

Results of the 2007 Hawai'i Youth Risk Behavior Surveys and Cross-Year Comparisons

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Background

The Youth Risk Behavior Survey (YRBS) is one component of the Youth Risk Behavior Surveillance System (YRBSS) developed by the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), Division of Adolescent and School Health, in collaboration with representatives from state and local departments of education and health, other federal agencies, and national education and health organizations. The YRBSS was designed to focus the nation on behaviors among youth related to the leading causes of mortality and morbidity among both youth and adults, and to assess how these risk behaviors change over time. In 2007, 44 states and 22 large districts administered the high school YRBS.

There were 73 CDC-developed questions in the 2007 Hawai'i High School YRBS (hereafter referred to as high school HYRBS) covering

- (a) behaviors that result in unintentional injuries and violence;
- (b) tobacco use;
- (c) alcohol and other drug use;
- (d) sexual behavior that results in HIV infection, other sexually transmitted diseases, and unintended pregnancies;
- (e) dietary behaviors; and
- (f) physical activity.

In addition, there were 26 Hawai'i-specific questions covering the above topics and other health-related topics of local interest. The high school YRBSS has been conducted nationally during the spring in odd-numbered years since 1991. In Hawai'i, the high school HYRBS was conducted during the spring in odd-numbered years from 1991 to 1999 and during the fall since 2001.

A similar survey of Hawai'i middle and intermediate school students (hereafter referred to as middle school HYRBS) was conducted in odd-numbered years since 1997. The middle school survey was also conducted during fall 2007. The 2007 version contained 72 questions: 35 CDC-developed questions and 37 site-added questions.

The results of these surveys, conducted in compliance with the requirements of the Hawai'i State Department of Education's (DOE) cooperative agreement with the Division of Adolescent and School Health, CDC, and largely funded by the Hawai'i Department of Health's (DOH) Healthy Hawai'i Initiative, will be used to (a) identify focus areas for curriculum development and teacher training, (b) identify focus areas for prevention and treatment efforts and resources, (c) identify risk behaviors of Hawai'i public school students in grades 6–12, (d) support health-related legislation, and (e) seek funding.

This document is a comprehensive reporting of the 2007 high school HYRBS and 2007 middle school HYRBS total results. It does not include the results by age, grade, race/ethnicity, or sex. Because of the large number of health risk behavior items contained in the

surveys, this report is very dense. We have chosen to report all of the overall results in one document, but it might prove to be beneficial for content specialists to examine the results that are available on the CDC's websites, <http://apps.nccd.cdc.gov/yrbss/> and <http://www.cdc.gov/HealthyYouth/yrbs/index.htm> for more details. The DOH, in coordination with the Hawai'i School Health Survey committee, plans to issue topical briefs utilizing further analyses of the YRBS data in the future.

Method

A two-stage, stratified random sampling procedure was used to produce final samples of 1,231 students in 27 Hawai'i public middle and intermediate schools (grades 6–8) and 1,191 students in 27 Hawai'i public high schools (grades 9–12). The response rates were 62% and 60%, respectively. Survey procedures were designed to protect the privacy of students through anonymous and voluntary participation. School-level personnel proctored the self-administered questionnaire. Written parental permission was required.

The data from the middle school and high school HYRBS administered during fall 2007 were statistically weighted; thus, according to the CDC, it is possible to make valid statewide (public middle schools and public high schools only) comparisons across years, and the results are representative of all public middle school students in grades 6–8 and public high school students in grades 9–12, respectively.

Table 1 contains the 2007 HYRBS public high school results compared to the 2005 results and to the 2007 U.S. YRBSS results. A three-stage cluster sample design was used to produce the nationally representative sample of students in grades 9–12 who attended public and private schools. The CDC conducted *t*-test analyses at $p < .05$ to determine if there was a statistically significant difference between 2005 and 2007 for Hawai'i students and between Hawai'i and U.S. students in 2007. Note: Although results displayed on the CDC's website are comparable, previous printed reports of Hawai'i results reflect the CDC's initial method of analysis (i.e., comparing confidence intervals) and are therefore not comparable to results in this report.

Table 2 presents the results of a trend analysis conducted by the CDC, which notes whether Hawai'i students are at greater or less risk in 2007 than they were when the health risk behavior was first included on the survey. Of the 60 items for which weighted results were obtained for at least three survey administrations, 41 were first asked in 1993, 3 in 1995, and 16 in 1999. Items that were only part of the 2005 and 2007 surveys were not included because their results are included in Table 1.

The 2007 middle school level results are presented in Table 3. The CDC has not yet published comparable national results, and due to a CDC-recommended change in item responses for the 2007 survey, the 2007 results are not comparable to results from prior administrations.

Results

Results from the 2007 Hawai‘i High School Youth Risk Behavior Survey show that, overall, lower percentages of Hawai‘i youth reported risky behaviors in 2007 than they did both in 2005 and since the inception of the health risk behavior’s inclusion on the survey. However, Hawai‘i’s students were statistically significantly better than U.S. students for 16 and worse for 17 of the 71 items for which comparisons could be made from the 2007 survey administrations.

