Building a Healthier Future Through School Health Programs

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The Critical Need for Effective School Health Programs

In the United States, 53 million young people attend nearly 129,000 schools for about 6 hours of classroom time each day for up to 13 of the most formative years of their lives.[1] More than 95% of young people aged 5–17 years are enrolled in school. Because schools are the only institutions that can reach nearly all youth, they are in a unique position to improve both the education and health status of young people throughout the nation.

Supporting school health programs to improve the health status of our nation's young people has never been more important. Many of the health challenges facing young people today are different from those of past decades. Advances in medications and vaccines have largely reduced the illness, disability, and death that common infectious diseases once caused among children. Today, the health of young people, and the adults they will become, is critically linked to the health-related behaviors they choose to adopt. Certain behaviors that are often established during youth contribute markedly to today's major causes of death, such as heart disease, cancer, and injuries. These behaviors include

- Using tobacco.
- Eating unhealthy foods.
- Not being physically active.
- Using alcohol and other drugs.
- Engaging in sexual behaviors that can cause HIV infection, other sexually transmitted diseases, and unintended pregnancies.
- Engaging in behaviors that can result in violence or unintentional injuries.

Three of these behaviors—tobacco use, unhealthy eating, and inadequate physical activity—contribute to chronic diseases such as cardiovascular disease, cancer, and type 2 diabetes. These behaviors are typically established during childhood and adolescence, and recent trends have been alarming. Young people are clearly at risk, as the following data show:

- Every day, nearly 5,000 young people try their first cigarette.[2]
- In 2001, only 32% of high school students participated in daily physical education classes, compared with 42% of students in 1991.[3]
- Seventy-nine percent of young people do not eat the recommended five servings of fruits and vegetables each day.[4]
- Each year, more than 900,000 adolescents become pregnant,[5,6] and about 3 million become infected with a sexually transmitted disease.[7]

Rigorous studies in the 1990s showed that health education in schools can reduce the prevalence of health-risk behaviors among young people.

- Studies using a multiple-session school curriculum based on the social influences model and delivered to sixth and seventh grade students achieved significant reductions in smoking among these students through the ninth grade.[8]
- The prevalence of obesity decreased among girls in grades 6–8 who participated in a school-based intervention program.[9]

- Middle/junior high school students enrolled in the school-based Life Skills Training Program were less likely than other students to use tobacco, alcohol, or marijuana, and these effects lasted through the 12th grade (www.lifeskillstraining.com).[10]

School health programs can play a critical role in promoting healthy behaviors while enhancing academic performance. In 1998, Congress noted the opportunity our nation's schools offer when it urged CDC to "expand its support of coordinated health education programs in schools."

Healthy People 2010

Healthy People 2010 outlines 467 national health objectives, of which 107 are directed specifically toward adolescents and young adults (i.e., 10- to 24-year-olds). Among these 107 objectives, 21 are identified as "critical" on the basis of two criteria: 1) they involve critical health outcomes or behaviors that contribute to them, and 2) state-level data necessary to measure progress in meeting the objective are available or soon will be.[4]

Healthy People 2010 Critical Objectives Related to Chronic Disease Prevention Among Adolescents and Young Adults

Among the 21 critical objectives for adolescents and young adults, four relate directly to chronic disease prevention.

- *Objective 27-02:* Reduce tobacco use by adolescents.
- *Objective 27-03:* Reduce initiation of tobacco use among children and adolescents.
- *Objective 19-03:* Reduce the proportion of children and adolescents who are overweight or obese.
- *Objective 22-07:* Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardiorespiratory fitness 3 or more days per week for 20 minutes per occasion.

Healthy People 2010 Objectives Related to Schools and Chronic Disease Prevention

Of the 107 *Healthy People 2010* objectives related to adolescents and young adults, 10 focus on the role of schools in improving the health of young people.

- *Objective 07-02:* Increase the proportion of middle, junior high, and senior high schools that provide 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; inadequate physical activity; and environmental health.
- *Objective 07-04:* Increase the proportion of elementary, middle, junior high, and senior high schools that have a nurse-to-student ratio of at least 1:750.
- *Objective 15-31:* Increase the proportion of public and private schools that require use of appropriate head, face, eye, and mouth protection for students participating in school-sponsored physical activities.
- *Objective 19-15:* Increase the proportion of children and adolescents aged 6 to 19 years whose intake of meals and snacks at schools contributes proportionally to good overall dietary quality.
- *Objective 21-13:* Increase the proportion of school-based health centers with an oral health component.
- *Objective 22-08:* Increase the proportion of public and private schools that require daily physical education for all students.
- *Objective 22-09:* Increase the proportion of adolescents who participate in daily school physical education.
- *Objective 22-10:* Increase the proportion of adolescents who spend at least 50% of school physical education class time being physically active.
- *Objective 22-12.* Increase the proportion of public and private schools that provide access to their physical activity spaces and facilities for all persons outside of normal school hours (that is, before and

after the school day, on weekends, and during summer and other vacations).

- *Objective 27-11:* Increase smoke-free and tobacco-free environments in schools, including all school facilities, property, and vehicles, and at all school events.

Promising Practices for School Health Programs

This document describes promising practices that states should consider when planning school-based policies and programs to help young people avoid behaviors that increase their risk for obesity and chronic disease, especially tobacco use, unhealthy eating, and inadequate physical activity. These promising practices incorporate four key concepts.

1. Coordinate Multiple Components and Use Multiple Strategies.

Modern school health programs integrate the efforts and resources of education, health, and social service agencies to provide a comprehensive set of programs and services to promote health and prevent chronic diseases and their risk factors among young people. Such school health programs systematically coordinate the following eight components: 1) health services; 2) health education; 3) efforts to ensure healthy physical and social environments; 4) nutrition services; 5) physical education and other physical activities; 6) counseling, psychological, and social services; 7) health programs for faculty and staff; and 8) collaborative efforts of schools, families, and communities to improve the health of students, faculty, and staff (Figure 1).

Resources

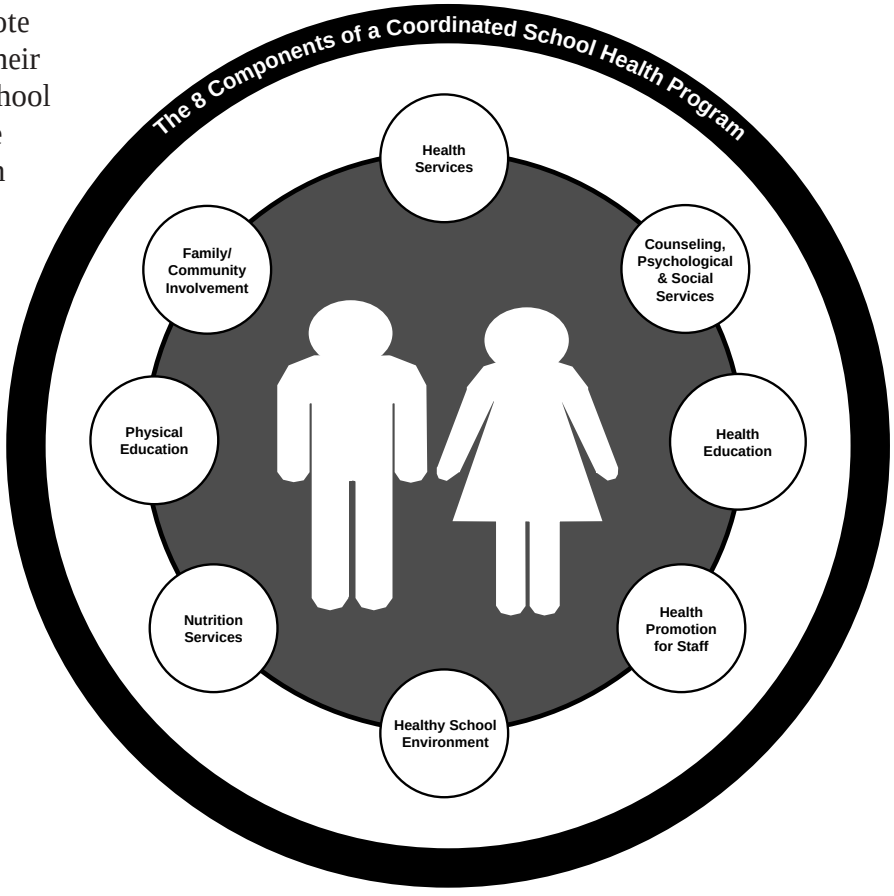
- *Building Business Support for School Health Programs.* 1999. National Association of State Boards of Education. Available from www.nasbe.org/HealthySchools.

