

Table 2-2B. Tobacco Use, 2006 - 2012
Needham High School (Grades 9-12)
MetroWest Adolescent Health Survey, 2012

	Needham (%)			MetroWest Region (%)				
	2006 (1,281)	2008 (1,285)	2010 (1,326)	2012 (1,403)	2006 (16,680)	2008 (20,406)	2010 (23,187)	2012 (24,459)
CIGARETTE SMOKING								
Lifetime cigarette smoking*	29.1	28.3	17.9	16.8	35.3	33.3	25.9	22.0
Smoked a whole cigarette before age 13 years	3.8	4.6	3.3	3.2	6.7	5.6	5.1	3.9
Current cigarette use (past 30 days)	12.9	10.3	6.7	5.5	14.7	13.9	12.1	9.1
Current frequent cigarette use (on 20 or more of the past 30 days)	5.0	2.7	1.9	1.4	5.6	4.6	4.0	2.9
Current cigarette use on school property (past 30 days)	5.9	3.4	2.8	2.8	5.3	5.1	4.4	3.2
Ever smoked cigarettes daily (every day for 30 days)	8.7	6.4	5.3	7.0	9.3	8.2	7.6	7.4
Smoked more than 10 cigarettes/per day (past 30 days, among current smokers) [†]	11.5	9.8	14.4	14.8	13.8	10.4	10.4	13.3
Tried to quit smoking (past 12 months, among current smokers) [‡]	35.4	28.3	30.6	29.7	37.4	33.8	37.3	40.9
USE OF OTHER TOBACCO PRODUCTS								
Current smokeless tobacco use (past 30 days) [†]	5.5	7.8	5.8	5.4	5.1	6.3	6.3	5.4
Current cigar use (past 30 days) [§]	10.8	13.6	7.6	8.1	13.4	14.5	13.1	10.6
OVERALL TOBACCO USE								
Current tobacco use (past 30 days)**	19.8	20.0	13.2	11.7	21.8	22.4	19.8	16.0

* Ever tried cigarette smoking, even one or two puffs

† Among youth who smoked in the past 30 days

‡ Used chewing tobacco, snuff, or dip

§ Smoked cigars, cigarillos, or little cigars

** Smoked cigarettes, cigars and/or used smokeless tobacco

MWAHS Background and Methodology

Needham High School

BACKGROUND

Since 2006, the MetroWest Adolescent Health Survey (MWAHS) has monitored trends in health and risk behaviors among youth in the communities served by the MetroWest Health Foundation (MHF). The MWAHS support communities in their efforts to improve health education, inform prevention efforts, and set priorities for improving adolescent health and wellbeing.

The 2012 survey marks the 4th administration of the MWAHS, with 100% of the eligible school districts in communities served by the MHF participating in the survey for the first time. This represents a total of 55 middle and high schools surveyed across 26 school districts in the region. Within each district, we surveyed a census of students. This large amount of student data enables each district to consider differences in behavioral reports by gender and grade, providing important information for local planning. In total, 15,605 middle school students (92.4% participation rate) and 24,459 high school students (89.6% participation rate) took the 2012 MWAHS. These high levels of student participation mean that the data are highly representative of the student populations in each district as well as youth across the region.

SURVEY INSTRUMENT

CONTENT AND DEVELOPMENT

The MWAHS is largely based on the *Youth Risk Behavior Surveillance System* (YRBSS) of the Centers for Disease Control and Prevention (CDC)¹ and the Massachusetts version of the YRBS², administered collaboratively by the Massachusetts Department of Elementary and Secondary Education and the Department of Public Health. Additional questions on the survey are added to address emerging behaviors as well as issues of particular salience to the MetroWest community.