Hawai‘i High School, 2007 vs. 2005

There were seven statistically significant differences at the .05 level for Hawai‘i students when comparing results from 2007 and 2005. The five behaviors for which Hawai‘i students were less at risk in 2007 were being in a physical fight in which they were injured and required medical treatment in the 12 months preceding the survey, fighting on school property in the 12 months preceding the survey, drinking alcohol on school property in the 30 days preceding the survey, drinking alcohol for the first time before age 13, and not having been taught about AIDS or HIV infection in school. The two behaviors where students were at greater risk in 2007 than they were in 2005 were taking diet pills, powders, or liquids without a doctor’s advice to lose weight or keep from gaining weight during the 30 days preceding the survey and not eating other vegetables (i.e., other than green salad, potatoes, or carrots) during the seven days preceding the survey. See Table 1 for the details.

Hawai‘i High School vs. U.S. High School, 2007

There were 34 statistically significant differences at the .05 level between Hawai‘i and U.S. students in 2007: 16 favoring Hawai‘i; 17 favoring the U.S.; and one, eating less food, fewer calories, or low-fat foods to lose weight or to keep from gaining weight during the 30 days before the survey where it is not possible to determine if this behavior is more or less risky because, for any given student, it was not known if the student should have been trying to lose weight.

As they did in 2005, lower percentages of Hawai‘i high school students as compared to high school students nationally reported risky behaviors related to

- fighting (physically) and fighting on school property during the 12 months preceding the survey;
- smoking cigarettes in the 30 days preceding the survey and smoking on 20 or more of the 30 days;
- ever drinking alcohol;
- drinking alcohol and having five or more drinks of alcohol within a couple of hours during the 30 days preceding the survey; and
- engaging in sexual activity—ever, with four or more people, and during the three months preceding the survey.

Hawai‘i high school students continue to eat more carrots in the seven days preceding the survey than students in the U.S. survey.

Behaviors for which Hawai'i students were at less risk than U.S. students in 2007 but were not statistically significantly different in 2005 are

- carrying weapons on school property in the 30 days preceding the survey,
- ever using marijuana,
- using marijuana during the 30 days preceding the survey,
- using any form of cocaine during the 30 days preceding the survey, and
- drinking regular soda or pop during the seven days preceding the survey.

However, Hawai'i high school students in 2007 continue to be at greater risk for

- riding in a vehicle driven by someone who had been drinking alcohol;
- making a plan for suicide;
- attempting suicide in the 12 months preceding the survey;
- being offered, sold, or given an illegal drug on school property in the 12 months preceding the survey; and
- trying marijuana for the first time before age 13.

Hawai'i students continue to drink less 100% fruit juice and milk and eat fewer potatoes in the seven days preceding the survey, and fewer reported attending physical education class one or more days during a week and daily. A higher percentage of Hawai'i students were told by a doctor or nurse that they had asthma.

Behaviors for which Hawai'i students were not at higher risk than U.S. students in 2005 but are in 2007 are

- not going to school because they felt they would be unsafe at school or on their way to or from school during the 30 days preceding the survey,
- seriously considering attempting suicide during the 12 months preceding the survey,
- vomiting or taking laxatives to lose weight or to keep from gaining weight during the 30 days preceding the survey, and
- playing video or computer games or using a computer for something that was not school work for three or more hours per day on an average school day.

Hawai'i students are eating fewer other vegetables (i.e., other than green salad, potatoes, or carrots) and are less often eating fruits and vegetables five or more times per day in the seven days preceding the survey.

Hawai'i High School Trends

The CDC conducted a trend analysis of weighted data for the standard questions from the 2007 high school HYRBS questionnaire and supplemental variables calculated from those questions. Site-added questions were not included. "Logistic regression analysis was used to test for change over time. The regression models used control for changes in distributions by sex, race/ethnicity, and grade and simultaneously assess linear and quadratic time effects" (Centers for Disease Control and Prevention, 2008a). Table 2 provides results of the high

school HYRBS items from their year of inception, the 2007 results, and indicates if there was a positive (less risk) or negative (greater risk) change. Of the results from the high school HYRBS for which trends were possible ($n = 60$) Hawai'i students were at less risk for 26 behaviors in 2007, greater risk for ten behaviors, and two behaviors were inconclusive as we were not able to determine whether the trend was positive or negative.

