Refusal Conversions: When to Call It Quits

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Disclaimer: The views expressed on statistical, methodological, technical, or operational issues are those of the author and not necessarily those of the U.S. Census Bureau or the National Center for Health Statistics.
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Data Collection Efforts

- National Ambulatory Medical Care Survey (NAMCS)
  - National survey of office-based physicians and community health center (CHCs) providers engaged in direct ambulatory patient care
  - Collected via abstraction of medical records
  - Multi-phase interview with personal visits and telephone contact attempts
- Paradata Collection – interviewers record info about each contact attempt
Contact History Instrument (CHI)

1. Are you making a contact attempt or just looking at a case?
   1. Contact Attempt
   2. Looking at a case – exit fCHI

2. Date and Time of Attempt

3. For which phase of the interview process is this contact?
   1. Initial Contact
   2. Screener (CHC or Hospital)
   3. Induction
   4. Abstraction
   5. Follow-up
   6. Re-abstraction

4. Personal or Telephone?
   1. Personal
   2. Telephone
   3. Research

5. Select outcome that best describes this contact attempt.
   1. Contact with Primary Contact
   2. Contact with Other Contact
   3. Noncontact/ Research Contact

6. Contact:
   1. Completed phase
   2. Partially complete phase
   3. Unable to complete phase

7. Concern/Behavior/Reluctance

8. Select the categories that describe why you were not able to conduct or complete the interview during this contact attempt.

9. Contact Strategies Attempted

10. Exit CHI
NAMCS Paradata
Data

- All contact attempts made from January 2013 to October 2013
- All calculations are unweighted
- Use of interim outcome codes
Hard v. Soft Refusals

- Hard Refusals:
  - No information provided to the interviewer at all

- Soft Refusals:
  - Made contact but incomplete interview due to reluctance
  - Provided some additional information pertaining to reluctance
Prevalence of Reassignment

- 39% of all physician cases are reassigned
  - 2 additional personal visits
  - 31% conversion rate
- 10% of physicians are soft refusals
  - 26% of all reassigned cases
  - 3 additional personal visits
  - 21% conversion rate
- 6% of physicians are hard refusals
  - 16% of reassigned cases
  - 1 additional personal visit
  - 18% conversion rate

42% reassigned for refusal conversion
Research Questions

- Can we enhance operational efficiency without sacrificing data quality?
- Does it increase response rates?
- Can we guide reassignment more effectively?
Evaluating Reassignment and Refusals
Descriptive Methods

- Modification of response rate calculations
  - Accept first refusal as final disposition

- Response Rate Calculation:
  \[
  \frac{\text{Completed Interviews} + \text{Partial Interviews}}{\text{All Physicians} - \text{Out of Scope Physicians}}
  \]

- Specialty Distribution
  - Change in sample distribution
Cox Proportional Hazard Models

Regressing interview completion of reassigned cases on case characteristics:

- Respondent Concerns
- Prior contacts
- Status at reassignment

- Interviewer Strategies
- Timing of reassignment
- Regional Office control
Results

Note: These are preliminary response rates. Final response rates are calculated by NCHS on fully processed data files.
Descriptive Results

- Not reassigning refusals reduced the response rate:
  - Hard refusals = 1.4%
  - Soft refusals = 6.4%

- Changed the distribution of Physician Specialty:
  - Hard refusals = 2.9%
  - Soft refusals = 9.2%
### Selected Model Results

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Likelihood of Interview Completion</th>
</tr>
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<tbody>
<tr>
<td>Weeks elapsed to reassignment</td>
<td>↓ 40-45%</td>
</tr>
<tr>
<td>Scheduled appointment</td>
<td>3.24 times (Hard Refusal) 3.43 times (Soft Refusal)</td>
</tr>
<tr>
<td>Locating activities</td>
<td>2.5 times (Soft Refusal Only)</td>
</tr>
</tbody>
</table>

*Source: NAMCS Contact History Instrument Paradata, January – October, 2013.*
Survival Curve

- Hard Refusals
- Soft Refusals
- All Reassigned Cases

Suggested Guidelines

- Case reassignment:
  - Only reassign soft refusals
  - Reassign cases early in the interview period

- Schedule and confirm appointments whenever possible

- Spend some time researching the physician
  - Customize the personal visit
  - Establish personal and professional connection
What’s Next?
Future Research

- Telephone attempts
  - 3 telephone attempts prior to first personal visit
  - Complete first portion of the interview via telephone

- Restricted personal visits
  - 6 visits to complete the first portion
  - Max of 10 personal visits

- Delayed start
  - Start working the case after the reference week
Thank You!

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