

SUPPORTING STATEMENT FOR THE
2025 and 2027 NATIONAL YOUTH RISK BEHAVIOR SURVEY

Reinstatement With Change: OMB No. 0920-0493, expiration 11/30/2023

PART A

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[SUBMISSION DATE HERE]

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- **Goal of the project:** The goal of the National Youth Risk Behavior Survey (YRBS) is to assess priority health-risk behaviors in adolescents related to the major preventable causes of mortality, morbidity, and social problems among both youth and adults in the United States. This request also includes a smaller study designed to assess the validity of new questions on fruit, vegetable, and energy drink intake that are being considered for inclusion on the 2027 YRBS questionnaire.
- **Intended use of the resulting data:** YRBS results will be used to (1) monitor whether priority health-risk behaviors among high school students increase, decrease, or remain the same over time; (2) evaluate the impact of efforts to prevent risk behaviors; and (3) improve school health policies and practices. Results of the validation study will be used to ensure the quality of new YRBS questions related to dietary intake.
- **Methods to be used to collect:** The YRBS method uses cross-sectional self-administered surveys of nationally representative samples obtained using a three-stage cluster sample design. The validation study will use self-administered surveys and 24-hour dietary recall interviews conducted by trained interviewers among a convenience sample.
- **The subpopulation to be studied:** for the YRBS, 9th-12th grade students attending public and private schools in the United States. The validation study subpopulation will not include students attending private schools.
- **How data will be analyzed:** YRBS data will be analyzed to obtain prevalence estimates, t-tests will be used to compare demographic subgroups, and logistic regression will be used to analyze trends over time. For the validation study, survey data will be compared to dietary recall interview data to determine concordance.

A. JUSTIFICATION

A.1. CIRCUMSTANCES MAKING THE COLLECTION OF INFORMATION NECESSARY

This statement supports a request to obtain approval for a Reinstatement with Change of a previously approved information collection to conduct the National Youth Risk Behavior Survey (YRBS) (OMB No. 0920-0493, expiration, 11/30/2023) in 2025 and 2027. A three-year approval of this study is being requested to collect YRBS data during January through May of 2025 and 2027. The YRBS is a biennial school-based survey of high school students, conducted by the Centers for Disease Control and Prevention (CDC), that assesses priority health-risk behaviors related to the major preventable causes of mortality, morbidity, and social problems among both youth and adults in the United States. This validation study will be conducted in March through May of 2025.

The proposed research will use the previously OMB-approved sampling strategy, recruitment methods, and data collection procedures to conduct the YRBS among nationally representative samples of 9th-12th grade students in public and private schools in the U.S. A three-year approval of this study is being requested will use recruitment methods and data collection procedures similar to those used for the YRBS, but will also include 24-hour dietary recall interviews with students.

The legal justification for the YRBS may be found in Section 301 of the Public Health Service Act (42 USC 241) (Authorizing Legislation, **Attachment A**). Additionally, attached is a Justification (**Attachment B**) for the national survey of health-risk behaviors among students in grades 9-12 which is based on three factors: (1) public health implications of health-risk behaviors among adolescents; (2) costs of health-risk behaviors among adolescents; and (3) specific mandates to monitor and/or reduce health-risk behaviors and/or associated health outcomes. Regarding this third factor, the YRBS is the primary data source for 14 national health objectives for Healthy People 2030, which chart the direction for public health activities for the current decade (Rationale for Survey Questions, **Attachment E**).

Justification for Validation Study

Regular consumption of a variety of fruits and vegetables supports healthy growth and development and immunity and plays a role in chronic disease prevention over the life course (USDA Dietary Guidelines for Americans 2020-2025). Unfortunately, adolescents in the United States continue to fall short of recommended intakes (USDA Dietary Guidelines for Americans 2020-2025, Lange et al. 2021). Data from the Youth Risk Behavior Survey data are used to monitor trends in intake and, uniquely, to identify demographic and behavioral characteristics associated with consumption (Merlo et al. 2020).

The current set of fruit and vegetable questions used in the YRBS faces skepticism due to a need for a relatively large set of questions to assess intake and the opportunity cost this presents; that is, there are nutrition topics that are not addressed in YRBS because this would add to length and burden. This necessitates the identification of a shorter set of questions, with proven validity, to assess fruit and vegetable intake. Recent changes in how the Dietary Guidelines for Americans defines vegetable intake, which now includes all beans, makes this validation study timely (USDA Dietary Guidelines for Americans 2020-2025).

The proposed validation study will be used to select the most valid and efficient formulations of questions related to high school students' fruit, vegetable, and energy drink intake for inclusion on the 2027 Youth Risk Behavior Survey (YRBS). Specifically, the study will inform whether single-item assessments of fruit and vegetable intake and a separate question about bean intake could be used in lieu of the current composite measure that derives overall vegetable intake from four separate items and overall fruit intake from two separate items.

In addition, there has been growing interest in energy drink consumption and some evidence of co-occurrence with risk behaviors, like substance use (Marinoni et al. 2022, Arria et al. 2014). As part of this validation study, we are including an energy drink question. The results of this study may be used to inform changes to the YRBS questionnaire.

A.2. PURPOSE AND USE OF INFORMATION COLLECTION

Minor changes incorporated into this reinstatement request include the following: an updated title for the information collection to accurately reflect the years in which the survey will

be conducted, a slightly modified questionnaire (Attachment L1), and the addition of a smaller study designed to assess the validity of new questions on fruit, vegetable, and energy drink intake that are being considered for inclusion on the 2027 YRBS questionnaire. The planned information collection involves administration of the YRBS questionnaire (**Attachment L1**) to independent samples of students in 2025 and 2027. The information generated by the YRBS will be used by several Federal agencies, including CDC. The information will have a broader use by state and local governments, nongovernmental organizations, and others in the private sector.

The purposes of the YRBS, to be conducted biennially among nationally representative samples of students enrolled in grades 9-12, are to:

1. Estimate the extent to which high school students engage in behaviors placing them at risk for the major short- and long-term causes of mortality and morbidity.
2. Assess whether engaging in health-risk behaviors varies as a function of sex, age, grade in school, and race/ethnicity.
3. Determine the interrelationships among health-risk behaviors and whether these interrelationships vary as a function of sex, age, grade in school, and race/ethnicity.
4. Estimate the extent to which high school students engage *at school* in health-risk behaviors involving tobacco, alcohol, and other drug use or contributing to violence, and determine whether this pattern changes over time.
5. Describe the trends in health-risk behaviors and assess the degree to which these trends vary as a function of sex, age, grade in school, and race/ethnicity.

