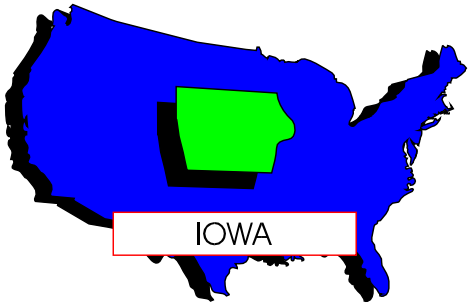
HIV/AIDS Education Project

2005 Iowa YRBS



Youth Risk Behavior Survey:
Iowa High Schools

FINAL REPORT

Prepared for:
Iowa Department of Education,
Bureau of Instructional Services

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Introduction

The Youth Risk Behavior Surveillance System is an epidemiologic system established by the U.S. Centers for Disease Control and Prevention (CDC) to help monitor the prevalence of behaviors that put youth at risk for the most serious health and social problems that can occur during adolescence and adulthood. The Youth Risk Behavior Survey (YRBS) is the measurement instrument of this system. This survey is used by the State of Iowa to monitor these behaviors among its young people. Specifically, this survey focuses on students who were attending high schools (Grades 9 through 12, traditional and alternative schools) in Iowa during 2004-05.

The YRBS was developed cooperatively by the Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention (CDC), 19 other federal agencies, 71 state and local departments of education, and national education and health organizations. It was administered in about 40 states in 2005. The survey consists of 87 questions and is presented in Appendix A.

Evidence of Health and Social Problems among Youth in the United States

According to the Iowa Department of Public Health, of Iowa youth aged 15-19 who died, the majority are due to (1) motor vehicle accidents, (2) other unintentional injuries, (3) homicides and legal intervention, and (4) suicides (e.g., Veale, 2004). These factors also cause acute and chronic morbidity among our youth.

Young people suffer significant morbidity from a high rate of unintended pregnancy that occurs among teenagers every year. This is one factor contributing to an infant mortality rate of 6.9 per 1000 live births occurring in the United States in 2003 (*The World Almanac and Book of Facts 2006*, 2006) and 5.1 per 1000 live births occurring among Iowa residents in 2004 (Deb Roeder, personal communication, February 16, 2006). In addition, serious health problems result from sexually transmitted diseases (STDs), including Acquired Immune Deficiency Syndrome (AIDS) that are contracted by teenagers every year. According to the National Center for Health Statistics in the U.S. Department of Health and Human Services, 13.1% of the 44,232 cases of AIDS reported in the United States in 2003 were 13 to 29 years old (*The World Almanac and Book of Facts 2006*, 2006).

Other behaviors that lead to mortality, morbidity, and social problems among teenagers include the following:

- drinking and driving
- alcohol and other drug use
- tobacco use (smoking or chewing)
- dietary excesses and imbalances
- insufficient physical activity

Some of these behaviors, such as drinking and driving, result in mortality, morbidity, and social problems during the teenage years. Others, such as tobacco use, dietary excesses and imbalances, and physical inactivity are known to lead to diseases which occur later in life (such as cancer, diabetes, and heart disease). *These behaviors and their associated problems are largely preventable through education, counseling, mentoring, treatment, and other programs.*

The Six Risk Areas

In 1988, the CDC began a process to identify and monitor critical health behaviors among youth. Behaviors leading to mortality, morbidity, and social problems were analyzed and categorized into six risk areas:

(1) behaviors that lead to intentional or unintentional injuries

(2) tobacco use

(3) alcohol and other drugs

(4) sexual behaviors that can result in HIV infection, other STDs, or unintended pregnancies

(5) dietary behaviors

(6) physical inactivity

Survey questions addressed behaviors in each of the above six risk areas. In addition, in the 2005 YRBS, two questions about asthma were included.

The purpose of the Iowa Youth Risk Behavior Survey (YRBS) is to assist educators and health professionals in the state in determining the prevalence of behaviors or factors that put Iowa youth at risk. This determination will be used to focus education in a continuing effort to reduce the risk factors that affect Iowa youth.

Presentation of the Results of the YRBS

The 2005 Iowa YRBS results are presented for each risk area in tabular form, followed by a brief discussion. Graphics are used selectively to illuminate differences over gender and/or grade level categories. Comparisons over years are presented to demonstrate improvement or worsening on specific outcomes measured in the Iowa YRBS. In addition, summary highlights for the 2005 Iowa YRBS total sample are presented graphically. For a more detailed summary of the data, see the document *2005 Youth Risk Behavior Survey Results: Iowa High Schools* (Centers for Disease Control and Prevention, 2005).

The text and graphics were developed using *WordPerfect Office 11* (Corel, Inc.). The map of the state of Iowa superimposed over a map of the United States was available from *WordPerfect Suite 6.1 for Windows* (Corel, Inc.).

[NOTE: In many of the survey questions, a time reference is provided in an attempt to focus the response. For example, "past 12 months" refers to *the 12 months prior to the day on which the respondent answered the survey question* and "yesterday" refers to *the day before the one on which the respondent answered the survey question*. In general, phrases like "past *x* days/weeks/months" refers to the "*x*" units of time before the survey was completed by the respondent.]

Survey Methods and Data Analysis

The 2005 Youth Risk Behavior Survey (YRBS) instrument consisted of 87 questions which were used to assess students in the six critical areas of health risk. Statistical sampling was used to reduce the number of students needed to complete the survey and control the accuracy and precision of the resulting estimates.

Sampling Method

All public schools containing Grades 9, 10, 11, or 12 were included in the sampling frame or population. Schools were selected systematically with probability proportional to size of enrollment in Grades 9 through 12 using a random starting point. Altogether, 40 schools were sampled.[1] This constitutes the school-level part of the sampling process.

All classes meeting during the second period of the day were included in the sampling frame. Systematic equal probability sampling with a random starting point was used to select classes from each school that participated in the survey. This constitutes the student- or class-level part of the sampling process.

Survey Process

Superintendents and principals associated with schools selected for the YRBS were contacted in the winter of 2004-05 to obtain their cooperation. Each participating school submitted a list of second period classes and a random sample of these classes was selected for the survey. The survey booklets and instructions were then mailed to each school. Parent notification forms were provided participating schools to secure parental approval as needed. As stated in those forms, the survey procedures have been designed to protect their child's privacy and allow for anonymous participation. Only group-level statistical data were produced and no student or school name appears in this or any Iowa Department of Education report. Participation in the survey was voluntary.

Response Rates and Weighted Data

At the school level, 30 of the 40 schools (75%) participated. At the classroom level, 1,359 out of 1,564 of the students sampled (87%) completed usable questionnaires.

The overall response rate was

$$(.75)(.87) \times 100\%$$

or 65%. Overall response rates exceeding 60% are required for the data to be weighted. Thus, *the 2005 YRBS data were weighted*. This means that *these results can be generalized to all high school students in public schools in the state of Iowa* and will be included in the report on the YRBS by the CDC—the results of national sample and those of the participating states.

A weight was associated with each questionnaire to (a) reflect the likelihood of sampling each student and (b) reduce bias by compensating for differing patterns of nonresponse. The details of the weighting process is presented in the "Sampling and Weighting" section of the full summary of the 2005 Iowa YRBS data by the CDC (Centers for Disease Control and Prevention, 2005).

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[1] This (40) was the number of schools selected in 1997, the last year we achieved weighted data in Iowa. Selecting a higher number of schools would increase the opportunity for response and decrease the number of classes that need to be selected in each school, at some increase in administrative cost.

The author believes that the main factors that contributed to the good response to the 2005 YRBS were (1) schools were paid $500 for participating in the survey, (2) survey administrators in the school (often a teacher, school nurse, or counselor) were paid $25 for their time and effort, (3) data from two Iowa schools selected for the national YRBS were included in the Iowa YRBS sample, and (4) coordination with the tobacco survey in the sampling process. These are discussed along with recommendations for the 2007 YRBS in a later chapter.

