

OMB SUPPORTING STATEMENT: Part B

National Youth Risk Behavior Survey (YRBS) Test-Retest Reliability Study

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Submitted by:

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Attachment C – 2021 National YRBS Questionnaire
Attachment D – Advance Superintendent Letter
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B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

B.1. RESPONDENT UNIVERSE AND SAMPLING METHODS

The respondents for the National Youth Risk Behavior Survey (YRBS) Test-Retest Reliability Study will include students in public secondary schools containing at least one of grades 9 through 12. Systematic equal probability sampling with a random start will be used to select a convenience sample of 20 schools that is expected to yield a respondent sample of approximately 2,000 students. To ensure a good representation of students from each grade, we will ask the principals in the sampled schools to select approximately one class from each of grades 9-12 to participate in the study.

The school sample will be selected from the most current Common Core of Data (CCD) Public School Universe File maintained by the National Center for Education Statistics (NCES). Based on school type description and code, charter school status, and grade span, schools will be screened, and only regular public schools containing at least one of grades 9-12 will be retained for sampling.

This sample is expected to yield at least 1,000 participating students who completed both a Time 1 and Time 2 questionnaire. The sample size accounts for an anticipated nonresponse of 30% to 50% due to a combination of district- or school-level refusals, parental consent refusals, student assent refusals, and student absences on the day of either Time 1 or Time 2 administration. Further, we anticipate schools may decline the survey due to competing demands and resource limitations, including budget, time, and staff. Although the test-retest reliability study will use a convenience sample, the sample will include schools from different regions of the United States, from urban, suburban, and rural areas, of varied enrollment sizes, and of varied socio-economic status.

B.2 PROCEDURES FOR THE COLLECTION OF INFORMATION

Systematic equal probability sampling with a random start will be used to select schools for the survey. The National YRBS Test-Retest Reliability Study is not designed to generalize the survey results to the target school population. Further, oversampling of subgroups is not required. Likewise, a complex sample design, such as stratified sampling with differential selection probabilities is not needed. An equal probability sample of schools suffices for this study.

To select a diverse sample, the sampling frame will be sorted by the following variables prior to sampling: census region (created from state), type of locale, grade level (created from grade span with two levels: junior/senior high school, high school), enrollment in grades 9-12, percentage of students eligible for free and reduced-price lunch, median household income¹, and percentage of minority students (minority students include students who are Black, Hispanic, Asian, Pacific Islander, American Indian/Alaska Native, and of two or more races). Systematic equal probability sampling with a random start will be used to select schools for the survey.

As stated previously, schools will be screened based on school type description and code, charter school status, and grade span, and only regular public schools containing at least one of grades 9-12 will be retained for sampling. To reduce the burden on schools, we will also exclude schools that were selected for the spring or fall 2021 YRBS samples. We will also have a “reserve” sample of 20 schools which we will access if the original sample is not yielding 1,000 participants. Should the reserve sample be needed, we will match the refusing school and its replacement by census region, type of locale, enrollment size,

¹ As a measure for socio-economic status, the median household income at the zip code level will be obtained from the American Community Survey.

median household income, and percentage of minority students.

The primary objective of this study is to examine the reliability of the YRBS questionnaire (Attachment C). Using Time 1 and Time 2 data, reliability will be estimated through Cohen's kappa. Cohen's kappa provides a measure of agreement that corrects for chance agreement, and is regularly used in reliability studies.

For the study, a sample of 2,000 students from 20 regular public secondary schools in the U.S. containing at least one of grades 9 through 12 will be selected in no more than 20 districts. This sample is expected to yield at least 1,000 participating students who completed both a Time 1 and Time 2 questionnaire. All district superintendents will be sent a letter informing them of the study (see Attachment D) and will receive a follow-up recruitment phone call to provide more information about the study, answer any questions, identify any special clearance processes that must be met for performing research in the district, and secure the district's participation (see Attachment E for the district recruitment script). Any special requirements that school districts have for approval of research in schools within their district will be met before schools are contacted.

Data collection will occur between September and December of 2021 after completion of the school clearance process. The initial step will be to obtain principal names at each sampled school and send them letters informing them of their selection for the upcoming study (see Attachment F). Follow-up phone calls to principals will be used to obtain their agreement, identify selected classes, and set data collection dates (see Attachment G for the school recruitment script). Approximately one class from each of grades 9-12 will be selected to complete the two YRBS data collections in each school. District guidelines will be followed for obtaining either passive or active permission from parents of students in selected classrooms prior to data collection. The study's consent process for obtaining both parental permission and student assent is detailed in Section A.11.

The Time 1 and Time 2 classroom-based data collection procedures will be similar. During the initial Time 1 data collection, a trained data collector will visit the school to administer the YRBS in the selected classes. The data collector will work with teachers in each class to ensure that students whose parents opted them out or who voluntarily opt out are excused from the study and given another assignment. In each selected class, the data collector will follow a script to introduce the survey and provide instructions (see Attachment H). This will ensure that each data collector is providing the same background and instructions in every class. The script will include explaining to students that they will complete another similar questionnaire in about two weeks.