YRBS data are used by multiple centers within CDC, including the National Center for HIV, Viral Hepatitis, STD, and TB Prevention (NCHHSTP); the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP); the National Center for Environmental Health (NCEH); the National Center for Health Statistics (NCHS); and the National Center for Injury Prevention and Control (NCIPC). Anticipated uses of YRBS data by CDC include the following:

Evaluation

- Establish baseline and progress data for 13 Healthy People 2030 objectives and 1 Leading Health Indicator
- Assess trends in priority health-risk behaviors among high school students to determine the impact of CDC-funded interventions
- Evaluate and monitor progress of national efforts in tobacco control

Research Synthesis

- Provide data for development of new guidelines and tools for school health programs. Results from previous YRBS have been used in the development of the following CDC or CDC-sponsored tools and publications:
 - *National Physical Activity Plan* (www.physicalactivityplan.org)
 - *Healthy Schools* (<https://www.cdc.gov/healthyschools>)
 - *Physical Activity Guidelines for Americans* (HHS, 2018)
 - *Health Education Curriculum Analysis Tool* (CDC 2019a)

<https://www.cdc.gov/healthyyouth/hecat/index.htm>)

- o *Physical Education Curriculum Analysis Tool* (CDC, 2019b)
- o *2020-2025 Dietary Guidelines for Americans* (HHS, 2020)
- o *School Health Index: A Self-Assessment and Planning Guide* (CDC, 2017)
- o *Food-Safe Schools* (<https://www.fns.usda.gov/fs/foodsafeschools>)
- Provide data on the prevalence of priority health-risk behaviors of high school students for inclusion in the NCHS report, *Health, United States 2018* (NCHS, 2018)
- Provide data for *Chronic Disease Indicators* (CDC 2022) (<https://www.cdc.gov/cdi/index.html>)
- Present data in peer-reviewed publications and at scientific meetings
- Identify the need for additional research on behavioral risk factors among students
- Provide public health and education officials, youth, parents, and the general public with accurate information about health-risk behaviors among high school students
- Provide states and cities that may conduct similar surveys with a national index against which to compare their survey results
- Provide other countries that may conduct similar surveys with a national index against which to compare their survey results

Policy and Program Development

- Provide policy makers with information about the health-risk behaviors among high school students so they can identify areas on which to focus resources
- Provide state legislatures with information about the health-risk behaviors of high school students to support new funding initiatives to increase resources
- Determine how public information campaigns should be targeted to specifically address the most critical health-risk behaviors
- Set priorities for and support school health programs for students nationwide

Technical Assistance

- Focus school health programs, curricula, and teacher training programs nationwide on priority health-risk behaviors among students
- Assist states and cities in interpreting health outcome data, especially related to STDs, HIV infection, unintended teenage pregnancy, and the leading causes of mortality and morbidity
- Focus technical assistance provided to state and local departments of health and education on priority health-risk behaviors among students
- Assess the need for new interventions or to modify existing interventions that focus on reducing health-risk behaviors among students
- Assess the cumulative effects of multiple interventions and sources of information (school, family, community, and the media) on priority health-risk behaviors of students

The YRBS results are of interest not only to CDC, but also to other Federal agencies and departments that participate in the delineation of the survey content and selection/construction of

questionnaire items. Widely shared potential applications include monitoring progress toward Healthy People 2030 objectives and providing a generalized measure of the overall degree to which schools and society are having an effect on specific health-risk behaviors within the mission of a given Federal agency.

Department of Agriculture uses YRBS data on dietary behaviors in conjunction with its school nutrition programs.

DHHS, Office of Disease Prevention and Health Promotion is responsible for tracking the Healthy People 2030 objectives through cooperation with other agencies that serve as a lead in particular areas. YRBS data are used to track 13 Healthy People 2030 objectives and 1 Leading Health Indicator.

DHHS, Substance Abuse and Mental Health Services Administration (SAMHSA) has used YRBS data in a report to Congress on the prevention and reduction of underage drinking (SAMHSA 2022).

SAMHSA also uses YRBS data to target public information efforts, plan research/demonstration programs for minority and other high-risk youth, and train professional groups in risk factors for substance use. In addition, SAMHSA has used YRBS data in on-line fact sheets on topics such as drinking and driving and drinking trends among high school students.

DHHS, Health Resources and Services Administration uses YRBS data in various reports and publications including their annual *Child Health USA* report available at <https://mchb.hrsa.gov/chusa14/>

Federal Interagency Forum on Child and Family Statistics uses YRBS data in their *America's Children: Key National Indicators of Well-Being, 2021* report available at https://www.childstats.gov/pdf/ac2021/ac_21.pdf.

National Center for Education Statistics: YRBS data also are used as one of the recurring indicators in the annual *Indicators of School Crime and Safety* (Irwin, 2023) <https://nces.ed.gov/pubs2023/2023092.pdf>.

National Center for Health Statistics used YRBS data in *Health, United States, 2020-2021* available at <https://www.cdc.gov/nchs/data/hus/hus20-21.pdf>

Office of the Surgeon General uses YRBS data to assess the need for and support expansion of health education and health services in schools and to provide data on the prevalence of priority health-risk behaviors of high school students. Results were used in the Surgeon General's Conference on Children's Mental Health and in several U.S. Department of Health and Human Services Surgeon General reports including: *The Health Consequence of Smoking – 50 Years of Progress* (2014), *E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General* (2016); *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health* (2016); *Step it up! The Surgeon General's Call to Action to Promote Walking and Walkable Communities* (2015).

Federal Trade Commission used YRBS data to investigate possible links between advertising and overweight.

The results of the YRBS also will be used in a variety of ways by state and local governments, voluntary health organizations, physicians, teacher training institutions, educational administrators, health educators, teachers, and parents:

- Policymakers in the legislative and executive branches at all government levels use YRBS data to provide evidence of health-risk behaviors placing adolescents at risk. The policymakers can compare the situation in their states to the national profile.
- Many state and local education and health agencies conduct similar surveys. The YRBS provides a national index against which they can compare their survey results.
- The American Cancer Society uses YRBS data to measure progress in obtaining four primary goals for its comprehensive school health initiative.
- Child Trends (a nonprofit, non-partisan children’s research organization supported by foundations and multiple Federal agencies) uses YRBS data in Fact Sheets on specific behaviors of interest (<https://www.childtrends.org>)
- The National Association of State Boards of Education uses YRBS data to develop documents created for members, develop policy guides, provide updates to state boards of education, train state boards of education on technical issues, and develop action guides in marketing and communication.
- The Society of State Leaders of Health and Physical Education uses YRBS data to inform state directors and in resolutions and policy statements.
- Family physicians, pediatricians, psychologists, and counselors use YRBS data to provide up-to-date information on behavioral risks among the adolescents they treat.
- Institutes of higher education use YRBS data in their teacher training programs to provide information on the health-risk behaviors that should be the target of educational programs.
- High school administrators use YRBS data to provide information to assist them in justifying and planning educational programs to prevent health-risk behaviors.
- Health educators and other teachers in high schools use YRBS data to provide information that will bolster and provide a focus for their lesson plans and educational materials.
- Parents use YRBS data to better understand the behavioral risks facing their children.

Publications and presentations have been targeted to reach the audiences listed above. Further details are provided in Section A.16, below.

Purpose and use of Validation Study

The information generated by the validation study will be used by CDC to select the most valid and efficient formulations of questions related to high school students’ fruit, vegetable, and energy drink intake for the 2027 YRBS. The main benefit of this study is potentially reducing the number of items used to assess fruit and vegetable intake without compromising data validity. Validation will demonstrate how closely responses to the survey items represent participants’ dietary behaviors, fostering greater confidence among those responsible for fielding the surveys and among researchers and practitioners who use these data in their work.

