From Telephone Interview Only to Web First Multimode

What Usability and Field Testing In the Redesign of the National Survey of Children’s Health (NSCH) Has Taught Us

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NSCH Redesign Study

- Study sponsored and directed by the Maternal and Child Health Bureau (MCHB) in the Health Resources and Services Administration (HRSA) an agency of the U.S. Department of Health and Human Services (HHS)
  - National Survey of Children’s Health (NSCH) previously fielded by NORC as part of the State and Local Area Integrated Telephone Survey (SLAITS)
The NSCH Redesign effort has been initiated to address falling response rates in Computer Assisted Telephone (CATI) surveys.

The NSCH Usability and Field Test objectives include:

- The combination of two previously existing surveys into one questionnaire
- Use of Qualitative and Usability testing techniques to evaluate the impact of the change in questionnaire administration mode
- Testing for Mode Effects within the revised questionnaire
Work to redesign survey was an extensive, iterative process, which included the combined efforts of:

- Maternal and Child Health Bureau (MCHB) in the Health Resources and Services Administration (HRSA) an agency of the U.S. Department of Health and Human Services (HHS)
- NSCH Technical Expert Panel
  - Including subject matter experts from MCHB, Centers for Disease Control and Prevention, Universities, and other related organizations
- NORC
NSCH Questionnaire Redesign Challenges

- Re-design from aural mode to visual mode
- Screener + Topical Questionnaires
- Topical Survey administered to parents of children with and without special needs age 0-17 years
- Merge two comprehensive surveys into one instrument
- Limited period of performance to pilot survey
- Developing a survey that could be administered across three modes
Transitioning a Phone Survey to Mail and Web

- Issues addressed when developing NSCH Questionnaires:
  - Response Options/Order of Responses
  - Instructions
  - Section Headers
  - Text Emphasis
  - Skip Patterns
  - Wording
  - Question Order
NSCH Questionnaire Sections

• Format of Survey administered across modes
  • Screener
    – Conducted with a household member 18 or older
    – Identify households with children 0-17 years of age and those with CSHCN

• Topical Sections
  – Health status, insurance, demographics
  – Section G age specific:
    – [0-5] School Readiness
    – [6-17] Your Child’s Schooling and Activities
First Phase of NSCH Redesign: Qualitative Assessments and Usability Testing

- First phase of NSCH Redesign project:
  - 64 qualitative assessments completed Fall 2014
Qualitative Approach to Evaluate NSCH Questionnaire

- Performed Cognitive and Usability testing
- Cognitive testing performed via paper, computer, and mobile platforms
- $30 incentive offered to participants.
Qualitative Approach to Evaluate Questionnaire (Cont.)

Cognitives Protocol Screener

Complete this form while the respondent completes the screener.

Use the buttons below to mark when the respondent starts and finishes the screener.

Question:

Is Child 1 of Hispanic, Latino, or Spanish origin? (One or more categories may be selected).

Interviewer Observed

- Yes, there are problems with this question.

- Comprehension
- Memory
- Decision Making
- Response Options
- Visual Design

Comments: The child's mom is Hispanic and dad is not, so she didn't know what to select.
Validation: Test-Retest

- Test-Retest follow-up phone interview to determine quality of data

- Income Question and Mode
  - The following question is about your income and is very important for our research. Think about your total combined family income during last year for all members of the family. Can you please tell us that amount before taxes?
## Validation: Test-Retest

<table>
<thead>
<tr>
<th></th>
<th>Strict Match v. Nonmatch</th>
<th>Match v. Nonmatch (When exact income answers are converted to the range income question)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Matches</td>
<td>Non-Matches</td>
</tr>
<tr>
<td>0-5</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>6-11</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12-17</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>16</td>
</tr>
</tbody>
</table>
• Criterion validation performed to verify CSHCN status reported by respondents

• 8 respondents signed the provider consent form
  • Results were mixed
Second Phase of NSCH Redesign: Mode Effect Experiment

- Started on 1/7/2015 after all changes applied from Cognitive survey results

National Survey of Children’s Health

A study by the U.S. Department of Health and Human Services to better understand the health issues being faced by children in the United States today.
Testing Survey Across Modes

• Mode Effect Experiment:

<table>
<thead>
<tr>
<th>Computer Assisted Telephone Interview (CATI)</th>
<th>Web</th>
<th>Mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial letter mailing</td>
<td>Initial letter mailing ($1 incentive)</td>
<td>Screener Packet 1 ($1 incentive)</td>
</tr>
<tr>
<td>$10 incentive to those who qualify</td>
<td>Reminder Postcard</td>
<td>Reminder Postcard</td>
</tr>
<tr>
<td></td>
<td>Second letter mailing</td>
<td>Screener Packet 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Topical Packet 1 ($2 incentive)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reminder Postcard (Not yet Mailed)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Topical Packet 2 (Not yet mailed)</td>
</tr>
</tbody>
</table>
Preliminary Results/Conclusion CATI

NSCH CATI Projected vs. Actual Completes by Week

- Projected
- Actual
- Target

Projected: 898
Actual: 440

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Preliminary Results: Web

NSCH WEB Projected vs. Actual Completes by Week

- Projected
- Actual
- Target

Projected 1042
Actual 1000
Preliminary Results: Mail

NSCH Mail Projected vs. Actual Completes by Week

- Projected: 901
- Actual: 649
Phone Mode Issues

- Lengthy consent statement
- Confidentiality concerns due to language in introduction
- Respondent Breakoffs:
  - Interviewer asked respondent if he/she can ask questions to determine eligibility
  - Requested respondent’s name early in survey (Privacy Concerns)
  - Lengthy survey
  - In introduction, noted research study conducted to look at ways to improve survey questions
- Parents are busy
Future Research

- Ongoing analysis
  - Web and Mail modes
  - Questionnaire length experiment

- Evaluating possibilities for future research
  - Supplementing targeted sample for underperforming modes
Thank You!

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