



CHAPTER 1

INTRODUCTION & SURVEY METHODS

BACKGROUND

This report presents the results of the eighth administration of the Massachusetts Youth Risk Behavior Survey (MYRBS), and the seventh consecutive administration that can be considered fully representative of public high school students across the Commonwealth (1a). The MYRBS is a student health survey that has been conducted every two years since 1990 by the Massachusetts Department of Education with funding and technical assistance provided by the Division of Adolescent and School Health (DASH) of the U.S. Centers for Disease Control and Prevention (CDC) (1b). The Massachusetts Department of Education was one of 44 state educational agencies that administered a youth risk behavior survey in 2005 to monitor the prevalence of adolescent risk behaviors that can have a negative impact on student learning and may ultimately lead to life-threatening illness and injury.

Data generated by the MYRBS are used to determine statewide changes in the prevalence of adolescent risk behaviors over time. Additionally, the results of the MYRBS contribute to a national database on adolescent risk behaviors. Through careful examination of the MYRBS results, state and local agencies can use the data to set priorities for improving the health of students across the Commonwealth.

This chapter describes the development of the 2005 survey instrument; the methods used to select the student sample, administer the survey, and analyze the data; and the characteristics of the student sample.

SURVEY DEVELOPMENT

The standardized youth risk behavior survey instrument was designed by the CDC in collaboration with other national and local health and education agencies (1c). Specifically, the survey was developed to monitor the prevalence of health risk behaviors among high school students (grades 9 through 12), which are associated with the major causes of morbidity, and mortality among youth and adults in the United States. These behaviors include tobacco, alcohol, and other drug use; sexual behaviors that may result in HIV infection, other sexually transmitted diseases, and unintended pregnancies; behaviors related to injuries and violence; poor dietary behaviors (including behaviors associated with eating disorders); and lack of physical activity.

In addition, the survey included supplementary items on other topics relevant to student health such as gang involvement, long-term disabilities, bullying victimization, self-injury, dating violence, and forced sexual contact. The 2005 MYRBS also included several items measuring factors that may positively impact a student's well-being, such as volunteer community work, extracurricular activities, and perceived adult support both in and out of school. These additional items were developed and refined by staff at the Massachusetts Department of Education, with review by the CDC (1d). The final 2005 MYRBS instrument consisted of 99 multiple choice

questions with an additional page for student comments. The survey was written at the seventh grade reading level, and was designed to be completed in a forty-minute class period. The survey instrument is included in Appendix A of this report.

SURVEY METHODS AND ADMINISTRATION

The 2005 MYRBS was administered from February to June 2005 in randomly selected public high schools across the state. In total, 51 of 59 randomly selected high schools across the state participated in the survey, resulting in a school response rate of 86%. In each participating school, three to five classes were randomly selected to participate. All students in grades 9 through 12, including Special Education (SPED) students and students with limited English proficiency, were given an equal probability of being selected.

A trained survey administrator from the Department of Education traveled to each participating school and administered the survey in selected classrooms using a standardized administration protocol. Survey administrators read instructions aloud to participating students, emphasizing that the survey was both anonymous and voluntary. Completion of the survey in some Special Education classes was facilitated by reading the questions and responses aloud.

On average, approximately 69 students participated per school, yielding a statewide sample of 3,522 students. This sample represented 78% of the students enrolled in the classes originally selected. The main factor that determined the 78% student response rate was school attendance on the day of survey administration. The combined school and student response rates yielded an overall response rate of 68% (86% x 78%). Due to this high response rate, the information in this report provides accurate estimates of the prevalence of the health risk behaviors among Massachusetts high school students.

CHARACTERISTICS OF THE STUDENT SAMPLE

The demographic characteristics of the student sample are shown in Table 1. To correct for slight variations between the Massachusetts high school population and the MYRBS student sample, cases in the sample were statistically weighted by the CDC. The weighted results presented in this report accurately reflect the gender, grade, and race/ethnicity characteristics of all Massachusetts public high school students in the spring of 2005. Because data were not weighted by other demographic factors, we cannot have the same level of confidence that results concerning other subgroups represent those groups with complete accuracy. Further information about the sampling and weighting procedures can be found in Appendix B.

