Streamlining Cell Telephone Interviewing: A New Method for Household Screening

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Cell Telephone Dialing

• Cell telephone dialing is now a crucial component of survey research
  • Screening is more difficult and costly for cell sample

• It’s imperative to make screening as efficient as possible
  • Decrease burden on respondents
  • Decrease risk of break-off and increase participation

Complications of Cell Telephone Interviewing and Screening

• Cell telephone status screening

<table>
<thead>
<tr>
<th>Cell-Only</th>
<th>Mixed</th>
<th>Mostly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell-Only, No landline telephone</td>
<td>Thinking just about the landline home phone, not your cell phone, if that telephone rang and someone were home, under normal circumstances how likely is it that it would be answered? Would you say extremely likely, somewhat likely, somewhat unlikely, or not at all likely?</td>
<td>Of all the telephone calls that you and your household receive, are nearly all received on cell phones, nearly all received on regular phones, or some received on cell phones and some received on regular phones?</td>
</tr>
</tbody>
</table>
Complications of Cell Telephone Interviewing and Screening

• Safety Screening
  • “If you are currently driving a car or doing any activity that requires your full attention I need to call you back at a later time.”

2009-2010 National Survey of Children with Special Health Care Needs (NS-CSHCN)

• Survey Sponsors and Administrators

• Uses the State and Local Area Integrated Telephone Survey (SLAITS) Mechanism

• Field Period
  • July 2009 through March 2011

• Data Captured
  • About 200,000 special health care needs screeners
  • About 40,000 special needs interviews
    – About 2,300 of these were cell telephone interviews

NS-CSHCN

• Eligibility
  – Age (<18 years old)
  – Special Health Care Needs
    – For cell sample: Cell-Only/Mainly status

• 25 minute interview for special needs

• Less than 5 minute demographic interview for non-special needs
Flowchart of Cell Telephone Screening Methods

Old Screening Method


Definition of the Problem

• Screening is the key
  • Want to be effective and efficient

• Reduce burden
  • Goal to make it easier for interviewers and respondents

• Screen for the item that affects most people
  • Can screen out more people, more quickly

• Drove us to reconsider our cell telephone screening approach

Experimental Design

• Changed screening for cell sample

• Q3/2010 to Q4/2010 comparison

• Examined survey quality measures and coverage
## Analysis Overview

- Screening efficiency
- Effect on survey cost and quality

## Cumulative Percent of Cases Screened Out by Screening Method

- Old method screened out %: 55%, 58%
- New method screened out %: 4%, 12%, 12%, 18%, 36%
Cumulative Break-Offs by Screening Method

- Old method break-off %
- New method break-off %

<table>
<thead>
<tr>
<th>Question</th>
<th>Old Method (%)</th>
<th>New Method (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any kids?</td>
<td>28%</td>
<td>43%</td>
</tr>
<tr>
<td>Driving/Safety</td>
<td>35%</td>
<td>51%</td>
</tr>
<tr>
<td>Adult?</td>
<td>36%</td>
<td>56%</td>
</tr>
<tr>
<td>Have a landline?</td>
<td>36%</td>
<td>57%</td>
</tr>
<tr>
<td>Likely to answer landline?</td>
<td>37%</td>
<td>58%</td>
</tr>
<tr>
<td>Kids under 16?</td>
<td>28%</td>
<td>43%</td>
</tr>
</tbody>
</table>

Effect on Survey Efficiency and Quality

- Rates
  - Increased resolution rate 15pp
  - Increased screener completion rate 8pp
  - Increased CSHCN screener completion rate 3pp
  - Leads to a higher overall response rate 8 pp

- Cost and Efficiency
  - Completed interviews take less time 8%
  - Need fewer dials to get same number of completes
    - Calculated 6,951 fewer dials needed for same number of completes

Effect on Survey Efficiency and Quality (continued)

- Anecdotal
  - Interviewers reported:
    - Ease of gaining cooperation
    - Better flow of questionnaire
    - Increased comfort on their part overall
Effect on Survey Efficiency and Quality (continued)

- Rates
  - Decreased eligibility rate \(-7\)pp
  - Decreased interview completion rate \(-2\)pp
  - Decreased yield rate \(-0.08\)pp

- Sample
  - Need more sample to get desired completes
    - Likely that dial efficiencies outweigh this cost

Examination of Demographics

- Demographic comparison between screening methods showed no significant differences for
  - Household composition
  - Child’s demographics
  - Child’s special health care needs status

  Indicates that we are likely not seeing bias

Discussion and Next Steps

- This new method makes screening more efficient, but decreases the eligibility rate
  - Not biasing the survey, but not the most ideal circumstance
  - Plan to reorder again and put “Adult” question first
    - This may start the interview off with a question that is easy to answer further engaging the respondent

- Need to further examine whether some of these differences indicate that these respondents are different than landline-only respondents
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Thank You!