A coordinated school health program provides a framework for school districts and schools to use in organizing and managing school health initiatives. It also provides an organizational framework for state agencies to use in planning and coordinating school health initiatives, synchronizing comparable public health and school health programs, and efficiently using multiple funding sources to improve the health and education of young people.

2. Coordinate the Activities of Health and Education Agencies and Other Organizations Working to Improve the Health of Young People.

Health and education agencies share the common goal of improving and protecting the health and well-being of young people, so collaboration should be encouraged at all levels. It is important to build a

Figure 1. A Coordinated School Health Program (CSHP)



state-level structure that supports the implementation of a coordinated approach to school health. Bringing together key resources, programs, and decision makers within a supportive structure demonstrates that school health programs are a priority and models a collaborative structure for those involved in implementing school health programs at the local level. State health and education agencies that do not have a school health coordinator position should be encouraged to establish one to facilitate communication and coordination of programs among key players.

3. Implement CDC's School Health Guidelines.

Developed after an exhaustive review of published research and with input from academic experts and national, federal, and voluntary organizations interested in child and adolescent health, CDC's school health guidelines offer specific recomendations to help states, districts, and schools implement school health programs and policies that have been found to be most effective in promoting healthy behaviors among young people.

CDC's school health guidelines emphasize multiple strategies to prevent tobacco use, promote physical activity and healthy eating, and reduce rates of obesity among young people. The guidelines also identify priorities for state decision makers to consider. Recommendations address policy development, curriculum development and selection, instructional strategies, environmental changes, direct interventions, professional development, family and community involvement, program evaluation, and linkages among components of a coordinated school health program.

A number of tools have been developed that can help schools implement the CDC school health guidelines. These include the following:

- CDC's *School Health Index for Physical Activity, Healthy Eating, and a Tobacco-Free Lifestyle: A Self-Assessment and Planning Guide.* This tool enables schools to identify strengths and weaknesses of health promotion policies and programs; develop an action plan for improving student health; and involve teachers, students, parents and the community in promoting health-enhancing behaviors and better health.
- *Fit, Healthy, and Ready to Learn: A School Health Policy Guide.* This policy guide from the National Association of State Boards of Education provides direction on establishing an overall policy framework for school health programs and specific school policies to promote physical activity and healthy eating and discourage the use of tobacco. The guide is designed for use by states, school districts, and individual schools, both public and private.
- *Changing the Scene: A Guide to Local Action.* This kit from the U.S. Department of Agriculture promotes discussion of healthy school nutrition environments at the local, state, and national levels. Tools within the kit will help school administrators, teachers, parents, school food-service professionals, and community and business leaders to work together to support changes in the school nutrition environment.

Resources

- *Guidelines for School Health Programs to Prevent Tobacco Use and Addiction. MMWR* 1994;43(RR-2). Available at www.cdc.gov/nccdphp/dash/guidelines.
- *Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People. MMWR* 1997;46 (RR-6). Available at www.cdc.gov/nccdphp/dash/guidelines.
- *Guidelines for School Health Programs to Promote Lifelong Healthy Eating.* CDC. *MMWR* 1996;45(RR-9). Available at www.cdc.gov/nccdphp/dash/guidelines.

4. Use a Program Planning Process to Achieve Health Promotion Goals.

The exact nature of coordinated school health programs depends on the unique needs of the school

population and on the resources available to the school and community. Having a program planning process in place is critical for program improvement and long-range planning. This process, which should involve all stakeholders, includes defining priorities on the basis of a population's unique needs, determining what resources are available, developing a strategic plan based on realistic goals and measurable objectives, and establishing processes for determining whether these goals and objectives are met and for continuously improving the program.[11]

Resources

- *Step by Step to Comprehensive School Health: The Program Planning Guide*. ETR Associates. Available at www.etr.org/pub.
- *Step by Step to Health-Promoting Schools*. ETR Associates. Available at www.etr.org/pub.

Eight Priority Actions for Improving the Health of Young People

In the remainder of this chapter, we discuss the following eight priority actions that states can take to improve the health and academic outcomes of their young people.

1. Monitor critical health-related behaviors among young people and the effectiveness of school policies and programs in promoting health-enhancing behaviors and better health.
2. Establish and maintain dedicated program-management and administrative-support systems at the state level.
3. Build effective partnerships among state-level governmental and nongovernmental agencies and organizations.
4. Establish policies to help local schools effectively implement coordinated school health programs and CDC's school health guidelines.
5. Establish a technical-assistance and resource plan that will provide local school districts with the help they need to effectively implement CDC's school health guidelines.
6. Implement health communications strategies to inform decision makers and the public about the role of school health programs in promoting health and academic success among young people.
7. Develop a professional-development plan for school officials and others responsible for establishing coordinated school health programs and implementing CDC's school health guidelines.
8. Establish a system for evaluating and continuously improving state and local school health policies and programs.

Priority 1. Monitor Critical Health-Related Behaviors Among Young People and the Effectiveness of School Policies and Programs in Promoting Health-Enhancing Behaviors and Better Health.

Conduct a statewide assessment of critical health-risk behaviors and the policies and programs designed to discourage them.

School health programs should be based on high-quality data describing the health-risk behaviors of young people and the characteristics of the policies and programs already in place to address those behaviors. The Council of State and Territorial Epidemiologists has approved the following set of adolescent health-risk indicators for inclusion in the National Public Health Surveillance System:[12]

- Cigarette smoking.
- Smokeless tobacco use.
- Consumption of fewer than five servings of fruits or vegetables daily.
- Lack of vigorous and moderate physical activity.
- At risk for being overweight.
- Overweight.
- Alcohol use.
- Binge drinking.

To obtain continuous, high-quality, comparable data for each indicator and other measures of chronic disease risk factors, states can conduct a Youth Risk Behavior Survey (YRBS) every 2 years among representative samples of 9th through 12th grade students. States can supplement the YRBS data with data from the Youth Tobacco Survey (YTS) or other

surveys assessing relevant health-related behaviors and their determinants among young people. States conducting the YRBS, YTS, or other school-based surveys can receive technical assistance from CDC in selecting the sample and implementing the survey, thus reducing the burden that multiple school-based surveys can place on schools.

To evaluate the effectiveness of school health policies and programs, states can develop School Health Education Profiles every 2 years by surveying representative samples of middle/junior high and senior high schools. These surveys provide information on local education and health policies, including tobacco-use-prevention policies, nutrition-related policies, violence-prevention policies, health education, and physical education and physical activity programs.

States should create a framework for coordinating state-level data-gathering and data-analysis activities and establish ongoing processes for selecting samples, collecting data, interpreting results, writing reports for state and local decision makers, and sharing data with agencies and organizations interested in improving the health of young people. Results from the YRBS and the profiles can be disseminated to key decision makers in both the public health and education sectors, such as state and local health officers, education administrators, school board members, legislators, and parents. CDC, in collaboration with state and local agencies, has developed tools to help states plan and conduct these important surveillance activities.