ANALYSIS OF THE 2005 MYRBS RESULTS

The CDC conducted initial frequency analyses of the 2005 MYRBS data. Subsequent statistical analyses were conducted by the Massachusetts Department of Education (see Appendix B for a detailed explanation of the data analysis procedures).

Analyses of the 2005 MYRBS data were done to:

- ◆ Examine differences in risk behaviors by demographic variables such as grade, gender, race/ethnicity, kind of community (urban, suburban or rural), sexual orientation, and years lived in the United States;
- ◆ Determine changes in risk behaviors which have occurred over the past ten years; and
- ◆ Explore interrelationships among various risk behaviors and risk factors.

Since 1993, each administration of the MYRBS has achieved a response rate high enough to ensure that the results were representative of adolescents in public high schools across the Commonwealth at the time of survey administration. Therefore, results from past MYRBS administrations are used to examine changes in rates of adolescent risk behaviors that have occurred in Massachusetts over time. In general, the 2005 MYRBS estimates of health behaviors are accurate to within plus or minus three percentage points.

THE 2005 MYRBS REPORT

The 2005 MYRBS report is separated into chapters by category of risk behavior. The introduction to each chapter provides background information on specific risk behaviors and their health outcomes, as well as relevant statistics from other sources.

The key findings and additional results are subsequently presented with illustrative figures and tables. Each chapter concludes with a section that reflects upon the implications of the findings and how they can be used to improve the health and safety of students. The report also includes Appendices containing (A) the actual 2005 MYRBS survey instrument used; (B) an explanation of sampling, administration, weighting, and data analysis procedures; (C) additional summary tables for several of the chapters; and (D) a comparison of risk behavior prevalence rates for Massachusetts and the United States as a whole.

Table 1: Demographic Characteristics of the 2005 Massachusetts YRBS Student Sample (N = 3522)

	<u>Number</u>	<u>Percent^a</u>
<u>Gender</u>		
Female.....	1812	49.4%
Male.....	1704	50.6
Missing.....	6	--
<u>Grade</u>		
9 th Grade.....	927	28.7%
10 th Grade.....	1075	25.6
11 th Grade.....	959	23.5
12 th Grade.....	520	21.6
Ungraded or Other.....	15	0.6
Missing.....	26	--
<u>Race/Ethnicity^b</u>		
White/ non-Hispanic.....	2161	75.6%
Black or African-American.....	351	8.9
Hispanic or Latino.....	378	11.1
Asian or Pacific Islander.....	225	1.9
Other or Multiple Ethnicity.....	269	2.4
Missing.....	168	--

^a Percent of all students with a valid answer for the question, as weighted by DED.

^b Students were allowed to indicate multiple ethnic categories. If Hispanic/Latino was indicated as an ethnic identification, whether alone or in combination with other ethnic categories, the student was categorized as Hispanic/Latino. The Other or Multiple Ethnicity category includes 74 American Indian or Alaska Natives and 195 youth who indicated several ethnicities that did not include Hispanic/Latino.

CHAPTER 1: REFERENCES

1a. The MYRBS was conducted in 1993, 1995, 1997, 1999, 2001, 2003, and 2005. The next scheduled administration is Spring 2007.

1b. The MYRBS was conducted in 1990 and 1992, but the samples obtained were not considered representative of all MA public high school students. The survey was next conducted in 1993, and has been conducted every other year since then.

1c. Brener, N., Collins, J., Kann, L., Warren, C., & Williams, B. (1995). Reliability of the Youth Risk Behavior Survey questionnaire. *American Journal of Epidemiology*, *141*, 575-580.

1d. Items added to the standard CDC survey instrument by the Massachusetts Department of Education include questions 5, 8-13, 21, 27-29, 57, 60, 62-63, 65, 67-68, 73, 77-80, 83, 92, 98, and 99. Questions 4, 41, 87, and 90 were modified slightly from the original CDC wording.