

CHOICES

**A Report on
Risky Behaviors
Among
Hamilton County Teens**

Chattanooga-Hamilton County Regional Health Council

October 2002

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I. Overview

A. Background

Under the auspices of the Chattanooga-Hamilton County Regional Health Council and the oversight of its Information Development Committee (see Appendices A and B), the Community Research Council conducted the Youth Risk Behavior Survey (YRBS) in Hamilton County.

Since 1991, the Centers for Disease Control (CDC) has conducted the bi-annual YRBS among high school students in grades 9 through 12. The purpose of the YRBS is to monitor the self-reported health habits and risk-taking behaviors of the nation's youth in the following areas:

- ▼ Tobacco use
- ▼ Dietary behaviors
- ▼ Physical activity
- ▼ Alcohol and other drug use
- ▼ Sexual behaviors
- ▼ Behaviors that may result in violence
- ▼ Behaviors that may result in unintentional injuries
- ▼ Mental health

The CDC works in conjunction with departments of health and education in most states and several large cities to administer the YRBS, providing results that are valid on state or citywide scales. In addition, the CDC conducts a separate nationwide survey. These surveys are done every other year and were last administered in 2001. However, the number of youth sampled in the national and state surveys is not sufficient to reflect the activities of local youth.

The local survey was conducted using the 2001 YRBS questionnaire plus eight locally generated questions addressing living situation, harassment, ecstasy use, and oral sex. The Hamilton County YRBS was administered to a sample of 2,752 students from 16 public and 3 private high schools in February and March 2002. Sixty-eight percent of students in classes selected for the sample completed the questionnaire, and response rate varied slightly among individual items. The surveys were administered by classroom teachers using a protocol to enhance the confidentiality of student responses. Participation in the survey was voluntary, and either parents or students could choose not to participate. Substantial efforts were made to ensure that the survey sample reflects the high school population of Hamilton County. To the extent possible, the CDC sampling protocol was implemented. Since participation of private schools, however, was elective, the overall sample was not entirely random. Consequently, these survey findings cannot be statistically generalized to the entire population of Hamilton County high school students.

The distribution of completed surveys by grade, race, and sex as compared to school enrollment is illustrated below.

Total Students (N)	The Survey (2,752)	Enrolled in School (12,977)
9 th Grade	28%	30%
10 th Grade	30%	27%
11 th Grade	23%	23%
12 th Grade	19%	20%
Males	49%	50%
Females	51%	50%
Black	23%	33%
White	71%	65%
Other	6%	2%

The distribution of respondents by grade level and sex are comparable to their actual distribution in the schools surveyed. However, respondent distribution by race is dissimilar to their actual distribution. Black students make up 33% of school enrollment and only 23% of the sample, while white students make up 65% of school enrollment and 71% of the sample. In a separate analysis, the Community Research Council weighted the data to reflect population racial distribution, and computed the incidences of about a dozen risk factors. The weighted data yielded identical responses to the unweighted data. The analysis in this report reflects unweighted data.

The “other” race, which makes up 6% of the sample, is comprised of 162 students of Asian, Hispanic, Native American or Alaskan Native, and Pacific Islander descent. Responses from students in these “other” races were too dissimilar to group together to compare responses to those of white and black students. Regardless, the comparatively small number of “other” race students, collectively or individually, is too small to make statistically valid comparisons.

B. Data Processing/Analysis

Students recorded their responses to the 96-question survey on a computer-scannable answer sheet. NCS Pearson, an independent contractor, performed scanning and data cleaning. In addition, NCS Pearson computed respondent body mass index based on responses to questions about height and weight. Based on student responses to several dietary questions, Dr. Mike Biderman, of the University of Tennessee at Chattanooga, computed the variable “eats five or more servings of fruits and vegetables per day.”

The resulting data file was analyzed using the Statistical Package for the Social Sciences (SPSS), and The Survey System, a proprietary software package that generates banner cross-tabulations. Using these software programs, each question was cross-tabulated by the following demographic variables: sex, grade, race (white and black), school performance, and living situation (two-parent, single-parent, or parent/stepparent homes). Additional analysis explored possible relationships between risk factors, for example, cigarette smoking and depression. A group of community representatives with expertise in youth risk behaviors provided input to the guide the analysis (see Appendix C).

Within the internal analysis for the 2002 Hamilton County data, all discussions of differences between respondent groups are based on differences that are statistically significant. Chi-square statistics were computed for each cross-tabulation to determine whether the variables in question have a statistically significant relationship. An asymptotic significance (2-tailed) value of .005 or smaller was used to determine whether a statistically significant relationship exists. Chi-square does not assign causality; nor does it signify the strength of the relationship between two variables. Using the example about smoking and depression, the data may indicate that there is a relationship between smoking and depression; for example, students reporting depression were more likely to smoke than students not reporting depression. The data cannot say that smoking causes depression, or vice-versa.

C. 1998 Youth Risk Behavior Survey

This represents the second time the YRBS has been conducted in Hamilton County. The survey was first conducted in 1998 under the auspices of the Greater Chattanooga Community Health Task Force. The findings of the 1998 and 2002 surveys are not directly comparable because the samples for these two surveys were drawn from two different populations. The sampling frame of the 1998 survey included 16 local public high schools. The 2002 sample, which included 19 schools, was expanded to incorporate students from private schools, since approximately one-fourth of Hamilton County high school students attend independent or religious-based schools. In addition, graduate students from the University of Tennessee at Chattanooga administered the questionnaires in the first study, a task performed by classroom teachers in the current study.

II. Key Findings

A. 2002 Survey Findings

Tables presenting the 2002 YRBS results may be found in Appendix D. The Community Research Council has prepared a detailed report for each major survey topic: tobacco use; alcohol and drug use; sexual behaviors; injury risks; youth violence and harassment; mental health; and dietary behaviors, physical activity, and body weight. The executive summaries from these seven reports are included in Section III of this document. Complete reports are available from the Community Research Council.

