



The Effects of Survey Enhancements on Reporting in the Medical Expenditure Panel Survey

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Disclaimer

- This presentation represents the views of the authors, and no official endorsement by the Agency for Healthcare Research and Quality or the Department of Health and Human Services is intended or should be inferred.

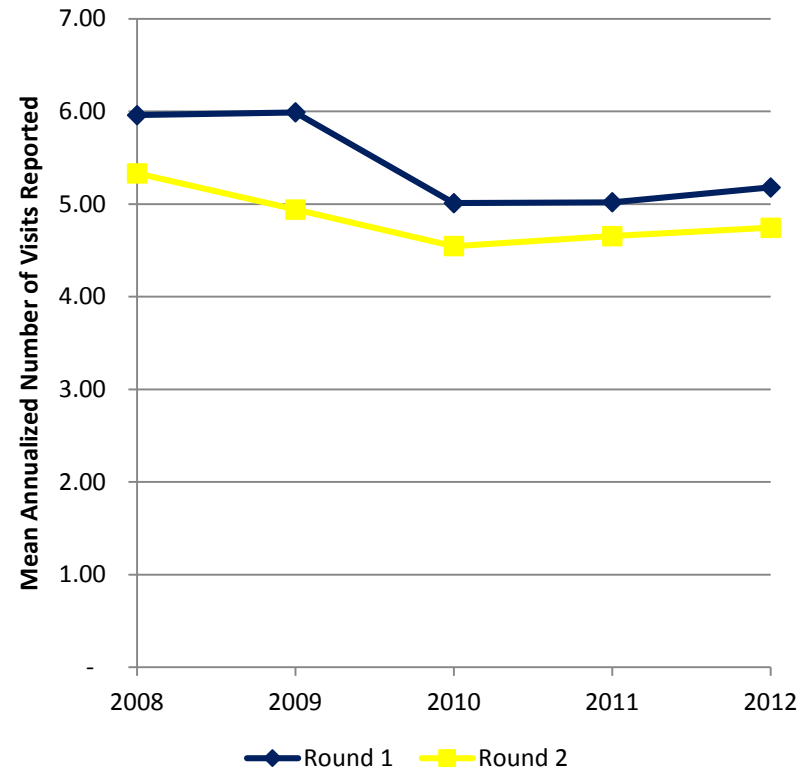
MEPS Background

- Civilian non-institutionalized household survey, 1996-
 - ▶ Overlapping panel design
 - ▶ 5 rounds of data collection covering 2 calendar years
 - ▶ Two panels pooled for annual estimates
 - ▶ New panels are sampled from previous year's NHIS
- Detailed information on health care use and expenditures collected every round:
 - ▶ Respondent asked to enumerate for each household member:
 - hospital stays
 - ER, outpatient department, office-based, home health, vision, and dental visits
 - Prescription drug fills
 - ▶ Detailed information about each event or drug

Outline

- Substantial decline in event reporting 2009/2010
- Data quality initiative 2013-2014 to improve reporting:
 - ▶ Training
 - ▶ Real-time monitoring and feedback to FIs
- Evaluate initiative:
 - ▶ What worked?
 - ▶ What didn't?

