.6% of these districts had adopted such a policy for high school physical education. Long-term physical or medical disability was by far the most common reason that elementary, middle, and high school students could be exempted from physical education requirements for one grading period or longer (Table 6). Further, among districts that had adopted a policy requiring schools to teach physical education, 16.4% had adopted a policy stating that elementary school students can be excused from one or more physical education class periods for additional instructional time, remedial work, or test preparation for other subjects, 20.9% had adopted such a policy for middle school students, and 18.8% had adopted such a policy for high school students. In contrast, among districts that had adopted a policy requiring schools to teach physical education, 10.8% had adopted a policy prohibiting exemptions from physical education requirements for one grading period or longer for elementary school students, 14.0% had adopted such

Table 6. Percentage of districts that had adopted a policy allowing students to be exempted from physical education requirements for one grading period or longer for specific reasons, by school level, SHPPS 2012

Reason for Exemption	Districts (%)		
	Elementary School*	Middle School†	High School§
Achievement of positive, passing, or high physical fitness test scores	3.9	8.8	11.8
Cognitive disability	15.7	21.5	19.0
Enrollment in other courses (e.g., math or science)	NA	5.7	6.6
Long-term physical or medical disability	43.5	41.2	40.5
Participation in community service activities	3.8	3.6	2.5
Participation in community sports activities	5.2	5.4	6.5
Participation in school activities other than sports (e.g., band or chorus)	8.2	12.3	19.5
Participation in school sports	NA	9.1	20.3
Participation in vocational training	NA	2.1	4.3
Religious reasons	19.9	16.7	13.7

* Among the 93.6% of districts that had adopted a policy stating that elementary schools will teach physical education.

† Among the 91.9% of districts that had adopted a policy stating that middle schools will teach physical education.

§ Among the 92.4% of districts that had adopted a policy stating that high schools will teach physical education.

a policy for middle school students, and 18.0% had adopted such a policy for high school students.

More than one fourth (28.4%) of districts had adopted a policy specifying a maximum student-to-teacher ratio for physical education in elementary school, 24.4% of districts had adopted such a policy for physical education in middle school, and 28.9% of districts had adopted such a policy for physical education in high school.

Physical Education Curriculum

Curriculum was defined as a detailed set of lessons, directions, strategies, and materials to facilitate student learning and teaching of content. Nationwide, 24.3% of districts required and 26.0% recommended that schools use one particular curriculum for elementary school physical education, 26.7% of districts required and 28.0% recommended that schools use one particular curriculum for middle school physical education, and 28.3% of districts required and 24.0% recommended that schools use one particular curriculum for high school physical education. Among districts requiring or recommending that

schools use one particular physical education curriculum, the school district and state education agency were the most common developers of the curriculum (Table 7).

During the two years before the study, districts provided a variety of resources (e.g., lesson plans or learning activities, a list of one or more recommended curricula, and plans or tools for assessing students) for physical education at the elementary, middle, and high school levels (Table 8). Further, 11.8% of districts used a curriculum analysis tool (e.g., PECAT²) to assess one or more physical education curricula for elementary schools, 11.7% used a curriculum analysis tool to assess middle school curricula, and 10.3% used a curriculum analysis tool to assess high school curricula.

Student Assessment

Elementary School

Nationwide, 4.8% of districts required and 22.0% recommended that elementary schools give written tests of students' knowledge related to physical education, 19.4% required and 34.4% recommended

Table 7. Percentage of districts in which physical education curricula were developed by specific organizations or agencies, by school level, SHPPS 2012

Organization or Agency	Districts (%)		
	Elementary School*	Middle School†	High School§
College or university	2.9	1.9	2.0
Commercial company	11.6	7.4	5.8
National or state-level health organization (e.g., the American Heart Association or American Cancer Society)	13.5	9.4	9.2
Other state agency	2.8	2.2	2.0
School district	57.7	65.9	65.8
State education agency	53.2	56.9	62.4

* Among the 50.3% of districts that required or recommended one particular curriculum for elementary school physical education.

† Among the 54.7% of districts that required or recommended one particular curriculum for middle school physical education.

§ Among the 52.3% of districts that required or recommended one particular curriculum for high school physical education.

that elementary schools give skill performance tests, 7.3% required and 34.5% recommended that elementary schools assess students’ physical activity levels (e.g., through the use of physical activity logs or pedometers), and 38.0% required and 29.9% recommended that elementary schools test students’ fitness levels. Districts required or recommended elementary schools use specific types of fitness tests. Among all districts, 23.2% required and 13.2% recommended the use of Fitnessgram,[®] 11.8% required and 31.3% recommended the use of the Physical Fitness Test from the President’s Challenge, and 5.3% required and 3.4% recommended the use of any other fitness test. Finally, among districts that required or recommended that elementary schools test students’ fitness levels, 47.8% required the elementary schools to submit students’ fitness test results to the state or district.

Middle School

Nationwide, 10.6% of districts required and 31.6% recommended that middle schools give written tests of students’ knowledge related to physical education, 21.3% required and 35.3% recommended that middle schools give skill performance tests, 11.2% required and 36.2% recommended that middle schools assess students’ physical activity levels (e.g., through physical activity logs or pedometers), and 38.8% required and 32.2% recommended that middle schools test students’ fitness levels. Among all districts, 26.0% required and 14.2% recommended the use of Fitnessgram,[®] 11.7% required and 29.5% recommended the Physical Fitness Test from the President’s

Challenge, and 6.4% required and 3.0% recommended the use of any other fitness test. Finally, among districts that required or recommended that middle schools test students’ fitness levels, 46.5% required the middle schools to submit students’ fitness test results to the state or district.

High School

Nationwide, 19.5% of districts required and 37.5% recommended that high schools give written tests of students’ knowledge related to physical education, 19.5% required and 40.4% recommended that high schools give skill performance tests, 10.3% required and 39.2% recommended that high schools assess students’ physical activity levels (e.g., through physical activity logs or pedometers), and 35.4% required and 34.7% recommended that high schools test students’ fitness levels. Among all districts, 22.8% required and 17.5% recommended the use of Fitnessgram,[®] 11.3% required and 27.6% recommended the Physical Fitness Test from the President’s Challenge, and 7.4% required and 5.0% recommended the use of any other fitness test. Finally, among districts that required or recommended that high schools test students’ fitness levels, 43.0% required the high schools to submit students’ fitness test results to the state or district.

Table 8. Percentage of districts that provided resources for school physical education, by school level, SHPPS 2012

Resource	Districts (%)		
	Elementary School	Middle School	High School
Lesson plans or learning activities for physical education	50.2	48.4	46.7
List of one or more recommended physical education curricula	43.9	44.8	41.5
Plans or tools for assessing or evaluating students in physical education	54.3	53.3	52.8

Students with Disabilities

More than 90% of districts required schools to meet the physical education needs of students with long-term physical, medical, or cognitive disabilities by using the following strategies: mainstreaming into regular physical education as appropriate (97.8% of districts), using modified instructional strategies (95.7% of districts), including physical education in 504 plans or Individualized Education Programs (95.6% of districts), using modified assessment (93.9% of districts), providing adapted physical education as appropriate (92.8% of districts), and using modified equipment or facilities in regular physical education (91.5% of districts). In addition, 79.2% of districts required schools to use teaching assistants in regular physical education to meet the needs of students with long-term disabilities.

Physical Activity

Districts also had requirements and recommendations related to school-based physical activity. Specifically, 58.9% of districts required and 34.2% recommended that elementary schools provide students with regularly scheduled recess. Among the 93.1% of districts that required or recommended regularly scheduled recess, 1.1% required or recommended less than 10 minutes per day, 24.3% required or recommended 10 to 19 minutes per day, 32.8% required or recommended 20 to 29 minutes per day, 30.2% required or recommended 30 or more minutes per day, and 11.5% did not have specified time requirements or recommendations. In addition, 11.8% of districts required and 33.3% recommended that elementary schools provide regular physical activity breaks, outside of physical education class and recess, during the school day; 10.8% of districts required and 23.0% recommended that middle schools provide activity breaks, outside of physical education class, and 2.0% of districts required and 11.7% recommended that high schools provide

physical activity breaks, outside of physical education class.

Use of Protective Gear

More than one half of districts had adopted a policy requiring that students wear appropriate protective gear during a variety of physical activities. Specifically, 83.7% had adopted a policy requiring that students wear appropriate protective gear when engaged in interscholastic sports, 57.9% had adopted such a policy for students when engaged in physical activity clubs or intramural sports, and 51.8% of districts had adopted such a policy for students during physical education.

Physical Activity and Discipline

Nationwide, 68.4% of districts prohibited or actively discouraged schools from using physical activity (e.g., laps or push-ups) to punish students for bad behavior in physical education and 63.5% of districts prohibited or actively discouraged schools from using physical activity to punish students for poor performance or bad behavior in interscholastic sports. Seventy-one percent of districts prohibited or actively discouraged schools from excluding students from all or part of physical education to punish students for bad behavior or failure to complete class work in another class and 63.9% of districts prohibited or actively discouraged schools from excluding students from all or part of physical education to punish students for bad behavior in physical education. Further, 44.2% of districts prohibited or actively discouraged elementary schools from excluding students from all or part of recess for bad behavior or failure to complete class work.

Interscholastic Sports

Districts support interscholastic sports and coaches with a variety of policies. Specifically, 77.0% of districts had adopted a policy requiring head coaches

to have training on how to prevent, recognize, and respond to concussions among students; 70.5% required head coaches to complete a coaches' training course; 68.6% required head coaches to be certified in cardiopulmonary resuscitation; 68.0% required head coaches to be certified in first aid; 65.2% required head coaches to complete a sports safety course; 50.2% required head coaches to be employed by the school or school district; 35.0% required head coaches to have a teaching certificate; 30.8% required head coaches to have previous coaching experience in the sport(s) they coach; and 28.3% required head coaches to have previous coaching experience in any sport. Further, 56.0% of districts had adopted a policy requiring assistant coaches or volunteer athletic aides (i.e., a person who assists the coach, but is not paid for doing so) to complete a training course. During the two years before the study, 64.3% of districts provided funding for or offered professional development to coaches of interscholastic sports.

During the 12 months before the study, 73.4% of districts provided educational materials to student athletes or their parents on preventing, recognizing, and responding to concussions and 58.7% of districts provided educational sessions to student athletes or their parents on preventing, recognizing, and responding to concussions. Additionally, 87.2% of districts had adopted a policy requiring clearance by a healthcare provider before allowing student athletes to further participate in practice or competition after a suspected concussion, 85.4% of districts had adopted a policy requiring that student athletes suspected of having a concussion be removed immediately from practice or competition, and 34.5% of districts had adopted a policy requiring schools to conduct neurocognitive testing* of student athletes before participation in interscholastic sports.

Staffing and Staff Qualifications

Nationwide, 52.0% of districts had adopted a policy stating that each school will have someone to oversee or coordinate physical education at the school (e.g., a department chair). Districts also had adopted policies that set minimum standards for physical education staff qualifications. Nationwide, 75.2% of districts had adopted a policy stating that newly hired staff who teach physical education at the

elementary school level will have undergraduate or graduate training in physical education or a related field and 84.4% of districts had adopted a policy stating that newly hired staff who teach physical education at the elementary school level will be certified, licensed, or endorsed by the state to teach physical education. More than three fourths (81.0%) of districts had adopted a policy stating that newly hired staff who teach physical education at the middle school level will have undergraduate or graduate training in physical education or a related field and 87.0% of districts had adopted a policy stating that newly hired staff who teach physical education at the middle school level will be certified, licensed, or endorsed by the state to teach physical education. Similarly, 80.0% of districts had adopted a policy stating that newly hired staff who teach physical education at the high school level will have undergraduate or graduate training in physical education or a related field and 89.0% of districts had adopted a policy stating that newly hired staff who teach physical education at the high school level will be certified, licensed, or endorsed by the state to teach physical education.

Professional Development

More than one half (52.7%) of districts had adopted a policy stating that those who teach physical education are required to earn continuing education credits on physical education topics or instructional strategies. During the two years before the study, 95.8% of districts provided funding for professional development or offered professional development to those who teach physical education on at least one of the 26 physical education topics included in the questionnaire and 54.6% provided funding for or offered professional development on at least 13 of the 26. Only 3.2% of districts provided funding for or offered professional development on all 26 physical education topics. More than 70% of districts provided funding for professional development or offered professional development on administering or using fitness tests; aligning physical education standards to curriculum, instruction, or student assessment; how to prevent, recognize, and respond to concussions among students; and injury prevention and first aid (Table 4).

Collaboration

District-level physical education staff may work on physical education activities with other district-level

* Tests the function of the brain to evaluate decision-making ability, reaction time, attention, and memory. Some of these tests can be conducted in the school setting by qualified and trained professionals (e.g., nurses, school psychologists, and athletic trainers).

staff and with staff or members from other agencies and organizations. During the 12 months before the study, district-level physical education staff worked on physical education activities with general curriculum coordinators or supervisors in 56.8% of districts, with health education staff in 56.3% of districts, with health services staff in 44.8% of districts, with nutrition or food service staff in 41.5% of districts, and with mental health or social services staff in 30.9% of districts. In addition, district-level physical education staff in more than one third of districts worked on physical education activities with staff or members from a health organization (e.g., the American Heart Association or the American Cancer Society) (62.4%), a local health department (48.3%), a local law enforcement agency (35.9%), a local parks or recreation department (35.4%), a local college or university (34.4%), and a local mental health or social services agency (33.2%). District-level physical education staff in less than one third of districts worked on physical education activities with staff or members from a local business (30.0%), a local hospital (29.2%), a local youth organization (e.g., the Boys and Girls Club) (25.2%), a local service club (e.g., the Rotary Club) (23.1%), Action for Healthy Kids (13.9%), a local professional sports team (11.4%), a local department of transportation or public works (10.6%), and the Alliance for a Healthier Generation (8.3%).

Promotion

District-level physical education staff may promote physical education and physical activity in a variety of ways. During the 12 months before the study, 65.4% of districts provided families of all students with information on school physical education, 59.9% of districts provided district or school personnel (e.g., classroom teachers, administrators, or school board members) with information on school physical education, 55.9% of districts provided families of all students with information on physical activity, 48.5% of districts provided awards or recognition for outstanding implementation of physical activity programs (e.g., physical activity clubs or intramural sports programs), and 45.6% of districts sought positive media attention for physical education.

Evaluation

During the two years before the study, districts evaluated various aspects of physical education.

Specifically, 89.4% of districts evaluated physical education teachers, 66.0% of districts evaluated physical education curricula, 55.4% of districts evaluated physical education policies, and 50.3% of districts evaluated physical education professional development or in-service programs. Additionally, 67.6% of districts required schools to report on the number of minutes of physical education required in each grade level, 60.1% of districts required schools to report on the number of minutes of elementary school recess, and 30.1% of districts required schools to report on the number of classroom physical activity breaks.

District Physical Education Coordinators

Nationwide, 63.2% of districts had someone to oversee or coordinate physical education. Unfortunately, the percentage of these coordinators who served as the respondent to the district-level physical education and activity questionnaire was too small for meaningful analysis of the data about the coordinators' qualifications.

Trends Over Time

Several variables met the criteria for significant difference over time outlined in Chapter 2. Between 2000 and 2012, the percentage of districts that had adopted a policy stating that schools will follow any national, state, or district physical education standards increased from 66.5% to 86.1%. An increase from 45.5% to 65.6% also was observed in the percentage of districts with physical education standards based on the National Standards for Physical Education.¹

Between 2000 and 2012, the percentage of districts that had adopted a policy stating that elementary schools will teach physical education increased from 82.6% to 93.6%. In addition, the percentage of districts that allowed students to be exempted from physical education requirements for one grading period or longer for religious reasons decreased from 32.4% to 16.7% for middle school students and from 33.8% to 13.7% for high school students.

Multiple changes related to fitness testing in schools also were detected. Between 2000 and 2012, the percentage of districts that required or recommended that elementary schools test students' fitness levels increased from 18.3% to 38.0%. An increase also was observed in the percentage of districts that required or recommended schools use Fitnessgram:[®] from 12.8% to 36.5% for elementary schools, from

9.5% to 40.2% for middle schools, and from 8.3% to 40.3% for high schools.

Between 2000 and 2012, the percentages of districts with policies for students with long-term physical, medical, or cognitive disabilities in physical education changed. Specifically, increases were detected in the percentage of districts that required schools to include physical education in 504 plans or Individualized Education Programs (from 76.1% to 95.6%), mainstream into regular physical education as appropriate (from 82.3% to 97.8%), provide adapted physical education as appropriate (from 74.6% to 92.8%), use modified equipment or facilities in regular physical education (from 65.0% to 91.5%), and use teaching assistants in regular physical education (from 57.2% to 79.2%).

Between 2000 and 2012, changes also were detected in the percentage of districts that had adopted a policy requiring that students wear appropriate protective gear when engaged in interscholastic sports (from 73.4% to 83.7%) as well as when engaged in physical activity clubs or intramural sports (from 40.8% to 57.9%).

Between 2000 and 2012, changes were detected in the percentage of districts that provided funding for professional development or offered professional development. Specifically, the percentage of districts that provided funding for professional development or offered professional development on the following topics during the two years before the study increased: administering or using fitness tests (from 49.8% to 71.1%), assessing or evaluating student performance in physical education (from 48.0% to 66.3%), encouraging family involvement in physical activity (from 28.0% to 53.9%), helping students develop individualized physical activity plans (from 35.1% to 52.9%), injury prevention and first aid (from 62.6% to 81.0%), methods to increase the amount of class time students are engaged in moderate-to-vigorous physical activity (from 32.6% to 55.1%), methods to promote gender equity in physical education and sports (from 35.4% to 46.1%), teaching individual or paired activities or sports (from 46.4% to 60.1%), teaching team or group activities or sports (from 54.9% to 66.0%), teaching movement skills and concepts (from 51.6% to 61.9%), and using technology (e.g., computers or video cameras) for physical education (from 48.0% to 58.6%).

Changes were detected in collaboration between district-level physical education staff and staff and members from other agencies or organizations. Specifically, between 2000 and 2012, the percentage of districts in which district-level physical education staff worked on physical education activities with district-level health education staff during the 12 months before the study increased from 41.1% to 56.3%, with district-level health services staff from 29.9% to 44.8%, with district-level mental health or social services staff from 12.5% to 30.9%, and with district-level nutrition or food service staff from 12.1% to 41.5%. In addition, between 2000 and 2012, the percentage of districts in which district-level physical education staff worked on physical education activities with staff or members from local businesses increased from 15.9% to 30.0%, with staff or members from a health organization (e.g., the American Heart Association or the American Cancer Society) increased from 46.4% to 62.4%, with staff or members from a local health department increased from 24.1% to 48.3%, and with staff or members from a local mental health or social services agency increased from 14.1% to 33.2%. An increase also was detected in the percentage of districts providing families of all students with information on school physical education (from 52.2% in 2000 to 65.4% in 2012).

Between 2000 and 2012, the percentage of districts that evaluated physical education curricula during the two years before the study increased from 55.7% to 66.0% and the percentage of districts that evaluated physical education policies increased from 43.0% to 55.4%.

Between 2000 and 2012, the percentage of districts that had adopted a policy that required head coaches of interscholastic sports to have a teaching certificate decreased from 47.1% to 35.0%. However, the percentage of districts that had adopted a policy that required head coaches to complete a coaches' training course increased from 48.5% to 70.5%.

DISCUSSION

In the 2013 *Physical Activity Guidelines Midcourse Report*, schools were identified as a key setting to provide regular physical activity opportunities for youth.³ Results from SHPPS 2012 indicate both progress and room for further improvements in school physical education and physical activity. For example, nearly every state has physical education standards, and 51% of states were involved in the

development, revision, or improvement of standards. At the district level, an increase was detected between 2000 and 2012 in the percentage of districts that required schools to follow any national, state, or district physical education standards. This finding is likely indicative of the 2004 release of the second edition of the National Standards for Physical Education,¹ which helped elevate the importance of standards-based physical education.

In addition to adopting policies requiring physical education standards, requirements for the provision of physical education also are important. While more than 90% of districts have adopted policies that require elementary, middle, and high schools to teach physical education, districts still allow students to be exempted from physical education for a variety of reasons. Exemptions decrease the perceived importance of and support for participation in physical education for all students and also reduce opportunities for students to accumulate more physical activity in their daily lives. NASPE opposes substitutions and waivers/exemptions from required physical education, as physical education is an essential and integral component of a total education.⁴ Similarly, CDC recommends that such waivers and exemptions not be used.⁵

Fewer than 29% of districts required or recommended one particular physical education curriculum at any school level, although school districts were the most common lead agency for development of physical education curriculum. Districts could benefit from the use of the PECAT² to analyze and revise curriculum or develop new curriculum. However, less than 12% of districts reported using such a tool for elementary, middle, and high schools.

A key indicator of quality physical education is the teacher-to-student ratio in physical education class. Less than one third of districts required a maximum teacher-to-student ratio for elementary, middle, and high schools. This type of policy can support physical education teachers by reducing class sizes, thereby enabling teachers to engage all students in activity during class and minimizing the necessity for additional classroom management.

In education agencies across the nation, assessment of student performance is critical. The type and quality of assessment and whether assessment aligns with national or state standards can play a substantial role in determining the success and impact of

physical education. While districts did report requirements and recommendations for schools to use a variety of assessment methods, further work can be done in this area. For example, the use of physical activity logs or pedometers to measure students' levels of physical activity is a form of assessment that can provide students with feedback on their activity levels and prompt them to participate in more activity. Few districts required this type of assessment, but more required or recommended fitness testing. Between 2000 and 2012, significant increases were detected in the percentage of districts that required or recommended the use of Fitnessgram.[®] In 2012, the President's Council for Fitness, Sport, and Nutrition released the Presidential Youth Fitness Program (PYFP), a three-pillar program that includes assessment, professional development, and recognition. Fitnessgram[®] is the assessment component of PYFP. Districts can support schools to implement PYFP by engaging them in using the Fitnessgram[®] test batteries and student and parent reports, providing professional development on how to assess student fitness and integrate fitness education into the physical education curriculum, and encouraging them to provide students with the PYFP recognition and awards. More information about PYFP can be found at <http://www.presidentialyouthfitnessprogram.org>.

SHPPS revealed that states develop, revise, distribute, and provide pertinent physical education information to districts and schools and provide technical assistance on a variety of timely and innovative physical education topics. These activities are important as they help districts and schools improve the quality and quantity of physical education. Also identified is the increase in the percentage of states that provide lesson plans or learning activities for middle school physical education and plans or tools for assessing or evaluating students in middle school physical education. Both of these resources can help districts and schools implement lessons that align with physical education standards and assist teachers with student assessment or evaluation, which is critical to identify if students are meeting the standards.

One of the most relevant and important professional development topics for physical education teachers is methods to increase the amount of class time students are engaged in moderate-to-vigorous physical activity. Implementation of such methods in physical education class can add to the overall daily

amount of physical activity students have, improve fitness levels, and consistently increase active time in physical education class.⁶ Significant increases were seen between 2000 and 2012 in the percentage of states that provided funding for professional development or offered professional development on this topic. Increases also were detected between 2000 and 2012 in the percentage of districts that provided funding for professional development or offered professional development on engaging students in moderate-to-vigorous physical activity as well as other critical topics, including administering or using fitness tests, helping students develop individualized physical activity plans, and assessing or evaluating student performance in physical education. States and districts can play a significant role in funding and offering regular, quality professional development opportunities for physical education teachers.

In addition to physical education policies and practices, some districts are promoting physical activity in schools. However, only 58.9% of districts required that elementary schools provide regularly scheduled recess for students and less than one in eight districts required schools at each grade level to provide physical activity breaks. Stronger requirements and support for physical activity outside of physical education ensures that students at all grade levels receive multiple opportunities throughout the school day to be active. Let's Move! Active Schools provides schools with support and resources to establish active environments and provide more physical activity opportunities for students. Let's Move! Active Schools focuses on encouraging and enabling schools to develop and implement a CSPAP. More information about the program can be found at <http://www.letsmoveschools.org>.

Collaboration is a key strategy at both the state and district levels for improving the quality of physical education and physical activity in schools. Identifying and securing collaboration with a diverse set of partners provides different perspectives, resources, and strategies to improve physical education and activity. An important resource for state-level physical education staff is the AAHPERD affiliate. Between 2000 and 2012, a significant increase was detected in the percentage of states that reported working with the state AAHPERD affiliate. This type of collaboration can significantly improve the type and quality of both professional development and technical assistance districts and

schools are receiving. At the district level, an increase was detected in the percentage of districts collaborating with local health departments and local mental health or social services agencies. This type of collaboration at the local level can help districts integrate health with education and bring health resources into schools. An increase also was detected in the percentage of district-level physical education staff collaborating with other district-level staff. Of particular note is the increase in district-level physical education staff working with district nutrition or food service staff. Given that districts are required to have local wellness policies that support and promote both healthy eating and physical activity, this type of collaboration can enhance the quality and implementation of local wellness policies.⁷

Another finding from this study was that more than 90% of districts required schools to meet the physical education needs of students with long-term physical, medical, or cognitive disabilities by using a variety of techniques (e.g., modifying equipment or facilities in regular physical education). These techniques can expose students with long-term disabilities to meaningful physical activity and help them learn about the benefits of physical activity.

Overall, schools have taken steps at both the state and district levels to implement physical education policies and practices aligned with national standards and guidance. Further progress can be achieved. Because physical activity provides multiple health and academic benefits for students, both states and districts can support schools in implementing quality physical education and physical activity programs. States and districts can support schools by enhancing the type and frequency of both professional development and technical assistance that is provided to physical education teachers. Additional action steps for states and districts include promoting and sharing success stories about schools that have implemented quality physical education and activity, creating tools and resources that are relevant for schools and students, and supporting the implementation of state and district physical education and physical activity policies.

REFERENCES

1. National Association for Sport and Physical Education. *Moving into the Future: National Standards for Physical Education*. 2nd edition. Reston, VA: National Association for Sport and Physical Education; 2004.

2. Centers for Disease Control and Prevention. *Physical Education Curriculum Analysis Tool*. Atlanta, GA: U.S. Department of Health and Human Services; 2006. Available at: <http://www.cdc.gov/healthyyouth/pecat/>.
3. Physical Activity Guidelines for Americans Midcourse Report Subcommittee of the President's Council on Fitness, Sports & Nutrition. *Physical Activity Guidelines for Americans Midcourse Report: Strategies to Increase Physical Activity Among Youth*. Washington, DC: U.S. Department of Health and Human Services; 2012. Available at: <http://www.health.gov/paguidelines/midcourse/>.
4. National Association for Sport and Physical Education. *Opposing Substitutions and Waivers/Exemptions for Required Physical Education*. Reston, VA: National Association for Sport and Physical Education; 2006. Available at: <http://www.aahperd.org/naspe/standards/upload/Opposing-Substitution-waiver-Exemptions-for-Required-PE-2006.pdf>.
5. Centers for Disease Control and Prevention. School health guidelines to promote healthy eating and physical activity. *Morbidity and Mortality Weekly Report*. 2011;60(5):27–33.
6. Kahn EB, Ramsey LT, Brownson R, Heath GW, Howze EH, Powell KE, Stone EJ, Rajab MW, Corso P, and the Task Force on Community Preventive Services. The effectiveness of interventions to increase physical activity: a systematic review. *American Journal of Preventive Medicine*. 2002; 22(4S):73–107.
7. Richard B. Russell National School Lunch Act, 42 U.S.C.A. Sect. 1758(b) (2011).

Chapter 5

Health Services: Results from the School Health Policies and Practices Study 2012

*Nancy D. Brener, PhD; Mary Vernon-Smiley, MD, MPH; Sandra Leonard, Rebekah Buckley, MPH**

This chapter describes the findings from the 2012 School Health Policies and Practices Study (SHPPS) related to health services. It includes state-level information on state assistance to districts and schools, professional development, funding, school-based health centers, data reporting, collaboration, evaluation, and state health services coordinators. At the district level, this chapter describes funding, school-based health centers, required services, services provided at other sites, immunizations, screenings, services for special needs students, medication administration, standard precautions, student health records and reports, staffing and staff qualifications, professional development, collaboration and promotion, evaluation, and district health services coordinators. The chapter also describes significant trends over time at both the state and district levels.

STATE-LEVEL RESULTS

State Assistance to Districts and Schools

States may offer multiple types of assistance to help districts and schools provide health services to students. This assistance included developing or revising model policies, policy guidance, or other policy-related materials to inform district or school policy, as well as distributing or providing such materials to district or school staff. During the two years before the study, for all health services topics, more states distributed or provided policy-related materials than developed or revised such materials (Table 1). States also provided technical assistance (one-on-one, tailored guidance to meet the specific needs of a district or school that may be provided through phone, e-mail, Internet, or in-person meetings) to district or school staff on health topics. During the 12 months before the study, more than 90% of states provided technical assistance to district or school staff on chronic health conditions,

immunization requirements and exemptions, infectious disease prevention, procedures for administering student medications or treatment, and severe food or other allergies (Table 2).

Professional Development

Professional development was defined as workshops, conferences, continuing education, graduate courses, or any other kind of in-service for school nurses. States provided funding for professional development or offered professional development for school nurses on a variety of health services and prevention topics (Table 3). During the two years before the study, 98.0% of states provided funding for professional development or offered professional development for school nurses on at least one of the topics listed in Table 3. In addition, more than three fourths of states provided funding for professional development or offered professional development for school nurses on identification or school-based management of chronic health conditions, immunizations other than seasonal influenza, teaching self-management of chronic health conditions, HIV prevention, suicide prevention, and violence prevention.

During the two years before the study, 96.0% of states provided funding for professional development or offered professional development to teachers, administrators, or other school staff on at least one of five health services topics. Specifically, 82.0% of states provided funding for professional development or offered professional development on infectious disease prevention, 76.0% provided funding for professional development or offered professional development on HIV infection or AIDS, 72.0% on chronic health conditions, 58.0% on severe food or other allergies, and 30.0% on cardiopulmonary resuscitation (CPR) or the use of automated external defibrillator (AED) equipment.

* **Nancy D. Brener** is Team Lead, Survey Operations and Dissemination Team, Division of Adolescent and School Health, CDC; **Mary Vernon-Smiley** is Senior Medical Officer, Division of Adolescent and School Health, CDC; **Sandra Leonard** is a Health Education Specialist, Division of Adolescent and School Health, CDC; and **Rebekah Buckley** is a Health Scientist, School Health Branch, Division of Population Health, CDC.

Table 1. Percentage of states that provided policy-related assistance to districts and schools during the two years before the study, by type of assistance, SHPPS 2012

Topic	States (%)	
	Developed, Revised, or Assisted in Developing Model Policies, Policy Guidance, or Other Materials	Distributed or Provided Model Policies, Policy Guidance, or Other Materials
Chronic health conditions	72.0	76.5
Closing school or dismissing students when the percentage of absent students or staff reaches a specified level	67.3	72.0
Foodborne illness prevention	32.7	35.3
HIV infection or AIDS	63.3	68.6
Immunization requirements and exemptions	84.0	94.1
Infectious disease prevention	80.0	92.0
Linking students to community healthcare providers	52.0	58.8
Procedures for administering student medications or treatment	74.0	84.3
Screening for health-related conditions, (e.g., hearing or vision problems)	67.3	80.4
Screening for student weight status	48.0	56.0
Sending and keeping students home from school when they are sick	72.0	74.5
Severe food or other allergies	64.0	80.4
Student health records	57.1	68.0
Tuberculosis testing	32.0	41.2

Funding

Standard school health services, defined as those offered to all students, are funded through multiple sources. Fifty-one percent of states funded standard health services for students from the state budget, 45.1% funded them from school district budgets, 7.8% funded them through Medicaid, 2.0% through the State Children's Health Insurance Program (SCHIP), 2.0% through private insurance, 2.0% from public grants, and 2.0% from private grants. In addition, in 62.8% of states, at least some schools serve as Medicaid providers.

School-Based Health Centers

School-based health centers (SBHCs) were defined as health centers on school property where enrolled students can receive primary care, including diagnostic and treatment services. Less than three fourths (71.4%) of states had at least one SBHC that offered both health services and mental health and social services to students, and an additional 8.6% of states had at least one SBHC that offered only health services to students. Among states with at least one SBHC, 43.6% funded SBHC services for students from the state budget, 25.6% funded them from

Medicaid, 23.1% funded them from school district budgets, and 7.7% funded them from public grants.

Data Reporting

Districts or schools report various types of health information to the state education agency or state health department. In 98.0% of states, districts or schools reported notifiable diseases; in 96.1%, they reported student immunization data; in 41.2%, they reported student injury report data; and in 39.2%, they reported student weight status data such as body mass index (BMI). In 45.1% of states, districts or schools faced consequences if they failed to comply with immunization requirements. Twenty-six percent of states had real-time access to student attendance or absenteeism information for all school districts in the state. In addition, districts or schools submitted this information to the state education agency annually in 28.0% of states, on designated days during the school year in 14.0%, quarterly in 12.0%, monthly in 6.0%, weekly in 2.0%, on some other time frame in 8.0%, and not at all in 4.0% of states. In 13.7% of states, districts or schools also submitted information on the reasons for student absences. More than one half (60.8%) of states

recommended that districts or schools use a specified electronic system for reporting student attendance or absenteeism information.

Table 2. Percentage of states that provided technical assistance* to district or school staff during the 12 months before the study, by topic, SHPPS 2012

Topic	States (%)
Applying for grants to obtain funding for school health services	74.5
Chronic health conditions	90.2
Closing school or dismissing students when the percentage of absent students or staff reaches a specified level	76.5
Electronic systems to document student visits to the school nurse	51.0
Electronic systems to document why students are absent	43.1
Establishing a school-located vaccination clinic	72.5
Foodborne illness prevention	64.7
HIV infection or AIDS	82.4
Immunization requirements and exemptions	94.1
Infectious disease prevention	94.0
Linking students to community healthcare providers	88.0
Medicaid billing practices or Medicaid administrative claiming	74.5
Private insurance billing practices	21.6
Procedures for administering student medications or treatment	92.2
Screening for health-related conditions, (e.g., hearing or vision problems)	90.0
Screening for student weight status	70.6
Sending and keeping students home from school when they are sick	88.2
Severe food or other allergies	90.2
State Children's Health Insurance Program billing practices	52.9
Student health records	84.0
Tuberculosis testing	62.7

* One-on-one, tailored guidance to meet the specific needs of the district or school that may be provided through phone, e-mail, Internet, or in-person meetings.

Collaboration

State-level health services staff may work on school health services activities with other state-level staff and with staff or members from other organizations and agencies. During the 12 months before the study, school health services staff worked with health education staff in 92.2% of states, with child nutrition or nutrition services staff in 88.0% of states, with mental health or social services staff in 86.0% of states, with special education staff in

82.4% of states, and with physical education staff in 72.5% of states. State health services staff also worked with the state health department in 100% of states, with a state-level school nurses' association or organization in 94.1% of states, with the state mental health or social services agency in 88.2% of states, with colleges or universities in 86.3% of states, with a state-level health organization (e.g., the American Heart Association or the American Red Cross) in 80.4% of states, with a state-level physicians' organization (e.g., the American Academy of Pediatrics) in 78.0% of states, with the state child welfare agency in 72.5% of states, with a state-level dental association or organization in 70.6% of states, with a state-level parents' organization (e.g., the PTA) in 62.0% of states, with the state juvenile justice department in 60.8% of states, and with businesses in 54.9% of states.

Evaluation

During the two years before the study, states evaluated various aspects of the school health services program. Specifically, 56.9% of states evaluated school health services professional development or in-service programs, 51.0% evaluated school health services policies, 47.1% evaluated school health services programs at the district or school level, 37.3% evaluated student use of school health services at the district or school level, and 13.7% evaluated student or family satisfaction at the district or school level.

State Health Services Coordinators

About three fourths (74.5%) of states had someone to oversee or coordinate school health services, and among these states, 76.3% had that person serve as the respondent to the state-level health services questionnaire. Among these coordinators (representing 56.8% of states nationwide), 65.5% worked for the state education agency, 31.0% worked for the state public health agency, and 3.4% worked for another agency or entity. All (100.0%) of these coordinators had at least an undergraduate degree; 86.2% majored in nursing and 20.7% majored in education.* Among coordinators who served as respondents, 27.6% had an undergraduate minor, most commonly in a subject other than nursing or education (62.5% of those with minors). Among the coordinators who served as respondents,

* Respondents were able to select more than one option for the undergraduate major, minor, and graduate degree, as applicable.

Table 3. Percentage of states and districts that provided funding for professional development* or offered professional development for school nurses during the two years before the study, by topic, SHPPS 2012

Topic	States (%)	Districts (%)
Health Services		
Accessing benefits for students with disabilities	46.0	20.2
Accurately measuring student height and weight	46.9	30.0
Administration of medications	69.4	52.0
Administration of topical fluorides	50.0	13.6
After-school programs for students	40.0	16.0
Alcohol or other drug use treatment	43.8	28.9
Calculating student weight status using BMI	44.0	27.6
Case management for students with chronic health conditions	61.2	48.7
Case management for students with disabilities	52.0	43.3
Child care options for teen mothers	22.4	9.6
Contraceptives	38.0	9.7
Counseling after a natural disaster or other emergency or crisis situation	46.9	28.9
Counseling for emotional or behavioral disorders	40.0	29.1
CPR or use of AED equipment	22.0	78.8
Crisis intervention for personal problems	30.6	26.7
Dental sealants	44.0	9.3
Emergency preparedness	70.8	49.1
Enrolling in Medicaid or SCHIP	68.0	22.5
Enrolling in WIC or accessing food stamps or food banks	26.0	12.9
Federal laws that protect the privacy of student health information	68.0	53.3
First aid	29.4	64.0
HIV counseling, testing, and referral	46.9	13.5
Identification of emotional or behavioral disorders	54.0	37.3
Identification of or referral for eating disorders	29.2	19.9
Identification of or referral for physical, sexual, or emotional abuse	62.0	37.2
Identification of or referral for students with family problems	46.0	25.7
Identification or school-based management of acute illnesses	66.0	50.0
Identification or school-based management of chronic health conditions	76.5	60.5

* Workshops, conferences, continuing education, graduate courses, or any other kind of in-service on health topics or instructional strategies.
(Table continued on next page.)