For the validation study, surveys and 24-hour recall interviews will be used to collect information about dietary intake among high school students. Students will self-administer an electronic dietary behavior questionnaire (**Attachment L2**) and participate in an in-person 24-hour recall interview with trained interviewers using Nutrition Data System for Research (NDSR) software (**Attachment L3**). Within the domain of nutrition research, 24-hour recall interviews are widely regarded as the gold standard. These interviews provide a detailed account of an individual’s food intake over a specific day and include automated interviewer prompts to

enhance recall accuracy for items and portions consumed (Harnack & Pereira 2017). To evaluate the new questions related to fruit, vegetable, and energy drink intake, we will assess concordance between the survey results and the 24-hour recall interviews. A single 24-hour interview is sufficient for estimating mean intake at the population-level and for identifying subgroup differences (Byers & Sedjo 2012), which aligns well with the CDC's use of the YRBS as a system for monitoring trends in youth health behaviors and for identifying populations that may disproportionately engage in risk behaviors (Lange et al. 2021, Merlo et al. 2020, Underwood et al. 2019).

A.3. USE OF IMPROVED INFORMATION TECHNOLOGY AND BURDEN REDUCTION

To avail itself of more modern data collection methodologies balanced against privacy concerns, the 2025 and 2027 YRBSs will maintain a tablet-based administration to capitalize on the efficiency of an electronic data collection while also mitigating privacy concerns of students and teachers seeing respondents' screens. The survey will also employ the use of skip patterns so that students who report they do not engage in a given behavior are not asked follow-up questions on that behavior. The data to be obtained from the data collection cannot be accessed from currently existing automated databases. During questionnaire design, every effort has been made to limit respondent burden.

For the validation study, consistent with CDC's transition to electronic administration of the YRBS in 2023, 100% of participant responses in the study will be recorded and received electronically. This study will use tablet-based survey administration and NDSR software for interviews. By using tablet-based survey administration rather than questionnaire booklets, survey participants can easily navigate through the questions, change their responses if needed, and submit their surveys electronically. Tablets enable immediate data collection, also saving time on scanning, which allows for quicker data availability. The NDSR software that will be used to conduct the 24-hour dietary recalls enhances efficiency in interviews by automating probes about necessary food details and portions, ensuring a tailored interaction aimed to reduce participant burden while optimizing data collection precision (Harnack & Pereira 2017, Thompson et al. 2010). Adolescents may prefer interviewer-administered dietary recalls compared to self-completed recalls, which may place greater burden on the participant (Harnack & Pereira 2017, Hughes et al. 2017). Automated coding within NDSR reduces coding burden for the interviewers, which can help reduce administration costs (Harnack & Pereira 2017).

A.4. EFFORTS TO IDENTIFY DUPLICATION AND USE OF SIMILAR INFORMATION

CDC conducts ongoing searches of all major educational and health-related electronic databases, reviews related literature, consults with experts in behavioral epidemiology and survey research, and maintains continuing communications with Federal agencies with related missions. These efforts have identified no previous, current, or planned comprehensive efforts to conduct a survey of the health-risk behaviors of a nationally representative sample of students in grades 9-12 nor to validate these specific dietary intake questions.

CDC monitors the implementation of Youth Risk Behavior Surveys by states and cities. In 2023, only 37 states implemented their own YRBS and obtained data representative of students in their state. In addition, variation across jurisdictions in sampling techniques, questions, and survey administration procedures prohibit the calculation of national estimates

from state-level results.

A.5. IMPACT ON SMALL BUSINESSES OR OTHER SMALL ENTITIES

The planned data collection does not involve small businesses or other small entities.

A.6. CONSEQUENCES OF COLLECTING THE INFORMATION LESS FREQUENTLY

YRBS data are gathered *biennially* from a nationally representative sample of high school students using a cross-sectional design. Data must be collected biennially to detect any changes in priority health-risk behaviors in this population that need to be addressed in school health programs, public education campaigns, demonstration efforts, technical assistance, or professional education/training, especially those sponsored by CDC. Due to the speed with which many of these problems will take an increasing toll on human suffering and financial burden, which will be heavily borne by the Federal government, it is imperative to conduct the survey biennially. School systems have the capacity to change their school health programs to help prevent health-risk behaviors that contribute to the leading causes of mortality and morbidity on an annual basis if circumstances require. Originally, the YRBS was proposed and approved as an *annual* survey. Based on experience, it was determined that biennial administration of YRBS is sufficient to meet the programmatic needs of CDC and other Federal agencies. The validation study is a one-time data collection that will take place in 2025.

A.7. SPECIAL CIRCUMSTANCES RELATING TO THE GUIDELINE OF 5 CFR 1320.5

The request fully complies with regulation 5 CFR 1320.5. No special circumstances are applicable to this proposed survey.

A.8. COMMENTS IN RESPONSE TO THE FEDERAL REGISTER NOTICE AND EFFORTS TO CONSULT OUTSIDE THE AGENCY

CDC published a *Federal Register* notice of the proposed data collection on February 9, 2024, Volume 89, No. 28, pp. 9152-9153 (60-Day Federal Register Notice, **Attachment C**). In response to one reviewer, CDC provided copies of the data collection instruments. One non-substantive comment was received (**Attachment D**).

Consultations on the design, instrumentation, products, and statistical aspects of the YRBS have occurred at critical junctures during its original design and have continued since it originally received OMB clearance. The purposes of such consultations were to ensure the technical soundness and user relevance of survey results; to verify the importance, relevance, and accessibility of the information sought in the survey; to assess the clarity of instructions; and to minimize respondent burden.

Six major phases of consultation have occurred. Phase one involved several noted sampling experts and others who discussed sampling strategies for the YRBS. Phase two helped delineate the questionnaire content and develop/identify survey questions through a series of panel meetings involving Federal agencies, representatives of SEAs and LEAs, and members of the scientific community. Phase three involved consultations with users of the YRBS data, including representatives from all CDC-funded SEAs and LEAs. Phase four involved a systematic solicitation by CDC of all identified Federal and non-Federal users of the YRBS. Phase five involved a review of the YRBS by an External Review Panel composed of survey and programmatic experts in the field of adolescent and school health from academia and state

agencies. Phase six involved an external peer review prompted by the Notice of Action for the previous OMB approval for the national YRBS (OMB No. 0920-0493, expiration, 11/30/2019). OMB requested that the YRBS undergo an external peer review prior to submitting the next package for approval. To ensure continuous scientific rigor of the sample design, best practices for recruitment, and efficient strategies to maximize participation rates, a panel of four experts was convened in April 2018.

Phase One: Consultations with Sampling Experts

On August 9, 1989, CDC and contractor staff met in Washington, D.C. with OMB and several sampling experts and Federal agency representatives to discuss the sampling plan for the YRBS. The results of these consultations are reflected in the sampling plan in Part B of the clearance package. Specifically, school districts and schools deciding *not* to participate in the survey would not be replaced on the assumption that refusing schools would be systematically different from cooperative schools so that replacement of refusing schools would introduce bias into the results. In addition, Common Core Data (CCD) provided by the National Center for Educational Statistics would be used to ensure adequate oversampling of African American and Hispanic students.

The following people were among the key participants at this meeting:

Robert Burton, Ph.D. (deceased)
National Center for Education Statistics

Leslie Kish, Ph.D. (deceased)
Institute for Social Research
University of Michigan

Jerry Coffey, Ph.D. (retired)
Office of Management and Budget

Jim Scanlon (retired)
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Joe Fred Gonzales, Jr.
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Ron Wilson, M.S. (retired)
National Center for Health Statistics

Morris Hansen, Ph.D. (deceased)
Westat, Inc.