YRBS and School Health Education Profiles data can be used to describe the extent and type of health-risk behaviors among students, raise public awareness of these behaviors, set program goals, develop health education programs, monitor health education policies and programs, support professional development, and support health-related legislation.

States can also participate in national surveys that measure health-risk behaviors among young people, such as the National Youth Risk Behavior Survey, or that measure school health policies and programs, such as the School Health Policies and Programs Study (SHPPS). These surveys provide national data that can be compared with state-level data.

As an example of how state survey data can be used, every 2 years the Montana Office of Public Instruction distributes the *Montana School Health Education Profile: The Status of Health Education in Montana Schools* to state leaders, parents, and others interested in school health education. This document is used to set policy and establish priorities for improving health education programs. For more information, contact the Montana Department of Education at 406-444-1963.

Funding Estimate: CDC provides technical assistance and support to help states conduct the YRBS. CDC recommends that states appropriate about $50,000 every 2 years to complete a state-level YRBS.

Resources

- *Youth Risk Behavior Surveillance System* (YRBSS): Information about the YRBSS is available at www.cdc.gov/yrbs.
- *School Health Policies and Programs Study* (SHPPS): Information about SHPPS and sample questionnaires are available at www.cdc.gov/shpps.
- *Handbook for Conducting Youth Risk Behavior Surveys* (YRBS). Centers for Disease Control and Prevention, 2000. Contact CDC at 770-488-6170.
- *PC Sample/PC School: Survey TA Sampling Software.* Centers for Disease Control and Prevention, 2000. Contact CDC at 770-488-6170.
- *Handbook for Developing School Health Education Profiles* (SHEP). Centers for Disease Control and Prevention, 2000. Contact CDC at 770-488-6170.

Support local-level assessments of school health policies and programs.

States can support local assessments of school health policies and programs to determine their strengths and weaknesses and to identify the resources needed to successfully implement priority school health guidelines. The information can be useful to local school and community leaders in developing a strategic plan for improving the health and education of youth.

CDC's *School Health Index for Physical Activity, Healthy Eating, and a Tobacco-Free Lifestyle: A Self-Assessment and Planning Guide* can help school officials assess the strengths and weaknesses of the eight components of their school health program and of other policies and programs related to chronic disease prevention, establish priorities for improving programs, and monitor changes in processes and outcomes.

Resources

- *School Health Index for Physical Activity, Healthy Eating, and a Tobacco-Free Lifestyle: A Self-Assessment and Planning Guide.* Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000. Available at www.cdc.gov/nccdphp/dash/SHI/index.htm.

State health and education agencies should also provide technical assistance and resources to support local-level assessment and assist schools in analyzing and using assessment results gathered through the *School Health Index* or other instruments.

Funding Estimate: While there are no state estimates for statewide use of the *School Health Index*, CDC estimates that the per-school cost of administering the *Index* should be minimal. The personnel costs for collecting and analyzing data and developing assessment reports could be borne by the school or school district.

Priority 2. Establish and Maintain Dedicated Program-Management and Administrative-Support Systems at the State Level.

State agencies collectively build the support systems to plan, implement, and evaluate fully functioning coordinated school health programs. By coordinating the allocation of new resources and using existing resources more efficiently, state agencies can help schools to meet the health needs of students and their families. To build a state-level infrastructure that supports coordinated school health programs, health and education agencies must work with other relevant state agencies such as social services, mental health, and environmental health as well as with nongovernmental organizations in the state. The heads of state government agencies must commit to supporting the process of infrastructure development. These leaders should focus on the following when developing infrastructure.

- **Personnel and Organizational Involvement:** State leaders of school health programs should identify the relevant state agencies and the personnel responsible for implementing school health-related policies and programs and should help to coordinate the delivery and use of resources for multi-agency programs related to school health.
- **Authorization and Funding:** State leaders should also 1) identify laws, directives, policies, and mandates that authorize school health programs and promote the implementation of school health guidelines at the local level and suggest new ones that may be needed; 2) obtain the funding needed to support school health programs and ensure that the funding can be used in flexible ways; and 3) establish interagency agreements to facilitate collaborative program planning and to provide resources for local school health programs.

  The search for funding sources can be complicated because coordinated school health programs cover many content areas and health problems. In addition, funding sources and application protocols change substantially from year to year.

CDC's *Healthy Youth Funding Database* provides access to an array of current information on federal, state, and private-sector funding. The easy-to-use database offers examples of how states use federal funds to support adolescent and school health programs.

Resources

- *Healthy Youth Funding Database.* CDC. Available at www.cdc.gov/nccdphp/shpfp/index.asp.

- **Technical Assistance and Resources:** State agency leaders should develop processes for identifying, developing, and disseminating resources for supporting coordinated school health programs and implementing CDC's school health guidelines at the school and district levels. They should identify existing human, data, technological, and material resources that could be used to enhance school health programs; obtain additional resources if they are needed; coordinate the use of professional development resources to improve statewide training networks; and coordinate the support provided by external partners, including institutions of higher education and philanthropic agencies.
- **Communications and Linkages:** State leaders must establish and strengthen linkages that will 1) build the state's capacity to assist in the local implementation of school health guidelines and coordinated school health programs, 2) strengthen collaborations among relevant partners, and 3) facilitate advocacy for school health programs. They should also establish communications networks to promote broad-based decision-making, to ensure that state-level policies and programs are adopted at the local level, and to promote the effective use of local school and district resources to enhance school health programs.

In addition to focusing on these important organizational supports, health and education leaders must help state school health-related staff develop the skills they need to effectively organize and manage school health programs. CDC, in collaboration with state agency staff in states funded for coordinated school health programs, has developed the *Coordinated School Health Program Infrastructure Development: Process Evaluation Manual* as a tool to help states build the necessary support for coordinated school health programs and institutionalize this support at the state and local levels.

Resources

- *Coordinated School Health Program Infrastructure Development: Process Evaluation Manual.* Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 1997. Available at www.cdc.gov/nccdphp/dash/publications/index.htm.

State agencies in Wisconsin and Rhode Island have completed assessments of their organizational capacity and leadership for school health and are using the results to strengthen their infrastructure for school health. California created a consensus document, *Blueprint for Action,* to set directions for state school health programs.

In collaboration with CDC and the National Professional Development Consortium for School Health, eight school health managers from state health and education agencies drafted *Responsibilities and Competencies for Managers of School Health Programs.* The draft document identifies five key areas of responsibility for such managers (management; policy; curriculum, instruction, and student assessment; professional development and technical assistance; and surveillance) and four types of competencies that these managers need to be successful (competency in needs assessment, planning, and collaboration; in marketing, information dissemination, and communications; in program implementation; and in monitoring and evaluation). Reducing health-risk behaviors among young people is a complex effort that requires cooperation and collaboration among many partners at the state,

Resources

- *Final Report: Comprehensive School Health Program Infrastructure Needs Assessment.* Providence: Rhode Island Department of Education and Department of Health, 1996. Available at www.health.state.ri.us/disprev/hshk/home.htm.
- *Supporting School Health: An Initial Assessment of Infrastructure for Comprehensive School Health, Student Services, Prevention and Wellness Programs. Phase One, DPI Status and Dynamics.* Madison, WI: Wisconsin Department of Public Instruction, 1995.
- *Building Infrastructure for Coordinated School Health: California's Blueprint.* Sacramento: California Department of Education, 2000. Available at www.cde.ca.gov.

regional, and local levels. At the state level, structures for intra-agency, interagency, and community partnerships must be developed.

Funding Estimate: CDC recommends that states allocate an average of $200,000 per year to support key positions in the health and education agencies.