Data Analysis

The completed surveys were shipped to Westat, Inc., a contractor for the CDC. Data analyses were conducted by Westat which included raw percentages and breakdowns by gender, grade level, and race/ethnicity. Since the number of respondents in the non-Caucasian categories was low (each was less than 100), only the gender and grade level breakdowns were used in this report.

Gender and grade level differences were noted whenever they were statistically significant using the .05 level of significance. Confidence intervals that did *not* overlap provided evidence of statistically significant differences. Since these intervals were computed taking into account the differential weighting of the responses based on the sampling scheme (and nonresponse patterns), this method was recommended over classical methods for simple random sampling such as Pearson chi-square (Mary Nixon, former Westat statistician, personal communication, December 5, 1996). For example, the percentages on Question 9 ("How often do you wear a seat belt when **riding in** a car driven by someone else?") answering either A ("Never") or B ("Rarely"), broken down by gender, yielded the two confidence intervals represented in Figure 1. The fact that these confidence intervals did not overlap indicated that the percentages were different for the categories of gender—males were more likely to answer that they never or rarely wore a seat belt when riding in a car, indicating a greater prevalence of risk for them. Breakdowns that yielded statistically significant (P<.05) differences of percentages of specified responses to the survey questions were noted in the analyses presented in the "Results" section.

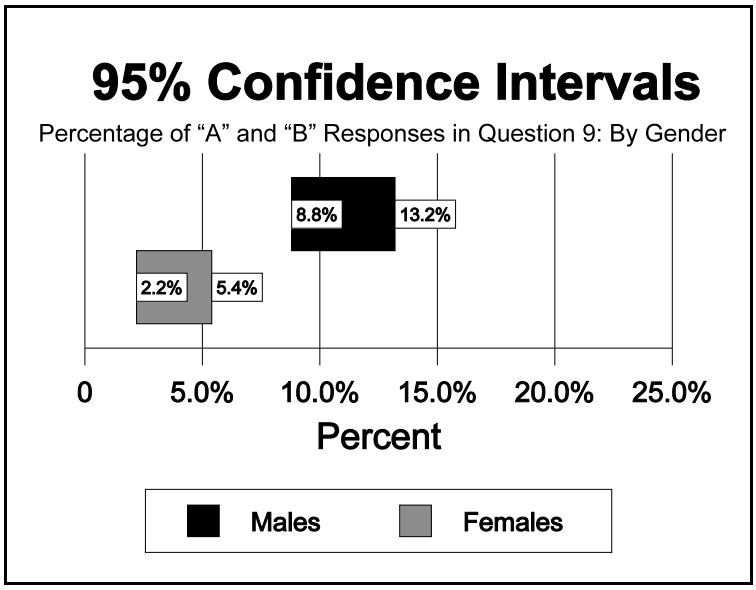

Figure 1: Illustration of non-overlapping 95% confidence intervals (significant differences).

> [Note: Regarding the four grade levels, if *at least one* of the 95% confidence intervals for the percentage of specified responses to a survey question failed to overlap with *at least one* of the others, the grade level differences were said to be significantly different for this question. Moreover, the specific order and magnitude of the differences was usually noted in the analyses presented in the "Results" section. As with gender, only statistically significant differences (P<.05) were noted.]

For some of the gender or grade level differences that were determined to be statistically significant (P<.05), a bar graph illustrating these differences was presented. A table presenting (1) effective sample size and (2) statistical significant/nonsignificant differences for the gender and grade level breakdowns is presented in Appendix B. The weighted percentages were presented for the categories (only) when the differences were determined to be statistically significant.

The Sample

A total of 1,359 students completed the 2005 Iowa YRBS. Excluding the missing data, 46.8% were female and 53.2% were male. In terms of race/ethnicity, excluding the missing data, 88.8% were Caucasian, 2.7% were African-American (black), 3.8% were Hispanic/Latino, 1.8% were of multiple races, and 2.9% were classified as "other" (including Asian-Americans and Native American Indians, *inter alia*). These breakdowns were roughly comparable to the state data for high school students in 2004-05. The gender breakdown was *not* significantly different from the population proportions (P>.05). The race/ethnicity breakdown was significantly different, but this was due primarily to a difference in how these categories were defined (American Indian and Asian American were separate categories in Iowa and multiple races was not used in the Iowa categories).

The breakdown by grade level is presented in Table 1 (percentages computed excluding the missing data).

Table 1: Grade level breakdown of the 2005 Iowa YRBS sample and population enrollment data.

Grade	Number in Sample (%)	Number in Population (%)
9th	341 (25.1%)	41,196 (26.7%)
10th	389 (28.7%)	39,580 (25.7%)
11th	345 (25.4%)	36,940 (24.0%)
12th	282 (20.8%)	36,434 (23.6%)
Subtotals (excluding missing data)	1,357 (100.0%)	154,150 (100.0%)
Other/Missing	2	0
Totals	1,359	154,150

Excluding the "other/missing" category, the grade level distribution in the YRBS sample was significantly different from that of the population of students in Iowa in 2004-05 (Pearson chi-square = 11.62, df = 3, P = .009).[2] Compared with the population of students in Iowa in 2004-05, the 10th grade was somewhat over-represented and 12th grade somewhat under-represented in the sample. However, these percentages were closer than in previous years. Moreover, the data were weighted and the weights were scaled so that the *weighted* proportions of students in each grade matched the state population proportions. (The above percentages for the sample in Table 1 are unweighted values.)

[2] Computed using the statistical software package *StatXact 7* (Cytel Statistical Software & Services).

Results

The results of the 2005 Iowa Youth Risk Behavior Survey (YRBS) are presented in two-column format, with the outcome addressed by the survey question in the column on the left. In the column on the right, the percentage of students surveyed who responded in the manner indicated by the outcome statement is presented, along with the total number on which the percentage was based (in parentheses).

Risk Area I: Behaviors that Lead to Intentional or Unintentional Injuries

This section contains summaries of survey data on behaviors that lead to intentional or unintentional injuries, including drinking and driving, violent behavior, weapons carrying, and suicide (Questions 8-27). "Students" refers to those who participated in the 2005 YRBS.

1. Helmets, Seat Belts, and Drinking/Driving

Outcome	Percent (N)
8. Of students who rode a bicycle during the past 12 months, the percentage who never or rarely wore a bicycle helmet.	91.0% (956)
9. Percentage of students who never or rarely wear a seat belt when riding in a car driven by someone else.	7.5% (1,357)
10. Percentage of students who during the past 30 days rode one or more times in a car or other vehicle driven by someone who had been drinking alcohol.	30.6% (1,353)
11. Percentage of students who, during the past 30 days, drove a car or other vehicle one or more times when they had been drinking alcohol.	16.1% (1,344)

There were statistically significant differences by gender in Question 9, where proportionately more males than females never or rarely wore a seat belt when riding in a car driven by someone else (see Figure 1, p. 4). In addition, there were statistically significant differences by grade level in Questions 10 and 11, where (1) proportionately more 12th graders than 9th graders responded that they had ridden in a car or other vehicle in the past month that was driven by someone who had been drinking and (2) proportionately (a) more 11th graders than 9th graders and (b) more 12th graders than 9th or 10th graders responded that they had driven a car or other vehicle in the past month when they had been drinking alcohol. (See Appendix B.)