93.1% had a graduate degree, most often in nursing (59.3%) or education (22.2%). In addition, 86.2% of the coordinators who served as respondents had a registered nurse’s (RN’s) license, 4.0% had a certified nurse practitioner’s (CNP’s) license, 37.9% had a state school nurse certification, 31.0% had a national school nurse certification from the National Board for Certification of School Nurses (NBCSN), 13.8% had an American Nurses Credentialing Center (ANCC) certification, and 35.7% had other certifications.

Trends Over Time

At the state level, only questions related to Medicaid, collaboration, professional development, and health services coordinators were included in SHPPS questionnaires in at least two study years. None of these variables met the criteria for significant difference over time outlined in Chapter 2.

Table 3. (Continued)

Topic	States (%)	Districts (%)
Health Services		
Identification, treatment of, or referral for STDs	64.0	17.5
Immunizations other than seasonal influenza	81.6	37.7
Infectious disease outbreak detection and response	68.0	46.0
Infectious disease prevention	72.0	43.5
Job readiness skills programs	18.4	10.1
Oral health problems	58.0	23.0
Prenatal care	32.0	8.8
Referrals for chronic health conditions	73.5	41.6
Seasonal influenza vaccine	70.0	37.5
Securing temporary or permanent housing	8.0	8.3
Services specifically for gay, lesbian, or bisexual students	46.0	8.2
Sports physicals	18.0	17.2
Stress management	32.7	25.8
Teaching self-management of chronic health conditions	77.6	45.8
Tobacco use cessation	51.0	23.4
Tracking of students with chronic health conditions	50.0	39.7
Weight management	36.7	22.1
Prevention Services		
Alcohol or other drug use prevention	74.0	34.7
HIV prevention	76.5	25.2
Injury prevention and safety counseling	56.9	33.5
Nutrition and dietary behavior counseling	54.9	27.9
Other STD prevention	72.5	24.8
Physical activity and fitness counseling	56.0	25.7
Pregnancy prevention	61.2	19.9
Suicide prevention	78.4	35.6
Tobacco use prevention	72.0	29.4
Violence prevention	80.4	49.3

DISTRICT-LEVEL RESULTS

Funding

Districts used multiple sources to fund standard school health services, with 86.4% funding them from the school district budget, 35.8% funding them through Medicaid, 15.7% through private insurance, 11.6% through SCHIP, 8.9% from public grants, 2.8% from private grants, and 10.9% from other funding sources.

School-Based Health Centers

Nationwide, 12.5% of districts had at least one SBHC that offered both health services and mental health or social services to students. In addition, 6.8% of districts had at least one SBHC that offered only health services to students, and 3.2% of districts had at least one SBHC that offered only mental health and or social services to students. Among districts with at least one SBHC, 66.8% funded SBHC services for students from the district budget, 43.4% funded them through Medicaid, 23.6% from public grants, 19.9% through private

insurance, 14.6% through SCHIP, 10.2% through private grants, and 20.5% funded them from other sources.

Required Services

Districts required schools to provide certain health services to students as well as some prevention services in one-on-one or small-group sessions. More than three fourths of districts had adopted a policy stating that schools will provide administration of medications, case management for students with disabilities, CPR, first aid, identification or school-based management of chronic health conditions, and violence prevention (Table 4). In addition, 1.9% of districts had adopted a policy stating that middle or high schools will make condoms available to students.

Services Provided at Other Sites

In 24.3% of districts, health services also were provided to students through arrangements with organizations or healthcare professionals not located on school property. These services may or may not have been paid for by the school system and were provided through school-linked health centers or contracts, memoranda of agreement, or other similar arrangements between providers and districts or schools. Among all districts, 16.8% had arrangements with a local health department, 14.8% with a local mental health or social services agency, 12.7% with a community health clinic or health center, 8.7% with a local hospital, 7.7% with a private physician, 5.4% with a school-linked health center, 5.4% with a private dentist, 5.1% with a dental or dental hygiene school, 4.7% with a university, medical school, or nursing school, and 1.7% with a managed care organization. In more than 10% of all districts, administration of sports physicals, case management for students with disabilities, immunizations other than seasonal influenza, oral healthcare or oral healthcare referrals, seasonal influenza vaccine, alcohol or other drug use prevention, and violence prevention were provided through these arrangements (Table 5).

Immunizations

Ninety-five percent or more of districts had adopted a policy stating that students entering kindergarten or first grade will have a chicken pox or varicella vaccine, a pertussis vaccine, a polio vaccine, a second measles vaccine, and a tetanus vaccine, but fewer districts required other vaccines for

Table 4. Percentage of districts that had adopted a policy stating that schools will provide health services to students, by type of service, SHPPS 2012

Type of Service	Districts (%)
Health Services	
Administration of medications	95.9
Administration of sports physicals	41.1
Administration of topical fluorides (e.g., mouth rinses, varnish, or supplements)	15.5
Alcohol or other drug use treatment	30.4
Application of dental sealants	9.8
Assistance with accessing benefits for students with disabilities	47.8
Assistance with enrolling in Medicaid or SCHIP	34.9
Assistance with enrolling in WIC or accessing food stamps or food banks	24.8
Assistance with securing temporary or permanent housing	22.1
Case management for students with chronic health conditions (e.g., asthma or diabetes)	69.9
Case management for students with disabilities	77.6
Contraceptives	3.4
Counseling after a natural disaster or other emergency or crisis situation	62.5
Counseling for emotional or behavioral disorders (e.g., anxiety, depression, or ADHD)	54.3
CPR	86.9
Crisis intervention for personal problems	66.5
First aid	92.2
HIV counseling, testing, and referral	15.0
Identification of emotional or behavioral disorders (e.g., anxiety, depression, or ADHD)	56.8
Identification of or referral for eating disorders	32.9
Identification of or referral for physical, sexual, or emotional abuse	69.6
Identification of or referral for students with family problems (e.g., parental divorce, substance abuse, or violence)	56.3
Identification of or referrals for oral health problems	39.0
Identification or school-based management of acute illnesses	70.9

(Table continued on next page.)

kindergarten or first grade entry (Table 6). Immunization requirements for middle school and high school were less common, although more than 80% of districts required a chicken pox or varicella vaccine, a Hepatitis B vaccine, a second measles vaccine, and a combined tetanus-diphtheria-pertussis

Table 4. (Continued)

Type of Service	Districts (%)
Health Services	
Identification or school-based management of chronic health conditions (e.g., asthma or diabetes)	80.5
Identification, treatment of, or referral for STDs	15.2
Immunizations other than seasonal influenza	14.3
Instruction on self-management of chronic health conditions (e.g., asthma or diabetes)	48.6
Job readiness skills programs	44.5
Prenatal care referrals	18.5
Referrals for after-school programs for students (e.g., supervised recreation)	35.0
Referrals for child care options for teen mothers	17.6
Referrals for chronic health conditions (e.g., asthma or diabetes)	49.3
Seasonal influenza vaccine	9.7
Services specifically for gay, lesbian, or bisexual students	9.3
Stress management	31.8
Tobacco use cessation	26.9
Tracking of students with chronic health conditions	66.7
Weight management	12.7
Prevention Services	
Alcohol or other drug use prevention	61.5
HIV prevention	39.5
Injury prevention and safety counseling	47.1
Nutrition and dietary behavior counseling	24.9
Physical activity and fitness counseling	33.1
Pregnancy prevention	30.7
STD prevention	36.7
Suicide prevention	42.6
Tobacco use prevention	54.4
Violence prevention (e.g., bullying, fighting, or dating violence)	77.9

(Tdap) vaccine for middle school entry, and more than 80% of districts required a Hepatitis B vaccine, a second measles vaccine, and a Tdap vaccine for high school entry. In addition, 4.2% of districts had adopted a policy stating that students must receive an influenza vaccine annually.

Nearly all districts (96.8%) allowed students to be exempted from required immunizations for medical reasons and 93.0% allowed exemptions for religious reasons, but only 50.2% allowed exemptions for personal beliefs. Not including students meeting

these exemptions, students who had not received the required immunizations for entry into kindergarten or first grade were immediately excluded from attending classes in 27.2% of districts. In an additional 63.4% of districts, students who had not received the required immunizations for entry into kindergarten or first grade were allowed to attend classes for a specified number of days and then excluded. At the middle school and high school levels, the percentages of districts that had adopted these policies were similar: 25.1% of districts immediately excluded unvaccinated middle school students from school and 23.3% immediately excluded unvaccinated high school students, while 64.2% of districts allowed unvaccinated middle school students and 62.6% allowed unvaccinated high school students to attend classes for a specified number of days before being excluded.

Screenings

Student health screenings were defined as screenings conducted for most students in the school or for most students in certain grades in the school. Screenings conducted only for special populations of students, such as special education students, were not included. While more than 90% of districts had adopted a policy stating that schools will screen students for hearing and vision problems, fewer had adopted policies stating that schools will screen students for other conditions (Table 7). Among districts that required screening for hearing problems, mental health problems, oral health problems, and vision problems, more than 90% had adopted a policy stating that parents or guardians will be notified if the screening indicated a potential problem, but fewer of these districts had adopted a policy stating that the student's teacher will be notified. Further, for hearing, mental health, and vision screening, even fewer of the districts that required screening for these problems had adopted a policy stating that schools must provide referrals to a community healthcare provider.

Tuberculosis (TB) screening was defined as the identification of students meeting certain risk criteria, such as those born or recently living in other countries. Students meeting these criteria would then be referred for TB testing or required to provide evidence of medical clearance. Nationwide, 12.3% of districts required TB screening for all students prior to entry into kindergarten or first grade, while 9.0% required TB screening prior to entry only for certain students. TB testing was defined as a clinical

test for TB, such as a skin test. TB testing is only recommended for students at risk for TB disease.¹ More than three fourths of districts (78.6%) did not require TB testing prior to school entry for any students, but 8.3% of districts required TB testing prior to school entry for certain students regardless of screening results, 7.7% required TB testing prior to school entry based on the results of TB screening, and 5.4% required TB testing for all students prior to school entry. After school entry, 4.0% of districts required periodic TB testing only for students previously identified through screening and 2.2% required periodic TB testing for all students. Among districts that required TB testing either prior to or after school entry, 53.4% had more than one acceptable testing method, 38.0% accepted the PPD skin test done by Mantoux method as evidence of a negative TB test, 6.3% accepted a skin test not otherwise specified, and 2.3% accepted a chest x-ray. No districts accepted a blood test (i.e., interferon-gamma release assays) as evidence of a negative TB test.

Services for Special-Needs Students

School health services staff often work with students having special needs in accordance with specifications in individualized education programs (IEPs), individualized health plans (IHPs), and 504 plans. Nationwide, 69.9% of districts had adopted a policy stating that school nurses will participate in the development of IEPs when indicated, 71.6% had adopted such a policy related to IHPs, and 70.3% had adopted such a policy related to 504 plans. Students with special needs might also have “Do Not Resuscitate” orders, and 17.7% of districts had adopted a policy stating that school health services staff will follow such orders.

Medication Administration

Ninety-seven percent of districts had adopted a policy on who may administer prescription medications to students at school, and 95.5% had adopted such a policy for over-the-counter medications. In addition, 26.0% of districts had adopted a policy stating that when someone who is not a licensed healthcare professional administers prescription medications to students, that person must be licensed or certified to administer medications, and 23.4% of districts had such a policy for over-the-counter medications. Further, 80.5% of districts had adopted a policy stating that when someone who is not a licensed healthcare

Table 5. Percentage of districts that had arrangements with any organizations or healthcare professionals to provide health services at other sites, by type of service, SHPPS 2012

Type of Service	Districts (%)
Health Services	
Administration of sports physicals	14.6
Administration of topical fluorides (e.g., mouth rinses, varnish, or supplements)	9.1
Application of dental sealants	9.1
Case management for students with chronic health conditions (e.g., asthma or diabetes)	8.0
Case management for students with disabilities	10.7
Contraceptives	4.3
Identification or school-based management of acute illnesses	7.3
Identification or school-based management of chronic health conditions	6.4
Identification, treatment of, or referral for STDs	6.7
Immunizations other than seasonal influenza	12.3
Lab tests	5.4
Oral healthcare or oral healthcare referrals	11.5
Prenatal care or prenatal care referrals	6.1
Prescriptions for medications	5.3
Primary care	6.2
Seasonal influenza vaccine	12.5
Prevention Services	
Alcohol or other drug use prevention	11.5
HIV prevention	7.4
Injury prevention and safety counseling	8.0
Nutrition and dietary behavior counseling	6.6
Physical activity and fitness counseling	6.5
Pregnancy prevention	7.0
STD prevention	7.6
Suicide prevention	9.6
Tobacco use prevention	9.1
Violence prevention (e.g., bullying, fighting, or dating violence)	11.8

professional administers prescription medications to students, that person must be trained to administer medications, and 72.7% had such a policy for over-the-counter medications. Nationwide, 92.5% of districts had adopted a policy stating that schools will have written instructions from the physician or prescriber before school nurses, teachers, or any other school staff may administer prescription medications to a student, while 57.1% of districts

Table 6. Percentage of districts that had adopted a policy stating that students entering school at each school level will have specific vaccinations, by vaccination, SHPPS 2012

Vaccination	Districts (%)
Kindergarten or First Grade Entry	
Chicken pox or varicella vaccine	95.0
Hepatitis A vaccine	32.4
Hepatitis B vaccine	89.5
Pertussis vaccine	96.5
Polio vaccine	97.2
Second measles vaccine	95.9
Tetanus vaccine	95.9
Middle School Entry	
Chicken pox or varicella vaccine	83.9
Hepatitis A vaccine	20.5
Hepatitis B vaccine	84.9
HPV vaccine, girls only	4.7
Meningococcal conjugate vaccine	33.2
Second measles vaccine	88.8
Tetanus-diphtheria-pertussis vaccine	89.1
High School Entry	
Chicken pox or varicella vaccine	77.4
Hepatitis A vaccine	18.0
Hepatitis B vaccine	82.3
HPV vaccine, girls only	3.3
Meningococcal conjugate vaccine	27.2
Second measles vaccine	84.5
Tetanus-diphtheria-pertussis vaccine	82.8

had such a policy for over-the-counter medications. In addition, 92.7% of districts had adopted a policy stating that schools will have a written request from the parent or guardian before school nurses, teachers, or any other school staff may administer prescription medications to a student, while 91.8% had such a policy for over-the-counter medications. Finally, 44.8% of districts had adopted a policy stating that schools will have written information on possible side effects before school nurses, teachers, or any school staff may administer prescription medications to a student, while 37.0% had such a policy for over-the-counter medications.

Nationwide, 92.5% of districts had adopted a policy stating that some students may carry and self-administer a prescription quick-relief inhaler, 75.6% had adopted such a policy for epinephrine auto-

injectors (e.g., EpiPen®), 60.9% had such a policy for insulin or other injected medications, 22.8% had such a policy for other prescribed medications, and 21.3% for over-the-counter medications.

Standard Precautions

Eighty-two percent of districts had adopted a policy stating that supplies for applying standard or universal precautions, including disposable gloves and bandages, will be available in at least one specified location. That is, 72.0% of districts had adopted a policy stating that such supplies will be available on school buses or other vehicles used to transport students; 67.9% of districts had adopted a policy stating that such supplies will be available in the cafeteria; 64.6% had adopted a policy stating that such supplies will be available in the gymnasium, on playgrounds, or on playing fields; and 62.6% had adopted a policy stating that such supplies will be available in all classrooms.

Student Health Records and Reports

Student health records provide critical information for school staff. More than 90% of districts had adopted a policy stating that schools will obtain and keep emergency contact information, medication needs, screening records, and severe food or other allergy information in at least one type of student record. Policies for keeping other types of information were less common (Table 8).

“Serious injury” and “serious illness” were defined as those requiring emergency medical service response or immediate care by a physician or other healthcare professional. Nationwide, 94.6% of districts had adopted a policy stating that schools will complete a report after a student is seriously injured on school property. Many districts also had adopted a policy stating that particular information will be recorded on student injury reports: nature of injury (93.7%), location where injury occurred (93.5%), response of school staff to the injury (93.4%), activity during which injury occurred (92.9%), school staff who were present when the injury occurred (92.9%), cause of injury (92.2%), and immediate outcome of the injury (83.0%). About two thirds (67.8%) of districts had adopted a policy stating that schools will submit injury report data to the school district or local health department.

Sixty percent of districts had adopted a policy stating that schools will complete a report when a student experiences a serious illness at school. In

Table 7. Percentage of districts that had adopted a policy stating that schools will perform health screenings, notifications, and referrals, by type of screening, SHPPS 2012

Type of Screening	Districts (%)			
	Policy That Schools Will Screen	Policy on Parent or Guardian Notification	Policy on Teacher Notification	Policy That Schools Will Provide Referrals
Hearing problems	90.3	96.7	77.4	63.8
Mental health problems	9.7	97.9	92.0	72.9
Oral health problems	30.4	91.0	48.9	62.9
Vision problems	91.7	96.8	76.3	63.5
Weight status using BMI	34.4	67.5	NA	26.2

addition, 89.9% of districts had adopted a policy stating that schools will report notifiable diseases among students to the state or local health department.

Some districts have additional reporting requirements. In 33.3% of districts, schools are required to submit information on student weight status, such as BMI, to the state, school district, or local health department. Regarding attendance records, 77.7% of districts have real-time access to student attendance or absenteeism information for all schools in the district. In addition, 8.4% of districts require schools to submit this information daily, 1.3% require schools to submit this information weekly, 0.9%, monthly, 1.0%, quarterly, 1.0%, annually, 0.7%, on designated days during the school year, 1.9%, on another time frame, and 7.1% do not require schools to submit information on student attendance or absenteeism. About half (49.9%) of districts also require schools to submit information to the district or local health department on the reasons for student absences. Nationwide, 88.2% of districts recommend that schools use a specified electronic system for reporting student attendance or absenteeism information. In addition, 30.4% of districts require schools to close or dismiss all students when the percentage of absent students or staff reaches a specified level.

Staffing and Staff Qualifications

More than one half (54.7%) of districts had adopted a policy stating that each school will have someone to oversee or coordinate health services at the school. In addition, 10.6% of districts had adopted a policy specifying a maximum student-to-school nurse ratio, and 5.4% of districts had adopted a policy stating that each school will have a specified ratio of school nurses to students. In 83.3% of

districts, school nurses were employed by the school district, in 19.0% of districts, they were employed by the school, in 8.9%, they were employed by the local health department and in 9.8%, they were employed by some other organization or agency. Nearly half (48.1%) of districts employed school health aides. Among these districts, 59.9% had adopted a policy stating that health aides will work under the supervision of an RN at all times.

Nationwide, 21.7% of districts required newly hired school nurses to have an associate’s degree in nursing, 5.4% required them to have an undergraduate (baccalaureate) degree in nursing, and 5.6% required them to have a graduate degree in nursing. More than one fourth (27.5%) of districts required newly hired school nurses to have a Licensed Practice Nurse’s (LPN’s) license and 86.1% required them to have a RN’s license. In addition, 39.5% of districts required newly hired school nurses to have a state school nurse certification and 10.4% required a national school nurse certification from the NBCSN.

Professional Development

More than one third (38.7%) of districts had adopted a policy stating that school nurses are required to earn continuing education credits on health services topics. During the two years before the study, 91.1% of districts provided funding for professional development or offered professional development for school nurses on at least one of the 55 topics listed in Table 3. More than half of districts provided funding for professional development or offered professional development for school nurses on administration of medications, CPR or use of AED equipment, federal laws that protect the privacy of student health information, first aid, and

Table 8. Percentage of districts that had adopted a policy stating that schools will obtain and keep certain information in any type of school record, by type of information, SHPPS 2012

Type of Information	Districts (%)
Asthma action plans	83.2
Authorization for emergency treatment	86.0
Dietary needs or restrictions	88.5
Emergency contact information	97.6
Emotional or mental health history	44.2
Insurance coverage information	48.0
Medication needs	93.2
Other screening records (e.g., vision or hearing)	94.0
Physical activity restrictions	85.5
Physical health history	83.8
Reasons for student absences	81.1
Severe food or other allergies	92.8
Student weight status (e.g., BMI)	51.5
Tuberculosis screening results	40.4

identification or school-based management of chronic health conditions (Table 3).

During the two years before the study, 94.0% of districts provided funding for professional development or offered professional development to teachers, administrators, or other school staff on at least one of five health services topics. Specifically, 91.0% of districts provided funding for professional development or offered professional development on CPR or the use of AED equipment, 66.2% provided funding for professional development or offered professional development on infectious disease prevention, 63.5% on severe food or other allergies, 62.2% on chronic health conditions, and 41.0% on HIV infection or AIDS.

Collaboration and Promotion

District-level health services staff may work on health services activities with other district-level staff and with staff or members from other agencies and organizations. During the 12 months before the study, district-level health services staff worked on school health services activities with child nutrition or nutrition services staff in 69.3% of districts, with health education staff in 64.1% of districts, with physical education staff in 63.1% of districts, with mental health or social services staff in 60.9% of districts, and with school-based health center staff in 30.8% of districts. In addition, district-level health

services staff worked with a local health department in 82.8% of districts, with a community healthcare provider in 67.0% of districts, with a health organization (e.g., the American Heart Association or the American Red Cross) in 65.7% of districts, with a local mental health or social services agency in 61.1% of districts, with a local child welfare agency in 54.6% of districts, with a local hospital in 45.6% of districts, with a local service club (e.g., the Rotary Club) in 42.0% of districts, with a local college or university in 40.7% of districts, with a local business in 36.7% of districts, and with a local juvenile justice department in 36.3% of districts. To promote school health services, during the 12 months before the study, 82.3% of districts provided families of all students with information on school health services.

Evaluation

During the two years before the study, districts evaluated various aspects of the school health services program. Specifically, 67.9% of districts evaluated school health services policies, 57.7% evaluated professional development or in-service programs for health services staff, 55.4% evaluated school health services programs, 48.2% evaluated student use of school health services, and 21.8% evaluated student or family satisfaction with school health services.

District Health Services Coordinators

More than three fourths (79.2%) of districts had someone to oversee or coordinate school health services, and among these districts, 75.6% had that person serve as the respondent to the district-level health services questionnaire. Among these coordinators (representing 59.9% of districts nationwide), 93.2% worked for the school district, 3.6% worked for the local health department, and 4.6% worked for another agency or organization. Among the coordinators who served as respondents to the questionnaire, 3.2% had a high school diploma or GED as their highest level of education, 18.6% had an associate's degree, 46.2% had an undergraduate degree, 28.7% had a master's degree, and 3.3% had a doctoral degree. Among those with at least an undergraduate degree, 81.9% majored in nursing, 19.8% majored in education, and 14.3% majored in another subject. Among coordinators with an undergraduate degree, 30.0% had an undergraduate minor, most commonly in a subject other than nursing or education (73.0% of those with

minors). Among those with a graduate degree, 64.3% had received that degree in education, 36.3% in nursing, 16.6% in public health, 13.3% in counseling, psychology, or social work, 5.8% in healthcare administration or business, and 3.0% in biology or another science. Among the coordinators who served as respondents to the questionnaire, 81.2% had an RN's license, 6.2% had an LPN's license, and 1.8% had a CNP's license. In addition, 33.6% had a state school nurse certification, 10.9% had a national school nurse certification from the NBCSN, 4.8% had an ANCC certification, and 33.6% had another type of certification.

Trends Over Time

Multiple variables met the criteria for significant difference over time outlined in Chapter 2. Between 2000 and 2012, changes were detected in the percentage of districts that provided funding for professional development or offered professional development to school nurses during the two years before the study on multiple topics. Specifically, the percentage of districts that provided funding for professional development or offered professional development on CPR increased from 67.1% to 78.8%, and the percentage of districts that provided funding for professional development or offered professional development decreased during that time on the following topics: alcohol or other drug use prevention (from 47.0% to 34.7%), case management for students with chronic health conditions (from 59.2% to 48.7%), crisis intervention for personal problems (from 42.2% to 26.7%), enrolling in Medicaid or SCHIP (from 40.1% to 22.5%), HIV prevention (from 44.8% to 25.2%), HIV counseling, testing, and referral (from 25.0% to 13.5%), injury prevention and safety counseling (from 49.1% to 33.5%), nutrition and dietary behavior counseling (from 38.8% to 27.9%), pregnancy prevention (from 36.8% to 27.9%), prenatal care (from 19.5% to 8.8%), STD prevention (from 38.2% to 24.8%), stress management (from 39.4% to 25.8%), tobacco use cessation (from 36.8% to 23.4%), and tobacco use prevention (from 44.8% to 29.4%). In addition, between 2000 and 2012, the percentage of districts that provided funding for professional development or offered professional development during the two years before the study to teachers, administrators, or other school staff on HIV infection or AIDS decreased from 63.7% to 41.0%.

Significant trends also were detected for some professional development variables that were only available for 2006 and 2012. Specifically, between 2006 and 2012, the percentage of districts that provided funding for professional development or offered professional development during the two years before the study on the following topics decreased: accessing benefits for students with disabilities (from 33.2% to 20.2%), emergency preparedness (from 60.1% to 49.1%), identification of emotional or behavioral disorders (from 48.9% to 37.3%), and infectious disease prevention (from 56.7% to 43.5%). In addition, the percentage of districts that provided funding for professional development or offered professional development to teachers, administrators, or other school staff on severe food or other allergies increased from 48.4% in 2006 to 63.5% in 2012.

Changes were detected between 2000 and 2012 in the percentage of districts that had adopted a policy requiring the provision of specific standard health services. Specifically, the percentage of districts that required schools to provide the following services increased during that time period: identification or school-based management of acute illnesses (from 50.0% to 70.9%), identification or school-based management of chronic health conditions (from 46.5% to 80.5%), and violence prevention in one-one-one or small-group sessions (from 59.2% to 77.9%). In contrast, the percentage of districts that required schools to provide the following services decreased between 2000 and 2012: alcohol or other drug use treatment (from 46.2% to 30.4%), prenatal care referrals (from 26.3% to 18.5%), referrals for child care for teen mothers (from 31.8% to 17.6%), and tobacco use cessation (from 42.1% to 26.9%).

Between 2000 and 2012, the percentage of districts with arrangements to provide health services to students at other sites not on school property decreased from 37.5% to 24.3%, and the percentage of districts having such arrangements with a local health department decreased from 27.4% to 16.8%. In addition, the percentage of districts with such arrangements to provide the following services decreased: administration of sports physicals (from 25.5% to 14.6%), case management for students with chronic health conditions (from 20.7% to 8.0%), identification or school-based management of acute illnesses (from 17.4% to 7.3%), identification or school-based management of chronic health conditions (from 16.9% to 6.4%), and oral

healthcare or oral healthcare referrals (from 20.5% to 11.5%).

Several increases in immunization policies were detected between 2000 and 2012. Specifically, the percentage of districts that had adopted a policy requiring a hepatitis B vaccine for students entering kindergarten or first grade increased from 75.6% to 89.5%, the percentage requiring this vaccine for students entering middle school increased from 49.8% to 84.9%, and the percentage requiring this vaccine for students entering high school increased from 28.1% to 82.3%. Similarly, the percentage of districts that had adopted a policy requiring a chicken pox or varicella vaccine for students entering kindergarten or first grade increased from 30.4% to 95.0%, the percentage requiring this vaccine for students entering middle school increased from 18.5% to 83.9%, and the percentage requiring this vaccine for students entering high school increased from 15.8% to 77.4%. In addition, the percentage of districts that had adopted a policy requiring a second measles vaccine for students entering high school increased from 66.8% to 84.5%.

Only one change in screening policies between 2000 and 2012 was detected. That is, the percentage of districts that required a student's teacher to be notified when oral health screening indicated a potential problem decreased from 68.1% to 48.9%.

Between 2000 and 2012, some changes in medication administration policies occurred. Specifically, the percentage of districts that had adopted a policy stating that some students may carry and self-administer an epinephrine auto-injector increased from 46.6% to 75.6%, and the percentage of districts that had adopted such a policy for prescription quick-relief inhalers increased from 74.5% in 2006 to 92.5% in 2012, but the percentage of districts that had adopted such a policy decreased from 36.8% to 22.8% for other prescribed medications and from 35.1% to 21.3% for over-the-counter medications.

A few changes related to student health records and reports were detected between 2000 and 2012. The percentage of districts that had adopted a policy stating that schools will obtain and keep information on dietary needs or restrictions increased from 69.9% to 88.5%. In addition, the percentage of districts that had adopted a policy stating that schools will submit student injury report data to the

school district or local health department increased from 53.2% to 67.8%, and the percentage that had adopted a policy stating that schools will complete a report when a student experiences a serious illness at school increased from 48.6% to 60.0%.

One change regarding students with special needs was detected between 2000 and 2012. That is, the percentage of districts that had adopted a policy stating that school nurses will participate in the development of IHPs increased from 47.5% to 71.6%.

Between 2000 and 2012, some decreases were detected in professional preparation requirements for school nurses. Specifically, the percentage of districts that required newly hired school nurses to have an RN's license decreased from 95.6% to 86.1% and the percentage that required a state school nurse certification decreased from 67.8% to 39.5%. In addition, the percentage of districts in which school nurses were employed by the school district decreased from 93.7% to 83.3%.

Some changes in collaboration during the 12 months before the study were detected. Between 2000 and 2012, the percentage of districts in which district-level health services staff worked on health services activities with nutrition services staff increased from 49.5% to 69.3% and the percentage of districts in which health services staff worked on health services activities with staff from a local college or university increased from 29.9% to 40.7%. Between 2006 and 2012, however, the percentage of districts in which health services staff worked on health services activities with staff from a local child welfare agency decreased from 65.0% to 54.6%.

Between 2000 and 2012, some increases in evaluation activities were detected. Specifically, during the two years before the study, the percentage of districts that evaluated professional development or in-service programs for health services staff increased from 44.6% to 57.7%, and the percentage of districts that evaluated school health services policies during the two years before the study increased from 47.3% to 67.9%.

DISCUSSION

Results from SHPPS 2012 indicate that district policies related to the core school health services recommended by the American Academy of Pediatrics (AAP) are widespread.^{2,3} That is, more than 85% of districts had policies requiring schools

to provide administration of medications, CPR, and first aid, and 90% had a policy requiring schools to report notifiable diseases among students to the state or local health department. In addition, more than 90% of districts required schools to screen students for vision and hearing problems. Further, the prevalence of several policies related to these core school health services also has increased, including policies requiring schools to provide identification or school-based management of both acute and chronic illnesses, policies stating that school nurses will participate in the development of IHPs, and policies permitting students to carry and self-administer medications for emergency use. Increases in such policies are likely to lead to increases in the percentage of students with access to these services. In addition, such policies provide concrete support for position statements from both the AAP and the National Association of School Nurses (NASN) on the role of the school nurse and medication administration.³⁻⁶

The AAP notes three critical factors needed to optimally care for students: 1) appropriate school nurse staffing levels, 2) adequate pre-service preparation of school nurses, and 3) ongoing in-service education (i.e. professional development) for school nurses.³ SHPPS 2012 results reveal that improvements in district policies and practices are needed in all three of these areas. States and districts can help improve school nurse staffing levels by adopting and enforcing supportive policies. However, few districts had adopted policies related to nurse-to-student ratios. Although schools can achieve the nurse-to-student ratio of 1:750 described in the Healthy People 2020 objective⁷ without such policies in place, the implementation of staffing policies can motivate districts and schools to improve their nurse-to-student ratios and help ensure that the nation meets this objective. In 2006, 40.6% of schools had RN-to-student ratios of 1:750 or better.⁸ SHPPS 2014 will provide an updated measure of school-level progress toward meeting this objective.

States and districts can help improve pre-service preparation of school nurses by setting minimal standards for the qualifications of newly hired school nurses. NASN's Position Statement on Education, Licensure, and Certification of School Nurses states that "every school-aged child deserves a school nurse who has a baccalaureate degree in nursing...and is licensed as an RN through the State

Board of Nursing."⁹ Although 86% of districts had adopted a policy requiring newly hired school nurses to have an RN's license, only 11% of districts had policies specifically requiring newly hired nurses to have a baccalaureate or graduate degree in nursing. In addition, although both AAP and NASN support state school nurse certification and promote national certification of school nurses through the NBCSN,^{3,9} only about 40% of districts required newly hired school nurses to have state school nurse certification and only 10% required NBCSN certification. Further, the percentage of districts requiring an RN's license and the percentage requiring state school nurse certification has decreased since 2000. These results seem to indicate that district policies do not provide much support for the professional preparation of school nurses.

Finally, states and districts also can set minimal standards for in-service education of school nurses. Although both AAP and NASN recommend ongoing education for school nurses,^{3,4} SHPPS 2012 found that few district policies support those recommendations. That is, less than 40% of districts had adopted a policy requiring school nurses to earn continuing education credits on health services topics. Further, although 98% of states and 88% of districts provided funding for professional development or offered professional development to school nurses on at least one health services topic, for 14 specific topics, the percentage of districts that provided professional development on these topics decreased between 2000 and 2012. In addition, the percentage of districts that provided professional development on an additional four topics decreased between 2006 and 2012. These data suggest that it has become increasingly difficult for school nurses to obtain recommended continuing education from their school district.

For the first time in 2012, SHPPS provided data on the percentage of states providing policy guidance and technical assistance to districts and schools on health services topics. As was found with district policies, this state guidance and assistance to districts and schools focused most frequently on topics related to core school health services, such as immunization requirements and exemptions, infectious disease prevention, medication administration, and screening for health-related conditions.^{2,3,5,6} Policy guidance and technical assistance on severe food or other allergies also was common, suggesting that this is a topic of current

widespread interest, even though it is not explicitly listed as a core recommended health service by AAP.

Another new topic area for SHPPS 2012 was state practices and district requirements related to reporting student attendance or absenteeism rates. During the 2009 H1N1 influenza outbreak, CDC needed information on student absenteeism to better understand the impact of the epidemic and to assist with developing recommendations for disease mitigation. While it became clear during that time that no standardized system existed for schools to report absenteeism information, the extent to which such information was available still was unknown until now. SHPPS 2012 revealed that only about one-fourth of states had real-time access to student attendance or absenteeism information for all of their school districts, and even fewer received information about the reasons for the absence, which is critically important during an epidemic impacting school-aged youth. Districts were more likely to have real-time access to student attendance or absenteeism information, but because of the vast number of school districts in the United States, it is helpful to be able to collect and synthesize this information using a standardized, real-time system at the state level. Assuming that another epidemic impacting school-aged youth will occur, better and more uniform state-level reporting systems that provide information on student absences and the reasons for those absences, will be needed to appropriately contain such an epidemic.

Trend analyses revealed several notable increases in immunization policies since 2000. These changes likely are the result of districts updating their requirements for school entry to be consistent with recommendations of the Advisory Committee on Immunization Practices (ACIP). For example, the increases in the percentage of districts requiring varicella vaccine for entry at all school levels reflects the 2006 ACIP recommendation of a second dose of varicella for all children at age 4-6 years and a second dose for all adolescents who had not previously received two doses.¹⁰

Generally, results from SHPPS 2012 indicated that state guidance and district policies provide support for core school health services that are necessary for the day-to-day health care management of all students. The study also provided information related to another critical function of school health services: providing health care to students who do

not otherwise have access to such services.¹¹⁻¹³ Results revealed that the infrastructure for this second function is not well-established. While most states had at least one SBHC, fewer than one in five districts had at least one such center. Further, less than one fourth of districts had arrangements with providers not located on school property to provide health services to students, far fewer than in 2000. Better integration of school and community health services and reducing the barriers schools face in providing health services can help reduce health disparities among adolescents and improve educational outcomes.¹⁴

REFERENCES

- Centers for Disease Control and Prevention. *Questions and answers about TB*. Available at: http://www.cdc.gov/tb/publications/faqs/qa_latenttbinf.htm.
- American Academy of Pediatrics. *School Health: Policy and Practice*. Elk Grove Village, IL: American Academy of Pediatrics; 2004. Available at: <http://ebooks.aap.org/product/school-health-policy-practice>.
- American Academy of Pediatrics. Council on School Health. Role of the school nurse in providing school health services. *Pediatrics*. 2008;121:1052–1056.
- National Association of School Nurses. *Position Statement: Role of the School Nurse*. Silver Spring, MD: National Association of School Nurses; 2011. Available at: <http://www.nasn.org/portals/0/positions/2011psrole.pdf>.
- American Academy of Pediatrics. Council on School Health. Policy statement—guidance for the administration of medication in school. *Pediatrics*. 2009;124:1244–1251.
- National Association of School Nurses. *Position Statement: Medication Administration in the School Setting*. Silver Spring, MD: National Association of School Nurses; 2012. Available at: <http://www.nasn.org/Portals/0/positions/2012psmedication.pdf>.
- U.S. Department of Health and Human Services. *Healthy People 2020*. Washington, DC: U.S. Department of Health and Human Services. Available at: <http://www.healthypeople.gov>.
- Brener ND, Wheeler L, Wolfe LC, Vernon-Smile M, Caldart-Olson L. Health services: results from the School Health Policies and Programs Study 2006. *Journal of School Health*. 2007; 77:464–485.

