

# Examining response rates to direct-to-patient mailed surveys by year of fielding, insurance type and survey length

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## BACKGROUND & OBJECTIVE

### BACKGROUND:

- Optum has the unique ability to leverage administrative claims data to precisely target patients for direct-to-patient mailed surveys enabling the combination of patient-reported outcomes with claims-derived healthcare resource utilization, costs and clinical outcomes.
- Literature shows that survey response rates can vary greatly depending on methods of sample identification, administration mode, and response rate calculation.
- With growing interest in online data collection, it is valuable to evaluate the importance of mailed surveys and examine response rates within a claims-identified population to provide a benchmark for comparison with other recruitment strategies.

### OBJECTIVE:

- To examine claims-identified direct-to-patient mailed survey response rates by insurance type and survey characteristics; and evaluate changes in response rates over time.

## METHODS

### DATA SOURCE:

- Patients were identified from the Optum Research Database (a large, national administrative claims database) using study-specific criteria (i.e., diagnosis, medication use, age, etc.) and were recruited directly by mail for participation.

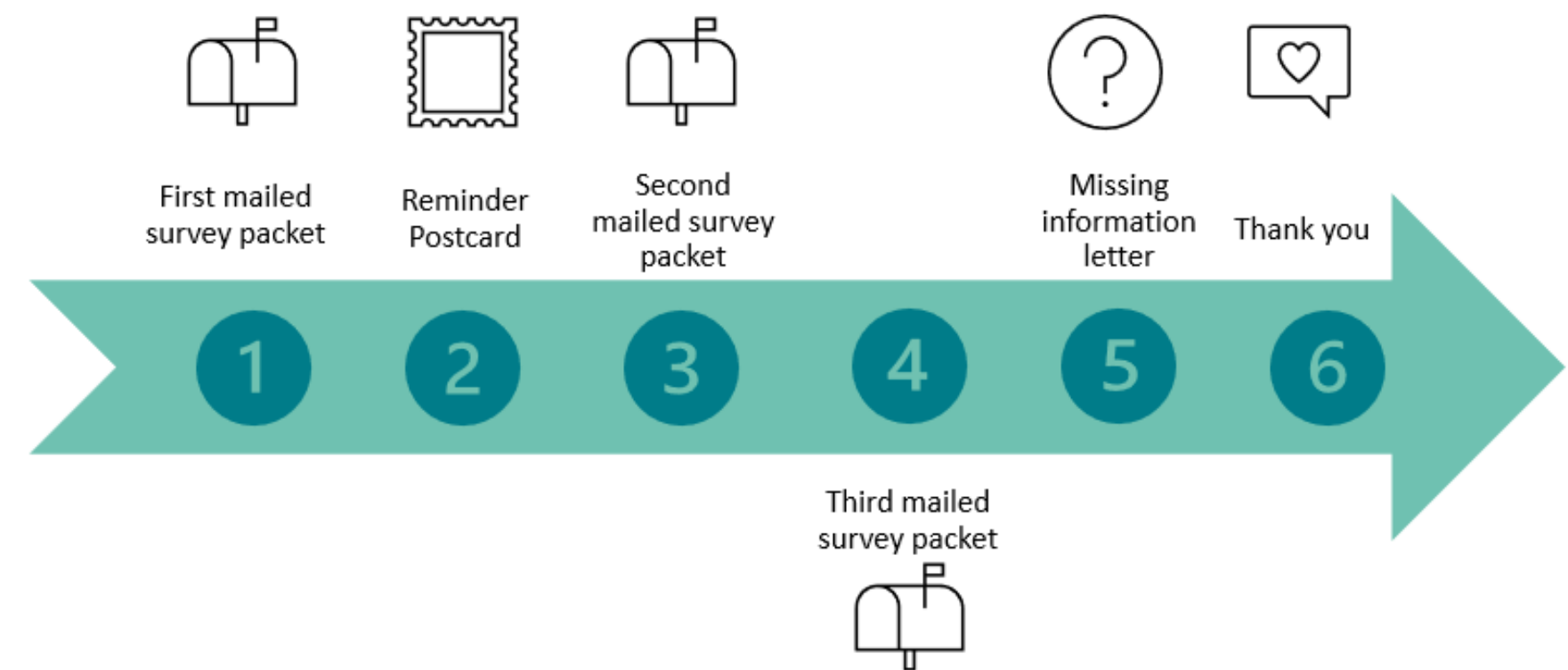
**30** mailed survey studies  
**2007-2022** survey fielding years  
**120,000+** completed surveys  
**57** mean age of respondents  
**240-9,996** study sample size range  
**100%** study targets met

