The Iowa Department of Education HIV/AIDS Education Program, through a cooperative agreement with the Division of Adolescent and School Health (DASH), National Center for Chronic Disease Prevention and Health Promotion, U.S. Centers for Disease Control and Prevention (CDC), provides assistance to schools and other youth service agencies to strengthen comprehensive school health education to prevent human immunodeficiency virus (HIV) infection, other sexually transmitted diseases (STDs), and promote healthy behaviors and attitudes. The School Health Profiles (SHP) include two questionnaires, one for school principals and one for lead health education teachers. The questionnaires were developed by the DASH/CDC in collaboration with representatives of 75 state, local, and territorial departments of education.

Methodology
The questionnaires were mailed to a random sample of 350 secondary schools containing any of grades 6 through 12 in Iowa during the winter of the 2007-08 school year. Two (2) of the 350 sampled schools were determined to be ineligible, so the effective sample size was 348 schools. Usable data were received from 259 out of the 348 eligible sampled principals, which yielded a response rate of 74%. Usable data were received from 245 out of 348 eligible sampled lead health education teachers, which yielded a response rate of 70%. Both of these response rates were judged sufficient by the CDC for “weighting” the data and making inferences about the populations of all principals and lead health education teachers in Iowa in 2008.

The data are summarized in a final report, prepared for the Iowa Department of Education. This report is available upon request. (See “Note” below.)

Discussion: Selected Results from the 2008 Iowa SHP
In the discussion that follows, we consider four critical areas of health education: (1) HIV/AIDS and other STDs; (2) tobacco use; (3) violent juvenile crime; and (4) asthma. Selected results from the 2008 Iowa SHP are presented relating to these areas.

1. HIV/AIDS and Other STDs: Policy, Student Behavior, and Preventive Health Education
The percentages of principals affirming that their schools had adopted policies that addressed various issues for students or staff with HIV infection or AIDS varied from 55% to 82%. The lower percentages were for policies addressing issues such as confidential counseling for HIV-infected students (55%) and attendance of students with HIV infection (56%); the higher percentages were for policies addressing worksite safety (82%) and maintaining confidentiality of HIV-infected students and staff (71%).

According to the 2007 Iowa Youth Risk Behavior Survey including 1,440 high school students from across the state, 27% of 9th graders, 37% of 10th graders, 51% of 11th graders, and 59% of 12th graders indicated that they had engaged in sexual intercourse. About one in five indicated that they had four or more sexual partners (in their life) by the 12th grade. These percentages were close to those reported for the nation as a whole, according to a report by the CDC.

Engaging in sexual intercourse, especially if protection is not used, puts students at risk of being infected with HIV and other STDs. During their senior year in high school—when reported incidence of sexual intercourse was highest—only 16% of students received required health education (compared with 56% in 7th grade and 59% in 8th grade).

Most lead health education teachers in Iowa (88%) tried to increase student knowledge of HIV prevention in required courses. Specifically, 86% in grades 6-8 and 83% in grades 9-12 taught the benefits of abstinence (as a way to avoid HIV infection) and 76% in grades 9-12 taught condom efficacy, but only 56% in grades 9-12 taught how to obtain condoms—as part of a required course. According to the 2007 Iowa YRBS, 66% of high school students indicated they or their partner had used a condom during their last sexual intercourse, among those who indicated they had sexual intercourse in the three months prior to the survey.

2. Tobacco-Use Policy and Prevention Education
At the high school level, 18.9% reported smoking cigarettes at least once in the month prior to the 2007 YRBS (down significantly from 37.5% in 1997), while 8.1% reported using smokeless tobacco during this same period (down significantly from 12.8% in 1997). There is evidence from this profile that schools are making an effort to control, reduce, and prevent tobacco use. It was estimated that nearly all (98%) of principals in secondary schools in Iowa have adopted a policy prohibiting tobacco use. In most cases, this applied to all school buildings, school grounds, school buses, and school events. The most common actions taken when students are caught smoking cigarettes are to (1) refer the student to a school administrator and (2) inform the student’s parent(s) or guardian(s) about her/his smoking. Policy specifically prohibiting students from using cigarettes, smokeless tobacco, cigars, and/or pipes was also reported by 90% or more of the principals. Finally, 73% of principals indicated that their school had posted signs marking a tobacco-free school zone—up from 60% in 2006, 52% in 2004, 46% in 2002, and 28% in 2000.

In terms of education, it was estimated that 94% of lead health education teachers in Iowa in 2008 tried to increase student knowledge in the area of tobacco use prevention. In addition, at least 85% of these teachers indicated that the following specific tobacco use prevention topics were taught in required health education courses in their schools: identifying tobacco products and the harmful substances they contain; short- and long-term consequences of cigarette smoking and use of smokeless tobacco; reasons students do (and do not) smoke; understanding the addictive nature of nicotine; and the effects of second-hand smoke and benefits of a smoke-free environment. Sixty-two (62) percent of health education teachers indicated they would like to receive training in tobacco use prevention; only 21% said they had received such training in the past two years.
3. Violent Juvenile Crime and Violence Prevention Education

Juvenile delinquency, as evidenced by the number of delinquency petitions, has increased in Iowa during the past decade. Teenage gang activity and gang-related crime have also increased in Iowa since the late 1980s. These are health problems, as well as social problems.