Priority 3. Build Effective Partnerships Among State-Level Governmental and Nongovernmental Agencies and Organizations.

Reducing health-risk behaviors among young people is a complex effort that requires cooperation and collaboration among many partners at the state, regional, and local levels. At the state level, structures for intra-agency, interagency, and community partnerships must be developed.

Build coordination and planning within state agencies.

State departments of health can foster the intra-agency coordination of programs that address the needs of young people (e.g., maternal and child health, chronic disease, cardiovascular health, physical activity, nutrition, tobacco control) to ensure that these programs, which are often delivered in both community and school settings, are connected and efficient.

Similarly, state departments of education can foster the intra-agency coordination of programs such as Safe and Drug-Free Schools, health education, physical education, food services, health services, and counseling and psychological services. In short, state departments of both health and education should strive to build structures that foster intra-agency collaboration and planning. Such internal partnerships allow agencies to use resources more efficiently, improve communication among staff involved with complimentary programs, and, as a result, strengthen the programs themselves.

Resources

- *Schools and Health: Our Nation's Investment.* Institute of Medicine. Washington, DC: National Academy of Science Press, 1997; 247-52.
- *Coordinated School Health Program Infrastructure: Process Evaluation Manual.* Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 1997. Available at www.cdc.gov/nccdphp/dash/publications/index.htm.

Funding Estimate: Intra-agency coordinated planning does not necessitate a separate allocation; it should naturally occur as a part of effective program planning and implementation.

Promote collaboration among state agencies.

To reduce duplication of effort and maximize the use of limited state resources, leaders of state agencies should establish a school health interagency program committee. This committee's primary role would be to coordinate the management and implementation of multiple school health-related programs across agencies. State agencies can develop agreements (e.g., memoranda of understanding) that include jointly prepared plans for coordinating administrative responsibilities and activities among agencies.[13] The interagency collaboration can be coordinated and jointly led by school health leaders from the state education and health agencies. Other members

of this committee might include representatives from state agencies that address social services, justice, mental health, agriculture, substance abuse, parks and recreation, labor, economic development, and transportation, as well as representatives from the governor's office.

Such an interagency committee should not be limited to agency leaders. It should include the program staff who are responsible for promoting the implementation of school health guidelines and strengthening the delivery of services through local school health programs. The committee may take on a variety of roles and responsibilities, including the following:[14]

- Improve communication, planning, coordination, and collaboration among state agencies engaged in ongoing activities relevant to the health and academic achievement of young people.
- Identify needs and strategies for improving state leadership of school health programs.
- Identify and implement state policies and programs to facilitate quality school health programs.
- Coordinate federal, state, and philanthropic funding for school health programs awarded to state agencies.
- Help identify successful school health programs and disseminate information about them to school health officials throughout the state.
- Help coordinate health programs in private, voluntary, and post-secondary institutions.
- Prepare reports and make policy recommendations to relevant state officials.

Strong working relationships between state agencies are evident in Tennessee and Oregon. In Tennessee, for example, the state commissioners of education and health issued a joint statement on school health that resulted in the formation of a working group with members from each agency. As a result of this group's efforts, the agencies executed a memorandum of agreement that established a permanent working relationship between the two agencies and addressed all components of the Tennessee Coordinated School Health Program.

The Oregon Coordinated School Health Initiative is steered by the Blueprint Working Group, which is responsible for guiding the development of the Coordinated School Health Blueprint for Action. This 5-year strategic plan will outline the priority state and local actions to

- Build infrastructure for coordinated school health programs.
- Strengthen the components of coordinated school health programs.
- Address key health-risk behaviors among children and adolescents.

The Blueprint Working Group is made up of state agency program coordinators responsible for the various components of a coordinated school health program and health-related risk factors among children and adolescents. Members of the working group from the Oregon Department of Education include the coordinated school health program director, an HIV prevention specialist, the director of federal programs, a physical education specialist, a child nutrition programs specialist, the juvenile corrections director, a school counseling specialist, and a safe and drug-free schools specialist. Members from the the Oregon Department of Health include the coordinated school health program director, the adolescent health manager, Tobacco Program staff, Cardiovascular Health staff, School-Based Health Program staff, Immunization Program staff, the YRBS coordinator, Environmental Health staff, Family Planning/Teen Pregnancy Prevention staff, and Asthma Program staff. The working group also includes representatives from the Oregon Office of Alcohol and Drug Abuse Program, including staff from the Governor's Council on Alcohol Tobacco and Other Drugs, and the Youth Development Director from the Oregon Commission on Children and Families.

Funding Estimate: CDC recommends that states allocate approximately $5,000 per year to support state interagency program committee activities, including monthly meetings and the production and dissemination of materials and documents to the legislature, government agencies, schools, and others.

Establish a state school health coordinating council.

To expand access to school health resources and coordinate efforts of the larger community interested in improving the health of students, states can establish a school health coordinating council.[10] This council can include representatives from the interagency program committee; health and education leadership organizations such as the state school boards association; nongovernmental organizations such as the American Cancer Society; and associations representing health education, physical education, health care providers, post-secondary institutions, businesses, and community health coalitions, as well as parents and students.

States should establish policies and guidelines that will clearly define the roles and responsibilities of the school health coordinating council in establishing priorities for state school health programs. These roles and responsibilities could include the following:

- Developing statewide consensus on key issues related to school health programs and policies and communicating these issues to the interagency program committee.
- Showcasing effective and innovative coordinated school health programs for multiple audiences, including the state legislature.
- Conveying a clear vision of the role of school health programs in improving the health and academic achievement of students. Councils might convey this vision by developing consensus statements about the correlations between participation in such programs and academic success, by identifying and reducing the barriers to collaboration among state organizations concerned with the health and well-being of children and adolescents, or by integrating programs across agencies and organizations.
- Proposing appropriate state policies and legislation and helping school districts and schools implement the school health guidelines by disseminating resources such as the *School Health Index.*

The Rhode Island School Health Advisory Council was formed as a primary partner in the state's comprehensive school health initiative, *Healthy Schools! Healthy Kids!* The council comprises approximately 150 members representing various constituency groups concerned with changing health priorities, including representatives from state government, the state chapter of the American Academy of Pediatrics, hospitals, schools, community groups, colleges and universities, and various heart, lung, and cancer associations. The council developed Rhode Island's *Healthy Schools! Healthy Kids! Plan for Comprehensive School Health* and continues to implement the recommendations in the plan and to help identify new and emerging health priorities in school health.

Funding Estimate: CDC recommends that states allocate approximately $10,000–$25,000 per year to support a state school health coordinating council. These funds can support travel of non-state agency members, meeting facilities for four meetings per year, and the production of materials and documents for dissemination to the legislature, government agencies, schools, and others. Funds for the council could be allocated separately or could be included as a line item in a program budget to specifically address chronic disease risk reduction.

Priority 4. Establish Policies to Help Local Schools Effectively Implement Coordinated School Health Programs and CDC's School Health Guidelines.

States use laws, policy statements, and administrative regulations to articulate their expectations and recommendations for school health programs and the important role that schools have in improving the health of young people.[14] State agency leaders can establish policies to support local implementation of the school health guidelines and programs. In addition, state education and health agencies can provide model implementation policies to local school districts. This option is especially important in states that have minimal legislative mandates for school health. Model policies should be developed in cooperation with the state's board of education and association of school boards.

The National Association of State Boards of Education (NASBE), in cooperation with the National School Boards Association (NSBA), has developed *Fit, Healthy, and Ready to Learn*, a school health policy guide that translates CDC's school

Resources

- *Fit, Healthy, and Ready to Learn: A School Health Policy Guide.* National Association of State Boards of Education. Washington, DC: NASBE, 1999. Available at www.nasbe.org/HealthySchools/nasbepubs.mgi.
- *Changing the Scene, Improving the School Nutrition Environment: A Guide to Local Action.* U.S. Department of Agriculture, Food and Nutrition Service, 2000. Available at www.fns.usda.gov/tn/Healthy/changing.html.

health guidelines into model policy language.[15] This document can help guide policy development at the state, district, and school levels. It also contains a wealth of information that can guide state health leaders through the process of creating educational policy.