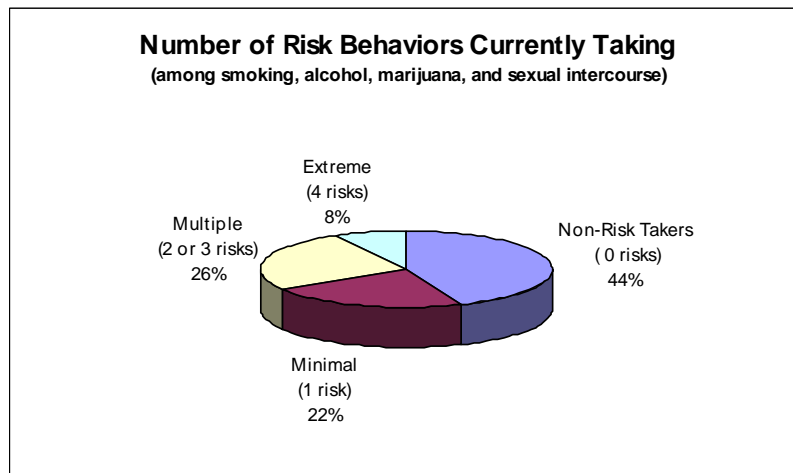
B. General Conclusions

- ▼ Forty-four percent of student respondents did not engage in any of the four key risk-taking behaviors -- smoking, drinking, marijuana use, and sexual intercourse -- and are defined as non-risk takers. Twenty-two percent of students were minimal risk takers, engaging in one of these four risks, and 26% were multiple risk takers, engaging two or three of these risks. Eight percent were extreme risk takers, engaging in all four risks.
- ▼ Characteristics most often associated with risk-taking included poor school performance and living in a parent/stepparent or single-parent home. Conversely, characteristics most often associated with not taking risks included better school performance and living in a two-parent family (excluding step-parents).
- ▼ Most risk behaviors increased with grade in school. The primary exception to this is fighting, which decreased with grade in school. In addition, the incidences of depression and suicidal thoughts and behaviors did not differ by grade level.
- ▼ A larger percentage of white students reported engaging in smoking, drinking, drug use (with the exception of marijuana), and oral sex than did black students. A larger percentage of black students than white students reported having experienced sexual intercourse, harassment, and fighting.
- ▼ The ages at which students began to experiment with risk-taking behaviors ranged from eight and under to 17 and over. First use for behaviors such as smoking, drinking alcohol, and using marijuana peaked at about the age of 13 or 14. However, significant percentages of those who have ever tried such behaviors had their first experiences before the age of 13 (45% for cigarettes, 36% for alcohol use, 32% for marijuana, 21% for sexual intercourse, and 19% for oral sex). Risky behavior, therefore, often has origins much earlier in life than the high school years -- something that should be taken into account in the design of interventions.
- ▼ A minority of students regularly engaged in behavioral risks, but a much greater proportion experiment, i.e. have ever tried the behavior. Generally, about half of students who had tried cigarettes, alcohol, marijuana, inhalants, and cocaine were current users. The figure was somewhat higher for sexual intercourse.

C. Number of Risks Students Currently Taking

Student respondents were divided into categories based their current participation in four key risk behaviors -- sexual intercourse, alcohol use, cigarette use, and marijuana use. Current participation for smoking, alcohol use and marijuana use is defined as “within the past month.” For sexual intercourse, current participation is defined as having sexual intercourse within the past three months.

Overall, 44% of students were non-risk takers (no risks). Twenty-two percent of students were minimal risk takers (one risk), 26% were multiple risk takers (two or three risks), and 8% were extreme risk takers (four risks).



The following page illustrates the demographic characteristics of the different risk-taking categories.

Non-risk takers make up 44% of all students surveyed and comprise a significant proportion of students in every demographic group studied. Males and females were equally likely to be non-risk takers. Demographic characteristics associated with not engaging in risky behaviors include:

