



Implementing a Multi-Mode Approach to Household Eligibility Screening in NHANES

Juliana McAllister, Allan Uribe, Denise Schaar, Chia-Yih Wang & Jessica Graber

2021 Federal Committee on Statistical Methodology (FCSM) Conference
November 2, 2021

Purposes

1. To describe the implementation and challenges of operationalizing a multi-mode screening process on a national health survey
2. To present completion rates by each of the four screening modes (web, paper, telephone, in-person) using pretest data collected from a single location

NHANES

- The National Health and Nutrition Examination Survey (NHANES) is designed to assess the health and nutritional status of adults and children in the United States.
- The survey began in 1960 and is unique in that it combines interviews and physical examinations with biological specimen collection.
- NHANES is a nationally representative survey that historically determined eligibility through in-person household screening.

Background

In 2021, NHANES introduced a multi-mode screening approach to include self-response (web and mail) and interviewer-administered (telephone and in-person) modes.

The screenshot shows the top of the NHANES website. At the top left is the CDC logo with the text "Centers for Disease Control and Prevention" and "CDC 24/7: Saving Lives. Protecting People™". To the right is a search bar. Below this is a blue header with "National Center for Health Statistics". Underneath is a breadcrumb trail "CDC > NCHS". The main header features the NHANES logo (an apple with a heart) and the text "National Health and Nutrition Examination Survey". Below the header is a large yellow box with a row of diverse people's faces. Inside this box, it says "Welcome to NHANES!" and "Click the box below to take part in this important national health survey. Use your unique passcode to login." Below this is a large orange button that says "Begin your Survey". To the left of this box is a smaller image of a diverse group of people. To the right is a blue box with the text: "If you have any questions or would like to complete your survey over the telephone, please call toll-free at 1-855-958-0631 and speak to a study representative. Staff are available to take your call Monday - Friday from 9 am - 5 pm EST." Below this is a link that says "Learn More about the NHANES Participant". At the bottom left, there is a section titled "Our Promise of Confidentiality" with text explaining that information is used only for statistical purposes and is protected under the Privacy Act of 1974 and the Confidential Information Protection and Statistical Efficiency Act of 2018.

This screenshot shows the introduction page for the survey. At the top right is the OMB No. 0920-0950. The main header is "National Health and Nutrition Examination Survey" in a dark blue bar. Below this is the NHANES logo and the CDC logo. The text "Centers for Disease Control and Prevention National Center for Health Statistics" is on the right. The main heading is "Questions About Your Household & Health". Below this is the text "Sponsored by: Centers for Disease Control and Prevention". There is a large image showing a diverse group of people. Below the image is a privacy notice: "We take your privacy very seriously. All information that relates to or describes identifiable characteristics of individuals, a practice, or an establishment will be used only for statistical purposes. NCHS staff, contractors, and agents will not disclose or release responses in identifiable form without the consent of the individual or establishment in accordance with section 308(d) of the Public Health Service Act (42 U.S.C. 242m) and the Confidential Information Protection and Statistical Efficiency Act of 2018 (Title III of the Foundations for Evidence-Based Policymaking Act of 2018 (Pub. L. No. 115-435, 132 Stat. 5529 § 302)). In accordance with CIPSEA, every NCHS employee, contractor, and agent has taken an oath and is subject to a jail term of up to five years, a fine of up to \$250,000, or both if he or she willfully discloses ANY identifiable information about you."

This screenshot shows the login page for the survey. It features a background image of an apple tree. At the top is the heading "Welcome to NHANES" and a paragraph explaining the survey's purpose: "The National Health and Nutrition Examination Survey (NHANES) is designed to assess the health and nutritional status of adults and children in the United States. This short online form will help us learn more about the people that live at this address. Doing this will help us know who in your household can take part in the next step of NHANES." Below this is a form with a label "To begin, please enter the passcode that was included in your invitation letter." and an input field "Enter your passcode". To the right of the input field is a "Show Passcode" link. Below the input field is a "Begin" button. At the bottom of the page are four blue buttons: "Completion Guide", "FAQs", "Privacy", and "Contact".



Implementation Goals

- To increase field efficiency by reducing the resources spent on household screening
 - This would leave more time to focus on tasks targeting identified eligible respondents (e.g., gaining cooperation, refusal conversion, and interview administration)
- To minimize in-person contact between respondents and field staff due to safety concerns in the COVID-19 environment.