## METHODS, continued

### STUDY DESIGN:

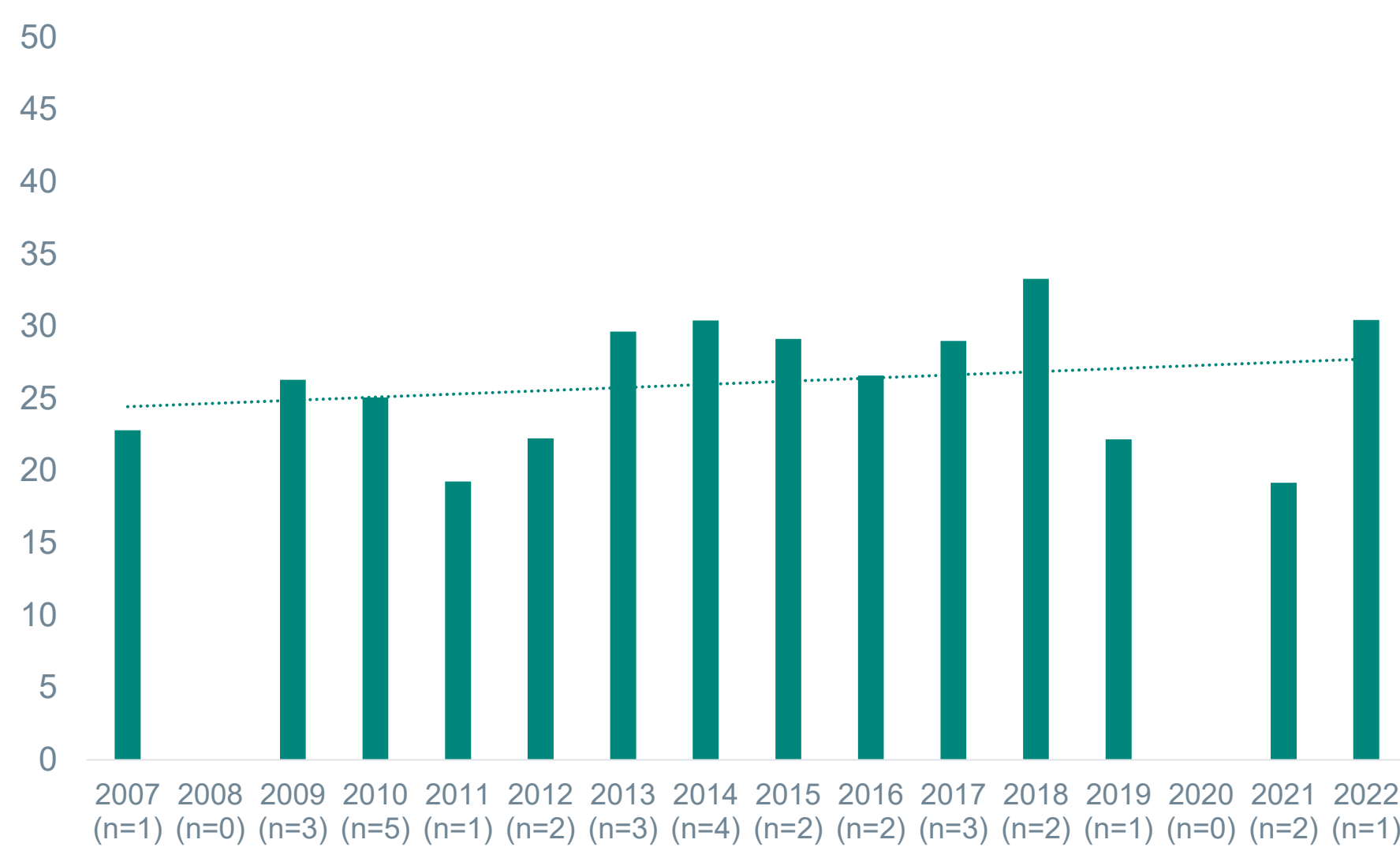
- A total of 30 direct-to-patient mailed survey studies fielded between 2007 and 2022 were examined.
- Surveys were fielded across therapeutic areas including respiratory, metabolic, neurologic and infectious diseases.
- Most surveys were 7-12 pages long.
- All studies utilized incentives ranging from \$5 to \$10 for pre-paid incentives (most used \$10) and from \$25 to \$30 for post-paid incentives (most used \$25).
- Insurance type (Commercial vs. Medicare Advantage), survey year, survey length, and other factors were assessed for impact on response rates.
- All studies utilized a modified Dillman Method<sup>1</sup> with multiple touchpoints (Figure 1.) including:
  - (1) initial mailed survey packet (included pre-paid incentives when used);
  - (2) reminder postcard (sent 2 weeks later);
  - (3) second mailed survey packet to non-responders (sent 2 weeks following the postcard);
  - (4) third (optional) mailed survey packet to non-responders;
  - (5) missing information letter requesting unanswered survey questions be answered; and
  - (6) thank-you letter (included post-paid incentives when used).
- Two studies utilized a fourth touchpoint (third mailed survey packet) for select cohorts with limited sample size to increase response rates.
- Response rates were calculated using AAPOR's<sup>2</sup> definition.

