

2010 Iowa School Health Profiles

Iowa Department of Education, Bureau of Nutrition, Health, and Transportation February 2011

ADMINISTRATIVE SUMMARY

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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 (SHPs) 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 SHP questionnaires were mailed to a random sample of 347 secondary schools containing any of grades 6 through 12 in Iowa during the second semester of the 2009-10 school year. Usable data were received from 254 out of the 347 sampled principals, which yielded a response rate of 73%. Usable data were received from 249 out of 347 sampled lead health education teachers, which yielded a response rate of 72%. Both of these response rates were judged more than 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 2010.

There was excellent agreement between the percentages of schools in the different grade level categories (middle, “combined” or junior/senior high, and senior high schools) in the samples for both surveys and those of the population. Exact “goodness-of-fit” tests yielded nonsignificant differences between the *population* percentages and (a) the principals’ and (b) the lead health education teachers’ *sample* percentages, of schools in the three grade level categories. The agreement between the sample percentages of schools in the grade level categories for the principal and teacher surveys was also very good (nonsignificant differences). This indicates that the principal and teacher samples (a) represented the population and (b) were in agreement with each other—in terms of the percentage distributions

over the three school grade level categories. [Note: There is obviously some overlap in the three school grade level categories; e.g., the “combined” category typically includes both middle school and senior high school grades.]

A “weight” was associated with each questionnaire to reflect the likelihood of a principal or teacher being selected, reduce bias by compensating for differing patterns of nonresponse, and improve precision by making school sample distributions conform to known population distributions. Thereby, the data were adjusted somewhat to reflect differences in the number of population units that each case represented.

The data were summarized in a final report, prepared for the Iowa Department of Education. This report is available upon request. (See “Note” at the bottom of p. 4.)

Discussion: Selected Results from the 2010 Iowa SHP

The survey data indicate that health education is being taught in an integrated curriculum in Iowa schools. Most lead health education teachers had (1) health education and physical education, (2) home economics or family/consumer science, or (3) physical education as the major emphasis of their professional preparation. About 70% of lead health education teachers have taught health education for more than five years and about 55% have taught health education for at least 10 years. These percentages were 8-10% higher than in 2008, indicative of an increasingly experienced workforce in health education in Iowa.

In the discussion that follows, we consider five critical areas of health education: (1) HIV/AIDS and other STDs, (2) tobacco use, (3) violent juvenile crime, (4) asthma, and (5) physical education and activity. Selected results from the 2010 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 56% to 83%. The lower percentages were for policies addressing issues such as attendance of students with HIV infection (56%) and confidential counseling for HIV-infected students (58%); the higher percentages were for policies addressing worksite

safety (83%) and maintaining confidentiality of HIV-infected students and staff (76%).

According to the 2007 Iowa Youth Risk Behavior Survey (YRBS), based on responses from 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 19% of students received required health education (compared with 60% in 7th grade and 53% in 8th grade).*

Most lead health education teachers in Iowa (89%) tried to increase student knowledge of HIV prevention in required courses. Specifically, 78% of teachers in grades 6-8 and 82% in grades 9-12 taught the benefits of abstinence (as a way to avoid HIV infection); 75% in grades 9-12 taught condom efficacy, but only 58% in grades 9-12 taught how to obtain condoms and 53% in grades 9-12 taught how to correctly use them—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% of students 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). Thus, the self-reported incidence of smoking was cut in half over this ten-year period, while the use of smokeless tobacco was reduced by over one-third. *These are significant reductions by Iowa high school students in their reported use of this gateway drug.*

There is evidence from this profile that schools are making an effort to control, reduce, and prevent tobacco use. Nearly all (99.6%) principals in secondary schools in Iowa indicated their schools 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, 87% of principals indicated that their school had posted signs

marking a tobacco-free school zone—up from 73% in 2008, 60% in 2006, 52% in 2004, 46% in 2002, and 28% in 2000.

In terms of health education, it was estimated that 93% of lead health education teachers in Iowa in 2010 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; understanding the addictive nature of nicotine; and the effects of second-hand smoke and benefits of a smoke-free environment. Fifty-nine (59) percent of teachers indicated they would like to receive training in tobacco use prevention; only 17% said they had received such training in the past two years.

3. Violent Juvenile Crime and Violence Prevention Education

Juvenile delinquency and gang-related criminal activity remain serious problems in Iowa. 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-four (84) percent of lead health education teachers in Iowa reported that they attempted to improve student knowledge in the area of violence prevention in 2010. Forty-three (43) percent of teachers indicated they had received professional development in violence prevention the past two years, while 71% indicated they would like to receive professional development in this area.

4. Asthma: Action Plans, Education, and Professional Development

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. According to the Iowa YRBS, about 8-10% of high school students in Iowa reported that they had current asthma.

Most principals (73%) 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 (88%); (2) preventive medications before physical activity (86%); and (3) appropriate use of asthma medications, spacers, and peak flow meters at their schools (87%). Seventy-five (75) percent of principals

indicated their students were allowed to self-administer asthma medication in school. In terms of education, 45% of lead health education teachers tried to increase knowledge of students about asthma. Only 9% of teachers indicated they received professional development in asthma awareness during the past two years, while 43% indicated they would like to receive such development.