Hawai'i public high school students were less at risk for the following behaviors

ever

- drinking alcohol
- using marijuana
- using any form of cocaine
- using inhalants to get high
- using methamphetamines
- having sexual intercourse
- having sexual intercourse with four or more persons
- describing themselves as slightly or very overweight

during the 12 months preceding the survey

- never or rarely wearing a bicycle helmet
- fighting
- fighting on school property
- seriously considering suicide
- making a plan for attempting suicide

during the three months preceding the survey

- having sexual intercourse

during the 30 days preceding the survey

- riding in a vehicle driven by someone who had been drinking alcohol
- driving a vehicle when they had been drinking alcohol
- carrying a weapon
- carrying a weapon on school property
- smoking cigarettes
- smoking cigarettes on 20 or more days
- drinking alcohol
- having five or more drinks of alcohol in a row
- using marijuana
- using marijuana on school property

before age 13

- having first drink of alcohol

on an average school day

- watching television three or more hours per day

Hawai'i public high school students were more at risk for the following behaviors

ever

- taking steroid pills or shots without a doctor's prescription
- having ever been taught about AIDS or HIV infection in school

in the 30 days preceding the survey

- vomiting or taking laxatives to lose weight or to keep from gaining weight

in the 7 days preceding the survey

- eating green salad
- eating carrots
- eating other vegetables (i.e., other than green salad, potatoes, or carrots)
- drinking three or more glasses of milk per day

daily

- going to physical education (PE) classes

among students who were currently sexually active

- drinking alcohol or using drugs before last sexual intercourse

In addition, Hawai‘i public high school students were more at risk for being obese. The two items for which the results of the trend analysis were not clear were trying to lose weight and exercising to lose weight or to keep from gaining weight because, for any given student, it was not known if the student should have been trying to lose weight.

Hawai‘i Middle School, 2007

At the insistence of the CDC, the items on the 2007 Hawai‘i Middle School Youth Risk Behavior Survey (middle school HYRBS) were modified to match the national core questions. Most of the items on the 2005 middle school HYRBS were modified to match the high school HYRBS. Therefore, most of the results of the 2007 middle school HYRBS are not directly comparable to previous administrations. Table 3 provides the 2007 middle school HYRBS results. The CDC does not conduct a national middle school YRBS, but they will be posting results from sites that conducted a 2007 middle school YRBS in 2009.

Table 1. 2005 and 2007 Hawai'i Youth Risk Behavior Survey Public High School Results (2005, n = 1,662 and 2007, n = 1,191) Compared to 2007 U.S. Results (n = 14,041)

Health Risk Behavior	Hawai'i			U.S. 2007 %	HI vs. U.S.
	2005 %	2007 %	2007 vs. 2005		
Unintentional Injuries and Violence					
Among students who rode a bicycle during the 12 months before the survey, rarely or never wore a bicycle helmet	85.7	86.1	— ^a	85.1	—
Rode one or more times during the 30 days before the survey in a car or other vehicle driven by someone who had been drinking alcohol	33.0	33.9	—	29.1	Greater Risk
Drove a car or other vehicle one or more times during the 30 days before the survey when they had been drinking alcohol	7.9	8.0	—	10.5	—
Drove a car or other vehicle during the 30 days before the survey when they had been under the influence of marijuana or another drug	NA ^b	11.3	NA	NA	NA
Carried a weapon such as a gun, knife, or club on at least one day during the 30 days before the survey	13.3	14.8	—	18.0	—
Carried a weapon such as a gun, knife, or club on school property on at least one day during the 30 days before the survey	4.9	3.7	—	5.9	Less Risk
Did not go to school on at least one day during the 30 days before the survey because they felt they would be unsafe at school or on their way to or from school	6.7	7.8	—	5.5	Greater Risk
Were threatened or injured with a weapon such as a gun, knife, or club on school property one or more times during the 12 months before the survey	6.8	6.4	—	7.8	—
Had their property such as their car, clothing, or books stolen or deliberately damaged on school property one or more times during the 12 months before the survey	28.1	28.3	—	27.1	—
Were in a physical fight one or more times during the 12 months before the survey	27.0	28.6	—	35.5	Less Risk
Were in a physical fight one or more times during the 12 months before the survey in which they were injured and had to be treated by a doctor or nurse	5.2	3.3	Less Risk	4.2	—
Were in a physical fight on school property one or more times during the 12 months before the survey	10.0	7.0	Less Risk	12.4	Less Risk

Note: "Greater Risk" means that Hawai'i public school students were statistically significantly ($p < .05$) at greater risk in 2007 than they were in 2005 or as compared to U.S. students in 2007. Likewise, "Less Risk" means that Hawai'i public school students were statistically significantly ($p < .05$) at lesser risk in 2007 than they were in 2005 or as compared to U.S. students in 2007.

