## I N T R O D U C T I O N

In the United States, 54 million young people attend school for about 6 hours of class time approximately 180 days per year. ${ }^{1}$ Schools are in a unique position to help improve the health status of children and adolescents throughout the United States. In 1995, the Centers for Disease Control and Prevention (CDC), in collaboration with state and local education and health agencies, developed the School Health Profiles (Profiles) to measure health education practices and some school health policies. Using input from education and health agencies, Profiles evolved to provide a more comprehensive assessment of school health policies and programs.

The CDC developed Profiles to help state and local education and health agencies monitor and assess characteristics of and trends in school health education; physical education; asthma management activities; school health policies related to human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) prevention, tobacco-use prevention, violence prevention, physical activity, and competitive foods (foods and beverages sold outside of the USDA school meal program); food service; and family and community involvement in school health programs. Profiles has been conducted biennially since 1996 and includes state and local surveys of principals and lead health education teachers in middle/junior and senior high schools.

The broad focus of Profiles provides some information on six of the eight components of the Coordinated School Health Program (CSHP). ${ }^{2}$ The following six CSHP components are assessed by Profiles:

- Health education provides students with knowledge, attitudes, and skills to help them avoid or modify behaviors related to the leading causes of death, illness, and injury during youth and adulthood.
- Physical education provides students with knowledge, motor and behavioral skills, and confidence to adopt and maintain physically active lifestyles.
- Health services provide direct care such as screenings and treatment, referrals, health promotion, and injury and disease prevention.
- Food service provides students with nutritious food choices and can promote healthy dietary behaviors to help ensure appropriate dietary intake for optimal health, growth, and intellectual development.
- School policy and environment can provide a safe and positive physical, psychological, and learning environment; prevent injuries from occurring at school; provide healthful food and beverage choices outside the USDA school meal program (competitive foods); and prevent student substance use and violence that can lead to school failure and dropout.
- Family and community involvement in school health education and programs can help family members become more knowledgeable about health issues and enable them to serve as positive role models by reinforcing healthy behaviors at home.

This report summarizes 2004 Profiles data. For each middle/junior or senior high school that was sampled, the principal and the lead health education teacher (the person who coordinates health education policies and programs within the school) each completed a selfadministered questionnaire. Principal data from the 27 state and 11 local surveys with weighted data and lead health education teacher data from the 25 state and 10 local surveys with weighted data are included in this report. Principal data from the remaining 14 state and 2 local surveys with unweighted data and lead health education teacher data from the remaining 16 state and 3 local surveys with unweighted data are not included in this report. This report also examines both long-term (1996-2004) and short-term (2002-2004) trends in school health programs and policies.

## METHODOLOGY

## SAMPLING

The Profiles employs random, systematic, equalprobability sampling strategies to produce representative samples of schools that serve students in grades 6 through 12 in each jurisdiction. In most states and cities, the sampling frame consists of all regular secondary public schools with one or more of grades 6 through 12. However, 21 education and health agencies modify this procedure and invite all secondary schools, rather than just a sample, to participate.

## DATA COLLECTION

The data are collected from each sampled school during the spring semester. Both the principal and lead health education teacher questionnaire booklets are mailed by the education or health agency to the principal, who then designates the school's lead health education teacher to complete the teacher questionnaire. Participation in the survey is confidential and voluntary; follow-up telephone calls and written reminders are used to encourage participation. The principal and teacher record their responses in the questionnaire booklets and return them directly to the state or local education or health agency.

## DATA ANALYSIS

The data from a state or city that had a response rate of $70 \%$ or greater and appropriate documentation (separately for the principal and teacher surveys) were weighted. The data are weighted to reflect the likelihood of principals or teachers being selected and to adjust for differing patterns of nonresponse. The weighted data represent all public schools serving grades 6 through 12 in that jurisdiction. Weighted data from principal surveys conducted in 27 states and 11 cities and lead health education teacher surveys conducted in 25 states and 10 cities are included in this report. Unweighted
data from principal surveys conducted in 14 states and 2 cities and lead health education teacher surveys conducted in 16 states and 3 cities are not included in this report. Thus, this report represents information from 25 states and 10 cities with data from both principal and lead health education teacher surveys and 2 states and 1 city with data from the principal survey only (Table 1).

Across states, the sample sizes of the principal surveys ranged from 58 to 607, and response rates ranged from $70 \%$ to $93 \%$; across cities, the sample sizes ranged from 16 to 262 , and response rates ranged from $73 \%$ to $98 \%$. The sample sizes of the lead health education teacher surveys across states ranged from 58 to 581 , and response rates ranged from $70 \%$ to $92 \%$; across cities, the sample sizes ranged from 31 to 258 , and the response rates ranged from $72 \%$ to $98 \%$.

SAS software was used to compute point estimates. ${ }^{3}$ Medians and ranges are presented separately for states and cities. The Wilcoxon rank-sum test was used to test for differences between 1996 and 2004 data and between 2002 and 2004 data across states and cities. ${ }^{4}$ This is a nonparametric analogue to a two-sample $t$ test. This statistical procedure (a) rank ordered all sites for both years separately for states and cities, (b) summed the ranks separately by year and for states and cities, and (c) compared the rank sums separately for states and cities to determine whether the distribution of the variable was the same for 1996 and 2004 or for 2002 and 2004. Assuming the percentages have an underlying continuous distribution, the distribution of ranks is approximately normal; therefore, a $z$ value was used as the test statistic. The distributions were considered significantly different if $p$ was less than .05 .

## B A C K G R O U N D

## HEALTH EDUCATION

## Requirements

The Institute of Medicine (IOM) recommends that schools require at least a one-semester health education course at the senior high school level. ${ }^{5}$ School health education provides students with the knowledge, attitudes, and skills they need to avoid or modify behaviors related to the leading causes of death, illness, and injury during youth and adulthood. Health education should address the physical, mental, emotional, and social dimensions of health and be age appropriate. ${ }^{6}$ Health education curricula should be planned, sequential, and implemented for all grades in elementary and middle/junior high schools and through at least one semester in senior high schools. ${ }^{5,7}$

## Standards and Guidelines

The seven National Health Education Standards, ${ }^{8}$ developed by the Joint Committee on National Health Education Standards, describe what students should know and be able to do as a result of school health education. According to these standards, students should be able to

- Comprehend concepts related to health promotion and disease prevention.
- Demonstrate the ability to access valid health information and health-promoting products and services.
- Demonstrate the ability to practice health-enhancing behaviors and reduce health risks.
- Analyze the influence of culture, media, technology, and other factors on health.
- Demonstrate the ability to use interpersonal communication skills to enhance health.
- Demonstrate the ability to use goal-setting and decision-making skills to enhance health.
- Demonstrate the ability to advocate for personal, family, and community health.

School health education is supported by the U.S. Department of Health and Human Services' Healthy People 2010,' Objective 7-2: to 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 and other drug use; unintended pregnancy, HIV/AIDS, and STD (sexually transmitted disease) infection; unhealthy dietary patterns; inadequate physical activity; and environmental health.

## Coordination of Health Education

A necessary component of effective health education is management and coordination by a professional who is trained in health education. ${ }^{10}$ That person may work at either the school or the school district level. Curriculum planning and development is enhanced when schools have a school health coordinator. Collaboration between health education teachers and other school staff members also improves the implementation of health education curricula. To supplement a separate health education course, health-related information can be included in a range of disciplines, including physical education, the sciences, mathematics, language arts, social studies, home economics, and the arts. ${ }^{11}$

## Professional Preparation and Staff Development

The quality of school health education is determined, in part, by teacher preparation. ${ }^{7}$ Professional development for teachers through continuing education and training is critical for the implementation of effective school health education. ${ }^{12-14}$ Professional development for health education teachers should focus on strategies that actively engage students and help students master important health information and skills. ${ }^{7}$ Studies have shown that teachers who receive training tend to implement health education with more fidelity than do teachers who do not receive such training, resulting in increased knowledge gain among students. ${ }^{15}$

## PHYSICAL EDUCATION

Data from the 1999-2002 National Health and Nutrition Examination Study (NHANES) estimate that more than $31 \%$ of children and adolescents aged 6 to 19 years were at risk for overweight and more than $16 \%$ were overweight. ${ }^{16}$ Since 1980, the percentage of children who are overweight has more than doubled, and the rate among adolescents has more than tripled. ${ }^{16,17}$
Because overweight children and adolescents are more likely to become overweight or obese adults, their risks for obesity-associated morbidities-such as type 2 diabetes, coronary heart disease, some types of cancer, and osteoarthritis of the weight-bearing joints-are greater in adulthood. ${ }^{18}$ The increase in overweight among children and adolescents is due primarily to an excess of caloric intake along with an insufficient amount of physical activity. ${ }^{19}$

Schools can play an important role in providing opportunities for physical activity and instructing students on ways to be physically active and the benefits of physical activity. CDC's Guidelines for School and Community Programs to Promote Lifelong Physical Activity among Young People ${ }^{20}$ recommends that schools adopt a comprehensive approach to physical activity by requiring daily
physical education, teaching skills and knowledge for maintaining and enjoying a physically active lifestyle, and providing extracurricular physical activity programs. In 2002, the Task Force on Community Preventive Services published recommendations that communities can implement to increase physical activity. The task force strongly recommended modifying school-based physical education curricula and policies to increase the amount of time students spend in moderate to vigorous activity while in physical education classes. ${ }^{21}$ Increasing the amount of time students are active can be achieved either by increasing the amount of time spent in physical education class or by increasing the amount of time students are active during already scheduled physical education classes.

The importance of physical education in promoting the health of young people is supported by three Healthy People $2010^{9}$ objectives:

- 22-8. Increase the proportion of the nation's public and private schools that require daily physical education for all students.
- 22-9. Increase the proportion of adolescents who participate in daily school physical education.
- 22-10. Increase the proportion of adolescents who spend at least $50 \%$ of school physical education class time being physically active.


## HEALTH SERVICES

Health services provide care to students who otherwise might not have access to care. The scope of services can include providing immunizations, diagnosing and treating acute illness and injury, managing and monitoring chronic diseases, dispensing medications, and offering preventive and primary dental care. ${ }^{22}$

School nurses serve 48 million young people in the nation's schools. ${ }^{23}$ School nurses can assess student health and development, help families determine when medical services are needed, and serve as a professional link with physicians and community resources. A licensed practical nurse or registered nurse is an essential component of a healthy school. Healthy People 20109 Objective 7-4 aims to increase the proportion of the nation's elementary, middle, junior high, and senior high schools with a nurse-to-student ratio of at least 1 to 750 .

Asthma is a chronic illness that has increased in prevalence since $1980 .{ }^{24}$ The impact of illness and death due to asthma is disproportionately higher among lowincome populations, racial and ethnic minorities, boys, and children in inner cities. ${ }^{24-26}$ In 2002, 8.9 million children ( $12.2 \%$ ) in the United States had asthma as diagnosed by a health professional. ${ }^{25}$ In 2002, children made 5 million visits to doctors' offices and hospital outpatient departments, made 727,000 visits to hospital emergency departments, and had 196,000 hospitalizations due to asthma. An estimated 14.7 million lost school days are attributed to asthma among school-aged children. ${ }^{25}$

Although asthma cannot be cured, it can be controlled with proper diagnosis and appropriate care and management activities. Schools can help students manage their asthma by adopting policies and procedures to create safe and supportive learning environments for students with asthma. In Strategies for Addressing Asthma Within a Coordinated School Health Program, ${ }^{27}$ CDC recommends obtaining a written action plan for all students with asthma and ensuring that students have immediate access to medications, including allowing students to self-carry and self-administer medications. Healthy People $2010^{9}$ identifies the following objectives to effectively manage and improve the quality of life of persons with asthma:

- 24-4. Reduce activity limitations among persons with asthma.
- 24-5. Reduce the number of school or workdays missed by persons with asthma due to asthma.


## FOOD SERVICE

The high prevalence of overweight among young people and the concomitant rise in type 2 diabetes serve as reminders of the important contributions of nutrition and physical activity to health. ${ }^{16,28}$ As defined by the IOM, the goal of school food service is to provide nutritionally appropriate meals to students at a reasonable price in a pleasant and comfortable environment. ${ }^{5}$ Meals should offer a variety of foods, including fresh fruit, vegetables, and whole grain products. School menus should reflect the ethnic and cultural food preferences of students by encouraging student and family involvement in menu planning and taste testing.

## SCHOOL POLICY AND ENVIRONMENT Competitive Foods

The U.S. Department of Agriculture (USDA) defines competitive foods as those foods and beverages sold at school outside of the USDA school meal program, regardless of their nutritional value. ${ }^{29}$ The only federal regulation on sale of foods and beverages outside of the school meal program addresses foods of minimal nutritional value (FMNV).*30 Currently, federal regulations require only that a school prohibit access to FMNV in food service areas during mealtimes. The average young person consumes more than $10 \%$ of calories from saturated fat, less than two thirds of the recommended intake of calcium, and more than double the recommended amount of sodium. ${ }^{31-33}$ For both boys and girls aged 9 to 13 years, $21 \%$ derive more than one quarter of their energy intake from added sugars. ${ }^{34}$

[^0]Schools have a unique opportunity to provide students with healthy dietary choices and to help students learn about healthy food choices. The Child Nutrition and WIC Reauthorization Act of 2004 requires school districts that participate in the National School Lunch Program or the School Breakfast Program to develop a Local Wellness Policy by the 2006 school year. ${ }^{35}$ The Local Wellness Policy is required to address nutrition education and provide nutrition guidelines for all foods available on school campuses. The implementation of the CDC guidelines, the USDA Local Wellness Policy, and other initiatives help support the achievement of the Healthy People 2010 Objective 19-15: to increase the proportion of children and adolescents aged 6 to 19 years whose intake of meals and snacks at school contributes to good overall dietary quality.

## Tobacco Use Prevention

Tobacco use is the single leading preventable cause of death in the United States. From 1995 through 1999, smoking killed more than 440,000 people in the United States each year. ${ }^{36}$ Approximately $82 \%$ of adults who ever smoked daily tried their first cigarette before age 18 years. ${ }^{37}$ Thus, to be most effective, school-based programs must target young people before they initiate tobacco use or drop out of school. CDC's Guidelines for School Health Programs to Prevent Tobacco Use and Addiction ${ }^{38}$ recommends strategies to aid schools in preventing tobacco use among youth. The following are key elements of those strategies:

- Develop and enforce a school policy on tobacco use that prohibits tobacco use by students, school staff, parents, and visitors on school property, in school buildings, in school vehicles, and at school functions away from school property.
- Prohibit tobacco advertising in school buildings, on school property, and in school publications.
- Provide instruction about the negative consequences of short- and long-term tobacco use, social influences on tobacco use, peer norms regarding tobacco use, and refusal skills.
- Provide tobacco use prevention education for students in kindergarten through 12th grade.
- Provide program-specific training for teachers.
- Support cessation efforts among students and staff who use tobacco.