The data collector will provide an envelope to each participating student that includes a Time 1 and Time 2 questionnaire booklet linked through the use of a unique identifier. Since class rosters or other identifying information about students is never collected by the study, unique identifiers are in no way linked to any personal information about the student. Further, no personally identifying information is collected by the survey. Students will be instructed to remove one blank questionnaire booklet from the envelope, seal the second, identical booklet inside the envelope, and print their name across the envelope seal. The sealed envelope with the blank Time 2 questionnaire booklet inside will be returned to the data collector before students complete the Time 1 questionnaire booklet. At the end of the Time 1 data collection, data collectors will ask all students to place their completed Time 1 questionnaire booklet in one survey envelope at the front of the classroom with the data collector. The data collector will then seal the envelope and return the completed Time 1 questionnaire booklets to the home office where they will be kept in a secure facility. The data collector will keep the blank Time 2 questionnaire booklets in their sealed envelopes until the Time 2 collection.

The date and time for the Time 2 survey administration will have been previously arranged and confirmed with the principal and teachers at the Time 1 data collection. The target is two weeks between the two data collections but will not exceed 30 days. For the Time 2 data collection, the data collector will

provide each student with their sealed, signed envelope containing the blank Time 2 questionnaire booklet. Data collectors will work with the teacher to match student envelopes with each student when necessary. Only students that participated in the Time 1 data collection will be permitted to participate in the Time 2 data collection. Participating students will be instructed to take the Time 2 questionnaire booklet out of their sealed envelope and put it aside, then rip the envelope several times and discard in a trashcan, and then complete the Time 2 questionnaire booklet. Students will put their completed Time 2 questionnaire booklet into one survey envelope at the front of the classroom with the data collector. The data collector will then return the completed Time 2 questionnaire booklets to the home office.

No problems requiring specialized sampling procedures are foreseen. A reserve sample will be selected in case there is a challenge in meeting the targeted number of completed questionnaires.

B.3 METHODS TO MAXIMIZE RESPONSE RATES AND DEAL WITH NO RESPONSE

A number of public school districts have structured procedures that researchers must follow to obtain permission to contact their schools for a study. Once the school sample is selected, project staff will identify the relevant special contact districts and begin preparing research application materials to send to them. Staff will communicate with each district on a regular basis to check that the application is being processed and to respond to any additional requirements. The survey manager and project director will monitor the progress of this activity weekly and add more staff to this task if needed.

In addition, the superintendent of each district with sampled schools will be sent a letter informing them about the survey (see Attachment D) and will receive a follow-up recruitment phone call to provide more information about the study, answer any questions, identify any special clearance processes that must be met for performing research in the district, and secure the district's participation (see Attachment E for the district recruitment script).

Once the sample is drawn and clearance is obtained at the district level, letters will be sent to all principals to inform them of their selection for the upcoming study (see Attachment F). The advance letter to school principals will explain the study, and in an effort to encourage participation, place emphasis on the importance of measuring the quality of the surveys and current topics of interest. The letter will also include a statement about the findings of the reliability study being published in a journal article and that the citation will be on the Centers for Disease Control and Prevention's website. This letter will be sent to school principals five weeks in advance of the intended data collection start. Included in the letter will be information about tokens of appreciation for the school and teachers. Schools will be offered a \$300 token of appreciation for their participation and teachers whose classes participate in the surveys will be offered a \$50 token of appreciation. Follow-up phone calls to principals will be conducted to obtain their agreement, identify selected classes, and set data collection dates (see Attachment G for the school recruitment script). School recruitment will proceed according to the following schedule:

- Week 1: Send advance letter to schools.
- Week 2: Call school principals to obtain their agreement, identify a liaison to help coordinate data collection, and obtain contact/teacher information for selected classes.
- Week 3: Contact teachers, set data collection dates, and have them provide students with parent permission forms to bring home.
- Week 4: Provide an additional week for parental response and principal/teacher questions.
- Week 5: Finalize schedule for all schools.

Using these recruitment procedures, we anticipate that the sample of 20 schools and 2,000 students will yield completed Time 1 and Time 2 surveys from 1,000 students. A "reserve" sample of 20 schools will be used if the original sample is not yielding 1,000 participants. Schools selected from the reserve sample will be contacted using the same procedures as stated above. District-level and school-level recruitment will be monitored before and during data collection to determine whether to access the reserve sample of

schools. Data collections will be planned around school closures and planned field trips. Additionally, for Time 2, make-up data collections will be scheduled when large numbers of students are known to be unavailable on the scheduled data collection date. A combination of all of these procedures will help ensure participation from at least 1,000 students for both Time 1 and Time 2.

B.4 TESTS OF PROCEDURES OR METHODS TO BE UNDERTAKEN

No tests of procedures and methods will be conducted specifically for the National YRBS Test-Retest Reliability Study.

B.5 INDIVIDUALS CONSULTED ON STATISTICAL ASPECTS AND INDIVIDUALS COLLECTING AND/OR ANALYZING DATA

The National YRBS Test-Retest Reliability Study will be conducted by the Division of Adolescent and School Health, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention. The Centers for Disease Control and Prevention contracted Westat to administer the data collection. Barbara Queen, Senior Study Director; Doug Williams, Senior Statistician; Ting Yan, Associate Director; Molly Hershey-Arista, Senior Study Director; and Karen Gray-Adams, Senior Study Director, all at Westat, designed the data collection. Annie Lo, Senior Statistician at Westat, was consulted about the statistical aspects of the sample. Sherry Everett Jones, a health scientist at the Centers for Disease Control and Prevention, will analyze the data for the agency.