The Medicare Current Beneficiary Survey

Identifying and Mitigating Nonresponse in a Longitudinal Survey of the Medicare Population

MCBS
Medicare Current Beneficiary Survey

CMS
CENTERS FOR MEDICARE & MEDICAID SERVICES
OFFICE OF ENTERPRISE DATA & ANALYTICS

Introduction to the MCBS

- The Medicare Current Beneficiary Survey (MCBS) is a continuous, in-person, longitudinal survey representing the population of Medicare beneficiaries aged 65 and over and beneficiaries aged 64 and below with certain disabling conditions, who reside in the United States.

- The MCBS is sponsored by the Office of Enterprise Data and Analytics (OEDA), the survey is managed by the Survey Management and Analytics Group within OEDA, and is conducted through a contract with NORC at the University of Chicago (NORC).

- The MCBS is designed to aid the Centers for Medicare & Medicaid Services (CMS) in administering, monitoring, and evaluating the Medicare program. A leading source of information on Medicare's impact on beneficiaries, the MCBS provides important information on beneficiaries that is not available in CMS administrative data and plays an essential role in monitoring and evaluating beneficiary health status and how health care policy affects the beneficiary.

History of the MCBS

- The MCBS was implemented in 1991 to serve as a resource of information for administering the Medicare program, estimating total health care expenditures for beneficiaries not accounted for in the administrative records, and providing a better understanding of the health and well-being of Medicare beneficiaries.

- Since its implementation, the MCBS has continued to collect and provide essential data on the costs, use, and health care status of Medicare beneficiaries. The MCBS has conducted continuous data collection for almost 30 years, completing more than one million interviews with Medicare Beneficiaries.

- Beneficiaries in the survey are interviewed up to three times per year for four consecutive years to form a continuous profile of their health care experiences.

Features of the MCBS

- The MCBS is distinguished by several features, including:
  1. **The Linking of self-report and administrative claims data.**
     - ❑ **Allows us to look at both health characteristics but also health care utilization and the costs.**
  2. **Rotating panel design.**
  3. **Inclusion of facility-residing beneficiaries.**
  4. **Oversampling.**
- Understanding these features allows us to look at mechanisms to mitigate nonresponse and improve our sample representation.

Sample Design Overview

- The MCBS uses a rotating panel sample design, and is designed to be representative of the population of all Medicare beneficiaries for the Medicare benefit year. The MCBS sample is selected from locations throughout the continental U.S.

- There are three rounds of data collection per year, referred to seasonally (fall, winter, summer). One panel is retired during each winter round, and a new panel is selected to replace it each fall round. The new panel is referred to as the Incoming Panel.

- Every year, CMS specifies a 5-percent sample of the administrative enrollment data that is used for selecting the new MCBS Incoming panel sample. The first extract of the 5-percent file is made available in the spring, and the bulk of the sample is selected from that extract. Additional extracts of the 5-percent file are utilized to support sampling of current-year enrollees.

  - These extracts contain new enrollees who were not included in the initial extract. The combination of these extracts constitutes the full frame from which the Incoming Panel is selected.

- The MCBS sample is designed to yield about 16,000 completed cases annually.

Sampling Current Year Medicare Enrollees

- Sampling current-year enrollees requires additional extracts throughout the sampling year so current year-enrollees across the full benefit year (January – December) have a chance to be selected into current-year panel sample.

- Because the Medicare enrollment data provides a "look ahead" to those who will be enrolling by aging in or coming in from SSDI, we can sample from the prospective beneficiaries to complete the sample.

- Four extracts:

  ❑ Three during sampling period, from which we select incoming panel sample.

  ❑ One final extract after sampling period to fully enumerate frame, used for weighting adjustments.

Sample Coverage/Representativeness

- With the availability of the administrative enrollment data, we are able to see that our sample frame, across the 4 panels is representative of the demographics of the Medicare population.

- However, we also know that as a longitudinal survey differential nonresponse may impede observation of change over time in subgroups and may degrade the representativeness of the sample.

  ☐ Differential nonresponse in early rounds has lasting impact across the study.

- The MCBS uses several techniques during fielding to help identify and mitigate differential nonresponse across the frame characteristics.