An "ideal" tobacco use prevention policy prohibits all tobacco use by students, faculty, staff, and visitors during school and nonschool hours in school buildings; on school grounds; in school buses or other vehicles used to transport students; and at off-campus, school-sponsored events. ${ }^{38}$ Instituting a comprehensive tobacco use prevention policy can assist schools in achieving Healthy People $2010^{\circ}$ Objective 27-11: to increase smoke-free and tobacco-free environments in schools, including all school facilities, property, vehicles, and events.

## Violence Prevention

In 2002, unintentional injuries, suicide, and homicide accounted for $49 \%$ of all deaths among children aged 10 to 14 years and $76 \%$ of all deaths among adolescents aged 15 to 19 years. ${ }^{39}$ The No Child Left Behind Act of 2001 authorizes federal funds for school programs to prevent violence in and around schools. ${ }^{40}$ The CDC's School Health Guidelines to Prevent Unintentional Injury and Violence ${ }^{41}$ identifies the following strategies for school health efforts to prevent unintentional injury, violence, and suicide:

- Establish social and physical environments that promote safety and prevent unintentional injuries, violence, and suicide.
- Implement health and safety education to help students adopt and maintain safe lifestyles.
- Establish mechanisms for short- and long-term response to crises, disasters, and injuries.


## Healthy People 2010 ${ }^{\circ}$ Objective 15-39 calls for the

 reduction of weapon carrying by adolescents on school property.
## HIV Infection and AIDS Prevention

Advances in drug therapies have extended the lives of people living with HIV infection and AIDS. Children are living longer with the disease and thus have a direct impact upon schools as they enter the school system. In 2003, 472 young people aged 13 to 19 years were diagnosed with AIDS, for a cumulative total (through 2003) of 5,208 AIDS cases in this age group. ${ }^{42}$ Among males aged 13 to $19,43 \%$ of all AIDS cases reported through 2003 were among men who have sex with men, $9 \%$ were among injection drug users, $25 \%$ were among hemophiliacs, and $8 \%$ were attributed to heterosexual contact. Among females aged 13 to 19, $66 \%$ of all AIDS cases reported through 2003 were attributed to heterosexual contact and $18 \%$ to injection drug use. Other or unknown HIV exposure risks accounted for $15 \%$ of cases among males and $16 \%$ among females in this age group.

School health policies that address issues raised by HIV infection and AIDS are critical for protecting the rights of affected students and school staff members. The National Association of State Boards of Education provides policy recommendations to guide educators in addressing these issues, ${ }^{43}$ including

- The right to school attendance for students with HIV infection or AIDS.
- Nondiscrimination for employees with HIV infection or AIDS.
- The right to privacy regarding HIV infection status.
- Adherence to infection-control guidelines.
- Accommodations for students living with HIV infection or AIDS to facilitate their participation in school-sponsored physical activities.
- An HIV infection prevention education program.
- Confidential counseling for students.
- A planned HIV education program for staff.
- Provisions for school administrators to notify students, parents, and school personnel about current policies concerning HIV infection and AIDS.


## FAMILY AND COMMUNITY INVOLVEMENT

Because many societal factors contribute to adolescent health, safety, and well-being, health promotion and prevention strategies should be implemented through collaborative efforts across multiple societal institutions. ${ }^{44}$ Partnerships among schools, families, community members, and other professionals are key elements of effective school health programs. A school health council, committee, or team within the school or school district can help build support for school health initiatives. Schools that have a good relationship with families are more likely to gain their cooperation with school health efforts. ${ }^{45}$ Support from families can lead to the overall success or failure of a student as well as the success or failure of a new health program in the school. Family involvement in health education also increases both student achievement and self-esteem. ${ }^{46}$ Developing new approaches through partnerships provides a foundation for successful school health programs and helps promote health-related knowledge and skills among students. ${ }^{44}$

## RESULTS

## health education

## Required Health Education

Required health education is defined as instruction about health education topics that students must receive for graduation or promotion from school. Many schools require health education for students in grades 6 through 12. The percentage of schools that required health education for students in any of grades 6 through 12 ranged from $27.3 \%$ to $100.0 \%$ (median: $92.3 \%$ ) across states and from $45.2 \%$ to $99.0 \%$ (median: $81.3 \%$ ) across cities (Table 2).

Among schools that required health education for students in any of grades 6 through 12 , schools taught required health education in the following ways:

- The percentage of schools that taught required health education in a combined health education and physical education course ranged from $33.5 \%$ to $96.4 \%$ across states (median: $58.6 \%$ ) and from $15.0 \%$ to $100.0 \%$ across cities (median: 70.9\%) (Table 2).
- The percentage of schools that taught required health education in a course mainly about another subject other than health education, such as science, social studies, home economics, or English, ranged from $9.1 \%$ to $60.4 \%$ across states (median: $20.9 \%$ ) and from $4.5 \%$ to $94.6 \%$ across cities (median: 43.9\%) (Table 2).

Among schools that required health education for students in any of grades 6 through 12 , most schools required students to take one or more required health education courses. A required health education course is taught as a separate semester- or quarter-long unit of
instruction for which the student receives credit. The percentage of schools that required students to take only one required health education course ranged from $12.6 \%$ to $77.0 \%$ across states (median: $44.3 \%$ ) and from $33.3 \%$ to $89.4 \%$ across cities (median: $54.6 \%$ ) (Table 2). The percentage of schools that required students to take two or more required health education courses ranged from $16.0 \%$ to $76.7 \%$ across states (median: $47.6 \%$ ) and from $3.5 \%$ to $46.4 \%$ across cities (median: $23.8 \%$ ).

Among schools that required a health education course for students in any of grades 6 through 12 , some schools required that students who failed the course repeat it. The percentage of schools that required students to repeat a required health education course ranged from $18.6 \%$ to $87.0 \%$ (median: 58.2\%) across states and from 31.9\% to 81.6\% (median: 62.3\%) across cities (Table 2).

Among schools that required a health education course for students in any of grades 6 through 12, the percentage of schools across states that taught a required health education course ranged from $39.1 \%$ to $97.5 \%$ (median: $72.8 \%$ ) in 6th grade, $35.2 \%$ to $96.4 \%$ (median: $73.1 \%$ ) in 7 th grade, $25.9 \%$ to $93.8 \%$ (median: $77.2 \%$ ) in 8 th grade, $11.6 \%$ to $96.9 \%$ (median: $72.2 \%$ ) in 9th grade, $19.8 \%$ to $91.1 \%$ (median: $55.0 \%$ ) in 10th grade, $10.9 \%$ to $57.8 \%$ (median: $25.6 \%$ ) in 11th grade, and from $8.9 \%$ to $54.0 \%$ (median: $19.7 \%$ ) in 12th grade (Table 3, Figure 1). The percentage of schools across cities that taught a required health education course ranged from $35.5 \%$ to $100 \%$ (median: $84.6 \%$ ) in 6th grade, $46.3 \%$ to $100.0 \%$ (median: $91.8 \%$ ) in 7th grade, $46.3 \%$ to $100 \%$ (median: $84.8 \%$ ) in 8 th grade, $35.2 \%$ to $100.0 \%$ (median: $84.8 \%$ ) in 9th grade, $23.1 \%$ to $100.0 \%$ (median: 69.1\%) in 10th grade, $8.8 \%$ to $75.0 \%$ (median:

FIGURE 1. Among schools that required a health education course in any grade 6-12, the median percentage that taught a required health education course in each grade, School Health Profiles, 2004.

$35.4 \%$ ) in 11th grade, and from $8.8 \%$ to $65.0 \%$ (median: $35.4 \%$ ) in 12th grade (Table 3, Figure 1).

## Materials Used in Required Health Education Courses

Many schools required that teachers use specific materials in a required health education course. The ranges in percentage of schools ${ }^{\dagger}$ that required their use was as follows (Table 4):

## - The National Health Education Standards: from

 $30.3 \%$ to $84.5 \%$ across states (median: $46.4 \%$ ) and from $37.7 \%$ to $79.9 \%$ across cities (median: $51.2 \%$ ).- Their state's, district's, or school's curriculum, set of guidelines, or framework: from $84.4 \%$ to $100.0 \%$ (median: $96.8 \%$ ) across states and from $93.9 \%$ to $100.0 \%$ across cities (median: 100.0\%).
- Materials from health organizations such as the American Red Cross or the American Cancer Society: from $15.5 \%$ to $51.5 \%$ across states (median: 33.7\%) and from $30.1 \%$ to $87.8 \%$ across cities (median: 52.0\%).
- A commercially developed student textbook: from $23.4 \%$ to $81.4 \%$ across states (median: $54.1 \%$ ) and from $46.0 \%$ to $87.7 \%$ across cities (median: $72.1 \%$ ).
- A commercially developed teacher's guide: from $19.8 \%$ to $75.0 \%$ across states (median: $50.5 \%$ ) and from $40.8 \%$ to $81.1 \%$ across cities (median: 58.7\%).


## Content of Required Health Education Courses

Required health education courses aim to increase student knowledge about a variety of health-related topics. The ranges in percentage of schools that tried to increase

[^1]student knowledge on specific health-related topics in a required health education course during the 2003-2004 school year were as follows (Tables 5a, b, c):

- Accident or injury prevention: from $77.6 \%$ to $96.2 \%$ across states (median: $89.7 \%$ ) and from $83.9 \%$ to $100.0 \%$ across cities (median: $96.3 \%$ ).
- Alcohol or other drug use prevention: from $94.0 \%$ to 100.0\% across states (median: 98.5\%) and from 89.5\% to $100.0 \%$ across cities (median: $100.0 \%$ ).
- Consumer health: from $72.1 \%$ to $89.5 \%$ across states (median: $81.3 \%$ ) and from $66.7 \%$ to $91.1 \%$ across cities (median: 75.7\%).
- Cardiopulmonary resuscitation (CPR): from 42.6\% to $75.7 \%$ across states (median: $59.1 \%$ ) and from $55.0 \%$ to $95.7 \%$ across cities (median: 67.8\%).
- Death and dying: from $40.1 \%$ to $76.5 \%$ across states (median: $59.8 \%$ ) and from $49.8 \%$ to $79.8 \%$ across cities (median: 64.2\%).
- Dental and oral health: from $41.9 \%$ to $88.7 \%$ across states (median: 61.6\%) and from 52.5\% to $84.5 \%$ across cities (median: 73.9\%).
- Emotional and mental health: from $74.9 \%$ to $99.4 \%$ across states (median: $94.7 \%$ ) and from $82.9 \%$ to $100.0 \%$ across cities (median: 89.6\%).
- Environmental health: from $56.3 \%$ to $83.0 \%$ across states (median: 70.0\%) and from 56.2\% to $92.0 \%$ across cities (median: 75.4\%).
- First aid: from $56.5 \%$ to $88.0 \%$ across states (median: $72.7 \%$ ) and from $69.4 \%$ to $95.9 \%$ across cities (median: 79.6\%).
- Growth and development: from $84.2 \%$ to $96.2 \%$ across states (median: $91.5 \%$ ) and from $89.1 \%$ to $100.0 \%$ across cities (median: 95.9\%).
- HIV prevention: from $82.1 \%$ to $99.4 \%$ across states (median: 96.6\%) and from $92.6 \%$ to $100.0 \%$ across cities (median: 100.0\%).
- Human sexuality: from $72.9 \%$ to $95.7 \%$ across states (median: $86.7 \%$ ) and from $83.1 \%$ to $100.0 \%$ across cities (median: 93.9\%).
- Immunization and vaccinations: from $45.9 \%$ to $76.5 \%$ across states (median: 62.3\%) and from 53.1\% to $80.0 \%$ across cities (median: $68.1 \%$ ).
- Nutrition and dietary behavior: from $92.5 \%$ to $100.0 \%$ across states (median: $98.5 \%$ ) and from $92.8 \%$ to $100.0 \%$ across cities (median: $100.0 \%$ ).
- Personal hygiene: from $76.0 \%$ to $95.7 \%$ across states (median: $83.3 \%$ ) and from $84.0 \%$ to $97.0 \%$ across cities (median: 89.5\%).
- Physical activity and fitness: from $94.8 \%$ to $100.0 \%$ across states (median: $98.9 \%$ ) and from $87.9 \%$ to 100.0\% across cities (median: 100.0\%).
- Pregnancy prevention: from $70.1 \%$ to $90.5 \%$ across states (median: $84.1 \%$ ) and from $78.4 \%$ to $100.0 \%$ across cities (median: 95.2\%).
- STD prevention: from $73.1 \%$ to $96.4 \%$ across states (median: $91.9 \%$ ) and from $82.8 \%$ to $100.0 \%$ across cities (median: 96.5\%).
- Suicide prevention: from $59.2 \%$ to $94.2 \%$ across states (median: 74.4\%) and from 50.2\% to 91.4\% across cities (median: 75.1\%).
- Sun safety or skin cancer prevention: from $54.7 \%$ to $86.5 \%$ across states (median: $73.7 \%$ ) and from $43.8 \%$ to $87.0 \%$ across cities (median: $66.5 \%$ ).
- Tobacco use prevention: from $93.1 \%$ to $100.0 \%$ across states (median: 98.6\%) and from 92.0\% to $100.0 \%$ across cities (median: 100.0\%).
- Violence prevention: from $80.0 \%$ to $94.0 \%$ across states (median: $87.6 \%$ ) and from $79.5 \%$ to $100.0 \%$ across cities (median: 90.7\%).

Required health education courses often aim to improve student skills for adopting, practicing, and maintaining healthy behaviors. The ranges in percentage of schools that tried to improve specific student skills in a required health education course during the 2003-2004 school year were as follows (Table 6):

- Accessing valid health information, products, and services: from $76.3 \%$ to $93.9 \%$ across states (median: $86.9 \%$ ) and from $74.8 \%$ to $100.0 \%$ across cities (median: 86.4\%).
- Advocating for personal, family, and community health: from $72.4 \%$ to $94.2 \%$ across states (median: $82.4 \%$ ) and from $74.2 \%$ to $93.8 \%$ across cities (median: 82.7\%).
- Analysis of media messages: from $54.5 \%$ to $94.6 \%$ across states (median: $85.0 \%$ ) and from $61.6 \%$ to $90.5 \%$ across cities (median: 78.9\%).
- Communication: from $76.1 \%$ to $97.5 \%$ across states (median: 93.3\%) and from $83.0 \%$ to $100.0 \%$ across cities (median: 92.8\%).
- Decision making: from $90.7 \%$ to $100.0 \%$ across states (median: 97.7\%) and from $92.3 \%$ to $100.0 \%$ across cities (median: 96.5\%).
- Goal setting: from $85.6 \%$ to $97.0 \%$ across states (median: 94.3\%) and from $86.1 \%$ to $100.0 \%$ across cities (median: 96.2\%).
- Conflict resolution: from $82.9 \%$ to $93.9 \%$ across states (median: $89.2 \%$ ) and from $79.4 \%$ to $100.0 \%$ across cities (median: 93.1\%).
- Resisting peer pressure for unhealthy behaviors: from $89.2 \%$ to $100.0 \%$ across states (median: 97.1\%) and from $92.7 \%$ to $100.0 \%$ across cities (median: 95.7\%).
- Stress management: from $78.4 \%$ to $98.0 \%$ across states (median: $89.5 \%$ ) and from $74.8 \%$ to $100.0 \%$ across cities (median: 81.0\%).