2. Violent Behavior, Weapons, and Safety

Outcome	Percent (N)
12. Percentage of students who carried a weapon such as a gun, knife, or club on one or more of the past 30 days.	15.7% (1,340)
13. Percentage of students who carried a gun on one or more of the past 30 days.	6.1% (1,345)
14. Percentage of students who carried a weapon such as a gun, knife, or club on school property on one or more of the past 30 days.	4.3% (1,350)
15. Percentage of students who did not go to school on one or more of the past 30 days because they felt unsafe at school or on their way to or from school.	3.9% (1,358)

Outcome	Percent (N)
16. *Percentage of students who had been threatened or injured with a weapon on school property one or more times during the past 12 months.*	7.8% (1,359)
17. *Percentage of students who have had property, such as their car, clothing, or books stolen or deliberately damaged on school property during the past 12 months.*	35.3% (1,354)
18. *Percentage of students who were in a physical fight one or more times during the past 12 months.*	28.3% (1,341)
19. *Percentage of students who were injured in a physical fight and had to be treated by a doctor or nurse one or more times during the past 12 months.*	4.0% (1,348)
20. *Percentage of students who were in a physical fight on school property one or more times during the past 12 months.*	11.3% (1,348)
21. *Percentage of students who were ever hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend during the past 12 months.*	8.3% (1,358)
22. *Percentage of students who have ever been forced to have sexual intercourse when they did not want to.*	7.3% (1,355)

There were statistically significant differences by gender in Questions 12-14, 18, and 20 where proportionately more males than females indicated involvement in the corresponding risky behaviors, and in Question 22 where proportionately more females than males indicated such involvement. In addition, there were statistically significant differences by grade level in Questions 20 and 22, where (1) proportionately more 9th graders than 12th graders responded that they had been in a physical fight on school property in the past 12 months and (2) proportionately more 11th graders than 10th graders responded that they had been forced to have unwanted sexual intercourse. (See Appendix B.)

3. Suicide

Outcome	Percent (N)
23. *Percentage of students who, during the past 12 months, ever felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities.*	25.3% (1,359)
24. *Percentage of students who seriously considered attempting suicide during the past 12 months.*	16.2% (1,359)
25. *Percentage of students who made a plan about how they would attempt suicide during the past 12 months.*	13.0% (1,358)
26. *Percentage of students who actually attempted suicide one or more times during the past 12 months.*	7.2% (1,276)
27. *Percentage of students whose attempted suicide during the past 12 months resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse.*	2.0% (1,269)

More females than males indicated they felt sad or hopeless for two weeks in a row that made them stop doing some of their usual activities, seriously considered attempting suicide, made a plan about how they would commit suicide, and had actually attempted suicide one or more times during the past 12 months. For example, 10.4% of females and 4.0% of males said they had attempted suicide during the past year (see Figure 2 and Appendix B).

There were no statistically significant grade level differences regarding suicide.

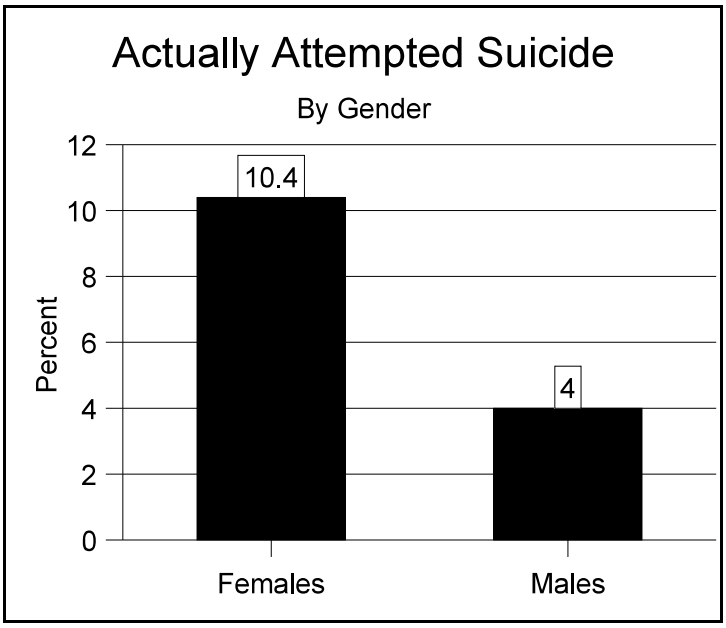

Figure 2: Percent who actually attempted suicide during the past 12 months, by gender.

Risk Area II: Tobacco Use

This section contains summaries of survey data on tobacco use, including cigarette smoking, cigar smoking, and the use of smokeless tobacco (Questions 28-38). "Students" refers to those who participated in the 2005 YRBS.

1. Cigarette Smoking

Outcome	Percent (N)
28. Percentage of students who ever tried cigarette smoking, even one or two puffs.	49.6% (1,346)
29. Percentage of students who smoked a whole cigarette for the first time before age 13.	15.0% (1,338)
30. (i) Percentage of students who smoked cigarettes on one or more of the past 30 days.	22.2% (1,329)
30. (ii) Percentage of students who smoked cigarettes on 20 or more of the past 30 days.	9.7% (1,329)
31. Among students who were current smokers, the percentage who smoked more than 10 cigarettes per day on the days they smoked during the past 30 days.	8.8% (287)
32. Among students who were less than 18 years of age and current smokers, the percentage who usually got their own cigarettes by buying them in a store or gas station during the past 30 days.	7.0% (223)
33. Percentage of students who smoked cigarettes on school property on one or more of the past 30 days.	6.5% (1,351)
34. Percentage of students who ever smoked cigarettes daily, that is, at least one cigarette every day for 30 days.	13.3% (1,345)

Outcome	Percent (N)
35. Of students who were current smokers, the percentage who tried to quit smoking during the past 12 months.	53.7% (287)

There were four outcomes on which grade levels differences were statistically significant, corresponding to Questions 28, 30 (i) and (ii), and 34. On Question 28, the percentage of 12th grade students who had ever tried smoking was significantly greater than for 9th graders. On Question 30 (i), the percentages of 11th and 12th graders who smoked on at least one day in the past month were significantly greater than for 9th graders, and the percentage for 12th graders was also significantly greater than for 10th graders. On Question 30 (ii), the percentages of 11th and 12th graders who smoked on 20 or more days in the past month were significantly greater than for 9th graders. On Question 34, the percentages of 10th, 11th, and 12th grade students who ever smoked cigarettes *daily* were significantly greater than for 9th graders. (See Appendix B.)

There were no statistically significant gender differences regarding cigarette smoking.

2. Smokeless Tobacco and Cigar Smoking

Outcome	Percent (N)
36. Percentage of students who used chewing tobacco, snuff, or dip on one or more of the past 30 days.	7.9% (1,355)
37. Percentage of students who used chewing tobacco or snuff on school property on one or more of the past 30 days.	3.9% (1,354)
38. Percentage of students who smoked cigars, cigarillos, or little cigars on one or more of the past 30 days.	14.5% (1,355)

There were statistically significant gender differences on all three of the questions regarding smokeless tobacco and cigar smoking—proportionately more males were more involved in each of these risk areas than were females. On Question 38 about smoking cigars, cigarillos, or little cigars, proportionately more students in the upper grades (11th and 12th) were involved with those forms of tobacco than were those in 9th grade, and a greater percentage of students in 11th grade were so involved than those in 10th grades. (See Appendix B.)

3. Summary Question

Outcome	Percent (N)
Percentage of students who smoked cigarettes or cigars, or used chewing tobacco, snuff, or dip on one or more of the past 30 days.	28.6% (1,323)

There was a statistically significant gender difference in the summary question—34.9% of males and 21.9% of females said they smoked or used some form of tobacco in the past month. Also, significantly more 12th graders than 9th or 10th graders and more 11th graders than 9th graders used some form of tobacco in the past month. (See Appendix B.)

Risk Area III: Alcohol and Other Drugs

This section contains summaries of survey data on substance abuse, including alcohol, marijuana, and other drugs such as cocaine (including crack or freebase forms), methamphetamines, ecstasy, inhalants, steroid pills, and heroin (Questions 39-56). "Students" refers to those who participated in the 2005 YRBS.

1. Alcohol

Outcome	Percent (N)
39. Percentage of students who had at least one drink of alcohol on one or more days during their life.	75.6% (1,253)
40. Percentage of students who had their first drink of alcohol other than a few sips before age 13.	22.3% (1,257)
41. Percentage of students who had at least one drink of alcohol on one or more of the past 30 days.	43.8% (1,323)
42. Percentage of students who had five or more drinks of alcohol in a row, that is, within a couple of hours ("binge drinking"), on one or more of the past 30 days.	31.0% (1,344)
43. Percentage of students who had at least one drink of alcohol on school property on one or more of the past 30 days.	4.6% (1,353)

There was a statistically significant gender difference in Question 43, regarding having at least one drink of alcohol on school property during the past month—6.6% of males and 2.5% of females said they engaged in this behavior.