^a No statistically significant difference ($p < .05$) ^b Not Available

(table continues)

Table 1 (continued)

Health Risk Behavior	Hawai'i			U.S. 2007 %	HI vs. U.S.
	2005 %	2007 %	2007 vs. 2005		
Unintentional Injuries and Violence cont.					
Had a boyfriend or girlfriend during the 12 months before the survey	NA	61.1	NA	NA	NA
Were hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend during the 12 months before the survey	NA	9.5	NA	9.9	—
Had ever been physically forced to have sexual intercourse when they did not want to	10.3	7.8	—	7.8	—
Had been hurt by hitting, punching, or kicking while on school property during the 12 months before the survey	22.0	20.4	—	NA	NA
Had been hurt by having mean things said to them (things that hurt their feelings) while on school property one or more times during the 12 months before the survey	43.8	44.8	—	NA	NA
Had been hurt by having mean things said to them (things that hurt their feelings) on the internet or email during the 12 months before the survey	NA	23.8	NA	NA	NA
Had been harassed because someone thought they were gay, lesbian, or bisexual during the 12 months before the survey	12.3	13.3	—	NA	NA
Strongly agree or agree that harassment and bullying by other students is a problem at their school	NA	54.8	NA	NA	NA
Felt so sad or hopeless almost every day for two or more weeks in a row that they stopped doing some usual activities during the 12 months before the survey	31.8	31.8	—	28.5	—
Seriously considered attempting suicide during the 12 months before the survey	19.8	18.5	—	14.5	Greater Risk
Made a plan about how they would attempt suicide during the 12 months before the survey	17.2	17.0	—	11.3	Greater Risk
Attempted suicide one or more times during the 12 months before the survey	12.9	12.0	—	6.9	Greater Risk
Made a suicide attempt that resulted in an injury, poisoning, or an overdose that had to be treated by a doctor or nurse during the 12 months before the survey	3.7	3.0	—	2.0	—

(table continues)

Table 1 (continued)

Health Risk Behavior	Hawai'i			U.S. 2007 %	HI vs. U.S.
	2005 %	2007 %	2007 vs. 2005		
Tobacco Use					
Smoked cigarettes on at least one day during the 30 days before the survey	16.4	12.8	—	20.0	Less Risk
Smoked cigarettes on 20 or more days during the 30 days before the survey	4.8	4.5	—	8.1	Less Risk
Among students who currently smoked cigarettes, had tried to quit smoking cigarettes during the 12 months before the survey	NA	58.1	NA	49.7	—
Alcohol and Other Drug Use					
Had at least one drink of alcohol on at least one day during their life	64.8	58.7	—	75.0	Less Risk
Drank alcohol (other than a few sips) for the first time before age 13 years	27.3	21.0	Less Risk	23.8	—
Had at least one drink of alcohol on at least one day during the 30 days before the survey	34.8	29.1	—	44.7	Less Risk
Had five or more drinks of alcohol in a row, that is, within a couple of hours, on at least one day during the 30 days before the survey	18.8	14.9	—	26.0	Less Risk
Among students who currently drank alcohol, usually obtained the alcohol they drank by buying it in a store such as a liquor store, convenience store, supermarket, discount store, or gas station during the 30 days before the survey	NA	4.0	NA	5.2	—
Drank at least one drink of alcohol on school property on at least one day during the 30 days before the survey	8.8	6.0	Less Risk	4.1	—
Drank a usual type of alcohol during the 30 days before the survey	NA	27.3	NA	NA	NA
Used marijuana one or more times during their life	34.6	29.9	—	38.1	Less Risk
Tried marijuana for the first time before age 13 years	12.5	11.7	—	8.3	Greater Risk
Used marijuana one or more times during the 30 days before the survey	17.2	15.7	—	19.7	Less Risk
Used marijuana on school property one or more times during the 30 days before the survey	7.2	5.7	—	4.5	—

(table continues)

Table 1 (continued)

Health Risk Behavior	Hawai'i			U.S. 2007 %	HI vs. U.S.
	2005 %	2007 %	2007 vs. 2005		
Alcohol and Other Drug Use cont.					
Used any form of cocaine, including powder, crack, or freebase one or more times during their life	6.5	5.6	—	7.2	—
Used any form of cocaine, including powder, crack, or freebase one or more times during the 30 days before the survey	3.0	2.0	—	3.3	Less Risk
Sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high one or more times during their life	13.0	11.4	—	13.3	—
Used methamphetamines one or more times during their life	4.3	4.5	—	4.4	—
Used ecstasy one or more times during their life	6.1	4.6	—	5.8	—
Took steroid pills or shots without a doctor's prescription one or more times during their life	2.9	4.3	—	3.9	—
Were offered, sold, or given an illegal drug by someone on school property during the 12 months before the survey	32.7	36.2	—	22.3	Greater Risk
Had taken over-the-counter drugs to get high one or more times during the 30 days before the survey	NA	4.6	NA	NA	NA
Had taken a prescription drug such as OxyContin, Vicodin, tranquilizers, Valium, Xanax, or Ritalin without a doctor's prescription one or more times during the 30 days before the survey	NA	6.5	NA	NA	NA
Sexual Behaviors					
Ever had sexual intercourse	35.7	36.2	—	47.8	Less Risk
Had sexual intercourse for the first time before age 13 years	5.1	5.1	—	7.1	—
Had sexual intercourse with four or more persons during their life	9.0	6.1	—	14.9	Less Risk
Had sexual intercourse with at least one person during the 3 months before the survey	24.1	23.6	—	35.0	Less Risk
Among students who were currently sexually active, drank alcohol or used drugs before last sexual intercourse	22.8	27.2	—	22.5	—

