Comprehensive YRBS Middle School Methods Report

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New York City Department of Health and Mental Hygiene
Bureau of Epidemiology Services
Surveys and Data Analysis Unit

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Background

The New York City Youth Risk Behavior Survey (YRBS) is conducted by the New York City Department of Health and Mental Hygiene (NYC DOHMH) in collaboration with the New York City Department of Education (DOE). The YRBS is part of the National Centers for Disease Control and Prevention's (CDC) <u>Youth Risk Behavior Surveillance System (YRBSS)</u>. The NYC survey follows the protocol developed by CDC, and the NYC questionnaire is adapted from the CDC-developed core instrument.

The first ever NYC Middle School (MS) YRBS pilot was conducted during the fall semester of 2018. Similar to the High School YRBS, the questionnaire measured tobacco, alcohol and drug use; behaviors that contribute to unintentional injury and violence; sexual behaviors; dietary behaviors; and physical activity. It also monitored students' self-described weight, and the prevalence of asthma. Results are representative of public middle school students in grades 6 through 8, excluding students in juvenile detention centers and alternative and special education schools. English Language Learner (ELL) and special education classes in eligible middle schools were also excluded from the sample.

Purpose

The purpose of NYC MS YRBS, like the National YRBS, is to determine the prevalence of health-risk behaviors among middle school students, and if the survey is continued over time, to assess whether these behaviors increase, decrease, or stay the same. Another purpose is to examine the co-occurrence of health-risk behaviors.[1]

Questionnaire

To support trend analysis in the future, the majority of questions on the NYC MS YRBS pilot came from the CDC's State and Local core instrument. This instrument was provided to all state and local agencies planning to conduct the YRBS. The CDC protocol required that two thirds of the questions be taken from the core instrument,[2] and no questionnaire could contain more than 50 questions. In addition to the CDC-developed items, the NYC MS YRBS contained questions designed to address needs unique to New York City. In 2018 the NYC MS YRBS included 50 questions (Table 1). The survey was approved by both DOHMH's and DOE's Institutional Review Board.

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[1] Nancy D. Brener, et. al. 2004. "Methodology of the Youth Risk Behavior Surveillance System." <u>Morbidity and Mortality Weekly Report</u>, Department of Health and Human Services, Centers for Disease Control and Promotion, Vol. 53, No. RR-12, p.2.

[2] The core questionnaire contains 49 questions; a minimum of 33 questions must be used.

Table 1. Number of Questions in NYC MS YRBS Questionnaire

Year	Number of questions
2018	50

Sampling, Response Rates, and Weighting

In June 2018, a random sample of 30 middle schools were selected from all NYC public middle schools, excluding juvenile detention centers, alternative, transfer and special education schools, and schools with a >30% ELL population. A random selection of classes containing 2,696 students were drawn from the 30 sampled schools.

Surveys were collected with the intention of weighting the data to the total NYC public middle school population, and generating citywide estimates. For this, the CDC required that the overall survey response rate, calculated by multiplying the school response rate by the overall student response rate, must be greater than or equal to 60%.

Response rates from the 2018 NYC MS YRBS are listed in Table 2.

Table 2. Response Rates (RR), NYC MS YRBS 2018

Geographic Stratum	Number of Usable Completes	School RR %	Student RR %	Overall RR %
Citywide	2287	77	85	65

The NYC MS YRBS employed a stratified, two-stage cluster sample designed to produce a representative sample of students. In the first stage, schools, which are the Primary Sampling Units, were randomly selected with probability proportional to the schools' enrollment size.

In the second sampling stage, classrooms falling within a designated period of the school day (for example, second period) or a required class (such as English) were listed in a classroom-level sampling frame. English Language Learner and special education classes were not eligible for inclusion in the sampling frame. Classes were then randomly selected from the sampling frame for each school. In each selected classroom, all students completed the questionnaire, other than those students who chose to opt-out, or who had been opted-out by their parent(s) (see below).

After the data were collected, a weighting factor was applied to each student record to adjust for nonresponse and for varying probabilities of selection. Weights were also determined by a post-stratification adjustment factor calculated by gender within grade and race/ethnicity overall. Final weights were scaled to match the NYC public middle school student population and the proportion of students in each grade. For more information on weighting of the NYC MS YRBS data, please e-mail survey@health.nyc.gov.

Data-Collection Protocols

Before the survey was administered, parents were sent a letter with an opt-out form that could be used if they decided against having their child participate in the YRBS. On the day of data collection, the survey was conducted in classrooms. Students were read a script that introduced the survey and then they completed the survey. When students were finished, they placed their answer sheets in a manila envelope, and received an informational brochure listing phone numbers they could call if they would like to talk to anyone about issues raised in the survey. Survey procedures were designed to protect the anonymity of students, and student participation was voluntary. Study methods followed CDC guidelines, and were approved by the DOHMH and DOE Institutional Review Boards.

Data-Processing Procedures

Answer sheets were grouped together by classroom and were accompanied by classroom-level and school-level information forms that contained information about absenteeism rates, parental refusals, and student refusals. These packages were sent to CDC's contracted technical assistance provider, which scanned the data and created a data file for CDC. CDC edited the data "for out-of-range responses, logical consistency, and missing data"[3] and returned the dataset to the technical assistance provider for weighting. The technical assistance provider then provided the weighted dataset to DOHMH.

Uses of the Data

NYC MS YRBS data can be used to:

- Determine which health risk behaviors and conditions are improving, staying the same, or in need of improvement, once additional years of middle school data are collected;
- Write grants and program proposals;
- Develop public health programs;
- Evaluate public health programs;
- Set priorities for programs;
- Train staff at DOHMH and DOE;
- Educate community-based groups and local professionals; and
- Create data-focused publications, such as Vital Signs and EPI Data Briefs. For more information, visit the DOHMH's Data Publication page.

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[3] Nancy D. Brener, et. al. 2004. "Methodology of the Youth Risk Behavior Surveillance System." Morbidity and Mortality Weekly Report, Department of Health and Human Services, Centers for Disease Control and Promotion, Vol. 53, No. RR-12, p.9.