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Behavior Change Techniques for Reducing Interviewer Contributions to Total Survey Error

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Behavior Change Techniques for Reducing Interviewer Contributions to Total Survey Error

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Key Words

CARI

Rapid Feedback

Interviewer Training

Behavior Coding

Continuous Quality
Improvement

Talk Outline

Background

Data and Methods

Rapid Feedback from CARI

Rapid Feedback of Alerts from Data

Impact on Key Survey Estimates

Conclusion

Background

> Most interviewer training delivered *before* data collection, **BUT**

- Most adults learn better on-the-job, just-in-time, by doing, with peers

> Field interviewers work remotely in face-to-face survey operations, so very hard to see what they are doing, **BUT**

- Tools available now to bring field operations under much greater control

- General field interview quality can be improved with rapid feedback (verbal and written combined) of results from behavior coding of CARI recordings

Goals of This Research

> Replicate research findings on impact of rapid feedback from CARI behavior coding on *general* interview quality

> Determine whether rapid feedback from CARI can impact *specific* interview items that are instrumental in development of key survey statistics

> Determine whether rapid feedback from automated analysis of survey data can impact data quality

Medical Expenditure Panel Survey (MEPS): Calendar Series

MEPS: Provider Probes Series

CARIcode Rapid Feedback Process

Interview 1 (Day 0) → CARIcode (Day 1) → Feedback Scheduled (Day 2)

Feedback (Day 3) → Interview 2 (Day 4)
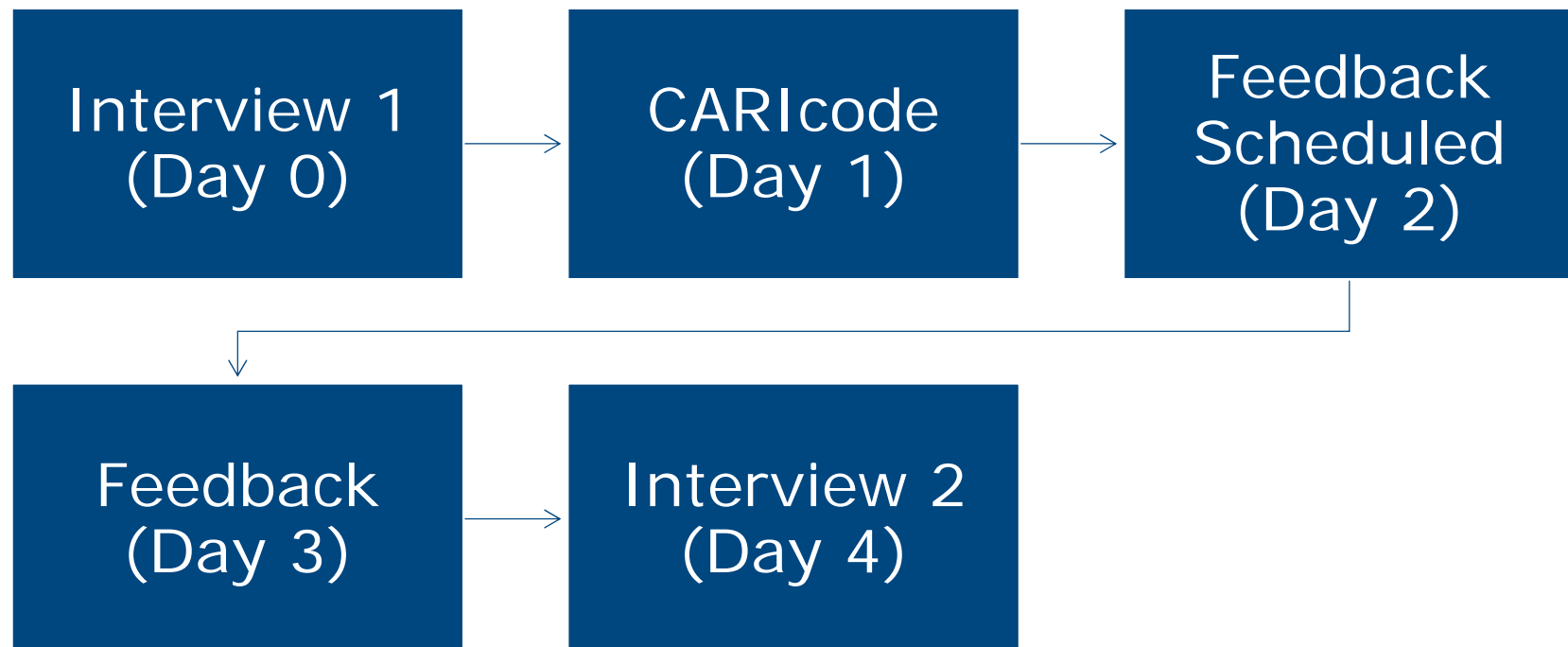
Both Question Series, CARIcode Results