(table continues)

Table 1 (continued)

Health Risk Behavior	Hawai'i			U.S. 2007 %	HI vs. U.S.
	2005 %	2007 %	2007 vs. 2005		
Sexual Behaviors cont.					
Among students who were currently sexually active, reported that either they or their partner had used a condom during last sexual intercourse	47.6	54.2	—	61.5	—
Among students who were currently sexually active, reported that either they or their partner had used birth control pills to prevent pregnancy before last sexual intercourse	12.7	12.2	—	16.0	—
Ever had oral sex	NA	33.3	NA	NA	NA
Ever had anal sex	NA	13.4	NA	NA	NA
Are sexually attracted to both males and females	NA	5.1	NA	NA	NA
Dietary Behaviors					
Were overweight (\geq 85th percentile but $<$ 95th percentile for body mass index, by age and sex, based on reference data)	14.2	14.3	—	15.8	—
Were obese (\geq 95th percentile for body mass index, by age and sex, based on reference data)	13.5	15.6	—	13.0	—
Described themselves as slightly or very overweight	29.6	32.7	—	29.3	—
Were trying to lose weight	47.9	46.3	—	45.2	—
Exercised to lose weight or to keep from gaining weight during the 30 days before the survey	65.6	62.6	—	60.9	—
Ate less food, fewer calories, or low-fat foods to lose weight or to keep from gaining weight during the 30 days before the survey	39.8	35.9	—	40.6	* ^c
Did not eat for 24 or more hours to lose weight or to keep from gaining weight during the 30 days before the survey	12.1	12.2	—	11.8	—
Took any diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight during the 30 days before the survey	5.3	8.3	Greater Risk	5.9	—
Vomited or took laxatives to lose weight or to keep from gaining weight during the 30 days before the survey	6.0	7.9	—	4.3	Greater Risk
Drank 100% fruit juices one or more times during the 7 days before the survey	72.9	69.8	—	80.3	Greater Risk

^c Not clear if greater or less risk

(table continues)

Table 1 (continued)

Health Risk Behavior	Hawai'i			U.S. 2007 %	HI vs. U.S.
	2005 %	2007 %	2007 vs. 2005		
Dietary Behaviors cont.					
Ate fruit one or more times during the 7 days before the survey	85.7	87.2	—	85.3	—
Ate green salad one or more times during the 7 days before the survey	69.0	64.2	—	64.1	—
Ate potatoes one or more times during the 7 days before the survey	58.1	59.8	—	69.1	Greater Risk
Ate carrots one or more times during the 7 days before the survey	56.9	53.7	—	46.3	Less Risk
Ate other vegetables one or more times during the 7 days before the survey	82.2	77.6	Greater Risk	82.4	Greater Risk
Ate fruits and vegetables (100% fruit juices, fruit, green salad, potatoes [excluding french fries, fried potatoes, or potato chips], carrots, or other vegetables) five or more times per day during the 7 days before the survey	19.1	17.2	—	21.4	Greater Risk
Drank a can, bottle, or glass of soda or pop (not including diet soda or diet pop) at least one time per day during the 7 days before the survey	NA	22.6	NA	33.8	Less Risk
Drank three or more glasses per day of milk during the 7 days before the survey	8.7	8.3	—	14.1	Greater Risk
Physical Activity					
Were physically active doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time for a total of at least 60 minutes per day on 5 or more of the 7 days before the survey	30.2	34.3	—	34.7	—
Went to physical education (PE) classes on one or more days in an average week when they were in school	38.1	38.5	—	53.6	Greater Risk
Went to physical education (PE) classes five days in an average week when they were in school	12.1	7.8	—	30.3	Greater Risk
Spent more than half of the class exercising or doing an activity other than standing or sitting still during an average physical education (PE) class	NA	24.1	NA	NA	NA
Watched television three or more hours per day on an average school day	36.9	32.9	—	35.4	—
Played video or computer games or used a computer for something that was not school work three or more hours per day on an average school day	NA	31.1	NA	24.9	Greater Risk

(table continues)

Table 1 (continued)

