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

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

<table>
<thead>
<tr>
<th>Contact Activity</th>
<th>Available Modes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invitation letter (First class mail)</td>
<td>Web, Phone</td>
</tr>
<tr>
<td>Reminder postcard</td>
<td>Web, Phone</td>
</tr>
<tr>
<td>Follow-up letter &amp; Hard Copy Questionnaire (FedEx package)</td>
<td>Web, Phone, Paper</td>
</tr>
<tr>
<td>Final reminder letter noting upcoming FI visit</td>
<td>Web, Phone, Paper</td>
</tr>
</tbody>
</table>
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 1-855-955-0031 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. NCMS 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 306(a) of the Public Health Service Act (42 U.S.C. 294j-2) 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. 115-462, 132 Stat. 3727)), in accordance with CPIA, every NCMS employee, contractor, and agent has taken an oath and is subject to a civil penalty 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.

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/.

Photos for the program only. Any person depicted is the photo's owner.
Mailing #3: Follow-up Letter & Paper Screener

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](https://www.cdc.gov/nchs/nhanes/survey.htm). Your secure passcode is [xxxx-xxxx-xxxx-xxxx].
  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, FAAFP
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

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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](https://www.cdc.gov/nchs/nhanes/survey.htm).

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

Or call us toll free at 1-855-958-6681.

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,

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### Findings

<table>
<thead>
<tr>
<th>Multi-Mode Screener</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Households Selected</td>
<td>447</td>
<td>100.0</td>
</tr>
<tr>
<td>Screeners Completed</td>
<td>293</td>
<td>65.5</td>
</tr>
<tr>
<td>In-person</td>
<td>229</td>
<td>78.2</td>
</tr>
<tr>
<td>Web</td>
<td>33</td>
<td>11.3</td>
</tr>
<tr>
<td>Paper</td>
<td>18</td>
<td>6.1</td>
</tr>
<tr>
<td>Phone</td>
<td>13</td>
<td>4.4</td>
</tr>
</tbody>
</table>
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?

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