Figure 1: Method for Survey Study Implementation



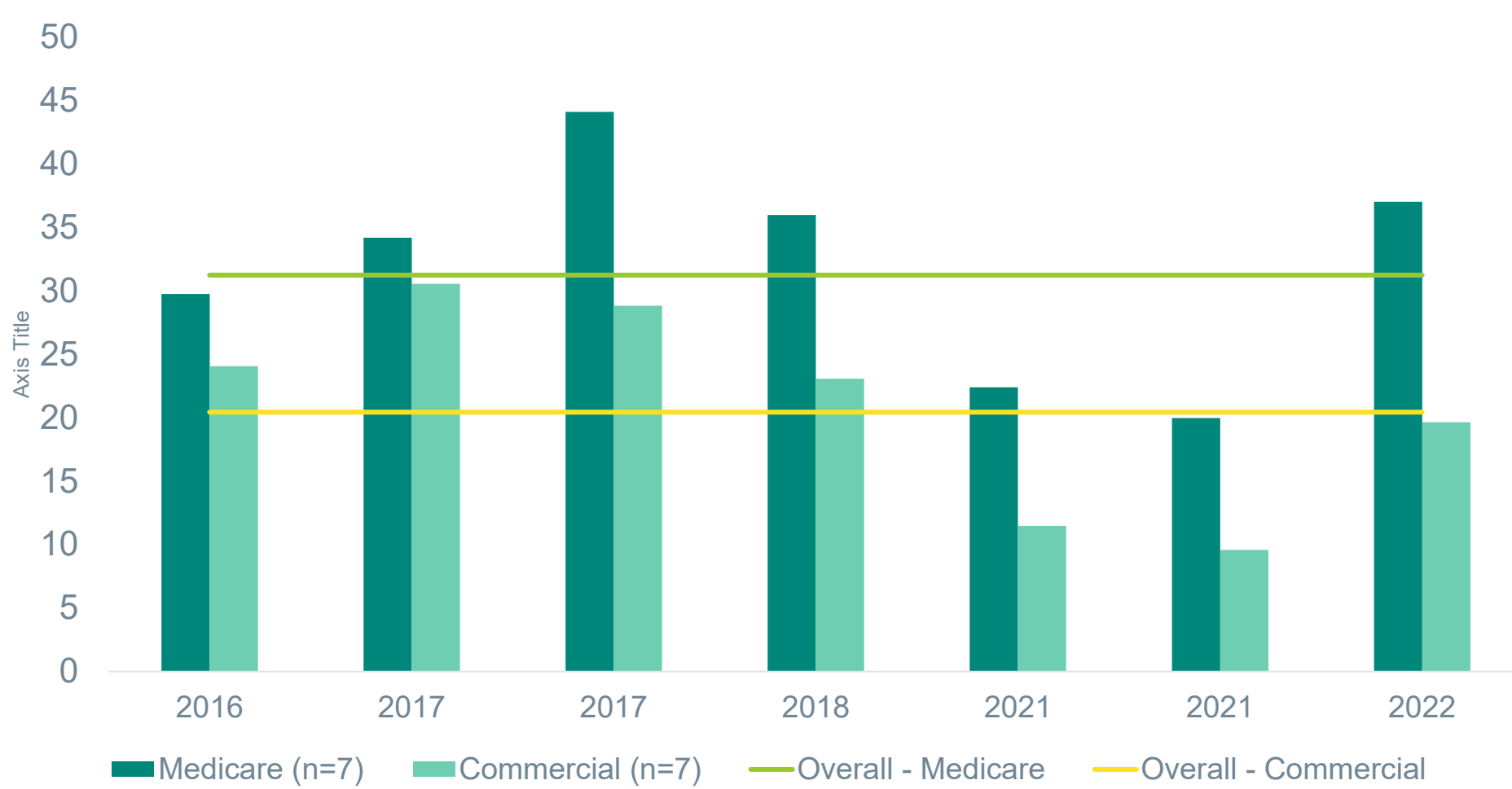
## RESULTS

Figure 2: Annual Survey Response Rate Over Time (%) – all studies



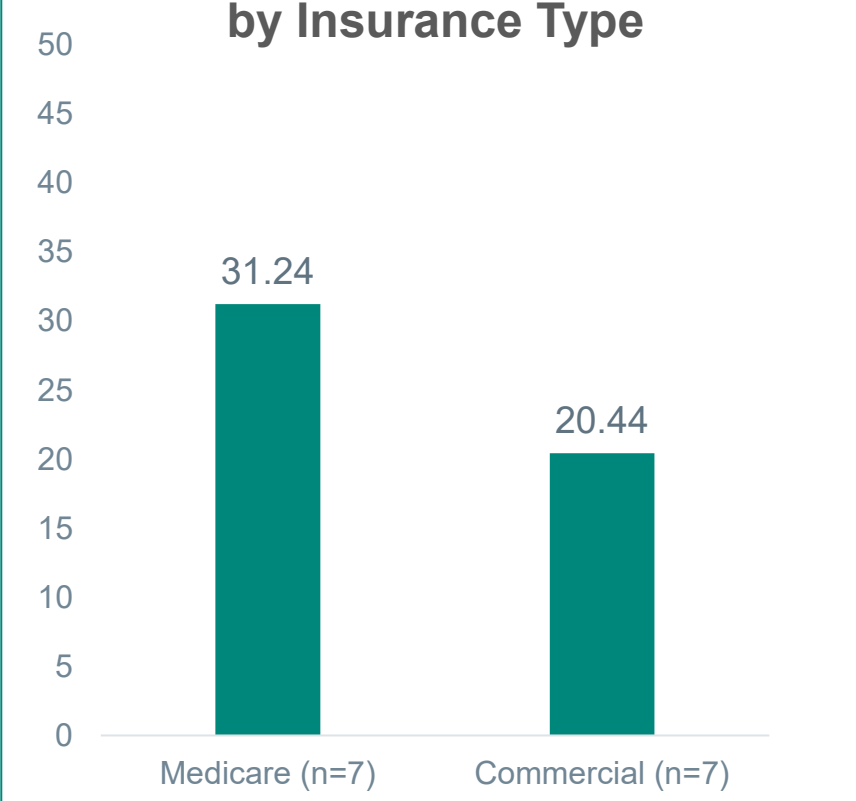
- Overall mean response rate was 27.0%; ranging from 19.2% (2021) to 33.3% (2018) with all studies meeting sample size targets. (Figure 2.)
- Response rates varied year-over-year (2007-2022). A small upward trend was seen over time but was statistically consistent with no change (p-value=0.598). (Figure 2.)
- Higher response rates were observed in later years: 2018 (33.3%) and 2022 (30.4%). (Figure 2.)