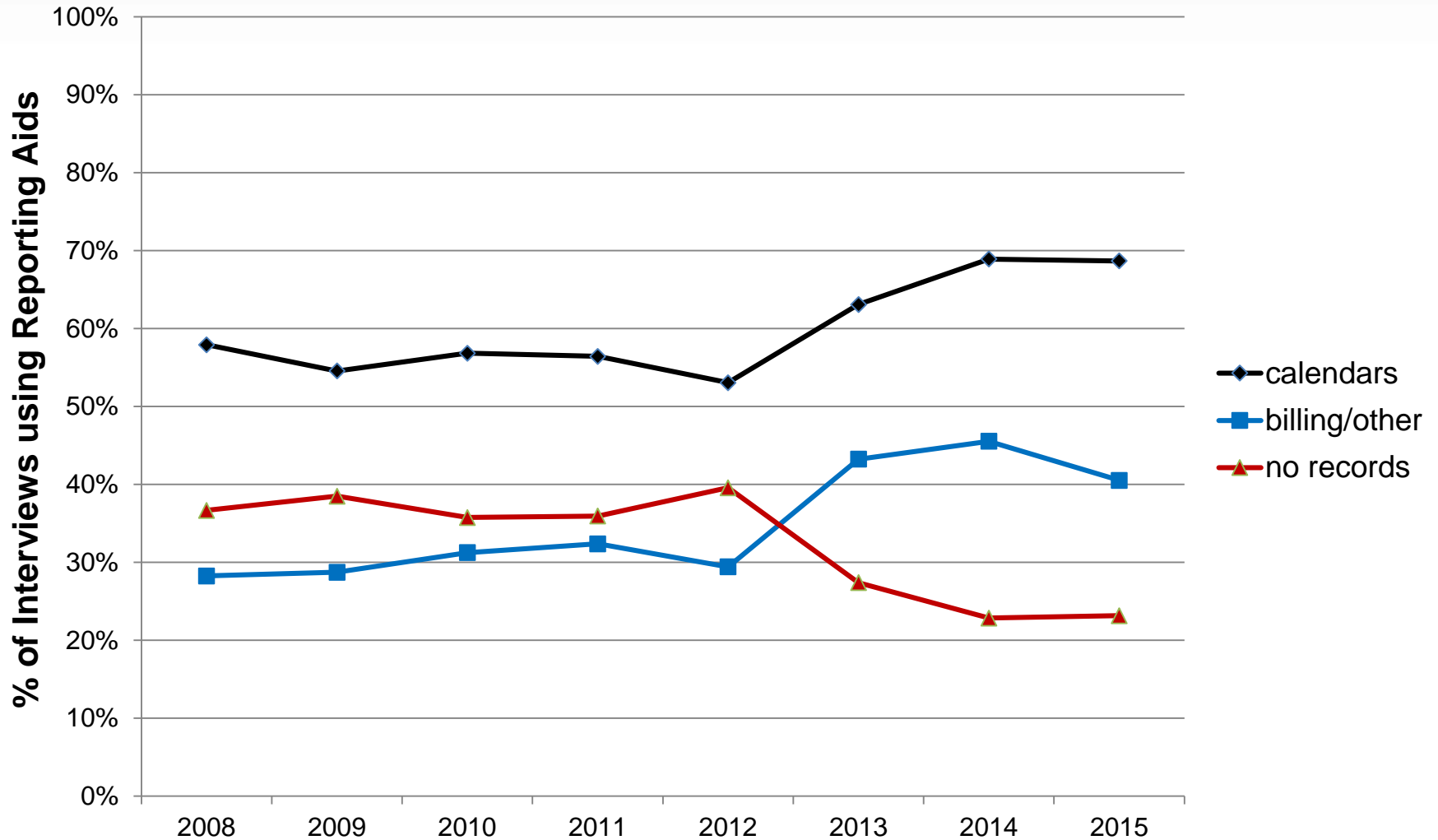
Mean Annualized Office-Based Visits per Person