## Tobacco Use Prevention Topics

Tobacco use prevention topics taught in a required health education course included health outcomes and risks of tobacco use, external influences on tobacco use, and skills to avoid and to stop using tobacco. The ranges in percentage of schools that taught about health outcomes and risks of tobacco use in a required health education course during the 2003-2004 school year were as follows (Table 7a):

- Addictive effects of nicotine in tobacco products: from $90.3 \%$ to $99.4 \%$ across states (median: $96.8 \%$ ) and from $77.9 \%$ to $100.0 \%$ across cities (median: 96.3\%).
- Benefits of not smoking cigarettes: from $91.9 \%$ to $100.0 \%$ across states (median: $97.1 \%$ ) and from $81.1 \%$ to $100.0 \%$ across cities (median: $98.8 \%$ ).
- Benefits of not using smokeless tobacco: from $85.9 \%$ to $99.4 \%$ across states (median: $94.1 \%$ ) and from $59.3 \%$ to $100.0 \%$ across cities (median: $92.9 \%$ ).
- Health consequences of cigarette smoking: from $91.9 \%$ to $100.0 \%$ across states (median: $97.7 \%$ ) and from $84.7 \%$ to $100.0 \%$ across cities (median: 98.8\%).
- Health consequences of using smokeless tobacco: from $88.6 \%$ to $99.4 \%$ across states (median: $95.4 \%$ ) and from $59.7 \%$ to $100.0 \%$ across cities (median: 92.9\%).
- Health effects of environmental tobacco smoke (ETS): from $88.6 \%$ to $100.0 \%$ across states (median: 95.2\%) and from $73.0 \%$ to $100.0 \%$ across cities (median: 94.1\%).
- Number of illnesses and deaths related to tobacco use: from $85.6 \%$ to $100.0 \%$ across states (median: $94.9 \%$ ) and from $66.7 \%$ to $100.0 \%$ across cities (median: 95.7\%).
- Risks of cigar or pipe smoking: from $74.6 \%$ to $94.2 \%$ across states (median: $87.5 \%$ ) and from $63.5 \%$ to $100.0 \%$ across cities (median: 91.5\%).

The ranges in percentage of schools that taught about the external influences on tobacco use in a required health education course during the 2003-2004 school year were as follows (Table 7b):

- Influence of families on tobacco use: from $82.5 \%$ to $98.1 \%$ across states (median: $91.8 \%$ ) and from $67.8 \%$ to $100.0 \%$ across cities (median: $91.4 \%$ ).
- Influence of the media on tobacco use: from $83.7 \%$ to $99.3 \%$ across states (median: $95.2 \%$ ) and from $77.9 \%$ to $100.0 \%$ across cities (median: 95.9\%).
- Social or cultural influences on tobacco use: from $79.6 \%$ to $94.4 \%$ across states (median: $89.8 \%$ ) and from $66.7 \%$ to $96.4 \%$ across cities (median: $94.0 \%$ ).
- How many young people use tobacco: from $82.9 \%$ to 98.1\% across states (median: $92.2 \%$ ) and from $66.7 \%$ to $100.0 \%$ across cities (median: $93.9 \%$ ).

The ranges in percentage of schools that taught skills to avoid and to stop using tobacco in a required health education course during the 2003-2004 school year were as follows (Table 7c):

- How to say no to tobacco use: from $87.0 \%$ to $98.9 \%$ across states (median: $94.2 \%$ ) and from $71.5 \%$ to $100.0 \%$ across cities (median: 96.3\%).
- Making a personal commitment not to use tobacco: from $62.4 \%$ to $84.8 \%$ across states (median: $75.2 \%$ ) and from $57.6 \%$ to $90.9 \%$ across cities (median: 83.4\%).
- How students can influence or support others to prevent tobacco use: from $78.3 \%$ to $94.1 \%$ across states (median: $88.2 \%$ ) and from $67.8 \%$ to $100.0 \%$ across cities (median: $87.9 \%$ ).
- How to find valid information or services related to tobacco use cessation: from $69.4 \%$ to $85.8 \%$ across states (median: 76.3\%) and from 64.4\% to $95.7 \%$ across cities (median: 79.6\%).
- How students can influence or support others in efforts to quit using tobacco: from $76.1 \%$ to $94.4 \%$ across states (median: $86.4 \%$ ) and from $68.1 \%$ to $100.0 \%$ across cities (median: 87.9\%).

FIGURE 2. Median percentages of schools that taught all 17 tobacco use prevention topics, all 10 HIV* prevention topics, all 15 nutrition and dietary topics, or all 12 physical activity topics in a required health education course during the 2003-2004 school year, School Health Profiles, 2004.


* HIV = human immunodeficiency virus.

The percentage of schools that taught all 17 tobacco use prevention topics in a required health education course during the 2003-2004 school year ranged from 43.3\% to $69.5 \%$ across states (median: 58.3\%) and from 39.3\% to $79.4 \%$ across cities (median: 67.9\%) (Table 12, Figure 2).

## HIV Prevention Topics

HIV prevention topics taught in a required health education course included HIV transmission and prevention, external influences on HIV risk behavior, and skills to avoid HIV infection. The ranges in percentage of schools that taught about HIV transmission and prevention topics in a required health education course during the 2003-2004 school year were as follows (Table 8a):

- Abstinence as the most effective method to avoid HIV infection: from $77.5 \%$ to $98.5 \%$ across states (median: 94.5\%) and from $84.0 \%$ to $100.0 \%$ across cities (median: 100.0\%).
- How HIV is transmitted: from $78.5 \%$ to $98.1 \%$ across states (median: 93.9\%) and from $85.9 \%$ to $100.0 \%$ across cities (median: 100.0\%).
- How HIV affects the human body: from $76.2 \%$ to 98.1\% across states (median: 91.8\%) and from $84.4 \%$ to $100.0 \%$ across cities (median: $100.0 \%$ ).
- Condom efficacy: from $35.5 \%$ to $87.2 \%$ across states (median: $67.5 \%$ ) and from $60.0 \%$ to $96.3 \%$ across cities (median: 79.8\%).

The ranges in percentage of schools that taught about the external influences on HIV risk behavior and skills to avoid HIV infection in a required health education course during the 2003-2004 school year were as follows (Table 8b):

- The number of young people who get HIV: from $66.6 \%$ to $94.5 \%$ across states (median: $84.8 \%$ ) and from $80.2 \%$ to $100.0 \%$ across cities (median: $93.8 \%$ ).
- Influence of alcohol and other drugs on HIV-related risk behaviors: from $67.3 \%$ to $98.5 \%$ across states (median: 91.1\%) and from $76.2 \%$ to $100.0 \%$ across cities (median: 93.3\%).
- Social or cultural influences on HIV-related risk behaviors: from $63.2 \%$ to $87.9 \%$ across states (median: 81.8\%) and from $73.1 \%$ to $100.0 \%$ across cities (median: 91.4\%).
- How to find valid information or services related to HIV or HIV testing: from $63.8 \%$ to $92.1 \%$ across states (median: $78.7 \%$ ) and from $70.2 \%$ to $100.0 \%$ across cities (median: 87.1\%).
- How to correctly use a condom: from $8.8 \%$ to 60.0\% across states (median: $37.6 \%$ ) and from $42.0 \%$ to $88.5 \%$ across cities (median: $57.9 \%$ ).
- Compassion for persons living with HIV or AIDS: from $61.8 \%$ to $90.8 \%$ across states (median: $77.6 \%$ ) and from $76.8 \%$ to $100.0 \%$ across cities (median: 90.7\%).

The percentage of schools that taught all 10 HIV prevention topics in a required health education course during the 2003-2004 school year ranged from 7.0\% to $51.0 \%$ across states (median: 34.7\%) and from $38.5 \%$ to 79.0\% across cities (median: 52.0\%) (Table 12, Figure 2).

## Required HIV Prevention Units or Lessons

Required HIV prevention units or lessons may be taught not only in a required health education course, but also in a variety of other courses. The ranges in percentage of schools that taught required HIV prevention units or lessons in specific courses were as follows (Table 9):

- Science: from $18.2 \%$ to $56.2 \%$ across states (median: $33.9 \%$ ) and from $27.3 \%$ to $82.1 \%$ across cities (median 53.2\%).
- Home economics or family and consumer education: from $10.0 \%$ to $50.6 \%$ across states (median: $23.1 \%$ ) and from $2.4 \%$ to $40.9 \%$ across cities (median: 18.5\%).
- Physical education: from $4.4 \%$ to $73.5 \%$ across states (median: 23.9\%) and from $7.8 \%$ to $93.9 \%$ across cities (median: 38.5\%).
- Family life education or life skills: from $22.1 \%$ to 52.9\% across states (median: 38.5\%) and from 27.9\% to $66.8 \%$ across cities (median: $46.9 \%$ ).
- Special education: from $6.1 \%$ to $30.7 \%$ across states (median: $16.8 \%$ ) and from $12.8 \%$ to $43.1 \%$ across cities (median: 37.2\%).
- Social studies: from $1.8 \%$ to $13.5 \%$ across states (median: $6.9 \%$ ) and from $4.4 \%$ to $24.0 \%$ across cities (median: 11.2\%).


## Nutrition and Dietary Topics

Nutrition and dietary topics taught in a required health education course included choosing healthful foods, food safety, and behaviors that contribute to maintaining a healthy weight. The ranges in percentage of schools that taught about choosing healthful foods in a required health education course during the 2003-2004 school year were as follows (Table 10a):

- Benefits of healthy eating: from $89.2 \%$ to $99.4 \%$ across states (median: $97.2 \%$ ) and from $92.8 \%$ to $100.0 \%$ across cities (median: 98.8\%).
- Using food labels: from $76.9 \%$ to $96.1 \%$ across states (median: 87.2\%) and from $85.7 \%$ to $100.0 \%$ across cities (median: 90.1\%).
- Identifying Food Guide Pyramid food groups and serving recommendations: from $80.7 \%$ to $96.9 \%$ across states (median: $90.9 \%$ ) and from $88.2 \%$ to 100.0\% across cities (median: 94.0\%).
- Choosing a variety of grains daily: from $73.1 \%$ to 94.9\% across states (median: 86.4\%) and from $77.8 \%$ to $100.0 \%$ across cities (median: $88.2 \%$ ).
- Choosing a variety of fruits and vegetables daily: from $77.8 \%$ to $97.1 \%$ across states (median: $89.8 \%$ ) and from $85.3 \%$ to $100.0 \%$ across cities (median: 93.8\%).
- Choosing a diet low in saturated fat and cholesterol and moderate in total fat: from $76.8 \%$ to $96.4 \%$ across states (median: $89.0 \%$ ) and from $71.9 \%$ to $100.0 \%$ across cities (median: 87.3\%).
- Choosing and preparing foods with less salt: from $67.1 \%$ to $90.1 \%$ across states (median: $78.6 \%$ ) and from $57.3 \%$ to $96.0 \%$ across cities (median: $82.1 \%$ ).
- Moderating intake of sugars: from $81.4 \%$ to $97.0 \%$ across states (median: $89.2 \%$ ) and from $75.6 \%$ to $100.0 \%$ across cities (median: 88.9\%).
- Choosing more calcium-rich foods: from $71.7 \%$ to $89.6 \%$ across states (median: $81.2 \%$ ) and from $60.7 \%$ to $100.0 \%$ across cities (median: $82.0 \%$ ).

The ranges in percentage of schools that taught about food safety and behaviors that contribute to maintaining a healthy weight in a required health education course during the 2003-2004 school year were as follows (Table 10b):

- Keeping food safe to eat: from $61.4 \%$ to $86.3 \%$ across states (median: $74.3 \%$ ) and from $69.8 \%$ to $88.1 \%$ across cities (median: 81.1\%).
- Preparing healthy meals and snacks: from $71.9 \%$ to $93.6 \%$ across states (median: $82.7 \%$ ) and from $81.3 \%$ to $96.0 \%$ across cities (median: 88.8\%).
- Aiming for a healthy weight: from $77.7 \%$ to $98.1 \%$ across states (median: $93.5 \%$ ) and from $86.1 \%$ to $100.0 \%$ across cities (median: 93.7\%).
- Risks of unhealthy weight control practices: from $78.3 \%$ to $97.4 \%$ across states (median: $91.4 \%$ ) and from $78.2 \%$ to $100.0 \%$ across cities (median: $91.0 \%$ ).
- Accepting body size differences: from $74.0 \%$ to $95.2 \%$ across states (median: $89.3 \%$ ) and from $75.1 \%$ to $95.7 \%$ across cities (median: $87.9 \%$ ).
- Eating disorders: from $77.8 \%$ to $99.4 \%$ across states (median: 90.6\%) and from $74.4 \%$ to $97.0 \%$ across cities (median: 88.2\%).

The percentage of schools that taught all 15 nutrition and dietary topics in a required health education course during the 2003-2004 school year ranged from 50.1\% to $73.4 \%$ across states (median: $57.7 \%$ ) and from $42.7 \%$ to $83.9 \%$ across cities (median: 67.8\%) (Table 12, Figure 2).

## Physical Activity Topics

Physical activity topics taught in a required health education course included the benefits of physical activity and the challenges to engaging in physical activity. The ranges in percentage of schools that taught about the benefits of physical activity in a required health education course during the 2003-2004 school year were as follows (Table 11a):

- Physical, psychological, or social benefits of physical activity: from $86.5 \%$ to $97.9 \%$ across states (median: $94.4 \%$ ) and from $78.2 \%$ to $100.0 \%$ across cities (median: 92.7\%).
- Health-related fitness: from $78.9 \%$ to $98.4 \%$ across states (median: $92.0 \%$ ) and from $62.5 \%$ to $100.0 \%$ across cities (median: 92.7\%).
- Phases of a workout: from $63.9 \%$ to $95.7 \%$ across states (median: $86.6 \%$ ) and from $63.9 \%$ to $100.0 \%$ across cities (median: 87.0\%).
- How much physical activity is enough: from $67.0 \%$ to $91.2 \%$ across states (median: $86.0 \%$ ) and from $67.1 \%$ to $96.9 \%$ across cities (median: 79.3\%).
- Decreasing sedentary activities: from $76.8 \%$ to 92.4\% across states (median: 85.2\%) and from $78.8 \%$ to $95.1 \%$ across cities (median: $86.6 \%$ ).