State school health policies typically are enacted or adopted by either the state legislature, the state board of education, or state commissions. Some regulations that have the force of policy can be adopted by the state education agency, which typically is also responsible for implementing state school health policies. The state health department can provide data and testimony to help guide the development of state school health policies. Following are some of the issues that these state-level policies can address.

The formation of school health councils and placement of school health coordinators at the district level.

Some school boards delegate oversight authority on specified health-related issues to a school health coordinating council that includes parents and community representatives. This council might operate as a standing committee of the board or as a distinct body. It might simply be an advisory body or might have authority to enhance program coordination among staff members working in the various school health components. When such a council is active and has real influence, it is a natural forum for involving outside professionals—such as physicians, law enforcement officers, media representatives, and university faculty members—with the school district. Virginia and Texas require districts to have school health councils.

The size of a superintendent's staff depends on the size and the resources of the district. A district may or may not have school health program coordinators who provide guidance and technical assistance to school personnel. If they are present, such staff members are natural points of contact for outside professionals who want to work with schools.

Resources

- *Improving School Health: A Guide to the Role of the School Health Coordinator.* Atlanta: American Cancer Society, 1999. Available at www.schoolhealth/info.
- *Improving School Health: A Guide to School Health Councils.* Atlanta: American Cancer Society, 1998. Available at www.schoolhealth/info.
- *Promoting Healthy Youth, Schools, and Communities: A Guide to Community-School Health Advisory Councils.* Des Moines: Iowa Department of Public Health, 1999. Available at www.idph.state.ia.us/fch/fam_serv/advisory.htm.

Instructional delivery and curricula content.

State education agencies and local school districts may use the National Health Education Standards, which are based on health education theory and practice, to establish curriculum frameworks and standards. These standards provide a framework for decisions about which lessons, strategies, activities, and types of assessment to include in a health education curriculum. Health education curricula based on the national standards can foster universal health literacy, which the Joint Committee on National Health Education Standards defines as the ability to obtain, interpret, and understand basic health information and services and to use such information and services to improve one's health.

Resources

- *National Health Education Standards: Achieving Health Literacy.* Joint Committee on National Health Education Standards. Atlanta: American Cancer Society, 1995. Available at www.aahperd.org/aahe/natl_health_education_standards.html.
- *Moving into the Future: National Standards for Physical Education.* National Association for Sports and Physical Education. Washington, DC : NASPE, 1995. Available at www.aahperd.org/naspe/publications-nationalstandards.html.

Resources

- *School Health: Findings from Evaluated Programs. 2nd ed.* U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Washington, DC: DHHS, 1998.
- *Safe and Drug-Free Schools Program. Principles of Effectiveness.* U.S. Department of Education. Federal Register. Vol. 63, No. 104, 1998:29902–6. June 1, 1998. Available at www.ed.gov/legislation/FedRegister/announcements/1998-2.
- *Exemplary and Promising Safe, Disciplined and Drug-Free Schools Programs.* U.S. Department of Education, Office of Special Educational Research and Improvement and Office of Reform Assistance and Dissemination. Washington, DC: DoE, 2001.
- *Health Framework for California Public Schools Kindergarten Through Grade Twelve*. California Department of Education. Sacramento: Calif. DoE, 1994.

Student and staff performance standards.

State boards of education, state school boards associations, and public health boards can set learning standards for health education and physical education. These standards can serve as the basis for local school health education and physical education programs and the development of performance standards for teachers. Many states have developed student performance standards that are either based on or aligned with national health- and physical-education standards.

Specifications for a healthy school nutrition environment.

State boards of education can adopt policies that limit the number of times that students have access to food and beverages in vending machines at school or that set specific nutritional quality standards for the types of food and beverages available on campus, including those in vending machines. In West Virginia, the state board of education adopted a nutrition policy for the types of foods available in school vending machines that is one of the strongest in the nation.

Tobacco-free schools.

A tobacco-free environment, as defined by CDC, means tobacco use is prohibited on school property, including buildings, grounds, and vehicles, and at school-sponsored events on and off school property. This rule applies to students, staff members, and visitors. Policies that ensure a tobacco-free environment can be adopted at the school, district, or state level. At the state level, these policies are generally enacted as law by the state legislature, but some states have empowered their state boards of education with the authority to mandate policies that affect districts and schools. States with tobacco-free school policies include Alabama, Arizona, Arkansas, California, Colorado, Hawaii, Mississippi, New Mexico, New York, Ohio, Texas, Utah, Washington, and West Virginia.

Procedures for monitoring and enforcing tobacco-free schools policy can also be established at the local or state level. For example, a state department of education may require districts to report tobacco-use violations; a local school board might require a progressive discipline plan for student policy violations that begins with an educational

Resources

- *Fit, Healthy, and Ready to Learn: A School Health Policy Guide.* National Association of State Boards of Education. Washington, DC: NASBE, 1999. Available at www.nasbe.org/HealthySchools/fithealthy.mgi.
- *Creating and Maintaining a Tobacco-Free School Policy.* Partnership for a Tobacco-Free Maine, Department of Human Services. Augusta, ME: 2000. Available at www.tobaccofreemaine.org.
- *Tobacco-Free School Policy Guide.* Available from the Office of Public Instruction, P.O. Box 202501, Helena, MT 59620-2501.
- *Guidelines for Implementation of West Virginia Board of Education Policy 2422.5A: Tobacco Control.* Available from the West Virginia Department of Education, 1900 Kanawaha Blvd. East, Charleston, WV 25305-0330.

intervention. The National Association of State Boards of Education and a number of state and local education and health agencies have produced guidelines for implementing tobacco-free school policies.

Quality professional development of school health staff.

State boards of education can set professional development requirements for school health program staff and other personnel who implement health programs in schools. For example, Maine decided to focus on middle school students as part of its efforts to reduce tobacco addiction rates among teens and young adults. All of the state's middle school teachers were offered professional development in Life Skills Training, a program to help teens develop healthy personal and social skills. Since the program began in 1997, smoking among Maine high school students has dropped more than 20%. Increases in the state excise tax and new community-based programs also contributed to this decrease. (For more information about the importance of professional development, see Priority 7.)

Appropriations to fund school health programs.

States can enact legislation that establishes appropriations to support

- Hiring school health coordinators, physical education teachers, health education teachers, school counselors, or school nurses in all school districts.
- Assessing local school health standards, policies, and programs.
- Providing professional development for school staff responsible for delivering school health programs and implementing school health guidelines.
- Ensuring that young people have access to facilities that promote physical activity.

Funding Estimate: Although the cost of developing and enacting state-level policies will be minimal, the implementation of these policies may require additional appropriations for materials and resource development or professional development specific to a new program priority. In these cases, funds can be included in program costs. Some policies might require additional funding to ensure local-level implementation. For example, state appropriations are necessary to support school health programs at the local level. State agencies need to consider these costs in addition to specific state program costs. CDC recommends that states allocate sufficient funds to support a school health council and school health coordinator and to implement a school health program in all school districts.

Priority 5. Establish a Technical-Assistance and Resource Plan that Will Provide Local School Districts with the Help They Need to Effectively Implement School Health Guidelines.