There were statistically significant grade level differences in Questions 39, 41, and 42—a higher percentage of 12th graders had at least one drink of alcohol in their lives than 9th or 10th graders and higher percentages of 11th and 12th graders had (a) at least one drink of alcohol during the past month and (b) engaged in "binge drinking" than 9th graders. The result for Question 42 on binge drinking is presented in Figure 3. (See Appendix B.)

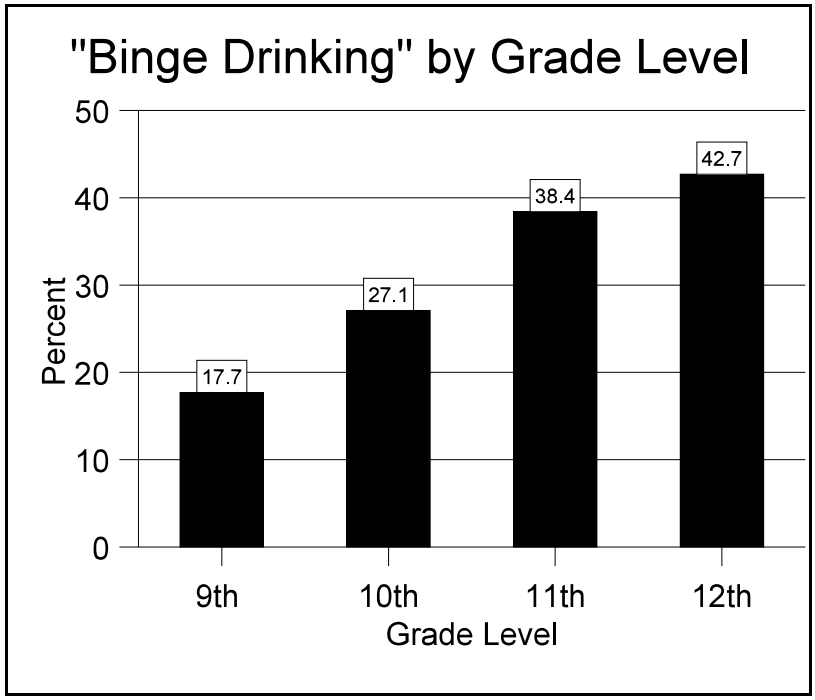

Figure 3: Percentage who engaged in "binge drinking" (5 or more drinks in about 2 hours), by grade level.

2. Marijuana

Outcome	Percent (N)
44. Percentage of students who used marijuana one or more times during their life.	31.0% (1,343)
45. Percentage of students who tried marijuana for the first time before age 13.	6.7% (1,344)

Outcome	Percent (N)
46. *Percentage of students who used marijuana one or more times during the past 30 days.*	15.6% (1,347)
47. *Percentage of students who used marijuana on school property one or more times during the past 30 days.*	2.7% (1,349)

The only statistically significant difference in this section was by gender in Question 47—4.2% of males and 1.2% of females said they used marijuana on school property at least once in the past month. (See Appendix B.)

3. Other Illegal Drugs

Outcome	Percent (N)
48. *Percentage of students who used any form of cocaine, including powder, crack, or freebase one or more times during their life.*	6.1% (1,357)
49. *Percentage of students who used any form of cocaine, including powder, crack, or freebase one or more times during the past 30 days.*	2.4% (1,357)
50. *Percentage of students who sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paint or spray to get high one or more times during their life.*	10.3% (1,356)
51. *Percentage of students who used heroin one or more times during their life.*	1.5% (1,358)
52. *Percentage of students who used methamphetamines one or more times during their life.*	4.3% (1,358)
53. *Percentage of students who used ecstasy one or more times during their life.*	4.3% (1,358)
54. *Percentage of students who have taken steroid pills or shots without a doctor's prescription one or more times during their life.*	3.0% (1,358)
55. *Percentage of students who used a needle to inject any illegal drug into their body one or more times during their life.*	1.3% (1,358)
56. *Percentage of students who were offered, sold, or given an illegal drug on school property during the past 12 months.*	15.5% (1,356)

There were no statistically significant differences in this section.

Risk Area IV: Sexual Behaviors that Can Result in HIV Infection, Other STDs, or Unintended Pregnancies

This section includes summaries of survey data on behaviors that can lead to HIV and/or AIDS, other sexually transmitted diseases, and unintended pregnancies (Questions 57-63 and 85). "Students" refers to those who participated in the 2005 YRBS.

1. Sexual Activity

Outcome	Percent (N)
57. Percentage of students who have ever had sexual intercourse.	43.5% (1,332)
58. Percentage of students who had sexual intercourse for the first time before age 13.	4.2% (1,332)
59. Percentage of students who had sexual intercourse with four or more people during their life.	12.7% (1,330)
60. Percentage of students who had sexual intercourse with one or more people during the past three months.	32.8% (1,331)
61. Of students who had sexual intercourse during the past three months, the percentage who drank alcohol or used drugs before last sexual intercourse.	22.9% (424)
62. Of students who had sexual intercourse during the past three months, the percentage who used a condom during their last sexual intercourse.	61.8% (417)
63. Of students who had sexual intercourse during the past three months, the percentage who used birth control pills to prevent pregnancy before last sexual intercourse.	29.8% (410)

There were statistically significant grade level differences in Questions 57, 59, and 60—a higher percentage of 11th graders than 9th graders and a higher percentage of 12th graders than either 9th or 10th graders said they had sexual intercourse sometime in their lives, a higher percentage of 11th and 12th graders than 9th graders said they had sexual intercourse with four or more people during their lives, and a higher percentage of 11th and 12th graders than 9th or 10th graders indicated they had sexual intercourse with one or more people during the past three months. (See Appendix B.)

There were no statistically significant gender differences on questions in this section.

2. HIV/AIDS Education

Outcome	Percent (N)
85. Percentage of students who had ever been taught about AIDS or HIV infection in school.	85.6% (1,355)

There were no statistically significant gender or grade level differences on the HIV/AIDS education question.

Risk Area V: Dietary Behaviors

This section contains summaries of survey data on dietary behaviors, including weight and dieting issues, eating disorders, nutrition, and fat intake (Questions 64-77). "Students" refers to those who participated in the 2005 YRBS.

1. Weight, Dieting, and Eating Disorders

Outcome	Percent (N)
64. Percentage of students who described themselves as slightly or very overweight.	32.7% (1,355)

Outcome	Percent (N)
Related outcome 1: *Percentage of students who are at risk for becoming overweight (at least 85th percentile but less than 95th percentile, based on body mass index).*	14.8% (1,286)
Related outcome 2: *Percentage of student who are overweight (at or above 95th percentile, based on body mass index).*	12.2% (1,286)
65. Percentage of students who were trying to lose weight.	46.3% (1,353)
66. Percentage of students who exercised to lose weight or to keep from gaining weight during the past 30 days.	64.7% (1,354)
67. Percentage of students who ate less food, fewer calories, or foods low in fat to lose weight or to keep from gaining weight during the past 30 days.	42.5% (1,357)
68. Percentage who went without eating for 24 hours or more to lose weight or to keep from gaining weight during the past 30 days.	12.5% (1,355)
69. Percentage of students who took diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight during the past 30 days.	6.3% (1,358)
70. Percentage of students who vomited or took laxatives to lose weight or to keep from gaining weight during the past 30 days.	4.1% (1,356)

There were many statistically significant gender differences in this section—Questions 64-67 and 70. In addition, there were statistically significant differences in the second related outcome. The percentage of female students surveyed who described themselves as being overweight (39.0%) was much higher than that of males (26.9%). Yet proportionately fewer females than males were actually overweight, based on body mass index as determined by their reported height and weight (see Figure 4). In addition, proportionately more female students than male students indicated they were trying to lose weight through various means. (See Appendix B.)