NHANES Multi-Mode Approach

- Push-to-web approach
- Contact Strategy – 4 mailings
 - Initial mailing 6 weeks prior to Field Interviewer visit
 - Intervals between mailings: 7 days, 10 days, 10 days
- Undeliverable addresses excluded from mailings 3 & 4
- Each mailing included unique respondent passcode
 - Useful paradata for future research

Multi-Mode Screening – Mailings

- Push-to-web approach with 4 unique mailings

Contact Activity	Available Modes
Invitation letter (First class mail)	Web, Phone
Reminder postcard	Web, Phone
Follow-up letter & Hard Copy Questionnaire (FedEx package)	Web, Phone, Paper
Final reminder letter noting upcoming FI visit	Web, Phone, Paper



Mailing #1: Invitation Letter

Hi,

Congratulations on being invited to take part in the National Health and Nutrition Examination Survey (NHANES). As participants, you and your family represent your community. You are also helping to improve the health of people in the United States like you.

Please go to this website and answer some easy questions to see if you or someone in your family can take part in NHANES:

Web address: **XXXX.com**

Your unique passcode: **XXXX-XXXX**

Or call 1-855-958-0631 and speak to a study representative. It takes just a few minutes.

NHANES is an important national health study. The National Center for Health Statistics, at the Centers for Disease Control and Prevention, runs the study.

- For more than 60 years, NHANES has improved people's health in the United States.
- It has directly helped you and your family! For instance, it found harmful products in food and gasoline that companies then took out.
- It guides many public health projects that help people live longer, healthier lives.

Being in this study is voluntary, but we hope you participate! All of your answers are confidential. NHANES can help the nation only if people respond when selected. So please complete the short survey to see if you or your someone in your family can take part in NHANES!

Thank you,

Duong (Tony) Nguyen, DO, FAAP
Commander, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Assurance of Confidentiality – We take your privacy very seriously. All information that relates to or describes identifiable characteristics of individuals, a practice, or an establishment will be used only for statistical purposes. NCHS staff, contractors, and agents will not disclose or release responses in identifiable form without the consent of the individual or establishment in accordance with section 308(d) of the Public Health Service Act (42 U.S.C. 242m) and the Confidential Information Protection and Statistical Efficiency Act of 2018 (Title III of the Foundations for Evidence-Based Policymaking Act of 2018 (Pub. L. No. 115-435, 132 Stat. 5529 § 302)). In accordance with CIPSEA, every NCHS employee, contractor, and agent has taken an oath and is subject to a jail term of up to five years, a fine of up to \$250,000, or both if he or she willfully discloses ANY identifiable information about you.



Mailing #2: Reminder Postcard

Be a part of something
unique. Be a part
of the nation's
premier health
study.



2021 Advance Postcard

We recently sent you an invitation to do a short survey to see if anyone in your family can be a part of the National Health and Nutrition Examination Survey or NHANES. If you already finished it, thank you. If you have not, please go to this website to do the survey:

<https://www.cdc.gov/nchs/nhanes/survey.htm>

Passcode:

Or call us toll-free at 1-855-958-0631.

All of your answers are confidential.

NHANES is a large, national study. What we learn from NHANES has helped to improve people's health for more than 60 years. Your response is important!

Learn more about the study at

<https://www.cdc.gov/nchs/nhanes/>.



Mailing #3: Follow-up Letter & Paper Screener

OMB No. 0920-0950

National Health and Nutrition Examination Survey



Centers for Disease
Control and Prevention
National Center for
Health Statistics

Questions About Your Household & Health

Sponsored by: Centers for Disease Control and Prevention



We take your privacy very seriously. All information that relates to or describes identifiable characteristics of individuals, a practice, or an establishment will be used only for statistical purposes. NCHS staff, contractors, and agents will not disclose or release responses in identifiable form without the consent of the individual or establishment in accordance with section 308(d) of the Public Health Service Act (42 U.S.C. 242m) and the Confidential Information Protection and Statistical Efficiency Act of 2018 (Title III of the Foundations for Evidence-Based Policymaking Act of 2018 (Pub. L. No. 115-435, 132 Stat. 5529 § 302)). In accordance with CIPSEA, every NCHS employee, contractor, and agent has taken an oath and is subject to a jail term of up to five years, a fine of up to \$250,000, or both if he or she willfully discloses ANY identifiable information about you.



National Health and Nutrition Examination Survey

Hello,

We recently sent you an invitation to do a short survey, as part of the National Health and Nutrition Examination Survey (NHANES). If you already did it, thank you!

The answers to the survey tell us if you are eligible to be in NHANES, a study that has improved people's health for 60 years. NHANES is run by the National Center for Health Statistics at the Centers for Disease Control and Prevention.