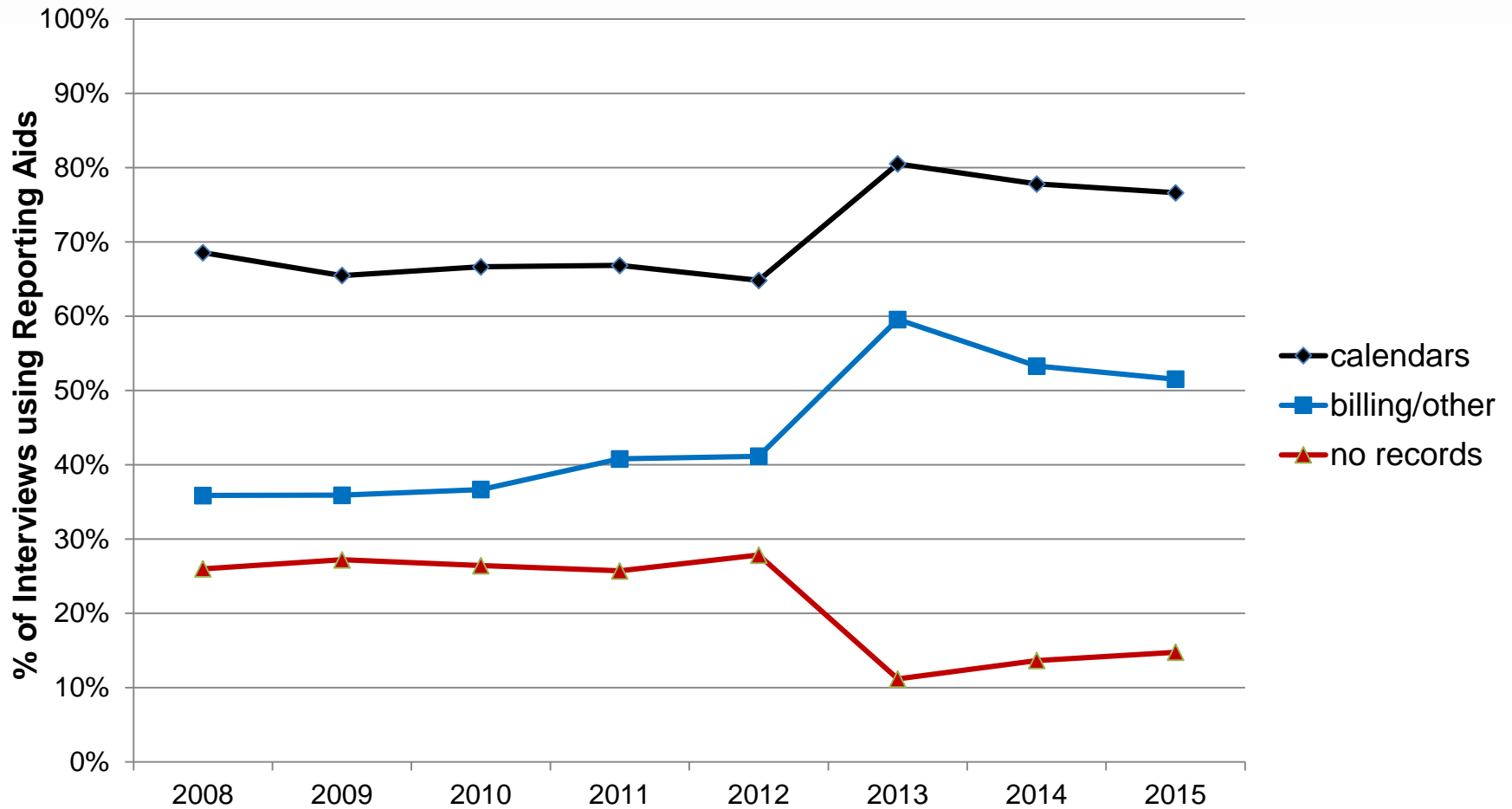
Data Quality Initiative

- Quality Metrics
 - ▶ Interviewer behaviors correlated with better reporting
 - e.g. use of written records (EOBs, bills, calendars), pill bottles
 - ▶ Fall 2012 supervisor training, implemented early 2013
 - ▶ Supervisors feedback to FIs, home office to supervisors
- Training
 - ▶ Short web-based refreshers
 - ▶ In-person refresher for 52 Highest Producing FIs-Aug 2013
 - ▶ In-person refresher for entire field staff (first since 2007)
- Advanced letters and materials for respondents
- Shift in emphasis from response rate/completing interviews to quality of data collected

