

That Wasn't Part of the Plan!

Reducing effort through stopping rules to place CAPI cases on hold and work plans to set them free

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Background

What are Stopping Rules?

- Stopping rules determine the amount of effort allocated to a case
- Stopping rules are often enforced in CATI and CAPI to control cost
- Attempt to maximize response rate given fixed resources
- Designed to limit effort on cases unlikely to produce a complete
- Require extensive review of attempt timing and quality
- Can be adaptive as new paradata becomes available

Stopping Rules: Advantages and Drawbacks

Advantages

- Limits unproductive attempts
 - Limits labor costs
 - Allows for redirection of funds
 - Promotes higher RR
- Easy to implement
- Rules can be adapted during field period

Drawbacks

- Optimal rules difficult to establish without paradata
- Excludes cases that would complete
- Ignores interviewer knowledge about particular cases
- May increase risk for bias

MEDICAL EXPENDITURE PANEL SURVEY (MEPS) Household Component (HC)

- Yearly sample drawn from National Health Interview Survey (NHIS)
- 5 rounds of CAPI per sample year (panel) at 6 month intervals
- Collects over 25,000 interviews per year from respondent reporting for entire household
- Provides annual estimates of health care cost and use as well as health insurance coverage for civilian U.S. population
- Sponsored by Agency for Healthcare Research and Quality (AHRQ), U.S. Department of Health and Human Services - more info at <https://meps.ahrq.gov/mepsweb/>

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MEPS On-hold Process

MEPS Stopping Rules...Pressing Pause

- Spring 2017 MEPS HC collected data from three panels

2017 Panel	2016 Panel	2015 Panel
Round 1 (new)	Round 3	Round 5

- Differing rules applied to new panel versus existing panels
 - Existing Panels eventually settled on a 6 in-person attempt limit
 - Based on analysis of previous panel high attempt cases
 - Attempt limit lowered to stop work on additional cases
 - New panel based stopping rule on modeled propensity score
 - Based on new NHIS sample design – no previous data available
 - First round of a new panel has larger implications than later rounds

Operationalizing the On-hold Process

- Supervisors of interviewers with cases meeting limit messaged daily
- The cases are transferred to an on-hold account for supervisor review
- Upon review, a supervisor may draft a work plan for an on-hold case
- With field manager approval of the detailed work plan, the supervisor may take the case off hold – we want to save viable cases!
- Decision may be reevaluated later based on other pending cases
- The bar is high for reintroducing a case to the field
 - Must distinguish cases in need of new strategy from low propensity

Results

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General Outcomes

Attribute	R3/5	R1
Net Sample	15188	10169
On Hold	245	391
Reintroduced with Work Plan	139	122
Complete	77	33
Percent Net Sample On Hold	1.6%	3.8%
Percent On Hold Reintroduced	56.7%	31.2%
Percent Reintroduced Completed	55.4%	27.0%
Percent On Hold Completed	31.4%	8.4%
Percent Net Sample On Hold Completes	0.5%	0.3%

Attempt Reduction

Attribute	Attempts Per Complete Reduction	Overall Attempt Count Reduction	In-person Attempts Per Complete Reduction	In-person Attempt Count Reduction
R3	0.03	225	0.20	1499
R5	0.17	1313	0.12	927
Combined	NA	1538	NA	2426
R1	0.92	9410	0.64	6137
Overall	NA	10948	NA	8563

Effects of On-hold Implementation

- Small changes add up to big results—over 8500 in-person trips averted
- Specific Deterrence
 - Targeted cases received detailed scrutiny
 - Work stopped for some felt truly not viable
 - Smart work planned for others resulting in additional completes
 - Small number of cases on hold does not account for attempt reduction
- General Deterrence
 - Field actively reviewed cases not yet at risk to avoid on-hold process
 - Curtailed excessive attempts or changed mode away from in-person

Field Compliance and Buy-in

- Field management shared ownership of on-hold process
- Detailed review required for work plans aided compliance
 - Produced understanding for why a case was placed on hold
 - Fostered accountability for cases taken off hold
- Supervisors began to pre-emptively ask for cases to be placed on hold based on independent review

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Next Steps

Improving the Stopping Rule Model

- Model for Round 1 fits unique conditions but room for improvement
 - Many unknowns about cases
 - Chiefly in-person contact attempts
 - Higher levels of locating activity
- Model used for R3/5 continuing sample is simple and less effective
 - More complex model may improve results
 - However, R3/5 RR very high so fewer high risk cases to identify

Ideas or Questions?