Information learned from NHANES:

- Helped create growth charts that doctors use
- Showed that high cholesterol causes heart disease
- Taught us about dangerous chemicals in gasoline and food
- And much more!

To do the survey, either:

- Go to <https://www.cdc.gov/nchs/nhanes/survey.htm>. Your secure passcode is [xxxx-xxxx-xxxx-xx].
- Or
- Call us at 1-855-958-0631 to speak to a study representative.
- Or
- Fill out the enclosed survey form. Return it in the envelope.

Thank you for your help,

Duong (Tony) Nguyen, DO, FAAP
Commander, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Assurance of Confidentiality – We take your privacy very seriously. All information that relates to or describes identifiable characteristics of individuals, a practice, or an establishment will be used only for statistical purposes. NCHS staff, contractors, and agents will not disclose or release responses in identifiable form without the consent of the individual or establishment in accordance with section 308(d) of the Public Health Service Act (42 U.S.C. 242m) and the Confidential Information Protection and Statistical Efficiency Act of 2018 (Title III of the Foundations for Evidence-Based Policymaking Act of 2018 (Pub. L. No. 115-435, 132 Stat. 5529 § 302)). In accordance with CIPSEA, every NCHS employee, contractor, and agent has taken an oath and is subject to a jail term of up to five years, a fine of up to \$250,000, or both if he or she willfully discloses ANY identifiable information about you.



Centers for Disease
Control and Prevention
National Center for
Health Statistics

Mailing #4: Final Reminder



Hello,

Each year, we ask just a few people to be in the National Health and Nutrition Examination Survey (NHANES). This important study is run by the National Center for Health Statistics at the Centers for Disease Control and Prevention.

We recently sent you a short survey to see if you qualify for the study but did not get a response. So, we are contacting you again.

Please do the survey online at [<https://www.cdc.gov/nchs/nhanes/survey.htm>].

Your passcode is [xxxx-xxxx-xxxx-xx].

Or call us toll free at 1-855-958-0631.

By taking part, you will contribute to the health of your community and the country. All of your answers are confidential.

If we don't hear from you, an NHANES interviewer will come to your home to give you the chance to answer the questions. It takes just a few minutes.

The interviewer will have official identification. Because of the Covid-19 virus, the interviewer will wear a face mask and keep a safe distance from you and others in your home.

For more than 60 years, NHANES has helped to protect and improve people's health. The information we gather guides public health projects that help many people in your community and around the country live longer, healthier lives.

Thank you,

Duong (Tony) Nguyen, DO, FAAP
Commander, U.S. Public Health Service
Chief Medical Officer, Division of Health and Nutrition Examination Surveys
National Center for Health Statistics, Centers for Disease Control and Prevention

Assurance of Confidentiality – We take your privacy very seriously. All information that relates to or describes identifiable characteristics of individuals, a practice, or an establishment will be used only for statistical purposes. NCHS staff, contractors, and agents will not disclose or release responses in identifiable form without the consent of the individual or establishment in accordance with section 308(d) of the Public Health Service Act (42 U.S.C. 242m) and the Confidential Information Protection and Statistical Efficiency Act of 2018 (Title III of the Foundations for Evidence-Based Policymaking Act of 2018 (Pub. L. No. 115-435, 132 Stat. 5529 § 302)). In accordance with CIPSEA, every NCHS employee, contractor, and agent has taken an oath and is subject to a jail term of up to five years, a fine of up to \$250,000, or both if he or she willfully discloses ANY identifiable information about you.

Findings

Multi-Mode Screener	N	%
Households Selected	447	100.0
Screeners Completed	293	65.5
In-person	229	78.2
Web	33	11.3
Paper	18	6.1
Phone	13	4.4

Limitations of Research

- Limited data (one single location during a 2-month period)
- No comparison to completion rates from this multi-mode approach and the previous mode

Conclusion

- The approach was implemented to increase field efficiency and minimize in-person contact between respondents and field staff due to safety concerns related to COVID-19
- The majority of screeners were administered in-person via interviewers (78.2%) which is similar to earlier survey cycles.

Future Analyses

- Comprehensive analysis of the multi-mode approach with additional data collected in the cycle
- Comparative analysis of completion rates in conjunction with prior data collection cycles
- Analysis of respondent burden by mode
- Analysis of potential effect of the multiple mailings on the participant-field interviewer interactions downstream



QUESTIONS?

Presenters Contact Information:

Juliana McAllister
jmcallister2@cdc.gov

Allan Uribe
auribe@cdc.gov

Jessica Graber
jgraber@cdc.gov

Denise Schaar
dschaar@cdc.gov

Chia-Yih Wang
cwang@cdc.gov