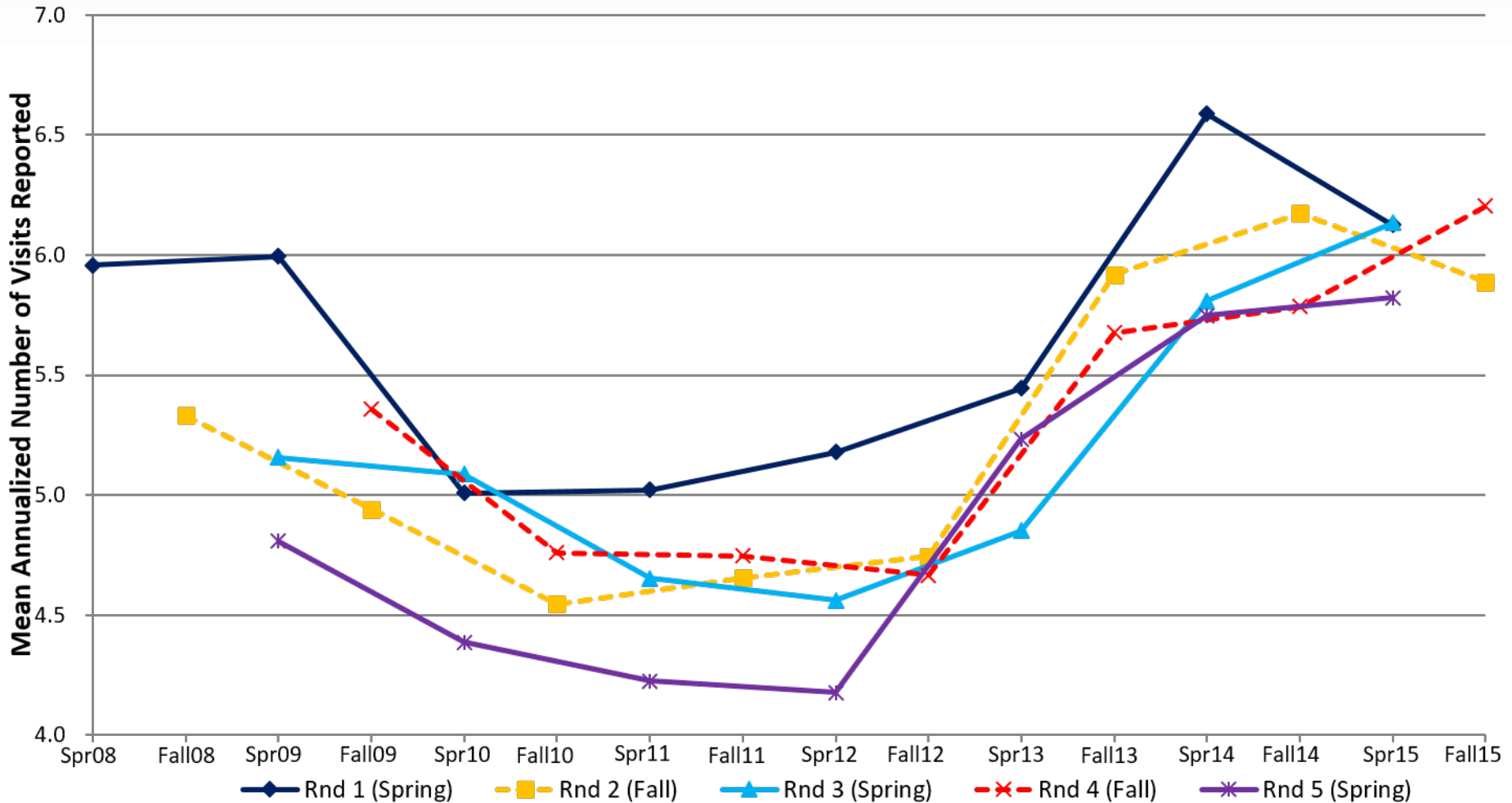
Use of Reporting Aids, Round 1



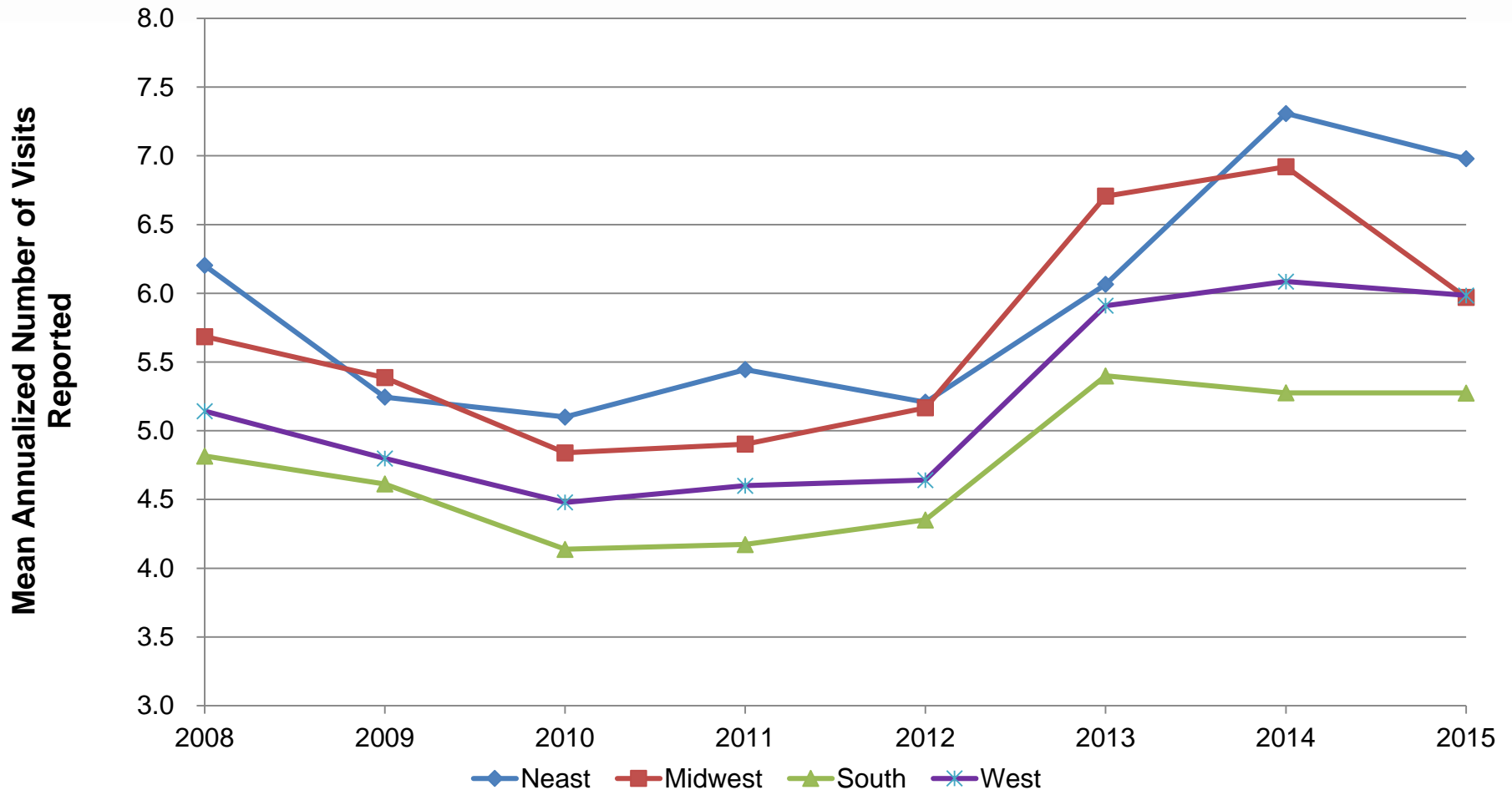