To advance state policies and support the local implementation of priority school health policies and programs that are consistent with the school health guidelines, state agencies can develop and implement a plan for providing technical assistance and resources to school districts and schools. State education and health agencies must develop the capacity to help schools improve their school health programs and provide school personnel with the tools they need to help reduce tobacco use, increase physical activity, and support healthy eating patterns among students. State health and education agency leaders can

- Establish criteria to help local schools develop, assess, and select effective curricula; institute

processes for identifying and reviewing potential programs based on these established criteria; and develop strategies for disseminating information about selected programs to teachers and community members.

- Develop and disseminate guidelines and resources to assist school districts in establishing school health councils.
- Identify and promote the use of resources for developing school health policy and for planning and assessing school health programs (e.g., CDC's *School Health Index*; NASBE's *Fit, Healthy, and Ready to Learn*; and USDA's *Changing the Scene*) and make these resources available to local school districts. For example, in Georgia, the DeKalb County Board of Education and Board of Health have collaborated to promote the use of the *School Health Index* in DeKalb's elementary schools. In the 2001-2002 school year, 17 schools completed the index, including the action plans, and 8 schools received funding from a variety of Board of Health programs. Funded activities include the following:
  - Hiring certified physical education teachers for the first time.
  - Developing walking clubs.
  - Establishing wellness programs for school staff members.
  - Purchasing exercise equipment for students to use.
  - Developing fitness stations on the school campus for use by students, staff members, and the community.
  - Providing professional development for teachers.
  - Offering healthier choices in the school vending machines.
- Identify community-resource personnel and programs that complement school health policies and make these available to local school districts to foster community-school partnerships.

Resources

- *Moving into the Future: National Standards for Physical Education*. National Association for Sports and Physical Education. Washington, DC: NASPE, 1995. Available at www.aahperd.org/naspe/publications-nationalstandards.html.
- *National Health Education Standards: Achieving Health Literacy.* Joint Committee on National Health Education Standards. Atlanta: American Cancer Society, 1995. Available at www.aahperlth_education_ standards.htm.
- *Keys to Excellence: Standards of Practice for Nutrition Integrity.* American School Food Service Association. Alexandria, VA: ASFSA, 1995. Available at www.asfsa.org. (Search "Keys to Excellence.")
- *Scope and Standards for Professional School Nursing Practice.* National Association of School Nurses, Inc. and American Nurses Association. American Nurses Publishing. Washington, DC, 2001. Available at www.nasn.org and at www/ana.org.

Resources

- *State of Maine Guidelines for Coordinating School Health Programs.* Maine Department of Education. Available at www.mainecshp.com.

- Identify national standards and guidelines for health education, physical education, school nutrition programs, and school health services and convey this information to local school districts to facilitate effective policy and program implementation.
- Establish technical-assistance communication networks (e.g., e-mail networks) or refer school health staff to existing national technical-assistance communication networks. For example, the Maine Department of Education, through its

Maine's Learning Results, has developed a technical-assistance plan to strengthen state and local efforts to improve student learning, define professional development needs, update local curricula and instructional practices, and assess student achievement. It also provided additional resources to improve school health programs through its publications, communications networks, and technical assistance.

- Identify a contact or lead person in every school to receive regular school health communications and resources.
- Identify appropriate media campaign materials and resources that can help local health agencies and school districts promote positive health messages and programs for youth.

Resources

- CDC's *Youth Media Campaign.* Available at www.verbnow.com.

- Respond to requests for technical assistance and information from local school health staff or strengthen regional technical-assistance systems to support local needs.
- Communicate school health-related findings from the *Community Guide to Preventive Services,* which features systematic reviews of published studies conducted by the Task Force on Community Preventive Services in coordination with a broad team of experts, including those from CDC. In one such review, the Task Force found that physical education classes are effective in improving both physical activity levels and physical fitness among school-age children. On the basis of these findings, the Task Force issued a strong recommendation to implement programs that increase the amount of time that students spend in school-based physical education classes.

Resources

- *Community Guide to Preventive Services.* Available at www.thecommunityguide.org.

State health and education agencies can establish frameworks for allocating funds to support local school health policies and programs that are consistent with the intent of state policies and appropriations. For example, in response to legislation that appropriated health protection funds to the Massachusetts Department of Education, the agency developed specific assurance documents that established school health councils and coordinators in the districts that received these funds. The education agency also provided technical assistance to help local coordinators implement a comprehensive, interdisciplinary Pre-K–12 health education and human services program.

Resources

- *Health Protection Fund.* Massachusetts Department of Education. Available at www.doe.mass.edu. (Search "Health Protection Fund.")

Funding Estimate: Funding for this priority provides materials and tools necessary to accomplish program priorities. Depending on the program, costs can vary. CDC recommends that approximately $120,000 per year be allocated to support personnel, technical-assistance delivery, and resource development to implement school health guidelines.

Priority 6. Implement Health Communications Strategies to Inform Decision Makers and the Public About the Role of School Health Programs in Promoting Health and Academic Success Among Young People.

State agencies need to build support at both the state and local levels for school-based programs to reduce tobacco use, increase physical activity, and improve eating behaviors among students. As an important part of this effort, state health and education agencies can develop and implement a school health communications plan to promote the value of school health programs among legislative leaders, state government policy makers (including health and education leaders), local school leaders, business leaders, parents, students, and other community members. Such a plan should foster communication among state-level partners working to improve

school health programs and increase the flow of information and resources between the state and local levels.

Resources

- *Building Business Support for School Health Programs.* National Association of State Boards of Education, 1999. Available at www.nasbe.org/Educational_Issues/Safe_Healthy.html.
- *School Health Starter Kit: For Motivated People Who Want to Get Others Involved.* Washington, DC: Council of Chief State School Officers, 1999. Available at www.publications.ccsso.org.

For example, the Oregon Department of Education formed an external communications work group to develop and implement an awareness campaign to promote coordinated school health programs among local decision makers and gatekeepers (e.g., school board members, school administrators, county commissioners). The campaign has stressed the links between students' educational outcomes and their physical, social, and emotional health and the critical role that school health programs can play in improving these outcomes. This work group includes representatives from a wide variety of state partners interested in school health, including the Oregon Association for Health, Physical Education, Recreation and Dance; the Oregon School Health Education Coalition; the Oregon Dairy Council; the Oregon Partnership (alcohol-use prevention); the Northwest affiliate of the American Cancer Society; the Oregon School Nurses Association; and Children First for Oregon (a Kids Count affiliate). As a result of the work group's efforts, in many districts, school health councils have been formed to plan the implementation of school health programs.

Funding Estimate: State communications planning and implementation costs vary greatly, depending on personnel costs and the communications activities planned each year. CDC recommends that approximately $25,000 per year be allocated to support communications personnel and the implementation of a school health communications plan.

Priority 7. Develop a Professional Development Plan for School Officials and Others Responsible for Establishing Coordinated School Health Programs and Implementing CDC's School Health Guidelines.

Professional development is critical to the effective implementation of the school health guidelines and coordinated school health programs.[13] Any state plan for reducing the risk for chronic disease among young people should include a comprehensive plan for teaching the skills that state and local decision makers, school staff, parents, and community members will need to support and implement a coordinated school health program. This development plan should address the specific training needs of the various target groups and should be informed by literature from the field of professional development and training. States can provide or support professional development training in a variety of ways:

- Through a cadre of trainers who can provide and model interactive professional development and who are themselves provided with ongoing support, training, and feedback.
- Through multiple delivery systems, such as scheduled workshops, materials centers, interactive Web sites, and district mentoring programs.
- By providing funds for professional-development events and materials.
- By providing support staff to manage the logistics of training.
- Through marketing strategies to create awareness of and encourage participation in professional development and training.

Resources

- *Strategies for Professional Development in Cooperative Agreements with State Education Agencies, Local Education Agencies, and National Non-Governmental Organizations.* Available at www.cdc.gov/nccdphp/dash.
- Assumptions about staff development based on research and best practice. Wood FH, Thompson SR. *Journal of Staff Development* 1993;14(4):52-57.