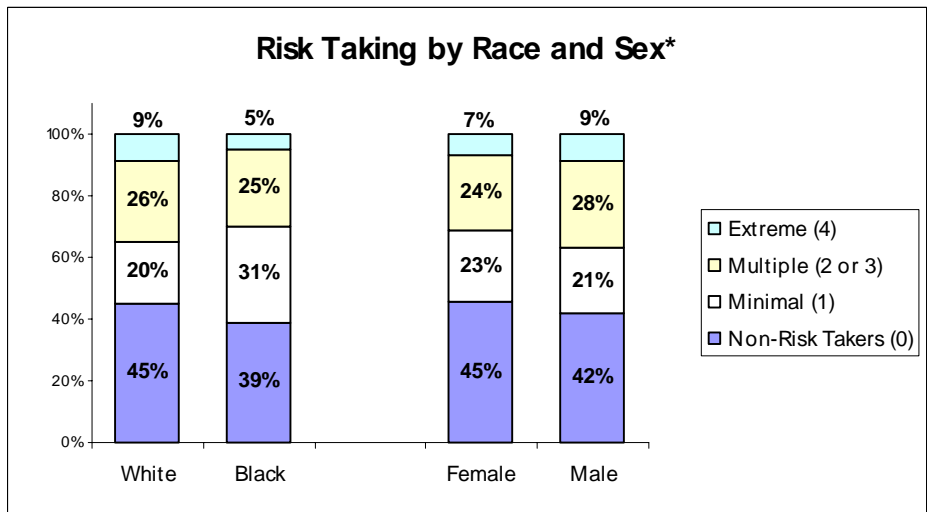
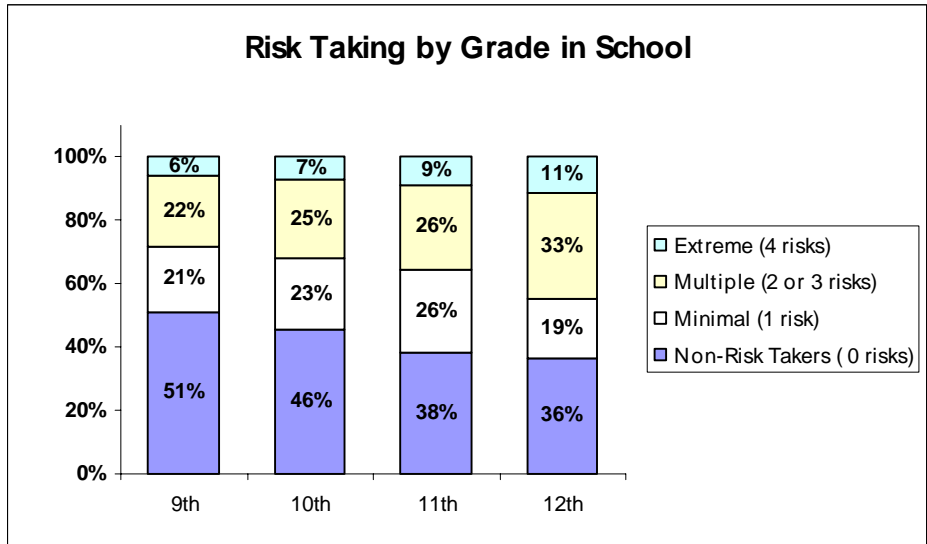
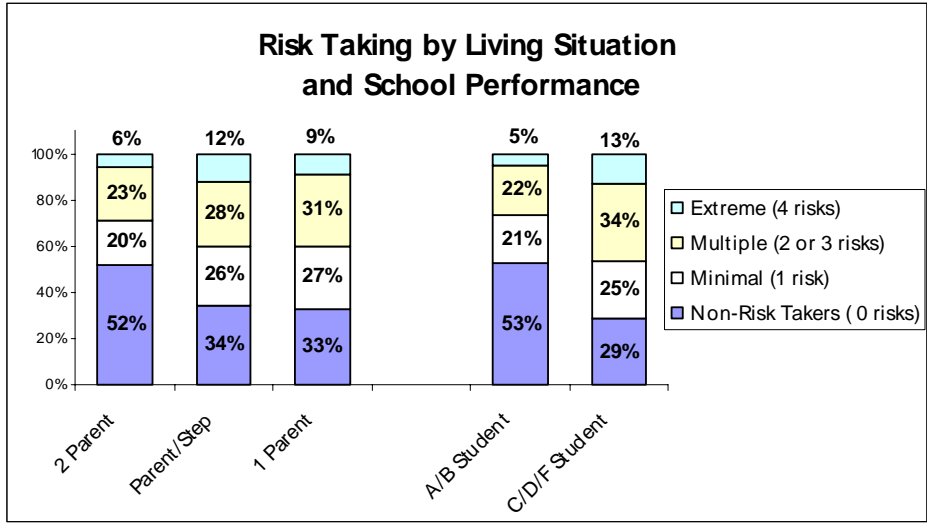
- ▼ Good performance in school (makes primarily A's or B's)
- ▼ Living in a two-parent family (excluding step-parents)
- ▼ Being younger – non-risk-taking decreases with grade in school

Extreme risk-takers make up 8% of the students surveyed, and comprise a small percentage (ranging from 5% to 13%) of all demographic groups.

Combining the two categories -- multiple risk takers with extreme risk takers (34% of students) -- suggests demographic groups most likely to engage in two or more risky behaviors. Demographic characteristics most commonly associated with taking two or more risks include:

- ▼ Poor performance in school (makes primarily C's, D's, or F's)
- ▼ Living in a parent/stepparent or single-parent home
- ▼ Being older – risk-taking increases with grade in school

Paradoxically, while a higher percentage of white students than black students were non-risk takers, white students were also more likely to report taking two or more risks. A greater proportion of black students than white students reported taking only one risk.



* Sex differences not significant

D. 2002 Hamilton, 2001 Nashville, 2001 Tennessee, and 2001 Nation Survey Results

The only other community in Tennessee that has conducted the YRBS intensively enough to cover its school system is Nashville. The most recent data for Nashville, state, and national studies (all 2001 data) are used for comparisons made below.

In relative terms, the rates of risk-taking behaviors for Hamilton County's high school students surveyed are comparable to those students throughout Nashville, Tennessee, and the nation, with a few notable exceptions.

Hamilton County students were less likely than students in Tennessee and in the nation to engage in the following risk behaviors: smoking, alcohol use, sexual intercourse, non-use of seat belts, and riding in a car with a driver who had been drinking. In addition, both the Hamilton County and state survey respondents reported fewer hours of television viewing on a school day than did the national survey.

Compared with Nashville, Hamilton County had lower incidences of students who have ever had sexual intercourse, watch three or more hours of television on a school day, and rarely or never wear a seat belt.

Hamilton County students reported greater seat belt use than did students in Nashville, the state, and the nation. Of the four entities, Hamilton County reported the lowest percentage of students who rarely or never wear a seat belt. Further, the percentage of students who reported *a/ways* wearing a seat belt was 14 percentage points higher in Hamilton County than in the nation (figures not available for Tennessee and Nashville). During the time period that the survey was administered, a volunteer group in Hamilton County was aggressively promoting seat belt use among teenagers. This group was formed after several local youth were killed in automobile accidents within a short time frame.

Areas where Hamilton County students were at a higher risk than students in the state and in the nation include dating violence, forced intercourse, and lack of daily physical education. In addition, both the Hamilton County and state surveys reported less student aerobic activity and a greater proportion of students carrying weapons than did the national survey.

Compared with Nashville, Hamilton County students report higher incidences of dating violence, forced intercourse, methamphetamine use, suicide plans, and weapon carrying. Students in Nashville reported the highest level of participation in daily physical education of the four entities studied.

**2002 Hamilton, 2001 Nashville, Tennessee, and Nation
Survey Results**

	Hamilto n 2002	Nashvill e 2001	TN 2001	Nation 2001
Always use a seat belt	52%	NA	38%	NA
Rarely/never use a seat belt	12%	21%	18%	14%
Smoked on all of past 30 days	9%	NA	10%	13%
Considered suicide past year	16%	17%	20%	19%
Binge drinking past month (5+ drinks in a row)	24%	20%	27%	30%
Rode with driver under influence of alcohol past month	27%	27%	32%	31%
Watch TV 3+ hours on school days	36%	51%	45%	38%
Drank alcohol past month	39%	38%	44%	47%
Ever had sexual intercourse	44%	50%	51%	46%
Rarely/never use bike helmets (riders)	80%	86%	89%	85%
Aerobic exercise 3+ times week	60%	59%	61%	65%
Daily physical education	21%	37%	26%	32%
Dating violence past year	14%	7%	9%	10%
Ever used methamphetamines	11%	5%	11%	10%
Ever had forced intercourse	11%	8%	9%	8%
Carried a weapon (gun, knife, or club) past month	22%	16%	20%	17%
Planned suicide past year	15%	12%	14%	15%