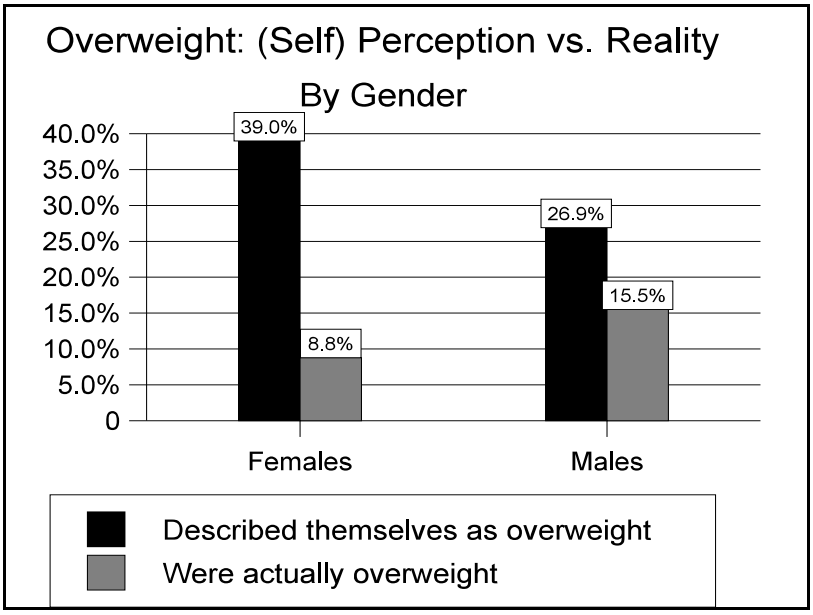

Figure 4: Percentage who view themselves as being overweight versus the percentage who are actually overweight based on body mass index, by gender.

There were no statistically significant grade level differences in this section.

2. Nutrition and Fat Intake

Outcome	Percent (N)
71. Percentage of students who drank 100% fruit juice one or more times during the past seven days.	80.7% (1,355)
72. Percentage of students who ate fruit one or more times during the past seven days.	88.0% (1,356)
73. Percentage of students who ate green salad one or more times during the past seven days.	64.6% (1,356)
74. Percentage of students who ate potatoes one or more times during the past seven days.	76.4% (1,354)
75. Percentage of students who ate carrots one or more times during the past seven days.	51.9% (1,356)
76. Percentage of students who ate other vegetables one or more times during the past seven days.	85.4% (1,354)
Related outcome: *Percentage of students who ate five or more servings of fruits and vegetables per day during the past seven days.*	16.6% (1,344)
77. Percentage of students who drank three or more glasses of milk per day during the past seven days.	28.6% (1,356)

There were statistically significant gender differences in Questions 73 and 77—proportionately more females than males ate green salad at least once, while more males than females drank three or more glasses of milk per day, during the past week (see Figure 5).

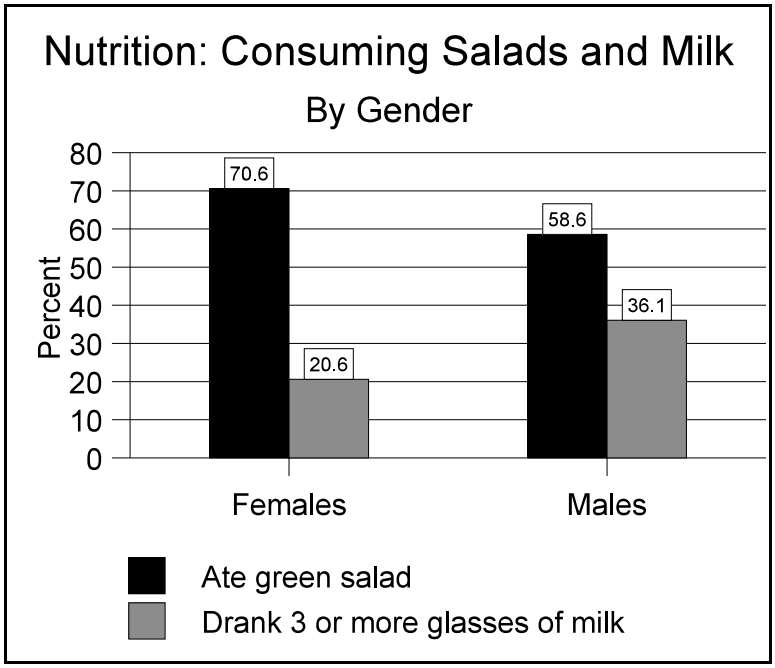

Figure 5: Percentage who (i) ate salad and (ii) drank at least 3 glasses of milk per day, during the past week, by gender.

There were statistically significant grade level differences in Questions 72 and 77—proportionately more 11th graders than 12th graders (i) ate fruit and (ii) drank three or more glasses of milk, during the past week. There were also statistically significant grade level differences on the related question regarding eating fruits *and* vegetables—proportionately fewer 12th graders than 9th or 11th graders ate five or more servings per day of fruits and vegetables during the past week. (See Appendix B.)

Risk Area VI: Physical Inactivity

This section contains summaries of survey data related to physical activity/inactivity, including vigorous aerobic exercise (such as sports) and moderate exercise (such as walking), involvement in physical education and organized sports, and watching TV (Questions 78-84). "Students" refers to those who participated in the 2005 YRBS.

Outcome	Percent (N)
78. Percentage of students who exercised or participated in physical activities for at least 20 minutes that made them sweat and breathe hard on three or more of the past seven days.	70.5% (1,354)
79. Percentage of students who participated in physical activities that did not make them sweat or breathe hard for at least 30 minutes on five or more of the past seven days.	25.3% (1,354)
Related Outcome 1: *Percentage of students who had not participated in at least 20 minutes of vigorous physical activity on three or more of the past seven days and had not participated in at least 30 minutes of moderate physical activity on five or more of the past seven days.*	25.5% (1,351)
Related Outcome 2: *Percentage of students who had not participated in any vigorous or moderate physical activity during the past seven days.*	6.4% (1,351)
80. Percentage of students who were physically active for a total of 60 minutes or more per day on five or more of the past seven days.	34.1% (1,354)
81. Percentage of students who watched three or more hours of TV per day on an average school day.	28.6% (1,355)
82. Percentage of students who attended physical education (PE) class one or more days in an average school week.	80.4% (1,273)
Related outcome: *Percentage of students who attended physical education (PE) classes daily in an average week when they were in school.*	10.3% (1,273)
83. Of students enrolled in physical education (PE) class, the percentage who exercised or played sports for more than 20 minutes during an average PE class.	83.9% (1,027)
84. Percentage of students who played on one or more sports teams during the past 12 months.	66.9% (1,352)

There were statistically significant gender differences in Questions 78 and 80. Proportionately (i) fewer females (64.7%) than males (76.0%) indicated they exercised or participated in physical activity that made them sweat or breathe hard for 20 minutes or more on three or more of the past seven days and (ii) fewer females (25.6%) than males (42.0%) were physically active for one hour or more per day on five or more of the past seven days.

There were statistically significant grade level differences in Questions 78 and 84. Proportionately (i) more 9th graders (78.3%) than 12th graders (59.8%) exercised or participated in physical activity that made them sweat or breathe hard for 20 minutes or more on three or more of the past

seven days and (ii) more 9th graders (75.2%) than 12th graders (54.4%) played on one or more sports teams during the past year.

Finally, proportionately more (i) females than males and (ii) 12th graders than 9th, 10th, and 11th graders had *not* participated in a sufficient amount of either vigorous or moderate physical activity during the past week. (See Appendix B.)

Additional Health Questions: General Health and Asthma

This section contains summaries of survey data related to a question on general health and two on asthma (Questions 7 and 86-87). "Students" refers to those who participated in the 2005 YRBS.

Outcome	Percent (N)
7. Percentage of students who described their general health as fair or poor.	6.2% (1,359)
86. Percentage of students who had ever been told by a doctor or nurse that they had asthma.	16.6% (1,356)
87. (i) Percentage of students who have asthma but have not had an episode of asthma or asthma attack during the past 12 months ("controlled asthma").	9.4% (1,355)
87. (ii) Percentage of students who had an episode of asthma or asthma attack during the past 12 months ("uncontrolled asthma").	7.4% (1,355)
Related outcome 1[3]: *Percentage of students who had ever been told by a doctor or nurse that they had asthma and who indicated they had asthma that was either controlled or uncontrolled ("current asthma").*	14.4% (1,355)
Related outcome 2: *Among students with current asthma, the percentage who had an episode of asthma or an asthma attack during the past 12 months.*	42.0% (198)

There were no statistically significant differences by gender or grade level on the questions relating to general health or asthma.