The challenges to those working in education, health care, juvenile justice, and human services are to (1) develop effective methods for reducing the magnitude of this problem and (2) ensure the provision of care for its victims. There is some evidence from this profile that at least the first of these challenges is being met in the schools in Iowa. Eighty-five (85) percent of lead health education teachers in Iowa reported that they attempted to improve student knowledge in the area of violence prevention in 2008. Fifty-three (53) percent of such teachers indicated they had received professional development in violence prevention the past two years, while 70% indicated they would like to receive professional development in this area.


Asthma is a chronic disease that is the result of inflammation affecting the passages that carry air into and out of the lungs. From 1980 to 1996, 12-month asthma prevalence increased both in counts and rates, but no discernable change was identified in asthma attack estimates since 1997 or in current asthma prevalence from 2001 to 2004, according to a CDC report..

Most principals (67%) indicated that their schools had asthma action plans on file for most or all students. For students with poorly controlled asthma, most principals indicated they ensured access to (1) safe, enjoyable physical education and activity (91%); (2) preventive medications before physical activity (89%); and (3) appropriate use of asthma medications, spacers, and peak flow meters at their schools (84%). Sixty-nine (69) percent of principals indicated their students were allowed to self-administer asthma medication in school. In terms of education, 37% of lead health education teachers tried to increase knowledge of students about asthma. Only 9% of lead health education teachers indicated they received professional development in asthma awareness during the past two years, while 54% indicated they would like to receive such development.

Selected Recommendations: Health Education in Iowa and the School Health Profiles

- Encourage additional HIV prevention training or reinforcement of earlier training for juniors and seniors in high school.

Required health education courses should be delivered to more juniors and seniors, who are most at-risk of HIV infection because of their sexual activity. This should include skills for prevention of HIV and other STDs (e.g., resisting peer pressure and the correct use of condoms) as well as knowledge of HIV prevention (e.g., sexual abstinence, condom efficacy, and the influence of alcohol, recreational, and intravenous drugs on risk for HIV/AIDS).

- Encourage the use of a comprehensive HIV prevention policy in all schools in Iowa.

In the 2004 HIV policy evaluation, the Iowa Department of Education recommended the sample policy contained in the book Someone at School has AIDS: A Complete Guide to Education Policies Concerning HIV Infection, published by the National Association of State Boards of Education in 2001 and presented in an appendix of the policy evaluation report.

- Encourage the cooperation and collaboration among the components of the support system for the delivery of health education to students in Iowa schools.

Components of this system include local entities such as the school administration, parents, adult volunteers (e.g., mentors), community-based agencies, and the business community. Other components might include the Area Education Agency and state and federal government agencies, such as the HIV/AIDS Education Project in Iowa and the CDC. An example of where cooperation and collaboration are needed is the development of school health committees. Sixty-five (65) percent of schools in Iowa in 2008 had used one or more group(s) (e.g., school health council or committee) for developing policies and coordinating activities regarding health issues, according to school principals.

- Use violence prevention skills training (for students and teachers) more extensively to counter increases in violent juvenile crime and reinstate questions on violence prevention programs/policies in the principal questionnaire in 2010.

More emphasis should be given to teaching violence prevention skills to increase healthy behaviors among our youth. This should begin at the elementary level or earlier with families of newborn to pre-school age children. An example of such a program is the Safe and Drug Free Schools through Supportive Community Partnerships Program at Woodbury Elementary School in Marshalltown, presently in its 13th year of operation. It utilizes small group activities to promote anger management/control, cooperation, empathy, and social skills (ACES), as well as community service learning. Another example is Community Connections in Allamakee County, where schools have utilized Olweus Bullying (prevention), Character Counts, Success 4, and other instructional incentives for positive student behavior/development to reduce the number of disciplinary referrals and improve academic performance. The latter program currently provides K-12 services to children, youth, and their families under Reduce Alcohol Abuse and 21st Century grants. Both programs utilize cooperation and collaboration among multiple agencies and other components of the support system in the delivery of these services.

Emergency preparedness, response, and recovery is another area that needs more attention. Schools must be prepared for violent incidents, as well as natural disasters, that can severely impact student health and safety. At least some of the questions relating to violence prevention programs and emergency preparedness should be reinstated in the principal questionnaire in 2010 so progress in this critical area can be monitored.

- The surveys should be shortened, combined with others, or mailed out early in the school year (to provide ample time to complete them).

Any of the above prescriptions should help to secure the continued excellent cooperation of principals and lead health education teachers in providing important information regarding the health education of our youth.

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Iowa Department of Education

Des Moines, IA

[Note: The above information was extracted from the 2008 Iowa School Health Profiles, prepared for the HIV/AIDS Education Project (Sara Peterson, Project Director), Bureau of Health, Nutrition, and Transportation, Iowa Department of Education, by Dr. James R. Veale, Statistical/Research Consultant & Educator.]