The ranges in percentage of schools that taught about the challenges to engaging in physical activity in a required health education course during the 2003-2004 school are shown below (Table 11b):

- Overcoming barriers to physical activity: from $61.0 \%$ to $84.2 \%$ across states (median: $70.4 \%$ ) and from $64.8 \%$ to $94.0 \%$ across cities (median: 78.4\%).
- Developing an individualized physical activity plan: from $48.7 \%$ to $79.5 \%$ across states (median: 69.8\%) and from $53.3 \%$ to $87.9 \%$ across cities (median: $67.8 \%)$.
- Monitoring progress toward reaching goals in an individualized physical activity plan: from $45.4 \%$ to $76.9 \%$ across states (median: 62.8\%) and from 55.6\% to $82.0 \%$ across cities (median: $67.8 \%$ ).
- Opportunities for physical activity in the community: from $62.8 \%$ to $85.8 \%$ across states (median: $74.0 \%$ ) and from $64.7 \%$ to $94.0 \%$ across cities (median: 79.7\%).
- Preventing injury during physical activity: from $68.2 \%$ to $94.0 \%$ across states (median: $86.4 \%$ ) and from $62.4 \%$ to $100.0 \%$ across cities (median: $89.0 \%$ ).
- Weather-related safety: from $66.1 \%$ to $90.3 \%$ across states (median: $80.4 \%$ ) and from $71.7 \%$ to $100.0 \%$ across cities (median: 82.4\%).
- Dangers of using performance-enhancing drugs: from $69.5 \%$ to $97.7 \%$ across states (median: $88.6 \%$ ) and from $75.6 \%$ to $100.0 \%$ across cities (median: 85.8\%).

The percentage of schools that taught all 12 physical activity topics in a required health education course during the 2003-2004 school year ranged from 28.8\% to $62.7 \%$ across states (median: $44.9 \%$ ) and from $43.5 \%$ to $67.0 \%$ across cities (median: $48.6 \%$ ) (Table 12, Figure 2).

## Teaching Methods in Required Health Education Courses

Teachers used a variety of methods to facilitate the learning process. The ranges in percentage of schools that used specific teaching methods in a required health education course during the 2003-2004 school year were as follows (Table 13):

- Group discussions: from $90.0 \%$ to $100.0 \%$ across states (median: $98.6 \%$ ) and from $94.9 \%$ to $100.0 \%$ across cities (median: 97.7\%).
- Cooperative group activities: from $82.5 \%$ to $99.2 \%$ across states (median: $96.3 \%$ ) and from $90.9 \%$ to $100.0 \%$ across cities (median: 96.5\%).
- Role play, simulations, or practice: from $55.0 \%$ to 95.7\% across states (median: 82.4\%) and from 77.6\% to $100.0 \%$ across cities (median: $91.0 \%$ ).
- Language, performing, or visual arts: from $51.8 \%$ to 79.3\% across states (median: 68.5\%) and from 70.5\% to $96.3 \%$ across cities (median: $75.8 \%$ ).
- Pledges or contracts for behavior change: from $33.9 \%$ to $58.0 \%$ across states (median: $46.2 \%$ ) and from $43.8 \%$ to $71.7 \%$ across cities (median: 57.1\%).
- Peer educators: from $52.0 \%$ to $70.6 \%$ across states (median: $61.6 \%$ ) and from $57.8 \%$ to $85.4 \%$ across cities (median: 71.0\%).
- The Internet: from $73.9 \%$ to $95.0 \%$ across states (median: $83.2 \%$ ) and from $66.9 \%$ to $95.9 \%$ across cities (median: 82.0\%).
- Computer-assisted instruction: from $43.5 \%$ to $67.1 \%$ across states (median: $58.4 \%$ ) and from $54.9 \%$ to $73.0 \%$ across cities (median: 59.3\%).

Teachers also used a variety of methods to highlight diversity or the values of various cultures. The ranges in percentage of schools that used specific methods to highlight diversity or the values of various cultures in a required health education course during the 2003-2004 school year were as follows (Table 14):

- Using textbooks or curricular materials reflective of various cultures: from $48.5 \%$ to $76.6 \%$ across states (median: $66.6 \%$ ) and from $64.2 \%$ to $100.0 \%$ across cities (median: 76.4\%).
- Using textbooks or curricular materials designed for students with limited English proficiency: from $12.9 \%$ to $43.2 \%$ across states (median: $22.3 \%$ ) and from $20.7 \%$ to $78.7 \%$ across cities (median: 50.2\%).
- Asking students to share their own cultural experiences related to health topics: from $52.7 \%$ to $83.5 \%$ across states (median: $71.6 \%$ ) and from $75.9 \%$ to 94.1\% across cities (median: 84.0\%).
- Teaching about cultural differences and similarities: from $66.3 \%$ to $82.0 \%$ across states (median: $74.6 \%$ ) and from $75.9 \%$ to $97.0 \%$ across cities (median: 86.1\%).
- Modifying teaching methods to match students' learning styles, health beliefs, or cultural values: from $73.3 \%$ to $94.2 \%$ across states (median: $88.5 \%$ ) and from $72.7 \%$ to $100.0 \%$ across cities (median: 90.4\%).


## Coordination of Health Education

The quality of health education may be enhanced by a health education coordinator who coordinates the selection of the curriculum, serves as a content expert for teachers, secures and manages resources, and advocates for school health activities. The percentage of schools with a health education coordinator ranged from $74.2 \%$ to $100.0 \%$ across states (median: $96.3 \%$ ) and from $81.4 \%$ to $97.3 \%$ across cities (median: $94.3 \%$ ) (Table 15). Many different staff may serve as the health education coordinator in a school. Among schools with a health education coordinator, the ranges in percentage of schools in which specific staff served as the health education coordinator were as follows (Table 15):

- District administrator or district health education or curriculum coordinator: from $15.7 \%$ to $49.0 \%$ across states (median: $25.1 \%$ ) and from $1.9 \%$ to $50.0 \%$ across cities (median: 16.0\%).
- School administrator: from $9.3 \%$ to $33.7 \%$ across states (median: $18.9 \%$ ) and from $0.0 \%$ to $33.4 \%$ across cities (median: 19.6\%).
- Health education teacher: from $20.7 \%$ to $59.8 \%$ across states (median: $46.3 \%$ ) and from $0.0 \%$ to $76.4 \%$ across cities (median: 39.9\%).
- School nurse: from $0.0 \%$ to $14.9 \%$ across states (median: $1.7 \%$ ) and from $0.0 \%$ to $9.7 \%$ across cities (median: $1.9 \%$ ).
- Someone else: from $0.5 \%$ to $13.9 \%$ across states (median: $4.1 \%$ ) and from $0.0 \%$ to $43.4 \%$ across cities (median: 12.0\%).

During the 2003-2004 school year, health education staff worked on health education activities with other school staff or community members. The ranges in percentage of schools in which health education staff worked on health education activities with others were as follows (Table 16):

- Physical education staff: from $51.1 \%$ to $91.7 \%$ across states (median: 74.0\%) and from $46.4 \%$ to $94.0 \%$ across cities (median: 63.5\%).
- Teachers in other subject areas: from $47.1 \%$ to $71.9 \%$ across states (median: 61.0\%) and from $45.6 \%$ to $83.6 \%$ across cities (median: $65.9 \%$ ).
- School health services staff: from $34.9 \%$ to $83.5 \%$ across states (median: $67.5 \%$ ) and from $28.2 \%$ to 93.8\% across cities (median: 71.8\%).
- School mental health or social services staff: from $39.5 \%$ to $72.1 \%$ across states (median: $60.5 \%$ ) and from $50.6 \%$ to $82.7 \%$ across cities (median: 58.7\%).
- Food service staff: from $11.6 \%$ to $35.0 \%$ across states (median: $23.4 \%$ ) and from $5.1 \%$ to $53.4 \%$ across cities (median: 25.1\%).
- Community members: from $26.1 \%$ to $66.5 \%$ across states (median: 54.7\%) and from $22.0 \%$ to $77.4 \%$ across cities (median: 48.2\%).


## Professional Preparation and Staff Development

Lead health education teachers reported professional preparation in many disciplines. The ranges in percentage of schools in which the lead health education teacher had professional preparation in each specific discipline was as follows (Table 17):

- Health and physical education combined: from $10.3 \%$ to $86.8 \%$ across states (median: $45.1 \%$ ) and from $2.8 \%$ to $84.6 \%$ across cities (median: $35.9 \%$ ).
- Health education only: from $1.1 \%$ to $40.5 \%$ across states (median: $6.4 \%$ ) and from $0.0 \%$ to $30.6 \%$ across cities (median: $4.4 \%$ ).
- Physical education only: from $4.2 \%$ to $28.5 \%$ across states (median: $13.3 \%$ ) and from $1.3 \%$ to $22.0 \%$ across cities (median: 4.7\%).
- Other education degree: from $0.0 \%$ to $28.4 \%$ across states (median: $5.6 \%$ ) and from $0.0 \%$ to $9.4 \%$ across cities (median: $4.8 \%$ ).
- Kinesiology, exercise science or exercise physiology, home economics or family and consumer science, or science: from $0.0 \%$ to $32.8 \%$ across states (median: $10.6 \%$ ) and from $0.9 \%$ to $47.3 \%$ across cities (median: 11.0\%).
- Nursing or counseling: from $0.4 \%$ to $19.0 \%$ across states (median: $3.9 \%$ ) and from $0.0 \%$ to $91.9 \%$ across cities (median: $4.7 \%$ ).
- Public health or other discipline: from $0.4 \%$ to 20.9\% across states (median: $2.1 \%$ ) and from $0.0 \%$ to $6.9 \%$ across cities (median: $2.6 \%$ ).

The percentage of schools that required a newly hired health education teacher to be certified, licensed, or endorsed by the state in health education ranged from $31.8 \%$ to $98.5 \%$ across states (median: $85.4 \%$ ) and from $63.6 \%$ to $97.2 \%$ across cities (median: $86.3 \%$ ) (Table 18).

The percentage of schools in which the lead health education teacher held a current teaching license, certificate, or endorsement in health education recognized by their state department of education ranged from $32.1 \%$ to $94.7 \%$ across states (median: $80.4 \%$ ) and from 39.8\% to $97.0 \%$ across cities (median: $67.2 \%$ ) (Table 18).

The ranges in percentage of schools in which the lead health education teacher had taught health education for a specific number of years was as follows (Table 18):

- 1 year: from $2.5 \%$ to $18.7 \%$ across states (median: $7.9 \%$ ) and from $0.0 \%$ to $63.5 \%$ across cities (median: 6.7\%).
- 2 to 5 years: from $13.2 \%$ to $34.7 \%$ across states (median: $24.2 \%$ ) and from $9.0 \%$ to $37.7 \%$ across cities (median: 24.5\%).
- 6 to 9 years: from $12.1 \%$ to $22.3 \%$ across states (median: $16.6 \%$ ) and from $0.0 \%$ to $25.1 \%$ across cities (median: 14.1\%).
- 10 to 14 years: from $9.4 \%$ to $19.5 \%$ across states (median: $15.3 \%$ ) and from $2.5 \%$ to $21.1 \%$ across cities (median: 11.5\%).
- 15 years or more: from $21.1 \%$ to $56.4 \%$ across states (median: $36.6 \%$ ) and from $19.5 \%$ to $69.8 \%$ across cities (median: 31.3\%).

Lead health education teachers received staff development during the 2 years preceding the survey on many health education topics. The ranges in percentage of
schools in which the lead health education teacher had received staff development on specific topics were as follows (Tables 19a, b, c):

- Accident or injury prevention: from $27.4 \%$ to $60.5 \%$ across states (median: $37.9 \%$ ) and from $22.9 \%$ to 82.4\% across cities (median: 38.2\%).
- Alcohol or other drug use prevention: from $34.4 \%$ to 66.2\% across states (median: 48.2\%) and from 29.7\% to $92.6 \%$ across cities (median: $55.0 \%$ ).
- Consumer health: from $8.6 \%$ to $21.6 \%$ across states (median: $15.1 \%$ ) and from $9.8 \%$ to $39.0 \%$ across cities (median: 20.8\%).
- CPR: from $41.9 \%$ to $77.5 \%$ across states (median: $64.2 \%$ ) and from $34.3 \%$ to $88.2 \%$ across cities (median: 52.4\%).
- Death and dying: from $6.0 \%$ to $20.5 \%$ across states (median: 11.2\%) and from $5.3 \%$ to $38.9 \%$ across cities (median: 15.4\%).
- Dental and oral health: from $4.6 \%$ to $19.5 \%$ across states (median: 9.4\%) and from 0.0\% to $33.3 \%$ across cities (median: 9.0\%).
- Emotional and mental health: from $19.9 \%$ to $50.2 \%$ across states (median: $32.3 \%$ ) and from $17.1 \%$ to $65.8 \%$ across cities (median: $36.2 \%$ ).
- Environmental health: from $4.9 \%$ to $23.0 \%$ across states (median: 14.9\%) and from 13.8\% to 47.4\% across cities (median: 24.8\%).
- First aid: from $36.9 \%$ to $78.2 \%$ across states (median: $53.9 \%$ ) and from $31.9 \%$ to $92.2 \%$ across cities (median: 45.8\%).
- Growth and development: from $15.6 \%$ to $34.4 \%$ across states (median: $23.2 \%$ ) and from $21.5 \%$ to $57.3 \%$ across cities (median: 40.6\%).
- HIV prevention: from $21.8 \%$ to $77.4 \%$ across states (median: $42.7 \%$ ) and from $41.6 \%$ to $87.2 \%$ across cities (median: 67.5\%).
- Human sexuality: from $16.3 \%$ to $45.0 \%$ across states (median: 29.5\%) and from $35.4 \%$ to $90.4 \%$ across cities (median: 44.7\%).
- Immunization and vaccinations: from $9.2 \%$ to $31.4 \%$ across states (median: $15.5 \%$ ) and from $10.2 \%$ to 41.1\% across cities (median: 26.2\%).
- Nutrition and dietary behavior: from $21.4 \%$ to 48.1\% across states (median: 32.0\%) and from $25.8 \%$ to $59.5 \%$ across cities (median: $37.3 \%$ ).
- Personal hygiene: from $5.3 \%$ to $22.9 \%$ across states (median: 10.1\%) and from $6.3 \%$ to $44.0 \%$ across cities (median: 20.7\%).
- Physical activity and fitness: from $29.5 \%$ to $61.6 \%$ across states (median: $43.3 \%$ ) and from $16.9 \%$ to $75.8 \%$ across cities (median: $44.4 \%$ ).
- Pregnancy prevention: from $14.5 \%$ to $46.3 \%$ across states (median: $23.4 \%$ ) and from $20.0 \%$ to $82.8 \%$ across cities (median: 35.5\%).
- STD prevention: from $20.4 \%$ to $51.0 \%$ across states (median: $34.5 \%$ ) and from $37.0 \%$ to $92.6 \%$ across cities (median: 53.8\%).
- Suicide prevention: from $9.4 \%$ to $38.2 \%$ across states (median: $23.1 \%$ ) and from $15.1 \%$ to $80.4 \%$ across cities (median: 26.8\%).
- Sun safety or skin cancer prevention: from $3.6 \%$ to $32.3 \%$ across states (median: $10.7 \%$ ) and from $4.9 \%$ to $31.0 \%$ across cities (median: $14.1 \%$ ).
- Tobacco use prevention: from $22.5 \%$ to $54.7 \%$ across states (median: 33.9\%) and from $23.6 \%$ to $90.3 \%$ across cities (median: 46.3\%).
- Violence prevention: from $36.1 \%$ to $74.3 \%$ across states (median: 52.2\%) and from 37.9\% to 81.9\% across cities (median: 57.9\%).