Chapter 5: Health Services

9. National Association of School Nurses. *Position Statement: Education, Licensure, and Certification of School Nurses*. Silver Spring, MD: National Association of School Nurses; 2012. Available at: <http://www.nasn.org/portals/0/positions/2012pseducation.pdf>.
10. Centers for Disease Control and Prevention. Prevention of varicella: recommendations of the Advisory Committee on Immunization Practices (ACIP). *Morbidity and Mortality Weekly Report*. 2007;56(RR-4):1–40.
11. American Academy of Pediatrics. Committee on School Health. School health centers and other integrated school health services. *Pediatrics*. 2001;107(1):198–201.
12. Richardson JW, Juszczak LJ. Schools as sites for health-care delivery. *Public Health Reports*. 2008; 123:692–694.
13. National Research Council and Institute of Medicine. Committee on Adolescent Health Care Services and Models of Care for Treatment, Prevention, and Healthy Development. *Adolescent Health Services: Missing Opportunities*. Washington, DC: The National Academies Press; 2009. Available at: http://www.nap.edu/catalog.php?record_id=12063.
14. Council of State Governments Healthy States Initiative. *Addressing Adolescent Health Disparities through Schools*. Available at: <http://www.healthystates.csg.org/NR/rdonlyres/DE2D0429-8B4A-49DB-BC25-E7A191335CA5/0/AdolescentHealthDisparitiesLPB.pdf>.

Chapter 6

Mental Health and Social Services: Results from the School Health Policies and Practices Study 2012

*Zewditu Demissie, PhD, MPH; J. Terry Parker, PhD; Mary Vernon-Smiley, MD, MPH**

This chapter describes the findings from the 2012 School Health Policies and Practices Study (SHPPS) related to mental health and social services. It includes state-level information on state assistance to districts and schools, professional development, funding, collaboration, evaluation, and mental health and social services coordinators. At the district level, this chapter describes staffing, professional development, funding, provision of services, services provided at other sites, professional preparation, collaboration and promotion, evaluation, and mental health and social services coordinators. The chapter also describes significant trends over time at both the state and district levels.

STATE-LEVEL RESULTS

State Assistance to Districts and Schools

States offered multiple types of assistance to help districts and schools provide mental health or social services to students. This assistance included developing, revising, or assisting in developing model policies, policy guidance, or other policy-related materials to inform district or school policy and distributing or providing such materials to district or school staff (Table 1). States also provided technical assistance (one-on-one, tailored guidance to meet the specific needs of a district or school that may be provided through phone, e-mail, Internet, or in-person meetings) to district or school staff on mental health or social services topics. For all mental health or social services topics, the percentage of states that provided technical assistance during the 12 months before the study was greater than the percentage of states that distributed or provided policy-related materials or developed, revised, or assisted in developing such materials during the two years before the study.

Professional Development

Professional development was defined as workshops, conferences, continuing education, graduate courses, or any other kind of in-service. States provided funding for professional development or offered professional development to mental health or social services staff on a variety of mental health and social services and prevention topics (Table 2). During the two years before the study, 98.0% of states provided funding for professional development or offered professional development for mental health or social services staff on at least one of the 40 topics listed in Table 2. In addition, at least three fourths of states provided funding for professional development or offered professional development for mental health or social services staff on identification of emotional or behavioral disorders and identification of or referral for physical, sexual, or emotional abuse. More than three fourths of states provided funding for professional development or offered professional development for mental health or social services staff on alcohol or other drug use prevention, suicide prevention, and violence prevention.

States also provided training for teachers, administrators, and school staff other than mental health and social services staff. During the two years before the study, 96.1% of states provided funding for or offered training to teachers, administrators, or other school staff on at least one of seven mental health or social services topics (Table 3). At least three-fourths of states provided funding for or offered training on all but two of the seven topics listed in Table 3.

* **Zewditu Demissie** is a Senior Research Scientist, Division of Adolescent and School Health, CDC; **J. Terry Parker** is a Health Education Specialist, Division of Adolescent and School Health, CDC; and **Mary Vernon-Smiley** is Senior Medical Officer, Division of Adolescent and School Health, CDC.

Table 1. Percentage of states that provided policy-related assistance to districts and schools, by type of assistance, SHPPS 2012

Topic	States (%)		
	Developed, Revised, or Assisted in Developing Model Policies, Policy Guidance, or Other Materials*	Distributed or Provided Model Policies, Policy Guidance, or Other Materials*	Provided Technical Assistance†
Linking students to community mental health or social services providers	68.6	72.5	78.0
Providing mental health and social services to students	66.7	70.0	74.5
Student assistance programs	60.0	58.0	68.0
Student support teams	64.7	60.8	74.0

* During the two years before the study.

† One-on-one, tailored guidance to meet the specific needs of the district or school that may be provided through phone, e-mail, Internet, or in-person meetings during the 12 months before the study.

Funding

Standard mental health and social services, defined as those services offered to all students, are funded through multiple sources. States frequently funded standard mental health and social services for students through Medicaid (92.2% of states) or from school district budgets (90.2% of states). In addition, 68.6% funded them from the state budget, 66.7% through the State Children’s Health Insurance Program (SCHIP), 66.7% through private insurance, 49.0% from public grants, and 39.2% from private grants. In addition, in 90.9% of states, at least some schools served as Medicaid providers by providing standard mental health or social services to students.

Collaboration

During the 12 months before the study, state-level mental health and social services staff worked on mental health or social services activities with state-level staff representing other school health program components as well as staff from other agencies and organizations. In 90.0% of states, state-level mental health and social services staff worked with special education staff; in 78.4% of states, they worked with health education staff; in 72.5% of states, they worked with health services staff; in 57.1% of states, they worked with child nutrition or nutrition services staff; and in 52.0%, they worked with physical education staff. State mental health and social services staff also worked with the state health department in 88.0% of states; with the state mental health or social services agency in 84.3% of states; with the state child welfare agency in 82.0% of

states; with the state foster care system in 79.6% of states; with the state school counselors’, psychologists’, or social workers’ association or organization in 78.4% of states; with the state juvenile justice department in 78.0% of states; with colleges or universities in 67.3% of states; with a state-level school nurses’ association or organization in 66.0% of states; with a state-level parents’ organization (e.g., the PTA) in 50.0% of states; with a state-level health organization (e.g., the American Heart Association or the American Red Cross) in 35.4% of states; with a state-level physicians’ organization (e.g., the American Academy of Pediatrics) in 30.6% of states; and with businesses in 28.9% of states.

Evaluation

During the two years before the study, 70.0% of states evaluated at least one aspect of their school mental health or social services program. Specifically, 44.9% of states evaluated school mental health or social services programs at the district or school level, 44.7% of states evaluated school mental health or social services professional development or in-service programs, 43.8% evaluated school mental health or social services policies, 35.4% evaluated student use of school mental health or social services at the district or school level, and 34.0% evaluated student or family satisfaction with school mental health or social services at the district or school level.

Table 2. Percentage of states and districts that provided funding for professional development* or offered professional development for mental health or social services staff during the two years before the study, by topic, SHPPS 2012

Topic	States (%)	Districts (%)
Mental Health or Social Services		
Accessing benefits for students with disabilities	70.2	52.9
After-school programs for students	58.3	42.6
Alcohol or other drug use treatment	66.7	50.3
Child care options for teen mothers	38.6	18.4
Counseling after a natural disaster or other emergency or crisis situation	68.1	56.1
Counseling for emotional or behavioral disorders	74.0	66.2
Crisis intervention for personal problems	58.0	60.8
Emergency preparedness	71.4	64.6
Enrolling in Medicaid or SCHIP	63.0	33.9
Enrolling in WIC or accessing food stamps or food banks	43.5	23.3
HIV counseling, testing, and referral	54.2	17.4
Identification of emotional or behavioral disorders	81.6	69.4
Identification of or referral for eating disorders	37.0	27.1
Identification of or referral for physical, sexual, or emotional abuse	76.0	63.1
Identification of or referral for students with family problems	66.0	61.0
Job readiness skills programs	51.1	52.9
Securing temporary or permanent housing	47.8	27.3
Services specifically for gay, lesbian, or bisexual students	57.4	19.1
Stress management	53.1	42.0
Tobacco use cessation	59.2	36.7
Weight management	39.6	24.8
Prevention Services		
Alcohol or other drug use prevention	75.0	66.8
HIV prevention	68.1	32.6
Injury prevention and safety counseling	57.8	50.9
Nutrition and dietary behavior counseling	41.3	30.3
Other STD prevention	68.1	32.0
Physical activity and fitness counseling	39.1	34.1
Pregnancy prevention	60.0	32.3
Suicide prevention	91.8	70.3
Tobacco use prevention	70.2	51.9
Violence prevention	93.9	86.8
Methods of Service Delivery		
Case management for students with emotional or behavioral problems	67.3	63.8
Comprehensive assessment or intake evaluation	58.7	41.2
Family counseling	55.3	37.0
Group counseling	50.0	47.4
Individual counseling	63.8	59.6
Peer counseling or mediation	57.8	45.2
Self-help or support groups	51.1	36.3
Student assistance programs	54.3	54.5
Student support teams	68.8	60.7

* Workshops, conferences, continuing education, graduate courses, or any other kind of in-service on health topics or instructional strategies.

State Mental Health and Social Services Coordinators

More than half (56.0%) of states had a person who oversaw or coordinated school mental health and social services. Unfortunately, the percentage of these coordinators who served as the respondent to the state-level mental health and social services questionnaire was too small for meaningful analysis of the data about the coordinators' qualifications.

Trends Over Time

Several variables met the criteria for significant difference over time outlined in Chapter 2. Decreases were detected between 2000 and 2012 in the percentage of states that provided funding for professional development or offered professional development during the two years before the study on the following topics: crisis intervention for personal problems (from 84.4% to 58.0%), job readiness skills programs (from 82.2% to 51.1%), and peer counseling or mediation (from 87.0% to 57.8%).

Two changes in collaboration during the 12 months before the study were detected. Between 2000 and 2012, the percentage of states in which mental health or social services staff worked on mental health or social services activities with child nutrition or nutrition services staff increased from 30.2% to 57.1%. Collaboration with the state health department was not measured until 2006, but the percentage of states in which mental health or social services staff worked on mental health or social services activities with staff from the state health department decreased from 100% in 2006 to 88.0% in 2012.

DISTRICT-LEVEL RESULTS

Funding

Districts used multiple sources to fund standard mental health and social services. Nationwide, 87.2% of districts funded standard mental health and social services from the school district budget, 47.1% funded these services through Medicaid, 24.4% through private insurance, 23.9% from public grants, 15.7% through SCHIP, 5.4% from private grants, and 14.8% from other funding sources.

Provision of Services

Student assistance programs provide services designed to assist students experiencing personal or social problems that can impact school performance, physical health, mental health, or overall well-being. Nationwide, 76.2% of districts had adopted a policy stating that student assistance programs will be offered to all students. Some schools have a team of school staff who collaborate to provide assistance to students with disabilities or those who are experiencing academic difficulties or behavioral problems. These teams sometimes are called student support teams, student assistance teams, or student guidance teams. Nationwide, 80.1% of districts had adopted a policy stating that schools will create and maintain such teams.

School mental health or social services staff also work with students with special needs in accordance with specifications in individualized education programs (IEPs), individualized health plans (IHPs), and 504 plans. Nationwide, 88.4% of districts had adopted a policy stating that school mental health or social services staff will participate in the development of IEPs when indicated, 80.9% had adopted such a policy related to 504 plans, and 57.2% had adopted such a policy related to IHPs.

Services Provided at Other Sites

In 60.0% of districts, mental health and social services were provided to students through arrangements with organizations or healthcare professionals not located on school property. These services may or may not have been paid for by the school system and were provided through school-linked health centers or contracts, memoranda of agreement, or other similar arrangements between providers and districts or schools. Among all districts, 53.5% had such arrangements with a local mental health or social services agency; 39.5% with a local health department; 31.5% with a community health clinic or health center; 25.0% with a local hospital; 20.4% with a private psychologist; 18.0% with a private counselor; 17.9% with a school-linked health center; 12.9% with a private social worker; 11.8% with a private psychiatrist; 11.4% with a university, medical school, or nursing school; and 10.5% with a managed care organization.

Table 3. Percentage of states and districts that provided funding for training or offered training to teachers, administrators, or other school staff during the two years before the study, by topic, SHPPS 2012

Topic	States (%)	Districts (%)
Making appropriate referrals to a school counselor, psychologist, or social worker	74.0	79.0
Managing students with emotional or behavioral problems	82.0	81.4
Recognizing signs and symptoms of bullying victimization	92.2	90.6
Recognizing signs and symptoms of dating violence	75.0	42.8*
Recognizing signs and symptoms of depression and suicidality	87.5	69.8
Recognizing signs and symptoms of physical, sexual, or emotional abuse	80.0	71.4
Recognizing signs and symptoms of substance abuse	70.8	60.9

* Asked only if the district contained middle schools or high schools.

In more than 40% of all districts, the following services were provided through these arrangements: assistance with accessing benefits for students with disabilities; crisis intervention for personal problems; counseling for emotional or behavioral disorders; identification of emotional or behavioral disorders; identification of or referral for physical, sexual, or emotional abuse; and identification or referral for students with family problems. In addition, the following methods of service delivery were provided through these arrangements in more than 40% of districts: case management for students with emotional or behavioral problems, comprehensive assessment or intake evaluation, and individual counseling (Table 4).

Staffing and Staff Qualifications

Nationwide, 43.6% of districts had adopted a policy stating that each school will have someone to oversee or coordinate mental health or social services at the school. In addition, 26.4% of districts had adopted a policy stating that each elementary school will have a specified ratio of counselors to students, 28.1% of districts had adopted such a policy for middle schools, and 32.0% of districts had adopted such a policy for high schools.

Nationwide, 15.2% of districts required newly hired school counselors to have an undergraduate degree in counseling, 70.7% required newly hired school counselors to have a master's degree in counseling, and 7.8% required newly hired school counselors to have another type of degree. In addition, 84.3% of districts required newly hired school counselors to be licensed, certified, or credentialed by a state agency or board.

Nationwide, 4.6% of districts required newly hired school psychologists to have an undergraduate

degree in psychology, 63.7% required newly hired school psychologists to have a master's degree in psychology, and 3.7% of districts required newly hired school psychologists to have a doctoral degree in psychology. An additional 15.0% of districts required newly hired school psychologists to have another type of degree, most commonly an Education Specialist (Ed.S.) degree. In addition, 80.3% of districts required newly hired school psychologists to be licensed, certified, or credentialed by a state agency or board.

Nationwide, 22.6% of districts required newly hired school social workers to have an undergraduate degree in social work and 42.8% required newly hired school social workers to have a master's degree in social work. In addition, 58.4% of districts required newly hired school social workers to be licensed, certified, or credentialed by a state agency or board. More than half (51.4%) of districts had adopted a policy stating that school mental health or social services staff are required to earn continuing education credits on mental health or social services topics.

Professional Development

During the two years before the study, 96.1% of districts provided funding for professional development or offered professional development for mental health or social services staff on at least one of the topics listed in Table 2. More than two thirds of districts provided funding for professional development or offered professional development to mental health or social services staff on identification of emotional or behavioral disorders and the following prevention services: alcohol or other drug use prevention, suicide prevention, and violence prevention (Table 2).

Similar to states, districts also provided training on mental health and social services topics to teachers, administrators, and other school staff besides mental health or social services staff. During the two years before the study, 95.6% of districts provided funding for or offered training to teachers, administrators, or other school staff on at least one of seven mental health or social services topics (Table 3). At least three fourths of districts provided funding for or offered training on making appropriate referrals to a school counselor, psychologist, or social worker; managing students with emotional or behavioral problems; and recognizing signs and symptoms of bullying victimization.

Collaboration and Promotion

During the 12 months before the study, district-level mental health or social services staff worked on mental health or social services activities with district-level health services staff in 62.6% of districts, with health education staff in 57.3% of districts, with physical education staff in 46.8% of districts, with nutrition or food service staff in 37.6% of districts, and with school-based health center staff in 35.8% of districts. In addition, district mental health or social services staff worked with a local mental health or social services agency in 84.7% of districts, with a local child welfare agency in 75.7% of districts, with a local law enforcement agency in 72.5% of districts, with a local health department in 62.0% of districts, with a local juvenile justice department in 62.0% of districts, with a local hospital in 47.3% of districts, with a health organization (e.g., the American Heart Association or the American Red Cross) in 42.6% of districts, with a local college or university in 41.2% of districts, with a local service club (e.g., the Rotary Club) in 40.1% of districts, with a local business in 36.4% of districts, and with Communities in Schools (a dropout prevention organizations that links community resources with schools) in 19.2% of districts.

To promote school mental health or social services, during the 12 months before the study, 69.3% of districts provided families of all students with information on school mental health or social services.

Evaluation

During the two years before the study, 70.4% of districts evaluated at least one aspect of their mental health or social services program. Specifically,

Table 4. Percentage of districts that had arrangements with any organizations or mental health or social services professionals to provide services, by type of service, SHPPS 2012

Type of Service	Districts (%)
Mental Health or Social Services	
Alcohol or other drug use treatment	35.1
Assistance with accessing benefits for students with disabilities	40.7
Assistance with enrolling in Medicaid or SCHIP	29.1
Assistance with enrolling in WIC or accessing food stamps or food banks	28.4
Assistance with securing temporary or permanent housing	26.9
Counseling after a natural disaster or other emergency or crisis situation	34.6
Counseling for emotional or behavioral disorders (e.g., anxiety, depression, or ADHD)	44.1
Crisis intervention for personal problems	42.0
HIV counseling, testing, and referral	18.8
Identification of emotional or behavioral disorders (e.g., anxiety, depression, or ADHD)	41.8
Identification of or referral for eating disorders	21.7
Identification of or referral for physical, sexual, or emotional abuse	43.4
Identification of or referral for students with family problems (e.g., parental divorce, substance abuse, or violence)	42.0
Job readiness skills programs	38.3
Referrals for after-school programs for students (e.g., supervised recreation)	32.0
Referrals for child care for teen mothers	22.1
Services specifically for gay, lesbian, or bisexual students	11.5
Stress management	28.0
Tobacco use cessation	26.1
Weight management	13.5
Methods of Service Delivery	
Case management for students with emotional or behavioral problems	48.1
Comprehensive assessment or intake evaluation	42.4
Family counseling	39.4
Group counseling	34.7
Individual counseling	48.8
Peer counseling or mediation	22.3
Self-help or support groups	28.0

54.5% evaluated professional development or in-service programs for mental health or social services staff, 52.9% evaluated school mental health or social services programs, 51.3% evaluated student use of

school mental health or social services, 47.8% of districts evaluated school mental health or social services policies, and 30.6% evaluated student or family satisfaction with school mental health or social services.

District Mental Health and Social Services Coordinators

Almost two thirds (63.1%) of districts had a person who oversaw or coordinated school mental health or social services. Unfortunately, the percentage of districts in which these coordinators served as the respondent to the district-level mental health and social services questionnaire was too small for meaningful analysis of the data about the coordinators' qualifications.

Trends Over Time

Several variables met the criteria for significant difference over time outlined in Chapter 2. Between 2000 and 2012, the percentage of districts that provided funding for professional development or offered professional development during the two years before the study decreased for some topics and increased for others. Specifically, the percentage of districts that provided funding for professional development or offered professional development decreased for the following topics: alcohol or other drug use treatment (from 67.5% to 50.3%); HIV counseling, testing, and referral (from 31.7% to 17.4%); HIV prevention (from 45.4% to 32.6%); peer counseling or mediation (from 56.6% to 45.2%); stress management (from 55.5% to 42.0%); and tobacco use cessation (from 51.8% to 36.7%). During the same time period, the percentage of districts that provided funding for professional development or offered professional development increased for the following topics: injury prevention and safety counseling (from 31.7% to 50.9%), suicide prevention (from 52.4% to 70.3%), and violence prevention (from 67.8% to 86.8%).

Two increases related to student services were detected between 2000 and 2012. Specifically, the percentage of districts that offered student assistance programs to all students increased from 51.2% to 76.3%, and the percentage of districts that had adopted a policy stating that school mental health or social services staff will participate in the development of IHPs when indicated increased from 38.5% to 57.2%.

Some increases in collaboration also were detected. Between 2000 and 2012, the percentage of districts in which district-level mental health or social services staff worked on mental health or social services activities with other district-level staff during the 12 months before the study increased for collaborations with health education staff (from 45.3% to 57.3%), health services staff (from 50.7% to 62.6%), nutrition or food service staff (from 11.2% to 37.6%), and physical education staff (from 32.4% to 46.8%). In addition, the percentage of districts in which mental health or social services staff worked with a health organization (e.g., the American Heart Association or the American Red Cross) increased from 32.3% to 42.6%.

Between 2000 and 2012, increases were detected in the percentage of districts that evaluated two aspects of their mental health or social services program during the two years before the study. Specifically, the percentage of districts that evaluated mental health or social services professional development or in-service programs increased from 38.8% to 54.5% and the percentage of districts that evaluated school mental health or social services policies increased from 31.2% to 47.8%.

DISCUSSION

SHPPS 2012 results describe the extent to which school mental health and social services programs in the United States are meeting various guidelines. Even though SHPPS 2012 does not include school-level results, district support for various guidelines can be examined. For example, according to the *Health, Mental Health, and Safety Guidelines for Schools*,¹ schools should have student support teams. SHPPS 2012 found that 80% of districts had adopted a policy stating that schools will create and maintain student support teams, student assistance teams, or student guidance teams. Those guidelines also state that schools should provide written, individualized health services plans for students with special health care needs. More than half of districts had adopted a policy stating that school mental health or social services staff will participate in the development of Individualized Health Plans (IHPs), and this percentage has increased since 2000. Finally, the American School Counselor Association (ASCA) states that professional school counselors should be certified, licensed educators with a minimum of a master's degree in school counseling, meet their state certification and licensure standards, and abide by state laws.² In 2012, 70.7% of districts required

newly hired school counselors to have a minimum of a master's degree in counseling. The ASCA also recommends a counselor-to-student ratio of 1:250.² SHPPS 2012 data showed that few districts have adopted a policy requiring that each school have a specified student to counselor ratio. Further analyses of SHPPS 2012 data can determine the extent to which other mental health and social services guidelines are being met.

Possession of certain knowledge, abilities, skills, and attitudes can help school counselors monitor and evaluate the processes and results of a school counseling program aligning with the ASCA National Model.² Professional development is critical in developing and maintaining these competencies. Almost all states and districts provided funding for professional development or offered professional development to mental health or social services staff on at least one of 40 topics during the two years before the study. However, for seven topics, fewer than 50% of states provided professional development, and for 21 topics, fewer than 50% of districts provided professional development. Further, since 2000, the percentage of states and districts that provided funding for professional development or offered professional development to mental health or social services staff decreased for multiple topics.

Professional development on mental health and social services topics for teachers, administrators, or other school staff was common. Almost all states and districts provided funding for or offered professional development for these staff on at least one of seven topics. Both states and districts were most likely to provide funding for or offer professional development on recognizing signs and symptoms of bullying victimization. It is important to monitor the extent to which the available professional development meets the needs of school mental health and social service providers and other staff because sufficient training of key staff is critical to improving school-based mental health and social services.³

Collaboration between mental health and social services staff and other staff working in states, districts, and the community also is critical to the success of school-based mental health programs.⁴ State-level mental health and social services staff were most likely to collaborate with state-level special education staff and state health departments. District-level mental health and social services staff

were most likely to collaborate with district-level health services staff and a local mental health or social services agency. Though some increases in collaboration occurred since 2000, room for improved collaboration exists, particularly among district-level staff.

State- and district-level policies supporting broad school mental health and social services are far from universal or consistent. Lack of policy support may result in unsystematic planning and implementation of mental health programs and services and an inefficient use of limited resources.⁵ Inconsistency across states, for example, in minimum training requirements for school staff, may lead to inequities in services provided to students. The delivery of school mental health and social services would improve if policies were in place to frame a comprehensive support system for students rather than separate programs or services.⁶

Prioritizing these services at the state, district, and local levels would help improve school mental health and social services. Furthermore, helping families, schools, and other community organizations understand the positive contributions they can make in promoting and supporting student mental health would bolster these efforts. Collaboration between education agencies, mental health agencies, and public health agencies has been shown to help address student mental health and social service needs. Evidence indicates that it is beneficial for school mental health professionals to be appropriately trained to work with racially and ethnically diverse populations and collaborate with school-based health centers and community agencies and programs to ensure comprehensive high quality services.⁷ SHPPS 2012 and other related data can be used for program and policy analyses to drive national improvements in school-based mental health and social services programs.

REFERENCES

1. Taras H, Duncan P, Luckenbill D, Robinson J, Wheeler L, Wooley S, eds. *Health, Mental Health, and Safety Guidelines for Schools*. Elk Grove Village, IL: American Academy of Pediatrics; 2004.
2. American School Counselors Association. *The Role of the Professional School Counselor*. 2009. Available at: <http://ascatemp.membershipsoftware.org/files/rolestatement.pdf>.

3. Weist MD. Fulfilling the promise of school-based mental health: moving toward a public mental health promotion approach. *Journal of Abnormal Child Psychology*. 2005; 33:735–741.
4. Weist MD, Proescher E, Prodentente C, Ambrose MG, Waxman R. Mental health, health, and education staff working together in schools. *Child and Adolescent Psychiatric Clinics of North America*. 2001; 10:33–43.
5. Adelman H, Taylor L. Promoting mental health in schools in the midst of school reform. *Journal of School Health*. 2000;70:171–178.
6. Adelman H, Taylor L. *Mental Health in Schools: Reflections on the Past, Present, and Future*. Los Angeles, CA: Center for Mental Health in Schools; 2004. Available at: <http://smhp.psych.ucla.edu/pdfdocs/report/reflections.pdf>.
7. Mock MR. Cultural sensitivity, relevance, and competence in school mental health. In: Weist MD, Evans SW, Lever NA, eds. *Handbook of School Mental Health: Advancing Practice and Research*. New York, NY: Kluwer Academic/Plenum Publishers; 2003:349–362.

Chapter 7

Nutrition Services and the School Nutrition Environment: Results from the School Health Policies and Practices Study 2012

*Caitlin L. Merlo, MPH, RD; Diane M. Harris, PhD, MPH; Kimberly G. Lane, PhD, RD**

This chapter describes the findings from the 2012 School Health Policies and Practices Study (SHPPS) related to nutrition services and the school nutrition environment. It includes state-level information on state assistance to districts and schools, professional development and certification, collaboration, evaluation, and state nutrition services coordinators. At the district level, this chapter describes child nutrition requirements and recommendations; foods and beverages sold outside of school meal programs; menu planning, food ordering, and food preparation; food safety, food allergies, and food insecurity; staff qualifications; professional development; collaboration; program promotion; evaluation; and district food service directors. The chapter also describes significant trends over time at both the state and district levels.

STATE-LEVEL RESULTS

State Assistance to Districts and Schools

States may offer multiple types of assistance to help inform district and school policies on school nutrition topics. Policy-related assistance includes developing, revising, and assisting in the development of model policies, policy guidance, or other policy-related materials and distributing or providing such materials to district or school staff. During the two years before the study, at least two thirds of states provided policy-related assistance on access to free drinking water; actively promoting fruits and vegetables, whole grain foods, and low-fat or nonfat dairy products to students; developing, implementing, and evaluating local wellness policies; discouraging the sale of less nutritious foods or beverages for school fund-raising campaigns; feeding students with severe food allergies; food safety; improving the nutritional

quality of school meals; and sourcing foods locally or regionally (Table 1). For all but one school nutrition topic included in the questionnaire (i.e., establishing minimum time periods for students to eat breakfast or lunch), more states distributed or provided policy-related materials than developed or revised such materials.

States may also provide technical assistance (one-on-one, tailored guidance to meet the specific needs of the district or school that may be provided through phone, e-mail, Internet, or in-person meetings) to district and school staff. During the 12 months before the study, more than 90% of states provided technical assistance on access to free drinking water; actively promoting fruits and vegetables, whole grain foods, and low-fat or nonfat dairy products to students; developing food safety plans; developing, implementing, and evaluating local wellness policies; establishing or expanding school breakfast programs, after-school snack programs, or after-school supper programs; improving the nutritional quality of school meals; meeting requirements for the U.S. Department of Agriculture's (USDA) HealthierUS School Challenge; promoting access to and participation in school meals for all students; and sourcing foods locally or regionally (Table 2).

Professional Development and Certification

Professional development was defined as workshops, conferences, continuing education, graduate courses, or any other kind of in-service for nutrition services staff. During the two years before the study, many states provided funding for professional development or offered professional development on a variety of topics (Table 3).

* **Caitlin L. Merlo** is a Health Scientist and **Kimberly G. Lane** is a Health Education Specialist, School Health Branch, Division of Population Health, CDC and **Diane M. Harris** is Team Lead, Applied Research and Guidelines Development, Nutrition Branch, Division of Nutrition, Physical Activity, and Obesity, CDC. **Jay Hirschman**, MPH, CNS and **Debra Nigri**, MA, RD served as reviewers from the Food and Nutrition Service, United States Department of Agriculture.

Table 1. Percentage of states that provided policy-related assistance to districts and schools, during the two years before the study, by type of assistance, SHPPS 2012

Topic	States (%)	
	Developed, Revised, or Assisted in Developing Model Policies, Policy Guidance, or Other Materials	Distributed or Provided Model Policies, Policy Guidance, or Other Materials
Access to free drinking water	84.3	92.2
Actively promoting fruits and vegetables, whole grain foods, and low-fat or nonfat dairy products to students	86.3	96.1
Developing, implementing, and evaluating local wellness policies	66.7	82.4
Discouraging the sale of less nutritious foods or beverages for school fund-raising campaigns	68.8	70.0
Discouraging the use of food or food coupons as a reward or punishment	64.7	66.0
Establishing minimum time periods for students to eat breakfast or lunch	39.2	36.0
Establishing nutrition standards for foods and beverages available at school outside of the school meal programs	58.8	70.6
Feeding students who rely on the school meal programs in the event of an unplanned school dismissal or school closure	57.1	62.0
Feeding students with severe food allergies	68.6	82.4
Food safety	82.4	88.2
Improving the nutritional quality of foods and beverages available at school outside of the school meal programs	64.7	80.0
Improving the nutritional quality of school meals	68.6	92.2
Limiting student access to less nutritious foods and beverages at school	58.8	64.7
Pricing strategies to encourage the purchase of healthful foods and beverages	34.0	47.1
Prohibiting advertising and promotion of less nutritious foods and beverages on school property	21.6	30.0
Sourcing foods locally or regionally	82.4	90.2

Nationwide, 88.2% of states provided funding for professional development or offered professional development on at least one half of the topics included in the questionnaire. The three most common professional development topics were food safety, menu planning for healthful meals, and program regulations and procedures. The three least common topics were cultural diversity in meal planning, facility design and layout (including equipment selection), and personal safety for nutrition services staff.

State certification, licensure, or endorsement for district food service directors (also called school food authority [SFA] directors) was offered by 33.3% of states, and state certification, licensure, or endorsement for school food service managers was offered by 29.4% of states.

Collaboration

State-level child nutrition or nutrition services staff may work on school nutrition services activities with other state-level staff and with staff or members from other organizations and agencies. During the 12 months before the study, state-level child nutrition or nutrition services staff worked with health education staff in 84.3% of states, with health services staff in 77.1% of states, with physical education staff in 72.5% of states, and with mental health or social services staff in 37.3% of states. In addition, state-level nutrition services staff in more than three fourths of states worked on school nutrition services activities with staff or members from the state health department (98.0% of states), the state department of agriculture (96.1%), a food commodity organization (e.g., the Dairy Council or state produce growers association) (96.1%), the state-level School Nutrition Association (96.0%), a

non-governmental organization promoting farm to school activities (90.2%), a state cooperative extension office (90.0%), colleges or universities (88.2%), and Action for Healthy Kids (80.4%). State-level nutrition services staff in less than three fourths of states worked with a state-level school nurses' association or organization (70.6%), a food policy council (64.0%), a state-level health organization (e.g., the American Heart Association or the American Cancer Society) (60.8%), the Alliance for a Healthier Generation (56.9%), businesses (51.0%), a state-level parents' organization (e.g., the PTA) (49.0%), the state mental health or social services agency (47.1%), and a state-level physicians' organization (e.g., the American Academy of Pediatrics) (31.4%).

Evaluation

During the two years before the study, states evaluated various aspects of the school nutrition services program. Specifically, 92.2% of states evaluated the number of students participating in the nutrition services program, 72.5% of states evaluated the implementation of local wellness policies at the district or school level, 70.6% evaluated food safety procedures at the district or school level, 60.8% evaluated professional development or in-service programs for nutrition services staff, and 15.7% evaluated the amount of plate waste at the district or school level.

State Nutrition Services Coordinators

Nationwide, 96.1% of states had someone to oversee or coordinate school nutrition services (e.g., state food service director or director of child nutrition). The school nutrition coordinator served as the respondent for the state-level nutrition services SHPPS questionnaire in 63.3% of these states. Among these respondents (representing 60.7% of states nationwide), 6.4% had a culinary arts degree and 93.6% had at least an undergraduate degree. Among the 93.6% of respondents with an undergraduate degree, 64.3% majored in nutrition or dietetics, 21.4% majored in home economics or family and consumer sciences, 17.9% majored in food service administration or management, 14.3% majored in business, and 14.3% majored in education.* Among respondents with an undergraduate degree, 39.3% had an undergraduate minor. Among respondents with minors, 36.4% had

* Respondents were able to select more than one option for the undergraduate major, minor, and graduate degree, as applicable.

Table 2. Percentage of states that provided technical assistance* to district or school staff during the 12 months before the study, by topic, SHPPS 2012

Topic	States (%)
Access to free drinking water	96.0
Actively promoting fruits and vegetables, whole grain foods, and low-fat or nonfat dairy products to students	100.0
Developing food safety plans	90.2
Developing plans for feeding students who rely on the school meal programs in the event of an unplanned school dismissal or school closure	61.2
Developing plans for feeding students with severe food allergies	84.3
Developing school gardens	74.0
Developing, implementing, and evaluating local wellness policies	94.1
Discouraging the sale of less nutritious foods or beverages for school fund-raising campaigns	78.4
Discouraging the use of food or food coupons as a reward or punishment	80.4
Establishing minimum time periods for students to eat breakfast or lunch	54.9
Establishing nutrition standards for foods and beverages available at school outside of the school meal programs	78.4
Establishing or expanding school breakfast programs, after-school snack programs, or after-school supper programs	98.0
Implementing nutrition-related special events to teach students about nutrition or healthy eating	72.0
Improving the nutritional quality of foods and beverages available at school outside of the school meal programs	86.3
Improving the nutritional quality of school meals	100.0
Involving school nutrition services staff in classrooms to teach students about nutrition or healthy eating	70.6
Limiting student access to less nutritious foods and beverages at school	76.5
Marketing healthful foods and beverages available at school outside of the school meal programs	56.0
Marketing healthful school meals	84.0
Meeting requirements for USDA's Healthier US School Challenge	98.0
Pricing strategies to encourage the purchase of healthful foods and beverages	66.7
Prohibiting advertising and promotion of less nutritious foods and beverages on school property	37.5
Promoting access to and participation in school meals for all students	92.0
Sourcing foods locally or regionally	98.0
Strategies to improve the presentation of healthful foods in the cafeteria	86.3
Using data to plan or evaluate nutrition-related policies or practices	66.7
Using the cafeteria as a place where students might learn about food safety, food preparation, or other nutrition-related topics	78.4

* One-on-one, tailored guidance to meet the specific needs of the district or school that may be provided through phone, e-mail, Internet, or in-person meetings.

a minor in business, 18.2% had a minor in home economics or family and consumer sciences, and 9.1% had a minor in education. Among respondents with an undergraduate degree, 67.9% had a graduate degree. Among respondents with a graduate degree, 47.4% had a graduate degree in nutrition or dietetics, 21.0% in food service administration or management, 15.8% in education, 15.8% in home economics or family and consumer sciences, and 15.8% in business. Among coordinators who served as respondents to the state-level nutrition services questionnaire, 51.7% held a Registered Dietitian (RD) credential from the American Dietetic Association (now the Academy of Nutrition and Dietetics), 16.7% had a certification from the School Nutrition Association (Level 1, Level 2, Level 3, or Trainer), 10.3% were certified food safety managers, and 10.0% had a School Nutrition Specialist credential from the School Nutrition Association. In addition, 20.0% had other food service certifications from a state agency or state-level professional group.

Trends Over Time

Only two variables met the criteria for significant difference over time outlined in Chapter 2 and both pertained to collaboration. Between 2000 and 2012, the percentage of states in which state-level child nutrition or nutrition services staff worked with state-level physical education staff during the 12 months before the study increased from 48.0% to 72.5%. Collaboration between state-level child nutrition or nutrition services staff and the state department of agriculture was not measured until 2006, but between 2006 and 2012, the percentage of states in which staff from these agencies worked on nutrition services activities during the 12 months before the study increased from 64.7% to 96.1%.

DISTRICT-LEVEL RESULTS

Child Nutrition Requirements and Recommendations

Districts may adopt a variety of policies related to school meals. Nationwide, 80.8% of districts had adopted a policy stating that all schools will offer breakfast to students. An additional 19.2% of districts had adopted a policy stating that some categories of schools, such as those with a certain percentage of students eligible for free or reduced-price meals, will offer breakfast to students. More than one fourth (26.7%) of districts had adopted a policy stating that schools will encourage breakfast

consumption by allowing students to eat in locations other than the cafeteria, such as the school bus or classroom. Only 20.2% of districts required and 34.4% recommended a minimum amount of time that students will be given to eat breakfast once they are seated. Similarly, 19.7% of districts required and 44.4% recommended that schools offer students whole grain foods each day for breakfast.