5. *Physical Education and Activity*

Another area of considerable importance, due to the dramatic increases in obesity and Type 2 diabetes among our youth, is physical education and activity. Ninety-five (95) percent of lead health education teachers indicated they taught the physical, psychological, or social benefits of physical activity, 92% indicated they taught health-related fitness, 89% indicated they taught the phases of a workout, and 85% indicated they taught how to prevent injury during physical activity—as part of required health courses. Ninety-seven (97) percent of principals indicated that physical education was required in at least some of the grades 6-12 in their schools. Eighty-six (86) percent of principals indicated that outside of school hours or when school is not in session, children/adolescents use their school's indoor physical activity or athletic facilities for community-sponsored physical activity classes or lessons.

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 support 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. Collaboration is a key to success in both school health policy development and health education delivery. An example where collaboration is important is in the creation of school health committees for developing policies and coordinating activities related to health.

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

More emphasis should be given to teaching violence prevention *skills* to increase healthy behaviors among our youth. This process should begin at the elementary level or earlier. An example of such a program is the Safe and Drug Free Schools through Supportive Community Partnerships Program at the Woodbury Elementary School in Marshalltown, presently in its 15th 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. 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 and emergency preparedness should be reinstated in the principal questionnaire in 2012 so progress in this critical area can be monitored.

- *Encourage more professional development in health education content areas, especially violence prevention, suicide prevention, and alcohol and other drug-use prevention.*

The percentages of lead health education teachers who would like professional development in each of the listed content areas exceeded the corresponding percentages of teachers who actually received staff development in the respective areas. In addition to violence prevention, many teachers

indicated they would like more professional development in suicide prevention, alcohol and other drug-use prevention, mental/emotional health, and nutrition and dietary behavior. The teachers' comments underscored the value of and need for staff development in these areas.

- *Revise questions referring to “HIV, STD, or pregnancy prevention” and “HIV, STD, and pregnancy prevention” to provide more precise data.*

“Double-barreled” (or “multiple-barreled”) questions like 12 and 13 on the teacher survey and question 7 on the principal survey, which involve the compound term “HIV, STD, or pregnancy prevention” (or “HIV, STD, and pregnancy prevention”), lack diagnostic precision and should be revised. HIV, STDs and pregnancy all involve sexual activity (to some degree) and have some prevention methods in common (abstinence and correct condom use). On the other hand, HIV can be caused by injection drug use (with shared needles) and there are methods for pregnancy prevention that are not effective for HIV/STD prevention. Moreover, it is likely that most view the prevention of HIV and STDs (viral/bacterial infections leading to diseases and, in some cases, death) as quite different from that of pregnancy (leading to another life, in most cases). The concepts of HIV and STD prevention should be split off from that of pregnancy prevention in the surveys, using multi-part or separate survey questions.

- *Consider adding questions on alcohol, marijuana, and other drug-use prevention.*

There are many survey questions on tobacco-use prevention, but relatively few on alcohol, marijuana, and other drug-use prevention. In particular, prescription drugs are increasingly diverted and abused by students. These may include “medical” marijuana in the 14 states in which it has been legalized (not, yet, including Iowa). Drugs that are smoked are particularly problematic because of the effect of second-hand smoke among those within the immediate vicinity of the smoker, e.g., other family members in a home, neighbors in an apartment/condominium complex, or persons traveling together in automobiles, where a person is smoking. Smoked drugs include marijuana, methamphetamines (“meth”), crack, and “salvia,” in addition to tobacco. Injection drug use also remains a very serious problem, in part because of its association with HIV and AIDS as a risk factor. Alcohol (especially “binge drinking”) and other drug use (especially drugs that are smoked and/or injected) constitute serious health problems among our youth that should be addressed more than they are currently in this survey.

- *Consider adding questions on physical education/activity, especially those that can and should be practiced throughout one's life.*

One of the lead health education teachers commented on the need for a greater focus on physical education and nutrition—in schools and on the survey—to counteract the growing problems of obesity and Type 2 diabetes among our youth. These are serious problems for our state and country. Programs to counteract them deserve greater emphasis in schools and on this survey.

Specifically, more emphasis should be placed on *individual* sports such as running/jogging, swimming, and golf (both traditional and disc golf), as well as hiking/walking, which has mental, social, and physical health benefits. Another approach is that of Project Venture, a component of Community Connections in Allamakee County, which emphasizes *cooperative* physical activities, via their “wilderness experience” and conservation activities. The key is to get students involved in physical activities that they will continue after they are out of school—*activities that can be practiced throughout one's life*. (There are several questions about physical education/activity on the principal's survey; it is the teacher's survey that needs more focus/emphasis in this area.)

- *Provide space for comments by principals on their questionnaire.*

The comments from teachers were very helpful in learning about their experiences and views regarding health education and in developing recommendations. It would be helpful to provide space for comments from school principals on their survey as well.

- *The surveys should be mailed out early in the school year, to provide ample time for principals and health education teachers to complete them.*

This recommendation was based on teacher comments in the 2002 SHP and applied to the 2004-2010 SHPs. We trust that this was helpful to respondents and recommend a similarly early mailing of the surveys in 2011-12. We hope that this will help to insure the continued high level of support for these profiles.

We greatly appreciate the high rate of participation in these surveys by Iowa's school principals and lead health education teachers.

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[Note: The above information was extracted from the 2010 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. Copies are available from Sara Peterson (515-281-4804) upon request.]