The ranges in percentage of schools in which the lead health education teacher wanted to receive staff development on specific topics were as follows (Tables 20a, b, c):

- Accident or injury prevention: from $27.0 \%$ to $58.8 \%$ across states (median: $43.9 \%$ ) and from $36.1 \%$ to $75.7 \%$ across cities (median: 65.1\%).
- Alcohol or other drug use prevention: from $55.3 \%$ to $78.7 \%$ across states (median: 67.0\%) and from $70.7 \%$ to $85.7 \%$ across cities (median: $76.9 \%$ ).
- Consumer health: from $35.0 \%$ to $58.2 \%$ across states (median: $46.8 \%$ ) and from $39.4 \%$ to $72.9 \%$ across cities (median: 62.7\%).
- CPR: from $33.7 \%$ to $74.5 \%$ across states (median: $58.0 \%$ ) and from $62.0 \%$ to $89.8 \%$ across cities (median: 79.0\%).
- Death and dying: from $43.5 \%$ to $62.4 \%$ across states (median: $50.7 \%$ ) and from $48.9 \%$ to $90.1 \%$ across cities (median: 66.8\%).
- Dental and oral health: from $19.5 \%$ to $47.2 \%$ across states (median: 33.7\%) and from 38.4\% to $69.5 \%$ across cities (median: 55.9\%).
- Emotional and mental health: from $53.3 \%$ to $75.6 \%$ across states (median: 63.8\%) and from 68.0\% to 90.1\% across cities (median: 75.2\%).
- Environmental health: from $37.6 \%$ to $58.5 \%$ across states (median: 49.6\%) and from $40.8 \%$ to $75.5 \%$ across cities (median: 67.7\%).
- First aid: from $37.0 \%$ to $72.2 \%$ across states (median: $58.4 \%$ ) and from $64.9 \%$ to $85.4 \%$ across cities (median: 79.0\%).
- Growth and development: from $33.7 \%$ to $61.8 \%$ across states (median: 47.1\%) and from $61.3 \%$ to $76.8 \%$ across cities (median: 69.8\%).
- HIV prevention: from $49.8 \%$ to $75.5 \%$ across states (median: $60.9 \%$ ) and from $70.2 \%$ to $84.8 \%$ across cities (median: 79.4\%).
- Human sexuality: from $40.9 \%$ to $79.1 \%$ across states (median: $52.4 \%$ ) and from $63.3 \%$ to $87.2 \%$ across cities (median: 74.3\%).
- Immunization and vaccinations: from $28.7 \%$ to 48.4\% across states (median: 38.7\%) and from 31.9\% to $75.6 \%$ across cities (median: 59.2\%).
- Nutrition and dietary behavior: from $53.2 \%$ to $75.5 \%$ across states (median: 64.8\%) and from $60.1 \%$ to $80.7 \%$ across cities (median: $74.6 \%$ ).
- Personal hygiene: from $24.3 \%$ to $50.8 \%$ across states (median: $38.5 \%$ ) and from $39.4 \%$ to $72.3 \%$ across cities (median: 61.2\%).
- Physical activity and fitness: from $45.7 \%$ to $74.4 \%$ across states (median: $57.6 \%$ ) and from $45.7 \%$ to $78.4 \%$ across cities (median: 68.1\%).
- Pregnancy prevention: from $43.2 \%$ to $68.1 \%$ across states (median: 55.7\%) and from 62.9\% to $82.0 \%$ across cities (median: 70.9\%).
- STD prevention: from $47.4 \%$ to $74.8 \%$ across states (median: $60.4 \%$ ) and from $67.5 \%$ to $87.4 \%$ across cities (median: 76.6\%).
- Suicide prevention: from $58.3 \%$ to $79.9 \%$ across states (median: 68.4\%) and from 71.3\% to $87.7 \%$ across cities (median: 76.3\%).
- Sun safety or skin cancer prevention: from $29.8 \%$ to $58.4 \%$ across states (median: $48.2 \%$ ) and from $47.9 \%$ to $69.4 \%$ across cities (median: $60.0 \%$ ).
- Tobacco use prevention: from $43.3 \%$ to $67.8 \%$ across states (median: $58.9 \%$ ) and from $62.8 \%$ to $84.2 \%$ across cities (median: 71.0\%).
- Violence prevention: from $63.8 \%$ to $85.7 \%$ across states (median: 73.6\%) and from 73.4\% to 88.5\% across cities (median: 83.8\%).

Lead health education teachers also received staff development during the 2 years preceding the survey on specific teaching methods. The ranges in percentage of schools in which the lead health education teacher had received staff development on specific teaching methods were as follows (Table 21):

- Teaching students with physical or cognitive disabilities: from $32.8 \%$ to $59.8 \%$ across states (median: $44.8 \%$ ) and from $16.7 \%$ to $75.6 \%$ across cities (median: 51.3\%).
- Teaching students of various cultural backgrounds: from $14.1 \%$ to $63.7 \%$ across states (median: $37.5 \%$ ) and from $27.5 \%$ to $73.6 \%$ across cities (median: 49.4\%).
- Teaching students with limited English proficiency: from $8.5 \%$ to $49.5 \%$ across states (median: 22.1\%) and from $9.1 \%$ to $87.9 \%$ across cities (median: $39.8 \%)$.
- Using interactive teaching methods such as role-plays or cooperative group activities: from $36.6 \%$ to $63.9 \%$ across states (median: $52.3 \%$ ) and from $42.8 \%$ to $77.2 \%$ across cities (median: 64.5\%).
- Encouraging family or community involvement: from $22.2 \%$ to $54.1 \%$ across states (median: $32.9 \%$ ) and from $29.4 \%$ to $60.8 \%$ across cities (median: 46.1\%).
- Teaching skills for behavior change: from 39.5\% to $64.2 \%$ across states (median: $53.5 \%$ ) and from 40.6\% to $72.9 \%$ across cities (median: 59.1\%).

The ranges in percentage of schools in which the lead health education teacher wanted to receive staff development on specific teaching methods were as follows (Table 22):

- Teaching students with physical or cognitive disabilities: from $49.7 \%$ to $69.7 \%$ across states (median: $57.9 \%$ ) and from $61.6 \%$ to $90.9 \%$ across cities (median: 74.0\%).
- Teaching students of various cultural backgrounds: from $37.4 \%$ to $63.9 \%$ across states (median: $54.4 \%$ ) and from $51.2 \%$ to $87.4 \%$ across cities (median: $73.9 \%$ ).
- Teaching students with limited English proficiency: from $23.4 \%$ to $69.4 \%$ across states (median: $50.7 \%$ ) and from $48.1 \%$ to $82.5 \%$ across cities (median: $69.5 \%)$.
- Using interactive teaching methods such as role-plays or cooperative group activities: from $45.6 \%$ to $70.9 \%$ across states (median: 58.6\%) and from $61.2 \%$ to 93.0\% across cities (median: 72.7\%).
- Encouraging family or community involvement: from $51.4 \%$ to $74.8 \%$ across states (median: $64.2 \%$ ) and from $68.4 \%$ to $90.7 \%$ across cities (median: $79.8 \%$ ).
- Teaching skills for behavior change: from $59.2 \%$ to $79.5 \%$ across states (median: 71.2\%) and from 61.1\% to $90.7 \%$ across cities (median: $80.8 \%$ ).


## PHYSICAL EDUCATION <br> AND PHYSICAL ACTIVITY <br> Required Physical Education

Physical education is defined as instruction that helps students develop the knowledge, attitudes, motor skills, behavioral skills, and confidence needed to adopt and maintain a physically active lifestyle. Many schools required physical education for students in grades 6 through 12. The percentage of schools that required physical education for students in any of grades 6 through 12 ranged from $41.1 \%$ to $100.0 \%$ across states (median: $98.5 \%$ ) and from $53.5 \%$ to $100.0 \%$ across cities (median: 93.8\%) (Table 23).

Among schools that required physical education for students in any of grades 6 through 12, most schools required students to take one or more required physical education courses. A required physical education course is taught as a semester-, quarter-, or year-long unit of instruction for which the student receives credit. The percentage of schools that required students to take only one required physical education course ranged from $5.3 \%$ to $53.5 \%$ across states (median: $16.8 \%$ ) and from $3.2 \%$ to $60.1 \%$ across cities (median: $40.6 \%$ ) (Table 23).

FIGURE 3. Among schools that required a physical education course in any grade 6-12, the median percentage that taught a required physical education course in each grade, School Health Profiles, 2004.


The percentage of schools that required students to take two or more required physical education courses ranged from $44.2 \%$ to $94.1 \%$ across states (median: $81.7 \%$ ) and from $36.4 \%$ to $96.8 \%$ across cities (median: $57.8 \%$ ) (Table 23).

Among schools that required a physical education course for students in any of grades 6 through 12 , some schools required that students who fail the course repeat it. The percentage of schools that required students to repeat a required physical education course ranged from $9.7 \%$ to $79.1 \%$ across states (median: 58.1\%) and from $20.5 \%$ to 92.0\% across cities (median: 57.1\%) (Table 23).

The percentage of schools that required a newly hired physical education teacher or specialist be certified, licensed, or endorsed by the state in physical education ranged from $45.8 \%$ to $100 \%$ across states ( $97.1 \%$ ) and from $85.0 \%$ to $100 \%$ across cities (median: $98.0 \%$ ) (Table 23).

Among schools that required a physical education course for students in any of grades 6 through 12, the percentage of schools across states that taught a required physical education course ranged from $75.6 \%$ to $100 \%$ (median: $98.1 \%$ ) in 6th grade, $68.1 \%$ to $100.0 \%$ (median: $98.2 \%$ ) in 7 th grade, $62.6 \%$ to $100.0 \%$ (median: $96.8 \%$ ) in 8 th grade, $21.1 \%$ to $100.0 \%$ (median: $93.3 \%$ ) in 9 th grade, $17.1 \%$ to $100.0 \%$ (median: $75.0 \%$ ) in 10th grade, $12.0 \%$ to $100.0 \%$ (median: $46.8 \%$ ) in 11th grade, and from $11.3 \%$ to $100.0 \%$ (median: $42.4 \%$ ) in 12th grade (Table 24, Figure 3). The percentage of schools across cities that taught a required physical education course ranged from $79.2 \%$ to $100.0 \%$ (median: $98.1 \%$ ) in 6th grade, $52.2 \%$ to $100.0 \%$ (median: $98.5 \%$ ) in 7 th grade, $43.2 \%$ to $100.0 \%$ (median: $100.0 \%$ ) in 8th grade, $78.5 \%$ to $100.0 \%$ (median: $97.6 \%$ ) in 9th grade, $33.3 \%$ to $100.0 \%$ (median: $85.7 \%$ ) in 10th grade, $24.7 \%$ to 90.5\% (median: $42.9 \%$ ) in 11th grade, and from $18.7 \%$ to $90.0 \%$ (median: $38.5 \%$ ) in 12th grade (Table 24, Figure 3).

FIGURE 4. Median percentage of schools that allowed use of activity or athletic facilities* or offered opportunities for students to participate in intramural activities or physical activity clubs, School Health Profiles 2004.


* For community-sponsored sports teams or physical activity programs outside of school hours or when school is not in session.

Among schools that required a physical education course for students in any of grades 6 through 12, some schools allowed students to be exempted from taking a required physical education course for the following reasons (Table 25):

- Enrollment in other courses, such as math or science: from $1.4 \%$ to $44.0 \%$ across states (median: $6.9 \%$ ) and from $0.0 \%$ to $24.7 \%$ across cities (median: 7.0\%).
- Participation in school sports: from 0.0\% to $83.2 \%$ across states (median: 4.9\%) and from $0.0 \%$ to $62.0 \%$ across cities (median: 20.0\%).
- Participation in other school activities, such as

ROTC, marching band, chorus, or cheerleading: from $0.0 \%$ to $62.5 \%$ across states (median: $5.3 \%$ ) and from $3.6 \%$ to $80.1 \%$ across cities (median: $41.7 \%$ ).

- Participation in community sports: from $0.0 \%$ to $23.7 \%$ across states (median: $1.8 \%$ ) and from $0.0 \%$ to $17.6 \%$ across cities (median: $0.0 \%$ ).

The percentage of schools that did not allow students in any of grades 6 through 12 to be exempted from a
required physical education course for any of these reasons ranged from $9.5 \%$ to $97.4 \%$ across states (median: 85.0\%) and from $10.7 \%$ to $89.9 \%$ across cities (median: 48.4\%) (Table 25).

## Physical Activity

Many schools allow use of their activity or athletic facilities for community-sponsored sports teams or physical activity programs outside of school hours or when school is not in session. The percentage of schools that allowed use of their activity or athletic facilities for communitysponsored sports teams or physical activity programs outside of school hours or when school is not in session ranged from $64.2 \%$ to $95.8 \%$ across states (median: $89.4 \%$ ) and from $49.2 \%$ to $94.7 \%$ across cities (median: $66.2 \%$ ) (Table 26, Figure 4).