[3] This is defined as (the outcome for) Question 87 in the "Summary Tables" section of the CDC report. The data presented in the above table for the Question 87 outcomes appear in the "Detail Tables" section of the CDC report (Centers for Disease Control and Prevention, 2005).

1997 and 2005 Iowa YRBS:

Statistically Significant Differences

Comparisons or trends on the YRBS questions from 1997 to 2005 were made using logistic regression analysis, controlling for changes in distributions by 7sex, race/ethnicity, and grade level. These two years were chosen because they are the only years to date in which the Iowa YRBS data were weighted according to current criteria (minimum overall response rate of 60%). The following outcomes corresponding to YRBS survey questions showed *statistically significant changes* in response:

Question #	Outcome	Percentage Change (Signed Difference)
9	Never or rarely wore a seat belt when riding in a car driven by someone else	- 5.1
10	Rode in a car or other vehicle driven by someone who had been drinking alcohol one or more times during the past 30 days	- 9.8
14	Carried a weapon such as a gun, knife, or club on school property on one or more of the past 30 days	- 4.3
24	Seriously considered attempting suicide during the past 12 months	- 6.8
25	Made a plan about how they would attempt suicide during the past 12 months	- 5.6
28	Ever tried cigarette smoking, even one or two puffs	- 17.3
29	Smoked a whole cigarette for the first time before age 13 years	- 4.6
30 (i)	Smoked cigarettes on one or more of the past 30 days	- 15.3
30 (ii)	Smoked cigarettes on 20 or more of the past 30 days	- 8.3
31	Among students who are current smokers, smoked more than 10 cigarettes per day on the days they smoked during the past 30 days	- 9.1
33	Smoked cigarettes on school property on one or more of the past 30 days	- 9.4
36	Used chewing tobacco, snuff, or dip on one or more of the past 30 days	- 4.9
35	Used chewing tobacco, snuff, or dip on school property on one or more of the past 30 days	- 2.7
40	Had their first drink of alcohol other than a few sips before age 13 years	- 6.6

Question #	Outcome	Percentage Change (Signed Difference)
41	Had at least one drink of alcohol on one or more of the past 30 days	- 8.3
42	Had five or more drinks of alcohol in a row, that is, within a couple of hours, on one or more of the past 30 days ("binge drinking")	- 6.5
50	Sniffed glue, breathed the contents of aerosol cans, or inhaled any paints or sprays to get high one or more times during their life	- 6.6
56	Was offered, sold, or given an illegal drug on school property by someone during the past 12 months	- 7.3
62	Among students who had sexual intercourse during the past three months, used a condom during last sexual intercourse	14.2
85	Had ever been taught in school about AIDS or HIV infection	- 6.8
66	Exercised to lose weight or to keep from gaining weight during the past 30 days	10.5
83	Among students enrolled in physical education (PE) class, actually exercised or played sports more than 20 minutes during an average PE class	16.8

All of the above statistically significant results were positive (negative outcomes had negative percentage change, positive ones had positive percentage change)—except for having ever been taught in school about AIDS or HIV infection which was addressed in Question 85. The percentage of students who indicated they had been taught about HIV or AIDS decreased significantly from 92.4% in 1997 to 85.6% in 2005. Tobacco use was the risk area showing the most statistically significant improvement from 1997 to 2005. *Improvement was indicated on all eight of the questions regarding tobacco use that were asked both years*. "Binge drinking" was another important area of improvement—the percentage of students involved in this risky behavior decreased from 37.5% in 1997 to 31.0% in 2005. *Some degree of improvement was evidenced in each of the six health risk areas by high school students in Iowa from 1997 to 2005.*

The YRBS is a monitoring or surveillance system and is not linked to any educational program or treatment. Although causal relationships are not provable, drug and violence prevention programs, Iowa's School-Based Youth Services programs, Success 4, Positive Behavior Supports, character education, HIV prevention education and skill building, and other programs and legislation supporting children and families in Iowa have undoubtedly contributed to some of these positive results. In terms of the dramatic improvement in the risk area of tobacco use, this may be due in part to federal rules regarding cigarette advertising directed to children, increased and improved education regarding tobacco use as a serious health risk, and the increasing social unacceptability of smoking. The trend data between 1997 and 2005 will be addressed in more detail in another report (Veale, 2006). See, also, the "Trend Report" section of the 2005 Iowa YRBS statistical report (Centers for Disease Control and Prevention, 2005).

Highlights of the 2005 Iowa YRBS

Summary highlights of the 2005 Iowa Youth Risk Behavior Survey (YRBS) for high school students are presented in Figure 6 below, with the abbreviated outcome statement on the left and the horizontal bar graph for the total sample on the right. The selection was somewhat subjective, based in part on the seriousness of the consequences of the unhealthy activities, the benefits of the healthy activities, and the magnitude of the response to each.

Note that some of these outcomes are stated negatively (presence of risk factor), while others are stated positively (absence of risk factor). An example of a negative outcome is "ever tried cigarette smoking." An example of a positive outcome is "attended physical education class at least once per school week."