**Shaded cells within a measure
are not statistically different**

III. Executive Summaries of Behaviors by Survey Topic

A. Tobacco Use

- ▼ Overall, 27% of respondents were current smokers. Sixteen percent of students had smoked a cigar, and 12% had used spit tobacco within the past month. In total, 35% of all students surveyed had either used cigarettes, spit tobacco, or cigars within the past month.
- ▼ Usage of each of the three types of tobacco products was significantly higher among males than females and among white students than black students. The differences were most striking when looking at spit tobacco, where males were over six times likely to use than females (20% vs. 3%) and white students were three times more likely to use than black students (13% vs. 4%).
- ▼ Twenty-three percent of students participating in team sports smoked cigarettes.
- ▼ One-third of smokers smoke less than one cigarette per day, and may be considered light smokers. Light smokers tended to be younger students. Over 40% of 9th grade smokers were light smokers, compared with 22% of 12th grade smokers.
- ▼ Both the incidence of smoking and the quantity of cigarettes smoked per day increased with grade level. Cigarette smoking increased from 23% of 9th grade students to 33% of 12th grade students. The percentage of smokers who were heavy smokers (more than ten cigarettes per day) increased from 11% in 9th grade to 21% in 12th grade. Heavy smokers comprised 16% of all smokers.
- ▼ Fifty-seven percent of current smokers surveyed have unsuccessfully tried to quit within the past year. However, 5% of all students surveyed have quit a daily smoking habit. There were no statistically significant differences by sex, race, or grade in school between the quitters and those who have attempted to quit.
- ▼ The three most common ways students obtained cigarettes were having someone else purchase them (28%), purchasing them on their own (27%), and borrowing them (22%). Other methods for obtaining cigarettes included: stealing (4%), getting from people age 18 or older (2%), vending machine (1%), or some other unspecified way (10%). Of the 363 students who had recently purchased or tried to purchase cigarettes, 57% were asked to show proof of age.
- ▼ Both smokers and non-smokers engaged in other risky behaviors, although smokers did so at higher rates. Most notably, smokers were 13 times more likely to have used cocaine (26% vs. 2%), ten times more likely to have used methamphetamine (30% vs. 3%), nine times more likely to have used ecstasy (28% vs. 3%), and almost six times more likely to use marijuana in the past month (58% vs. 10%).

B. Alcohol and Drug Use

- ▼ Alcohol use is widespread among students surveyed. Seventy-two percent of student respondents have had at least one drink of alcohol (ever tried). Thirty-nine percent were current drinkers, defined as having a drink within the past month. Twenty-four percent have engaged in binge drinking, defined as having five or more drinks within a couple of hours, in the past month.
- ▼ Although some groups of students were significantly more likely to drink alcohol than others, at least a third of students in each demographic group studied (sex, grade, race, living situation, and school performance) drank alcohol once a month or more often.
- ▼ Alcohol use increased with grade level, from 32% in 9th grade to 47% in 12th grade. Similar increases in use by grade were not found for the other substances in the survey.
- ▼ Twenty-three percent of students have smoked marijuana in the past 30 days, and are defined as current users. Forty percent have ever tried marijuana.
- ▼ Fewer students reported using drugs other than marijuana. Thirteen percent have used inhalants -- 5% within the past month. Eleven percent has used Methamphetamine, and 10% have used ecstasy. Nine percent have used cocaine -- 5% in the past month. Since the actual numbers of students using these substances are small, breaking them into smaller groups for comparison yielded few significant differences. Where found, significant differences are noted within the points below.
- ▼ School performance was the factor most consistently associated with substance use. Poorer performing students (primarily C's, D's, or F's) were significantly more likely than were better performing students (mostly A's or B's) to use every substance included in the survey.
- ▼ In general, substance use was more prevalent among males than among females. Alcohol was the exception; both sexes were equally likely to drink. However, male students had their first drink at a younger age than female students.
- ▼ White students were more likely than black students to use alcohol, inhalants, methamphetamine, and cocaine. Both groups were equally likely to use marijuana and other substances.
- ▼ Alcohol and marijuana use were associated with living situation. Fewer students from two-parent homes used alcohol or marijuana than students from either single-parent or parent/stepparent homes.
- ▼ Alcohol and marijuana use starts young – often before age 13. Thirty-six percent of current drinkers and 26% of marijuana users had their first experience before age 13. The peak age for trying both was between 13 and 14.
- ▼ Twenty-seven percent of students reported episodes of depression within the past year. Substance use among those students was significantly higher than among those who had not been depressed.

- ▼ A student's body image may be an important factor in identifying at-risk students. Students rating themselves as either very underweight or very overweight were more likely than students less dissatisfied with their weight to use several substances addressed in the survey.
- ▼ Alcohol, tobacco, and marijuana use was associated with using other substances. That is, a student who used alcohol, tobacco, or marijuana (so called "gateway drugs") was likely to also use all the other substances included in the survey.
- ▼ Twelve percent of students surveyed reported they used alcohol, tobacco, and marijuana. About half did not use any of the three.