Plans should specify the target audience for each professional-development event and should include learning and performance objectives. Insofar as possible, participants in these events should develop action plans that describe how they will incorporate their newly acquired knowledge and skills into their professional responsibilities. Professional-development events should be evaluated by the quality of those plans and how well they are implemented.

Professional-development events may be needed for school personnel, such as health and physical education teachers, nurses, school counselors, food service directors, and administrators. Others who require professional development may include school board members; parents; health educators in state health departments; health department staff who work with youth-focused, community-based organizations; parks and recreation staff; business leaders; clergy; and social services and juvenile justice staff. Depending upon the work plan and desired outcomes, professional development could include awareness sessions, skill-building training, topical events, or customized offerings for teachers and school health coordinators.

Opportunities for professional development to support school health programs are available through a variety of venues, including national and state-level conferences and other continuing education opportunities offered by professional organizations.

National health organizations also offer specialized opportunities for professional development, such as those offered at the American Cancer Society's School Health Coordinator Leadership Institute. Several states have replicated the institute or are planning to do so. For more information, contact

Resources

- *Training Tracker: A Computer-Based Training Tool.* (E-mail request for information to nccddashtracker@cdc.gov.)

Education Resources

- *American School Food Service Association* (ASFSA): www.asfsa.org
- *Association for Supervision and Curriculum Development (ASCD):* www.ascd.org
- *American Association for Health Education (AAHE):* www.aahperd.org/aahe
- *National Association for Sport and Physical Education (NASPE):* www.aahperd.org/naspe
- *American School Counselor Association (ASCA):* www.schoolcounselor.org
- *National Association of School Nurses (NASN):* www.nasn.org
- *National Association of School Psychologists (NASP):* www.nasponline.org
- Society of State Directors of Health, Physical Education and Recreation (SSDHPER): www.thesociety.org

Public Health Resources

- American Public Health Association (APHA): www.apha.org
- Association of State and Territorial Chronic Disease Program Directors (ASTCDPD): www.chronicdisease.org
- Association of State and Territorial Directors of Health Promotion and Public Health Education (ASTDHPPHE): www.astdhpphe.org
- Society of Public Health Educators (SOPHE): www.sophe.org

Federal Resources

- U.S. Department of Agriculture (USDA): www.usda.gov
- U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): www.cdc.gov/tobacco
- The President's Council on Physical Fitness and Sports:: www.fitness.gov

the American Cancer Society, Children and Youth Initiatives, at 404-982-3672.

Other venues for professional development include professional-preparation programs offered by institutions of higher education, professional journals, online courses, and listservs. States should develop systems to provide follow-up support to participants after the professional-development events have concluded. Such support could be provided through booster sessions, peer counseling, networking groups, or ongoing sequential training. CDC has developed *Training Tracker*, a database program that enables agencies and organizations to track their various training and professional-development activities over time. *Training Tracker* will store data useful for planning and evaluating professional development events.

State health and education agencies should support policies and identify funding that will advance the development of a statewide, comprehensive professional-development plan. In general, state agencies should designate staff to both develop this plan and ensure its implementation at the state and school-district level. However, if professional-development events are typically delivered at the regional level, it might be more appropriate for regional, county, or local education agency staff to develop their own plans.

Funding Estimate: Professional development costs can vary greatly depending on length of events, content, and participant costs. CDC recommends that states allocate approximately $120,000 of their annual budget for professional development.

Priority 8. Establish a System for Evaluating and Continuously Improving State and Local School Health Programs.

Program evaluation is an essential ongoing organizational practice in public health and education. The results of such evaluations not only measure a program's success in meeting its goals but also provide information for planning future program activities. Agencies need to develop clear plans, inclusive partnerships, and feedback systems that foster learning and ongoing improvement. Routine, practical evaluations that provide information for management and improve program effectiveness should be a part of education and public health programs at both the state and local levels.

Program evaluation helps program officials to better understand their programs' needs and assets, to establish priorities, and to use their resources more effectively.

As an agency develops its program goals, objectives, and implementation plans, it should also develop procedures for measuring its success in meeting these goals and objectives. Evaluations can be used to assess the following four aspects of program activities:

1. The development and implementation of health-related education policies.
2. The provision of professional development activities for decision makers and education and public health agency staff.
3. The development and implementation of effective curricula and programs for students.
4. The establishment of sufficient capacity to develop and implement program activities and collaborate with other organizations.

Agencies can perform two kinds of evaluations: *process evaluations* and *outcome evaluations. Process evaluations* require accurate and organized records of program activities and are central to the ability of program staff to effectively monitor and report on their activities. By delineating the *who, what, when,* and *where* of program activities, process evaluations allow agency staff to assess whether these activities met their goals and objectives. Agency staff can also use process evaluations to chart and report on activities across time in a very systematic and cost-effective manner. Because a basic understanding of the process of program activities is critical to evaluating their outcomes, education and public health agencies should conduct process evaluations annually. *Outcome evaluations* are used to assess the impact of program activities on their participants, including

Resources

- Framework for program evaluation in public health. *MMWR* 1999;48(RR-11). Available at www.cdc.gov/eval/framework.htm.
- Evaluating a national program of school-based HIV prevention. Collins J, Rugg D, Kann L, Pateman B, Banspach S, Kolbe L. *Evaluation and Program Planning* 1996;19(3): 209–18.
- *Introduction to Program Evaluation for Comprehensive Tobacco Control Programs.* MacDonald G, Starr G, Schooley M, Yee SL, Klimowski K, Turner K. Atlanta: CDC, 2001.
- *Handbook for Evaluating HIV Education.* Atlanta: CDC, 1992. Available at www.cdc.gov/nccdphp/dash/publications/index.htm.
- *Coordinated School Health Program Infrastructure Development Process Evaluation Manual.* Atlanta: CDC, 1997. Available at www.cdc.gov/nccdphp/dash/publications/index.htm.
- *Physical Activity Evaluation Handbook.* Atlanta: CDC, 2002. Available at www.cdc.gov/nccdphp/dnpa/physical/handbook/index.htm.

changes in their knowledge, attitudes, skills, and behaviors both immediately following program activities and over the long term.

Objectives measured by process evaluations may be defined by the four key concepts and eight priority actions described in this chapter and by performance measures identified by CDC program announcements. Objectives measured by outcome evaluations also may be defined by performance measures identified in CDC program announcements as well as by *Healthy People 2010* objectives.

National data can help place program data in a more useful context for understanding program outcomes. For example, the School Health Policies and Programs Study (SHPPS)[16] may help administrators understand the outcomes of policies, professional-development activities, and curricula implementation. Similarly, national Youth Risk Behavior Survey (YRBS) data may help education and public health agencies understand long-term trends in student health-risk behaviors. Although process evaluations are generally easier to conduct, agencies should conduct outcome evaluations for at least one major program activity annually. They should also conduct an overall program outcome evaluation at the end of a program's 5-year funding cycle.

Evaluation results are only valuable when they are used to develop and improve program activities. Evaluation results may be communicated to national, state, and local education and public health agencies; to school districts and individual schools; to community-based organizations; and to community members.

State agencies should develop evaluation resources, tools, and a technical assistance process to help local agencies evaluate their program activities. Agencies may want to consider enlisting the help of post-secondary institutions or of independent evaluators or evaluation firms. However, the respective roles and duties of agency staff and hired evaluators must be clearly outlined, and evaluators and agency staff must agree on the purpose, methods, and procedures of evaluations.