Figure 3: Annual Survey Response Rates Over Time (%), by Insurance



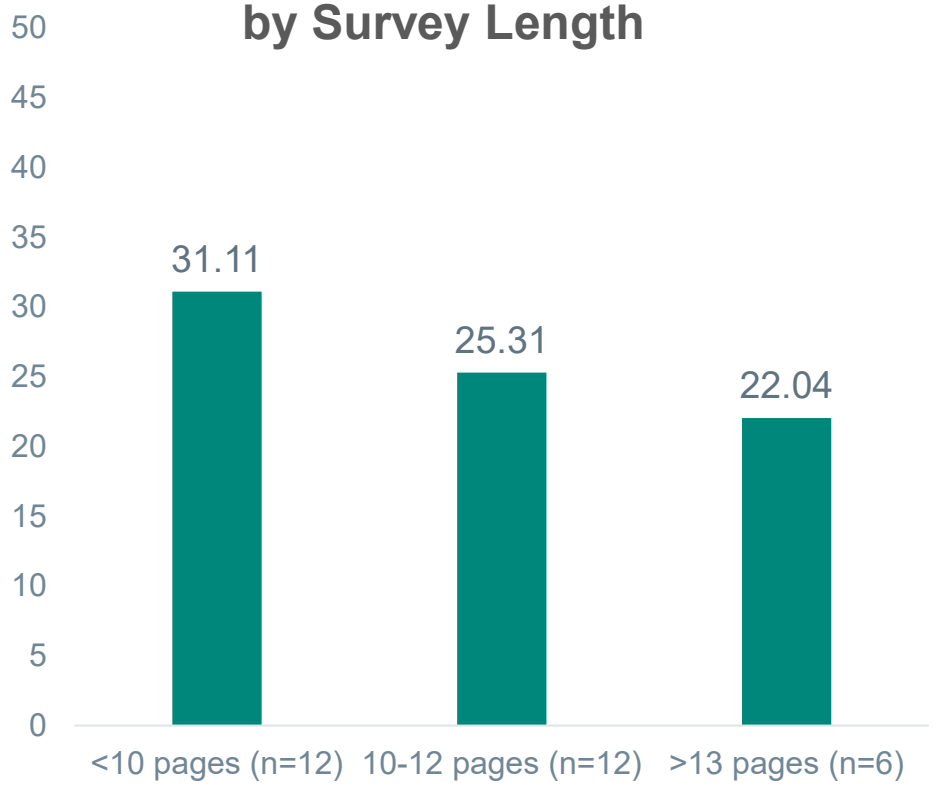
- Response rates by year, were consistently higher among Medicare Advantage beneficiaries compared to those with commercial insurance. (Figure 3.)

Figure 4 : Response Rates (%) by Insurance Type



- Response rates were higher among Medicare Advantage (31.2%) vs. Commercial patients (20.4%); p-value=0.025.

Figure 5: Response Rates (%) by Survey Length



- Shorter surveys had higher response rates: <10 pages (31.11%), 10-12 pages (25.3%) and 13+ pages (22.0%); p-value=0.032.

## LIMITATIONS

- There is no consistently applied response rate calculation in the literature. Optum HEOR has long used AAPOR's definition, but lack of uniformity across external studies makes comparison difficult.

## CONCLUSIONS

- Response rates to direct-to-patient mailed surveys remained consistent over time demonstrating continued value in the methodology.
- More research is needed to understand how these response rates compare to other recruitment strategies within a claims-identified population.

### REFERENCES

- Dillman DA, Smyth JD, Christian LM. Internet, mail, and mixed-mode surveys. The Tailored Design Method. 3rd Edition. 2009. John Wiley & Sons, Inc. Hoboken, NJ.
- The American Association for Public Opinion Research. 2016. Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys. 9th edition. AAPOR.

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