Seymour Sudman, Ph.D. (deceased)
Department of Statistics
University of Illinois at Champaign-
Urbana

Continuing consultations with sampling experts have been held to ensure the continuing appropriateness of the YRBS sampling plan. The original YRBS sampling plan was reviewed by NCHS.

Phase Two: Consultations in Survey Delineation and Instrument Design

Extensive consultations were held over approximately 8 months to delineate the original YRBS questionnaire content. This process began in March 1989 with the formation of a steering committee which included representatives of the U.S. Department of Education; the National Center for Chronic Disease Prevention and Health Promotion/CDC; the National Center for Health Statistics/CDC; the Office of Disease Prevention and Health Promotion; the Office of the Assistant Secretary for Planning and Evaluation; the Maternal and Child Health Bureau/Health

Research Services Administration; and the Society of State Directors of Health, Physical Education, and Recreation. In addition, a representative from each of the six PHS agencies with significant responsibility for one of the categories of health-risk behaviors to be measured by the YRBS served on the steering committee. The six agencies were: the Division of Epidemiology and Prevention Research/National Institute on Drug Abuse; the National Center for Injury Prevention and Control/CDC; the Office on Smoking and Health/NCCDPHP/CDC; the Division of Reproductive Health/NCCDPHP/CDC; the Division of Nutrition/NCCDPHP/CDC; and the Division of Chronic Disease Control and Community Intervention/NCCDPHP/CDC. See **Attachment F** for a list of Expert Reviewers for the 1989 Consultations.

The representative from each of these six Public Health Service agencies was asked to chair a panel to delineate the most important behaviors to be addressed and items to measure each behavior. Each panel chair identified a group of Federal agency experts to provide consultation and advice. On August 10-11, 1989, the six chairs, the expert Federal consultants, and one or two representatives from state departments of education convened to identify specific priority behaviors within each major category of risk behavior, and to recommend the best items to measure each behavior for a draft questionnaire. Each panel was asked to address the following questions:

- What are the most important health outcomes that result from risk behaviors in your categorical area?
- What national health objectives for the year 2000, presented in *Healthy People 2000*, are relevant to your categorical area?
- What are the highest priority health behaviors established during youth that should be addressed to help reduce the most important health outcomes?
- What questions should be used to measure each priority behavior most effectively?

After the questionnaire design meeting, the chairs summarized the recommendations and survey items proposed by each panel. These summaries were sent for review to persons responsible for health education and/or HIV education in every SEA and LEA funded by CDC and to topic area experts in the scientific community. Based on their comments, a draft questionnaire was developed and, on October 11, 1989, presented to representatives of the SEAs and LEAs holding cooperative agreements in HIV education with CDC. Based on their feedback, the draft questionnaire was refined.

Phase Three: Continuing Consultations with Users of YRBS Data

Continuing consultations have been held with other Federal agencies, members of the scientific community, and other various non-Federal users of YRBS data. In addition, consultations have been held with state and local agencies that conduct similar surveys. The vehicles for these continuing consultations have included annual meetings of all of the cooperative agreement holders funded by the Division of Adolescent and School Health; a series of training programs for state and local agencies on the YRBS; site visits to funded state and local agencies; and presentations at a variety of national conferences. On the basis of these consultations over time, the clarity of several questions has been improved and a limited number of questions have been deleted entirely. In addition, the need for adding questions related to National Education Goal 7 (Safe and Drug Free Schools) emerged from continuing discussions with the National Education Goals Panel. While the overall structure and content of the YRBS questionnaire has remained the same since it originally was designed, these improvements have eliminated some flaws in the questionnaire and increased the usefulness of the data to Federal

agencies other than CDC and non-Federal users.

Phase Four: Systematic Solicitation of Comments from Federal and non-Federal YRBS Users

In 1998, CDC undertook an in-depth, systematic review of the YRBS questionnaire. The review was motivated by multiple factors, including a goal for the YRBS to measure national health objectives for 2010 that were being developed at the time. The purpose of the review and subsequent revision process was to ensure that the questionnaire would provide the most effective assessment of the most critical priority health-risk behaviors among young persons. To guide the decision-making process, CDC solicited input from content experts from CDC and academia as well as from representatives from other federal agencies; state and local education agencies; state health departments; and national organizations, foundations, and institutes. The Federal agencies consulted included: the Bureau of Indian Affairs (BIA); the Department of Agriculture; the Department of Education; the Food and Drug Administration (FDA); the Indian Health Service (IHS); the National Cancer Institute (NCI); the National Center for Health Statistics (NCHS); the National Institute of Child Health and Human Development (NICHD); the National Heart, Lung, and Blood Institute (NHLBI); and the Substance Abuse and Mental Health Services Administration (SAMHSA).

On the basis of input received from approximately 800 persons, CDC developed a proposed set of questionnaire revisions, which were sent to all state and local education agencies for further input. In addition to considering the amount of support from state and local education agencies for the proposed revisions, CDC considered multiple factors in making final decisions regarding the questionnaire, including 1) input from the original reviewers, 2) whether the question measured a health-risk behavior practiced by youth, 3) whether data on the topic were available from other sources, 4) the relationship of the behavior to the leading causes of morbidity and mortality among youth and adults, and 5) whether effective interventions existed that could be used to modify the behavior. As a result of this process, CDC created the 1999 YRBS questionnaire. This questionnaire included several new questions, including height and weight (so that body mass index can be calculated), dating violence, use of heroin and methamphetamines, milk consumption, time spent watching television, being injured while exercising, use of sunscreen, and medical and dental examinations.

In 2000, CDC, in consultation with 75 representatives from state and local education agencies, representatives from CDC divisions that use health behavior data, and representatives from other federal agencies, made minor modifications to the 1999 version of the questionnaire to create the 2001 questionnaire. In 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, 2018, 2020, and 2022 a similar consultation process was conducted to create the 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, and 2019, 2021, and 2023 questionnaires, respectively. Because the YRBS is a school-based survey and student respondents have a single class period of approximately 45 minutes to complete the questionnaire, the length of the questionnaire is limited. Therefore, when revising the questionnaire, adding new questions typically requires the deletion of an equal number of existing questions. Input from users of YRBS data is critical in ensuring these additions and deletions result in a questionnaire that assesses the current priority risk behaviors, while keeping in mind the need to monitor trends in behaviors over time.