Nationwide, 96.6% of districts had adopted a policy stating that schools will offer lunch to students. Districts also adopted a variety of policies about the types of foods schools offered to students each day for lunch. One third (34.3%) required and 36.4% recommended that schools offer two or more different fruits or types of 100% fruit juice; 33.8% of districts required and 29.2% recommended that schools offer two or more different entrees or main courses; 31.9% required and 35.7% recommended that schools offer two or more different non-fried vegetables; 27.7% required and 49.8% recommended that schools offer whole grain foods; 14.8% required and 26.5% recommended that schools offer a self-serve salad bar; and 10.6% required and 19.7% recommended that schools offer a vegetarian entrée or main course.

In addition to the National School Lunch Program and the School Breakfast Program, schools participated in other child nutrition programs sponsored by the USDA. Specifically, 41.9% of districts had schools that participated in the After-School Snack Program, 30.8% of districts sponsored the Summer Food Service Program at schools within the district, and 5.9% of districts had schools that participated in the After-School Supper Program.

Foods and Beverages Sold Outside of School Meal Programs

Many schools also offer foods and beverages for students outside of the meals and snacks served through the USDA's child nutrition programs. Because these foods and beverages are at present only subject to minimal federal nutrition standards, they tend to be less healthful. Junk foods were defined as foods or beverages that have low nutrient density, that is, they provide calories primarily through fats or added sugars and have minimal amounts of vitamins and minerals. More than one fourth of districts required that schools prohibit junk foods from being offered in vending machines, a la carte (i.e., items sold individually rather than as part of a complete meal) during breakfast or lunch

Table 3. Percentage of states and districts that provided funding for professional development* or offered professional development for school nurses during the two years before the study, by topic, SHPPS 2012

Topic	States (%)	Districts (%)
Competitive food policies to create a healthy food environment	76.5	57.5
Culinary skills	68.0	47.0
Cultural diversity in meal planning	49.0	31.6
Customer service	74.5	66.8
Facility design and layout, including equipment selection	24.0	30.4
Financial management	86.3	54.1
Food preparation methods for students with food allergies	58.8	68.7
Food safety	92.2	87.1
Healthy food preparation methods	88.2	75.6
Implementing local wellness policies at the school level	74.0	63.4
Implementing the new USDA rules for school meals	90.0	81.4
Increasing the percentage of students participating in school meals	78.4	60.6
Making school meals more appealing	88.2	72.0
Menu planning for healthful meals	98.0	73.8
Nutrition services for students with special dietary needs other than food allergies	82.4	62.7
Personal safety for nutrition services staff	41.2	76.9
Personnel management	54.9	51.6
Procedures for handling severe food allergy reactions	64.7	68.0
Procedures for responding to food recalls	66.7	72.6
Program regulations and procedures	100.0	77.9
Selecting and ordering food	82.4	68.1
Sourcing foods locally or regionally	88.2	44.2
Strategies to improve the presentation of healthful foods in the cafeteria	80.0	71.4
Using Hazard Analysis and Critical Control Points	84.0	80.0
Using produce from school gardens	62.0	20.0
Using the cafeteria for nutrition education	72.5	48.1

* Workshops, conferences, continuing education, graduate courses, or any other kind of in-service on how to implement school-wide policies and programs.

periods, and in school stores, canteens, and snack bars (Table 4). Further, more than one fourth of districts recommended that schools prohibit junk foods from being offered at student parties, at concession stands, at meetings attended by students' family members, at staff meetings, and in after-school or extended day programs. Additionally, 9.6% of districts required and 32.3% of districts recommended that schools make fruits or vegetables available to students whenever other food is offered or sold (e.g., at student parties or in school stores). Similarly, 6.8% of districts required and 31.1% recommended that whole grain foods be made available to students whenever other food is offered or sold, while 26.0% of districts required and 32.9%

recommended that healthful beverages (e.g., plain water or low-fat milk) be made available to students whenever other food is offered or sold. About one half (48.0%) of districts required and 25.3% recommended that schools restrict the availability of deep fried foods. About two thirds (67.6%) of districts required and 17.8% recommended that schools restrict the times during the day that soda pop, sports drinks, or fruit drinks that are not 100% juice can be sold in any venue (e.g., the cafeteria, vending machines, and school stores or snack bars) and 60.8% required and 20.6% recommended that schools restrict the times during the day that junk foods can be sold in any venue. Nationwide, 15.7% of districts required and 42.7% recommended that

Table 4. Percentage of districts that required or recommended that schools prohibit offering junk foods, by school setting, SHPPS 2012

School Setting	Districts (%)		
	Required	Recommended	Neither
A la carte during breakfast or lunch periods	41.7	23.7	34.6
At concession stands	5.8	33.2	61.0
At meetings attended by students' family members	4.5	33.0	62.5
At staff meetings	3.4	32.5	64.1
At student parties	16.7	46.9	36.4
In after-school or extended day programs	21.4	31.5	47.1
In school stores, canteens, or snack bars	28.3	24.9	46.8
In vending machines	43.4	21.5	35.1

schools prohibit junk foods from being sold for fundraising purposes. Almost one third (29.3%) of districts required and 12.0% recommended that schools prohibit brand-name fast foods (e.g., Pizza Hut or Taco Bell) from being offered as part of school meals or as a la carte items. Twelve percent of districts required and 21.9% recommended that healthful foods such as fruits, vegetables, and whole grain foods be intentionally priced at a lower cost than junk foods. Similarly, 10.7% of districts required and 13.4% recommended that healthful beverages be intentionally priced at a lower cost than sugar-sweetened beverages. More than one half (53.5%) of districts required schools to report on revenue from food and beverage sales from school-sponsored fundraisers, vending machines, school stores, or a la carte lines in the school cafeteria.

Schools might prohibit student access to vending machines at certain times during the school day, such as during meal service or before school. Most (82.3%) districts required and 6.4% recommended that elementary schools prohibit student access to vending machines for at least part of the school day. Similarly, 79.2% of districts required and 9.3% recommended that middle schools prohibit student access to vending machines for at least part of the school day, and 71.1% of districts required and 13.1% recommended that high schools prohibit student access to vending machines for at least part of the school day. Nationwide, 60.3% of districts allowed schools to sell soft drinks (e.g., sports drinks, soda pop, or fruit drinks that are not 100% juice) to students in any venue. Among these districts, 69.3% received a specified percentage of the soft drinks sales receipts and 33.9% received incentives (e.g., cash awards or donations of equipment, supplies, or other donations) once

receipts totaled a specified amount. Among the 60.3% of districts that allowed schools to sell soft drinks, 41.2% were prohibited from selling soft drinks produced by more than one company.

Nationwide, 44.1% of districts prohibited or actively discouraged schools from using food or food coupons as a reward for good behavior or good academic performance and 66.0% prohibited or actively discouraged schools from withholding food or restricting the types of foods available as a form of punishment for students' behavior.

Menu Planning, Food Ordering, and Food Preparation

In 92.1% of districts, the district nutrition services program had primary responsibility for planning the menus for meals at any schools in their district. Among these districts, 62.9% used Traditional Food-based Menu Planning, 18.5% used Nutrient Standard Menu Planning or Assisted Nutrient Standard Menu Planning, and 16.6% used Enhanced Food-based Menu Planning. Further, among the 92.1% of districts with primary responsibility for menu planning, 39.3% routinely used a computer to analyze the nutritional content of the school menus; and 64.4% of districts that routinely used a computer to analyze nutritional content used a weighted nutrient analysis (i.e., more weight is given to the nutrients in foods selected frequently and less weight to those foods selected less frequently).

Nationwide, 92.7% of district nutrition services programs had primary responsibility for deciding which foods to order for any schools in their district. Almost two thirds (63.7%) of these districts purchased foods from local or regional growers or producers. In addition, among the 92.7% of districts with primary responsibility for deciding which foods

Table 5. Percentage of districts that almost always or always used healthy food preparation practices during the 30 days before the study,* by type of food preparation practice, SHPPS 2012

Food Preparation Practice	Districts (%)
Substitution Technique	
Using cooked dried beans, canned beans, soy products, or other meat extenders instead of meat	7.6
Using fresh or frozen fruit instead of canned	34.0
Using fresh or frozen vegetables instead of canned	47.5
Using ground turkey or lean ground beef instead of regular ground beef	44.1
Using low-fat or nonfat yogurt, mayonnaise, or sour cream instead of regular mayonnaise, sour cream, or creamy salad dressings	53.1
Using low-sodium canned vegetables instead of regular canned vegetables	34.4
Using non-stick spray or pan liners instead of grease or oil	91.5
Using other seasoning instead of salt	46.9
Using part-skim or low-fat cheese instead of regular cheese	69.4
Using skim, low-fat, soy, or nonfat dry milk instead of whole milk	90.7
Using vegetable oil instead of shortening, butter, or margarine	50.8
Reduction Technique	
Reducing the amount of fats and oils in recipes or using low-fat recipes	41.4
Reducing the amount of salt in recipes or using low-sodium recipes	46.1
Reducing the amount of sugar in recipes or using low-sugar recipes	30.3
Meat Preparation Technique	
Roasting, baking, or broiling meat rather than frying	76.2
Roasting meat or poultry on a rack so fat would drain	41.7
Draining fat from browned meat	79.0
Trimming fat from meat or using lean meat	61.7
Removing skin from poultry or using skinless poultry	42.6
Spooning solid fat from chilled meat or poultry broth	77.7
Skimming fat off warm broth, soup, stew, or gravy	70.8
Vegetable Preparation Technique	
Boiling, mashing, or baking potatoes rather than frying or deep frying	78.7
Preparing vegetables without using butter, margarine, or a cheese or creamy sauce	63.5
Steaming or baking vegetables (not including potatoes)	83.7

* Among the 73.5% of districts with primary responsibility for cooking foods for schools in the district.

to order, 93.6% had a food procurement contract that addressed food safety, 92.1% had a contract that addressed Hazard Analysis and Critical Control Points (HACCP), 84.0% had a contract that addressed cooking methods for precooked items (e.g., baked instead of deep fried), 73.5% had a contract that addressed nutrition standards for a la carte foods, and 51.7% had a contract that addressed preference for locally or regionally grown foods.

In almost three fourths (73.5%) of districts, the district nutrition services program had primary responsibility for cooking foods (e.g., in a central

kitchen) for schools in the district. Districts may use a variety of healthy food preparation techniques including substitution techniques (i.e., substituting one type of ingredient for another), reduction techniques (i.e., reducing the amount of an ingredient), fat reduction techniques when preparing meat and poultry, and fat reduction techniques when preparing vegetables. During the 30 days before the study, among the 73.5% of districts with primary responsibility for cooking foods for schools in the district, more than one half reported almost always or always using the following practices: using low-fat or nonfat yogurt, mayonnaise, or sour cream

instead of regular mayonnaise, sour cream, or creamy salad dressings; using non-stick spray or pan liners instead of grease or oil; using part-skim or low-fat cheese instead of regular cheese; using skim, low-fat, soy, or nonfat dry milk instead of whole milk; using vegetable oil instead of shortening, butter, or margarine; roasting, baking, or broiling meat rather than frying; draining fat from browned meat; trimming fat from meat or using lean meat; spooning solid fat from chilled meat or poultry broth; skimming fat off warm broth, soup, stew, or gravy; boiling, mashing, or baking potatoes rather than frying or deep frying them; preparing vegetables without using butter, margarine, or a cheese or creamy sauce; and steaming or baking vegetables (not including potatoes) (Table 5).

Food Safety, Food Allergies, and Food Insecurity

More than three fourths (78.3%) of districts required and 12.0% recommended that schools have written plans for implementation of a risk-based approach to food safety (e.g., a HACCP-based program). During the 30 days before the study, 78.4% of districts almost always or always used HACCP-based recipes.[†] Additionally, 60.2% of districts required and 22.7% recommended that schools have a written plan for feeding students with severe food allergies. Nearly one third (30.3%) of districts had a district-level plan for feeding students who rely on the school meal programs in the event of an unplanned school dismissal or school closure. Similarly, 19.3% of districts required and 18.6% recommended that school nutrition services programs have a written plan for feeding students who rely on the school meal programs in the event of an unplanned school dismissal or school closure.

Staff Qualifications

Nationwide, 34.4% of districts did not require newly hired district food service directors to have a minimum level of education. However, 37.1% of districts required a high school diploma or GED as the minimum level of education, 17.6% of districts required an undergraduate degree in nutrition or a related field, 6.5% of districts required a graduate degree in a nutrition or a related field, and 4.4% required an associate's degree in nutrition or a related field. Furthermore, 20.9% of districts

[†]HACCP-based recipes include critical control points (e.g., cooking) and associated critical limits (e.g., time and temperature) in their directions. They are designed to reduce the risk of food contamination and bacterial growth that could lead to foodborne illness.

required a newly hired district food service director to be certified, licensed, or endorsed by the state.

Many districts had other training and credentialing requirements for newly hired district food service directors. Nationwide, 70.1% of districts required ServSafe or other food safety certification, 47.4% required successful completion of a school nutrition services training program provided or sponsored by the state, 21.7% required a School Nutrition Association certification (Level 1, Level 2, Level 3, or Trainer), 10.0% required a School Nutrition Specialist credential from the School Nutrition Association, and 3.4% required an RD credential.

Nationwide, 61.6% of districts had adopted a policy that each school will have someone to oversee or coordinate nutrition services at the school, such as a school food service manager. Although 33.0% of districts did not require newly hired school food service managers to have a minimum level of education, 58.4% of districts required a high school diploma or GED, 4.2% required an undergraduate degree in nutrition or a related field, 2.9% required an associate's degree in nutrition or a related field, and 1.4% required a graduate degree in nutrition or a related field. Only 15.8% of districts had adopted a policy stating that newly hired food service managers will be certified, licensed, or endorsed by the state. However, many districts had other training and credentialing requirements for newly hired school food service managers. Specifically, 70.5% of districts required ServSafe or other food safety certification, 36.9% required successful completion of a school nutrition services training program provided or sponsored by the state, 16.0% required a School Nutrition Association certification (Level 1, Level 2, Level 3, or Trainer), 5.7% required a School Nutrition Specialist credential from the School Nutrition Association, and 1.1% required an RD credential.

Professional Development

Many districts provided funding for professional development or offered professional development to nutrition services staff during the two years before the study. More than three fourths of districts provided funding for professional development or offered professional development for nutrition services staff on food safety, healthy food preparation methods, implementing the new USDA rules for school meals, personal safety for nutrition

services staff, program regulations and procedures, and using HACCP (Table 3).

Collaboration

District-level nutrition services staff may work on nutrition services activities with other district-level staff and with staff or members from other agencies and organizations. During the 12 months before the study, district-level nutrition services staff worked on school nutrition services activities with district-level health services staff in 51.4% of districts, with health education staff in 51.1% of districts, with physical education staff in 39.9% of districts, and with mental health or social services staff in 22.1% of districts. In addition, during the 12 months before the study, district-level nutrition services staff in more than half of districts worked on school nutrition services activities with staff from a local health department (52.0% of districts) and a food commodity organization (e.g., the Dairy Council or produce growers association) (51.5%). District-level nutrition services staff in less than one third of districts worked on school nutrition services activities with staff or members from a non-governmental organization promoting farm to school activities (27.4%), a county cooperative extension office (27.2%), Action for Healthy Kids (26.8%), a local anti-hunger organization (e.g., a food bank) (24.1%), a local business (20.9%), a local health organization (e.g., the American Heart Association or the American Cancer Society) (20.7%), a food policy council (19.7%), a local college or university (17.9%), the Alliance for a Healthier Generation (17.0%), a local youth organization (e.g., the Boys and Girls Club) (14.7%), a local mental health or social services agency (10.6%), a local hospital (10.4%), and a local service club (e.g., the Rotary Club) (9.8%). Almost one third (32.1%) of districts participated in any farm to school activities.

Program Promotion

During the 12 months before the study, districts promoted school nutrition services among students and their families in a variety of ways, including making menus available to students (97.1% of districts), making menus available to the families of all students (97.0%), making information on the school nutrition services program available to families of all students (82.6%), making information available to students on the nutrition and caloric content of foods available to them (68.2%), and making information available to families of all

students on the nutrition and caloric content of foods available to students (52.7%).

During the 12 months before the study, districts provided ideas to schools on how to improve student nutrition or healthy eating. Specifically, 52.4% of districts provided ideas for nutrition-related special events; 47.3% of districts provided ideas on how to use the cafeteria as a place where students might learn about food safety, food preparation, or other nutrition-related topics; and 47.2% of districts provided schools with ideas on how to involve school nutrition services staff in classrooms. Districts also provided assistance to schools on planning menus for students with food allergies in 81.1% of districts, planning menus for students with chronic health conditions (e.g., diabetes) that require dietary modification in 72.0% of districts, and planning menus for students who are vegetarians in 45.4% of districts.

Evaluation

During the two years before the study, districts evaluated various aspects of their school nutrition services program. Specifically, 95.2% of districts evaluated food safety procedures, 93.0% of districts evaluated staff compliance with government regulations and recommendations, 91.4% of districts evaluated the number of students participating in the nutrition services program, 90.4% of districts evaluated the nutritional quality of school meals, 77.0% evaluated professional development or in-service programs for nutrition services staff, and 57.7% of districts evaluated the amount of plate waste.

District Food Service Directors

In 77.2% of districts nationwide, the school district operated the nutrition services program for the district and in 16.4% of districts a food service management company operated the nutrition services program. The majority (90.1%) of districts had someone to oversee or coordinate nutrition services at the district level (e.g., a district food service director). Among these districts, 85.6% had that person serve as the respondent to the district-level nutrition services SHPPS questionnaire. Among these respondents (representing 77.1% of districts nationwide), 88.7% worked for the school district and 11.5% worked for a food service management company. In addition, 46.9% had at least an undergraduate degree and 10.6% had a culinary degree. Among respondents with an

undergraduate degree, 30.4% majored in nutrition or dietetics, 30.5% majored in food service administration or management, 26.7% majored in business, 18.7% majored in education, and 16.3% majored in home economics or family and consumer sciences. In addition, among respondents with an undergraduate degree, 33.1% had an undergraduate minor, with 19.9% of those respondents having a minor in education, 16.2% in business, 10.9% in food service administration or management, 10.6% in nutrition or dietetics, and 4.2% in home economics or family and consumer sciences. Among respondents with an undergraduate degree, 42.9% also had a graduate degree; 37.2% of those with graduate degrees had that degree in education, 21.6% in business, 17.4% in nutrition or dietetics, 14.1% in food service administration or management, and 10.3% in home economics or family and consumer sciences.

Among the coordinators who served as respondents to the district-level nutrition services SHPPS questionnaire, 53.2% were certified food safety managers, 38.8% had a School Nutrition Association certification (Level 1, Level 2, Level 3, or Trainer), 21.6% had a School Nutrition Specialist credential from the School Nutrition Association, 10.4% were certified dietary managers, and 6.3% had an RD credential. In addition, 29.3% had other nutrition services certifications from a state agency or state-level professional group.

Marketing and Promotion of Foods and Beverages

Nationwide, while 38.3% of districts required and 27.6% recommended that schools prohibit advertisements for junk foods or fast-food restaurants on school property, in 26.5% of districts, soft drink companies were allowed to advertise soft drinks in school buildings and 33.5% of districts allowed advertising on school grounds (including on the outside of the school buildings, on playing fields, or other areas of campuses). Nearly one third (31.6%) of districts required and 25.5% recommended that schools restrict the distribution of products (e.g., t-shirts, hats, or book covers) promoting junk food, fast food restaurants, or soft drinks to students.

District Wellness Policy

The Healthy, Hunger-Free Kids Act of 2010 requires school districts participating in federally subsidized child nutrition programs (e.g., National School

Lunch Program or School Breakfast Program) to implement, review, and monitor a local wellness policy. Nationwide, various individuals were responsible for ensuring compliance with their district's wellness policy including superintendents (20.0% of districts), other district level staff members (17.1%), school administrators (16.2%), school-level faculty or staff members (6.2%), and assistant principals (5.1%). However, in 35.5% of districts, no single individual was responsible for ensuring compliance with the district's wellness policy. Various groups were involved in the review and revision of the district's wellness policy, including school administrators (81.2%), representatives of the school food authority (68.4%), community members (50.9%), school board members (48.9%), students (44.5%), and families (44.3%). Nationwide, 43.8% of districts had evaluated implementation of the district's wellness policy and made the results available to the public (e.g., by posting it on a Web site); 38.9% had evaluated implementation of the wellness policy, but did not made the results available to the public; and 17.2% of districts had not evaluated implementation of the wellness policy.

Trends Over Time

Changes Between 2000 and 2012

Many variables met the criteria for significant difference over time outlined in Chapter 2. Between 2000 and 2012, the percentage of districts in which the district nutrition services program had the primary responsibility for cooking foods for schools (e.g., in a central kitchen) decreased from 87.6% to 73.5%. Increases were detected in the percentage of districts that almost always or always used numerous healthy food preparation practices during the 30 days before the study (Table 6).

The percentage of districts in which nutrition services staff worked with other district-level staff during the 12 months before the study increased for health education (from 26.0% to 51.1%), health services (from 23.9% to 51.4%), mental health or social services (from 8.8% to 22.1%), and physical education (from 13.9% to 39.9%). Additionally, collaboration also increased between district-level nutrition services staff and staff from a local business (8.8% to 20.9%), a local college or university (8.7% to 17.9%), and a local health department (from 37.6% to 52.0%).

Table 6. Significant trends over time* in the percentage of districts that almost always or always used healthy food preparation practices,† by type of food preparation practice, SHPPS 2000, 2006, and 2012

Food Preparation Practice	District (%)		
	2000	2006	2012
Substitution Technique			
Using low-fat or nonfat yogurt, mayonnaise, or sour cream instead of regular mayonnaise, sour cream, or creamy salad dressing	26.8	39.8	53.1
Using low-sodium canned vegetables instead of regular canned vegetables	7.4	14.3	34.4
Using other seasoning instead of salt	33.0	32.5	46.9
Using part-skim or low-fat cheese instead of regular cheese	34.1	50.3	69.4
Using skim, low-fat, soy or nonfat dry milk instead of whole milk	67.4	77.9	90.7
Using vegetable oil instead of shortening, butter, or margarine	33.8	43.0	50.8
Reduction Technique			
Reducing the amount of fats and oils in recipes or using low-fat recipes	25.3	26.4	41.4
Reducing the amount of salt in recipes or using low-sodium recipes	32.6	28.3	46.1
Reducing the amount of sugar in recipes or using low-sugar recipes	12.7	17.5	30.3
Meat Preparation Technique			
Roasting, baking, or broiling meat rather than frying	NA	86.7	76.2
Roasting meat or poultry on a rack so fat would drain	33.2	34.4	41.7
Spooning solid fat from chilled meat or poultry broth	67.6	68.8	77.7
Skimming fat off warm broth, soup, stew, or gravy	60.2	64.9	70.8
Vegetable Preparation Technique			
Steaming or baking other vegetables	59.5	77.7	83.7

* Significant linear trends based on regression analysis with all years of available data.

† Among the districts with primary responsibility for cooking foods for schools in the district.

The percentage of districts that made information available to students on the nutrition and caloric content of foods available to them increased from 46.0% to 68.2%. Similarly, an increase was detected in the percentage of districts that made information available to families on the nutrition and caloric content of foods available to students (from 35.3% to 52.7%). Increases also were detected in the percentage of districts that provided ideas to schools on the following topics: how to involve school nutrition services staff in the classroom (from 32.7% to 47.2%); how to use the cafeteria as a place where students might learn about food safety, food preparation, or other nutrition-related topics (from 36.9% to 47.3%); and nutrition-related special events (from 38.6% to 52.4%).

Between 2000 and 2012, a decrease was detected in the percentage of districts that provided funding for professional development or offered professional development to nutrition services staff on cultural diversity in meal planning (from 42.9% to 31.6%).

Finally, increases were detected in the percentage of districts that required that schools prohibit junk foods from being offered in a variety of settings (Table 7).

Changes Between 2006 and 2012

Significant trends were detected for some variables that were only available for 2006 and 2012. Specifically, decreases were detected in the percentage of districts that allowed schools to sell soft drinks (e.g., sports drinks, soda pop, or fruit drinks that are not 100% juice) to students in any venue (from 80.4% to 60.3%). Among districts that allowed schools to sell soft drinks, the percentage that received a specified percentage of soft drink sales receipts decreased from 81.7% to 69.3%, the percentage that received incentives (e.g., cash awards or donations of equipment, supplies, or other donations) once receipts from soft drink sales totaled a specified amount decreased from 52.0% to 33.9%, and the percentage prohibited from selling soft drinks from more than one company decreased from 54.9% to 41.2%. In addition, the percentage of

Table 7. Significant trends over time* in the percentage of districts that required schools to prohibit offering junk foods, by school setting, SHPPS 2000, 2006, and 2012

School Setting	District (%)		
	2000	2006	2012
A la carte during breakfast or lunch periods	23.1	38.9	41.7
At concession stands	1.4	5.5	5.8
At meetings attended by students' family members	0.4	2.7	4.5
At staff meetings	0.4	3.4	3.4
At student parties	1.4	11.5	16.7
In after-school or extended day programs	7.3	14.7	21.4
In school stores, canteens, or snack bars	3.9	18.9	28.3
In vending machines	4.1	29.8	43.4

* Significant linear trends based on regression analysis with all years of available data.

districts that allowed soft drink companies to advertise soft drinks on school grounds decreased from 46.6% to 33.5%. Changes in districts' food procurement contracts also were detected. Specifically, increases were seen in the percentage of districts with food procurement contracts that addressed food safety (from 83.5% to 93.6%); HACCP (from 74.1% to 92.1%); and nutritional standards for a la carte foods (from 55.1% to 73.5%).

Between 2006 and 2012, increases were detected in the percentage of districts that required schools to have two types of written plans: a plan for the implementation of a risk-based approach to food safety (e.g., a HACCP-based program) (from 58.2% to 78.3%) and a plan for feeding students with severe food allergies (from 49.2% to 60.1%).

During the 30 days before the study, the percentage of districts that almost always or always roasted, baked, or broiled meat rather than frying it decreased (Table 6). Among districts that routinely used a computer to analyze the nutritional content of the school menus, the percentage that used a weighted nutrient analysis when analyzing the nutritional content of foods served also decreased (from 79.8% to 64.4%).

The percentage of districts that required newly hired food service directors to have ServSafe or other food safety certification increased from 54.0% to 70.1%. Similarly, the percentage of districts that required newly hired food service managers at the school level to have ServSafe or other food safety certification increased from 53.9% to 70.5%.

DISCUSSION

SHPPS 2012 data indicate areas where states and districts have made substantial progress in helping to create a supportive school nutrition environment, as well as opportunities for improvement. States supported districts by providing policy-related assistance, technical assistance, and professional development to nutrition services staff on a variety of school nutrition topics. Additionally, districts implemented policies and practices to ensure that students have access to healthful foods and beverages at school.

The changes that districts have made to the types of foods and beverages available during the school day are encouraging. Although the percentages of districts requiring schools to prohibit the sale of junk foods a la carte during breakfast or lunch; at student parties; in after-school or extended day programs; at staff meetings; at meetings attended by students' family members; in vending machines; in school stores, canteens, or snack bars; and at concession stands all are below 50%, increases have occurred in each of these percentages since 2000. Since 2006, decreases also have occurred in the percentage of districts that allowed schools to sell soft drinks to students, and more than 80% of districts required or recommended that school prohibit student access to vending machines for at least part of the day. These findings are similar to data from the USDA's School Nutrition Dietary Assessment Study-IV (SNDA-IV) which found a significant increase in the percentage of school food authority directors that reported a district-wide ban or restriction on sugar-sweetened beverages and certain snack food items between the 2004-2005 and 2009-2010 school years.¹ These

changes could be a result of the federal requirement that districts implement a local wellness policy that includes nutrition standards for all foods available during the school day as well as increases in the number of states with policies that address competitive foods in schools.²⁻⁵ These changes also could reflect heightened awareness about the obesity epidemic, which has led districts to implement policies and practices that might help prevent obesity.

Despite these changes, room for improvement exists in district policies related to competitive foods. For example, less than half of districts required that schools prohibit offering junk foods in vending machines and a la carte during breakfast or lunch periods, less than one third of districts required that schools prohibit offering junk foods in school stores, canteens, or snack bars; in after-school or extended day programs; and at student parties; and less than one tenth of districts have requirements regarding junk foods at concession stands, meetings attended by students' family members, or staff meetings. Further, more than one half of districts allowed brand-name fast foods to be offered as part of school meals or as a la carte items and more than one half of districts allowed schools to sell soft drinks, including sugar-sweetened beverages, which are a leading source of empty calories among school-aged youth.⁶ The USDA recently published national nutrition standards for all foods sold outside of the school meal program.⁷ These standards are the minimum requirements that schools must meet. However, states and districts can adopt and implement nutrition standards that exceed the federal standards. States and districts play a key role in providing guidance on implementing nutrition standards at the school level.

SHPPS 2012 also revealed that schools had taken steps to implement new USDA requirements for school meal programs. Specifically, between 2000 and 2012, increases occurred in the percentage of districts that implemented 12 of the 24 recommended food preparation practices for reducing total fat, saturated fat, sodium, and added sugar content in school meals. More than one half of districts had policies or practices that provided students with a variety of healthy choices in the cafeteria including requiring or recommending that schools offer two or more entrees, non-fried vegetables, and different fruits (including 100% fruit juice) each day for lunch. Almost one third of

districts required or recommended that schools offer a vegetarian entrée, 41.3% required or recommended that schools offer self-serve salad bars, and 80.8% of districts required all schools to offer breakfast to students. These findings demonstrate that districts have taken actions to implement the new meal patterns (requirements for school meals) published by the USDA in January of 2011, which require more fruits, vegetables, and whole grains to be offered in school meals. These requirements also have specific nutrition standards for calories, saturated fat, and sodium.^{8,9}

One key to providing quality school meals and improving the school nutrition environment is ensuring that school nutrition professionals are qualified and receive ongoing training and professional development.¹⁰ However, one third of districts did not have specified education requirements for newly hired food service directors, and more than one third required only a high school diploma or GED. Further, these percentages have not changed significantly since 2000 despite the increased focus on obesity prevention efforts during this time.⁵ However, since 2006, the percentage of districts requiring newly hired food service directors to have ServSafe or other food safety certification has increased, with almost three quarters of districts now requiring such certifications. Currently most states do not offer certification, licensure, or endorsement for district food service directors or school level food service managers, but almost one half of districts required newly hired district food service directors to be certified, licensed, or endorsed by the state. As a result of the Healthy, Hunger-Free Kids Act of 2010, the USDA will be establishing new educational and professional development requirements for district food service directors as well as state child nutrition directors.¹¹ The purpose of these requirements is to help ensure that school nutrition professionals have the required knowledge, skills, and ongoing training needed to provide healthy and appealing school meals effectively.

States and districts play a key role in supporting schools in educating students about healthy dietary behavior. There is growing concern about the food and beverage messages that students are exposed to at school. While an overall decrease occurred in the percentage of districts allowing soft drink companies to advertise on school grounds, more than one third of districts allowed soft drink companies to advertise

on school grounds and more than one quarter of districts allowed soft drink advertisements in school buildings. Further, almost one half of districts did not restrict the distribution of products (e.g., t-shirts, hats, or book covers in schools) promoting junk food, fast food restaurants, or soft drinks to students and more than one half allowed schools to use food or food coupons as a reward for good behavior or good academic performance. These findings are important because advertising influences the purchase requests, preferences, and dietary intake of children.¹² More than \$185 million is spent on marketing of foods and beverages in schools annually, with carbonated beverages, restaurant food, and noncarbonated beverages making up the majority of in-school marketing expenditures.¹³ States and districts can help create an environment with consistent messages to students about healthful eating by implementing policies and practices that only allow marketing of foods and beverages that align with nutrition standards.¹⁰

Collaboration between stakeholders at the district and state level is critical to ensuring that policies and practices that support healthy eating are implemented. The analysis showed a broad range of agencies or organizations that state- and district-level nutrition services staff worked with on nutrition-related activities. Of particular note are the increases in collaboration between state-level nutrition services staff and state-level physical education staff, as well as staff from state departments of agriculture. Collaboration between nutrition services staff and physical education staff also was noted at the district level. Federal initiatives including the USDA's Know Your Farmer, Know Your Food effort, the Farm to School Program, and requirements for local school wellness policies may have helped facilitate these collaborations. These collaborations are particularly important as schools continue to address healthy eating and physical activity as part of a coordinated approach to obesity prevention in schools.¹⁰

SHPPS 2012 identified some additional areas where local school wellness policies could be improved. More than one third of districts had not identified a single individual who was responsible for ensuring compliance with the district's wellness policy. This is slightly higher than the SNDA-IV finding that 27.2% of districts with a wellness policy had not designated a coordinator.¹ SHPPS 2012 found that less than one half of districts had involved parents,

students, or school board members in the review or revision of the district wellness policy. Further, fewer than one half of districts had evaluated the implementation of the district's wellness policy and made the results available to the public and 17.2% had not evaluated the implementation of the wellness policy at all. This is similar to SNDA-IV findings that 17% of school food authority directors reported that their wellness policy did not include a plan for measuring implementation.¹ The Healthy, Hunger-Free Kids Act of 2010 includes new requirements on the measurement and reporting to the public about wellness policy content and implementation.¹⁴ However, recent findings from a nationally representative sample of district wellness policies indicate that more than 40% of districts do not include an evaluation plan or requirements for reporting on policy implementation and compliance in their district policy.¹⁵ Further, more than one half of districts did not include a plan for policy revision. States play a key role in providing training and technical assistance to districts on revising wellness policies and implementing new federal requirements.

Overall, many changes to policies and practices related to the school nutrition environment at both the state and district levels have occurred to better align with national nutrition standards and guidelines. However, opportunities exist for improvement, especially related to the availability of foods and beverages outside of the school meal programs and the implementation of local wellness policies. New regulations through the Healthy, Hunger-Free Kids Act create a strong foundation for improvements to the school nutrition environment. States and districts play an important role in supporting the implementation of these requirements through trainings, technical assistance, and professional development opportunities for nutrition services staff at the district and school levels.

REFERENCES

1. Fox MK, Condon E, Crepinsek MK, Niland K, Mercury D, Forrestal S, Cabili C, Oddo V, Gordon A, Wozny N, Killewald A. *School Nutrition Dietary Assessment Study IV, Vol. I: School Foodservice Operations, School Environments, and Meals Offered and Served*. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, Office of Research and Analysis; 2012.

2. Centers for Disease Control and Prevention. Availability of less nutritious snack foods and beverages in secondary schools—selected states, 2002–2008. *Morbidity and Mortality Weekly Report* 2009; 58:1102–4.
3. Centers for Disease Control and Prevention. *Competitive Foods and Beverages in U.S. Schools: A State Policy Analysis*. Atlanta, GA: U.S. Department of Health and Human Services; 2012. Available at: <http://www.cdc.gov/healthyyouth/nutrition/pdf/comppfoodsbooklet.pdf>.
4. Fernandes MM. A national evaluation of the impact of state policies on competitive foods in schools. *Journal of School Health*. 2013;83:249–255.
5. Trust for America’s Health. *F as in Fat: How Obesity Threatens America’s Future*. Washington, DC: Trust for American’s Health; 2011. Available at: <http://www.healthymamericans.org/assets/files/TFAH2011FasInFat10.pdf>.
6. Reedy J, Krebs-Smith SM. Dietary sources of energy, solid fats, and added sugars among children and adolescents in the United States. *Journal of the American Dietetic Association*. 2010;110:1477–1484.
7. National School Lunch Program and School Breakfast Program: Nutrition Standards for All Foods Sold in School as Required by the Healthy, Hunger-Free Kids Act of 2010, 78 Fed. Reg. 39068–39120 (June 28, 2013) (to be codified at 7 C.F.R. Pt. 210 and 220).
8. National School Lunch Program. *Federal Register*. 2006. To be codified at 7 CFR §210.
9. School Breakfast Program. *Federal Register*. 2006. To be codified at 7 CFR §220.
10. Centers for Disease Control and Prevention. School health guidelines to promote healthy eating and physical activity. *Morbidity and Mortality Weekly Report*. 2011;60(5):1–76.
11. Healthy, Hunger-Free Kids Act of 2010, Pub L 111–296, 124 Stat 3183, Sec 306.
12. Institute of Medicine. *Food Marketing to Children and Youth: Threat or Opportunity?* Washington, DC: Institute of Medicine; 2006.
13. Federal Trade Commission. *Marketing Food to Children and Adolescents: A Review of Industry Expenditures, Activities, and Self-Regulation*. Washington, DC: Federal Trade Commission; 2008. Available at: <http://www.ftc.gov/os/2008/07/P064504foodmktngreportappendices.pdf>.
14. Healthy, Hunger-Free Kids Act of 2010, Pub L 111–296, 124 Stat 3183, Sec 204.
15. Chriqui JF, Resnick EA, Schneider L, Schermbeck R, Adcock T, Carrion V, Chaloupka FJ. *School District Wellness Policies: Evaluating Progress and Potential for Improving Children’s Health Five Years after the Federal Mandate. School Years 2006–07 through 2010–11*. Volume 3. Chicago, IL: Bridging the Gap Program, Health Policy Center, Institute for Health Research and Policy, University of Illinois at Chicago; 2013. Available at: http://www.bridgingthegapresearch.org/_asset/13s2jm/.