C. Sexual Behaviors

- ▼ Overall, 44% of student respondents had ever had sexual intercourse, and 30% had sexual intercourse within the past three months. Forty-five percent have ever participated in oral sex.
- ▼ Forty-four percent of students surveyed have had neither sexual intercourse nor oral sex.
- ▼ The percentage of students who have ever had sexual intercourse increases with grade level, from 37% in 9th grade to 54% in 12th grade.
- ▼ While males and females were equally likely to have ever had sexual intercourse, male students initiate sex at an earlier age. Forty-two percent of males and 28% of females who have had sexual intercourse report that their first experience occurred before age 14. Further, male students were more likely than female students to have had four or more sexual partners (40% vs. 31%), used alcohol or drugs before intercourse (28% vs. 16%), used condoms last time (64% vs. 56%), and had oral sex (49% vs. 41%).
- ▼ A significantly higher percentage of black students (64%) than white students (38%) have ever had sexual intercourse. In addition, among those having sexual intercourse, black students were more likely than white students to have had sexual intercourse before age 14 (25% vs. 13%), had four or more sexual partners (31% vs. 28%), and to have ever been or gotten someone pregnant (10% vs. 4%). A larger proportion of black students (67%) than white students (56%) used a condom the last time they had intercourse.
- ▼ Seven out of ten students do not consider oral sex as “having sex.”
- ▼ Forty-five percent of students reported ever participating in oral sex. White students (49%) were more likely than black students (32%) to have ever participated in oral sex. Fewer white students (28%) consider oral sex as “having sex” than black students (38%).
- ▼ Students from two-parent homes were less likely than students from parent/stepparent or single-parent homes to have engaged in sexual activity. Better performing students (primarily A’s or B’s) were less likely to be sexually active than poorer performing students (primarily C’s, D’s, or F’s).
- ▼ One-third of students who have ever had sexual intercourse have had one sexual partner, while an equal number have had four or more partners.
- ▼ Six out of ten students who have had sexual intercourse used a condom the last time. Twelfth grade students were less likely to use a condom (51%) than students in the other grades (ranged from 61% to 63%).
- ▼ In a separate question, students were asked to name the primary form of birth control used the last time they had intercourse. The most popular form of birth control was condoms (49%), followed by birth control pills (16%), withdrawal (13%), Depo-Provera (3%), and some other method (3%). Thirteen percent did not use any form of birth control.
- ▼ Five percent of all students surveyed, and 11% of students who have had sexual intercourse, indicated they had been pregnant or gotten someone pregnant. Among students who did not use any birth control last time they had sex, the percentage reporting pregnancies increased to 29%.

D. Injury Risks

- ▼ Half of all student respondents reported that they always wear a seat belt, and 25% reported that they wear a seat belt most of the time. The percentage of students who always wear seat belts increases as students move from grade 9 (45%) to grade 12 (60%).
- ▼ Twelve percent of all students indicated they never or rarely wear seat belts. Non-use of seat belts is significantly higher among students who had been in a vehicle operated by a drinking driver. One in five students who had ridden with a drinking driver and 32% of students who had themselves driven while drinking reported they rarely or never wear a seat belt.
- ▼ One in four students had ridden in a car within the past month with a driver who had been drinking. This behavior was fairly evenly distributed among the demographic groups studied. In fact, no less than 22% of students in any demographic group reported riding with a driver who had been drinking.
- ▼ Twelve percent of all students drove a car within the past month after drinking alcohol. Driving after drinking increases with grade level, rising from 7% in 9th grade to 20% in 12th grade, when students are more likely to have a driver's license.
- ▼ Seventy-four percent of students who ride bicycles report they never wear a helmet. Only 8% always wear a helmet.
- ▼ Forty-five percent of motorcycle riders always wear a helmet when riding, while 26% never wear one.

E. Youth Violence and Harassment

- ▼ A substantial number of student respondents have been harassed by other students. Specifically, 38% had been the object of comments about their weight, size or physical appearance, 33% had experienced offensive sexual comments, and 21% had been the object of offensive racial comments. A higher percentage of black students than white students reported each of these types of comments. Racial comments were more likely to be directed toward males, while sexual comments tended to be directed toward females.
- ▼ One-third of students reported they had been in a physical fight within the past year, including 39% of males and 24% of females. Significant differences in reported fighting exist among the different demographic groups; however, among all groups studied the minimum incidence of fighting was 21%.
- ▼ Fourteen percent of students reported that, during the past year, a boyfriend or girlfriend had purposely hurt them, with no significant differences reported by gender. Eleven percent of students (14% of girls; 7% of boys) indicated they had ever been forced to have sexual intercourse against their will.
- ▼ Overall, fighting peaked in the 9th grade and decreased with each subsequent year. Ninth grade students reported the highest levels of physical fighting, fighting at school, and being threatened with a weapon at school. Since student enrollment declines annually after 9th grade (primarily due to dropouts), reports of less fighting may be attributed to student attrition as well as to increasing maturity.
- ▼ Overall, 22% of students carried a weapon, such as a gun, knife, or club within the past month, and 8% had carried this type of weapon on school property. Seven percent carried a gun within the past month. Male students were more likely than female students to carry weapons.
- ▼ Weapon carrying was associated with several other risk behaviors. Over one in five students carried a weapon in the past month -- a number which was significantly higher among students reporting harassment, abuse or fighting. Similar findings were associated with students who carry guns (7% of all students). The data cannot impute causality. For example, one cannot determine that a student carries a weapon *because* he has been the object of abuse or harassment. One can only say that these behaviors tend to occur more often in people experiencing abuse and harassment.
- ▼ Black students in the sample were significantly more likely than white students to be exposed to and involved in harassment and violence, including fighting, and being threatened by a weapon (but not carrying a weapon). A greater percentage of black students than white students were also more likely to have missed school in the past month because they felt unsafe.
- ▼ Each of the violent and harassment behaviors studied was reported by a greater percentage of low performing students (makes primarily C's, D's, or F's) than better performing students (makes primarily A's or B's).

F. Mental Health

- ▼ Overall, 27% of respondents reported depression within the past year, defined as feeling “so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities.”
- ▼ Reported depression was significantly higher among students who had been victims of abuse or harassment which included the following: forced intercourse (49%); being hit or slapped by boyfriend or girlfriend (43%); being the object of comments about race or ethnicity (43%), sex (41%), and physical appearance (37%).
- ▼ Within the past year 16% of students seriously considered suicide, 15% made a plan about how they would attempt suicide, and 10% actually attempted suicide.
- ▼ Depression and suicide attempts were associated with increased participation in the broad spectrum of risky behaviors, including smoking, alcohol, drugs, sex, and lack of seat belt use.
- ▼ Females were more likely than males to report depression, seriously considering suicide, and planning suicide. However, males were more likely than females to attempt suicide. This implies that suicide attempts by males may be impulsive rather than planned.
- ▼ Reported incidences of depression, suicide ideation, and suicide attempts were higher among white students than black students, and higher for students from parent/stepparent and single-parent homes than students from two-parent homes. In addition, the incidences of depression, suicide ideation, and suicide attempts were higher among poorer performing students (mostly C’s, D’s, or F’s) than among better performing students (mostly A’s or B’s).