Phase Five: Consultations with Division-wide External Review Panel

In 2007, all surveillance activities conducted by the Division of Adolescent and School Health at CDC, including the YRBS, were closely examined by an External Review Panel. The Panel was composed of the following individuals:

Joyce L. Epstein, Ph.D.
Director, Center on School, Family, and
Community Partnerships and the National
Network of Partnership Schools
Johns Hopkins University
3003 North Charles Street, Suite 200
Baltimore, MD 21218

Glenn Flores, MD, FAAP
Professor and Chief
Division of General Pediatrics
UT Southwestern Medical Center
5323 Harry Hines Blvd
Dallas, TX 75390
Glenn Flores, MD

Deanna M. Hoelscher, PhD, RD, LD,
CNS
Director, Michael & Susan Dell Center
for Advancement of Healthy Living
Associate Professor
UTSPH Austin Regional Campus
313 E. 12th Street, Suite 220
Austin, TX 78701

Philip Huang, MD, MPH
Medical Director
Chronic Disease Prevention
Texas Department of State Health
Services
1100 W. 49th Street
Austin, TX 78756

Donna Mazyck, RN, MS, NCSN
Maryland State Department of Education
Division of Student, Family and School Support
200 West Baltimore Street
Baltimore, MD 21201

Beth Pateman, Professor
Elementary Co-Director
Institute for Teacher Education
1776 University Ave.
Everly Hall 223
University of Hawaii at Manoa
Honolulu, HI 96822

Phyllis E. Simpson, Ph.D.
Retired
1020 Springbrook Drive
DeSoto, Texas 75115
Bonita F. Stanton, MD (deceased)
Professor and Chair, Dept. of Pediatrics
Wayne State University
Address: Children's Hospital of Michigan
3901 Beaubien
Detroit MI 48201

Carlos A. Vega-Matos
Provider Support Services
Office of AIDS Policy and Programs
600 South Commonwealth Avenue, 6th Floor
Los Angeles, CA 90012

The YRBS-specific purposes of the External Review Panel were to: 1) evaluate the scientific quality of the YRBS; 2) evaluate the public health impact of YRBS data; and 3) judge the relevance of the YRBS to public health, stakeholder, Administration, and Congressional priorities. The questions posed to the research panel included: 1) is the YRBS relevant to programmatic activities of the division and an appropriate fit for CDC; 2) is the YRBS methodology consistent with current scientific knowledge; 3) how can CDC help its partners to do a better job of interpreting and using YRBS data to improve school health policies and programs; and 4) what are the panel's recommendations on changes that should be made in the focus or quality of the YRBS? In the final report, the panel concluded the YRBS is an outstanding example of CDC's surveillance efforts and an excellent fit for the agency. The collection of quality data across youth health-risk behaviors sets the YRBS apart from other categorical surveys. These data sets and the reports generated from them are widely regarded as

among the richest sources of data available on adolescents, nationally and worldwide.

Phase Six: External Peer Review Panel

At the request of OMB, an additional External Review Panel was convened in April 2018. Four experts in survey methodology, school-based data collection, and health surveys commented on the YRBS methodology and offered recommendations for improvement. Specifically, the topics of discussion were frame development and sampling design, maximizing participation, transition to a mixed mode methodology and YRBS strategy to address emerging topics. The Panel report is provided in **Attachment G**. The Panel was composed of the following individuals:

Laura Clary, PhD
Faculty Research Associate,
Bloomberg School of Public Health
Johns Hopkins University
615 N Wolfe St
Baltimore, MD 21205

Susan Queen, PhD
Director, Office of Planning, Budget, and
Legislation
National Center for Health Statistics
3311 Toledo Road
Hyattsville, MD 20872

Jennifer Parker, PhD
Director, Division of Research and
Methodology
National Center for Health Statistics
3311 Toledo Road
Hyattsville, MD 20872

Andy Zukerberg, MS
Chief, Cross Sectional Surveys Branch, Sample
Surveys Division
National Center for Education Statistics
550 12th Street, SW Rm 4001
Washington, D.C. 20202

Validation study

Subject matter experts (SMEs) from CDC’s Division of Adolescent and School Health have had multiple consultations with SMEs from CDC’s Division of Nutrition, Physical Activity, and Obesity (DNPAO); a nutritional epidemiologist at the National Institutes of Health National Cancer Institute (NCI); as well as researchers from the Gretchen Swanson Center for Nutrition and the University of Texas. The researchers from the University of Texas have developed and tested surveys to measure dietary intake among students from grades 4-12 who participate in the Texas School and Physical Activity Survey (SPAN). The Texas SPAN survey instruments have been validated in students as young as 4th grade and serve as the basis for the new questions being tested as part of this validation study (Thiagarajah et al. 2008, Hoelscher et al. 2003).

Name	Title	Affiliation	Phone	Email	Role
<i>OUTSIDE CONSULTANTS</i>					
Kirsten Herrick, PhD, MSc	Program Director, Risk Factor Assessment Branch Epidemiology and Genomics Research Program	National Cancer Institute (NCI)			Understanding of adolescent dietary intake patterns, dietary surveillance, nutritional epidemiology
Amy Lazarus Yaroch, PhD	Executive Director	Gretchen Swanson			Nationally recognized dietary assessment expert

		Center for Nutrition			
Carmen Byker Shanks, PhD RDN	Principal Research Scientist	Gretchen Swanson Center for Nutrition			Oversees a current validation study
<i>ACADEMIC INSTITUTIONS</i>					
Deanna Hoelscher, PhD, RD, LD, CNS	Director, Michael & Susan Dell Center for Healthy Living	University of Texas, Austin			Previously validated single-item fruit and vegetable measures in elementary and middle school students
Ethan Hunt, PhD, MPH	Assistant Professor, Health Promotion & Behavioral Sciences	University of Texas, Austin			Worked with Dr. Hoelscher on Student Physical Activity and Nutrition Study in Texas schools.

Consultations within CDC (2023)

Name	Title	Affiliation	Phone	Email	Role
Heidi Blanck, PhD	Branch Chief	DNPAO	N/A	hcb3@cdc.gov	Identify priority topics in nutrition
Diane Harris, PhD	Team Lead for Food Service Guidelines	DNPAO	N/A	hva6@cdc.gov	Input from data-users in the field
Deb Galuska, PhD	Associate Director for Science	DNPAO	N/A	dbg6@cdc.gov	Assessment methodology
Seung Hee Lee, PhD	Epidemiologist	DNPAO	N/A	xde5@cdc.gov	Experience with changing FV items on BRFSS
Caitlin Merlo, MPH, RDN	Health Scientist	DASH	N/A	ihb7@cdc.gov	Survey question development and analysis methodology
Sarah Sliwa, PhD	Health Scientist	DASH	N/A	xxh8@cdc.gov	Survey question development and analysis methodology

A.9. EXPLANATION OF ANY PAYMENT OR GIFT TO RESPONDENTS

For both the national YRBS and the validation study, schools will be given \$500 in appreciation for their participation. No payments will be offered or made to student respondents. OMB first suggested in 1999 that CDC offer tokens of appreciation to schools participating in the YRBS as a means of improving school response rates and, thereby, improving the generalizability of results. CDC adopted this procedure in the 2001 YRBS to allow the YRBS to continue to compete effectively with other school-based data collections. Increasingly in recent years, school-based data collections, most of which do not fall under OMB review, have offered financial tokens of appreciation to increase or at least maintain school participation rates. For the

2021 YRBS, (OMB Number 0920-0493, expiration date 11/23), this token of appreciation helped maintain school participation rates despite the growing number of competing demands placed on schools, including standardized testing, changes to curriculum based on adoption of Common Core Standards, and the impact of the COVID-19 pandemic.

A.10. PROTECTION OF THE PRIVACY AND CONFIDENTIALITY OF INFORMATION PROVIDED BY RESPONDENTS

For both the YRBS and the validation study, activities do not involve the collection of individually identifiable information (IIF). Data collected from school administrators during recruitment is information available in the public domain and school administrators will not be providing personal information. Teachers will be required to enter student names or another identifier on a Permission Form Tracking Log (**Attachments H1 and H2**) to monitor parent permission form returns and make sure that questionnaires are completed only by students for whom permission has been obtained. The Permission Form Tracking Log is securely stored in accordance with human subject protection best practices and later destroyed at the conclusion of the survey administration. The Permission Form Tracking Log is not forwarded to the CDC. At the start of the survey administration and the dietary recall interview, students will be reminded by the survey administrator (**Attachments I1 and I2**) that their responses are anonymous that no identifiable information is collected in the tablet survey or in the interview. At no point in time is there any way to connect students' names to their data.

