Practical Considerations for Production Staff when Fielding a CATI Survey with an ABS Frame

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Overview

- Background of Family Health Survey (FHS) production effort
- Fielding a CATI study with an ABS Frame
  - Interdepartmental challenges
    - Increased interaction between mail and phones
  - CATI challenges
- Lessons learned

Background of Family Health Survey Production Effort

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FHS Production Background

- Before 2012, FHS was conducted at the UWSC as an RDD study
  - Suffered from typical challenges for RDD surveys, including decreased coverage due to ubiquity of cellular telephones and increased difficulty in contacting households

- In 2012, UWSC conducted FHS using ABS frame
  - The ABS frame led to significant gains in efficiency, but also introduced new challenges

Side-by-Side Comparison of FHS RDD and ABS

	Total Completes	Calls per Complete	Phone Hours per Complete
RDD FHS (2011)	2,474	29.9	1.79
ABS Frame FHS (2012)	1,604	11.3	.91

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Fielding a CATI Study with an ABS Frame

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Overview – Challenges for Mail and Phone Departments

Fielding the Family Health Survey with an ABS frame involved many production challenges that came with the increase in efficiency

- Interdepartmental challenges
  - Much more interaction between mail and phone departments
  - Case flow between departments created peaks and valleys in work flow

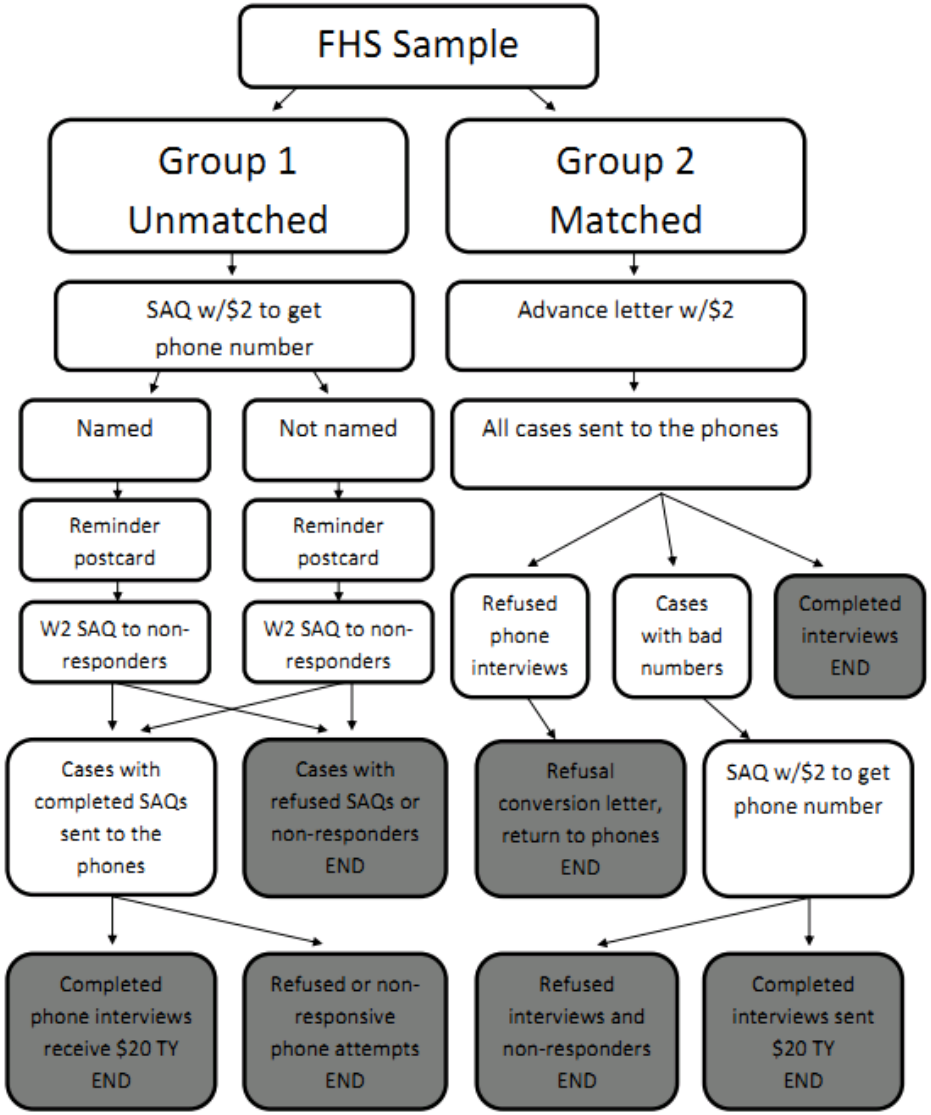
Challenges for Mail and Phone Departments