Interviewer Behavior	Before Feedback	After Feedback
Followed Protocol Exactly (Verbatim for PP, Respondent's Order for CA)	33.4%	43.4%
Maintained Meaning but Did Not Follow Protocol Exactly	56.8%	52.9%
Meaning Not Maintained	9.8%	3.7%
N	*3072*	*2187*

Clarification in Feedback Session

Verbatim vs. Meaning Not Maintained:Feedback by Interviewer Clarification
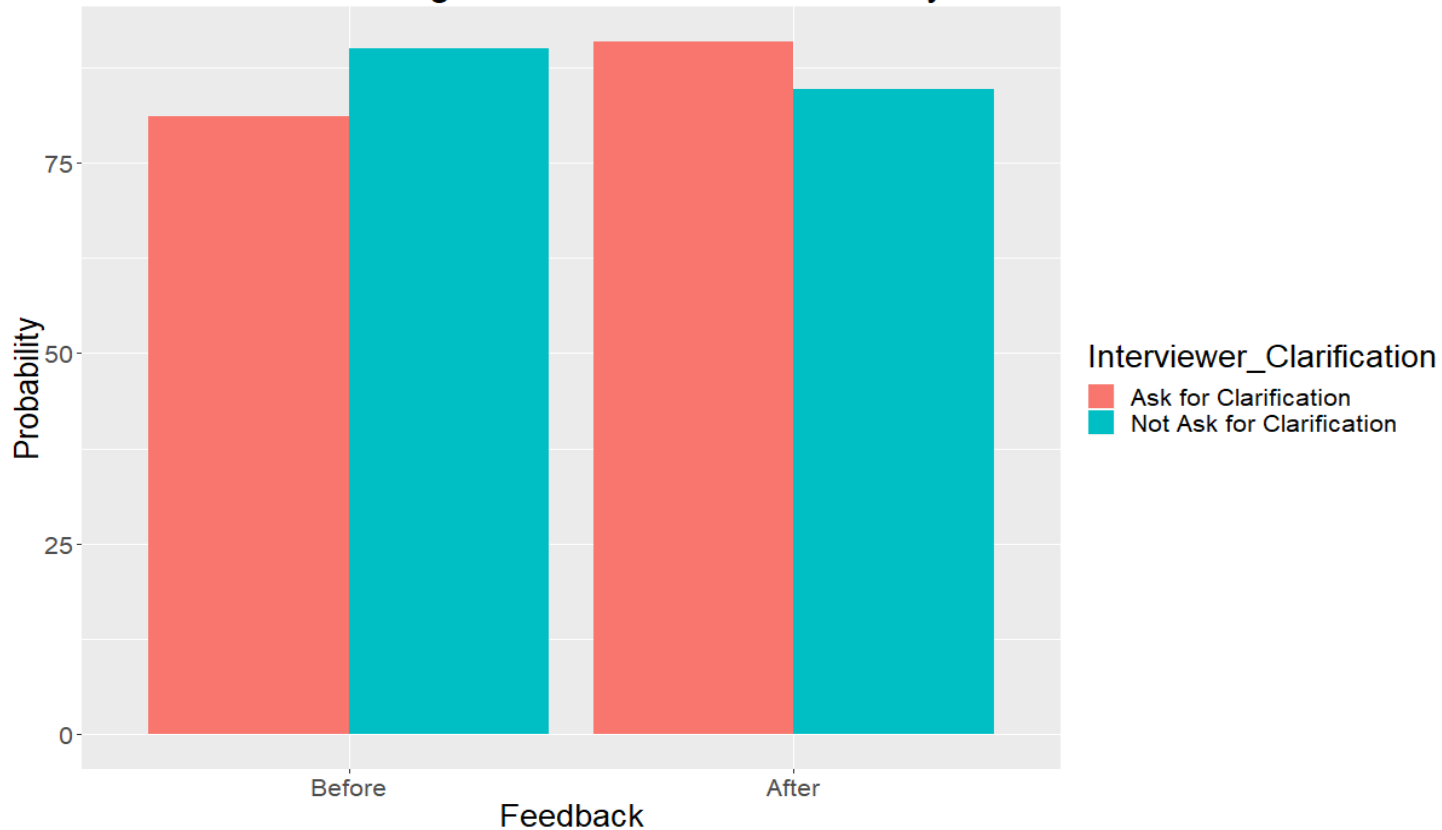
Clarification Effect during Feedback Driven by Provider Probes
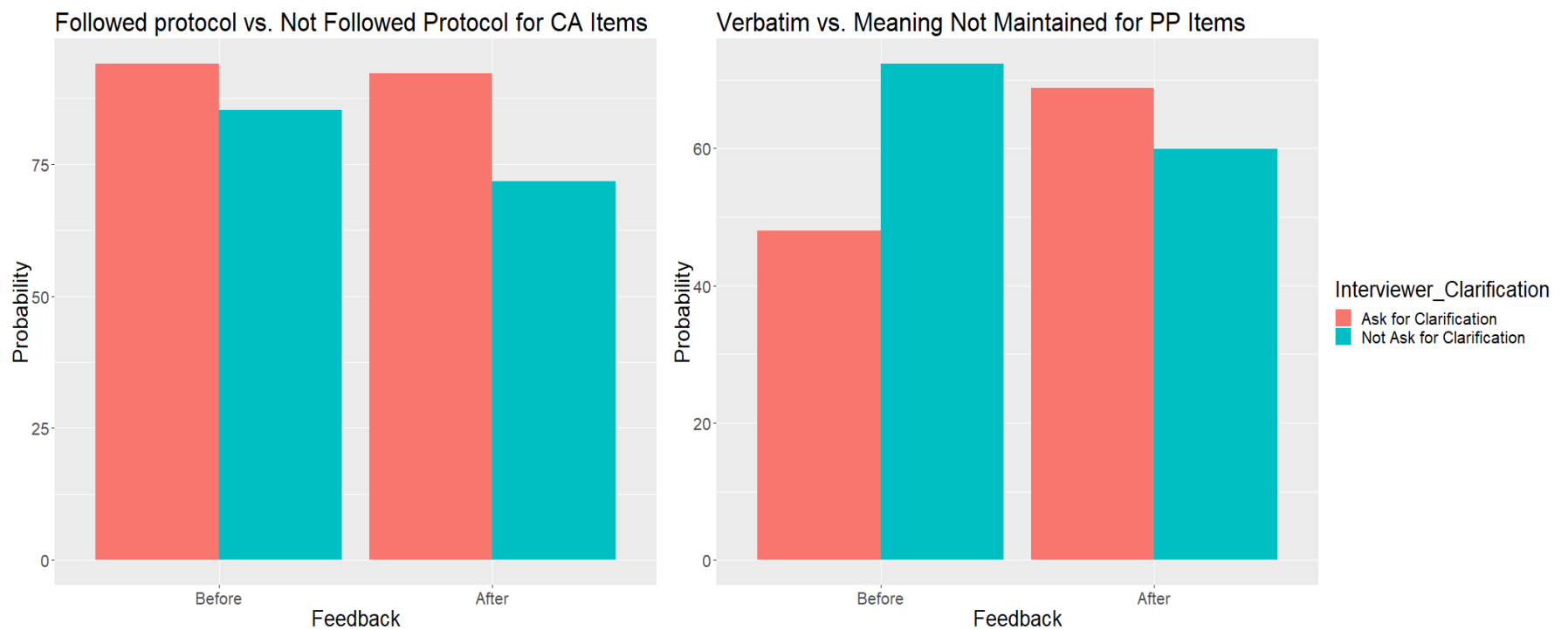
Rapid Feedback: Discussion