All selected schools, students, and their parents will be informed that anonymity will be maintained throughout data collection and that no institutional or individual identifiers will be used in study reports. "CDC will keep the information that you provide private and secure to the extent permitted by law." Anonymity also will be promised to students and their parents on parental permission forms (**Attachments J1, J2, and J6**).

Several actions will be taken to help ensure anonymity. The survey will be administered in a classroom setting, with adequate space between respondents. No personal identifiers will appear on survey questionnaires. Students will log into the survey application using a randomly generated, randomly distributed, 5-digit alphanumeric access ID that is connected in the backend database to a school identification number, again for weighting purposes only. The connection between the school identification number and the school name will be retained only long enough to complete data collection. Once data collection is complete, this connection will be destroyed, never transmitted to CDC. For the validation study, these access IDs will be used to link the student's survey data to their interview data without using names or other IIF. All electronic data collected during the surveys and the interview will be stored on secured servers and will be accessible only to staff directly involved in the project.

A.11. INSTITUTIONAL REVIEW BOARD (IRB) AND JUSTIFICATION FOR SENSITIVE QUESTIONS

IRB Approval

The YRBS data collection has received IRB approval from the CDC Human Research Protection Office (protocol #1969, expiration: 11/10/2024). The validation study received IRB approval from the CDC Human Research Protection Office on June 20, 2024 (protocol #7497). All IRB Approval Letters can be found in **Attachment K**.

The YRBS includes questions that might be considered sensitive, such as those asking about sexual intercourse, alcohol and other drug use, weapon carrying, and suicidal ideation and

attempts. In fact, depending on the student and the setting in which questions are asked, nearly any health-risk behavior, including tobacco use and physical activity, could be considered sensitive. However, the sensitive questions are necessary to the purpose of risk behavior surveillance. The behaviors covered in the questionnaire are the major behaviors known to cause mortality and morbidity. During the past 30 years, one of the primary responsibilities of CDC has been to monitor for the nation priority health-risk behaviors among youth. To monitor such behaviors, CDC must ask youth about their participation in them. Students are told prior to the start of the survey that “This survey is about health behavior. It has been developed so you can tell us what you do that may affect your health. The information you give will be used to develop better health education for young people like yourself.”

Sensitive Questions

The questions were developed in close cooperation with representatives from school systems across the nation and are presented in a straightforward and sensitive manner.

Parental permission to participate in both the YRBS and the validation study will be obtained. **Attachment J** contains the parental permission forms in English (**Attachments J1 and J6**) and Spanish (**Attachment J2**), the distribution scripts (**Attachments J3 and J7**) to be read by the teacher when passing out the permission form, and the parental permission form reminder notice in English (**Attachment J4**) and Spanish (**Attachment J5**). At each school, local procedures for sending home parental permission forms will be followed. Schools will be asked to ensure permission forms are distributed at least 10 days before the survey administration. Teachers track the return of parental permission forms on the Permission Form Tracking Log to ensure that only students with parental permission participate. A waiver of written student assent was obtained for the participation of children because this research presents no more than minimal risk to subjects, parental permission is required for participation, the waiver will not adversely affect the rights and welfare of the students because they are free to decline to take part, and it is thought that some students may perceive they are not anonymous if they are required to provide stated assent and sign a consent/assent document. Students are told “Participating in this survey is voluntary and your grade in this class will not be affected, whether or not you answer the questions.” Initiation of the survey implies student assent.

A.12. ESTIMATES OF ANNUALIZED BURDEN HOURS AND COSTS

The estimated burden for this information collection is based on over 30 years of experience conducting the YRBS. For the national YRBS, the planned information collection involves administration of the YRBS questionnaire (**Attachment L1**) to independent samples of students in 2025 and 2027. Respondents include state-level, district-level, and school-level administrators who provide information requested in the Recruitment Script for the YRBS (**Attachment M1-M3**), teachers who complete the Permission Form Tracking Log for the YRBS (**Attachment H1**), and students who receive instructions for and complete the YRBS questionnaire (**Attachment L1**). More information about the Permission Form Tracking Log is detailed in section B.2.

The YRBS will be conducted in 2025 and 2027 among nationally representative samples of students attending public and private schools in grades 9-12. At state, school district, and school levels, the cooperation of educational administrators will be sought in recruitment of sampled schools. For each cycle of data collection, the number of states, school districts, and schools whose administrators will be contacted is estimated at 25, 120, and 200, respectively. The combined total number of respondents for the 2025 YRBS and the 2027 YRBS, by type, will

include: state-level administrators (n=50), district-level administrators (n=240), and school-level administrators (n=400) who provide information in the Recruitment Script for the YRBS, teachers (n=1,320) who complete the Permission Form Tracking Log for the YRBS, and students (n=24,134) who receive instructions for and complete the YRBS questionnaire. These totals annualized over the 3-year study period are provided in Table A-12.a.

For the validation study, the planned information collection involves administration of a dietary behavior questionnaire (**Attachment L2**) and 24-hour dietary recall interviews (**Attachment L3**) to a sample of students. Respondents include school-level administrators who provide information requested in the Recruitment Script for the validation study (**Attachment M4**), teachers who complete the Permission Form Tracking Log for the validation study (**Attachment H2**), and students who receive instructions for and complete the questionnaire and dietary recall interviews. The validation study will take place only one time, in 2025. The study will use a convenience sample of approximately 18 schools to yield an estimated 600 participating students. Totals annualized over the 3-year clearance period are provided in Table A-12.a.

For both the YRBS and the validation study, there are no costs to respondents except their time. The total estimated burden hours annualized over the three-year clearance period is 4,389 (Table A-12.a).

Table A-12.a. Estimated Annualized Burden Hours

Type of Respondent	Form Name	No. of Respondents	No. of Responses per Respondent	Average Burden Per Response (In Hours)	Total Burden (In Hours)
State Administrators	State-level Recruitment Script for the Youth Risk Behavior Survey (Att M1)	17	1	30/60	9
District Administrators	District-level Recruitment Script for the Youth Risk Behavior Survey (Att M2)	80	1	30/60	40
School Administrators	School-level Recruitment Script for the Youth Risk Behavior Survey (Att_M3)	133	1	30/60	67
School Administrators	School-level Recruitment Script for the Validation Study (Att_M4)	6	1	30/60	3
Teachers	Permission Form Tracking Log for the Youth Risk Behavior Survey (Att_H1)	440	1	15/60	110
Teachers	Permission Form Tracking Log for the Validation Study (Att_H2)	14	1	15/60	4
Students	Youth Risk Behavior Survey Questionnaire (Att L1)	8,045	1	30/60	4,023
Students	Dietary Behavior Questionnaire (Att L2)	200	1	10/60	33
Students	24-hour Dietary Recall Interview (Att L3)	200	1	30/60	100
Total Burden					4,389

Estimated Annualized Cost to Respondents

For this information collection, there are no direct costs to the respondents themselves or to participating schools. However, the cost for administrators, teachers, and students can be calculated in terms of their time in responding to the 2025 and 2027 YRBS and the validation study as seen in Table A-12.a. Table A-12.b illustrates the total calculation of burden costs for the 2025 and 2027 YRBS and the validation study. In each category, the estimated respondent burden hours have been multiplied by an estimated average hourly salary for persons in that

category. The Bureau of Labor Statistics is the source for hourly wages (<http://www.bls.gov/bls/blswage.htm>). The estimated burden cost in terms of the value of time students spend in responding are based on a minimum wage for students aged less than 20 years of \$4.25/hour (<http://www.dol.gov/dol/topic/wages/minimumwage.htm>). The combined total estimated respondent burden cost for conducting the YRBS in 2025 and 2027 and the validation study in 2025 annualized over the three-year study period is \$82,827.