Each school district's survey includes a **core** set of questions used by all participating districts. Most questions on the core survey have remained the same from 2006 to 2012 to allow comparisons over time. The core survey covers the following topics:

- **Substance use** (tobacco, alcohol, illegal substance use and prescription drug misuse)
- **Violence** (weapon-carrying, physical fighting, bullying, and cyberbullying)
- **Behaviors related to unintentional injuries** (seatbelt use, helmet use, and drinking and driving)
- **Sexual behaviors** related to unintended pregnancy and sexually transmitted infections (these questions are optional at the middle school level)
- **Mental health** (stress, depressive symptoms, and suicidality)
- **Dietary behaviors and physical activity**
- **School attachment and adult support**

In response to community requests, additional questions were added to the 2012 core survey to gather more comprehensive data on emerging youth behaviors and health issues. New questions added to both the middle and high school surveys address several topics, including: bystander behaviors related to school bullying and cyberbullying; peer support; and “screen time”/sedentary behavior. Additional questions added to the high school survey include: driving safety, driving under the influence of alcohol and marijuana and related risk perceptions, and dating violence. Even with the addition of new questions, almost all students were able to complete surveys within the designated class periods.

In addition to the core survey, districts can customize their high school surveys by selecting up to 20 questions from a set of optional items. In this way, communities are able to collect data on issues of local significance.

FORMAT

The MWAHS is a self-administered (paper-and-pencil) survey booklet. The core high school survey consists of 139 multiple-choice items and the core middle school survey consists of 98 questions. The survey is designed to be administered during a 40-minute class period.

VALIDITY AND RELIABILITY

Given the sensitive nature of the survey, a question often asked is: *Do students respond truthfully?* Research on the validity and reliability of self-report surveys among school-based populations suggest that surveys are reliable methods of collecting data from young people. In fact, research on the national YRBSS indicates that adolescents are just as credible as adults when answering this kind of survey. These studies show that young people respond truthfully when: Participation is voluntary; students perceive the survey as important; and students feel that measures have been taken to preserve their privacy and ensure anonymity.³

The MWAHS meets these conditions by following procedures to assure students that participation is voluntary and anonymous. The anonymous nature of the MWAHS is highlighted in the instructions, which ask students *not* to write their name on the survey and explain that their answers will be kept private. The MWAHS instructions also call attention to why it is important to hear directly from students, stating that findings will be used to improve health education and services for young people.

Two other steps are taken to improve validity. First, all surveys are reviewed for implausible or frivolous responses. If it appears that a survey was answered frivolously, it is omitted from all analyses. Second, analyses are conducted to test for the reasonableness of responses and for the consistency of responses across related items. As with the prior survey administrations, these two procedures revealed very few problems.

The validity of the survey is further bolstered by using a questionnaire based largely upon the CDC *Youth Risk Behavior Surveillance System*. The YRBSS is a standardized instrument developed by the CDC in collaboration with other national and local health education agencies. A number of published articles address the validity and test-retest reliability of the instrument.^{4,5}

TRANSLATIONS

Copies of the district-specific surveys (including core and optional items) are made available to schools in Spanish and Portuguese, as requested. Similar to prior surveys, notably few students chose to complete surveys in these languages. For the MetroWest region as a whole in 2012, out of a total 40,064 middle and high school surveys, only 141 surveys were completed in Spanish (0.3%) and 99 surveys (0.2%) were completed in Portuguese.

SURVEY PROCEDURES

SURVEY ADMINISTRATION

The 2012 MWAHS survey administration took place from October 23 to November 19. Students in grades 9-12 at Needham High School took the survey on October 24 during Extended Homeroom. All schools followed local procedures for informing parents, which included sending information to parents/guardians in advance to inform them of the survey and provide them with the option of opting out their child(ren) if desired.

A designated MWAHS coordinator in each district was trained on the survey administration methods. All teachers read a standardized set of instructions to students which included informing them of the voluntary and anonymous nature of the survey. In addition to being opted out by parents/guardians, students were given the opportunity to decide on their own whether to participate or not. Teachers and other school staff were instructed to follow specific procedures to assure that students' answers remained private and that no students felt pressured to participate.

VISUAL REVIEW OF SURVEYS

Upon return to EDC, surveys were visually inspected for patterns of responses that would indicate that a student didn't answer truthfully. Individual surveys were removed from the sample prior to data entry if student responses were implausible (e.g., a student reported engaging in many or most behaviors the maximum number of times) or if students wrote in comments indicating that they did not take the survey seriously. The number of surveys removed for any of these reasons was very small (less than 1%).

DATA ENTRY

All survey data was manually keypunched and verified (double-punched) to ensure accuracy.