Schools also may offer students the opportunity to participate in intramural activities or physical activity clubs. The percentage of schools that offered opportunities for students to participate in before- or after-school intramural activities or physical activity clubs ranged from $29.7 \%$ to $88.8 \%$ across states (median: 61.6\%) and from $66.9 \%$ to $91.0 \%$ across cities (median: 78.4\%) (Table 26, Figure 4). Among those schools, the percentage of schools that provided transportation home for

FIGURE 5. Median percentage of schools that implemented school-based asthma management activities, School Health Profiles, 2004.


[^2]students who participated in after-school intramural activities or physical activity clubs ranged from 9.8\% to $68.3 \%$ among states (median: 28.4\%) and from 8.5\% to $57.3 \%$ across cities (median: $31.0 \%$ ) (Table 26).

## HEALTH SERVICES

Asthma management activities are an important aspect of school health services. The ranges in percentage of schools that implemented specific school-based asthma management activities were as follows (Tables 27a, b, Figure 5):

- Assured immediate access to medications as prescribed by a physician and approved by parents: from $71.3 \%$ to $95.2 \%$ across states (median: $92.9 \%$ ) and from $81.5 \%$ to $95.1 \%$ across cities (median: 89.4\%).


## - Provided a full-time registered nurse, all day every

 day: from $0.5 \%$ to $98.4 \%$ across states (median: $36.1 \%$ ) and from $9.2 \%$ to $93.2 \%$ across cities (median: 55.8\%).- Identified and tracked all students with asthma: from $47.1 \%$ to $97.3 \%$ across states (median: $85.8 \%$ ) and from $26.8 \%$ to $100.0 \%$ across cities (median: 88.3\%).
- Obtained and used an Asthma Action Plan (or Individualized Health Plan) for all students with asthma: from $24.8 \%$ to $79.0 \%$ across states (median: $62.2 \%$ ) and from $20.8 \%$ to $84.7 \%$ across cities (median: 66.3\%).
- Provided intensive case management for students with asthma who are absent 10 days or more per year: from $14.3 \%$ to $51.0 \%$ across states (median: $35.4 \%$ ) and from $11.0 \%$ to $68.6 \%$ across cities (median: 54.0\%).
- Educated school staff about asthma: from $33.2 \%$ to 82.0\% across states (median: 53.7\%) and from 30.0\% to $83.4 \%$ across cities (median: $50.8 \%$ ).
- Educated students with asthma about asthma management: from $24.4 \%$ to $75.9 \%$ across states (median: $52.4 \%$ ) and from $17.8 \%$ to $83.0 \%$ across cities (median: 67.9\%).
- Taught asthma awareness to all students in at least one grade: from $12.2 \%$ to $39.5 \%$ across states (median: $25.8 \%$ ) and from $7.1 \%$ to $52.8 \%$ across cities (median: 25.3\%).
- Encouraged full participation in physical education and physical activity when students with asthma are doing well: from $76.2 \%$ to $99.4 \%$ across states (median: 96.4\%) and from $74.4 \%$ to $100.0 \%$ across cities (median: 94.4\%).
- Provided modified physical education and physical activities as indicated by the student's Asthma Action Plan: from $54.8 \%$ to $91.3 \%$ across states (median: $84.9 \%$ ) and from $62.4 \%$ to $93.3 \%$ across cities (median: 85.6\%).


## FOOD SERVICE

A large percentage of schools serve lunch to their students. The percentage of schools that served lunch ranged from $85.9 \%$ to $100.0 \%$ across states (median: $99.4 \%$ ) and from $93.8 \%$ to $100.0 \%$ across cities (median: $100.0 \%$ ) (Table 28). It is important that students have enough time to eat lunch once they are seated. Among schools that serve lunch to students, the percentage of schools in which students usually had 20 minutes or more to eat lunch, once they were seated, ranged from $63.8 \%$ to $91.8 \%$ across states (median: 79.5\%) and from $57.0 \%$ to $91.9 \%$ across cities (median: $81.8 \%$ ) (Table 28).

## SCHOOL POLICY AND ENVIRONMENT Competitive Foods

The percentage of schools that allowed students to purchase snack foods or beverages from vending machines or at the school store, canteen, or snack bar ranged from $59.8 \%$ to $95.0 \%$ across states (median: $89.5 \%$ ) and from $33.2 \%$ to $96.1 \%$ across cities (median: $81.5 \%$ ) (Table 29, Figure 6). Among schools that allowed students to purchase snack foods or beverages from vending machines or at the school store, canteen, or snack bar, less nutritious foods and beverages available for purchase were as follows (Table 29, Figure 6).

- Chocolate candy: from $34.5 \%$ to $93.4 \%$ across states (median: 65.0\%) and from $27.3 \%$ to $82.4 \%$ across cities (median: 58.0\%).

FIGURE 6. Median percentage of schools that allowed students to purchase snack foods or beverages from vending machines or at the school store, canteen, or snack bar and, among those schools, the median percentage that sold less nutritious and more nutritious foods or beverages, School Health Profiles, 2004.


- Other kinds of candy: from $39.7 \%$ to $94.4 \%$ across states (median: 67.7\%) and from 33.7\% to $82.5 \%$ across cities (median: 62.3\%).
- Salty snacks that are not low in fat: from $53.5 \%$ to 89.4\% across states (median: 74.5\%) and from 52.4\% to $91.7 \%$ across cities (median: $81.8 \%$ ).
- Soft drinks, sports drinks, or fruit drinks that are not $100 \%$ juice: from $78.9 \%$ to $99.5 \%$ across states (median: 95.4\%) and from $53.4 \%$ to $100.0 \%$ across cities (median: 92.1\%).

Among schools that allowed students to purchase snack foods or beverages from vending machines or at the school store, canteen, or snack bar, more nutritious foods and beverages available for purchase were as follows (Table 29, Figure 6):

- Salty snacks that are low in fat: from $55.6 \%$ to 92.5\% across states (median: 79.6\%) and from 50.8\% to $88.1 \%$ across cities (median: $77.2 \%$ ).
- Fruits or vegetables: from $18.5 \%$ to $57.8 \%$ across states (median: 44.5\%) and from $14.7 \%$ to $77.1 \%$ across cities (median: 45.9\%).
- Low-fat baked goods: from $41.0 \%$ to $80.2 \%$ across states (median: 60.6\%) and from 28.5\% to $75.0 \%$ across cities (median: 65.2\%).
- $100 \%$ fruit juice: from $56.6 \%$ to $95.5 \%$ across states (median: $84.2 \%$ ) and from $61.7 \%$ to $90.1 \%$ across cities (median: 83.3\%).
- Bottled water: from $83.9 \%$ to $100.0 \%$ across states (median: 94.3\%) and from $79.6 \%$ to $100.0 \%$ across cities (median: 95.6\%).

Among schools that allowed students to purchase snack foods or beverages from vending machines or at the school store, canteen, or snack bar, the percentage of schools that allowed students to purchase candy; high fat snacks; or soft drinks, sports drinks, or fruit drinks that are not $100 \%$ fruit juice (Table 30):

- Before classes begin in the morning ranged from $34.8 \%$ to $82.8 \%$ across states (median: $60.3 \%$ ) and from $18.1 \%$ to $83.3 \%$ across cities (median: $43.1 \%)$.
- During any school hours when meals are not being served ranged from $20.8 \%$ to $62.0 \%$ across states (median: $44.7 \%$ ) and from $7.4 \%$ to $58.3 \%$ across cities (median: 22.1\%).
- During school lunch periods ranged from $22.2 \%$ to 90.1\% across states (median: 66.0\%) and from $48.7 \%$ to $89.5 \%$ across cities (median: $70.3 \%$ ).

The percentage of schools that had a policy that fruits or vegetables would be offered at school settings such as student parties, after-school programs, staff meetings, parents' meetings, or concession stands ranged from $5.5 \%$ to $23.5 \%$ across states (median: $9.7 \%$ ) and from $11.3 \%$ to $40.9 \%$ across cities (median: 27.4\%) (Table 30).

## Tobacco Use Prevention

Tobacco use prevention policies can help prevent tobacco use among students. The percentage of schools that had a policy prohibiting tobacco use ranged from $96.2 \%$ to $100.0 \%$ across states (median: $98.6 \%$ ) and from $85.4 \%$ to $100.0 \%$ across cities (median: $98.0 \%$ ) (Table 31). Among those schools, the percentage of schools that had an "ideal" tobacco use prevention policy ranged from $19.6 \%$ to $66.5 \%$ across states (median: $46.2 \%$ ) and from $28.0 \%$ to $73.9 \%$ across cities (median: 56.4\%) (Table 31, Figure 7).

Among schools with a policy prohibiting tobacco use, specific actions are taken when students are caught smoking cigarettes. The ranges in percentage of schools that sometimes, almost always, or always took specific actions when students were caught smoking cigarettes were as follows (Tables 32a, b):

- Informed parents or guardians: from $97.8 \%$ to 100.0\% across states (median: 99.6\%) and from 96.9\% to $100.0 \%$ across cities (median: 100.0\%).
- Referred students to a school counselor: from 55.2\% to $88.6 \%$ across states (median: $75.4 \%$ ) and from $70.6 \%$ to $100.0 \%$ across cities (median: $90.0 \%$ ).
- Referred students to a school administrator: from $94.9 \%$ to $100.0 \%$ across states (median: $99.3 \%$ ) and from $86.5 \%$ to $100.0 \%$ across cities (median: $100.0 \%$ ).
- Encouraged students to participate in an assistance, education, or cessation program: from $37.7 \%$ to 82.2\% across states (median: 62.6\%) and from 37.0\% to $88.2 \%$ across cities (median: $60.0 \%$ ).
- Required students to participate in an assistance, education, or cessation program: from $15.2 \%$ to 68.4\% across states (median: 32.7\%) and from $17.3 \%$ to $92.9 \%$ across cities (median: $41.7 \%$ ).

FIGURE 7. Median percentage of schools that prohibited tobacco advertising,* posted signs marking a tobacco-free school zone,** and, among schools with a policy prohibiting tobacco use, had an "ideal" tobacco use prevention policy, ${ }^{\S}$ School Health Profiles, 2004.


[^3]- Referred students to legal authorities: from $12.3 \%$ to 98.1\% across states (median: 62.5\%) and from $21.3 \%$ to $66.7 \%$ across cities (median: $45.0 \%$ ).
- Placed students in detention: from $33.7 \%$ to $72.3 \%$ across states (median: $56.9 \%$ ) and from $30.5 \%$ to 82.2\% across cities (median: 65.5\%).
- Gave students in-school suspension: from $49.4 \%$ to $91.2 \%$ across states (median: 70.8\%) and from $44.1 \%$ to $87.8 \%$ across cities (median: $70.7 \%$ ).
- Suspended students from school: from $53.1 \%$ to
92.3\% across states (median: 78.4\%) and from $75.2 \%$ to $93.3 \%$ across cities (median: $85.8 \%$ ).

Among schools with a policy prohibiting tobacco use, the percentage of schools that had procedures to inform specific groups about the tobacco prevention policy that
prohibited their use of tobacco ranged from $95.9 \%$ to $100.0 \%$ across states (median: $99.4 \%$ ) and from $93.4 \%$ to $100.0 \%$ across cities (median: 100.0\%) for students, from $91.2 \%$ to $99.6 \%$ across states (median: $96.4 \%$ ) and from $92.0 \%$ to $100.0 \%$ across cities (median: $96.9 \%$ ) for faculty and staff, and from $67.2 \%$ to $91.6 \%$ across states (median: $82.8 \%$ ) and from $81.5 \%$ to $100.0 \%$ across cities (median 91.8\%) for visitors (Table 33). In addition, among schools with a policy prohibiting tobacco use, the percentage of schools that had a policy to inform parents about the policy that prohibited tobacco use by students ranged from $93.2 \%$ to $99.7 \%$ across states (median: 98.5\%) and from $90.7 \%$ to $100.0 \%$ across cities (median: 97.8\%) (Table 33).

Many schools prohibit tobacco advertisements in specific locations, tobacco advertisement through sponsorship of school events, and students from wearing tobacco brand-name apparel or carrying merchandise
with tobacco company names, logos, or cartoon characters. The ranges in percentage of schools that implemented such policies were as follows (Table 34):

- Prohibited tobacco advertising in the school building: from $90.9 \%$ to $96.9 \%$ across states (median: 94.9\%) and from $87.9 \%$ to $100.0 \%$ across cities (median: 94.6\%).
- Prohibited tobacco advertising on school grounds including on the outside of the building, on playing fields, or other areas of the campus: from $89.3 \%$ to $97.0 \%$ across states (median: $94.2 \%$ ) and from $87.6 \%$ to $100.0 \%$ across cities (median: $92.7 \%$ ).
- Prohibited tobacco advertising on school buses or other vehicles used to transport students: from $87.7 \%$ to $96.3 \%$ across states (median: $93.9 \%$ ) and from $87.9 \%$ to $99.0 \%$ across cities (median: 92.6\%).
- Prohibited tobacco advertising in school publications: from $88.7 \%$ to $95.9 \%$ across states (median: $93.6 \%$ ) and from $85.1 \%$ to $100.0 \%$ across cities (median: 91.3\%).
- Prohibited tobacco advertising through sponsorship of school events: from $86.4 \%$ to $96.3 \%$ across states (median: 92.6\%) and from $82.5 \%$ to $98.0 \%$ across cities (median: 91.9\%).
- Prohibited students from wearing tobacco brandname apparel or carrying merchandise with tobacco company names, logos, or cartoon characters: from $71.8 \%$ to $99.5 \%$ across states (median: 93.8\%) and from $81.9 \%$ to $100.0 \%$ across cities (median: 90.5\%).
- Prohibited all tobacco advertising in school buildings, on school grounds, on school buses, in school publications, and through sponsorship of school events and prohibited students from wearing tobacco brand-name apparel or carrying merchandise with tobacco company names, logos, or cartoon characters: from $62.8 \%$ to $89.4 \%$ across states (median: $82.3 \%$ ) and from $60.6 \%$ to $87.5 \%$ across cities (median: 78.6\%) (Figure 7).

The ranges in percentage of schools that provided referrals to tobacco cessation programs for faculty and staff were from $7.5 \%$ to $46.1 \%$ across states (median: $19.0 \%$ ) and from $2.8 \%$ to $53.1 \%$ across cities (median: $23.3 \%$ ) (Table 35). The ranges in percentage of schools that provided referrals to tobacco cessation programs for students were from $21.0 \%$ to $78.7 \%$ across states (median: 49.7\%) and from $9.5 \%$ to $100.0 \%$ across cities (median: 35.7\%) (Table 35).

The percentage of schools that post signs marking a tobacco-free school zone, that is, a specified distance from school grounds where tobacco use by students, faculty and staff, and visitors is not allowed, ranged from $41.6 \%$ to $85.3 \%$ across states (median: 62.5\%) and from $29.9 \%$ to $90.5 \%$ across cities (median: $71.4 \%$ ) (Table 35, Figure 7).