Table A-12.b. Annualized Estimated Burden Costs

Type of Respondent	Form Name	No. of Respondents	No. of Responses per Respondent	Average Burden Per Response (In Hours)	Total Burden Hours	Hourly Wage Rate	Total Respondent Costs
State Administrators	State-level Recruitment Script for the Youth Risk Behavior Survey	17	1	30/60	9	\$48.02	\$432
District Administrators	District-level Recruitment Script for the Youth Risk Behavior Survey	80	1	30/60	40	\$51.05	\$2,042
School Administrators	School-level Recruitment Script for the Youth Risk Behavior Survey	133	1	30/60	67	\$51.87	\$3,475
School Administrators	School-level Recruitment Script for the Validation Study	6	1	30/60	3	\$51.87	\$156
Teachers	Permission Form Tracking Log for the Youth Risk Behavior Survey	440	1	15/60	110	\$33.69	\$3,706
Teachers	Permission Form Tracking Log for the Validation Study	14	1	15/60	4	\$33.69	\$135
Students	Youth Risk Behavior Survey Questionnaire	8,045	1	30/60	4,023	\$4.25	\$17,098
Students	Dietary Behavior Questionnaire	200	1	10/60	33	\$4.25	\$140
Students	24-hour Dietary Recall Interview	200	1	30/60	100	\$4.25	\$425
Total							\$27,609

A.13. ESTIMATES OF OTHER TOTAL ANNUAL COST BURDEN TO RESPONDENTS OR RECORD KEEPERS

There will be no respondent capital or maintenance costs.

A.14. ANNUALIZED COST TO THE GOVERNMENT

The national YRBS is funded under Contract No. 200-2022-F-13806. The total contract cost for conducting the 2025 and 2027 YRBS is \$6,294,904 over a 52-month period. Thus, the annualized contract cost is approximately \$1,452,670. These costs cover the activities in Table A-14a below.

The validation study is funded under Contract No. 22FED2200255DP1. The total contract award to Deloitte is \$365,919 over a 36-month period. Thus, the annualized contract cost is \$121,973. These costs cover the activities in Table A-14b below.

For both the national YRBS and the validation study, additional costs will be incurred indirectly by the government in personnel costs of staff involved in oversight of the study and in conducting data analysis. For the national YRBS, it is estimated that one CDC employee will be involved for approximately 10% of her time (for federal personnel 100% time=2080 hours annually) at a salary of \$80.71 per hour. The direct annual costs in CDC staff time to support the national YRBS will be approximately \$16,788 annually. For the validation study, it is estimated that three CDC employees will be involved. Two CDC employees will be involved for approximately 5% of their time at salaries of \$63.05 and \$68.30 per hour, respectively. One CDC employee will be involved for approximately 3% of her time at a salary of \$80.71 per hour. The direct annual costs in CDC staff time will approximate \$6,556 + \$7,103 + \$5,036 = \$18,695 annually.

The total cost for both the national YRBS and the validation study over the 52-month contract period, including the contract cost and federal government personnel cost is \$6,696,306. The annualized cost to the government for will be \$1,469,458 + \$140,668= \$1,610,126.

Table A-14a. Estimated Annualized Study Hours and Cost: national YRBS

Activity	Total Costs
<i>Contract Costs</i>	
Design and plan	\$148,995
Programming and developing	\$130,551
Recruitment and preparation	\$167,206
Printing and distribution	\$39,876
Recruiting and training	\$111,682
Collection of data	\$649,823
Processing, cleaning, weighting, and developing data files	\$140,270
Dissemination and reporting of results	\$64,268
Subtotal	\$1,452,670
<i>Federal Employee Time Cost</i>	
10% time for one CDC employee	\$16,788
Average Annualized Cost	\$1,469,458

Table A-14b. Estimated Annualized Study Hours and Cost: validation study

Activity	Total Costs
<i>Contract Costs</i>	
Design and plan	\$16,667
Recruitment and scheduling	\$4,620
Materials (tablets)	\$4,400
Collection of data	\$67,547
Processing, cleaning, and developing data files	\$15,360
Subtotal	\$108,594
<i>University of Minnesota Subcontract</i>	
Lease of 24-hour recall software	\$6,360
Data collector training	\$7,019
Subtotal	\$13,379
<i>Federal Employee Time Cost</i>	
5% time for two CDC employees	\$13,659
3% time for one CDC employee	\$5,036
Subtotal	\$18,695
Average Annualized Cost	\$140,668

A.15. EXPLANATION OF PROGRAM CHANGES OR ADJUSTMENTS

The proposed study is a reinstatement of the national YRBS conducted in 2023, with changes. CDC seeks to reinstate the information collection for a period of three years in order to conduct the YRBS in 2025 and 2027. The reinstatement adds a validation study, the results of which will be used to inform potential changes to the fruit and vegetable questions on the 2027 version of the YRBS questionnaire. This validation study adds 140 hours to the total burden. In addition, minor changes incorporated into this reinstatement request include an updated title for the information collection to accurately reflect the years in which the YRBS will be conducted and a slightly modified questionnaire (**Attachment L1**). The 2025 YRBS questionnaire (**Attachment L1**) was created by modifying the 2023 YRBS questionnaire.

A.16. PLANS FOR TABULATION AND PUBLICATION AND PROJECT TIME SCHEDULE

Tabulation Plans

For the national YRBS, data will be tabulated in ways that will address the principal research purposes outlined in Sections A.1 and A.2. The planned analyses to be conducted by CDC are described briefly below:

1. *Estimate the extent to which high school students engage in behaviors placing them at risk for the major short- and long-term causes of mortality and morbidity--Descriptive statistics (percentages and confidence intervals) will be calculated to address this objective.*
2. *Assess the degree to which engaging in health-risk behaviors varies by student as a*

function of sex, age, grade in school, and race/ethnicity--Cross tabulations, Chi-square analyses, and regression analysis initially will be conducted to address this objective. Subsequently, student demographic characteristics will be regressed against behaviors.

3. *Determine the interrelationships among health-risk behaviors and whether these interrelationships vary as a function of sex, age, grade in school, and race/ethnicity*--Correlation matrices and a variety of multiple regression techniques will be used to determine the relationships among health-risk behaviors. Discriminant analyses will be used to predict risk of certain events (e.g., suicide attempts; adolescent pregnancy). Correlation matrices and a variety of multiple regression techniques also will be used to assess the contributions of demographic factors to interrelationships among health-risk behaviors.
4. *Estimate the extent to which high school students engage at school in health-risk behaviors involving tobacco, alcohol, and other drug use or contributing to violence, and determine whether this pattern changes over time*--Descriptive statistics (percentages and confidence intervals) will be calculated to quantify the extent of such behaviors. Trend analyses will be conducted to assess changes over time.
5. *Describe the trends in health-risk behaviors and assess the degree to which these trends vary as a function of gender, age, grade in school, and race/ethnicity*--Multiple regression analyses that control for sex, grade, and race/ethnicity and that simultaneously assess linear and higher order time effects will be used.