Fielding an ABS sample frame required complex interaction between UWSC mailing and phone departments.

- For “normal studies” (RDD or name sample) interaction between the mailing and phone departments is limited to a one-way case flow.
  - Case receives advance mailing/cash pre-incentive
  - Completed phone interview receives post-incentive
  - Occasionally an advance mailing and a post-incentive.

- FHS with ABS frame required a dynamic interaction between the mailing and phone departments, with cases sometimes moving between departments several times

Two Different Sample Treatments – Flowchart



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FHS Treatments

Unmatched sample

- 5,501 mailings
- 763 cases were fielded for calling
- 574 completed phone survey

Matched sample

- 2,980 mailings
  - 470 refusal conv. letters sent
  - 365 “tracing” SAQs sent
- 1,032 cases completed phone survey

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Challenges for Mail and Phone Departments

- Cases often moved between departments several times
  - Example:
    - A matched case receives an advance mailing. Case is sent to phones.
    - On call 1, an informant refuses. Case is sent to mail.
    - Case is mailed a refusal letter. Sent to phones.
    - On call 2, an informant explains they refused because we reached a business, not a residential number. Case is sent to mail.
    - Case is mailed SAQ asking for contact information.
    - R returns a new phone number. Case is sent to phones.
    - On call 1 on new number, R completes interview. Case is sent to mail.
    - Case is mailed a $20 post-incentive check.

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Challenges for Mail and Phone Departments

- There was potential for cases to be delayed at each step of the process
  - If the phone department fell behind in case management and did not refer matched cases with ineligible numbers to mail by an SAQ-posting deadline, cases would be delayed by 2 weeks
  - If the mail room did not follow up on letters being posted, the cases could sit in limbo for a week or more

Increased Mail and Phone Interaction Required…

- Development of new databases to keep track of complex movement of cases
- Additional communication
- Comprehensive planning of workflow
  - Delays in one department affected the other, and data collection progress
  - Regular completion of case management tasks in both departments
  - Follow-up when tasks were completed

- Patience

Overview – CATI Challenges

- CATI challenges
  - Different treatments for telephone number matched and unmatched sample
    - Increased complexity for case management in phone room
    - Difficult for interviewers to identify sample treatment received by each case
  - Low hours per complete
  - Interviewer fatigue

CATI Challenges – Case Management

ABS results in fewer cases for phone supervisory staff to manage, but these cases required much more intervention.

- FHS 2011 required 8,872 cases to be fielded for calling.
  - Phone supervisory staff needed to manage refusal cases, and review/apply final codes to cases that could not automatically be finalized by CASES.
- FHS 2012 required only 2,839 cases to be fielded for calling.
  - Phone supervisory staff needed to touch significantly fewer cases, but…
  - … the cases tended to be more complicated, owing to the variety of treatments involved and the different departmental responsibilities.

