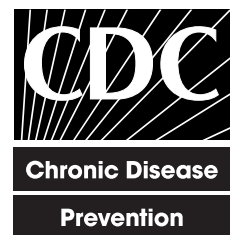


Preventing Chronic Diseases: Investing Wisely in Health



U.S. DEPARTMENT
OF HEALTH AND
HUMAN SERVICES

The Critical Role of School Health Programs

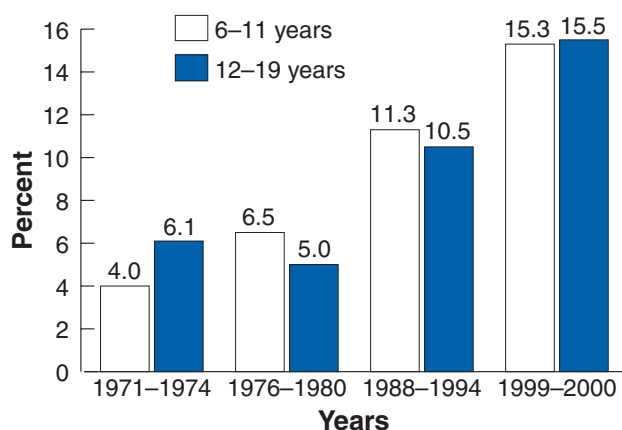
The Reality

The nation's major chronic disease killers—heart disease and stroke, cancer, and diabetes—are often caused by risk behaviors such as physical inactivity, unhealthy eating, and tobacco use. These unhealthy habits are often established in youth. For example, among students in grades 9–12 who were surveyed in 2001,

- 31% had not participated in recommended levels of either vigorous or moderate physical activity during the week before the survey.
- 79% had not eaten the recommended five servings of fruits and vegetables per day during the week before the survey.
- 64% said they had smoked cigarettes at some time, and 28% said they had smoked cigarettes during the month before the survey.

As a result of insufficient physical activity and unhealthy diets, obesity has emerged as a major problem among young people.

Prevalence of Overweight* Among U.S. Children and Adolescents† Aged 6–19 Years, for Selected Years 1971–2000



*CDC's standard growth charts are used to determine if a child or adolescent is overweight. Children are considered overweight if their body mass index (weight in relation to height) places them in the top 5% of the chart for their age. The growth charts are based on weights and heights reported in the 1988–1994 National Health and Nutrition Examination Survey.

†Excludes pregnant adolescents.

Source: CDC, National Center for Health Statistics.

- Since 1980, the prevalence of obesity has more than doubled among children and tripled among adolescents.
- Today, 15% of our children and adolescents—about 9 million young people—are overweight.
- An alarming number of overweight adolescents have recently been diagnosed with type 2 diabetes, which was previously believed to affect only adults.

The nation's schools could do much more to help young people establish healthier behaviors.

- In 2001, nearly half (48%) of the nation's high school students were not enrolled in a physical education class.
- 43% of elementary, 74% of middle/junior high, and 98% of high schools have vending machines or snack bars, most of which offer highly sweetened beverages and fat-laden snack foods.

The Costs of Physical Inactivity, Obesity, Poor Nutrition, Tobacco Use, and Chronic Diseases

- Obesity cost the nation an estimated \$117 billion in 2000. These costs are expected to rise as today's young people reach adulthood, when obesity-related illnesses are most likely to emerge and cause serious problems. Already, this country is reaping the cost: in 1997–1999, obesity-related hospital costs for youth averaged \$127 million a year (in 2001 constant U.S. dollars), up from \$35 million a year during 1979–1981.
- The annual overall direct and indirect costs of diabetes in 2002 were nearly \$132 billion. Now the emergence of type 2 diabetes among children threatens to increase the number of years that people are burdened with this disease, the number of self-supporting years lost to disability, and the costs for health care and for related services to assist people with disabilities.
- The human cost of tobacco use is 440,000 American lives each year. If current smoking patterns in the United States persist, an estimated 6.4 million of today's children will, as adults, die prematurely of tobacco-related diseases.
- The financial cost of smoking-related illness is \$150 billion per year. A study found that every \$1 invested in an effective school-based tobacco use prevention program can save \$19.90 in medical costs.



State Programs in Action: Florida

Florida is one of 22 states that CDC funds for coordinated school health programs (CSHPs) in fiscal year 2003. These programs provide a well-rounded approach to school health that includes health education, physical education, health services, nutrition services, health promotion for staff, counseling/psychological services, a healthy school environment, and parent and community involvement.

The principal of McIntosh Middle School in Sarasota, who was concerned about the impact of health problems on the attendance and performance of students and staff, committed the school to a 3-year state effort to establish a CSHP. Using CDC's School Health Index, the school's CSHP team assessed the school's resources, developed an action plan, and integrated CSHP into the school's operations and curriculum.

At McIntosh Middle School, implementing a CSHP was associated with additional resources for students and staff, improved school attendance, and increased scores on a state-mandated writing assessment. The Florida Department of Education identified McIntosh as a Five-Star School with a state grade of "A." The department also recognized the school as a "Sunshine State Success Story: Emphasizing Teaching Standards Through Health 2001–2002" for making wellness a cornerstone of education.

How School Health Programs Prevent Chronic Diseases

Coordinated school health programs prepare students for a lifetime of healthy choices. They teach students knowledge and skills for lifetime physical activity, healthy eating, and a tobacco-free lifestyle through health education and physical education courses. They provide students with opportunities to practice healthy behaviors in school meal programs and after-school activities. Health messages are reinforced by health and counseling services, parent and community involvement, staff who have participated in health promotion services, and the school's physical and social environment.

Rigorous studies have shown that school health programs can reduce the prevalence of health risk behaviors among young people:

- Studies using a multiple-session school curriculum based on the social influences model and directed to sixth- and seventh-grade students achieved significant reductions in smoking among those students through the ninth grade.
- Middle/junior high school students enrolled in the school-based Life Skills Training Program were less likely than other students to use tobacco, alcohol, or marijuana, and these effects lasted through the 12th grade.
- The prevalence of obesity decreased among girls in grades 6–8 who participated in a school-based curriculum.
- A program that targeted classroom curricula, physical education, the school food service program, and family education for third- through fifth-grade students led to increases in student physical activity and reductions in fat intake that were maintained for 3 years after the end of the program.

Hope for the Future

Coordinated school health programs offer children the knowledge and skills they need to establish healthy lifestyles and help avoid chronic diseases and premature death. As healthier, informed adults, they will have a better chance of raising a new generation of healthy, informed children.

School health is also providing a starting point for communities to make improvements for the future. For example, with the support of parents and community members, school health programs are increasingly countering the availability of sugary beverages and fat-laden snacks in schools with good nutrition options in the school cafeteria, at school activities, in vending machines, and in school snack bars.

For more information or updates, visit www.cdc.gov/nccdphp. For additional copies of this document, E-mail ccdinfo@cdc.gov.