G. Dietary Behaviors, Physical Activity, and Body Weight

Diet

- ▼ Only 15% of respondents ate the recommended five or more daily servings of fruits and vegetables.
- ▼ Thirty-eight percent of students drank one or more glasses of milk daily. Twenty-two percent of students drank no milk in the previous week. Female students (25%) and black students (17%) were more likely to report drinking no milk than were male students (15%) and white students (17%).

Physical Activity

- ▼ Twenty percent of survey respondents had three sessions each of aerobic, vigorous and strengthening exercises in the previous week. Eight percent of respondents engaged in no physical activity of any type in the past week.
- ▼ One-third of all students watched three or more hours of television on a typical school day, and 14% used a computer outside of schoolwork for three or more hours per day.
- ▼ Thirty-nine percent of students were enrolled in physical education (P.E.) classes, with 21% enrolled in daily P.E.
- ▼ Overall, males were more physically active than females. Fifty-one percent of females and 60% of males played one or more team sports. Male students engaged in more aerobic and vigorous activity than females, even when controlling for team sport participation. However, males and females were equally likely to perform strengthening exercises three or more times per week.
- ▼ Generally, white students were more physically active than black students. White students reported higher participation in aerobic, vigorous, and strengthening exercises. Fifty-seven percent of white and 54% of black students participate in one or more team sports, a difference that is not statistically significant. When controlling for team sport participation, white athletes were more likely than black athletes to engage in aerobic exercise and strength training three or more times per week. In addition, black students were 2.4 times more likely than white students to report watching three or more hours of television on a school day (63% vs. 26%).

Weight

- ▼ Sixty percent of respondents were at a healthy weight for their height. Thirteen percent were underweight; 15% were at risk for becoming overweight, and 12% were overweight.
- ▼ Male students were twice as likely to be overweight than females (16% vs. 8%). More black students (18%) than white students (10%) were overweight. Conversely, the prevalence of underweight students was higher among females (16%) than males (11%) and among whites (15%) than blacks (7%).

- ▼ The prevalence of students who were overweight or at risk for being overweight did not change from 9th to 12th grade. However, from 9th to 12th grade there was a decrease in normal weight students and an increase in students who were underweight. This suggests that students starting high school above their optimal weight keep that extra weight throughout high school while many normal weight students lose weight or “grow into” their weight.

Body Image

- ▼ Forty-five percent of respondents were trying to lose weight. More females (59%) than males (29%) were trying to lose weight. The methods employed by students trying to lose weight were exercise (86%), eating less (71%), fasting (22%), pills and powders (excluding meal replacement products such as *Slim Fast*) (19%), and purging (10%).
- ▼ Generally, students’ descriptions of their weight were accurate. That is, healthy weight people were satisfied with their weight, heavier people wanted to lose weight, etc. However, there were two exceptions. One group, primarily female, expressed a desire to weigh less than may be healthy for them. Another group, primarily male, expressed a desire to weigh more than may be healthy for them. Both may be reflective society’s ideal of thin women and heavily muscled men.
- ▼ The data suggest that body image, rather than actual body mass index, is associated with students’ mental outlook. Students who were dissatisfied with their body weight were more likely than those who were satisfied with body weight to report episodes of depression and thoughts of suicide. In addition, students who considered themselves very underweight or very overweight reported greater use of several illegal substances than those less dissatisfied with their weight. However, there were no associations with depression, suicidal thoughts, or substance use and actual weight.

APPENDICES

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Erlanger Medical Center

Mai Bell Hurley
Community Advocate

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YRBS Survey Data Working Group

In July 2002 the Information Development Committee met with a group of community members with expertise in youth risk behaviors to review preliminary data and provide input for data analysis. The community representatives who participated in the YRBS working group are listed below.

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Cindy Sims
Cindy Sims and Associates

Pamela Winters-Colbert
Ivy at Work

2002 HAMILTON COUNTY YOUTH RISK BEHAVIOR SURVEY SUMMARY RESULTS

Appendix D

Student Sample Demographics		
Total Sample Size: 2,752		
Grade in School:	N	%
Ninth	775	28%
Tenth	804	30%
Eleventh	628	23%
Twelfth	519	19%
Race		
White	1,921	71%
Black	627	23%
Other	162	6%
Gender		
Male	1,336	49%
Female	1,371	51%
Living Situation		
Two Parents	1,529	56%
Parent/Stepparent	442	16%
One Parent Only	425	16%
Other	328	12%
Grades in School		
Mostly A's	617	22%
Mostly B's	1,059	39%
Mostly C's	644	23%
Mostly D's	206	8%
Mostly F's	64	2%
Other/Not sure	153	6%

Students Engaged in Good Behaviors	
Not currently engaged in any of the following: smoking cigarettes, drinking alcohol, smoking pot, having sexual intercourse	44%
Do Not Smoke	73%
Never Smoked	41%
Do Not Drink	61%
Never had a Drink of Alcohol	28%
Do Not Use Marijuana	77%
Never Tried Marijuana	60%
Never Had Sexual Intercourse	60%
Never Participated in Oral Sex	55%
Always Wears a Seat Belt	52%
Always Wears a Bike Helmet (<i>riders only</i>)	8%
Aerobic Activity 3+ Times Per Week	60%
Strengthening Exercises 3+ Per Week	48%

Age of First Experimentation	
(Percentages of those who have ever tried)	
Drinking	
Under 13	36%
13-14	35%
15-16	25%
Over 16	4%
Smoking	
Under 13	45%
13-14	34%
15-16	18%
Over 16	3%
Marijuana	
Under 13	26%
13-14	38%
15-16	32%
Over 16	4%
Sexual Intercourse	
Under 13	21%
13-14	35%
15-16	37%
Over 16	7%

"Ever Tried" versus "Currently Doing"	
<i>"Currently doing" means behavior during last thirty days, except for sexual intercourse (past three months).</i>	
Drinking	
tried	72%
doing	39%
Smoking	
tried	59%
doing	27%
Marijuana	
tried	40%
doing	23%
Inhalants	
tried	13%
doing	5%
Cocaine	
tried	9%
doing	5%
Sexual Intercourse	
tried	44%
doing	30%