CATI Challenges – Case Management for Phone Department

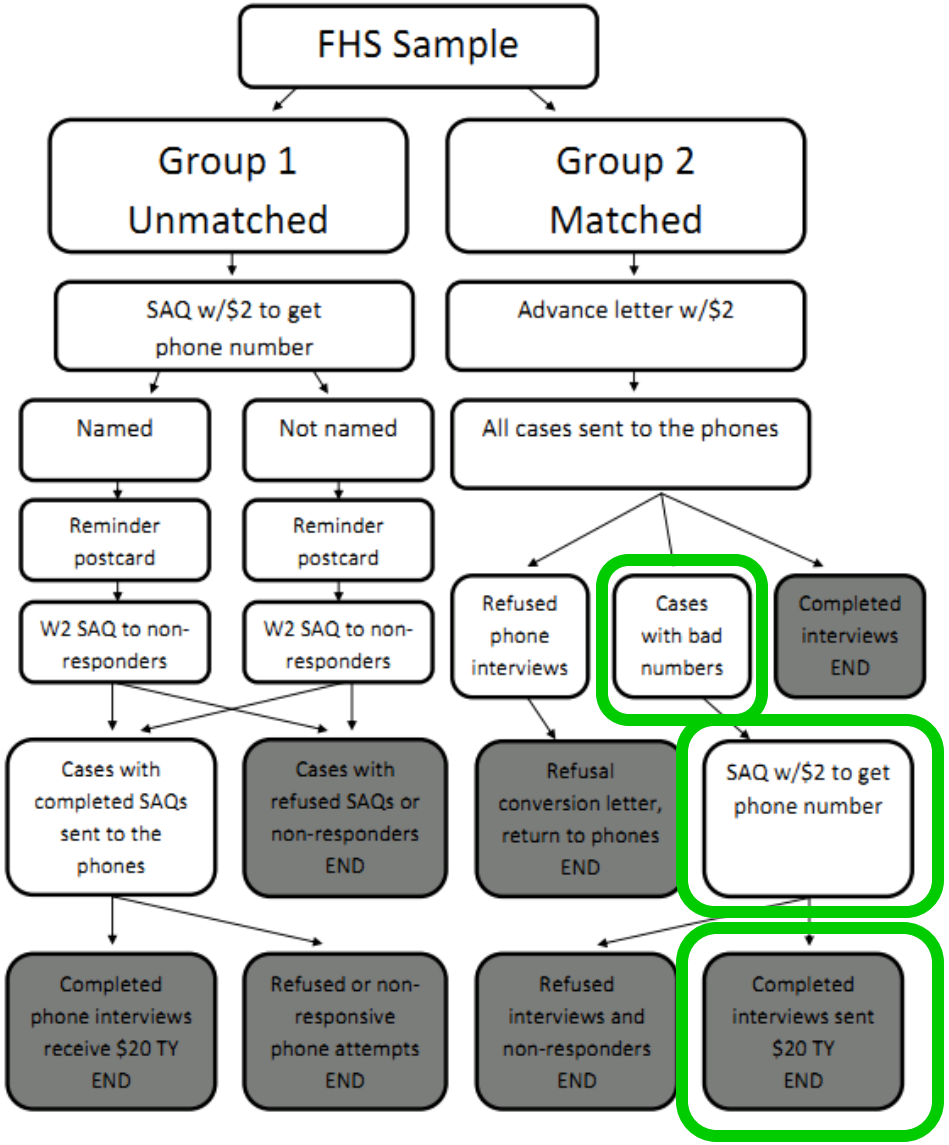
- FHS 2012 maintained all the old case management responsibilities, and added:
  - Management of interdepartmental case flow
    - Setting mailing date and assigning case to mail department (refusals and SAQ requests)
    - Informing project director of requests for resends of advance mailings
    - Setting release dates for all cases returned from mailing treatments

Future Plans for Case Management

- Standardize procedures for handling cases
- Automate steps in the process
- Recognize and accept a learning curve

CATI Challenges – Challenges for interviewers

- Telephone interviewers were impacted by the multiple treatments cases could receive.
- Telephone Number Unmatched
- Telephone Number Matched
  - Cases shifted to Unmatched treatment



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CATI Challenges – Dealing with different treatments

Approximately half of the sampled addresses were matched to a telephone number. The other half were unmatched.