Health Risk Behavior	Hawai'i			U.S. 2007 %	HI vs. U.S.
	2005 %	2007 %	2007 vs. 2005		
Other Health Topics					
Had ever been told by a doctor or nurse that they had asthma	30.4	28.7	—	20.3	Greater Risk
Had ever been told by a doctor or nurse that they had asthma and still have asthma	NA	11.9	NA	10.9	—
Had ever been taught in school about how many fruits and vegetables they should eat each day	NA	82.3	NA	NA	NA
Had ever been taught in school about AIDS or HIV infection	83.2	87.1	Less Risk	89.5	—
Had a doctor or nurse discuss ways to prevent pregnancy with them	NA	39.3	NA	NA	NA
Had ever had a doctor or nurse discuss ways to prevent sexually transmitted diseases (STDs) and AIDS or HIV infection with them	NA	41.8	NA	NA	NA
Had ever had parents or other adults in their family talk with them about what they expect them to do or not to do when it comes to sex	NA	55.9	NA	NA	NA
Had an adult outside of school they can talk to about things that are important to them	NA	77.4	NA	NA	NA
Had one or more adults besides their parents they would feel comfortable seeking help from if they had an important question affecting their life	NA	76.9	NA	NA	NA
Thought they definitely will not complete high school	NA	3.6	NA	NA	NA
Thought they definitely will not complete a post high school program such as a vocational training program, military service, community college, or 4-year college	NA	6.2	NA	NA	NA
Had a driver's license	NA	19.7	NA	NA	NA
Completed a driver education course more than 12 months ago	NA	7.1	NA	NA	NA
Got a ticket for a moving violation while driving a car or motorcycle less than 6 months ago	NA	2.0	NA	NA	NA
Had a crash or collision while driving a car or motorcycle less than 6 months ago	NA	2.3	NA	NA	NA

Table 2. 1993^a–2007 Hawai‘i Youth Risk Behavior Survey Public High School Trends

Health Risk Behavior	Hawai‘i		
	1993 %	2007 %	Change
Unintentional Injuries and Violence			
Among students who rode a bicycle during the 12 months before the survey, rarely or never wore a bicycle helmet	96.8	86.1	Less Risk
Rode one or more times during the 30 days before the survey in a car or other vehicle driven by someone who had been drinking alcohol	36.3	33.9	Less Risk
Drove a car or other vehicle one or more times during the 30 days before the survey when they had been drinking alcohol	10.3	8.0	Less Risk
Carried a weapon such as a gun, knife, or club on at least one day during the 30 days before the survey	18.4	14.8	Less Risk
Carried a weapon such as a gun, knife, or club on school property on at least one day during the 30 days before the survey	7.9	3.7	Less Risk
Did not go to school on at least one day during the 30 days before the survey because they felt they would be unsafe at school or on their way to or from school	6.5	7.8	— ^b
Were threatened or injured with a weapon such as a gun, knife, or club on school property one or more times during the 12 months before the survey	7.4	6.4	—
Were in a physical fight one or more times during the 12 months before the survey	37.0	28.6	Less Risk
Were in a physical fight one or more times during the 12 months before the survey in which they were injured and had to be treated by a doctor or nurse	4.3	3.3	—
Were in a physical fight on school property one or more times during the 12 months before the survey	14.0	7.0	Less Risk
Felt so sad or hopeless almost every day for two or more weeks in a row that they stopped doing some usual activities during the 12 months before the survey	31.8 (1999)	31.8	—
Seriously considered attempting suicide during the 12 months before the survey	27.8	18.5	Less Risk
Made a plan about how they would attempt suicide during the 12 months before the survey	21.4	17.0	Less Risk
Attempted suicide one or more times during the 12 months before the survey	12.6	12.0	—
Made a suicide attempt that resulted in an injury, poisoning, or an overdose that had to be treated by a doctor or nurse during the 12 months before the survey	3.8	3.0	—

Note: According to CDC a “Logistic regression analysis ($p < .05$) was used to test for change over time. The regression models used control for changes in distributions by sex, race/ethnicity, and grade.”

^a Year item first included in survey is listed below percentage if year differs from column heading

^b No statistically significant difference ($p < .05$)

(table continues)

Table 2 (continued)

Health Risk Behavior	Hawai'i		
	1993 %	2007 %	Change
Tobacco Use			
Smoked cigarettes on at least one day during the 30 days before the survey	28.2	12.8	Less Risk
Smoked cigarettes on 20 or more days during the 30 days before the survey	13.3	4.5	Less Risk
Alcohol and Other Drug Use			
Had at least one drink of alcohol on at least one day during their life	72.8	58.7	Less Risk
Drank alcohol (other than a few sips) for the first time before age 13 years	33.8	21.0	Less Risk
Had at least one drink of alcohol on at least one day during the 30 days before the survey	38.4	29.1	Less Risk
Had five or more drinks of alcohol in a row, that is, within a couple of hours, on at least one day during the 30 days before the survey	22.7	14.9	Less Risk
Drank at least one drink of alcohol on school property on at least one day during the 30 days before the survey	6.4	6.0	—
Used marijuana one or more times during their life	33.6	29.9	Less Risk
Tried marijuana for the first time before age 13 years	10.7	11.7	—
Used marijuana one or more times during the 30 days before the survey	16.7	15.7	Less Risk
Used marijuana on school property one or more times during the 30 days before the survey	7.9	5.7	Less Risk
Used any form of cocaine, including powder, crack, or freebase one or more times during their life	8.2	5.6	Less Risk
Used any form of cocaine, including powder, crack, or freebase one or more times during the 30 days before the survey	3.3	2.0	—
Sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high one or more times during their life	15.2 (1995)	11.4	Less Risk
Used methamphetamines one or more times during their life	7.7 (1999)	4.5	Less Risk
Took steroid pills or shots without a doctor's prescription one or more times during their life	2.2	4.3	Greater Risk
Were offered, sold, or given an illegal drug by someone on school property during the 12 months before the survey	26.4	36.2	—