Chapter 8

Safe and Healthy School Environment: Results from the School Health Policies and Practices Study 2012

*Sherry Everett Jones, PhD, MPH, JD; Lisa C. Barrios, DrPH;
Marci Feldman Hertz, MS; Luke H. Hall-Jordan, MPH**

This chapter describes the findings from the 2012 School Health Policies and Practices Study (SHPPS) related to a safe and healthy school environment. It includes state-level information on state assistance to districts and schools; professional development; school health coordination; violence prevention; and crisis preparedness, response, and recovery. At the district level, this chapter describes school health coordination; general school environment; violence prevention; unintentional injury and safety; tobacco use prevention; student drug testing; crisis preparedness, response, and recovery; sun safety; community service and service learning; and professional development. The chapter also describes significant trends over time at both the state and district levels.

STATE-LEVEL RESULTS

State Assistance to Districts and Schools

States may offer multiple types of assistance to district and school staff, including developing or assisting in the development of model policies, policy guidance, or other materials as well as distributing or providing such materials to district or school staff and providing technical assistance on a variety of topics.

During the two years before the study, more than 80% of states had developed, revised, or assisted in the development of model policies, policy guidance, or other materials for districts or schools on crisis preparedness, response, and recovery; electronic aggression or cyber-bullying (i.e., use of a cell phone, the Internet, or other communication devices to send or post text, pictures, or videos intended to threaten, harass, humiliate, or intimidate other students or staff) prevention; and other bullying prevention (Table 1). More than 80% of states

distributed or provided such materials to district or school staff on electronic aggression or cyber-bullying prevention and other bullying prevention.

During the 12 months before the study, more than 80% of states provided technical assistance (one-on-one, tailored guidance to meet the specific needs of the district or school that may be provided through phone, e-mail, Internet, or in-person meetings) to district or school staff on alcohol use prevention; crisis preparedness, response, and recovery; district or school health councils, committees, or teams; electronic aggression or cyber-bullying prevention; illegal drug use prevention; including health in school improvement planning; other bullying prevention; tobacco use prevention; and using data to plan or evaluate school health policies and practices (Table 2).

Professional Development

Professional development was defined as workshops, conferences, continuing education, graduate courses, or any other kind of in-service. During the two years before the study, more than 80% of states had provided funding for professional development or offered professional development to districts or schools on how to implement school-wide policies and programs related to crisis preparedness, response, and recovery; electronic aggression or cyber-bullying; other bullying prevention; and tobacco use prevention (Table 3). States were also asked whether they provided funding for professional development or offered professional development on issues that go beyond specific school health content and are relevant to a broad audience (e.g., community members or local public health officials). During the two years before the study, states provided funding for professional development or offered professional development on

* **Sherry Everett Jones** is a Health Scientist, Division of Adolescent and School Health, CDC; **Lisa C. Barrios** is Branch Chief, Research Application and Evaluation Branch, Division of Adolescent and School Health, CDC; **Marci Feldman Hertz** is a Health Scientist, Division of Violence Prevention, CDC; and **Luke H. Hall-Jordan** is an Environmental Protection Specialist, Stratospheric Protection Division, U.S. Environmental Protection Agency.

Table 1. Percentage of states that provided policy-related assistance to districts or schools during the two years before the study, by type of assistance, SHPPS 2012

Topic	States (%)	
	Developed, Revised, or Assisted in Developing Model Policies, Policy Guidance, or Other Materials	Distributed or Provided Model Policies, Policy Guidance, or Other Materials
Alcohol use prevention	64.7	69.4
Classroom management	44.9	54.0
Crisis preparedness, response, and recovery	85.7	78.0
Dating violence prevention	56.0	66.0
Electronic aggression or cyber-bullying* prevention	88.2	86.0
Faculty and staff health promotion	55.3	70.8
Illegal drug use prevention	63.3	68.0
Injury prevention and safety	58.0	64.0
Other bullying prevention	88.2	85.7
Other violence prevention (e.g., physical fighting)	56.0	64.6
Sun safety	31.4	32.0
Tobacco use prevention	76.5	79.6

* Use of a cell phone, the Internet, or other communication devices to send or post text, pictures, or videos intended to threaten, harass, humiliate, or intimidate other students or staff.

using data to plan or evaluate school health policies and practices (87.5% of states); district or school health councils, committees, or teams (82.0%); using the School Health Index or other self-assessment tool to assess school health and safety policies and activities (75.0%); and establishing district or school health coordinator positions (58.3%).

School Health Coordination

Two thirds (66.0%) of states had a person, such as a state school health coordinator, responsible for overseeing or coordinating all of the state’s school health and safety policies and activities. Unfortunately, the percentage of states in which the coordinator served as the respondent to the state-level healthy and safe school environment questionnaire was too small for meaningful analysis of the data about the coordinators’ qualifications. More than two thirds (68.8%) of states had one or more than one group (e.g., a committee, council, or team) of people formally charged with coordinating state-level school health-related activities. Among these states, all reported that the state education agency and state health department were represented on the group (Table 4). Representatives from the state environmental department, a state-level physicians’ organization (e.g., the American Academy of Pediatrics), and a state-level student government organization (e.g., the Student Council

Association, Associated Student Body, or Student Advisory Council) were least likely to be represented. Among the 68.8% of states with a group that coordinated state-level school health-related activities, 96.9% identified student health needs based on a review of relevant data (e.g., Youth Risk Behavior Survey data); 86.7% recommended new or revised health and safety policies, programs, or activities to the State Superintendent of Schools or the State Board of Education; 84.4% sought funding or leveraged resources to support school health and safety priorities for students and staff; and 80.6% reviewed health-related curricula or instructional materials. Further, among the 68.8% of states with such a group, except for management of food allergies, more than 80% addressed all of the specific health topics included in the questionnaire (Table 5). When considering the state-level school health committee, council, or team that met the most during the 12 months before the study, in 19.4% of states with such groups, this group met one or two times, in 45.2%, they met three or four times, in 22.6%, they met five or six times, and in 12.9%, they met more than six times.

Violence Prevention

States were asked about information districts or schools might routinely report to the state education agency related to violence. Districts or schools

Table 2. Percentage of states that provided technical assistance* to district or school staff during the 12 months before the study, by topic, SHPPS 2012

Topic	States (%)
Alcohol use prevention	80.0
Classroom management	74.0
Crisis preparedness, response, and recovery	86.0
Dating violence prevention	72.0
District or school health councils, committees, or teams	84.0
Electronic aggression or cyber-bullying [†] prevention	92.0
Establishing district or school health coordinator [§] positions	58.3
Faculty and staff health promotion	72.3
Illegal drug use prevention	82.0
Including health in school improvement planning	84.0
Injury prevention and safety	78.0
Other bullying prevention	88.0
Other violence prevention (e.g., physical fighting)	76.5
Sun safety	42.0
Tobacco use prevention	85.4
Using data to plan or evaluate school health policies and practices	90.0
Using the School Health Index or other self-assessment tool to assess school health and safety policies and activities	76.5

* One-on-one, tailored guidance to meet the specific needs of the district or school that may be provided through phone, e-mail, Internet, or in-person meetings.

[†] Use of a cell phone, the Internet, or other communication devices to send or post text, pictures, or videos intended to threaten, harass, humiliate, or intimidate other students or staff.

[§] The person responsible for overseeing or coordinating all of the school's health and safety policies and activities.

routinely reported to the state education agency the number of times students are caught using or possessing a handgun or other firearm in 94.0% of states, the number of times students are caught using or possessing any other weapon in 91.8% of states, the number of times students are caught physically fighting in 86.0% of states, and the number of school-associated violent deaths (i.e., homicides or suicides at school or school-sponsored events among students, faculty and staff, and visitors) in 70.0% of states. In about one half (52.0%) of states, districts or schools routinely reported to the state education agency the number of times students are caught violating any rule on gang activity.

Crisis Preparedness, Response, and Recovery

Most (83.3%) states had used materials from the U.S. Department of Education, (e.g., *Practical*

*Information on Crisis Planning: A Guide for Schools and Communities*¹) to develop policies related to crisis preparedness, response, and recovery. In 93.9% of states, the state education agency was a member of the state emergency planning committee (i.e., a group of agencies that coordinates crisis preparedness, response, and recovery efforts). In 60.4% of states, districts or schools in the state reported all unplanned school dismissals or school closures to the state education agency.

Trends Over Time

At the state level, only one variable met the criteria for significant difference over time outlined in Chapter 2. Between 2000 and 2012, the percentage of states in which districts or schools routinely reported to the state education agency the number of times students were caught violating any rule on gang activity increased from 21.6% to 52.0%.

DISTRICT-LEVEL RESULTS

School Health Coordination

A district-level school health coordinator is one who oversees or coordinates the district's health and safety policies and activities. Nationwide, 53.7% of districts had such a person. Unfortunately, the percentage of districts in which the coordinator served as the respondent to the district-level healthy and safe school environment questionnaire was too small for meaningful analysis of the data about the coordinators' qualifications. Two thirds (65.4%) of districts had one or more groups (e.g., a school health council, committee, or team) at the district level that offered guidance on the development of policies or coordinated activities that are health-related. Among these districts, more than 90% had a group that addressed food service or nutrition, health education, local wellness policies, and physical education or physical activity (Table 5).

Among the 65.4% of districts with a school health council, committee, or team, more than 90% had a group that included district administrators, health services staff (e.g., school nurses), nutrition or food service staff, physical education teachers, and school-level administrators (Table 6). In addition, among districts with a school health council, committee, or team, 88.8% recommended new or revised health and safety policies and activities to district administrators or the school board; 86.8% communicated the importance of health and safety

Table 3. Percentage of states and districts that provided funding for professional development* or offered professional development on how to implement school-wide policies and programs during the two years before the study, by topic, SHPPS 2012

Topic	States (%)	Districts (%)
Alcohol use prevention	79.2	62.8
Classroom management	66.0	88.7
Crisis preparedness, response, and recovery	83.7	81.3
Electronic aggression or cyber-bullying [†] prevention	81.6	82.7
Dating violence prevention	61.2	47.4
Faculty and staff health promotion	67.3	67.5
Illegal drug use prevention	77.1	64.9
Injury prevention and safety	69.4	73.0
Other bullying prevention	86.0	93.3
Other violence prevention (e.g., conflict resolution programs)	76.0	70.7
Sun safety	25.0	18.1
Tobacco use prevention	85.7	58.8

* Workshops, conferences, continuing education, graduate courses, or any other kind of in-service on health topics or instructional strategies.

[†] Use of a cell phone, the Internet, or other communication devices to send or post text, pictures, or videos intended to threaten, harass, humiliate, or intimidate other students or staff.

policies and activities to the school board, district administrators, school administrators, or community members; 77.4% reviewed health-related curricula or instructional materials; 69.4% identified student health needs based on a review of relevant data (e.g., Youth Risk Behavior Survey data); and 63.6% sought funding or leveraged resources to support health and safety priorities for students and staff. The frequency with which these groups met during the 12 months before the study varied. In 2.6% of districts with such a group, the group did not meet at all, in 33.9%, the group met one or two times, in 37.7%, they met three or four times, in 10.6%, they met five or six times, and in 15.1%, they met more than six times.

During the two years before the study, 39.4% of districts had provided funding for or offered to help schools establish a group (e.g., a school health council, committee, or team) to offer guidance on the development of policies or coordinate activities that are health-related. In addition, 38.6% of districts had used a self-assessment tool (e.g., the Healthy Schools Report Card²) to assess their district's health and safety policies and activities.

Districts were asked about their district-level school improvement plans (i.e., plans developed to improve the district's overall instructional and environmental policies and activities). Nationwide, 11.9% of districts did not have a district-level school

improvement plan, while 64.4% of districts had a district-level school improvement plan that included health and safety objectives and 23.7% had a district-level school improvement plan that did not include health and safety objectives. Further, the Elementary and Secondary Education Act requires certain schools to have a written School Improvement Plan (SIP). Many states and school districts also require schools to have a written SIP. Nationwide, 14.5% of districts did not have any schools with SIPs, while 46.4% of districts required schools to include health and safety objectives in their written SIPs and 39.1% of districts did not require schools to include health and safety objectives in their written SIPs.

General School Environment

Districts may require a variety of policies or practices aimed at keeping the school environment safe and secure for students, faculty, and staff (Table 7). More than 80% of districts had adopted a policy requiring students at all school levels to refrain from using personal communication devices (e.g., cell phones) during the school day and more than three fourths of districts had adopted a policy requiring schools at all school levels to use communication devices (e.g., cell phones, two-way radios, walkie-talkies, or intercoms) for security purposes. More than 70% of districts had adopted a policy that their elementary, middle, and high schools will enforce a

Table 4. Percentage of states* in which a state-level school health committee included representatives from agencies or organizations, by agency or organization, SHPPS 2012

Agency or Organization	States (%)
State department of agriculture	55.2
State education agency	100.0
State environmental department	40.0
State health department	100.0
State juvenile justice department	80.0
State-level health organization (e.g., the American Heart Association or American Cancer Society)	65.5
State-level parents' organization (e.g., the PTA)	73.3
State-level physicians' organization (e.g., the American Academy of Pediatrics)	44.8
State-level school nurses' association or organization	90.3
State-level student government organization (e.g., Student Council Association, Associated Student Body, or Student Advisory Council)	23.3
State mental health or social services agency	89.7
State transportation agency	56.7

* Among the 68.8% of states that had one or more than one group formally charged with coordinating state-level school health-related activities.

student dress code. More than 70% of districts also had adopted a policy that their elementary, middle, and high schools will maintain a closed campus (i.e., one in which students are not allowed to leave school during the school day including during lunchtime). Although few districts had adopted a policy that their elementary, middle, and high schools would require identification badges for students (i.e., badges with the student's name to be worn daily, not including name tags used at the beginning of the school year), more than 80% of districts had adopted a policy that their elementary, middle, and high schools would require identification badges for visitors (including adhesive stickers with hand-written names) and about one half had adopted a policy requiring faculty and staff at all school levels to wear identification badges.

Two thirds or more of districts had adopted a policy requiring that elementary, middle, and high schools have staff or adult volunteers assigned to monitor school halls between classes and school grounds; fewer districts required monitors for school halls during classes or for restrooms (Table 7). Districts were least likely to have adopted a policy requiring

police, school resource officers, or security guards to be used during the regular school day at the elementary school level and most likely to require them at the high school level. Similarly, districts were least likely to have adopted a policy requiring security or surveillance cameras to be used at the elementary school level and most likely to require them at the high school level. Almost one half of districts had adopted a policy requiring routine locker searches (e.g., general, random, or by the use of drug-sniffing dogs) in middle schools and more than one half required such searches in high schools. Fewer than 10% of districts had adopted a policy requiring schools at any level to use metal detectors.

Violence Prevention

As a violence prevention strategy, 73.0% of districts had adopted a policy that prohibited gang activity (e.g., recruiting or wearing gang colors, symbols, or other gang attire). Districts also were asked whether they had adopted policies to prohibit bullying (i.e., when one or more students tease, threaten, spread rumors about, hit, shove, or hurt another student repeatedly). Almost all districts had adopted a policy that prohibited bullying (98.8%) and electronic aggression or cyber-bullying (93.5%) on school property. Similarly, 96.0% of districts had adopted a policy that prohibited bullying and 89.0% had adopted a policy prohibiting cyber-bullying at off-campus, school-sponsored events. In addition, 82.0% of districts had adopted a policy that prohibited cyber-bullying that interferes with the educational environment (i.e., interferes with a student's educational benefits, opportunities, or performance, or with a student's physical or psychological well-being), even if it did not occur on school property or at school-sponsored events.

More than three fourths (78.4%) of districts had adopted a policy stating that schools will have a plan for the actions to be taken when a student at risk for suicide is identified. Among these districts, 97.1% required that the student's family be informed, 85.4% required that the student be referred to a mental health provider, and 59.4% required that a visit with a mental health provider be documented before the student returns to school.

Unintentional Injury Prevention and Safety

Nationwide, 28.0% of districts had been sued because of an injury that occurred on school property or at an off-campus, school-sponsored

Table 5. Percentage of states* and districts† in which a school health committee addressed specific health topics, by topic, SHPPS 2012

Topic	States (%)	Districts (%)
Alcohol or other drug use prevention	90.3	84.6
Crisis preparedness, response, and recovery	87.1	83.5
Faculty and staff health promotion	83.3	82.5
Family and community involvement in school health programs	90.3	72.5
Food services or nutrition	100.0	94.0
Health education	90.0	91.3
Health services	90.0	83.7
HIV prevention	96.7	64.2
Injury prevention and safety	90.0	78.2
Local wellness policies	96.7	91.8
Management of chronic health conditions (e.g., asthma or diabetes)	96.8	72.8
Management of foodborne illnesses	80.6	64.6
Management of food allergies	73.3	75.3
Management of infectious diseases (e.g., influenza)	96.8	78.1
Mental health or social services	93.3	74.7
Other STD prevention	96.7	65.1
Physical education or physical activity	96.8	91.7
Physical school environment	90.0	77.9
Pregnancy prevention	90.0	60.8
Psychological and social environment or school climate	86.7	78.4
Tobacco use prevention	96.8	82.5
Violence prevention (e.g., bullying, fighting, or dating violence prevention)	96.8	87.9

* Among the 68.8% of states that had one or more than one group formally charged with coordinating state-level school health-related activities.

† Among the 65.4% of districts that had one or more than one group at the district level that offered guidance on the development of policies or coordinated health-related activities.

event. This included any claim filed with a court, regardless of outcome. Routine inspection and maintenance of school facilities and equipment can help prevent injuries among students, faculty and staff, and school visitors. More than 70% of districts had adopted a policy on the inspection or maintenance of all facilities or equipment included in the questionnaire and more than 90% of districts had adopted a policy on the inspection or maintenance of fire extinguishers and smoke alarms (Table 8).

Wearing protective gear can reduce the number and severity of injuries to students. Most (86.5%) districts had adopted a policy requiring that students wear appropriate protective gear when engaged in lab activities for photography, chemistry, biology, or other science classes (5.3% of districts had not adopted such a policy and 8.2% reported they did not have these kinds of activities). Almost three

fourths (72.4%) of districts had adopted a policy requiring that students wear appropriate protective gear when engaged in classes such as wood shop or metal shop (4.4% of districts had not adopted such a policy and 23.2% reported they did not have these kinds of activities). Further, 47.5% of districts had adopted a policy requiring that students use hearing protection devices (i.e., any piece of equipment or apparatus that is made to reduce the loudness of sound, such as earplugs or earmuffs) during classes or activities where they are exposed to potentially unsafe noise levels (e.g., industrial arts classes or marching band).

To address issues related to playground safety, more than 90% of districts containing elementary schools had adopted a policy that addressed a discipline procedure for students who are not following the rules and a procedure for what to do in case of an injury (Table 9). In addition, more than 60% of

Table 6. Percentage of districts* that included groups, agencies, or organizations on their school health councils, committees, or teams, by group, agency, or organization, SHPPS 2012

Group, Agency, or Organization	Districts (%)
Businesses	41.7
District administrators	94.8
Faith-based organizations	27.0
Healthcare providers (e.g., pediatricians or dentists)	41.6
Health department	50.8
Health education teachers	88.9
Health organizations (e.g., the local Red Cross chapter)	30.4
Health services staff (e.g., school nurses)	92.1
Hospitals	32.5
Library or media center staff	39.4
Mental health and social services staff	66.4
Maintenance staff	59.4
Mental health and social services agencies	44.6
Nutrition or food service staff	90.2
Other local government agencies	37.2
Physical education teachers	90.8
Public safety agencies (e.g., police, fire, or emergency services)	55.4
School-level administrators	95.9
Service clubs (e.g., the Rotary Club)	26.8
Students	64.3
Student's parents or families	79.1
Technology staff	46.6
Transportation staff	48.3
Youth organizations (e.g., Boys and Girls Clubs)	23.1

* Among the 65.4% of districts that had one or more than one group at the district level that offered guidance on the development of policies or coordinated activities that are health-related.

districts had adopted a policy addressing criteria for the selection, placement, and installation of playground equipment, not including surfacing materials; criteria for the selection, placement, and installation of playground surfacing materials; duties of playground monitors; and identification of an individual responsible for enforcing the policy. Further, 26.2% of districts had adopted a policy requiring schools to use the safety checklist and equipment guidelines published in the Public Playground Safety Handbook by the U.S. Consumer Product Safety Commission³ and during the two

years before the study, 40.9% of districts had provided training for playground monitors.

Tobacco Use Prevention

Districts were asked whether they had adopted policies prohibiting cigarette smoking, smokeless tobacco use, or cigar or pipe smoking among students, faculty and staff (during any school-related activity), and school visitors. Visitors were defined as anyone other than students or faculty and staff, including family members, community members, and repair workers who might visit the school during or outside of school hours.

Nearly all (98.9%) districts had adopted a policy prohibiting cigarette smoking among students, 94.2% had adopted a policy prohibiting smokeless tobacco use among students, and 94.8% had adopted a policy prohibiting cigar or pipe smoking among students. Most districts also had adopted a policy prohibiting cigarette smoking (95.1%), smokeless tobacco use (89.9%), and cigar or pipe smoking (92.8%) among faculty and staff and most had adopted a policy prohibiting cigarette smoking (96.2%), smokeless tobacco use (90.3%), and cigar or pipe smoking (93.4%) among visitors.

As part of a tobacco use prevention effort and to promote a healthy school environment, school policies are most effective if they prohibit students, faculty and staff, and visitors from using any form of tobacco anywhere under the control of school authorities.^{4,5} Thus, districts were asked where cigarette smoking and smokeless tobacco use were prohibited (districts were not asked where cigar or pipe smoking were prohibited) (Table 10). In general, districts were more likely to have adopted policies applying to students than to faculty and staff and visitors that prohibited cigarette smoking and smokeless tobacco use in school buildings, outside on school grounds (including parking lots and playing fields), on school buses or other vehicles used to transport students, and at off-campus, school-sponsored events.

Although most districts had adopted policies prohibiting some tobacco use in some locations, only 67.5% of districts had adopted policies that prohibited (1) cigarette smoking and smokeless tobacco use among all students, all faculty and staff, and all school visitors in school buildings; outside on school grounds; on school buses or other vehicles used to transport students; and at off-campus, school-sponsored events and (2) cigar or pipe

Table 7. Percentage of districts that had policies and practices related to keeping the environment safe and secure, by school level, by policy or practice, SHPPS 2012

Policy or Practice	Districts (%)		
	Elementary Schools	Middle Schools	High Schools
Closed campus* must be maintained	83.3	85.3	70.1
Communication devices (e.g., cell phones, 2-way radios, walkie-talkies, or intercoms) for security purposes must be used	77.5	77.6	79.0
Identification badges must be worn by:			
Faculty and staff	49.9	51.4	52.2
Students [†]	1.6	5.8	9.9
Visitors [§]	83.6	82.4	80.4
Locker searches must be routinely conducted [¶]	NA	48.4	58.3
Metal detectors, including wands, must be used	3.2	5.7	9.2
Police, school resource officers, or security guards must be used during the regular school day	26.7	38.8	48.6
Security or surveillance cameras must be used either inside or outside the building	59.0	68.6	74.9
Staff or adult volunteers must be assigned to monitor:			
School halls during classes	43.4	47.1	50.0
School halls between classes	66.7	74.5	76.7
Restrooms	51.9	47.6	47.5
School grounds	74.0	71.3	71.4
Students must refrain from using personal communication devices (e.g., cell phones) during the school day	86.2	88.4	82.4
Students must wear school uniforms	6.4	6.1	5.1
Student dress code must be enforced**	72.6	82.6	83.5

* Students are not allowed to leave school during the school day, including during lunchtime.

† Badges with the student’s name to be worn daily, not name tags used at the beginning of the school year.

§ Can include adhesive stickers with hand-written names.

¶ General, random, or by the use of drug-sniffing dogs.

** Districts requiring school uniforms were not asked about student dress code enforcement.

smoking by all students, all faculty and staff, and all school visitors.

In addition to prohibiting tobacco use, districts also may adopt policies prohibiting tobacco advertisements to reinforce their commitment to tobacco use prevention and tobacco-free environments. More than 80% of districts had adopted policies prohibiting tobacco advertisements in school buildings, in school publications, on school buses or other vehicles used to transport students, outside on school grounds (including on the outside of the school building, on playing fields, or other areas of the campus), and through sponsorship of school events (Table 11). In addition, 82.3% of districts had adopted a policy prohibiting students from wearing tobacco brand-name apparel or carrying merchandise with tobacco company names, logos, or cartoon characters on it.

Student Drug Testing

Nationwide, 29.6% of districts containing middle or high schools had adopted a student drug-testing policy. Among these districts, student drug testing was conducted when it was suspected that a student was using drugs at school (i.e., for cause) in 65.1% of districts, randomly among members of specific groups of students (e.g., athletes, students who participate in other extracurricular activities, or student drivers) in 59.1% of districts, voluntarily among all students or specific groups of students in 39.1% of districts, and for some other unspecified criteria in 18.4% of districts.

Crisis Preparedness, Response, and Recovery

Planning ahead facilitates a rapid, coordinated, and effective response when a crisis occurs.^{1,6,7} Nearly all (95.8%) districts had a comprehensive district-

Table 8. Percentage of districts that had adopted a policy on the inspection and maintenance of school facilities and equipment, by type of facility or equipment, SHPPS 2012

Type of Facility or Equipment	Districts (%)
AED	78.4
Fire extinguishers	93.5
Indoor athletic facilities and equipment (e.g., playing surfaces, benches, tumbling mats, and weight lifting equipment)	78.6
Lighting inside school buildings	75.6
Lighting outside school buildings	73.9
Other school areas (e.g., halls, stairs, and regular classrooms)	79.9
Outdoor athletic facilities and equipment (e.g., playing fields and bleachers)	80.7
Playground facilities and equipment (e.g., playing surfaces, benches, monkey bars, and swings)	78.5
Smoke alarms	91.6
Special classroom areas (e.g., chemistry labs, workshops, and art rooms)	80.1
Sprinkler systems	78.7

level plan to address crisis preparedness, response, and recovery in the event of a natural disaster or other emergency or crisis situation and 73.8% of districts had used materials from the U.S. Department of Education to develop policies or plans related to crisis preparedness, response, and recovery (e.g., *Practical Information on Crisis Planning: a Guide for Schools and Communities*¹). More than 90% of districts had a crisis preparedness, response, and recovery plan that included mechanisms for communicating with school personnel; procedures for implementing unplanned school dismissal or school closure; procedures for responding to media inquiries; protocols for communicating with building-level managers during a crisis; and requirements to periodically review and revise emergency response plans (Table 12).

Most (86.7%) districts had adopted a policy requiring that schools have a comprehensive plan to address crisis preparedness, response, and recovery in the event of a natural disaster or other emergency or crisis situation. Nationwide, more than 80% of districts had adopted a policy requiring their schools' plans to include evacuation plans; lock down plans; mechanisms for communicating the plan to students' families; mechanisms for

Table 9. Percentage of districts that had adopted a policy addressing issues related to playground safety, by issue, SHPPS 2012

Issue	Districts (%)
Criteria for the selection, placement, and installation of playground equipment, not including surfacing materials	60.6
Criteria for the selection, placement, and installation of playground surfacing materials	61.8
Criteria for selecting playground monitors	39.9
Discipline procedure for students who are not following the rules	90.2
Duties of playground monitors	65.2
Identification of an individual responsible for enforcing the policy	60.5
Posting of rules for the safe use of specific types of equipment (e.g., swings, slides, or climbing structures)	39.4
Procedure for what to do in case of an injury	91.4
Ratio of playground monitors to students	41.1
Training for playground monitors	42.3

communicating with school personnel; procedures for implementing unplanned school dismissal or school closure; procedures for responding to media inquiries; requirements to conduct regular emergency drills, other than fire drills; and requirements to periodically review and revise emergency response plans (Table 13).

Among the 97.4% of districts with a crisis preparedness, response, and recovery plan or with a requirement for schools to have a plan, more than 90% worked with a local fire department, a local law enforcement agency, and staff from individual schools within the district to develop the plan (Table 14). In addition, among the districts with a crisis preparedness, response, and recovery plan or with a requirement for schools to have a plan, 78.6% provided funding for training or offered training on the plan to school faculty and staff, 55.2% did so for students, and 17.4% did so for students' families during the two years before the study. Further, 17.2% of districts offered education on crisis preparedness, response, and recovery to students' families (not including training on the district's plan) during the two years before the study. Finally, among the 97.4% of districts with a crisis preparedness, response, and recovery plan or with a

Table 10. Percentage of districts that had specific tobacco use prevention policies, by type of policy, SHPPS 2012

Policy	Districts (%)
For students	
Prohibited cigarette smoking	98.9
In school buildings	98.6
Outside on school grounds*	98.3
On school buses or other vehicles used to transport students	98.4
At off-campus, school-sponsored events	95.6
In all four locations	95.2
Prohibited smokeless tobacco use	94.2
In school buildings	94.0
Outside on school grounds*	93.5
On school buses or other vehicles used to transport students	93.7
At off-campus, school-sponsored events	91.8
In all four locations	91.5
For faculty and staff during any school-related activity	
Prohibited cigarette smoking	95.1
In school buildings	94.6
Outside on school grounds*	92.4
On school buses or other vehicles used to transport students	94.3
At off-campus, school-sponsored events	89.0
In all four locations	86.5
Prohibited smokeless tobacco use	89.9
In school buildings	88.9
Outside on school grounds*	87.1
On school buses or other vehicles used to transport students	88.4
At off-campus, school-sponsored events	84.6
In all four locations	82.9
For school visitors	
Prohibited cigarette smoking	96.2
In school buildings	95.9
Outside on school grounds*	91.1
On school buses or other vehicles used to transport students	95.4
At off-campus, school-sponsored events	81.1
In all four locations	78.8
Prohibited smokeless tobacco use	90.3
In school buildings	89.5
Outside on school grounds*	85.0
On school buses or other vehicles used to transport students	89.0
At off-campus, school-sponsored events	76.7
In all four locations	74.9
Prohibited all tobacco use during any school-related activity[†]	67.5

* Including parking lots and school playing fields.

[†] Prohibited (1) cigarette smoking and smokeless tobacco use among all students, all faculty and staff, and all school visitors in school buildings; outside on school grounds; on school buses or other vehicles used to transport students; and at off-campus, school-sponsored events and (2) cigar or pipe smoking by all students, all faculty and staff, and all school visitors.

requirement for schools to have a plan, 74.2% had evaluated or assessed their plan during the 12 months before the study.

Some communities have a group of local agencies that coordinate crisis preparedness, response, and recovery efforts. Such a group might be called a local emergency planning committee, an emergency management team, or something else. More than one half (55.7%) of districts were a member of such a group, 15.1% were not a member, and 29.3% reported no such group in the community. Most (80.1%) districts had one or more schools in the district designated to serve as a staging area or community shelter during local emergencies. Nationwide, 45.4% of districts had adopted a policy requiring all schools to have a National Oceanic and Atmospheric Administration (NOAA) weather radio (i.e., a weather radio that provides continuous weather information directly from a nearby National Weather Service office and also broadcasts warning and post-event information for all types of hazards).

Sun Safety

District and school policies can play an important role in protecting children and adolescents from ultraviolet radiation.^{8,9} The majority of districts neither recommended nor required that schools allow students to apply sunscreen while at school; encourage students to wear hats or visors, protective clothing (e.g., long sleeve shirts or long pants), or sunglasses when in the sun during the school day; or schedule outdoor activities to avoid times when the sun is at peak intensity during the school day (Table 15).

Community Service and Service-Learning

Community service was defined as unpaid work that helps the community and service-learning was defined as a type of community service that is designed to meet specific learning objectives for a course. Nationwide, 28.0% of districts had adopted a policy requiring students at any school level to participate in community service and 11.4% of districts required and 52.3% recommended that schools provide service-learning opportunities to students. Among districts with elementary schools, 15.2% had adopted a policy stating that elementary schools will participate in programs in which family or community members serve as role models to students or mentor students (e.g., the Big Brothers Big Sisters program). Among districts with middle

Table 11. Percentage of districts that had policies prohibiting tobacco advertisements, by policy, SHPPS 2012

Policy	Districts (%)
Prohibits tobacco advertisements:	
In the school building	88.4
In school publications	87.3
On school buses or other vehicles used to transport students	88.2
Outside on school grounds*	88.0
Through sponsorship of school events	84.9
In all five locations	82.0
Prohibits students from wearing tobacco brand-name apparel or carrying merchandise with tobacco company names, logos, or cartoon characters on it	82.3

* Including on the outside of the school building, on playing fields, or other areas of the campus.

schools, 13.1% had adopted a policy stating that middle schools will participate in those kinds of programs and among districts with high schools, 15.9% had adopted a policy stating that high schools will participate in those kinds of programs.

Professional Development

Districts may provide funding for professional development or offer professional development on how to implement school-wide policies and programs related to a variety of health topics. During the two years before the study, few districts had provided funding for professional development or offered professional development on sun safety, whereas more than 80% had provided funding for professional development or offered professional development on classroom management; crisis preparedness, response, and recovery; electronic aggression or cyber-bullying prevention; and other bullying prevention (Table 3).

Trends Over Time

Changes Between 2000 and 2012

Many variables met the criteria for significant difference over time outlined in Chapter 2. The percentage of districts that had adopted a policy prohibiting gang activity increased from 62.5% to 73.0%. The percentage of districts that had adopted a policy stating that elementary schools will enforce a student dress code increased from 62.0% to 72.6% and the percentage of districts that had adopted a policy stating that elementary schools will use

security or surveillance cameras, either inside or outside the building, increased from 11.0% to 59.0%. The percentage of districts that had adopted a policy stating that middle schools and high schools will use security or surveillance cameras also increased, from 16.4% to 68.6% for middle schools and from 19.2% to 74.9% for high schools. The percentage of districts that had adopted a policy stating that high schools will assign staff or adult volunteers to monitor restrooms decreased from 59.3% to 47.5%, but the percentage of districts that had adopted a policy requiring students at the high school level to wear uniforms increased from 1.3% to 5.1% and to wear identification badges increased from 3.5% to 9.9%.

The percentage of districts with tobacco use prevention policies for faculty and staff and visitors increased between 2000 and 2012 (Table 16). For faculty and staff, increases were detected in the percentage of districts that had adopted a policy prohibiting cigarette smoking and smokeless tobacco use by faculty and staff outside on school grounds and at off-campus, school-sponsored events. For school visitors, increases were detected in the percentage of districts that had adopted a policy prohibiting cigarette smoking and smokeless tobacco use by visitors outside on school grounds and at off-campus, school-sponsored events. In addition, increases were detected in the percentage of districts that had adopted a policy specifically prohibiting smokeless tobacco use by school visitors in school buildings and on school buses or other vehicles used to transport students. As a result of these increases in the percentage of districts with policies prohibiting some tobacco use in some locations, an increase from 46.7% to 67.5% occurred in the percentage of districts that prohibited (1) cigarette smoking and smokeless tobacco use among all students, all faculty and staff, and all school visitors in school buildings; outside on school grounds; on school buses or other vehicles used to transport students; and at off-campus, school-sponsored events and (2) cigar or pipe smoking by all students, all faculty and staff, and all school visitors.

The percentage of districts that adopted policies prohibiting tobacco advertisements also increased for all school locations (Table 16). In addition, an increase was detected in the percentage of districts that had adopted a policy prohibiting tobacco advertising through sponsorship of school events and in the percentage of districts that had adopted a

Table 12. Percentage of districts that addressed specific topics in their crisis preparedness, response, and recovery plan, by topic, SHPPS 2012

Topic	Districts (%)
Establishment of an incident command system*	85.5
Evacuation protocols for crises involving more than one school	85.9
Mechanisms for communicating with school personnel	93.2
Mechanisms for evaluating outside offers for assistance during or after a crisis	58.4
Plans for serving as a community shelter or coordinating center during a community-wide crisis	80.8
Plans for supplying food, water, and medical supplies to schools in extended shelter-in-place†	60.9
Plans for training school staff (e.g., in triage or first aid skills)	67.4
Plans to resume normal activities after buildings or facilities have been damaged	64.6
Procedures for implementing unplanned school dismissal or school closure	92.9
Procedures for responding to media inquiries	91.5
Procedures for responding to pandemic flu or other infectious disease outbreaks	77.3
Protocols for communicating with building-level managers during a crisis	93.2
Provision of mental health services for students, faculty, and staff after a crisis has occurred (e.g., to treat post-traumatic stress disorder)	76.7
Requirements to conduct district-level crisis-response drills	83.1
Requirements to periodically review and revise emergency response plans	90.4

* A standardized system for handling all types of emergencies that addresses chain of command, operations, planning, logistics, and finance and administration.

† For schools that have been instructed to seek immediate shelter and remain in that area during a chemical, biological, or radiological emergency rather than evacuating.

policy prohibiting students from wearing tobacco brand-name apparel or carrying merchandise with tobacco company names, logos, or cartoon characters on it.

The percentage of districts that had adopted policies on the inspection and maintenance of smoke alarms increased from 72.2% to 91.6%. The percentage of districts that had adopted policies requiring that students wear appropriate protective gear when engaged in classes such as wood shop or metal shop decreased from 86.6% to 72.4%.

Changes Between 2006 and 2012

Increases were detected in the percentage of districts that had adopted a policy requiring identification badges for faculty and staff in elementary schools

Table 13. Percentage of districts that required schools to include specific topics in their crisis preparedness, response, and recovery plans, by topic, SHPPS 2012

Topic	Districts (%)
Establishment of an incident command system*	78.6
Evacuation plans	85.9
Family reunification procedures	67.8
Lock down plans†	85.6
Mechanisms for communicating the plan to students' families	80.2
Mechanisms for communicating with school personnel	84.5
Plans to resume normal activities after buildings or facilities have been damaged	61.3
Procedures for implementing unplanned school dismissal or school closure	83.5
Procedures for responding to media inquiries	81.7
Procedures for responding to pandemic flu or other infectious disease outbreaks	69.0
Procedures to control the exterior of the building and school grounds	76.9
Provisions for students and staff with special needs	79.9
Provision of mental health services for students, faculty, and staff after a crisis has occurred (ex. to treat post-traumatic stress disorder)	69.3
Requirements to conduct regular emergency drills, other than fire drills	83.2
Requirements to periodically review and revise emergency response plans	81.5
Shelter-in-place plans§	75.3

* A standardized system for handling all types of emergencies that addresses chain of command, operations, planning, logistics, and finance and administration.
 † Procedures to stop people from leaving or entering school buildings.
 § For schools that have been instructed to seek immediate shelter and remain in that area during a chemical, biological, or radiological emergency rather than evacuating.