- Two issues for interviewers were unanticipated:
  - Need for interviewers to identify incentive v/s non-incentive cases before dialing
  - Movement of cases from telephone number matched to unmatched treatment complicated identification of their incentive treatment

CATI Challenges – Dealing with different treatments

- It was important for interviewers knowing which type of treatment each case had received
  - We wanted to pass clear information about incentives to respondents

- A mix of both types of sample were delivered to interviewers
  - Interviewers were able to identify the initial treatment of sample based on the Case ID number.

CATI Challenges – Dealing with different treatments

- When sample moved between treatments, the Case ID number did not change.
  - This had potential to cause miscommunication between interviewers and respondents about what incentive they would receive for participation.
  - Once we were in the field, there was no automatic fix available to remedy this. We addressed the issue by having phone supervisory staff enter clear notes into case histories alerting interviewers to the treatment change.
  - 365 matched cases ended up getting unmatched treatment, 69 of these ended up completing the interview

CATI Challenges – Low Hours per Complete

- Low hours per complete – a good problem to have?
  - Resulted in low calls per hour
    - Efficiency completing surveys led to difficulty working through sample quickly
    - Implications for effectiveness of advance mailings
    - The amount of effort needed to place a call on all cases in a replicate of sample was unanticipated

Calls per hour – RDD v/s ABS comparison

Study	Calls	Hours	Completes	Hours per Complete	Calls per Hour
RDD FHS (2011)	74,502	4,419.2	2,474	1.77	16.82
ABS FHS (2012)	19,474	1,467.1	1,604	.91	**13.27**

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Calls per hour – RDD v/s ABS comparison

This issue was most crucial during the first two weeks after fielding sample.

Study	Calls	Hours	Completes	Hours per Complete	Calls per Hour
RDD FHS (2011)[1]	9,652	770.69	694	1.11	12.52
ABS FHS (2012)	1,741	179	254	.70	**9.73**

[1] Calculated from first 2 weeks of four (quarterly) fieldings of FHS 2011

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Calls per hour -- Solutions

To address the low hours per complete and corresponding low calls per hour on ABS FHS we:

- Increased staff size to allow more production flexibility
- Scaled back on other projects (where possible) during the first weeks two weeks after fielding FHS replicates to get the most effect out of advance mailings

CATI Challenges – Interviewer Fatigue

Hours per complete for ABS-frame FHS was very low compared to RDD-frame FHS (.91 vs 1.77), which means that on average, interviewers completed almost twice as many completes during a shift.

The most productive single 4 hour shift was:

- 9 completed interviews
- 2.78 hours spent in completes (69% of shift)
- Average length of complete was 18.5 minutes
- 32 calls -- 3.55 calls per complete, 8 calls per hour
- .44 hours per complete

Leads to interviewer fatigue that is not experienced on RDD studies.

Interviewer Fatigue

Two sides of the issue:

- Interviewers usually would rather spend time completing interviews, so low hours per complete is a positive thing

- When interviewers spend too much time talking, it can lead to them feeling ‘worn out’, like they were losing their voice, and generally less prepared to make calls

Interviewer Fatigue – Solutions

We addressed this by:

- Varying the surveys to which interviewers were assigned so that calling FHS was a ‘reward’
- Allowed interviewers calling FHS more time to recover after completing an interview, as necessary

Lessons Learned

- Carefully plan and monitor workflow in phone and mail departments
- Expect increased effort to call through sample, consider fielding in smaller replicates, plan to devote enough staff to touch all cases in first week after fielding
- Develop a method for interviewers to easily distinguish incentive treatment for different types of sample
  - Separate calling queues for each sample treatment
- Plan to address interviewer fatigue
  - Employee recognition, variance of work
- Expect challenges and be ready to address these before and during fielding

Thank You!

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