## Violence Prevention

Schools implement safety and security measures to ensure the safety of students, staff, and visitors. The ranges in percentage of schools that implemented specific safety and security measures were as follows (Table 36, Figure 8):

- Required visitors to report to the main office or reception area upon arrival: from $89.6 \%$ to $100.0 \%$ across states (median: $99.7 \%$ ) and from $98.1 \%$ to 100.0\% across cities (median: 100.0\%).

FIGURE 8. Median percentage of schools that implemented specific safety and security measures, School Health Profiles, 2004.


- Maintained a closed campus: from $43.8 \%$ to $96.5 \%$ across states (median: $83.0 \%$ ) and from $75.0 \%$ to $100.0 \%$ across cities (median: 96.7\%).
- Used staff or adult volunteers to monitor school halls during and between classes: from $72.6 \%$ to 94.3\% across states (median: 88.5\%) and from $87.5 \%$ to $96.9 \%$ across cities (median: $93.0 \%$ ).
- Routinely conducted bag, desk, or locker checks: from $17.1 \%$ to $70.5 \%$ across states (median: $46.9 \%$ ) and from $7.3 \%$ to $96.3 \%$ across cities (median: $67.2 \%)$.
- Prohibited students from carrying backpacks or book bags at school: from $10.8 \%$ to $49.4 \%$ across states (median: $25.2 \%$ ) and from $0.0 \%$ to $33.1 \%$ across cities (median: 17.8\%).
- Required students to wear school uniforms: from $0.0 \%$ to $24.3 \%$ across states (median: $4.3 \%$ ) and from $0.0 \%$ to $98.1 \%$ across cities (median: $40.3 \%$ ).
- Required students to wear identification badges: from $0.0 \%$ to $37.7 \%$ across states (median: $4.6 \%$ ) and from $0.0 \%$ to $74.2 \%$ across cities (median: $25.8 \%$ ).
- Used metal detectors: from $0.0 \%$ to $27.8 \%$ across states (median: $3.6 \%$ ) and from $0.0 \%$ to $98.1 \%$ across cities (median: 55.3\%).
- Employed uniformed police, undercover police, or security guards during the regular school day: from $10.5 \%$ to $86.5 \%$ across states (median: $39.2 \%$ ) and from $68.7 \%$ to $100.0 \%$ across cities (median: $90.8 \%$ ).

The ranges in percentage of schools that had or participated in specific violence prevention programs were as follows (Table 37):

- A peer mediation program: from $17.8 \%$ to $67.8 \%$ across states (median: $44.4 \%$ ) and from $43.4 \%$ to $97.3 \%$ across cities (median: 64.1\%).
- A safe-passage-to-school program: from $1.6 \%$ to 21.0\% across states (median: 6.6\%) and from 7.4\% to $57.1 \%$ across cities (median: $26.7 \%$ ).
- A program to prevent gang violence: from $7.2 \%$ to 48.2\% across states (median: 22.5\%) and from 39.5\% to $84.8 \%$ across cities (median: $65.7 \%$ ).
- A program to prevent bullying: from $45.9 \%$ to $76.3 \%$ across states (median: $58.2 \%$ ) and from $48.4 \%$ to $85.8 \%$ across cities (median: 62.2\%).

The ranges in percentage of schools that had a written plan for responding to violence at the school were from $86.9 \%$ to $99.0 \%$ across states (median: $95.8 \%$ ) and from $89.9 \%$ to $100.0 \%$ across cities (median: 97.7\%) (Table 37).

## HIV Infection and AIDS Prevention

School policies can provide critical support for HIV infected students and staff. The percentage of schools with a written policy that protects the rights of students or staff with HIV infection or AIDS ranged from 44.9\% to $84.2 \%$ across states (median: 59.4\%) and from 54.2\% to $100.0 \%$ across cities (median: 65.3\%) (Table 38).

Among those schools that had a written policy, the ranges in percentage of schools whose policy addressed specific issues were as follows (Table 38, Figure 9):

- Attendance at school of students with HIV infection: from $86.0 \%$ to $96.7 \%$ across states (median: $91.9 \%$ ) and from $84.7 \%$ to $100.0 \%$ across cities (median: 93.9\%).
- Procedures to protect HIV-infected students and staff from discrimination: from $91.3 \%$ to $100.0 \%$ across states (median: 97.1\%) and from 93.1\% to 100.0\% across cities (median: 100.0\%).
- Maintenance of confidentiality of HIV-infected students and staff: from $95.1 \%$ to $100.0 \%$ across states (median: $98.6 \%$ ) and from $98.4 \%$ to $100.0 \%$ across cities (median: 100.0\%).
- Worksite safety: from $94.9 \%$ to $100.0 \%$ across states (median: 97.9\%) and from $95.1 \%$ to $100.0 \%$ across cities (median: 100.0\%).
- Confidential counseling for HIV-infected students: from $64.1 \%$ to $86.5 \%$ across states (median: $77.3 \%$ ) and from $84.5 \%$ to $100.0 \%$ across cities (median: 90.1\%).
- Communication of the policy to students, school staff, and parents: from $76.8 \%$ to $94.7 \%$ across states (median: $85.6 \%$ ) and from $85.2 \%$ to $96.5 \%$ across cities (median: 89.2\%).
- Adequate training about HIV infection for school staff: from $65.2 \%$ to $96.5 \%$ across states (median: $85.9 \%$ ) and from $78.0 \%$ to $92.9 \%$ across cities (median: 89.3\%).

FIGURE 9. Among schools with a written policy that protects the rights of students or staff with HIV* infection or AIDS,** the median percentage whose policy addressed specific issues, School Health Profiles, 2004.


* HIV = human immunodeficiency virus.
** AIDS $=$ acquired immunodeficiency syndrome.
- Procedures for implementing the policy: from $84.9 \%$ to $97.8 \%$ across states (median: $91.9 \%$ ) and from $86.7 \%$ to $100.0 \%$ across cities (median: $90.9 \%$ ).


## FAMILY AND COMMUNITY

## INVOLVEMENT

Partnerships between schools, families, and community members are important elements of a school health program. The percentage of schools that had a school health committee or advisory group to develop policies, coordinate activities, or seek student and family involvement in programs that address health issues ranged from $20.5 \%$ to $72.7 \%$ across states (median: $48.7 \%$ ) and from $40.9 \%$ to $85.3 \%$ across cities (median: $72.3 \%$ ) (Table 39).

The ranges in percentage of schools that engaged parents and families in specific health education activities during the 2003-2004 school year were as follows (Table 39):

- Provided families with information on the health education program: from $37.2 \%$ to $81.4 \%$ across states (median: $70.9 \%$ ) and from $58.5 \%$ to $89.8 \%$ across cities (median: 77.5\%).
- Met with a parents' organization (e.g., PTA, PTO) to discuss the health education program: from $4.3 \%$ to $33.6 \%$ across states (median: $18.3 \%$ ) and from $18.7 \%$ to $56.7 \%$ across cities (median: $32.5 \%$ ).
- Invited family members to attend a health education class: from $18.6 \%$ to $54.6 \%$ across states (median: $34.4 \%$ ) and from $27.2 \%$ to $87.5 \%$ across cities (median: 42.4\%).

Among schools that required a health education course for students in any of grades 6 through 12, the ranges in percentage of schools that asked students to participate in health-related community activities as part of a required health education course during the 2003-2004 school year were as follows (Table 40):

- Performed volunteer work at a hospital, a local health department, or any other community organization that addresses health issues: from $9.5 \%$ to $24.2 \%$ across states (median: $15.9 \%$ ) and from $11.7 \%$ to $46.4 \%$ across cities (median: 29.5\%).
- Participated in or attended a school or community health fair: from $13.3 \%$ to $37.9 \%$ across states (median: $26.7 \%$ ) and from $34.0 \%$ to $78.6 \%$ across cities (median: 44.6\%).
- Gathered information about health services that are available in the community: from $45.5 \%$ to $71.6 \%$ across states (median: $55.7 \%$ ) and from
$50.2 \%$ to $88.1 \%$ across cities (median: $71.3 \%$ ).
- Visited a store to compare prices of health products: from $13.4 \%$ to $36.7 \%$ across states (median: $25.2 \%$ ) and from $29.4 \%$ to $57.4 \%$ across cities (median: 43.6\%).
- Identified potential injury sites at school, home, or in the community: from $36.5 \%$ to $71.2 \%$ across states (median: $55.1 \%$ ) and from $58.9 \%$ to $83.9 \%$ across cities (median: 65.4\%).
- Identified and analyzed advertising in the community designed to influence health behaviors or health risk behaviors: from $48.9 \%$ to $82.4 \%$ across states (median: $70.0 \%$ ) and from $56.9 \%$ to $87.4 \%$ across cities (median: 71.9\%).
- Advocated for a health-related issue: from 35.7\% to $70.0 \%$ across states (median: $50.7 \%$ ) and from $46.0 \%$ to $76.0 \%$ across cities (median: 55.6\%).
- Completed homework assignments with family members: from $62.3 \%$ to $87.6 \%$ across states (median: $76.9 \%$ ) and from $72.4 \%$ to $94.0 \%$ across cities (median: 86.8\%).


## TRENDS

The Profiles survey was first conducted in 1996 and is repeated biennially. Although the questionnaires are modified each year, some questions remain constant, which allows investigators to analyze changes over time. Long-term trends compare data between the $1996^{47}$ and 2004 Profiles. Short-term trends compare data between the $2002^{48}$ and 2004 Profiles.

## LONG-TERM TRENDS

Significant improvements in health education and health policy were detected between 1996 and 2004 in the following areas:

- Across states, the median percentage of schools in which teachers tried to increase student knowledge in a required health education course about consumer health, nutrition and dietary behavior, physical activity and fitness, and tobacco use prevention increased from $78.5 \%$ to $81.3 \%$, from $94.3 \%$ to $98.5 \%$, from $94.5 \%$ to $98.9 \%$, and from $97.2 \%$ to $98.6 \%$, respectively.
- Across cities, the median percentage of schools in which teachers tried to increase student knowledge in a required health education course about accident or injury prevention increased from $85.9 \%$ to $96.3 \%$.
- Across states, increases were found in the median percentage of schools in which teachers tried to improve student skills in a required health education course in communication (from $90.2 \%$ to $93.3 \%$ ), decision making (from $96.5 \%$ to $97.7 \%$ ), goal setting (from 89.8\% to 94.3\%), conflict resolution (from $81.5 \%$ to $89.2 \%$ ), and stress management (from $85.6 \%$ to $89.5 \%$ ).
- Across states, among schools with a health education coordinator, the median percentage of schools in
which a health education teacher coordinated health education at the school increased from $38.8 \%$ to $46.3 \%$.
- Across states, the median percentage of schools in which health education staff worked on health education activities with physical education staff, school health services staff, school mental health staff, or food service staff increased from $69.2 \%$ to $74.0 \%$, from $44.3 \%$ to $67.5 \%$, from $55.9 \%$ to $60.5 \%$, and from $18.2 \%$ to $23.4 \%$, respectively.
- Across states, increases were found in the median percentage of schools in which the lead health education teacher received staff development during the past 2 years about alcohol or other drug use prevention (from $40.3 \%$ to $48.2 \%$ ), consumer health (from 9.3\% to $15.1 \%$ ), CPR (from $50.7 \%$ to $64.2 \%$ ), death and dying (from $9.4 \%$ to $11.2 \%$ ), dental and oral health (from $5.8 \%$ to $9.4 \%$ ), emotional and mental health (from 21.4\% to 32.3\%), environmental health (from $8.8 \%$ to $14.9 \%$ ), first aid (from $40.3 \%$ to $53.9 \%$ ), growth and development (from 16.1\% to $23.2 \%$ ), nutrition and dietary behavior (from $26.9 \%$ to $32.0 \%$ ), physical activity and fitness (from $31.9 \%$ to $43.3 \%$ ), suicide prevention (from $15.5 \%$ to $23.1 \%$ ), tobacco use prevention (from $21.2 \%$ to $33.9 \%$ ), and violence prevention (from $41.8 \%$ to $52.2 \%$ ).
- Across states, among schools that had adopted a written policy to protect the rights of students or staff with HIV infection or AIDS, increases were found in the median percentages of schools that had a written policy that addressed procedures to protect HIV-infected students and staff from discrimination (from 90.4\% to $97.1 \%$ ); maintain confidentiality of HIV-infected students and staff (from 94.9\% to 98.6\%); provide
worksite safety (from 92.7\% to 97.9\%) ; communicate the HIV policy to students, school staff, and parents (from $75.7 \%$ to $85.6 \%$ ); and procedures to implement the policy (from $86.2 \%$ to $91.9 \%$ ).
- Across cities, among schools that had adopted a written policy to protect the rights of students or staff with HIV infection or AIDS, increases were found in the median percentages of schools that had a written policy on worksite safety (from 95.9\% to 100.0\%).

Significant deteriorations in health education and health policy were detected between 1996 and 2004 in the following areas:

- Across cities, the median percentage of schools that required health education for students in any of grades 6 through 12 decreased from $97.1 \%$ to $81.3 \%$.
- Across states, decreases were found in the median percentage of schools in which teachers tried to increase student knowledge in a required health education course about CPR (from 72.0\% to 59.1\%) and first aid (from $78.5 \%$ to $72.7 \%$ ).
- Across states, decreases were found in the median percentage of schools in which teachers taught in a required health education course how HIV is transmitted (from 99.4\% to 93.9\%) and the influence of alcohol and other drugs on HIV-related risk behaviors (from $92.7 \%$ to $91.1 \%$ ).
- Across states, the median percentage of schools in which the lead health education teacher received staff development during the past 2 years on HIV prevention decreased from $51.3 \%$ to $42.7 \%$.
- Across states, the median percentage of schools that had adopted a written policy to protect the rights
of students or staff with HIV infection or AIDS decreased from $69.5 \%$ to $59.4 \%$.