(from 33.0% to 49.9%), middle schools (from 33.9% to 51.4%), and high schools (from 34.8% to 52.2%) and for visitors at elementary schools (from 66.7% to 83.6%), middle schools (from 71.3% to 82.4%), and high schools (from 68.3% to 80.4%). The percentage of districts that had adopted a policy stating that high schools will assign staff or adult volunteers to monitor school halls decreased from 61.1% to 50.0%.

The percentage of districts that used materials from the U.S. Department of Education to develop policies or plans related to crisis preparedness, response, and recovery, such as *Practical Information on Crisis Planning: a Guide for Schools and Communities*,¹ decreased from 85.9% to 73.8% and the percentage of districts that worked with mental health or social service agencies in

Table 14. Percentage of districts* that worked with groups to develop their crisis preparedness, response, and recovery plans, by group, SHPPS 2012

Group	Districts (%)
Local emergency medical services	82.8
Local fire department	91.9
Local health department	65.6
Local hospital	41.2
Local homeland security office† or emergency management agency§	45.1
Local law enforcement agency	94.8
Local mental health or social services agency	46.1
Local public transportation department	16.6
Other community members	67.4
Staff from individual schools within your district	95.4
Students or their families	42.8

* Among the 97.4% of districts with a crisis preparedness, response, and recovery plan or with a requirement for schools to have a plan.
 † A state or local equivalent of the federal Department of Homeland Security.
 § A state or local equivalent of the Federal Emergency Management Agency or FEMA.

developing their crisis preparedness, response, and recovery plans decreased from 57.5% to 46.1%. The percentage of districts that had adopted a policy that all schools must have a NOAA weather radio increased from 32.4% to 45.4%.

A decrease was detected in the percentage of districts that, during the two years before the study, had provided funding for or offered professional development for school faculty and staff on how to implement school-wide policies and programs related to alcohol use prevention (73.3% to 62.8%), illegal drug use prevention (from 76.7% to 64.9%), and tobacco use prevention (from 70.0% to 58.8%).

DISCUSSION

Understanding the policies and practices in use to support school health at the national, state, district, and school levels can help lead to better alignment of these policies and practices with national standards and guidelines and ensure schools are healthy and safe learning environments. SHPPS 2012 data show that states recognize the importance of providing assistance to districts and schools to support school health. Most states (87.5%) have provided funding for professional development or offered professional development during the two years before the study on using data to plan or

Table 15. Percentage of districts that required or recommended that schools use a specific strategy to promote sun safety, by strategy, SHPPS 2012

Strategy	Districts (%)		
	Required	Recommended	Neither Required nor Recommend
Allow students to apply sunscreen while at school	1.5	44.4	54.2
Encourage students to wear hats or visors when in the sun during the school day	0.9	36.1	63.1
Encourage students to wear protective clothing (e.g., long sleeve shirts or long pants) when in the sun during the school day	1.3	39.6	59.0
Encourage students to wear sunglasses when in the sun during the school day	0.3	25.0	74.7
Schedule outdoor activities to avoid times when the sun is at peak intensity during the school day	5.3	38.3	56.5

evaluate school health policies and practices and 75.0% had done this for using the School Health Index or other self-assessment tool to assess school health and safety policies and activities. CDC’s School Health Index^{10,11} is a self-assessment and planning tool that schools can use to improve their health and safety policies and programs. It is based on CDC’s school health guidelines, e.g.,^{4,12} which identify the policies and practices most likely to be effective in reducing youth health risk behaviors. Additional tools, such as the Healthy Schools Report Card² are intended to allow similar assessments at the district level. The National Association of State Boards of Education’s *Fit, Healthy and Ready to Learn*¹³ is composed of a series of school health policy guides. These materials and others provide states, districts, and schools with valuable resources to guide the implementation or improvement of policies and practices that support school health.

The presence of a school health council, committee, or team is an effective and efficient way for both states and districts to coordinate and promote policies and practices that support student and staff health at school, particularly if the group is comprised of stakeholders from a variety of disciplines and addresses a variety of topics.¹⁴ SHPPS 2012 found that 68.8% of states and 65.4% of districts had one or more school health councils, committees, or teams that that offered guidance on the development of policies or coordinated health-related activities, although these percentages have not increased since 2000. At both the state and district levels, many of those groups had representation from a variety of stakeholder groups. Another important way states and districts can support the health and safety of students and school

staff is to support a school health coordinator. This position is responsible for overseeing or coordinating school health and safety policies, and strengthens school health programs at the state and district level.¹⁵⁻¹⁷ SHPPS 2012 found that 66.0% of states and 53.7% of districts had such a person to oversee or coordinate school health programs. These data suggest that states and districts might benefit from information about the critical role both school health councils and school health coordinators can play in promoting policies and programs that support student and staff health and the resources they need to establish such a group and position.

In addition, school health councils and school health coordinators are an integral way to provide assistance to schools on health and safety issues.¹⁵⁻¹⁷ The percentage of states that provided assistance to districts or schools was relatively high for many topics (e.g., bullying prevention; crisis preparedness, response, and recovery; alcohol, tobacco, and illegal drug use prevention; and using data to plan or evaluate school health policies and practices), but could be increased or expanded for some types of assistance on a variety of topics.

States, districts, and schools have an important role to play in preventing unintentional injuries and violence at school by promulgating policies and implementing programs that create a healthy and safe school environment.^{12,18} To help ensure school policies and practices are consistent with CDC’s *School Health Guidelines to Prevent Unintentional Injuries and Violence*, state- or district-level policies can address requirements for conducting regular safety and hazard assessments; maintaining vehicles and facilities; actively supervising all student

Table 16. Significant increases over time* in district policies or practices related to tobacco use, by policy, SHPPS 2000, 2006, and 2012

Policy	Districts (%)		
	2000	2006	2012
For faculty and staff during any school-related activity			
Prohibited cigarette smoking in the following locations			
Outside on school grounds [†]	78.3	86.8	92.4
At off-campus, school-sponsored events	75.7	82.2	89.0
Prohibited smokeless tobacco use in the following locations			
Outside on school grounds [†]	74.2	80.5	87.1
At off-campus, school-sponsored events	72.6	78.3	84.6
For school visitors			
Prohibited cigarette smoking in the following locations			
Outside on school grounds [†]	72.1	76.8	91.1
At off-campus, school-sponsored events	61.8	70.2	81.1
Prohibited smokeless tobacco use by school visitors	79.4	82.6	90.3
Prohibited smokeless tobacco use in the following locations			
In school buildings	78.7	81.7	89.5
Outside on school grounds [†]	64.8	71.8	85.0
On school buses or other vehicles used to transport students	77.6	80.8	89.0
At off-campus, school-sponsored events	58.3	64.8	76.7
Prohibited all tobacco use during any school-related activity[§]	46.7	56.7	67.5
Tobacco advertisements			
Prohibited tobacco advertisements			
In school buildings	71.9	84.2	88.4
In school publications	70.8	82.1	87.3
On school buses or other vehicles used to transport students	71.2	81.9	88.2
Outside on school grounds [†]	71.0	83.3	88.0
Through sponsorship of school events	64.2	79.8	84.9
Prohibited students from wearing tobacco brand-name apparel or carrying merchandise with tobacco company names, logos, or cartoon characters on it	70.5	80.5	82.3

* Significant linear trends based on regression analysis with all years of available data.

[†] Including on the outside of the school building, on playing fields, or other areas of the campus.

[§] Prohibited (1) cigarette smoking and smokeless tobacco use among all students, all faculty and staff, and all school visitors in school buildings; outside on school grounds; on school buses or other vehicles used to transport students; and at off-campus, school-sponsored events and (2) cigar or pipe smoking by all students, all faculty and staff, and all school visitors.

activities; and ensuring that the school environment, including school buses, is free from weapons.¹²

SHPPS 2012 found that many districts had policies consistent with those recommendations. Of note, the majority of districts had adopted policies requiring the inspection and maintenance of school facilities and equipment needed for keeping students and staff free from injury, such as fire-related equipment (e.g., fire extinguishers, smoke alarms, and sprinkler systems), indoor and outdoor athletic or playground

facilities and equipment, and lighting. Monitors for school grounds and communication devices for security were other commonly used strategies to prevent injuries and violence. A smaller percentage of districts had adopted policies related to playground monitors and posting of rules for safe use of specific types of playground equipment. Other frequently used strategies not explicitly described in CDC's *School Health Guidelines to Prevent Unintentional Injuries and Violence* were closed campuses, identification badges for visitors,

restricted use of personal communication devices (e.g., cell phones) among students, and student dress codes. Of note, policies requiring the use of security or surveillance cameras increased significantly at all school levels from 2000 to 2012. A safe and healthy school environment will address not only the physical school environment, but also the psychosocial school environment. One strategy to create a safe and supportive environment is to adopt policies prohibiting bullying.¹⁹ SHPPS 2012 found that at least 89% of districts had adopted a policy that prohibited bullying and electronic aggression or cyber-bullying on school property and at off-campus, school-sponsored events. In addition, most districts had adopted a policy that prohibited electronic aggression or cyber-bullying that interferes with the educational environment. In 2011, the national Youth Risk Behavior Survey, a survey of high school students nationwide, found that 20.1% of students were bullied on school property and 16.2% had been electronically bullied during the 12 months before the survey.²⁰ The rate at which students report being bullied and electronically bullied suggests additional work is needed in schools to promote a positive school climate even though nearly all districts had policies prohibiting bullying. In addition, much bullying occurs in areas that often lack substantial adult supervision, for example in hallways or stairwells (48%), outside on school grounds (24%), or in bathrooms or locker rooms (9%),²¹ and SHPPS 2012 found decreases in the percentage of districts that had adopted a policy stating that high schools will assign staff or adult volunteers to monitor the restrooms and schools halls during classes.

Cigarette,^{22,23} alcohol,^{23,24} and other illegal drug¹⁷ use are significant contributors to premature morbidity and mortality and yet commonly are used among youth.²⁰ In 2011, the national Youth Risk Behavior Survey found that during the 30 days before the survey, 18.1% of high school students had smoked cigarettes, 38.7% had drunk alcohol, 21.9% had engaged in binge drinking, and 23.1% had used marijuana.²⁰ In addition 20.7% ever took prescription drugs without a doctor's prescription.²⁰ These data can help decision-makers at the state, district, and school levels determine what policies and programs would be best placed to reduce the use of these substances. Some districts use student drug testing to address alcohol and illegal drug use. Nationwide, 29.6% of districts containing middle or high schools had adopted a student drug-testing

policy. SHPPS 2012 did not examine the extent to which districts incorporated their drug testing program into a comprehensive drug use prevention effort, which is widely accepted as important if a drug testing program is used.^{25,26}

Prohibiting all tobacco use at school and at school-sponsored events is an important tobacco use prevention strategy because it not only protects students, faculty, staff, and visitors from secondhand smoke, but also eliminates the opportunity for students to observe and participate in tobacco use at school and school activities.^{4,27} SHPPS 2012 found that 67.5% of districts (compared to 46.7% in 2000) had adopted policies that prohibited (1) cigarette smoking and smokeless tobacco use among all students, all faculty and staff, and all school visitors in school buildings; outside on school grounds; on school buses or other vehicles used to transport students; and at off-campus, school-sponsored events and (2) cigar or pipe smoking by all students, all faculty and staff, and all school visitors. The target for the Healthy People 2020 objective (Tobacco Use [TU]-15) "Increase tobacco-free environments in schools, including all school facilities, property, vehicles, and school events" is 100% for middle schools, junior high schools, and high schools.⁵ Increases in the percentage of districts adopting tobacco-free policies are important to ensure all schools are tobacco free. Improvements since 2000 in the percentage of districts prohibiting tobacco advertising also are important. Continued support for tobacco-free environments in schools at the state and district levels will be critical to further decreasing tobacco use rates among youth.

Widely regarded as an integral part of creating a safe and healthy school environment is adopting policies and plans related to crisis preparedness, response, and recovery.^{1,6,7,12} According to the U.S. Department of Education, "Knowing how to respond quickly and efficiently in a crisis is critical to ensuring the safety of our schools and students."¹ p1-1 This means being prepared for natural disasters, infectious disease, and acts of terrorism. SHPPS 2012 found that nearly all (95.8%) districts had a comprehensive district-level plan and most (86.7%) districts had adopted a policy requiring that schools have a comprehensive plan to address crisis preparedness, response, and recovery in the event of a natural disaster or other emergency or crisis situation. In most districts, topics addressed in the district-level plans and required of school-level plans

were generally consistent with recommendations.^{1,28} However, SHPPS 2012 data suggest some deficits in district-level plans such as addressing mechanisms to evaluate outside offers for assistance during or after a crisis; plans for training school staff; plans to resume normal activities after buildings or facilities have been damaged; procedures for responding to pandemic flu or other infectious disease outbreaks; and provision for mental health services for students, faculty, and staff after a crisis has occurred.

It also is recommended that crisis plans be developed in partnership with other community groups.^{1,12} SHPPS found that most (80.1%) districts had one or more schools designated to serve as a staging area or community shelter during local emergencies. Because using a school as a staging area or community shelter can be disruptive to the educational mission of schools, districts and schools can collaborate with local emergency planners to identify any plans the city has for schools during a crisis.¹ Nearly all districts worked with local fire departments, local law enforcement, and staff from individual schools within the district, but fewer than one half worked with a local hospital, a local homeland security office or emergency management agency, a local mental health or social services agency, a local public transportation department, students, or their families. Indeed, the percentage of districts that worked with mental health or social service agencies in developing their crisis preparedness, response and recovery plans decreased from 57.5% in 2006 to 46.1% in 2012.

Although skin cancer is the leading type of cancer in the US,²⁹ SHPPS 2012 found that sun safety continues to be a low priority for states and districts. For example, less than one third of states had developed or assisted in developing model policies, policy guidance, or other materials; distributed or provided such materials to district or school staff; or provided funding for professional development or offered professional development for districts or schools on sun safety. A slightly higher percentage of states (42.0%) had provided technical assistance to district or school staff on sun safety. Likewise, few districts required schools to promote sun safety. CDC's *Guidelines for School Programs to Prevent Skin Cancer* assert that "School staff can play a major role in protecting children and adolescents from ultraviolet radiation (UV) exposure and the future development of skin cancer by instituting policies, environmental changes, and educational

programs that can reduce skin cancer risk among young persons."^{8 p1} CDC's Sun Safety for America's Youth Toolkit provides guidance on how to establish sun safety programs and policies.⁸ Using resources like this, states and school districts have the opportunity to make an important contribution to public health by providing guidance on how best to implement school-wide sun safety policies.

Because schools have a unique opportunity to promote well-being among students and staff by providing them with a healthy and safe school environment, it is important to understand the policies and practices at the state and district levels that support such an environment. SHPPS 2012 suggests many states and districts are promulgating policies and implementing practices that support a healthy and safe school environment. To address gaps in recommended policies and practices, states and districts can find guidance about school health policies and practices through a variety of resources developed to address a safe and healthy school environment.

REFERENCES

1. U.S. Department of Education. *Practical Information on Crisis Planning a Guide for Schools and Communities*. Washington, DC: U.S. Department of Education; 2007. Available at: <http://www2.ed.gov/admins/lead/safety/emergencypplan/crisisplanning.pdf>.
2. ASCD. *Creating a Healthy School Using the Healthy School Report Card: An ASCD Action Tool*. 2nd edition. Alexandria, VA: ASCD; 2010.
3. U.S. Consumer Product Safety Commission. *Public Playground Safety Handbook*. Washington, DC: US Consumer Product Safety Commission; 2010. Publication number 325. Available at: <http://www.cpsc.gov/PageFiles/107329/325.pdf>.
4. Centers for Disease Control and Prevention. Guidelines for school health programs to prevent tobacco use and addiction. *Morbidity and Mortality Weekly Report*. 1994; 43(No. RR-2):1–18.
5. U.S. Department of Health and Human Services. *Healthy People 2020*. Washington, DC: U.S. Department of Health and Human Services; 2012. Available at: <http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicid=41>.

6. U.S. Department of Education. *Emergency Planning*. Washington, DC: U.S. Department of Education; 2011. Available at: <http://www2.ed.gov/admins/lead/safety/emergencyplan/index.html>.
7. Centers for Disease Control and Prevention. *Emergency Preparedness and Response, Schools and Childcare Centers*. Atlanta, GA: Centers for Disease Control and Prevention; 2012. Available at: <http://www.bt.cdc.gov/children/schools.asp>.
8. Centers for Disease Control and Prevention. Guidelines for school programs to prevent skin cancer. *MMWR Recommendations and Reports*. 2002;51(RR-4):1–20.
9. Centers for Disease Control and Prevention. *Comprehensive Cancer Control: Engaging Schools and Education Partners in Sun Safety and Skin Cancer Prevention Sun Safety for America's Youth Toolkit*. Atlanta, GA: Centers for Disease Control and Prevention; 2009. Available at: http://www.cdc.gov/cancer/skin/what_cdc_is_doing/toolkit.htm.
10. Centers for Disease Control and Prevention. *School Health Index: Self-Assessment & Planning Guide 2012. Middle School/High School Version*. Atlanta, GA: Centers for Disease Control and Prevention; 2012. Available at: <http://www.cdc.gov/healthyyouth/shi/index.htm>.
11. Centers for Disease Control and Prevention. *School Health Index: Self-Assessment & Planning Guide 2012. Elementary School Version*. Atlanta, GA: Centers for Disease Control and Prevention; 2012. Available at: <http://www.cdc.gov/healthyyouth/shi/index.htm>.
12. Centers for Disease Control and Prevention. School health guidelines to prevent unintentional injuries and violence. *MMWR Recommendations and Reports*. 2001;50(RR-22):1–74.
13. National Association of State Boards of Education. *Fit, Healthy and Ready to Learn*. Arlington, VA: National Association of State Boards of Education; 2012. Available at: <http://www.nasbe.org/project/obesity-prevention/fit-healthy-ready-to-learn-updated-release/>.
14. Shirer K. *Promoting Healthy Youth, Schools, and Communities: A Guide to Community-School Health Councils*. Atlanta, GA: American Cancer Society; 2003. Available at: <http://www.cancer.org/acs/groups/content/@nho/documents/document/guidetocommunityschoolhealthcou.pdf>.
15. Institute of Medicine. Allensworth D, Lawson E, Nicholson L, Wyche J, eds. *Schools & Health: Our Nation's Investment*. Washington, DC: National Academy Press; 1997.
16. Winnail S, Dorman S, Stevenson B. Training leaders for school health programs: the National School Health Coordinator Leadership Institute. *Journal of School Health*. 2004; 74(3):79–84.
17. Gold RS, Miner KR. Report of the Joint Committee on Health Education and Promotion Terminology. *Journal of School Health*. 2002; 72(1):3–7.
18. Meyer L, Chiang RJ. Chapter I: Policies to promote safety and prevent violence. In: *Fit, Healthy and Ready to Learn: A School Health Policy Guide*. Arlington, VA: National Association of State Boards of Education; 2012. Available at: http://www.nasbe.org/wp-content/uploads/FHRTL-I_SafetyandViolencePrevention_NASBE_November2012.pdf
19. Schmidt ER, Frelick Goekler S. Chapter 7. Partnering with schools to prevent injuries and violence. In: Liller KD, ed., *Injury Prevention for Children and Adolescents: Research, Practice, and Advocacy*. 2nd edition. Washington, DC: American Public Health Association; 2012.
20. Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance—United States, 2011. *MMWR Surveillance Summary*. 2012;61(No. SS-4):1–162.
21. U.S. Department of Education. *Student Reports of Bullying and Cyber-Bullying: Results from the 2009 School Crime Supplement to the National Crime Victimization Survey*. Washington, DC: U.S. Department of Education, National Center for Education Statistics; 2011. Publication number NCES 2011-336. Available at: <http://nces.ed.gov/pubs2011/2011336.pdf>.
22. U.S. Department of Health and Human Services. *Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2012. Available at: <http://www.surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/full-report.pdf>.
23. Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States, 2000. *Journal of the American Medical Association*. 2004;291(10):1238–1245.

24. Centers for Disease Control and Prevention. *Alcohol and Public Health: Alcohol-Related Disease Impact (ARDI)*. Atlanta, GA: Centers for Disease Control and Prevention. Available: http://apps.nccd.cdc.gov/DACH_ARDI/Default/Default.aspx.
25. National Institutes of Health. *Frequently Asked Questions about Drug Testing in Schools*. Washington, DC: National Institutes of Health, National Institute on Drug Abuse; 2012. Available at: <http://www.drugabuse.gov/related-topics/drug-testing/faq-drug-testing-in-schools>.
26. Roach CA. What are the odds? Random drug testing of students: two perspectives. A legal perspective. *The Journal of School Nursing*. 2005; 21(3):186–191.
27. Kumar R, O’Malley PM, Johnston LD. School tobacco control policies related to students’ smoking and attitudes toward smoking: national survey results, 1999-2000. *Health Education and Behavior*. 2005; 32(6):780-794.
28. U.S. Department of Education. *Practical Information on Crisis Planning Brochure*. Washington, DC: U.S. Department of Education; 2007. Available at: <http://www2.ed.gov/admins/lead/safety/crisisplanning.htm>.
29. Centers for Disease Control and Prevention. *Skin Cancer*. Atlanta, GA: Centers for Disease Control and Prevention, 2012. Available at: <http://www.cdc.gov/cancer/skin/>.

Chapter 9

Physical School Environment: Results from the School Health Policies and Practices Study 2012

*Sherry Everett Jones, PhD; Alisa M. Smith, PhD; Robert Axelrad; Arthur M. Wendel, MD, MPH**

This chapter describes the findings from the 2012 School Health Policies and Practices Study (SHPPS) related to the physical school environment. It includes state-level information on state assistance to districts and schools and professional development. At the district level, this chapter describes transportation, joint use agreements, indoor air quality, pest control, drinking water, hazardous materials, engine idling reduction programs, school construction and renovations, training for custodial or maintenance staff, and professional development. The chapter also describes significant trends over time at both the state and district levels.

STATE-LEVEL RESULTS

State Assistance to Districts and Schools

States may offer multiple types of assistance to districts and schools on a variety of physical school environment issues. Specifically, states can provide model policies, policy guidance, and technical assistance (one-on-one, tailored guidance to meet the specific needs of the district or school that may be provided through phone, e-mail, Internet, or in-person meetings). These activities can be used to help districts and schools improve the health and academic achievement of their students by improving the physical environment of the school.

During the two years before the study, less than one half of states had developed, revised, or assisted in developing model policies, policy guidance, or other materials to inform district or school policy on all nine physical school environment topics listed in the questionnaire (Table 1). Likewise, less than one half of states had distributed or provided such materials to district or school staff on all nine physical school environment topics. However, during the 12 months before the study, more than one half of states had provided technical assistance to district or school staff on indoor air quality and joint use agreements.

Professional Development

Professional development was defined as workshops, conferences, continuing education, graduate courses, or any other kind of in-service. During the two years before the study, less than one third of states provided funding for professional development or offered professional development to districts or schools on how to implement school-wide policies and programs related to drinking water quality, green cleaning products and practices, indoor air quality, integrated pest management, and radon testing and mitigation (Table 2). States were also asked whether they provided funding for professional development or offered professional development on issues that go beyond specific school health content and are relevant to a broad audience (e.g., community members or local public health officials). During the two years before the study, some states provided funding for professional development or offered professional development on joint use agreements (38.3% of states), green building design or construction (28.3%), school building renovation (27.7%), and site selection for new school buildings (25.5%).

Trends Over Time

At the state level, only one variable met the criteria for significant difference over time outlined in Chapter 2. Between 2006 and 2012, the percentage of states that provided funding for professional development or offered professional development during the two years before the study on integrated pest management decreased from 45.7% to 19.1%.

DISTRICT-LEVEL RESULTS

Transportation

More than one half of districts set a minimum distance elementary, middle, and high school students must live from a school to be eligible for

* **Sherry Everett Jones** is a Health Scientist, Division of Adolescent and School Health, CDC; **Alisa M. Smith** is Deputy Director and **Robert Axelrad** is Senior Policy Advisor, Indoor Environments Division, U.S. Environmental Protection Agency; and **Arthur M. Wendel** is Team Lead, Healthy Communities Design Initiative Branch, Division of Emergency and Environmental Health Services, National Center for Environmental Health, CDC.

Table 1. Percentage of states that provided assistance to districts and schools on physical school environment topics, by type of assistance, SHPPS 2012

Topic	States (%)		
	Developed, Revised, or Assisted in Developing Model Policies, Policy Guidance, or Other Materials*	Distributed or Provided Model Policies, Policy Guidance, or Other Materials*	Provided Technical Assistance†
Drinking water quality	26.5	29.2	34.7
Green cleaning products and practices§	31.3	32.6	36.2
Green building design¶ or construction	35.4	34.0	38.3
Indoor air quality	42.9	45.8	51.0
Integrated pest management**	29.8	28.6	26.5
Joint use agreements††	47.9	44.9	54.0
Radon testing and mitigation	22.9	21.3	26.1
School building renovation	46.8	43.5	48.9
Site selection for new school buildings	41.7	34.0	42.6

* During the two years before the study.

† One-on-one, tailored guidance to meet the specific needs of the district or school that may be provided through phone, e-mail, Internet, or in-person meetings during the 12 months before the study.

§ Minimize the impact on the environment and are not toxic to humans.

¶ A way of designing a building so that it minimizes impact on the environment. For example, the design of such a building conserves resources such as energy and water, protects the existing landscape, and provides healthy indoor air.

**An approach to pest control that seeks to reduce use of toxic pesticides as much as possible by relying on non-toxic methods of pest control such as physical exclusion and by limiting pesticide use to when it is essential.

†† A formal agreement, such as a memorandum of agreement or understanding, between a school district and another public or private entity to jointly use or share either school facilities or community facilities to share costs and responsibilities. For example, joint use agreements might be designed to increase access to spaces for recreation and physical activity.

riding a school bus (Table 3). These policies did not include students with special needs or those eligible for hazard bussing (i.e., when students are bused relatively short distances to school because their walk route is deemed to be hazardous). The most common minimum distances for school bus riding eligibility for elementary, middle, and high school students were more than one or more than two miles. Less than one third (30.2%) of districts had adopted a policy that supports or promotes walking or biking to and from school.

In districts in which public transportation is available, districts can support or promote its use for students, faculty, and staff by providing subsidies or educational materials on using public transportation or the benefits of doing so. No public transportation was available for students in 70.9% of districts or for faculty and staff in 69.4% of districts. Consequently, only 9.7% of districts had adopted a policy that supports or promotes the use of public transportation for students and 3.8% of districts had adopted a policy that supports or promotes the use of public transportation for faculty and staff.

Joint Use Agreements

A joint use agreement is a formal agreement, such as a memorandum of agreement or understanding, between the school district and another public or private entity to jointly use or share either school facilities or community facilities to share costs and responsibilities. For example, joint use agreements might be designed to increase access to spaces for recreation and physical activity, library services, school health centers, preschool programs, child care centers, before- or after-school programs, adult education, or other programs that benefit students and the community. These could be indoor or outdoor education or recreational facilities. Overall, 61.6% of districts had a formal agreement for shared use of school or community property. Situations where the community could use school property but no formal agreement with another entity existed were not included.

Among the 61.6% of districts with a formal joint use agreement, more than one half had an agreement with a local youth organization (e.g., the YMCA, Boys or Girls Clubs, or the Boy Scouts or Girl Scouts) (54.9%) or a local parks or recreation

Table 2. Percentage of states and districts that provided funding for professional development* or offered professional development on how to implement school-wide policies and programs during the two years before the study, by topic, SHPPS 2012

Topic	States (%)	Districts (%)
Drinking water quality	21.7	20.0
Green cleaning products and practices [†]	31.9	44.1
Indoor air quality	28.9	27.7
Integrated pest management [§]	19.1	41.4
Radon testing and mitigation	23.4	22.9

* Workshops, conferences, continuing education, graduate courses, or any other kind of in-service on how to implement school-wide policies and programs.

[†] Minimize the impact on the environment and are not toxic to humans.

[§] An approach to pest control that seeks to reduce use of toxic pesticides as much as possible by relying on non-toxic methods of pest control such as physical exclusion and by limiting pesticide use to when it is essential.

department (53.1%). Less than one half had a joint use agreement with a local faith-based organization (27.3%), local library system (17.0%), local healthcare facility (13.1%), local health club (5.3%), and any other public or private entity (26.1%). Formal joint use agreements most often applied to the use of facilities for outdoor recreation or physical activity (84.3% of districts with agreements), indoor recreation or physical activity (82.1%), and before- or after-school programs for school-aged children (67.0%). Among districts with agreements, less than one half had agreements that applied to adult education programs (49.3% of districts with agreements), preschool or infant child care programs (41.1%), library services (23.9%), and healthcare services (21.0%); 56.1% of districts had agreements that applied to other activities or programs.

Indoor Air Quality

Almost one half (47.7%) of districts had an indoor air quality management program; that is, a set of specific activities for preventing and resolving indoor air quality problems. Among the 47.7% of districts with a program, 82.3% based their program on the Environmental Protection Agency's (EPA) *Indoor Air Quality Tools for Schools*.¹

All districts, regardless of whether the district indicated they had an indoor air quality management program, were asked about certain policies consistent with an indoor air quality management program. Although only 57.1% of districts required that schools conduct periodic inspections for condensation in and around the school facilities, other types of inspections were more commonly required, such as periodic inspections of the heating, ventilation, and air conditioning (HVAC) system (78.4% of districts); of the building foundation, walls, and roof for cracks, leaks, or past water

damage (72.2%); for mold (71.7%); for clutter that prevents effective cleaning and maintenance (70.9%); and of the plumbing system (69.7%). More than one half (54.1%) of districts had adopted a policy regarding how schools should address mold problems and 51.3% had adopted a policy stating that schools will respond to moisture-related issues, such as floods, leaks, or condensation within 48 hours or less. More than one third (37.0%) of districts required that schools be tested for radon.

Some commonly used products, such as floor coverings, furniture, paint, cleaners, markers, textiles, or adhesives, emit chemical fumes or vapors.² Some kinds of these products are designed to give off little or no chemical fumes or vapors; these are called low-emitting products. More than one third (36.3%) of districts had adopted a policy to purchase low-emitting products for use in and around schools and school grounds, including in common areas, art classes, industrial art classes, and science laboratories.

More than two thirds (69.7%) of districts required district approval for cleaning and maintenance products such as disinfectants, air fresheners, polishes, or waxes before they are used by teachers, administrative or custodial staff, or contractors at a school in the district. More than three fourths of districts required district approval for use of pesticides (77.2%) and chemicals or other potentially hazardous materials (i.e., chemicals or materials that could be harmful to people or the environment) used in science labs, vocational education, art, or other classes (77.1%).

Pest Control

Schools are particularly vulnerable to pest problems because of the large size of school structures, the

Table 3. Percentage of districts that set standards for distances students must live from a school to be eligible for riding a school bus,* by school level, SHPPS 2012

Standard Distance	Districts (%)		
	Elementary School	Middle School	High School
More than 1/2 mile	6.5	7.1	6.8
More than 3/4 mile	1.9	1.5	1.7
More than 1 mile	20.0	18.1	18.2
More than 1 1/2 miles	10.9	12.4	10.6
More than 2 miles	17.0	18.3	19.9
No minimum distance	43.7	42.7	42.8

* Does not include students with special needs or those eligible for hazard bussing (i.e., when students are bused relatively short distances to school because their walk route is deemed to be hazardous).

numbers of occupants, the provision of food on the premises, and the abundance of books, supplies, and equipment that provide potential habitats for various types of pests.² Consequently, districts may require schools to conduct a campus-wide (i.e., inside the buildings and on school grounds) inspection for pests such as ants, roaches, bees, mice, or rats. Campus-wide inspections were required weekly in 8.4% of districts, monthly in 44.6%, quarterly in 13.1%, every six months in 4.3%, once per year in 4.4%, only as needed in 22.6%, and on some other time frame in 2.7%.

More than one half of districts required schools to use each integrated pest management strategy (i.e., an approach to pest control that seeks to reduce use of toxic pesticides as much as possible by relying on non-toxic methods of pest control such as physical exclusion and by limiting pesticide use to when it is essential) included in the questionnaire, but the most commonly required strategies were to seal openings in walls, floors, doors, and windows with caulk or weather stripping; store food in plastic, glass, or metal containers with tight lids so that it is inaccessible to pests; and use spot treatments and baiting rather than widespread applications of pesticides (Table 4).

Most (83.9%) districts used an outside company for pest management and among those districts, 96.8% used a company that is third-party certified for integrated pest management. Third-party certified was defined as a pest control company trained by an organization such as the National Pest Management Association or Integrated Pest Management of North America in ways to limit the use and risk of pesticides. Districts required schools to notify staff, students, and families prior to the application of

pesticides (e.g., by sending letters or emails to families or posting information on a school website) each time pesticides were applied (44.8% of districts), once per year (10.3%), or on some other time frame (3.2%). In 21.5% of districts, notifications were never required and in 20.2% of districts, schools did not apply pesticides.

Drinking Water

More than one half (55.5%) of districts required that schools periodically test drinking water outlets for lead. In 20.1% of districts, at least one school in the district had a school-operated water system, in which the school obtains drinking water from its own well, spring, or small reservoir. Schools with school-operated water systems are required by law to test drinking water for certain contaminants.³⁻⁵ Schools that do not have their own water system (i.e., they use a community water system) may conduct voluntary water testing. Among the 79.9% of districts without school-operated water systems, 28.3% required schools to periodically test drinking water for bacteria, 28.3% required schools to test for coliforms, and 29.3% required schools to test for other contaminants. One fourth (25.1%) of districts nationwide had adopted a policy requiring schools to flush drinking water outlets after periods of non-use, such as after weekends or school vacations.

Table 4. Percentage of districts that required schools to implement integrated pest management strategies,* by strategy, SHPPS 2012

Strategy	Districts (%)
Allow eating only in designated areas to control pests	57.1
Keep vegetation, shrubs, and wood mulch at least one foot away from buildings to control pests	54.1
Mark indoor and outdoor areas that have been treated with pesticides	55.0
Repair cracks in pavement and sidewalks	73.3
Remove infested or diseased plants	78.3
Seal openings in walls, floors, doors, and windows with caulk or weather stripping	82.1
Store food in plastic, glass, or metal containers with tight lids so that it is inaccessible to pests	81.3
Store food waste in plastic, glass, or metal containers with tight lids so that it is inaccessible to pests	74.5
Use spot treatments and baiting rather than widespread applications of pesticides	80.9

* An approach to pest control that seeks to reduce use of toxic pesticides as much as possible by relying on non-toxic methods of pest control such as physical exclusion and by limiting pesticide use to when it is essential.

Hazardous Materials

Although the use of both lead-based paint and polychlorinated biphenyls (PCBs)* were banned in the late 1970s, schools constructed before 1980 might contain these substances. Almost all (92.8%) districts had at least one school with a main instructional building constructed before 1980. Among the 92.8% of districts with at least one school with a main instructional building constructed before 1980, 39.7% had adopted a policy requiring that schools constructed before 1980 inspect for lead in cracked or peeling paint, and 30.7% reported that lead paint had been previously identified and remediated. Among the 92.8% of districts with at least one school with a main instructional building constructed before 1980, one fourth (25.5%) had adopted a policy requiring that schools constructed before 1980 inspect for PCBs in caulking around windows and doors and 24.8% had adopted a policy requiring inspection for PCBs in fluorescent light ballasts; 29.8% reported that PCBs in caulking had been previously identified and remediated and 41.0% reported that PCBs in

* PCBs are a class of organic chemicals that were used in a variety of commercial products used in the 1950s through the late 1970s.⁶ Because of concerns about their effect on both human health and the environment, Congress banned the manufacture and use of PCBs in the late 1970s.^{6,7} In older school buildings, PCBs might be found in “caulk or other sealants, window glazing, fluorescent light ballast capacitors, ceiling tile coatings, and possibly other materials such as paints or floor finishes.”^{7 p.14}

fluorescent light ballasts had been previously identified and remediated.

Engine Idling Reduction Programs

Engine idling reduction programs can be used by schools to reduce exposure to pollution from diesel and gasoline engines. More than one half of districts (53.8%) had implemented an engine idling reduction program for school buses (9.0% of districts did not have school buses), 28.9% had implemented such a program for commercial vehicles such as delivery trucks, and 17.8% of districts had implemented such a program for personal vehicles such as cars. Among the 53.8% of districts with an engine idling program for school buses, 81.9% had provided bus drivers with training related to the program during the two years before the study.

School Construction and Renovations

Green building design is a way of designing a building so that it minimizes impact on the environment by conserving resources such as energy and water, protecting the landscape, and providing healthy indoor air. Almost one third (30.0%) of districts had adopted a policy to include green building design when building new school buildings or renovating existing buildings. Among the 30.0% of districts with a green building design policy, 48.5% stated that the policy required the use of a third party green building certification, labeling, or rating system, such as the Collaborative for High Performance Schools (CHPS), LEED for Schools from the U.S. Green Building Council, and Green Globes.