2002 HAMILTON COUNTY YOUTH RISK BEHAVIOR SURVEY SUMMARY RESULTS

Appendix D

Tobacco Use			
Current Smoker			
Total 27%			
<u>Sex*</u>		<u>Race*</u>	
Male	29%	White	29%
Female	24%	Black	16%
Daily Smoker			
Total 9%			
<u>Sex</u>		<u>Race*</u>	
Male	10%	White	11%
Female	8%	Black	3%

Drug and Alcohol Use			
Current Alcohol Use (past month)			
Total 39%			
<u>Sex</u>		<u>Race*</u>	
Male	41%	White	40%
Female	37%	Black	33%
Binge Drinking (past month)			
Total 24%			
<u>Sex*</u>		<u>Race*</u>	
Male	27%	White	26%
Female	20%	Black	13%
Current Marijuana Use (past month)			
Total 23%			
<u>Sex*</u>		<u>Race</u>	
Male	26%	White	22%
Female	19%	Black	22%
Current Inhalant Use (past month)			
Total 5%			
<u>Sex</u>		<u>Race</u>	
Male	5%	White	5%
Female	4%	Black	3%
Ecstasy Use (over lifetime)			
Total 10%			
<u>Sex</u>		<u>Race</u>	
Male	12%	White	10%
Female	8%	Black	6%

Sexual Behavior			
Ever Had Sexual Intercourse (% all students)			
Total 44%			
<u>Sex</u>		<u>Race*</u>	
Male	46%	White	38%
Female	42%	Black	64%
Had Sexual Intercourse Past 3 Months (% all students)			
Total 30%			
<u>Sex</u>		<u>Race*</u>	
Male	29%	White	27%
Female	31%	Black	41%
Had 4 or More Partners (% all students)			
Total 14%			
<u>Sex*</u>		<u>Race*</u>	
Male	17%	White	11%
Female	13%	Black	23%
Used Condom Last Time (% ever had sex)			
Total 59%			
<u>Sex*</u>		<u>Race*</u>	
Male	64%	White	56%
Female	56%	Black	67%
Considers Oral Sex "Having Sex" (% all students)			
Total 31%			
<u>Sex</u>		<u>Race*</u>	
Male	30%	White	28%
Female	32%	Black	38%
Ever Had Oral Sex (% all students)			
Total 45%			
<u>Sex*</u>		<u>Race*</u>	
Male	49%	White	49%
Female	41%	Black	32%
Been Pregnant or Gotten Someone Pregnant (% all students)			
Total 5%			
<u>Sex</u>		<u>Race</u>	
Male	8%	White	5%
Female	6%	Black	13%
Forced Intercourse (ever) (% all students)			
Total 11%			
<u>Sex</u>		<u>Race</u>	
Male	8%	White	9%
Female	14%	Black	15%

2002 HAMILTON COUNTY YOUTH RISK BEHAVIOR SURVEY SUMMARY RESULTS

Appendix D

Harrassment			
Offensive Comments Past Year			
<i>Based on Race or Ethnicity:</i>			
		Total 21%	
<u>Sex:</u>		<u>Race:*</u>	
Male	24%	White	17%
Female	18%	Black	27%
<i>Based on Weight, Size, or Physical Appearance:</i>			
		Total 38%	
<u>Sex:</u>		<u>Race:*</u>	
Male	37%	White	36%
Female	39%	Black	44%
<i>Sexual Comments:</i>			
		Total 33%	
<u>Sex:*</u>		<u>Race:*</u>	
Male	24%	White	30%
Female	42%	Black	43%
Missed One or More Days School Past Month Because Felt Unsafe			
		Total 8%	
<u>Sex:*</u>		<u>Race:*</u>	
Male	9%	White	5%
Female	7%	Black	13%

Injury Risks			
Driving Under Influence of Alcohol			
<i>Rode with Driver Under Influence:</i>			
		Total 27%	
<u>Sex*</u>		<u>Race</u>	
Male	29%	White	25%
Female	25%	Black	31%
<i>Drove Under Influence:</i>			
		Total 12%	
<u>Sex*</u>		<u>Race</u>	
Male	15%	White	12%
Female	9%	Black	9%
Rarely/Never Use Seat Belts			
		Total 12%	
<u>Sex*</u>		<u>Race*</u>	
Male	15%	White	9%
Female	8%	Black	15%
Rarely/Never Use Bicycle Helmets (riders only)			
		Total 81%	
<u>Sex</u>		<u>Race*</u>	
Male	81%	White	78%
Female	79%	Black	90%

Youth Violence			
Been in Physical Fight in Past Year			
		Total 32%	
<u>Sex*</u>		<u>Race*</u>	
Male	39%	White	28%
Female	24%	Black	39%
<i>On School Property:</i>			
		Total 13%	
<u>Sex*</u>		<u>Race*</u>	
Male	18%	White	11%
Female	7%	Black	16%
Physical Abuse by Boyfriend/Girlfriend Past Year			
		Total 14%	
<u>Sex</u>		<u>Race</u>	
Male	14%	White	12%
Female	13%	Black	16%
Carried a Weapon in Past Month			
		Total 22%	
<u>Sex*</u>		<u>Race</u>	
Male	35%	White	22%
Female	9%	Black	18%
<i>On School Property:</i>			
		Total 8%	
<u>Sex</u>		<u>Race</u>	
Male	12%	White	7%
Female	4%	Black	6%
Carried a Gun in Past Month			
		Total 7%	
<u>Sex*</u>		<u>Race</u>	
Male	12%	White	6%
Female	2%	Black	7%

Mental Health			
Depression 2 Weeks+ Past Year			
		Total 27%	
<u>Sex:*</u>		<u>Race:</u>	
Male	23%	White	26%
Female	31%	Black	29%
Seriously Considered Suicide Past Year			
		Total 16%	
<u>Sex:*</u>		<u>Race:</u>	
Male	12%	White	15%
Female	19%	Black	17%
Planned Suicide Past Year			
		Total 15%	
<u>Sex:*</u>		<u>Race:</u>	
Male	13%	White	15%
Female	17%	Black	15%
Attempted Suicide Past Year			
		Total 10%	
<u>Sex:</u>		<u>Race:</u>	
Male	9%	White	9%
Female	11%	Black	11%