Use of Reporting Aids, Round 2



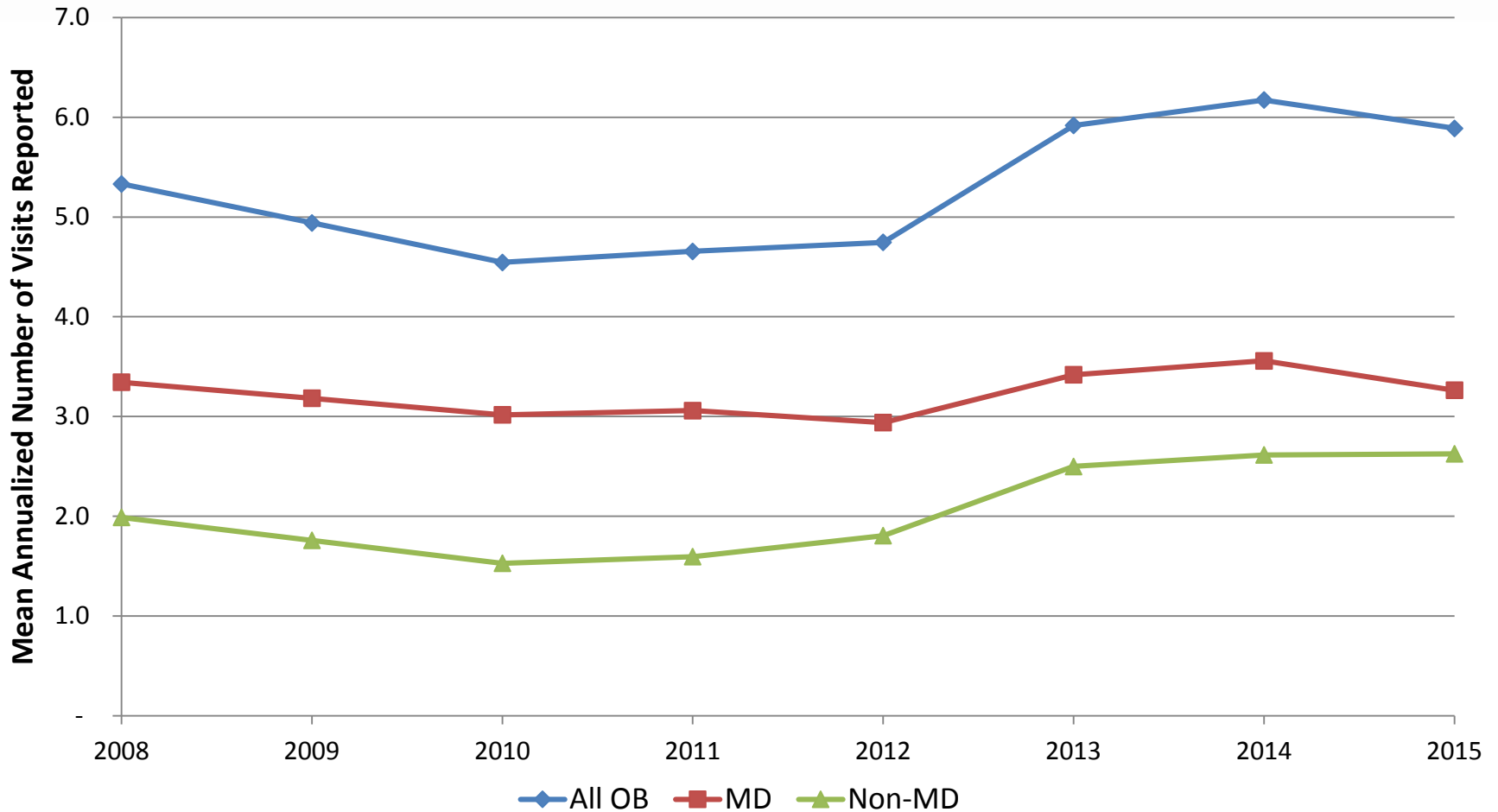
Mean Annualized Office-Based Visits per Person