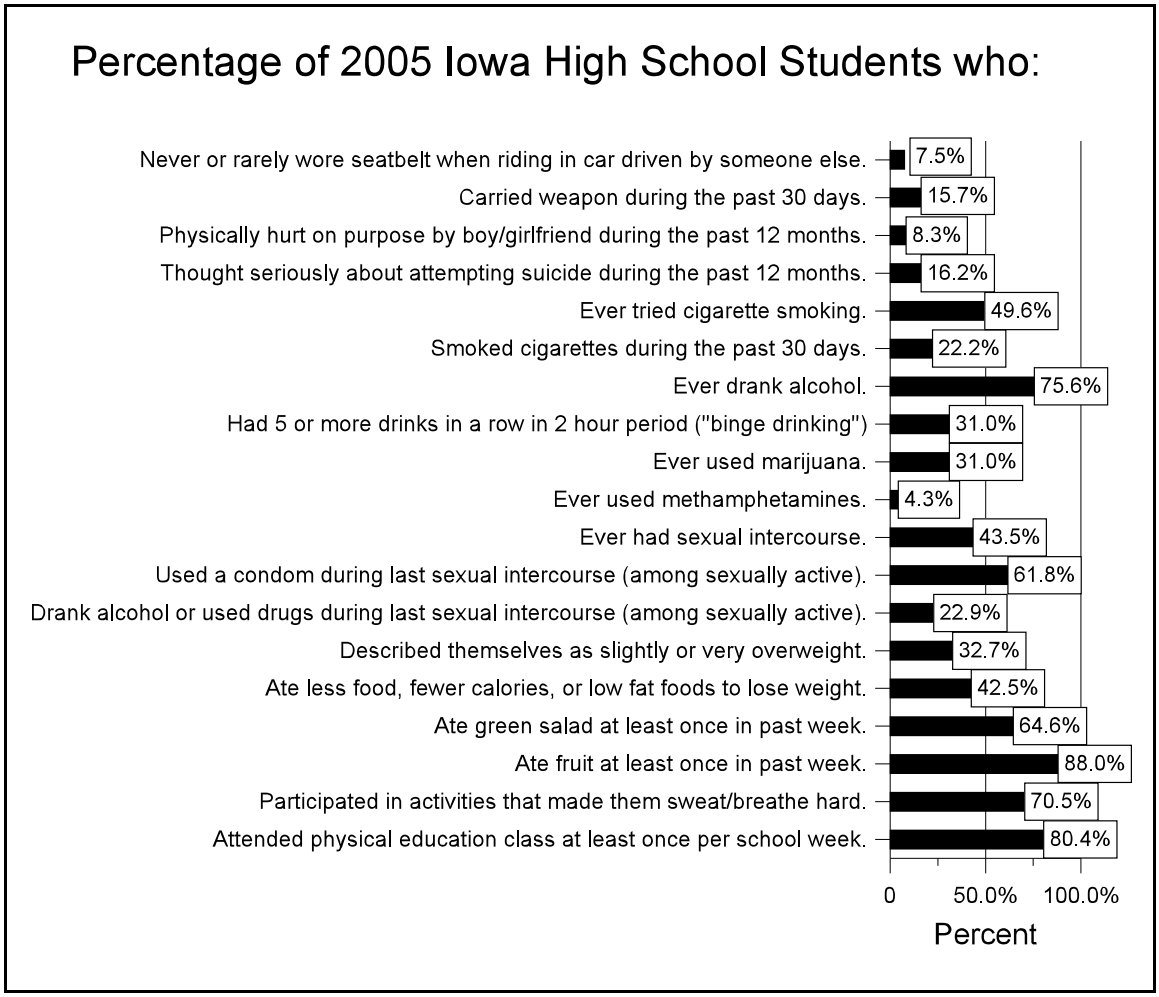

Figure 6: Highlights of the 2005 Iowa Youth Risk Behavior Survey for high school students.

Process Review of the 2005 Iowa YRBS and Recommendations for 2007

The 2005 Iowa YRBS for high schools was conducted according to strict guidelines for two-stage cluster sampling provided by Westat, Inc., a CDC contractor for the YRBS. The sample was approved and recommended procedures for administering the survey were followed. The sampling response rate was sufficient for "weighting" the data. This means that the results were generalizable to all high school students in Iowa in 2005. In this chapter we review factors that may have contributed to the acceptable response rate and make recommendations for the next YRBS scheduled for 2007.

Factors Contributing to Improved Response Rate and Weighted Data in the 2005 Iowa YRBS

In recent years (1999 through 2003), we have experienced reduced school-level response to the YRBS in Iowa. There were a number of factors identified as potential causes of this trend (Veale, 2004). This downward trend was reversed in 2005, when the school-level response rate rebounded to just under the 1997 level (see Figure 7). Several factors contributed to this improved response rate and a successful YRBS in Iowa in 2005.

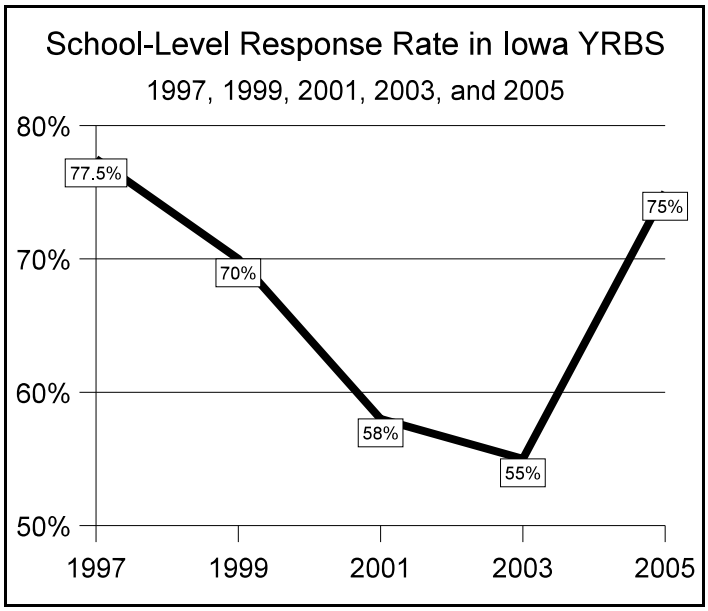

Figure 7: School-level response rate in Iowa YRBS, showing downward trend from 1997 to 2005.

The author and Sara Peterson (HIV/AIDS Education Project, Iowa Department of Education) attended a workshop conducted by Westat, Inc. in Rockville, Maryland on August 31-September 2, 2005. The purpose of this workshop was to instruct participants regarding the administration of the 2005 YRBS. In the process of the training, many helpful suggestions were provided on how to improve our response rate.

Based on ideas generated in the aforementioned workshop and internal discussions on improving the response rate, we decided to provide financial remuneration ($500) to schools that participated in the 2005 YRBS. In addition, we decided to pay each school survey administrator (typically, a school counselor or teacher) $25 for their time and effort. A third factor that helped to improve our response rate was the fact that two of the schools selected were also selected for the *national* YRBS sample. Both of these schools agreed to participate in the YRBS. The CDC allowed us to use their data from the national survey in the Iowa YRBS.[4]

[4] Schools participating in the national YRBS were also paid $500, so the financial incentive for the school was the same as for other schools in the state YRBS. Moreover, the CDC provided their own survey administrators, perhaps increasing the likelihood of participation.

Sampling Issues

In 2001, it was observed in Iowa that some schools were selected nearly every time in the YRBS. For example, two schools with fairly large enrollments were selected in 1997, 1999, and in 2001. This, however, did not appear to be explainable solely by an increased likelihood of selection due to large enrollments. There were several schools as large as the two aforementioned ones which were not selected in any of these three years. Moreover, there were smaller schools that were selected in at least two of the these three years.

A simulation was performed by Westat, Inc. in response to the author's concerns. Using the 2001 sampling frame, it was found that the two aforementioned large schools that appeared in the samples of all three years (1997, 1999, and 2001) would have appeared in 19 and 20 out of the 25 years of the simulation, respectively (Annie Lo, personal communication, June 6, 2001). This is an extremely high rate of involvement for any school with such a labor- and time-intensive survey. In contrast, two schools that were of comparable size occurred in only about one-fourth of the samples over the 25 years of the simulation (ibid.). It appears that once a school with large enrollment is selected it was increasingly likely to be selected again. This was considered to be a factor in the downward trend in school-level response rates in Iowa since achieving weighted data in 1997, through 2001 (see Figure 7). An alternative sampling plan, suggested by the author, was used in the 2003 Iowa YRBS (Veale, 2004). Random sampling was employed at the first stage (school-level), as well as the second stage (classroom-level). This alleviated the aforementioned problem of certain schools being selected repeatedly in Iowa. Unfortunately, this change in sampling methodology did not reverse the downward trend in school-level response rate, although it did level off somewhat in 2003 (see Figure 7).

In 2005 we went back to the standard two-stage sampling procedure recommended by Westat, since we were coordinating our sampling process with the tobacco survey conducted by the Iowa Department of Public Health (to insure that we did not "double up" on any school) and they were using the standard sampling procedure. The aforementioned problem with repeated selection of certain schools seemed to be somewhat mitigated in 2005. This may have been, in part, due to coordinating the sampling process with the tobacco survey.

Recommendations for the 2007 Iowa YRBS

According to the CDC, Iowa data have been weighted via current requirements twice (in 1997 and 2005)[5] since the YRBS was first conducted in the state in 1989.[6] The following are recommendations for maintaining or improving the school-level response rate in the 2005 Iowa YRBS:

- Continue using the financial reward system, providing $500 to cooperating schools and $25 to survey administrators provided by the school or school district.
- Continue starting the survey administration process early in the spring semester of the school year to give educators a chance to budget school time to complete the survey.
- Continue using the two-stage sampling procedure recommended by Westat, Inc.

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[5] In 1997, an overall response rate slightly over 70% was achieved in the Iowa YRBS (Veale, January 1998). This was considered sufficient for weighting the Iowa data that year. Generally, response rates over 70% are considered very good in mail surveys (Mangionne, 1995). In 2005, as stated earlier, the overall response rate was 65%.

[6] The Iowa YRBS was "weighted" in 1989, but according to a Westat representative, only a 50% overall response rate was required at that time (Nancy Speicher, personal communication, July, 2003). The data from that year would *not* have been weighted according to current requirement of 60%.

- Continue to coordinate the sampling process with the tobacco survey.
- Continue to include the Iowa schools selected for the national YRBS in the State sample.
- Consider eliminating some of the questions for Iowa to make the survey shorter and therefore less time consuming, e.g., questions on drugs and alcohol which are also asked in the Iowa Youth Survey.
- Consider the possibility of providing on-site survey administrators.