Examples of the table shells that will be completed through analysis of the data are in **Attachment O**.

For the validation study, inferential statistics (t-tests and Pearson's correlations) will be used to determine concordance between data collected from the dietary behavior surveys and data collected from the 24-hour recall interviews. Analyses also will be stratified by race/ethnicity and sex to ensure that the questions are effective across various demographic backgrounds.

Publication Plans

The YRBS results are regularly made available to the public through a variety of publications and through the annual conferences of several national organizations. The publications include analyses of the results and assessment of the implications of results for school health education and related efforts to reduce health-risk behaviors and associated health problems among youth.

The following journals have carried articles on the YRBS design and results and are expected to serve as continuing vehicles for distribution of YRBS results, including the results of the validation study: *Accident Analysis and Prevention; Adolescence; Adolescent Medicine; AIDS Education and Prevention; Alaska Medicine; Alcohol Health and Research World; the American Journal of Clinical Nutrition; the American Journal of College Health; the American Journal of Epidemiology; the American Journal of Health Behavior; the American Journal of Preventive Medicine; the American Journal of Public Health; Annals of Emergency Medicine; Annals of Internal Medicine; the Archives of Pediatric and Adolescent Medicine; Clinical Journal of Sports Medicine; Contraception Report; Drug and Alcohol Dependence; Ethnicity and Disease; Evaluation Review; Family and Community Health; Family Planning Perspectives; Health Education and Behavior; Health Education Research; Health Services Research; Health Values; International Journal of Circumpolar Health; International Journal of Eating Disorders; Journal of Addictions and Offender Counseling; the Journal of Adolescent Health;*

the *Journal of the American Medical Association*; the *Journal of Child and Family Studies*; the *Journal of Consulting and Clinical Psychology*; the *Journal of Drug Education*; the *Journal of Drug Issues*; the *Journal of Health Education*; the *Journal of Interpersonal Violence*; the *Journal of Pediatrics*; the *Journal of School Health*; the *Journal of Sex Education and Therapy*; the *Journal of Studies on Alcohol*; the *Journal of the American Dietetic Association*; the *Journal of Youth and Adolescence*; *Maternal and Child Health Journal*; *Medicine and Science in Sports and Exercise*; the *Morbidity and Mortality Weekly Report*; *Obesity Research*; *Pediatric Nursing*; *Pediatrics*; *Preventive Medicine*; *Psychological Reports*; *Psychology in Schools*; *Public Health Reports*; *School Psychology International*; *Sexually Transmitted Diseases*; *Social Indicators Research*; *Sociology of Sport Journal*; *Substance Use and Misuse*, *Suicide and Life-threatening Behavior*; *Tobacco Control*; and *Vital and Health Statistics*. An entire special issue of *Public Health Reports* documented the development and rationale of the Youth Risk Behavior Surveillance System. The YRBS results have been cited in literally thousands of articles and stories by print and broadcast media.

CDC has distributed the YRBS results primarily through its flagship publication, the *Morbidity and Mortality Weekly Report* (MMWR).

Awareness of the risk behaviors among high school students was promoted among the thousands of individuals who received information through multiple channels (e.g., print, television, radio, online) based on the press release announcing the release of the 2021 YRBS Data Summary and Trends Report ([YRBSS Data Summary & Trends | DASH | CDC](#)) in February 2023. The press release yielded impressive coverage including 437 unique stories and an additional 888 stories via syndication. The potential audience reach for this media coverage totaled 2.5 billion and included syndication from the Associated Press, ABC News, and others. The 2023 YRBS data release is scheduled for August 2024 and is expected to generate similar coverage.

YRBS results are also made available via the Internet on a public-facing website (www.cdc.gov/yrbs). The website includes the following materials: an overview of the YRBS, tables that compare state and national results and district and national results, and selected YRBS publications. Between April 27, 2023 (the date of the 2021 data release) and February 23, 2024, the YRBS web page received 348,832 views. The website also houses three interactive web tools that provide YRBS results. Following the April 27 release of the 2021 YRBS data, there were 302,195 views of [these web applications, available at: https://yrbs-explorer.services.cdc.gov/#/](#), <https://yrbs-analysis.cdc.gov/>, and <https://nccd.cdc.gov/Youthonline/App/Default.aspx>.

In addition, YRBS results have been and will be distributed through the publications and annual conferences of many national health and education organizations including the following: the American Alliance for Health, Physical Education, Recreation and Dance; the American Association of School Administrators; the American College Health Association; the American Medical Association; the American Public Health Association; the American School Health Association; the Council of Chief State School Officers; the National Association of Secondary School Principals; the National Association of School Nurses; the National Association of State Boards of Education; the National Education Association; the National Parent Teacher Association; the National School Boards Association, and the Society for Adolescent Health and Medicine.

Time Schedule for the Project

The following represents our proposed schedule of activities for the YRBS, in terms of months after receipt of OMB clearance. Ideally, data collection must begin in the first month of the second semester of school (i.e., January 2025 and 2027). The end date for data collection is constrained by the dates on which schools close for the summer. In addition, given that the final months of school are often extremely busy (e.g., finals, field trips, graduation, early release for 12th graders), it is highly desirable to complete data collection one to two months before schools close for the summer; i.e., by the end of April. Key project dates will occur during the following time periods for the 2025 data collection:

<u>Activity</u>	<u>Time Period</u>
Recruit and schedule schools	1 to 3 months after OMB clearance
Program tablet-based survey application	1 to 2 months after OMB clearance
Train field data collectors	2 months after OMB clearance
Collect data	2 to 5 months after OMB clearance
Process data	6 to 7 months after OMB clearance
Weight/clean data	7 to 9 months after OMB clearance
Produce data file with documentation	10 months after OMB clearance
Analyze data	11 to 12 months after OMB clearance
Publish results	16 to 18 months after OMB clearance

Data collection is currently scheduled to occur during January through April 2025. The time schedule for the 2027 data collection will be analogous to that of the 2025 data collection. Results will be published in summer 2026 and 2028, initially in the *MMWR*, and subsequently in other publications.

For the validation study, data collection is scheduled to occur February through April 2025. Below are the key project dates:

<u>Activity</u>	<u>Time Period</u>
Recruit and schedule schools	1 to 2 months after OMB clearance
Program electronic questionnaire/purchase 24-hour dietary recall interview software	1 month after OMB clearance
Train field data collectors	2 months after OMB clearance
Collect data	3 to 5 months after OMB clearance
Process data	5 to 6 months after OMB clearance
Produce data file	7 months after OMB clearance
Analyze data	8 to 10 months after OMB clearance
Publish results	12 to 14 months after OMB clearance

A.17. REASON(S) DISPLAY OF OMB EXPIRATION DATE IS INAPPROPRIATE

The display of the OMB expiration date is not inappropriate.

A.18. EXCEPTIONS TO CERTIFICATION FOR PAPERWORK REDUCTION ACT SUBMISSIONS

There are no exceptions to the certification.

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