(table continues)

Table 2 (continued)

Health Risk Behavior	Hawai'i		
	1999 %	2007 %	Change
Sexual Behaviors			
Ever had sexual intercourse	44.3	36.2	Less Risk
Had sexual intercourse for the first time before age 13 years	7.3	5.1	—
Had sexual intercourse with four or more persons during their life	11.4	6.1	Less Risk
Had sexual intercourse with at least one person during the 3 months before the survey	28.7	23.6	Less Risk
Among students who were currently sexually active, drank alcohol or used drugs before last sexual intercourse	18.0	27.2	Greater Risk
Among students who were currently sexually active, reported that either they or their partner had used a condom during last sexual intercourse	50.6	54.2	—
Among students who were currently sexually active, reported that either they or their partner had used birth control pills to prevent pregnancy before last sexual intercourse	13.9	12.2	—
Dietary Behaviors			
Were overweight (\geq 85th percentile but $<$ 95th percentile for body mass index, by age and sex, based on reference data)	14.3	14.3	—
Were obese (\geq 95th percentile for body mass index, by age and sex, based on reference data)	10.5	15.6	Greater Risk
Described themselves as slightly or very overweight	40.8 (1993)	32.7	Less Risk
Were trying to lose weight	44.4 (1993)	46.3	* ^c
Exercised to lose weight or to keep from gaining weight during the 30 days before the survey	53.9 (1995)	62.6	*
Ate less food, fewer calories, or low-fat foods to lose weight or to keep from gaining weight during the 30 days before the survey	40.3	35.9	—
Did not eat for 24 or more hours to lose weight or to keep from gaining weight during the 30 days before the survey	11.8	12.2	—
Took any diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight during the 30 days before the survey	7.2	8.3	—
Vomited or took laxatives to lose weight or to keep from gaining weight during the 30 days before the survey	5.2 (1995)	7.9	Greater Risk
Drank 100% fruit juices one or more times during the 7 days before the survey	71.1	69.8	—

^c Not clear if greater or less risk

(table continues)

Table 2 (continued)

Health Risk Behavior	Hawai'i		
	1999 %	2007 %	Change
Dietary Behaviors cont.			
Ate fruit one or more times during the 7 days before the survey	88.8	87.2	—
Ate green salad one or more times during the 7 days before the survey	72.1	64.2	Greater Risk
Ate potatoes one or more times during the 7 days before the survey	59.2	59.8	—
Ate carrots one or more times during the 7 days before the survey	59.7	53.7	Greater Risk
Ate other vegetables one or more times during the 7 days before the survey	85.9	77.6	Greater Risk
Ate fruits and vegetables (100% fruit juices, fruit, green salad, potatoes [excluding french fries, fried potatoes, or potato chips], carrots, or other vegetables) five or more times per day during the 7 days before the survey	21.1	17.2	—
Drank three or more glasses per day of milk during the 7 days before the survey	15.4	8.3	Greater Risk
Physical Activity			
Went to physical education (PE) classes on one or more days in an average week when they were in school	42.5 (1993)	38.5	—
Went to physical education (PE) classes five days in an average week when they were in school	19.2 (1993)	7.8	Greater Risk
Watched television three or more hours per day on an average school day	44.7	32.9	Less Risk
Other Health Behavior			
Had ever been taught in school about AIDS or HIV infection	90.3 (1993)	87.1	Greater Risk

Table 3. 2007 Hawai'i Youth Risk Behavior Survey Public Middle Schools Results
(n = 1,231)