Districts without a policy to include green building design when building new school buildings or renovating existing buildings can still incorporate many green building design practices for new school campuses or renovations. The three most common practices for new school campuses or renovations addressed in policies adopted by districts nationwide were implementation of recycling programs, use of energy efficient lighting and electrical systems, and use of procedures or systems to protect indoor air quality (Table 5).

During the five years before the study, 26.2% of districts initiated the construction of a school facility on a new school site. Among the 26.2% of districts that initiated the construction of a school facility on a new school site, the two factors rated by more than one half as very influential in the most recent decision to build a new school facility (rather than renovate an existing facility) were the need to accommodate population growth and the need to support current or future educational programs (Table 6). The factor most commonly rated very influential in deciding where to build the new school was having a site already owned by the district (Table 7). Conversely, in more than two thirds of districts, the demographic characteristics of students who would attend that school, the potential clean-up costs of contaminated sites, and having a site donated were not factors in the decision about where to build the new school.

Districts may adopt policies that require formal consultation or input from a variety of groups about whether to construct a new school, where to construct a new school, and environmental review of candidate sites. Environmental review is the design or review of studies to identify pollution on or near the school site and any related cleanup plans developed by the school district or its contractors.⁸ With the exception of requiring formal consultation or input from the public and from state government officials on whether to construct a new school, less than one half of districts had adopted a policy that required formal consultation or input from any groups included in the questionnaire (Table 8).

Phase I environmental site assessments can include a physical survey of the property and surrounding properties to assess general land use and occupants of the area, an on-site visual inspection of the site to identify environmental concerns, an assessment of current and past uses of the property particularly if any hazardous materials were stored or disposed of at the site, a review of owner records, and a review of local, state, and federal regulatory agency records maintained for the site. One third (33.0%) of districts had adopted a policy requiring Phase I environmental site assessments prior to constructing a new school facility, 28.7% of districts had not adopted such a policy, and 38.3% of districts had no new facilities planned.

Table 5. Percentage of districts that had adopted a policy addressing practices for new school campuses or renovations, by practice, SHPPS 2012

Practice	Districts (%)
Conservation of water, such as using rainwater or plumbing fixtures that conserve water	31.1
Creating a system for managing arrivals and departures of pedestrians and bicycles	35.0
Implementation of recycling programs	59.3
Orienting buildings to optimize energy conservation, use of day light, and noise reduction	32.3
Preservation of green space or protections of the existing landscape	32.3
Use of alternative transportation including public transportation, walking, or biking	17.4
Use of building materials (e.g., floor and wall coverings, paints, sealants, caulk, adhesives, or furniture) that are low- or no-volatile organic compound emitting materials	39.3
Use of energy efficient lighting and electrical systems	63.6
Use of landscaping that includes only native planting materials	28.9
Use of natural light for visual comfort or energy conservation	38.2
Use of procedures or systems to protect indoor air quality	50.1
Use of radon resistant new construction practices	33.4
Use of renewable energy, such as solar or wind power	17.6

Training for Custodial or Maintenance Staff

Districts may provide funding for training or offer training to custodial or maintenance staff on a variety of topics related to the physical school environment. During the two years before the study, funding for or training on the disposal, labeling, storage, reducing the use, and use of hazardous materials were the most common training topics for custodial or maintenance staff (Table 9). Funding for or training on school drinking water quality was the least common. More than one half (55.0%) of districts required a newly hired person who oversees custodial, maintenance, and environmental issues to have formal training (e.g., college classes, including community college; workshops; seminars; conferences; or any other kind of in-service or pre-service) in issues related to the physical environment of buildings and health hazards likely to be encountered in schools.

Table 6. Percentage of districts* that found specific issues influential in their decision to build a new school facility rather than renovate an existing facility during the five years before the study, by issue, SHPPS 2012

Issue	Districts (%)		
	Not a Factor	Somewhat Influential	Very Influential
Cost of repairing existing facility	26.3	27.2	46.5
Desire to accommodate community use of the school facility or campus (e.g., auditorium, classrooms, or athletic fields)	17.4	45.6	37.0
Desire to have a more energy-efficient facility	12.1	45.4	42.4
Ease of obtaining approvals to construct a new school than to renovate an existing school	42.2	30.9	26.8
Ease of obtaining funding to construct a new school than to renovate an existing school	28.5	39.3	32.1
Need to accommodate population growth	15.5	26.9	57.6
Need to support current or future educational programs	1.6	32.3	66.1
School consolidation policy	64.8	17.0	18.2

* Among the 26.2% of districts that had initiated the construction of a school facility on a new school site.

Professional Development

Districts may provide funding for professional development or offer professional development, such as workshops, conferences, continuing education, graduate courses, or any other kind of in-service, for school faculty and staff on how to implement school-wide policies and programs on a variety of topics related to the physical school environment (Table 2). During the two years before the study, less than one half of districts had provided funding for professional development or offered professional development on drinking water quality, green cleaning products and practices, indoor air quality, integrated pest management, and radon testing and mitigation.

Trends Over Time

At the district level, only a few variables met the criteria for significant difference over time outlined in Chapter 2. Between 2006 and 2012, an increase was identified in the percentage of districts that had adopted a policy on the following issues: including green design when building new school buildings or renovating existing buildings (13.4% to 30.0%), purchasing low-emitting products for use in and around the school and school grounds (from 25.6% to 36.3%), and supporting or promoting walking or biking to and from school (from 17.5% to 30.2%). Increases also were detected in the percentage of districts with an indoor air quality management program (from 35.4% to 47.7%), the percentage that implemented an engine idling reduction program for school buses (from 35.3% to 53.8%), and the percentage that had provided funding for

professional development or offered professional development during the two years before the study for school faculty and staff on how to implement school-wide policies and programs related to integrated pest management (from 27.4% to 41.4%).

DISCUSSION

SHPPS 2012 found that some states had provided policy- and professional development-related assistance to districts and schools on a variety of physical school environment topics, but many districts will need additional resources to implement the best practices. The EPA's *Voluntary Guidelines for States: Development and Implementation of a School Environmental Health Program*⁹ and *School Siting Guidelines*⁸ serve as important resources for states, districts, and schools in implementing effective policies and practices that promote healthy school environments. These documents were created with input from federal partners and experienced professionals in the field and are based on the latest scientific evidence and best practices from districts and states nationwide.

At the district level, SHPPS 2012 found that many districts had adopted a variety of policies that support a healthy and safe physical school environment. For example, most districts used a variety of different strategies consistent with integrated pest management and nearly all of the 83.9% of districts that used an outside company for pest management used a company that was third-party certified for practices that reduce the use or risks of pesticides. More than one half of districts had implemented an engine idling reduction program

Table 7. Percentage of districts* that found specific issues influential in their decision about where to build a new school facility during the five years before the study, by issue, SHPPS 2012

Issue	Districts (%)		
	Not a Factor	Somewhat Influential	Very Influential
Ability for students to walk or bike to school	57.7	33.0	9.3
Availability or design of existing roads and infrastructure	27.0	47.3	25.7
Compatibility with local community growth plan related to future residential development	31.2	44.5	24.3
Demographic characteristics of students who would attend that school	66.5	23.2	10.3
Desire to accommodate community use of the school facility or campus (e.g., an auditorium, classrooms, or athletic fields)	22.4	51.3	26.2
Environmental concerns related to on-site contamination or potential nearby sources of pollution	63.2	23.6	13.2
Land prices	49.0	30.1	20.9
Local government officials' input	53.0	33.5	13.6
Need for athletic facilities	50.2	30.9	18.9
Need for parking	47.3	35.0	17.7
Potential clean-up costs of contaminated sites	75.7	14.3	10.0
Site donated	79.0	14.0	7.0
Site already owned	33.1	18.6	48.3

* Among the 26.2% of districts that had initiated the construction of a school facility on a new school site.

and more than one half of districts required schools to periodically test drinking water outlets for lead.

Of note, the prevalence of district-level indoor air quality management programs increased between 2006 and 2012. In 2012, many districts required schools to implement a variety of practices to positively affect indoor air quality (e.g., conducting periodic inspections for issues that affect indoor air quality; purchasing low-emitting products; and seeking approval before using cleaning and maintenance products, pesticides, and chemicals or other potentially hazardous materials). For districts or schools without a current indoor air quality program or looking for support to improve indoor air quality, EPA’s *Indoor Air Quality Tools for Schools*¹ provides information on best practices, examples of a sample policy, and a sample indoor air quality management plan.

SHPPS found that nearly all districts had schools with a main instructional building constructed before 1980, when PCBs and lead-based paint were still in use. PCB’s may cause cancer and damage the reproductive and nervous systems⁶ and lead that has leached into drinking water from corroding lead

pipes, fixtures, and solder or lead-contaminated dust from lead paint may cause permanent damage to the brain and nervous system, slowed growth, and anemia.^{10,11} Although some districts with schools constructed before 1980 had previously identified and undergone remediation for these substances in their schools, only about one in four districts had adopted policies requiring schools to inspect for PCBs and only two in five districts had adopted policies requiring schools to inspect for lead in cracked or peeling paint. These data suggest that many districts would benefit from information about the hazards posed by these materials in schools and how to inspect for and mitigate them when needed as well as resources to undertake mitigation efforts.

To address childhood obesity, the 2010 White House Task Force on Childhood Obesity provided several recommendations that encourage physical activity among children, including implementing Safe Routes to Schools plans in communities; encouraging “active transport” between homes, schools, and local destinations; and increasing access to parks and playgrounds via joint use agreements.¹² Having community-centered schools

Table 8. Percentage of districts that required formal consultation or input from groups on new school construction, by group, SHPPS 2012

Group	Districts (%)		
	Whether to Construct a New School	Where to Construct a New School	Environmental Review of Candidate Sites*
Local government land use or community planning officials [†]	48.0	42.5	37.8
Local government transportation officials [§]	32.9	28.3	25.0
The public	64.4	47.7	34.0
Public health or environmental health officials	38.2	32.5	33.7
State government officials	53.9	45.2	40.6

* The design or review of studies to identify pollution on or near the school site and any related cleanup plans developed by the school district or its contractors.

[†] Have jurisdiction over how local land will be developed and used, including such things as zoning regulations and commercial and residential development.

[§] Have jurisdiction over decisions about the design of streets and how to efficiently and safely move people and goods using a variety of modes including cars, public transit, pedestrian travel, and bike lanes and paths.

or neighborhood schools often allows school districts to address these recommendations because such schools are more likely to enable children to walk or bike to and from school and are often used by communities for a variety of purposes.¹³ In 2009 only 12.7% of students in grades K-8 usually walked or biked to school.¹⁴ Locating schools within neighborhoods is suggested as a way to increase active transportation to school.¹⁵ SHPPS 2012 found that less than one half of states provided policy-related assistance to districts and schools in site

selection for new school buildings. Less than one third of districts had adopted a policy that supports or promotes walking or biking to or from school and more than one half of districts that had initiated the construction of a school facility on a new site during the five years before the study reported that the ability for students to walk or bike to school was “not a factor” in deciding where to build a new school facility. In contrast, more than three fourths of districts reported that the desire to accommodate community use of the school facility or campus, such as an auditorium, classrooms, or athletic fields was either somewhat influential or very influential in deciding where to build a new school facility and nearly two thirds of all districts had a formal agreement for shared use of school or community property.

These SHPPS 2012 data suggest that many districts could benefit from the EPA’s *School Siting Guidelines* which support “states, tribes, communities, local officials, and the public in understanding and appropriately considering environmental and public health factors when making school siting decisions.”^{8 p1} The guidelines emphasize meaningful community engagement in making a decision about whether and where to build a new school. SHPPS 2012 found that the extent to which districts involved local government officials, state officials, and the public in making decisions about new school construction varied, but the data suggest many districts might benefit from information about the benefits of engaging such groups and the most efficient ways of doing so.

Although only 30% of districts had adopted a policy to include green building design when building new

Table 9. Percentage of districts that provided funding for training or offered training to custodial or maintenance staff on physical environment topics during the two years before the study, by topic, SHPPS 2012

Topic	Districts (%)
Green cleaning products and practices*	63.0
Hazardous materials [†]	
Disposal	82.4
Labeling	79.3
Reducing the use	74.8
Storage	82.7
Use	81.2
How to address mold problems	63.7
Indoor air quality	54.8
Pest management practices that limit the use of pesticides	59.1
School drinking water quality	31.6

* Minimize the impact on the environment and are not toxic to humans.

[†] Chemicals or materials that could be harmful to people or the environment (e.g., chemicals used for science experiments or art classes, cleaning products, and pesticides).

school buildings or renovating existing buildings, this is more than double the percentage that had such a policy in 2006 (13.4%). Increased policy-related and technical assistance from states on green building design and construction as well as dissemination of information to districts on the health and economic benefits of green building design and construction might increase the implementation of district-level policies related to water and energy conservation, alternative transportation, and indoor air quality.

Because the physical school environment plays such an important role in both student health and academic achievement,^{16–20} it is important to understand policies and practices that seek to keep students healthy and performing their best. SHPPS 2012 is the most comprehensive study to measure policy-related and technical assistance from states to districts and schools on physical environment topics and district-level policies and practices related to the physical school environment. These results, along with information on best practices, can be used to guide policies and practices at the state, district, and school level to promote student health and academic achievement.

REFERENCES

1. U.S. Environmental Protection Agency. *IAQ Tools for Schools Action Kit*. Washington, DC: U.S. Environmental Protection Agency; 2012. Available at: <http://www.epa.gov/iaq/schools/actionkit.html>.
2. American Academy of Pediatrics Committee on Environmental Health. Schools. In: Etzel RA, Balk SJ, eds. *Pediatric Environmental Health*. 2nd edition. Elk Grove Village, IL: American Academy of Pediatrics; 2003:459–476.
3. U.S. Environmental Protection Agency. *Environmental Hazards in Your School: A Resource Handbook*. Washington, DC: U.S. Environmental Protection Agency; 1990. Publication number 2DT-2001.
4. Safe Drinking Water Act. 42 USCS §§300f-300j-24 (2012).
5. U.S. Environmental Protection Agency. *Water: Drinking Water. Standards & Risk Management*. Washington, DC: U.S. Environmental Protection Agency; 2012. Available at: <http://water.epa.gov/drink/standardsriskmanagement.cfm>.
6. U.S. Environmental Protection Agency. *PCBs in Schools Research*. Washington, DC: U.S. Environmental Protection Agency; 2013. Available at: <http://www.epa.gov/pcbsincaulk/caulkresearch.htm>.
7. Thomas K, Xue J, Williams R, Jones P, Whitaker D. *Polychlorinated Biphenyls (PCBs) in School Buildings: Sources, Environmental Levels, and Exposures*. Washington, DC: U.S. Environmental Protection Agency; 2012. Available at: http://www.epa.gov/pcbsincaulk/pdf/pcb_EPA600R12051_final.pdf.
8. U.S. Environmental Protection Agency. *School Siting Guidelines*. Washington, DC: U.S. Environmental Protection Agency; 2011. Publication number EPA-100-K-11-004. Available at: <http://www.epa.gov/schools/siting/download.html>.
9. U.S. Environmental Protection Agency. *Voluntary Guidelines for States: Development and Implementation of a School Environmental Health Program*. Washington, DC: U.S. Environmental Protection Agency; 2012. Publication number EPA-100-K-12-007. Available at: <http://www.epa.gov/schools/ehguidelines/downloads/ehguidelines.pdf>.
10. U.S. Environmental Protection Agency. *Lead. Protect Your Family*. Washington, DC: U.S. Environmental Protection Agency; 2012. Available at: <http://www.epa.gov/lead/parents.html#protect>.
11. U.S. Environmental Protection Agency. *Lead. Learn about Lead*. Washington, DC: U.S. Environmental Protection Agency; 2012. Available at: <http://www.epa.gov/lead/learn-about-lead.html#effects>.
12. White House Task Force on Childhood Obesity. *Solving the Problem of Childhood Obesity Within a Generation: White House Task Force on Childhood Obesity Report to the President*. Washington, DC: Executive Office of the President of the United States; 2010. Available at: http://www.letsmove.gov/sites/letsmove.gov/files/TaskForce_on_Childhood_Obesity_May2010_FullReport.pdf.
13. Kuhlman R. *Helping Johnny Walk to School: Policy Recommendations for Removing Barriers to Community-Centered Schools*. Washington, DC: National Trust for Historic Preservation; 2008.
14. McDonald NC, Brown AL, Marchetti LM, Pedrosa MS. U.S. school travel. *American Journal of Preventive Medicine*. 2011; 41(2):146–151.
15. Wendel AM, Dannenberg AL. Reversing declines in walking and bicycling to school. *Preventive Medicine*. 2009; 48:513–5:15.

16. National Research Council of the National Academies. *Green Schools: Attributes for Health and Learning*. Washington, DC: National Academy Press; 2007. Available at: http://www.nap.edu/catalog.php?record_id=11756.
17. U.S. Environmental Protection Agency. *Improved Academic Performance: Evidence from Scientific Literature*. Washington, DC: U.S. Environmental Protection Agency; 2013. Available at: http://www.epa.gov/iaq/schools/student_performance/evidence.html.
18. U.S. Environmental Protection Agency. *Student Health and Academic Performance, Quick Reference Guide*; Washington, DC: U.S. Environmental Protection Agency; 2012. Available at: http://www.epa.gov/iaq/schools/pdfs/student_performance_findings.pdf.
19. Lawrence Berkeley National Laboratory. Indoor Air Quality Scientific Findings Resource Bank. Berkeley, CA: Lawrence Berkeley National Laboratory; 2013. Available at: <http://www.iaqscience.lbl.gov/sfrb.html>.
20. Frumkin H. Introduction. In: Frumkin H, Geller R, Rubin IL, eds. *Safe and Healthy School Environments*. New York: NY: Oxford University Press; 2006.

Chapter 10

Faculty and Staff Health Promotion: Results from the School Health Policies and Practices Study 2012

*Zewditu Demissie, PhD; Nancy D. Brener, PhD; Susan F. Goekler, PhD, MCHES**

This chapter describes the findings from the 2012 School Health Policies and Practices Study (SHPPS) related to faculty and staff health promotion. It includes state-level information on health insurance and faculty and staff health promotion coordinators. At the district level, this chapter describes health insurance; sick leave; requirements for influenza vaccinations; requirements for physical health examinations, drug testing, and tuberculosis screening and testing; other health screenings; health promotion activities and services; employee assistance programs; health-risk appraisals; off-site health promotion activities; planning; and coordination. The chapter also describes significant trends over time at both the state and district levels.

STATE-LEVEL RESULTS

The SHPPS 2012 state-level questionnaires assessed only two topics pertaining to faculty and staff health promotion: health insurance for faculty and staff and whether the state had a faculty and staff health promotion coordinator. About half (55.3%) of states offered health insurance to faculty and staff who work in districts or schools (i.e., the state paid for some or all of the insurance or made it available to faculty and staff at a discounted group rate). In 50.0% or more of states, this health insurance included full or partial coverage of alcohol or other drug use treatment, immunizations, mental health care, prescription drugs, and preventive health care (e.g., physicals) (Table 1).

Fifty percent of states had someone at the state level to oversee or coordinate health promotion activities or services for faculty and staff throughout the state. This percentage has increased significantly since 2000, when 20.0% of states had such a person. This was the only state-level trend that met the criteria for significant difference over time outlined in Chapter 2.

DISTRICT-LEVEL RESULTS

Health Insurance

In 99.3% of districts, either the district or the state offered health insurance to faculty and staff. In more than 90% of districts, this health insurance included full or partial coverage of immunizations, mental health care, prescription drugs, and preventive health care (Table 1).

Sick Leave and Requirements for Influenza Vaccinations

District respondents were asked about the use of sick leave. Nearly all districts (96.0%) allowed faculty and staff to use sick leave to care for their own sick children. District respondents also were asked about requirements for influenza vaccinations. Very few districts (0.3%) required and 65.0% recommended that faculty and staff receive annual influenza vaccinations while they are employed.

Physical Health Examinations

More than one fourth (28.8%) of districts required all faculty and staff to receive a physical health examination prior to employment, 27.4% of districts required a physical health examination prior to employment depending on the position the person will have, and 0.9% of districts required such an examination depending on something other than the position the person will have. Further, 1.0% of districts required all faculty and staff to receive periodic health examinations while employed, 33.5% of districts required faculty and staff to receive periodic physical health examinations while employed depending on the person's position, and 1.8% required faculty and staff to receive periodic health examinations while employed depending on something other than the person's position.

* **Zewditu Demissie** is a Senior Research Scientist, Division of Adolescent and School Health, CDC; **Nancy D. Brener** is Team Lead, Survey Operations and Dissemination Team, Division of Adolescent and School Health, CDC; and **Susan F. Goekler** is Executive Director, Directors of Health Promotion and Education.

Table 1. Percentage of states and districts that offered health insurance with specific types of coverage, by type of coverage, SHPPS 2012

Type of Coverage	States (%)	Districts (%)
Alcohol or other drug use treatment	50.0	84.4
Dental care	48.9	72.6
Immunizations	52.2	94.0
Mental health care	54.3	92.6
Prescription drugs	55.3	97.6
Preventive health care	55.3	96.2
Tobacco use cessation	45.7	71.2
Vision care	48.9	69.5

Drug Testing

Nationwide, 9.6% of districts required drug testing of all faculty and staff prior to employment, 41.0% required drug testing prior to employment depending on the position the person will have, and 1.2% required drug testing prior to employment depending on something other than the position the person will have. Further, 1.9% of districts required periodic drug testing of all faculty and staff while employed, 50.1% required periodic drug testing of faculty and staff while employed depending on the person's position, and 3.7% required periodic drug testing of faculty and staff while employed depending on something other than the person's position.

Tuberculosis Screening and Testing

Tuberculosis (TB) screening was defined on the questionnaire as the identification of individuals meeting certain risk criteria, such as those born or recently living in other countries. Faculty and staff meeting these criteria would then be referred for TB testing or required to provide evidence of medical clearance. Less than half (42.4%) of districts required TB screening prior to employment for all faculty and staff and 5.8% required TB screening prior to employment depending on the position the person will have. TB testing was defined on the questionnaire as a clinical test for TB, such as a skin test. TB testing is only recommended for individuals at risk for TB disease.¹ Nearly half (47.4%) of districts required TB testing prior to employment for all faculty and staff, 37.0% required TB testing prior to employment based on the results of TB screening, and 10.5% of districts required TB testing prior to employment for faculty and staff depending on the position the person will have.

Nationwide, 9.6% of districts required periodic TB testing for all faculty and staff while employed, 6.4% required periodic TB testing for faculty and staff while employed depending on the person's position, and 2.4% required periodic TB testing for faculty and staff previously identified through screening. Among districts that required TB testing for faculty and staff either prior to employment or while employed, 39.0% accepted a PPD skin test done by Mantoux method as evidence of a negative TB test, 11.8% accepted a skin test not otherwise specified, 1.8% accepted a chest x-ray, and 0.3% accepted a blood test (i.e., interferon-gamma release assays).

Other Health Screenings

During the 12 months before the study, 45.6% of districts provided funding for or offered at least one type of screening for faculty and staff, regardless of what was covered through their health insurance. One fourth or more of districts provided funding for screening or offered screening for blood pressure, body mass index (BMI), diabetes, and serum cholesterol (Table 2). Other types of screening were less common.

Health Promotion Activities and Services

Districts provided funding for or offered multiple health promotion activities (e.g., classes, workshops, distribution of materials, or individual or group counseling sessions) for faculty and staff during the 12 months before the study. Regardless of what was covered through health insurance, more than half of districts provided funding for or offered cardiopulmonary resuscitation (CPR) education, emergency preparedness, first aid education, infectious disease prevention, and worksite safety education for faculty and staff (Table 3). In addition,

during the 12 months before the study, districts provided funding for or offered certain services to faculty and staff, regardless of what was covered by health insurance. The most common service provided was immunizations such as flu vaccine; other services were far less common (Table 3).

During the 12 months before the study, 43.0% of districts provided funding for or offered physical activity programs such as aerobics classes, basketball leagues, or walking or jogging clubs for faculty and staff. In addition, 39.0% of districts had adopted a policy stating that indoor or outdoor school facilities or equipment that could be used for physical activity would be made available for faculty and staff as a benefit of their employment, not just because these facilities and equipment were available to all residents of a community.

Employee Assistance Programs

Employee assistance programs (EAPs) were defined as those that provide services designed to assist faculty and staff experiencing personal or social problems that can impact work performance, physical health, or overall well-being. During the 12 months before the study, 34.7% of districts provided funding for an EAP or offered an EAP for faculty and staff.

Health-Risk Appraisals

Health-risk appraisals were defined as questionnaires used to assess self-reported risk factors, such as smoking and physical inactivity. A health-risk appraisal might also be called a health-risk survey. During the 12 months before the study, 25.9% of districts provided funding for health-risk appraisals or offered them to faculty and staff.

Off-Site Health Promotion Activities

Districts can encourage participation in health promotion activities by providing subsidies or discounts for activities available off-site, such as health club memberships, weight loss programs, or tobacco use cessation programs. In 36.4% of districts, faculty and staff received subsidies or discounts for off-site health promotion activities.

Planning

Among the 98.7% of districts that provided funding for or offered any of the health promotion services, activities, or programs for faculty and staff described

Table 2. Percentage of districts that provided funding for health screenings or offered health screenings for faculty and staff during the 12 months before the study, by type of screening, SHPPS 2012

Type of Screening	Districts (%)
Blood pressure	40.8
BMI	27.3
Breast cancer	9.3
Colorectal cancer	6.8
Diabetes	25.0
Oral health	6.1
Serum cholesterol	28.2
Skin cancer	5.5

above, 20.7% had ever conducted a needs assessment of the district's health promotion activities or services for faculty and staff. In addition, 20.8% of districts that provided funding for or offered any health promotion services, activities, or programs assessed faculty and staff satisfaction with these services, activities, or programs during the two years before the study.

Among the 98.7% of districts that provided funding for or offered any health promotion services, activities, or programs for faculty and staff, 31.4% provided at least one type of incentive for faculty and staff participation or goal achievement in these programs during the 12 months before the study. Specifically, 17.0% of districts provided gifts, 16.0% provided certificates or awards, 15.4% provided public recognition, 12.9% provided monetary incentives, 6.4% provided health insurance premium discounts, and 2.4% provided paid time off.

Coordination

During the 12 months before the study, organizations and agencies helped districts provide health promotion activities or services for faculty and staff. Specifically, among the 98.7% of districts that provided funding for or offered any health promotion services, activities, or programs for faculty and staff, in more than 20% a community health clinic or health center, a health organization (e.g., the American Heart Association or the American Cancer Society), a local health department, a local health or fitness club, or a local hospital helped provide these activities and services (Table 4).

Table 3. Percentage of districts that provided funding for health promotion activities or services or offered health promotion activities and services for faculty and staff during the 12 months before the study, by activity or service, SHPPS 2012

Activity or Service	Districts (%)
Activities	
Asthma management education	18.3
Conflict resolution education	26.3
Counseling for emotional disorders (e.g., anxiety or depression)	20.8
CPR education	78.4
Crisis intervention for personal problems	27.3
Diabetes management education	23.4
Emergency preparedness	81.1
First aid education	71.7
Infectious disease prevention	59.8
Nutrition education	32.9
Physical activity and fitness counseling	22.2
Pre- or post-natal education	2.7
Stress management education	17.9
Tobacco use cessation	16.6
Weight management	34.9
Worksite safety education	70.0
Services	
Identification of or referrals for physical, sexual, or emotional abuse	18.2
Immunizations	63.2
Referrals for child care or elder care	9.7
Referrals for oral health problems	6.2

Nationwide, 40.1% of districts had a person who oversees or coordinates health promotion activities or services for faculty and staff throughout the district, and 15.7% of districts had adopted a policy stating that each school will have someone to oversee or coordinate health promotion activities or services for the school's faculty and staff. Among the 40.1% of districts with a district-level coordinator, this individual worked on health promotion services and activities for faculty and staff with other district-level staff. Specifically, during the 12 months before the study, this coordinator worked with health services staff in 63.7% of districts, with physical education staff in 59.7% of districts, with health education staff in 59.1% of districts, with nutrition or food service staff in 57.6% of districts, and with mental health or social services staff in 23.5% of districts.

Trends Over Time

Several variables met the criteria for significant difference over time outlined in Chapter 2. Related to district requirements for health examinations and screenings for faculty and staff, only one change was detected between 2000 and 2012: the percentage of districts that required periodic physical health examinations for any faculty or staff while employed decreased from 51.0% in 2000 to 36.2% in 2012.

Between 2000 and 2012, increases were noted in the percentage of districts that provided funding for or offered several health promotion activities and services during the 12 months before the study. Specifically, the percentage of districts that provided funding for or offered diabetes screening to faculty and staff increased from 12.1% to 25.0%, the percentage that provided funding for or offered nutrition education increased from 11.0% to 32.9%, and the percentage that provided funding for or offered weight management increased from 12.7% to 34.9%. In addition, two activities that were not measured until 2006 showed increases between 2006 and 2012: the percentage of districts that provided funding for or offered emergency preparedness increased from 67.6% in 2006 to 81.1% in 2012, and the percentage that provided funding for or offered worksite safety education increased from 56.2% to 70.0% during the same time period.

Increases also were noted in other health promotion programs for faculty and staff. Between 2000 and 2012, the percentage of districts that provided funding for or offered physical activity programs during the 12 months before the study increased from 24.2% to 43.0%, and the percentage that provided funding for or offered an EAP during the 12 months before the study increased from 24.4% to 34.7%. Two activities not measured until 2006 increased between 2006 and 2012: the percentage of districts that provided funding for or offered health-risk appraisals during the 12 months before the study increased from 12.3% in 2006 to 25.9% in 2012, and the percentage of districts in which faculty and staff received subsidies or discounts for off-site health promotion activities increased from 22.4% to 36.4%.

Between 2000 and 2012, decreases were noted in the percentage of districts in which certain organizations or agencies helped provide health promotion activities or services. Specifically, among districts that provided funding for or offered any health promotion services, activities, or programs for faculty and staff during the 12 months before the

study, the percentage of districts in which a local health department helped provide these activities or services decreased from 49.9% to 32.5%, the percentage in which a health organization (e.g., the American Heart Association or the American Cancer Society) helped provide these activities or services decreased from 40.9% to 22.7%, the percentage of districts in which a local hospital helped provide these services or activities decreased from 53.2% to 26.3%, the percentage in which a managed care organization helped provide these activities or services decreased from 22.5% to 10.6%, and the percentage in which a mental health or social services agency helped provide these activities or services decreased from 33.7% to 11.5%.

Finally, between 2000 and 2012, the percentage of districts with someone who oversees or coordinates health promotion activities or services for faculty and staff throughout the district increased from 28.2% to 40.1%.

DISCUSSION

Employers are realizing that maintaining and promoting the health of their employees may be essential for them to remain sustainable and competitive. Employee wellness programs are effective at reducing health care costs and increasing productivity.² Although these programs produce, on average, a \$5.81 to \$1 return-on-investment ratio,³ only 6.9% of worksites offer comprehensive worksite health promotion program to their employees.²

The Partnership for Prevention² has identified seven characteristics of effective employee wellness programs: (1) health education activities that focus on skill development and lifestyle behavior change, (2) supportive social and physical environments that promote health, (3) integration of the employee wellness program within the organization, (4) linkage to related programs (e.g., EAPs), (5) worksite health screening programs, (6) support for individual behavior change that includes follow-up interventions, and (7) an evaluation and improvement plan.

Faculty and staff health promotion has received less attention than other components of the school health program,⁴ despite the fact that school health coordinators often use faculty and staff health promotion as an entry point for introducing school health programs.⁵ In recent years, several organizations have emphasized the importance of

Table 4. Percentage of districts in which organizations or agencies helped provide health promotion activities or services for faculty and staff during the 12 months before the study,* by organization or agency, SHPPS 2012

Organization or Agency	Districts (%)
Community health clinic or health center	25.7
Health organization (e.g., the American Heart Association or American Cancer Society)	22.7
Local business	13.1
Local health department	32.5
Local health or fitness club	21.6
Local hospital	26.3
Managed care organization	10.6
Mental health or social services agency	11.5
University, medical school, or nursing school	6.3

* Among the 98.0% of districts that provided funding for health promotion services, activities, or programs or offered any health promotion services, activities, or programs for faculty and staff.

school worksite health promotion.^{4,6-8} Results from SHPPS 2012 reveal an increase since 2000 in the percentage of states and districts with someone who oversees or coordinates health promotion activities or services for faculty and staff. Despite these increases, however, the findings indicate that further support for faculty and staff health promotion in state and local education agencies nationwide can be achieved.

Although nearly all districts provided funding for or offered at least one health promotion service or activity to faculty and staff during the 12 months before the study, few appeared to support a comprehensive faculty and staff health promotion program. During the 12 months before the study, blood pressure screening was the only health screening funded or offered by more than one third of districts and only five of 20 health promotion activities and services were funded or offered by more than half of districts. While increases were observed among some health promotion activities and programs (e.g., health-risk appraisals, EAPs, subsidies or discounts for off-site health promotion activities), funding for or provision of each of these activities and services remains below 40%.

While almost all districts provided funding for or offered health promotion services, activities, or programs for faculty and staff, planning for them was far less common. Few districts performed a

needs assessment of the district's health promotion activities or services for faculty and staff or assessed faculty and staff satisfaction with the health promotion services, activities, or programs during the two years before the study. *School Employee Wellness: A Guide for Protecting the Assets of Our Nation's Schools*⁴ states that comprehensive school employee wellness programs should include a mechanism for evaluating effectiveness and efficiency. Such evaluations should involve stakeholders (e.g., district-level staff) and investigate stakeholder needs. Assessing the quality of these programs can help refine and enhance the program activities.⁹

Since SHPPS 2000, the percentage of districts in which certain organizations or agencies helped provide health promotion activities or services has decreased. This finding could be interpreted as a positive one if it means that more schools or districts are providing activities directly, as evidenced by the increase in the percentage of coordinators of health promotion activities or services for faculty and staff. These results might also suggest, however, that the resources of other agencies and organizations might have declined in recent years along with the resources of districts.

School-based faculty and staff health promotion programs have the potential to improve the health of the estimated 7.2 million faculty and staff employed by elementary and secondary schools in this country¹⁰ and save funds that could be reallocated to other needs.³ As part of a coordinated school health program, faculty and staff health promotion programs also indirectly influence the health of the millions of students who attend school every day. Given the many employees working in and supporting schools throughout the United States, the potential positive impact of school health programs, and the health-related resources and personnel available in the educational system nationwide, more districts and schools may consider it beneficial to have programs to promote the health of faculty and staff. To be most effective, these programs would be comprehensive, be integrated into a broader health program within the existing district or school structure, and include the key health promotion components presented here.

REFERENCES

1. Centers for Disease Control and Prevention. *Questions and Answers about TB*. Available at: http://www.cdc.gov/tb/publications/faqs/qa_latenttbinf.htm.
2. Partnership for Prevention and U.S. Chamber of Commerce. *Healthy Workforce 2010 and Beyond: An Essential Health Promotion Sourcebook for Both Large and Small Employers*. Washington, DC: Partnership for Prevention; 2009. Available at: <http://www.prevent.org/data/files/topics/healthyworkforce2010andbeyond.pdf>.
3. Chapman LS. Meta-evaluation of worksite health promotion economic return studies: 2005 update. *American Journal of Health Promotion*. 2005;19(6):1–11.
4. Directors of Health Promotion and Education. *School Employee Wellness: A Guide for Protecting the Assets of Our Nation's Schools*. 2007. Reston, VA: Directors of Health Promotion and Education; 2007. Available at: <http://www.schoolempwell.org/>.
5. Centers for Disease Control and Prevention. *Stories from the Field: Lessons Learned About Building Coordinated School Health Programs*. Atlanta, GA: Centers for Disease Control and Prevention; 2003.
6. Alliance for a Healthier Generation. *Healthy School Programs Framework. Criteria for Developing a Healthier School Environment*. 2009. Available at: http://www.healthiergeneration.org/uploadedFiles/For_Schools/Healthy_Schools_Program_Framework/Framework_July09_sp_highres.pdf.
7. ASCD. *Healthy Indicators*. 2013. Available at: <http://www.wholechildeducation.org/assets/content/mx-resources/wholechildindicators-all.pdf>.
8. National Education Association Health Education Network. *Physical Health and Wellness*. Available at: <http://www.neahin.org/health-safety/physical/>.
9. Centers for Disease Control and Prevention. Framework for program evaluation in public health. *Morbidity and Mortality Weekly Report*. 1999;48(No. RR-11).
10. Snyder TD, Dillow SA. *Digest of Education Statistics 2011*. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education; 2012. Publication number NCES 2012-001. Available at: <http://nces.ed.gov/pubs2012/2012001.pdf>.