We will continue to work closely with Westat, Inc. and the CDC to maintain or improve our response rates and achieve data that are generalizable to all Iowa high school students again in 2007.

Acknowledgments

The 2005 Iowa YRBS was coordinated by the Iowa Department of Education. This survey was directed by Ms. Sara Peterson of the HIV/AIDS Education Project in the Bureau of Instructional Services.

Thanks go to the following individuals, groups, or organizations for their support and cooperation in the conduct of the 2005 Iowa YRBS:

- Dr. Xiaoping Wang of the Iowa Department of Education for providing data on high schools in Iowa in 2004-05, which was used to draw the school-level sample for the 2005 YRBS;
- Ms. Jennifer Williams for assistance in obtaining the classroom-level samples and administering the various mailings for the 2005 YRBS, contacting schools for their participation, tracking the surveys completed, and checking and organizing the surveys for processing;
- Westat, Inc., for technical assistance, drawing the sample, survey data processing, and the YRBS training workshop;
- the Centers for Disease Control and Prevention (CDC), which provided training and funding for the project;
- Dr. Laura Kahn, of the Division of Adolescent and School Health in the CDC, for technical support;
- participating superintendents, principals, teachers, and counselors of school districts for administering the surveys;
- the students who participated by completing the YRBS in 2005.

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APPENDIX A

The 2005 Iowa Youth Risk Behavior Survey

APPENDIX B

Table of Effective Sample Sizes

and Statistically Significant/Nonsignificant Differences

by Gender and Grade Level

Table of Effective Sample Sizes and Statistically Significant/Nonsignificant Differences by Gender and Grade Level

The total sample size—total number of students participating in the 2005 YRBS in Iowa—was 1,359. However, the *effective* sample size for any particular survey question—the number of students on which the percentage responding in a specified manner was based—was usually less than this number. Some students omitted certain questions because they may have felt they were too "personal," not relevant to them, or because they did not understand the question. In some cases, the effective sample size for a question was less than the total sample size because of intentional conditioning or filtering. For example, in Question 83 ("During an average physical education (PR) class , how many minutes do you spend actually exercising or playing sports?") those responding "0 days" to the preceding question concerning how many days the student goes to PE classes during an average school week, were omitted from the sample for computing the percentage who never or rarely wore a motorcycle helmet, in order to focus on the most relevant population for this question. The result of such filtering was often a smaller "N" (1,027 in Question 83) and correspondingly wider confidence intervals, which in turn yielded (1) reduced precision of estimation and (2) reduced likelihood of detecting significant gender or grade level differences).

Table B1: Effective sample size (N) and statistical significance (with the percentages given for each group) or nonsignificance (NS) of gender and grade level differences on the survey questions 7-87

Survey Question #	Effective Sample Size (N)	Statistical Significance (% for Each Group)/ Nonsignificance (NS)					
		Gender		Grade Level			
		Males	Females	9	10	11	12
7	1,359	NS		NS			
8	956	NS		NS			
9	1,357	11.0	3.8	NS			
10	1,353	NS		23.9	26.6	33.9	39.2
11	1,344	NS		5.6	12.1	20.8	27.0
12	1,340	27.3	3.8	NS			
13	1,345	11.2	0.8	NS			
14	1,350	7.1	1.5	NS			
15	1,358	NS		NS			
16	1,359	NS		NS			
17	1,354	NS		NS			
18	1,341	36.4	19.7	NS			
19	1,348	NS		NS			

Survey Question #	Effective Sample Size (N)	Statistical Significance (% for Each Group)/ Nonsignificance (NS)					
		Gender		Grade Level			
		Males	Females	9	10	11	12
20	1,348	16.1	6.3	15.5	10.0	12.1	6.9
21	1,358	NS		NS			
22	1,355	3.5	11.3	7.9	4.6	8.9	7.7
23	1,359	19.1	31.5	NS			
24	1,359	12.1	20.5	NS			
25	1,358	9.7	16.5	NS			
26	1,276	4.0	10.4	NS			
27	1,269	NS		NS			
28	1,346	NS		36.7	49.0	52.2	61.9
29	1,338	NS		NS			
30 (i)	1,329	NS		14.5	18.9	27.3	29.3
30 (ii)	1,329	NS		5.0	7.8	11.6	15.2
31	287	NS		NS			
32	223	NS		NS			
33	1,351	NS		NS			
34	1,345	NS		5.7	11.6	16.8	19.5
35	287	NS		NS			
36	1,355	14.9	0.7	NS			
37	1,354	7.3	0.4	NS			
38	1,355	21.7	7.1	9.1	10.9	19.2	19.6
Summary Question (smoking)	1,323	34.9	21.9	20.2	24.1	35.2	36.2
39	1,253	NS		64.3	74.3	77.5	87.0
40	1,257	NS		NS			
41	1,323	NS		30.2	42.0	50.2	54.5
42	1,344	NS		17.7	27.1	38.4	42.7
43	1,353	6.6	2.5	NS			

Survey Question #	Effective Sample Size (N)	Statistical Significance (% for Each Group)/ Nonsignificance (NS)					
		Gender		Grade Level			
		Males	Females	9	10	11	12
44	1,343	NS		NS			
45	1,344	NS		NS			
46	1,347	NS		NS			
47	1,349	4.2	1.2	NS			
48	1,357	NS		NS			
49	1,357	NS		NS			
50	1,356	NS		NS			
51	1,358	NS		NS			
52	1,358	NS		NS			
53	1,358	NS		NS			
54	1,358	NS		NS			
55	1,358	NS		NS			
56	1,356	NS		NS			
57	1,332	NS		26.6	36.6	48.2	64.5
58	1,332	NS		NS			
59	1,330	NS		6.8	10.9	14.4	19.2
60	1,331	NS		19.2	25.1	38.0	50.6
61	424	NS		NS			
62	417	NS		NS			
63	410	NS		NS			
64	1,355	26.9	39.0	NS			
Related outcome 1 (at-risk of being overweight)	1,286	NS		NS			
Related outcome 2 (overweight)	1,286	15.5	8.8	NS			
65	1,353	29.6	63.7	NS			
66	1,354	54.2	75.7	NS			

Survey Question #	Effective Sample Size (N)	Statistical Significance (% for Each Group)/ Nonsignificance (NS)					
		Gender		Grade Level			
		Males	Females	9	10	11	12
67	1,357	28.0	57.8	NS			
68	1,355	NS		NS			
69	1,358	NS		NS			
70	1,356	1.6	6.8	NS			
71	1,355	NS		NS			
72	1,356	NS		88.7	87.6	93.0	82.8
73	1,356	58.6	70.6	NS			
74	1,354	NS		NS			
75	1,356	NS		NS			
76	1,354	NS		NS			
Related outcome (5 or more helpings of fruits and vegetables)	1,344	NS		20.7	16.1	20.1	9.2
77	1,356	36.1	20.6	31.1	28.6	33.1	21.3
78	1,354	76.0	64.7	78.3	70.2	73.0	59.8
79	1,354	NS		NS			
Related outcome 1 (low physical activity)	1,351	20.6	30.9	19.0	25.1	22.9	35.4
Related outcome 2 (no physical activity)	1,351	NS		NS			
80	1,354	42.0	25.6	NS			
81	1,355	NS		NS			
82	1,273	NS		NS			
Related outcome (attended PE class daily)	1,273	NS		NS			
83	1,027	NS		NS			
84	1,352	NS		75.2	70.4	66.6	54.4

Survey Question #	Effective Sample Size (N)	Statistical Significance (% for Each Group)/ Nonsignificance (NS)					
		Gender		Grade Level			
		Males	Females	9	10	11	12
85	1,355	NS		NS			
86	1,356	NS		NS			
87 ("current asthma")[7]	1,355	NS		NS			
Related outcome 2 (among current asthma, had attack or episode)	198	NS		NS			

[7] Refers to what is called "Related outcome 1" in the section "Additional Health Questions: Asthma."