Mean Annualized Office-Based Visits per Person By Region, Round 2



Mean Annualized Office-Based Visits per Person by Type of Visit, Round 2



OLS Regression Analysis

- Use timing of data quality improvement efforts to identify effects:
 - ▶ Implementation of FI feedback systems
 - ▶ Fall 2013 High Producer training
 - ▶ Spring 2014 Full Field Force Training
- MEPS Panels 13-20, 2008-2015 (N=524,216)
- Dependent variable: annualized office-based visits reported in round

Covariates

- 9 Census divisions (+ interactions)
- Panel (13-20), Round (2-5)
- Paradata
 - ▶ Recall period in months
 - ▶ New interviewer/experienced interviewer
 - ▶ NHIS complete responder
 - ▶ Proxy-reported data
- Sociodemographic
 - ▶ Age, gender, race/ethnicity, marital status, household composition
 - ▶ Education, family income, health insurance
- Health Status
 - ▶ Poor/fair perceived health
 - ▶ Number of chronic conditions
 - ▶ Activity limitations
 - ▶ Pre-MEPS health care use (NHIS)



OLS Regression of Annualized Office-Based Visits Reported in Round

<i>Survey Procedure Changes & Training</i>	<i>coeff.</i>	<i>std. err.</i>
Fall 13	0.983	0.233
High Producer	-0.409	0.124
Fall 13*High Producer Refresher	0.590	0.178
Spring 14	-0.031	0.097

Note: Bolded coefficients statistically significant at the 5% level.



OLS Regression of Annualized Office-Based Visits Reported in Round, continued

<i>Geographic Effects</i>	<i>coeff.</i>	<i>std. err.</i>
Fall13*New England	0.669	0.301
Fall13*Mid Atlantic	-0.111	0.322
Fall13*South Atlantic	-0.360	0.241
Fall13*East South Central	-0.480	0.356
Fall13*West South Central	-0.803	0.287
Fall13*East North Central (omitted)		
Fall13*West North Central	-0.355	0.470
Fall13*Mountain	0.607	0.516
Fall13*Pacific	-0.515	0.277

Note: Bolded coefficients statistically significant at the 5% level.

Summary

- Positive interviewer and respondent behaviors increased:
 - ▶ Greater use of household records
- Utilization reporting above pre-2010 levels, returning MEPS to trend:
 - ▶ Substantially improved reporting of non-physician visits
- Geographic differences in reporting improvements
 - ▶ Implications for analyses
- Biggest improvements preceded training of full field force
 - ▶ Implementation of quality metrics and feedback to interviewers and supervisors