- Additionally, the MCBS conducts a nonresponse bias analysis every 3 years to identify potential reporting differences across the sample domains and to determine potential mitigation strategies.

# Use of R-Indicators to Examine Ongoing Representativeness of the Sample

- The MCBS uses R-Indicators, along with response rates, to examine the variability of the subgroup response rates during data collection.

  ❑ Complimentary to, but distinct from, response rates.

- Response propensities are modeled after variables on the sample frame.

  ❑ R-indicators are computed from these response propensities.

- Both Weekly response rates as well as R-indicators are produced and provided to field managers so that interviewer case priorities can be adjusted if needed during fielding.
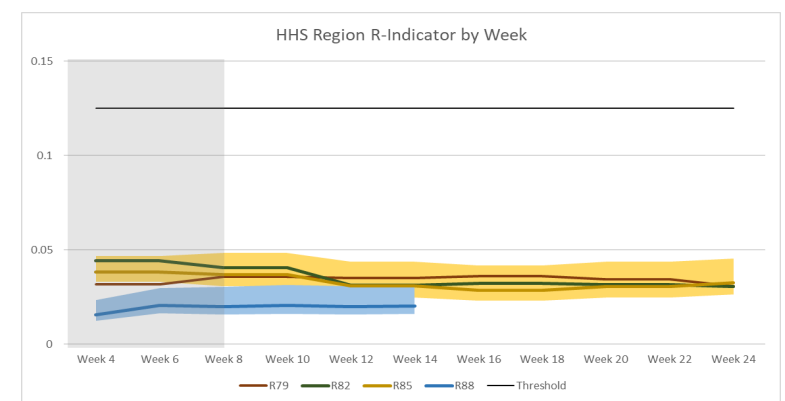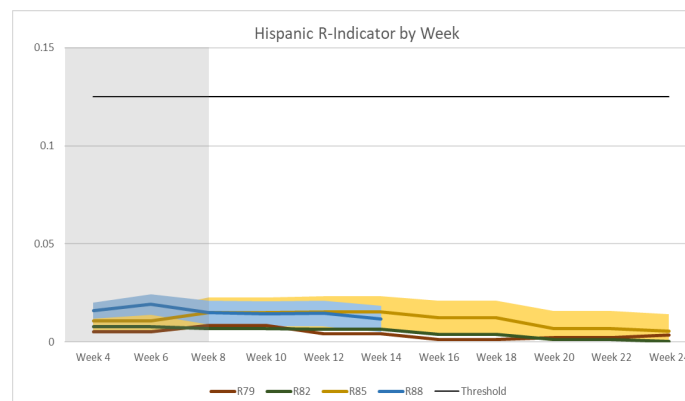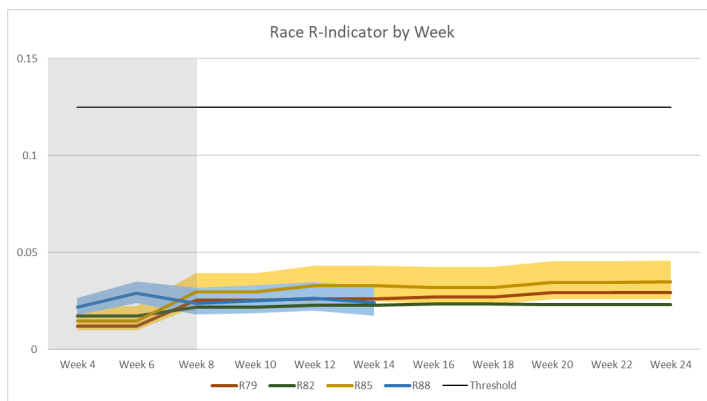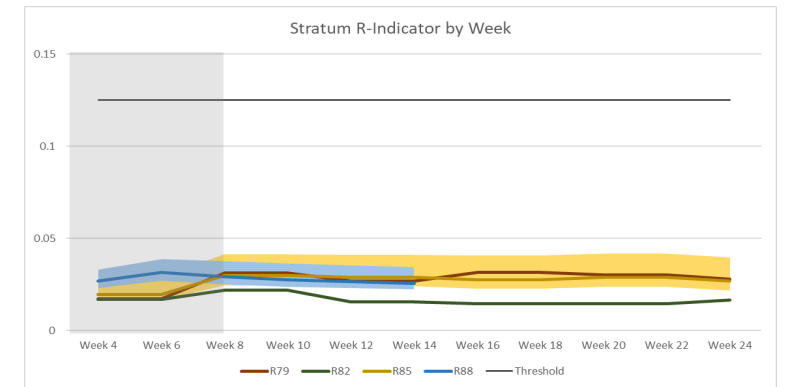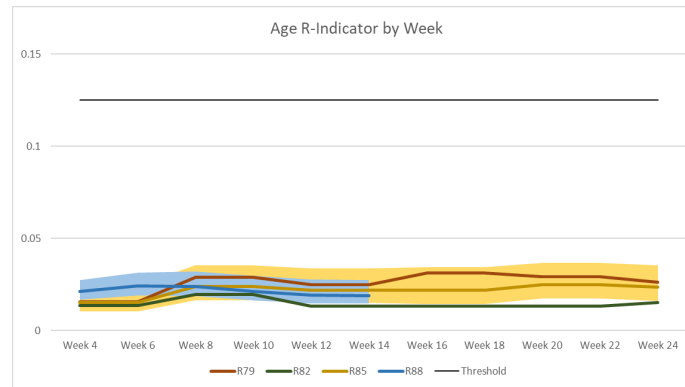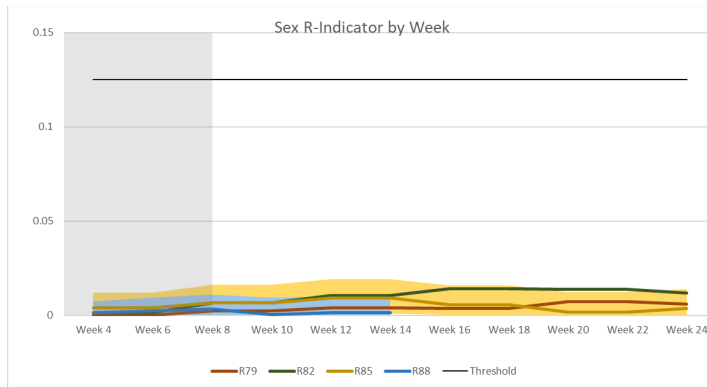
R-Indicators