Health Risk Behavior	%
Unintentional Injuries and Violence	
Among students who rode a bicycle, rarely or never wore wear a bicycle helmet	75.2
Among students who used rollerblades or rode a skateboard, rarely or never wore a helmet	79.2
Had ever ridden one or more times in a car or other vehicle driven by someone who had been drinking alcohol	33.2
Had ever ridden one or more times in a car or other vehicle driven by someone who had been high on marijuana or other illegal drugs	9.9
Carried a weapon such as a gun, knife, or club on school property on at least one day during the 12 months before the survey	4.9
Did not go to school on at least one day during the 12 months before the survey because they felt unsafe at school or on their way to or from school	7.1
Were threatened or injured with a weapon such as a gun, knife, or club on school property one or more times during the 12 months before the survey	5.9
Had their property such as their clothing or books stolen or deliberately damaged on school property one or more times during the 12 months before the survey	28.7
Were in a physical fight on school property one or more times during the 12 months before the survey	17.2
Had a boyfriend or girlfriend during the 12 months before the survey	43.9
Were hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend during the 12 months before the survey	5.2
Had ever been physically forced to have sexual intercourse when they did not want to	4.5
Had someone try to hurt them by hitting, punching, or kicking them while on school property during the 12 months before the survey	32.6
Had been hurt by having mean things said to them (things that hurt their feelings) while on school property one or more times during the 12 months before the survey	52.5
Had been hurt by having mean things said to them or about them (things that hurt their feelings) on the Internet or email during the 12 months before the survey	19.9
Had been harassed because someone thought they were gay, lesbian, or bisexual during the 12 months before the survey	10.3
Strongly agree or agree that harassment and bullying by other students is a problem at their school	67.8
Felt so sad or hopeless almost every day for two or more weeks in a row that they stopped doing some usual activities during the 12 months before the survey	26.1
Seriously thought about killing themselves during the 12 months before the survey	17.5
Made a plan to kill themselves during the 12 months before the survey	9.9
Tried to kill themselves during the 12 months before the survey	6.5
Made suicide attempt that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse during the 12 months before the survey	6.5

(table continues)

Table 3 (continued)

Health Risk Behavior	%
Tobacco Use	
Smoked cigarettes on at least one day during the 30 days before the survey	8.9
Smoked cigarettes on 20 or more days during the 30 days before the survey	1.2
Alcohol and Other Drug Use	
Had at least one drink of alcohol on at least one day during their life	30.6
Drank alcohol (other than a few sips) for the first time before age 11 years	16.9
Had at least one drink of alcohol on at least one day during the 30 days before the survey	14.5
Drank at least one drink of alcohol on school property on at least one day during the 30 days before the survey	2.7
Used marijuana one or more times during their life	11.2
Tried marijuana for the first time before age 11 years	4.4
Used marijuana one or more times during the 30 days before the survey	6.4
Used marijuana on school property one or more times during the 30 days before the survey	2.1
Used any form of cocaine, including powder, crack, or freebase one or more times during their life	1.5
Ever sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high	8.6
Sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high one or more times during the 30 days before the survey	5.1
Used methamphetamines one or more times during their life	1.5
Used ecstasy one or more times during their life	1.7
Took steroid pills or shots without a doctor's prescription one or more times during their life	2.1
Were offered, sold, or given an illegal drug by someone on school property during the 12 months before the survey	5.6
Sexual Behaviors	
Ever had sexual intercourse	8.7
Had sexual intercourse for the first time before age 11 years	1.9
Had sexual intercourse with three or more persons during their life	2.8
Dietary Behaviors	
Described themselves as slightly or very overweight	31.4
Were trying to lose weight	51.1
Ever exercised to lose weight or to keep from gaining weight	73.6
Ever ate less food, fewer calories, or foods low in fat to lose weight or to keep from gaining weight	47.7

(table continues)

Table 3 (continued)

Health Risk Behavior	%
Dietary Behaviors cont.	
Ever went without eating for 24 hours or more to lose weight or to keep from gaining weight	15.5
Ever took diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight	4.0
Ever vomited or took laxatives to lose weight or to keep from gaining weight	5.3
Drank a can, bottle, or glass of soda or pop (not including diet soda or diet pop) at least one time per day during the 7 days before the survey	31.8
Drank three or more glasses per day of milk during the 7 days before the survey	13.8
Physical Activity	
Were physically active doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time for a total of at least 60 minutes per day on 5 or more of the 7 days before the survey	40.4
Went to physical education (PE) classes on one or more days in an average week when they were in school	51.9
Went to physical education (PE) classes five days in an average week when they were in school	14.7
Spent more than half of class exercising or doing an activity other than standing or sitting still during an average physical education (PE) class	30.9
Watched television three or more hours per day on an average school day	39.5
Played video or computer games or used a computer for something that was not school work three or more hours per day on an average school day	25.2
Played on one or more sports teams during the 12 months before the survey	57.0
Other Health Topics	
Ever been told by a doctor or nurse that they had asthma	23.7
Had been told by a doctor or nurse that they had asthma and still have asthma (i.e., current asthma)	13.2
Ever had a doctor or nurse discuss ways to prevent pregnancy with them	14.8
Ever had a doctor or nurse discuss ways to prevent sexually transmitted diseases (STDs) with them	15.9
Went to a dentist for their teeth during the 12 months before the survey	75.9
Ever had parents or other adults in their family talk with them about what they expect them to do or not to do when it comes to sex	37.9
Had an adult outside of school besides their parent that they can talk to about things that are important to them	62.4
Had ever been taught about AIDS or HIV infection in school	56.1
Thought they definitely will not complete high school	3.4
Thought they definitely will not complete a post high school program such as a vocational training program, military service, community college, or 4-year college	4.5

References

Centers for Disease Control and Prevention. (2008a). *Youth Risk Behavior Survey Results: 2007 Hawaii High School*. Unpublished manuscript.

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