2002 HAMILTON COUNTY YOUTH RISK BEHAVIOR SURVEY SUMMARY RESULTS

Appendix D

Physical Activity			
Exercise 3 or More Days Each Week			
<i>aerobic:</i>			
Total 60%			
Sex*		Race*	
Male	68%	White	63%
Female	51%	Black	49%
<i>strengthening:</i>			
Total 48%			
Sex*		Race*	
Male	58%	White	52%
Female	40%	Black	39%
Avg 3 + Hrs TV Viewing on School Days			
Total 36%			
Sex		Race*	
Male	36%	White	26%
Female	36%	Black	63%
Avg 3 + Hrs Computer on School Days (non-school related)			
Total 14%			
Sex*		Race	
Male	18%	White	13%
Female	13%	Black	17%
Participated in Physical Education Class -- By Grade*			
Total 39%			
Ninth	56%	Eleventh	30%
Tenth	36%	Twelfth	29%

Number of Risks Currently Taking (among the following: drinking, smoking, marijuana, and sexual intercourse)			
Non-Risk Taker (take 0 risks)			
Total 44%			
Sex:		Race:*	
Male	42%	White	45%
Female	45%	Black	39%
Minimal Risk Taker (take one risk)			
Total 22%			
Sex:		Race:*	
Male	21%	White	20%
Female	23%	Black	31%
Multiple Risk Taker (take 2-3 risks)			
Total 26%			
Sex:		Race:*	
Male	28%	White	26%
Female	24%	Black	25%
Extreme Risk Taker (take 4 risks)			
Total 8%			
Sex:		Race:*	
Male	9%	White	9%
Female	7%	Black	5%

Nutrition/Dieting Behaviors			
5+ Daily Servings Fruits and Vegetables			
Total 15%			
Sex		Race	
Male	17%	White	14%
Female	13%	Black	15%
Currently Trying to Lose Weight			
Total 45%			
Sex*		Race*	
Male	29%	White	47%
Female	59%	Black	39%
Weight Loss Methods (among those trying to lose)			
Exercise	86%	Pills/Powders	19%**
Modify diet	71%	Purging	10%
Fasting	22%		
<i>**does not include meal replacement products such as Slim Fast.</i>			

**The Chattanooga-Hamilton County
Regional Health Council Wishes to
Thank the Following Sponsors**

Alexian Brothers of the Southeast
 Blue Cross Blue Shield of Tennessee
 Erlanger Medical Center
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YRBS Comparisons Hamilton County, Nashville, Tennessee, and Nation

	Hamilton (2002)	Nashville (2001)	TN (2001)	Nation (2001)
Tobacco Use				
Ever Tried Cigarettes	59%	62%	67%	64%
Current Smoker	27%	26%	29%	29%
Current Daily Smoker	9%	NA	10%	13%
Ever Been Daily Smoker	19%	17%	22%	20%
Drug and Alcohol Use				
Ever Drank Alcohol	72%	73%	75%	78%
Current Alcohol Use	39%	38%	44%	47%
Binge Drinking (past month)	24%	20%	27%	30%
Current Marijuana Use	23%	25%	24%	24%
Current Inhalant Use	5%	2%	4%	5%
Methamphetamine Use (ever)	11%	5%	11%	10%
Sexual Behavior				
Ever Had Sexual Intercourse	44%	50%	51%	46%
Had Sexual Intercourse Past 3 Months	30%	37%	36%	33%
Had 4 or More Partners	14%	17%	16%	14%
Used Condom Last Time	59%	62%	57%	58%
Ever Been/Gotten Someone Pregnant	5%	9%	6%	5%
Physical Activity				
Aerobic Exercise 3 + Times Week	60%	59%	61%	65%
Strengthening 3+ Times Week	48%	48%	51%	53%
Watch TV 3+ Hours on School Days	36%	51%	45%	38%
Averages < = 2 Hours TV on School Days	64%	NA	45%	62%
Participate in PE	39%	NA	42%	52%
Daily PE	21%	37%	26%	32%
Dietary Behaviors*				
Currently Trying to Lose	45%	44%	44%	46%
Underweight (25th percentile or below)	13%	NA	NA	NA
Healthy Weight (26th to 84th percentile)	60%	NA	NA	NA
At Risk for Overweight (85th percentile)	15%	17%	14%	14%
Overweight (95th percentile)	12%	13%	13%	11%

* weight classifications based on body mass index percentiles for age and sex

YRBS Comparisons Hamilton County, Nashville, Tennessee, and Nation

	Hamilton (2002)	Nashville (2001)	TN (2001)	Nation (2001)
Youth Violence				
Carried Weapon in Last Month	22%	16%	20%	17%
Carried Gun in Last Month	8%	7%	6%	6%
Been in Physical Fight in Last Year	32%	33%	30%	33%
Dating Violence Past Yr.	14%	7%	9%	10%
Forced Intercourse (ever)	11%	8%	9%	8%
Injury Risks				
Rarely/Never Use Seat Belt	12%	21%	18%	14%
Rode With Driver Under Influence of Alcohol	27%	27%	32%	31%
Drove Under Influence	12%	10%	14%	13%
Rarely/Never Use Bike Helmets (riders)	80%	86%	89%	85%
Rarely/Never Use Motorcycle Helmets (riders)	35%	30%	33%	37%
Mental Health — Past Year				
Depression 2+ Weeks	27%	28%	30%	28%
Considered Suicide	16%	17%	20%	19%
Planned Suicide	15%	12%	14%	15%
Attempted Suicide	10%	8%	9%	9%
Suicide Attempt resulted in medical treatment	4%	2%	3%	3%
Risk Takers — Current Activities*				
No risks	44%	39%	NA	NA
Minimal Risk Taker (1 risk)	26%	26%	NA	NA
Multiple Risk Taker (2 or 3 risks)	22%	27%	NA	NA
Extreme Risk Taker (4 risks)	8%	9%	NA	NA

* among the following activities: smoking, drinking, marijuana use (past month) and sexual intercourse (past three months)