Appendix 1: National Reviewers

David Abramson

National Center for Disaster Preparedness

Sharon Adams-Taylor

American Association of School Administrators

Howard Adelman

University of California at Los Angeles

Matthew Adeyanju

Ohio University

Tanya Agurs-Collins

National Cancer Institute

Tasha (Toby) Akitobi

National Association of County and City Health Officials

Melissa Albuquerque

Centers for Disease Control and Prevention

Krista Allison

Ohio Department of Education

Adrienne Ammerman

National Assembly on School-Based Health Care

Clinton Anderson

American Psychological Association

JeNeen Anderson

National Association of State Boards of Education

Patricia Anderson

Society of State Directors of Health, Physical Education, and Recreation

Robert Andrews

School Nurse State Associations

Trina Anglin

Health Resources and Services Administration

Liany Elba Arroyo

National Council of La Raza

Urooj Arshad

Advocates for Youth

Jennifer Augustine

Advocates for Youth

Bob Axelrad

Environmental Protection Agency

Patricia Babjak

American Dietetic Association

Becky Bailey

North Dakota Department of Health

Tamara Baker

Arkansas Department of Health

Laurie Barker

Centers for Disease Control and Prevention

Claire Barnett

Healthy Schools Network

Lisa Barrios

Centers for Disease Control and Prevention

Rebecca Barson

Association of Maternal and Child Health Programs

Lindsay Bartholf

Safe Kids Worldwide

Charles Basch

Teachers College, Columbia University

Zarnaaz Bashir

National Recreation & Park Association

Laurie Beck

Centers for Disease Control and Prevention

Appendix 1: National Reviewers

Michael Beets

University of South Carolina

Martha Dewey Bergren

National Association of School Nurses

Stuart Berlow

Association of State and Territorial Health Officials

Carol Bickford

American Nurses Association

Ariel Bierbaum

Center for Cities and Schools

David Birch

East Carolina University

Amanda Birnbaum

Montclair State University

Jim Bogden

American Psychological Association

Jess Bogli

Bogli Consulting

Sara Bowie

Directors of Health Promotion and Education

Beverly Bradley

Retired

Noel Brendefur

YMCA of the USA

Nancy Brener

Centers for Disease Control and Prevention

Dawn Brewer

Centers for Disease Control and Prevention

Cindy Brooks

School Nutrition Association

Kelli McCormack Brown

University of Florida

Joan Brucha

Alliance for a Healthier Generation

Stephanie Bryn

Health Resources and Services Administration

Rebekah Buckley

Centers for Disease Control and Prevention

Lisa Budris

Connecticut Department of Health

Charlene Burgeson

National Association for Sport and Physical Education

Tracy Caravella

University of Wisconsin—La Crosse

Dana Carr

Office of Safe and Drug-Free Schools

Dick Caster

National Association of School Resource Officers

Joe Cerquone

American Speech Language Hearing Association

Frank Chaloupka

University of Illinois—Chicago

Beth Chaney

East Carolina University

Jeffrey Charvat

National Association of School Psychologists

Doryn Chervin

ICF Macro

Rachelle Johnsson Chiang

National Association of State Boards of Education

Jamie Chriqui

University of Illinois-Chicago

Jeffrey Clark

American School Health Association

Kim Clark

California State University—San Bernardino

Adrienne Coles

American Federation of Teachers

Bob Colgate

National Federation of State High School Associations

Paula Collins

North Carolina Department of Health

Kurt Conklin

Sexuality Information and Education Council of the United States

Stephen Conley

American School Health Association

Karen Connell

Colorado Department of Education

Jill Cook

American School Counselor Association

Sharron Corle

Association of Maternal and Child Health Programs

Deborah Crandall

National Alliance of Pupil Services Organizations

Pat Crawford

Dr. Robert C. and Veronica Atkins Center for Weight and Health

Ron Cunningham

American Academy of Emergency Physicians

Peter Cunningham

U.S. Department of Education

Linda Dahlberg

Centers for Disease Control and Prevention

Joseph Dake

University of Toledo

Thomas Davis

American Association for Health Education

Jane Delgado

National Alliance for Hispanic Health

Patti Delger

Iowa Department of Education

Patricia Dittus

Centers for Disease Control and Prevention

Barbara Donica

Kentucky Department of Health

Owen Donovan

New York Department of Education

Steven Dorman

University of Florida

Marlie Doucet

Centers for Disease Control and Prevention

Joyce Dougherty

Oregon DOE

Christopher Doyle

Institute for Youth Development

Kellie Dressler-Tetrick

Department of Justice

Brandan DuChateau

National Wellness Institute, Inc.

Kip Duchon

Centers for Disease Control and Prevention

Whitney Duff

National Association of Independent Schools

Tim Dunn

Education Development Center, Inc.

John Easton

U.S. Department of Education

Danice Eaton

Centers for Disease Control and Prevention

Bonnie Edmonson

Connecticut State Department of Education

Appendix 1: National Reviewers

Gala Edwards

Centers for Disease Control and Prevention

Anjie Emanuel

American Academy of Pediatrics

Gary English

Western Kentucky University

Jackie Epping

Centers for Disease Control and Prevention

Joyce Epstein

Center on School, Family, and Community Partnerships

Heather Erwin

University of Kentucky

Ellen Essick

Alliance for a Healthier Generation

Abigail Evans

National Association of Elementary School Principals

Sue Ferguson

National Coalition for Parent Involvement in Education

Joyce Fetro

Southern Illinois University

Valerie Fischer

North Dakota Department of Education

Carolyn Fisher

Centers for Disease Control and Prevention

Crystal FitzSimons

Food Research & Action Center

Richard Flannery

National Association of Secondary School Principals

Tracy Fox

Society of Nutrition Education President

Amy Freeland

Centers for Disease Control and Prevention

Simone French

University of Minnesota School of Public Health

Christine Fry

National Policy & Legal Analysis Network to Prevent Childhood Obesity

Janet Fulton

Centers for Disease Control and Prevention

Mara Galic

Centers for Disease Control and Prevention

Susan Gallagher

Tufts University School of Medicine

Jon Gallegos

Colorado Department of Health

Amy Garcia

National Association of School Nurses

Sara Gasiorowski

School Nutrition Association

Robert Geller

Southeast Pediatric Environmental Health Specialty Unit

Andrea Gielen

Safe Kids USA

Gretchen Gigley

The Clean Air Campaign

Julie Gilchrist

Centers for Disease Control and Prevention

Claude Gilmore

Wisconsin Department of Health

Gerard Gioia

Children's National Medical Center

Mal Goldsmith

American Association for Health Education

Sarah Duggan Goldstein

American Medical Association

Carol Goodenow

Massachusetts Department of Education

Susan Gorin
National Association of School Psychologists

Dawn Graff-Haight
Linfield College

Tiffani Grant
Mississippi Department of Health

Miranda Graves
Arizona Department of Education

Amanda Greenberg
American Academy of Child & Adolescent Psychiatry

Amy Greene
National Association of Chronic Disease Directors

Brenda Greene
National School Boards Association

Victoria Greenwell
Kentucky Department of Education

Kyle Guerrant
Michigan Department of Education

Madra Guinn-Jones
American Academy of Pediatrics

Joanne Guthrie
U.S. Department of Agriculture

David Guthrie
Centers for Disease Control and Prevention

Joyce Haas
American Academy of Family Physicians

Mary Haley
Action for Healthy Kids

Elizabeth Haller
Centers for Disease Control and Prevention

Lynn Hammond
South Carolina Department of Education

Dave Handy
Communities in Schools

Renee Hanks
School Nutrition Association

Margaret Hansen
Washington Department of Health

Kristen Harper
Office of Safe and Drug-Free Schools

Diane Harris
Centers for Disease Control and Prevention

Lynn Harvey
North Carolina Department of Public Instruction

Donna Heins
Connecticut Department of Education

Dominique Helou-Testerman
American Lung Association

Anne Henderson
Annenberg Institute for School Reform

Jeanne Herman
Gustavus Adolphus College

Marci Hertz
Centers for Disease Control and Prevention

Jay Hirschman
U.S. Department of Agriculture

Cindy Hormel
U.S. Department of Agriculture

Nora Howley
National Education Association Health Information Network

Edward Hoyt
National Association of Independent Schools

Valerie Hunt
National Athletic Trainers Association

Pete Hunt
Centers for Disease Control and Prevention

Karen Huss
American Nurses Association

Appendix 1: National Reviewers

Brent Ibata

Four Rivers Clinical Research, Inc.

Judy Itzkowitz

Educational Consultant

Sally Jacko

Injury Free Coalition for Kids

Crystal Jackson

Atlanta Regional Commission

Kayla Jackson

National Network for Youth

Gary Jenkins

*National Alliance of State and Territorial AIDS
Directors*

Marilyn Jensen

University of South Dakota

John Jereb

Centers for Disease Control and Prevention

Dan Jernigan

Centers for Disease Control and Prevention

Sandra Jeter

South Carolina Department of Health

Estell Johnson

Injury Free Coalition for Kids

Lloyd Johnston

University of Michigan

Sherry Everett Jones

Centers for Disease Control and Prevention

Jennifer Joseph

*National Association of County and City Health
Officials*

Anupama Joshi

National Farm to School Network

Jody Kakacek

Epilepsy Foundation

Robert Kanaby

*National Federation of State High School
Associations*

David Kaplan

American Counseling Association

Christine Karshin

Eastern Michigan University

Dan Kavanaugh

Health Resources and Services Administration

Heather Keesing

*National Association of Pediatric Nurse
Practitioners*

Julie Keller

Nez Perce Department of Health

James Kelly

National Association of Social Workers

Sandra Klarenbeek

Black Hills University

Katrin Kohl

Centers for Disease Control and Prevention

Lloyd Kolbe

Retired

Melanie Konarik

School Nutrition Association

Joneen Krauth-MacKensie

Center for Relationship Education

Renee Kuhlman

National Trust for Historic Preservation

Oksana Kurylak

Emergency Nurses Association

Amy Kyle

University of California Berkeley

Loren LaCorte

U.S. Department of Agriculture

Kyle Lafferty

Society of State Directors of Health, Physical Education, and Recreation

Amy Becker LaFrance

University of Minnesota

Leslie Langbert

National 4-H Council

Nancy Langenfeld

Charlotte-Mecklenburg Schools

Sarah Lee

Centers for Disease Control and Prevention

Wendy Leedy

Brain Injury Association of America

Rebecca Lemmons

Idaho Department of Health

Sandra Leonard

Centers for Disease Control and Prevention

Karen Levin

National Center for Disaster Preparedness

Karen Lewis

National School Boards Association

Michael Ludwig

Hofstra University

Adrian Lyde

Illinois State University

Erin Lyons

Children's Safety Network

Richard Lyons

Maine School Administrative District #22

Leslie Lytle

University of Minnesota School of Public Health

Jaci MacCormack

Nez Perce Department of Education

Jane Mandell

U.S. Department of Agriculture

Jennifer Mane

New York Department of Health

Andrew Manthe

California Department of Health

Lauren Marchetti

National Center for Safe Routes to School

Mary Marks

California Department of Education

Judy Marks

National Clearinghouse for Educational Facilities

Ximena Marquez

AIDS Alliance for Children, Youth, and Families

Amanda Martinez

National School Boards Association

J. Martin-Heppel

Health Resources and Services Administration

Melanie Marty

California Environmental Protection Agency

Susan Martz

New Jersey Department of Education

Eva Marx

School Health Consultant

Maryann Mason

Center for Obesity Management and Prevention

Sr. Dale McDonald

National Catholic Educational Association

Laura McDowell

Arkansas Department of Education

Eva McGann

Institute for Youth Development

Gabriel McNeal

Minnesota Department of Health

Shane McNeill

Mississippi Department of Education

Appendix 1: National Reviewers

Linda Meeder

Jackson Public School District

Lucinda Mejdell-Awbrey

Visalia Unified School District

Cynthia Melde

Arizona Department of Health

Toby Merlin

Centers for Disease Control and Prevention

Caitlin Merlo

Centers for Disease Control and Prevention

Dee Merriam

Centers for Disease Control and Prevention

Shannon Michael

Centers for Disease Control and Prevention

Jonathan Midgett

Consumer Products Safety Commission

Judy Morin

Maine Department of Education

James Morrow, Jr

University of North Texas

Linda Morse

*Former Coordinated School Health
Coordinator for New Jersey*

Amy Moyer

Action for Healthy Kids

Robert Murray

American Academy of Pediatrics

Sharon Murray

*Rocky Mountain Center for Health Promotion
and Education*

Rebecca Myers

National Association of Social Workers

Susie Nanney

University of Minnesota School of Public Health

Allison Nihiser

Centers for Disease Control and Prevention

Chris Nowinski

Sports Legacy Institute

Larry Olsen

American Public Health Association

Amy O'Neil

Maine Department of Education

Denise Osborn

*Association of State and Territorial Health
Officials*

Terry O'Toole

Centers for Disease Control and Prevention

Michelle Owens

Alliance for a Healthier Generation

Terry Parker

Centers for Disease Control and Prevention

Russell Pate

American College of Sports Medicine

Beth Pateman

University of Hawaii at Manoa

Terry Pechacek

Centers for Disease Control and Prevention

Frank Perna

National Cancer Institute

Alexa Posny

U.S. Department of Education

Lissa Pressfield

*Association of Maternal and Child Health
Programs*

James Price

University of Toledo

Jane Pritzl

Consultant

Karen Probert

*Association of State and Territorial Public
Health*

Katherine Pruitt

American Lung Association

Melanie Purkey

West Virginia Department of Education

Jodi Rankin

Mississippi Department of Health

Carol Riley

National Association of Elementary School Principals

Elena Rios

National Hispanic Medical Association

Leah Robin

Centers for Disease Control and Prevention

Marisela Rodela

National Association of County and City Health Officials

Sharon Rodriguez

Council for Exceptional Children

Monica Rodriguez

Sexuality Information and Education Council of the United States

Laura Rooney

Ohio Department of Health

Rebecca Rubin

Education-Training-Research Associates

Susan Giarratano Russell

Centers for Disease Control and Prevention

Charlene Russell-Tucker

Connecticut State Department of Education

Jim Sallis

San Diego State University

Sarah Samuels

Samuels & Associates

Diane Santa Maria

Medical Institute

Shirly Schantz

National Association of School Nurses

Gail Schauer

North Dakota Department of Education

Ellen Schmidt

Children's Safety Network

David Schonfeld

Cincinnati Children's Hospital Medical Center

Elizabeth Schroeder

Answer

Cathy Schuchart

School Nutrition Association

Linda Scruggs

AIDS Alliance for Children, Youth, and Families

Denise Seabert

Ball State University

Amy Sechler

National Association of Independent Schools

Mlatibe Seidou

American Association of School Administrators

Kari Senger

South Dakota Department of Education

Ku'ulei Serna

University of Hawaii at Manoa

Sandra Serna Smith

National Coalition of STD Directors

Susan Shaffer

Maryland State Parental Information Resource Center

Sue Shaw

Centers for Disease Control and Prevention

Linda Sheriff

National School Boards Association

Lauren Shirey

National Association of County and City Health Officials

Appendix 1: National Reviewers

Ruth Shults

Centers for Disease Control and Prevention

Tom Simon

Centers for Disease Control and Prevention

Tasmeen Singh

Health Resources and Services Administration

Alisa Smith

Environmental Protection Agency

Danene Sorace

Retired

Jackie Sowers

Society of State Directors of Health, Physical Education, and Recreation

Susan Spalt

Retired

Bradley Stein

RAND Corporation

Melissa Steiner

Medical Institute

Donna Stein-Harris

National Safety Council

Ronald Stephens

National School Safety Center

Patricia Stewart

Idaho Department of Education

Shannon Stokley

Centers for Disease Control and Prevention

Mary Story

University of Minnesota School of Public Health

Elaine Suehnholz

New Jersey Department of Health

Stephanie Swan

University of Maine—Farmington

Cynthia Symons

Kent State University

Marlene Tappe

Minnesota State University—Mankato

Howard Taras

American Academy of Pediatrics

Heidi Taylor

American Red Cross

Julie Taylor

Education-Training-Research Associates

Linda Taylor

School Mental Health Project/Center for Mental Health in Schools

Susan Telljohann

University of Toledo

Mark Temple

Illinois State University

Andra Teton

Centers for Disease Control and Prevention

Ann Thacher

Directors of Health Promotion and Education

Patricia Thickstun

Medical Institute

Donna Thompson

National Program for Playground Safety

Sarah Titzer

Action for Healthy Kids

Valerie Ubbes

Miami University

Amra Uzicanin

Centers for Disease Control and Prevention

James Vanderhook

National Parent Teacher Association

Anna Vanderkleed

Center for Relationship Education

Mary Vernon-Smiley

Centers for Disease Control and Prevention

Tara Vogt
Centers for Disease Control and Prevention

Elizabeth Walker
National Association of State Boards of Education

Dawn Warehime
National Emergency Training Center

Jane Wargo
President's Council on Physical Fitness and Sports

Mary Waters
American Cancer Society

Robyn Watson
United Negro College Fund Special Programs Corporation

Rebecca Watts Hull
Mothers & Others for Clean Air

Brian Weaver
Wisconsin Department of Education

Candace Webb
AIDS Alliance for Children, Youth, and Families

Howell Wechsler
Centers for Disease Control and Prevention

Cindy Weinbaum
Centers for Disease Control and Prevention

Mark Weist
Center for School Mental Health

Gregory Welk
Cooper Institute

Arthur Wendel
Centers for Disease Control and Prevention

Craig Wethington
Ohio Department of Education

Lani Wheeler
School Health Consultant

Bruce Whitehead
National Interscholastic Athletic Administrators Association

Laurie Whitsel
American Heart Association

Katherine Wilbur
Alliance for a Healthier Generation

David Wiley
Texas State University

Gene Wilhoit
Council of Chief State School Officers

Paul Williams
American Medical Association

Amber Williams
Safe States Alliances

Greg Williamson
Washington Department of Education

Katie Wilson
National Food Service Management Institute

Kelly Wilson
Texas State University

Tracy Windeknecht
Girls Incorporated

Linda Wolfe
Delaware Department of Education

Christine Wood
Association of State and Territorial Dental Directors

Deborah Wood
California Healthy Kids Resource Center

Susan Wooley
American School Health Association

Karen Krabill Yoder
Michigan Department of Health

Appendix 1: National Reviewers

Nicole Yohalem

Forum for Youth Investment Director of Special Projects

Laura York

Massachusetts Department of Education

Cathy Young-Jones

National Association of State School Nurse Consultants

Nora Zamora

California Healthy Kids Resource Center

Francesca Zavacky

National Association for Sport and Physical Education

Appendix 2: Estimated Standard Errors for District-Level Questionnaires

Figure 1
Estimated Standard Error for District-Level Health Education Questionnaire,
School Health Policies and Practices Study, 2012

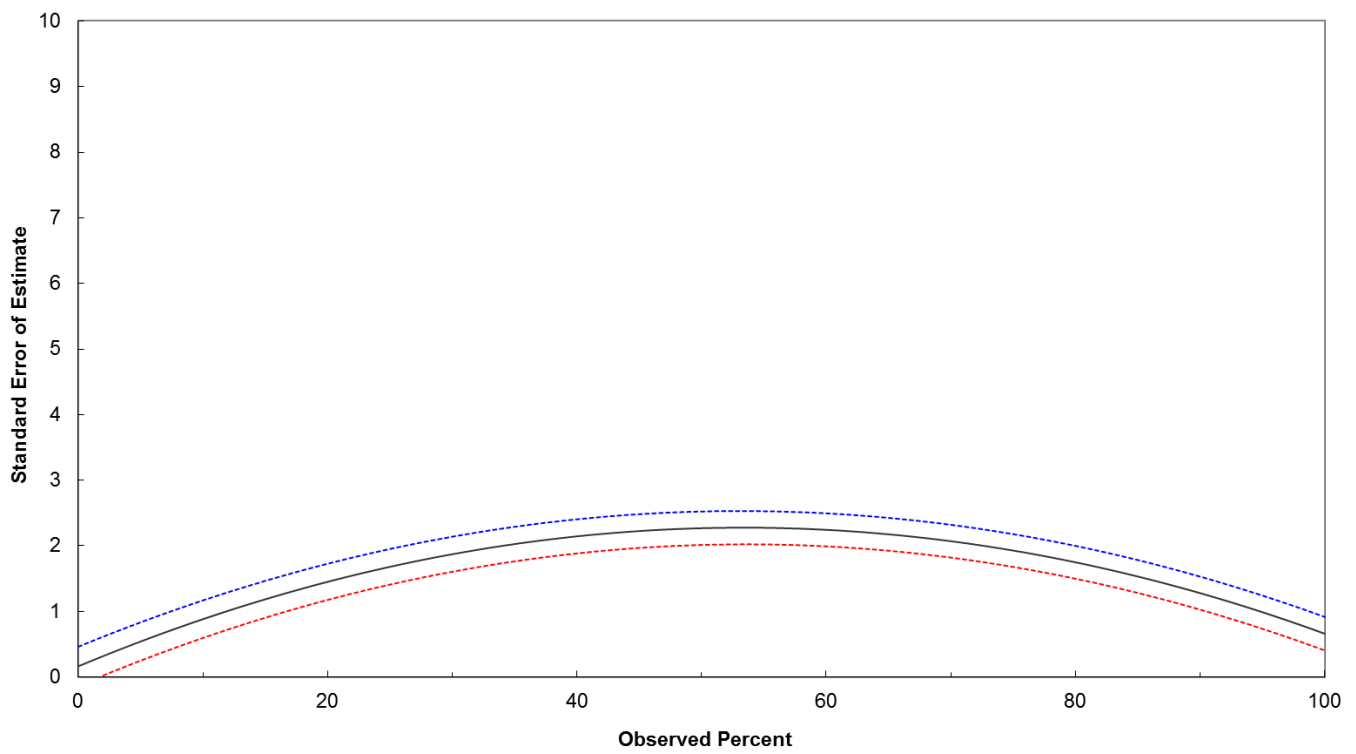


Figure 2
Estimated Standard Error for District-Level Physical Education and Activity Questionnaire,
School Health Policies and Practices Study, 2012

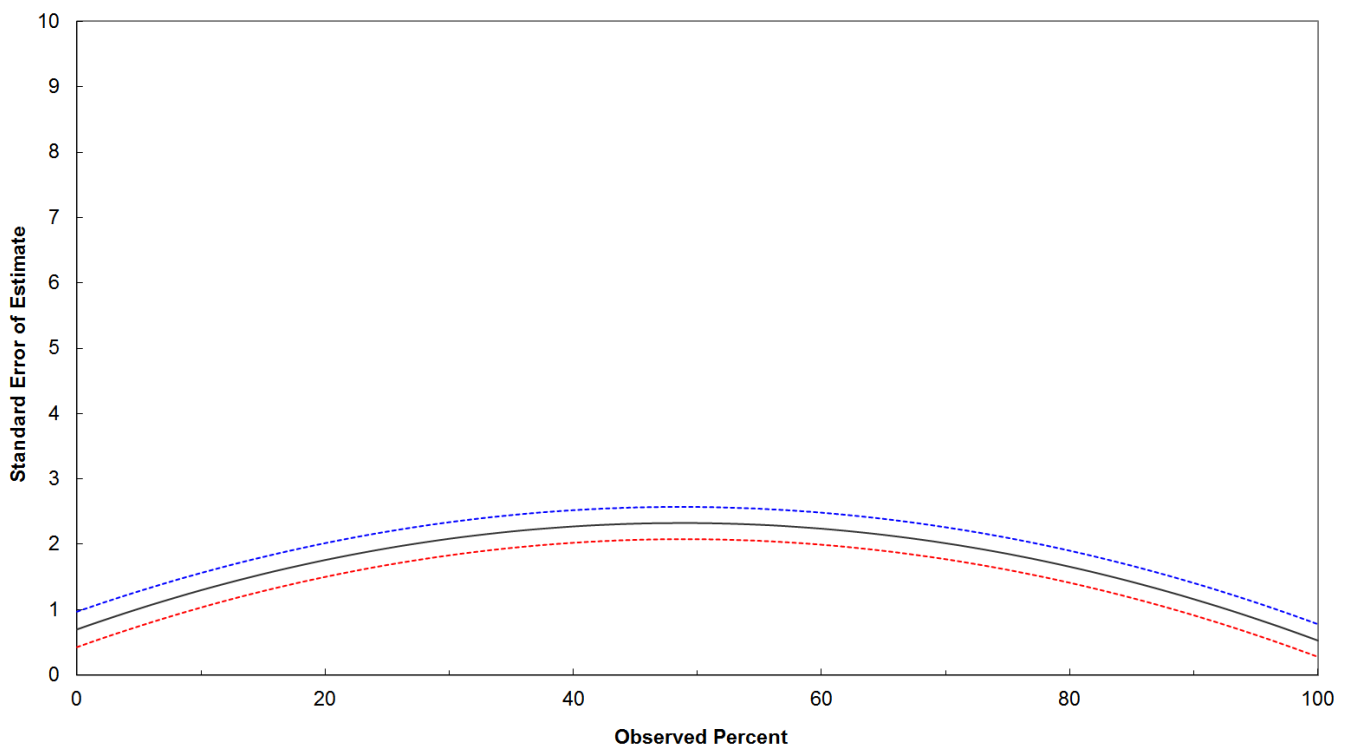


Figure 3
Estimated Standard Error for District-Level Health Services Questionnaire,
School Health Policies and Practices Study, 2012

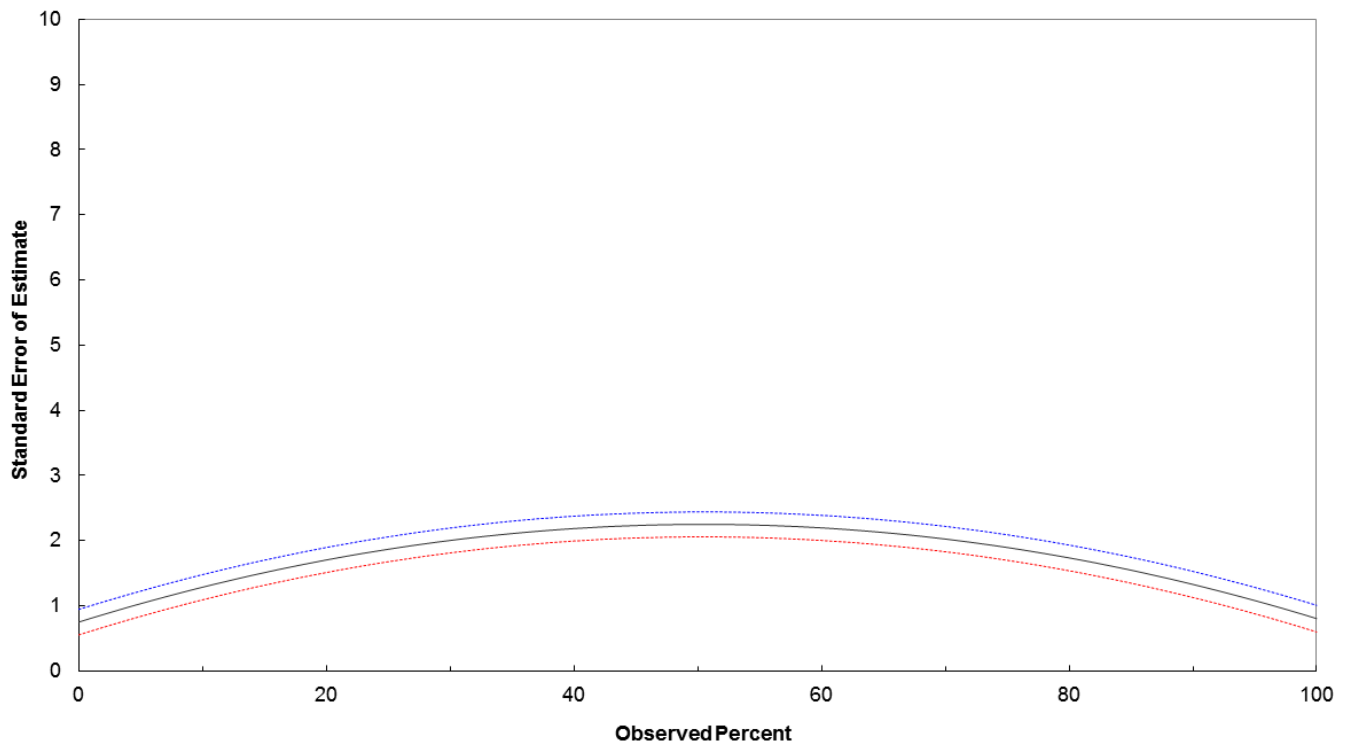


Figure 4
Estimated Standard Error for District-Level Mental Health and Social Services Questionnaire,
School Health Policies and Practices Study, 2012

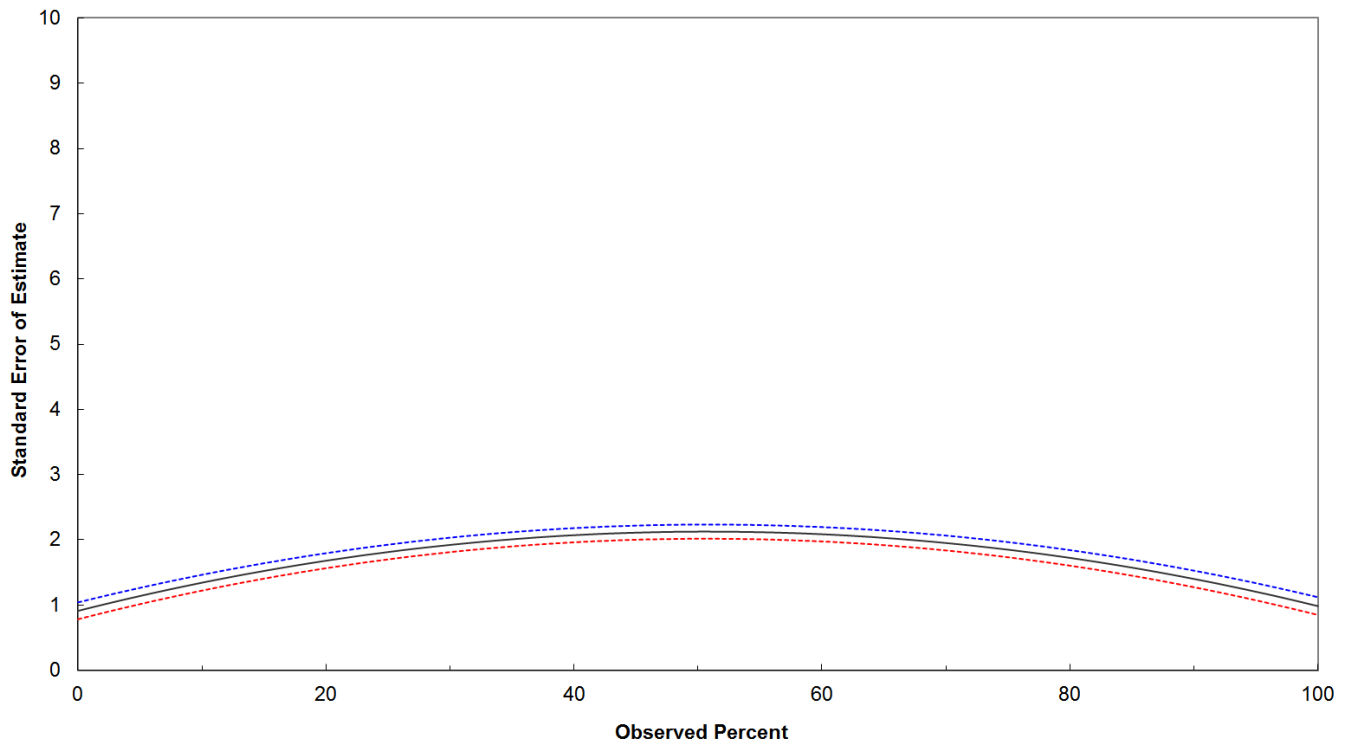


Figure 5
Estimated Standard Error for District-Level Nutrition Services Questionnaire,
School Health Policies and Practices Study, 2012

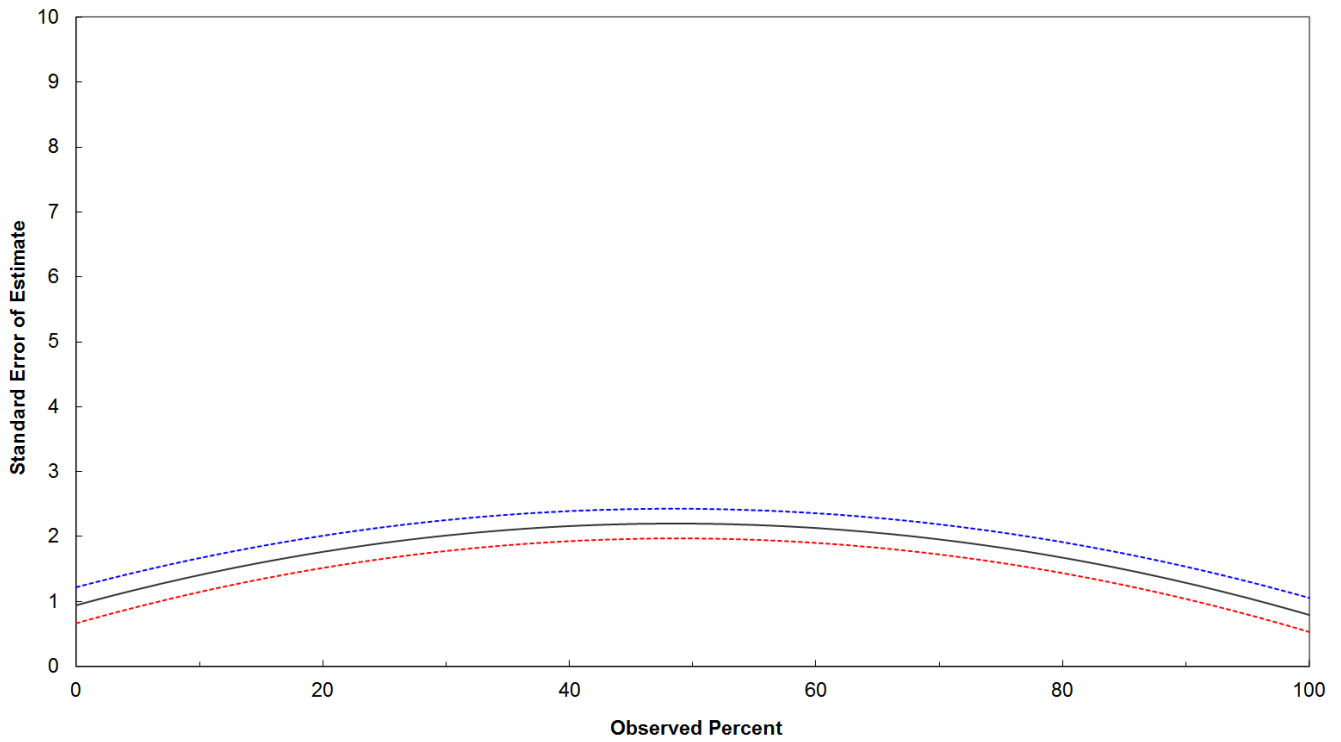


Figure 6
Estimated Standard Error for District-Level Healthy and Safe School Environment
Questionnaire,
School Health Policies and Practices Study, 2012

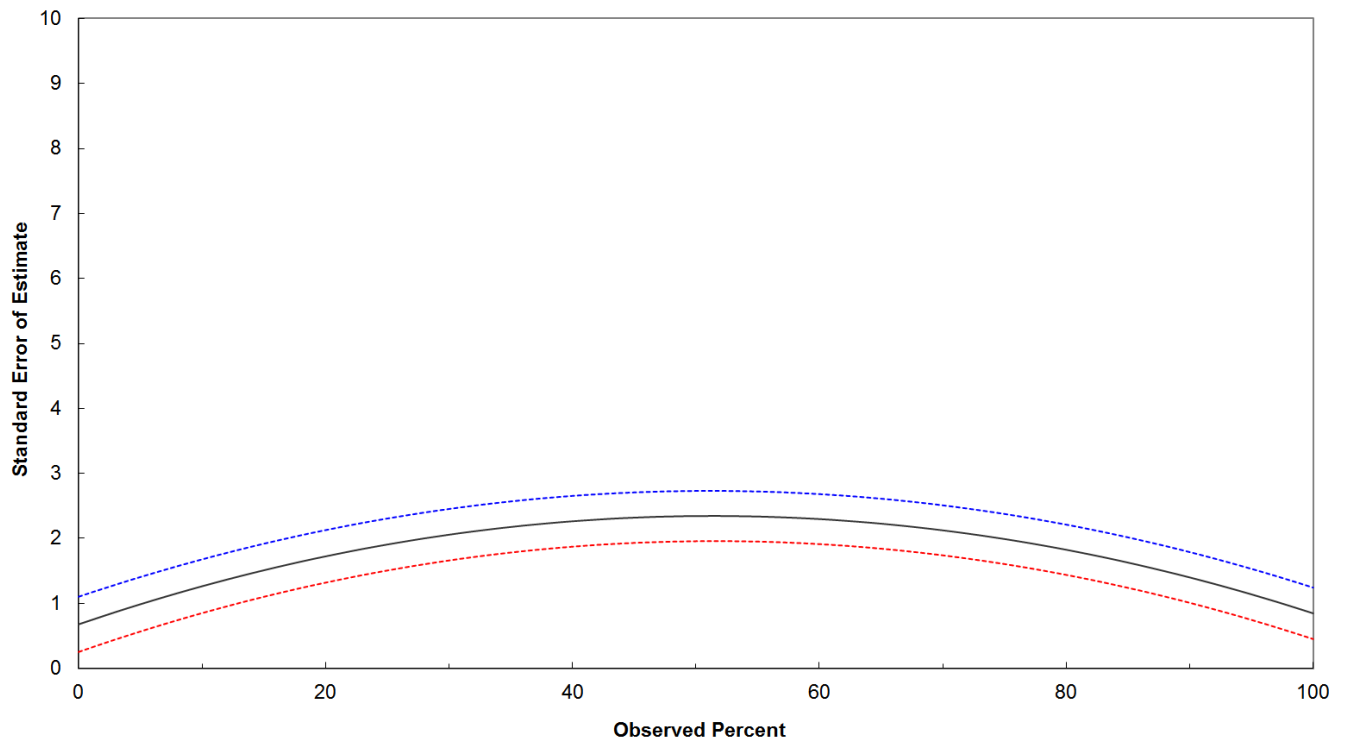


Figure 7
Estimated Standard Error for District-Level Faculty and Staff Health Promotion
Questionnaire,
School Health Policies and Practices Study, 2012