- Response covariates selected:
  - ❑ Race
  - ❑ Sex
  - ❑ Age
  - ❑ Ethnicity
  - ❑ Stratum
  - ❑ Regions

Overall Incoming Sample R-indicator

Overall R-Indicator by Week
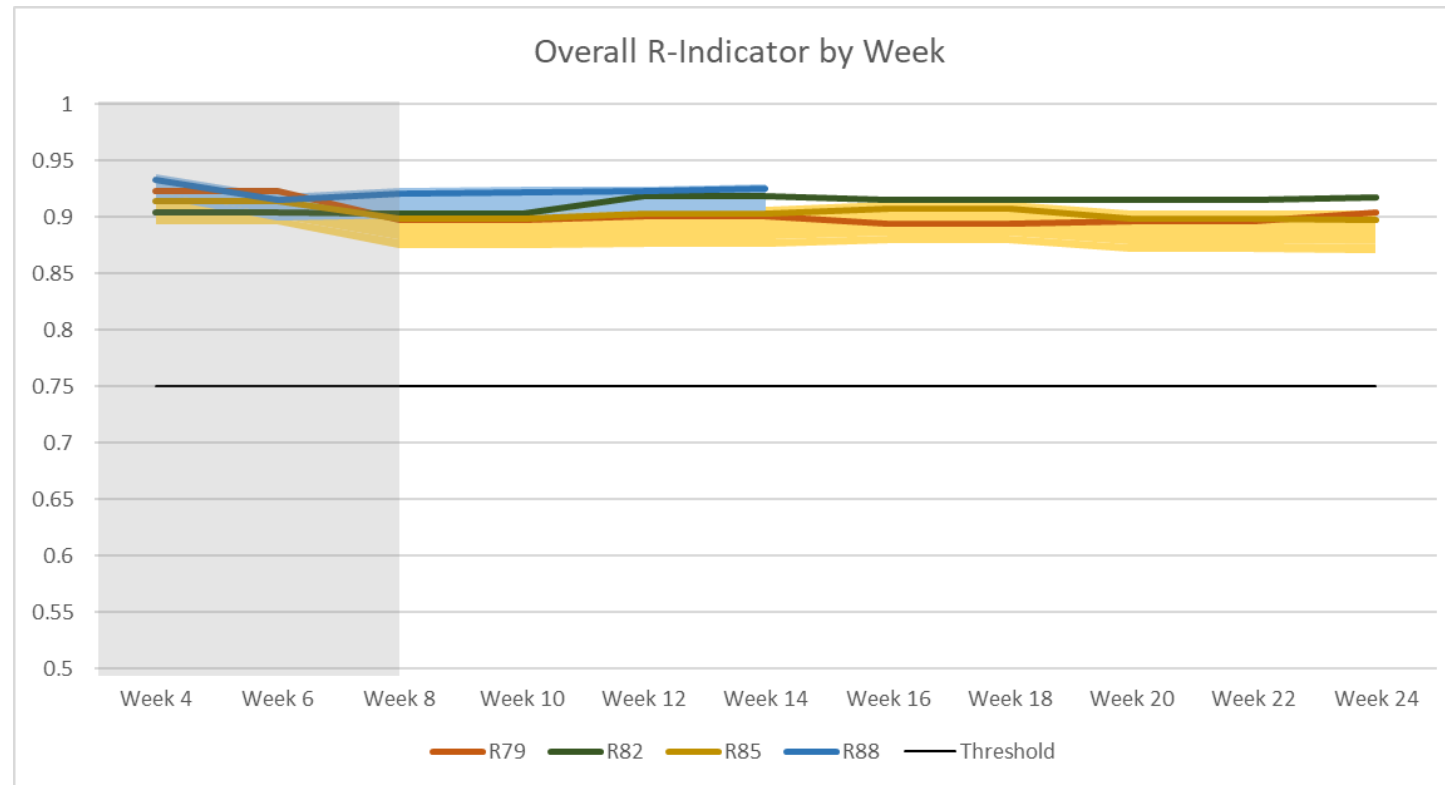
Example R-Indicator Reports by Week of Data Collection

Improving Locating Strategies to Reduce Nonresponse

- The MCBS also employs the use of auxiliary administrative and commercial data sources to locate the beneficiaries that have been selected into the sample.

  - Augmenting/Updating addresses and telephone numbers has been found to significantly reduce the number of contacts needed to locate the beneficiaries.

  - More up to date and more accurate information than the enrollment information.

- MCBS follows beneficiaries into long term care and skilled nursing facilities so knowing that they are in, or have recently been in, a facility is useful information.

  - Facility Assessment information is available for those who are in Medicare/Medicaid Certified facilities.

  - Using administrative assessment records information helps us to track that the beneficiary may now be residing in a facility, instead of within the community, improving locating.

Improving Contacting Strategies

- Updating of the MCBS Advance Letter
  - ☐ Review of language
    - Simplification
    - Direct Ask
  - ☐ Review of who signs the letter
    - Privacy Officer vs Survey Director
  - ☐ Logos
    - Letterhead
    - Envelopes
- How to determine we are "legitimate"
  - ☐ Coordination with other agencies
  - ☐ Legitimize our interviewers

Improving Contacting Strategies

- A new study is currently in the field examining beneficiary response to various types of reminder letters for those who have not responded to their initial outreach letter for our incoming panel sample in hopes of mitigating nonresponse.

  - ❑ No Reminder, FedEx, USPS Letter, USPS Post Card.

  - ❑ The early information is showing that FedEx is the "winner" with increased call volume to our respondent 1-800 number and hits on our respondent website shortly after receipt of the FedEx package.

  - ❑ Completion rates for the FedEx reminder are almost 10 percentage points higher than the others.

- We also have a planned study which will look at the types of materials sent to the beneficiary with the initial outreach letter.

  - ❑ Are "glossy" materials considered to be more "marketing" than "official"?

  - ❑ We will look at differences in study arms for sending a one-page Survey FAQ versus our typical Brochure.

Thank you!

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www.cms.gov/mcbs