## SHORT-TERM TRENDS

Significant improvements in health education and health policy were detected between 2002 and 2004 in the following areas:

- Across states, the median percentage of schools that taught students how to find valid information or services related to tobacco use cessation in a required health education course increased from $72.1 \%$ to 76.3\%.
- Across states and cities, the median percentage of schools in which teachers taught in a required health education course about using food labels increased from $80.2 \%$ to $87.2 \%$ and from $83.0 \%$ to $90.1 \%$, respectively.
- Across states, increases were found in the median percentage of schools in which teachers taught in a required health education course about choosing a variety of fruits and vegetables daily (from 84.6\% to $89.8 \%$ ), preparing healthy meals and snacks (from $74.0 \%$ to $82.7 \%$ ), aiming for a healthy weight (from $86.3 \%$ to $93.5 \%$ ), risks of unhealthy weight control practices (from $80.9 \%$ to $91.4 \%$ ), and eating disorders (from $87.4 \%$ to $90.6 \%$ ).
- Across states, the median percentage of schools that used peer educators as a teaching method in a required health education course increased from $56.3 \%$ to 61.6\%.
- Across states, the median percentage of schools that used the Internet as a teaching method in a required health education course increased from $79.9 \%$ to 83.2\%.
- Across states, there was an increase in the median percentage of schools in which the lead health education teacher received staff development during the past 2 years in teaching skills for behavior changes from $46.1 \%$ to $53.5 \%$.
- Across states, there was an increase in the median percentage of schools that provided modified physical education and physical activities as indicated by the student's Asthma Action Plan from 81.8\% to $84.9 \%$.
- Across states, among schools that allowed students to purchase foods or beverages from vending machines or at the school store, canteen, or snack bar, there was an increase in the median percentage of schools that allowed students to purchase $100 \%$ fruit juice (from $79.3 \%$ to $84.2 \%$ ) and water (from $90.3 \%$ to $94.3 \%$ ).
- Across cities, among schools that allowed students to purchase snack foods or beverages from vending machines or at the school store, canteen, or snack bar, the median percentage of schools that allowed students to purchase candy; high fat snacks; or soft drinks, sports drinks, or fruit drinks that are not $100 \%$ fruit juice during school lunch periods decreased from $90.2 \%$ to $70.3 \%$.
- Across states, there was an increase in the median percentage of schools that had a policy that fruits or vegetables would be offered at school settings such as student parties, after-school programs, staff meetings, parents' meetings, or concession stands from $7.7 \%$ to $9.7 \%$.
- Across states, there was an increase in the median percentage of schools that had a program to prevent bullying from $50.6 \%$ to $58.2 \%$.
- Across cities, there was an increase in the median percentage of schools that identified potential injury sites
at school, home, or in the community from $56.8 \%$ to $65.4 \%$.

Significant deteriorations in health education and health policy were detected between 2002 and 2004 in the following areas:

- Across cities, there was a decrease in the median percentage of schools that taught required HIV prevention units or lessons in special education courses from $47.4 \%$ to $37.2 \%$.
- Across states, decreases were found in the median percentage of schools in which teachers taught in a required health education course about choosing a variety of grains daily (from $91.5 \%$ to $86.4 \%$ ), choosing and preparing foods with less salt (from $87.3 \%$ to $78.6 \%$ ), and keeping food safe to eat (from $80.0 \%$ to $74.3 \%$ ).
- Across cities, a decrease was found in the median percentage of schools in which teachers taught in a required health education course about choosing and preparing foods with less salt from $92.4 \%$ to $82.1 \%$.
- Across states, a decrease was found in the median percentage of lead health education teachers who received staff development during the past 2 years on tobacco use prevention from $38.7 \%$ to $33.9 \%$.
- Across cities, the median percentage of schools that offered students the opportunity to participate in before- or after-school intramural activities or physical activity clubs decreased from $92.4 \%$ to $78.4 \%$.
- Across states, there was a decrease in the median percentage of schools that had or participated in a peer mediation program from $51.2 \%$ to $44.4 \%$.


## DISCUSSION

Coordinated school health programs (CSHPs) help students develop and improve health-related knowledge, attitudes, and skills. In addition, these programs can help improve health behaviors, health outcomes, educational outcomes, and social outcomes among adolescents and young adults. ${ }^{49}$ School Health Profiles provides information to help assess some aspects of six of the eight components of CSHPs. Long- and short-term trends in Profiles data illustrate how school health programs have evolved over time to meet the needs of students and demonstrate areas for improvement.

The National Health Education Standards, the Institute of Medicine, and the Healthy People 2010 objectives all identify health education as important to help keep America's youth healthy. ${ }^{5,8,9}$ Profiles measures many characteristics of health education. For example, across cities, the median percentage of schools that required health education decreased significantly, from $97.1 \%$ in 1996 to $81.3 \%$ in 2004. These results are of concern because health education is important for ensuring that students receive the appropriate knowledge and skills needed to develop and maintain healthy behaviors.

Healthy People $2010^{9}$ Objective 7-2 specifies that the following topics be addressed in health education: unintentional injuries; violence; suicide; tobacco use and addiction; alcohol and other drug use; unintended pregnancy, HIV/AIDS, and STD infections; unhealthy dietary patterns; inadequate physical activity; and environmental health. More than $80 \%$ of middle/junior and senior high schools across states and cities addressed topics related to tobacco use prevention, alcohol or other drug use prevention, HIV prevention, nutrition and dietary behavior, and physical activity and fitness. Since 1996, a significant increase occurred in the median
percentage of middle/junior and senior high schools across states that taught about alcohol and other drug use prevention, nutrition and dietary behavior, physical activity and fitness, suicide prevention, tobacco use prevention, and violence prevention. Concurrently, a significant decrease occurred in the median percentage of middle/junior and senior high schools across states that taught how HIV is transmitted and the influence of alcohol and other drugs on HIV-related risk behaviors. Schools need to ensure that health education topics address the priority health problems identified by the Healthy People $2010^{9}$ objectives.

The National Health Education Standards identify particular student skills such as goal setting, decision making, communications, and stress management that are important for enhancing health. More than $70 \%$ of middle/junior and senior high schools across states and cities tried to improve student skills in communications, decision-making, goal setting, and stress management. Since 1996, across states, a significant increase occurred in the median percentage of middle/junior and senior high schools that taught those skills.

An important component of effective health education is that it is coordinated by a professional who is trained in health education. ${ }^{10}$ Since 1996, across states, among schools with a health education coordinator, a significant increase occurred in the median percentage of middle/junior and senior high schools in which a health education teacher coordinated health education. However, it is also important that health education teachers be trained in health education. In 2004, professional preparation of the lead health education teacher varied greatly across states and cities. Coordination of health education activities with other components of the
school health program helps ensure that health issues are consistently addressed and reinforced within schools. The median percentage of middle/junior and senior high schools across states and cities that worked on health education activities with physical education, health services, and mental health or social services staff was more than $50 \%$. Since 1996, across states, a significant increase occurred in the median percentage of middle/ junior and senior high schools that worked on health education activities with physical education, school health services, school mental health, and food service staff. Coordination between health education and other school staff may improve the implementation of health education activities.

According to the U.S. Department of Education, Internet access in middle/junior and senior high classrooms has increased from 4\% of classrooms in 1994 to $94 \%$ in $2003 .{ }^{50}$ In 2000, $53 \%$ of public school teachers had used the computer or the Internet for instruction during class time. ${ }^{51}$ Profiles data demonstrate that since 2002 a significant increase occurred in the median percentage of middle/junior and senior high schools across states that reported using the Internet as a teaching method in a required health education course. This indicates the positive effort teachers have made to incorporate this technology into required health education courses.

CDC guidelines and Healthy People 2010 objectives recommend required daily physical education to promote active, productive, and healthy lifestyles among youth. ${ }^{90}$ In 2004, the median percentage of schools across states and cities that required physical education for middle/junior and senior high school students was greater than $90 \%$. Intramural sports extend and complement physical education and provide all students with an opportunity, regardless of athletic skill, to participate in physical activities. ${ }^{52}$ From 2002, a significant decrease
occurred in the median percentage of schools across cities that offered students the opportunity to participate in intramural activities or physical activity clubs.

Health services help students appraise, protect, and improve their health. One major aspect of health services is helping students with asthma manage their illness. In 2004, more than $70 \%$ of schools across states and cities assured students immediate access to asthma medications as prescribed by a physician and approved by parents. However, large variability was identified across states and cities in the percentages of schools that provided a full-time registered nurse, identified and tracked all students with asthma, and obtained and used an Asthma Action Plan for all students with asthma. Many schools do encourage full participation in physical education and physical activity when students with asthma are doing well and modify physical education and physical activities as indicated by the students' Asthma Action Plan.

Schools face a challenge to help meet the Healthy People $2010^{\circ}$ objective of increasing the proportion of children whose meal and snack intake contributes to a good diet. Among schools that allowed students to buy snack foods or beverages from vending machines or at the school store, canteen, or snack bar, there was an increase from 2002 to 2004 in the median percentage of schools across states that allowed students to purchase $100 \%$ fruit juice and water. During the same time period, there was a significant decrease in the median percentage of schools across cities that allowed students to purchase candy; high-fat snacks; and soft drinks, sports drinks, or fruit drinks that are not $100 \%$ fruit juice during school lunch periods.

The No Child Left Behind Act of 2001 reauthorized the Pro-Children Act of 1994, which prohibits smoking in any indoor facility that receives federal funds and
provides routine or regular education, day care, health care, early childhood development, or library services to children. ${ }^{40,53}$ The Pro-Children Act is generally limited to indoor facilities in an attempt to protect children from secondhand smoke. The CDC Guidelines for School Health Programs to Prevent Tobacco Use and Addiction identified key elements of a tobacco use prevention school policy. ${ }^{38}$ Across states and cities, the median percentage of schools with an "ideal" tobacco use prevention policy was $46.2 \%$ and $56.4 \%$, respectively. More schools should adopt and enforce components of the "ideal" tobacco use prevention policy to meet the Healthy People 2010 objective of $100 \%$ smoke-free and tobacco-free school environments. ${ }^{9}$ Another strategy identified in CDC's guidelines to aid schools in preventing tobacco use among youth is the prohibition of tobacco advertising in school buildings, on school property, and in school publications. In 2004, more than $80 \%$ of schools across states and cities prohibited tobacco advertising in school buildings, on school grounds, on school vehicles, and in school publications. In addition, more than $70 \%$ of schools across states and cities prohibit students from wearing tobacco brand-name apparel or carrying merchandise with tobacco company names, logos, or cartoon characters on it.

The No Child Left Behind Act of 2001 also authorized schools to use federal funds for programs to prevent violence in and around schools. ${ }^{40}$ In 2004, the median percentage of schools that used metal detectors and had uniformed police, undercover police, or security guards during the regular school day varied greatly between states and cities. From 2002 to 2004, there was an increase in the median percentage of schools across states with a program to prevent bullying.

School policies should address the needs of students and staff with HIV infection and AIDS. Across states, a decrease occurred from 1996 to 2004 in the median
percentage of schools that had adopted a written policy to protect the rights of students or staff with HIV infection or AIDS. However, among those schools with a policy, a significant increase occurred in the median percentages of schools whose policy addressed protection of HIV-infected students and staff from discrimination; maintaining confidentiality of HIV-infected students and staff; worksite safety; communication of the policy to students, school staff, and parents; and procedures to implement the policy.

Collaboration between schools and families is essential to the success of CSHPs. The median percentage of schools across states and cities that provided information on the health education program to families was more than $70 \%$. However, less than $60 \%$ of schools met with a parents' organization such as the PTA or PTO to discuss the health education program or invited family members to attend a health education class.

Several limitations should be noted. The data presented in this report apply only to public middle/junior high and senior high schools and are limited to these school populations. Because the data were combined across both school levels, program and policy differences between the two levels may be masked. Second, the data are self-reported by school principals and lead health education teachers and may be subject to bias. Finally, the Profiles data do not provide an in-depth assessment of all elements of a CSHP. ${ }^{2}$

State and local education and health agencies use Profiles data to advocate for health and physical education programs, promote curricula or program modifications, support school health legislation, and identify staff development needs. For example, the Massachusetts Department of Education used Profiles data to support a bill to make health education part of the core curriculum and to advocate for continued
funding for health education teachers. In addition, physical activity and nutrition data from Profiles were presented at a legislative breakfast to raise awareness of health education and promote school health bills under consideration. The North Dakota Department of Public Instruction developed a document for its Web site entitled Connecting the Links between Health and Academics - 2002 School Health Education Profiles (SHEP), which provides public access to Profiles data and health education recommendations. The Delaware Department of Education created Statewide Staff Development Day, on which workgroups meet to support staff development needs identified in their Profiles report. To address additional staff development for teachers, Profiles data were given to the Delaware Health Education Commission to support creation of an advanced teacher training program linked to pay increases. Further, Profiles data were used to develop the curriculum for the training program.

Profiles data help state and local education and health agencies promote program strengths and advocate for resources to address weaknesses. Numerous resources exist to help states and districts address weaknesses identified through their Profiles data. For example,
for states and districts needing to improve their policies, Someone at School Has AIDS provides information on developing policies that address issues raised by HIVinfected students and staff. ${ }^{43}$ The document describes the rationale and steps for policy development and provides sample language, implementation guidance, and examples of state and local policies. Fit, Healthy, and Ready to Learn is another guide to help schools develop policies to address physical activity, healthy eating, tobacco use prevention, asthma control, and the healthy school environment. ${ }^{54,55}$ The guide includes information on the policy development process, general school health policies, and examples of specific policies for all topic areas. CDC's School Health Index (SHI) is a tool to help schools identify strengths and weakness of their health and safety policies and practices through a selfassessment process and to develop an action plan for improvement. The process engages teachers, parents, students, and the community to help promote positive health behaviors. ${ }^{56}$ Finally, Making it Happen: School Nutrition Success Stories describes how schools across the United States improved the types of foods and beverages sold and offered outside of the USDA school meal program to provide more healthy choices for students. ${ }^{57}$

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[^0]:    *Foods of minimal nutritional value (FMNV) are defined as items that provide less than $5 \%$ of the U.S. recommended daily allowance per serving for each of eight essential nutrients. FMNV include carbonated soft drinks, water ices, chewing gum, and certain candies made largely from sweeteners, such as hard candy and jelly beans. Under the federal regulations, foods such as potato chips, chocolate bars, and doughnuts are not considered FMNV and can be sold in the cafeteria or elsewhere in the school at any time.

[^1]:    ${ }^{\dagger}$ Schools could report use of one or more types of material.

[^2]:    * As prescribed by a physician and approved by parents.
    ** For all students with asthma.
    ${ }^{\text {s }}$ Who are absent 10 days or more per year.
    ${ }^{55}$ In at least one grade.
    + As indicated by the student's Asthma Action Plan.

[^3]:    * In school buildings, on school grounds, on school buses and other school vehicles, in school publications, and through sponsorship of school events, and prohibited students from wearing tobacco brand-name apparel or carrying merchandise with tobacco company names, logos, or cartoon characters.
    ** A specified distance from school grounds where tobacco use by students, faculty and staff, and visitors is not allowed.
    § Prohibited all tobacco use by students, faculty, staff, and visitors during school and nonschool hours; in school buildings, on school property, in school buses or other vehicles used to transport students; and at off-campus school-sponsored events.