There are four commonly accepted standards for evaluation: *utility, feasibility, propriety,* and *accuracy. Utility* refers to the usefulness of evaluation results. Evaluations with good utility specify the amount and type of information collected, make clear the values used in interpreting collected data, and present findings in a clear and timely way. *Feasibility* refers to the extent that evaluations employ practical, non-disruptive procedures, take into account the differing political interests of those involved, and use resources prudently. *Propriety* is a measure of how well the rights of those affected by the evaluation are respected. Evaluations with good propriety have protocols and other agreements to ensure that the welfare of human subjects is protected, that the findings are disclosed in a complete and balanced

fashion that reflects multiple perspectives, and that conflicts of interest are addressed in an open and fair manner. *Accuracy* is a measure of how well evaluation results reflect reality. Accurate evaluations describe the program activities and their contexts, articulate the purpose and methods of the evaluation, employ systematic procedures to gather valid and reliable information, apply appropriate methods of analysis and synthesis, and produce impartial reports containing justified conclusions.

One example of an evaluation performed by a state education agency is the Kentucky Department of Education's assessment of training on an HIV prevention curriculum that was provided to 113 school teachers. For this evaluation, the teachers answered questions immediately before, immediately after, and 6 months after their training about their comfort in discussing or teaching topics related to HIV and pregnancy prevention, their comfort with various instructional methods, and their attitudes toward people with HIV. Evaluation results indicated that teachers' comfort with teaching HIV and pregnancy prevention topics, their comfort with instructional methods, and their attitudes about people with HIV significantly improved immediately after their training. The evaluators recommended that current training practices should be continued but that additional evaluation should be performed to determine the fidelity with which teachers implemented programs in the classroom.

Funding Estimate: States need to build their capacity to evaluate school health policies and programs and provide technical assistance in evaluation to local school districts. CDC recommends that states allocate approximately $24,000 to support evaluation efforts.

National Leadership

Leadership in these efforts can come from various sources, including federal agencies and partnerships among governmental and nongovernmental organizations at both the national and state levels.

Since 1987, the Division of Adolescent and School Health (DASH) within CDC's National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) has provided fiscal and technical support to state education agencies, large urban school districts, and national nongovernmental organizations to improve school health programs and the health of young people. DASH has also developed numerous tools and resources to assist organizations, agencies, and schools in achieving many of the priorities identified in this chapter. (These tools and resources are available at www.cdc.gov/nccdphp/dash/publications/index.html.) In addition, DASH sponsors the National School Health Leadership Conference every 2 years to promote promising practices in school health and to build national and state partnerships to improve school health policies and programs.

DASH continues to work closely with NCCDPHP's Office on Smoking and Health and its divisions of Adult and Community Health, Cancer Prevention and Control, Diabetes Translation, Nutrition and Physical Activity, Oral Health, and Reproductive Health to achieve national health objectives for preventing risks that contribute to chronic disease.

Collaborative strategies are necessary to promote healthy communities, healthy schools, and healthy children within our nation. In recognition of the need for sustained and coordinated federal efforts to strengthen and improve the education and health of school-age children and youth, the U.S. Departments of Education, Health and Human Services, and Agriculture established the Interagency Committee on School Health in 1994. The committee, which meets twice each year, is co-chaired by the Assistant Secretary for Health in the Department of Health and Human Services, the Assistant Secretary for Elementary and Secondary Education in the Department of Education, and the Under Secretary of Food, Nutrition and Consumer Affairs in the Department of Agriculture. Committee members represent the Department of Defense, the Department of Justice, the Environmental Protection Agency, the Indian Health Service, the Bureau of Indian Affairs, and the Consumer Product Safety Commission, as well as the Departments of Education, Agriculture, and Health and Human Services.

National Partnerships

The National Coordinating Committee on School Health (NCCSH) was established in 1994 by the Secretaries of the Departments of Education and Health and Human Services. Shortly after NCCSH was created, the Department of Agriculture added its support. The NCCSH was formed to link federal departments with national nongovernmental organizations to support quality, coordinated school health programs in our nation's schools. Its responsibilities include providing national leadership for the promotion of quality school health programs; improving communications, collaboration, and information sharing among national organizations; identifying local, state, and federal barriers to the development and implementation of effective school health programs; and collecting and disseminating information that can help to improve the effectiveness of these programs. Membership has grown to approximately 75 national organizations.

DASH has established formal partnerships with more than 40 national nongovernmental health and education organizations, which work with DASH to develop model policies, guidelines, and professional development opportunities to help states establish high-quality school health programs. In addition, the Association of State and Territorial Chronic Disease Program Directors (ASTCDPD), the Association of State and Territorial Directors of Health Promotion and Public Health Education (ASTDHPPHE), and the Society of State Directors of Health, Physical Education, and Recreation (SSDHPER) have established the Coordinated School Health Program Collaborative to help reduce chronic disease risks and promote healthy behaviors among students. ASTCDPD and ASTDHPPHE also collaborated on the development of the School Business Resource Kit, which provides convenient access to valuable resources for learning more about coordinated school health programs, effective strategies for implementing them at the state and local levels, and ways to strengthen partnerships between health and education agencies.

Many national education groups have worked together to gain and sustain support for implementing school health programs. These groups have developed several tools to help build support for a coordinated approach to school health. One such tool, the School Health Starter Kit, developed by the Association of State and Territorial Health Officials and the Council of Chief State School Officers, is a powerful package of research-based materials specifically designed to help communities build support for school health programs.

State Partnerships

Funding for Coordinated School Health Programs

DASH supports coordinated school health programs to discourage unhealthy behaviors such as poor eating habits, physical inactivity, and tobacco use and to promote healthy behaviors. These programs aim to reduce young people's risk for chronic disease later in life. The eight components of a school health program systematically address these risk behaviors. DASH's funding and support enable state departments of education and health to work together efficiently, respond to changing health priorities, and effectively use limited resources to meet a wide range of health needs among the state's school-age population. With this support, state and local departments of education and health are able to 1) provide high-level staff members to coordinate, support, and evaluate local school health programs; 2) build a training and development system for health and education professionals at the state and local levels; and 3) bring together various organizations to develop and coordinate strategies for reducing risk behaviors among young people.

Professional Development Consortium

DASH also supports the national Professional Development Consortium, which helps DASH-funded state and local education agencies and national nongovernmental organizations strengthen their ability to implement professional-development activities that will improve the quality of comprehensive school health education and coordinated school health programs, including HIV prevention

education. One example of such a professional-development opportunity is the National Professional Development Workshop on School-Based Tobacco Prevention and Control, sponsored by DASH, CDC's Office on Smoking and Health, and the Professional Development Consortium. Three of these national workshops, attended by teams of representatives from the education and health agencies in 32 states, have been held to improve the capacity of states to implement effective school-based tobacco-use prevention and control programs and to develop strategies for ensuring and reporting progress.

Progress to Date and Challenges Ahead

In 1987, CDC established the Division of Adolescent and School Health to help the nation's schools implement coordinated school health programs. Through this division, CDC

- Monitors the prevalence of health risks among students and the prevalence of school policies and programs to reduce those risks.
- Applies research to identify effective policies and programs.
- Evaluates the effectiveness of implemented policies and programs.
- Provides funds for state and large city departments of education and health to help schools in their jurisdictions implement coordinated school health programs.
- Provides funds for national education and health and national nongovernmental organizations, including the National Association of State Boards of Education and the National School Boards Association, to help the nation's schools implement such programs.

Because every child needs sound preparation for a healthy future, school health programs should be established in all U.S. schools. Convincing children and adolescents to adopt behaviors that reduce their risk for chronic diseases is a continual challenge and should be a goal of all public health programs. Achieving this goal requires that state leaders in public health and education accept the opportunity and responsibility to effectively implement and improve school health programs. CDC maintains its commitment to work with these state leaders and with national organizations to make coordinated school health programs available in every state.

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