> Interviewer experience did not explain different effects of asking clarification

> CA series' flexible grid requires "off-the-grid" interviewer navigation

  - perhaps even after getting clarification, some interviewers just don't get it

> Nature of question content differs between 2 series

  - maybe some interviewers don't believe CA makes a difference, even after getting clarification

Quality Alerts from Data

> Implemented through field supervisor dashboard

> Data transmitted overnight from interviewers in the field automatically checked for specific anomalies that needed immediate attention

> Anomalies popped up on supervisor dashboard the next morning

> Supervisors reviewed anomalies with interviewers and documented status in the alert section of the dashboard

Data Quality Alert Distribution

| Alert Type	Count	Percent
Record usage (general) All medical events	1968	84.4
Record usage Prescribed Medicines (65+)	243	10.4
Zero night hospital stays (admission and discharge on same day)	117	5.0
Respondent under 18	4	0.2
Total	2332	100.0

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Caseload-adjusted Alert Counts Over Field Period

All Types
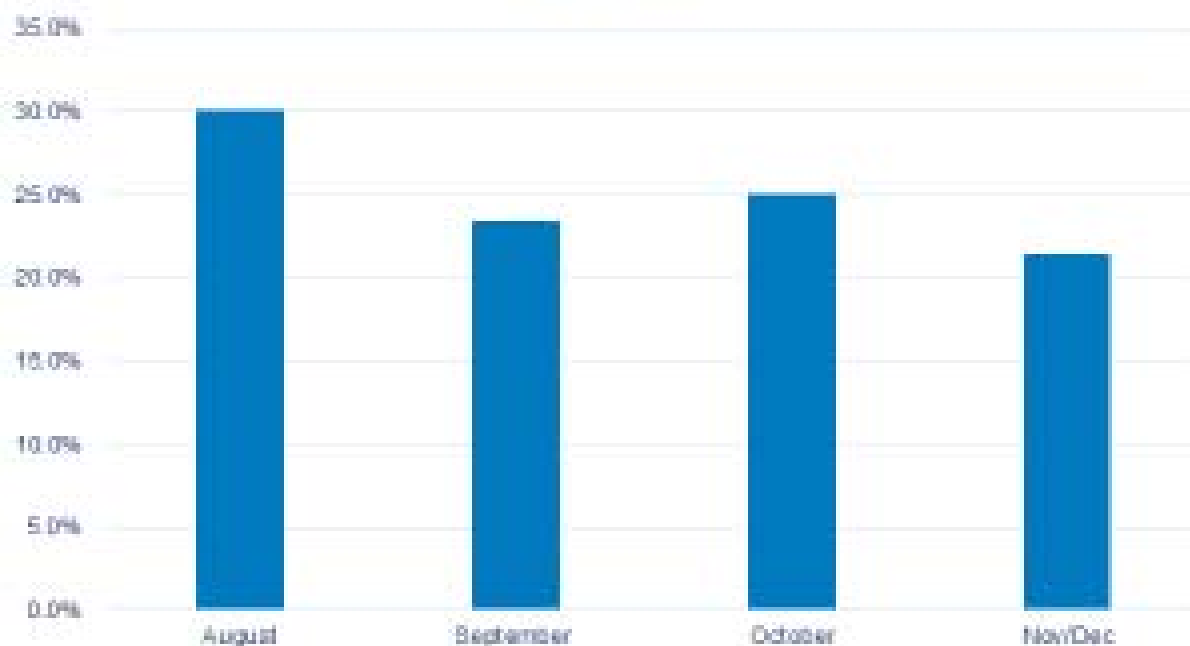
Alert Occurrence Among Interviewers

Distribution of Alerts Among Interviewers
(Interviewer Counts out of 350-375 Field Interviewers)

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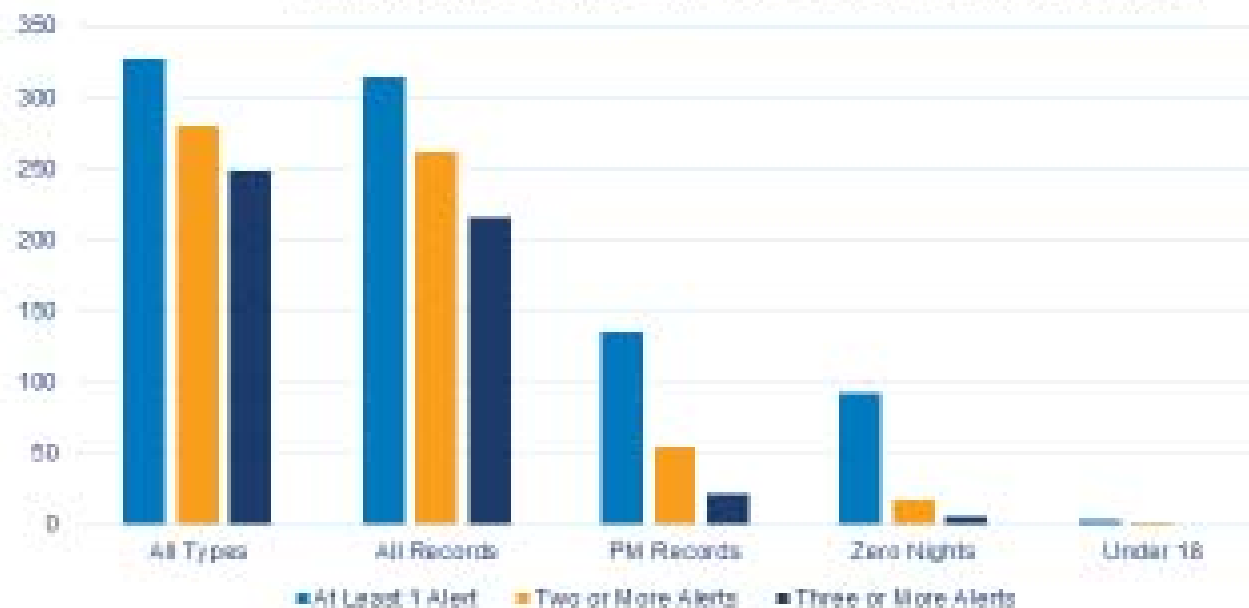
Key MEPS Statistics: Rx for Older People, 2016

Description	Statistic
Population with expense	46,409,000
Proportion with expense	90.2%
Number of prescription events	1,304,000
Mean events/person	25.4
Mean expenditures/event	$117
Mean expenditures/person w/event	*$3,289*
Median expenditures/person wi/event	*$1,100*
Total expenditures	$152,602,000,000

Conclusion

› Rapid feedback on techniques for asking specific questions related to key survey statistics can improve interviewer performance

› Rapid feedback on raw data collected in the interview can improve interviewer performance

› Rapid feedback can be an effective form of interviewer training

› Improved interviewer performance = improved respondent performance

› Rapid feedback can improve the quality of key survey statistics

Thank You

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