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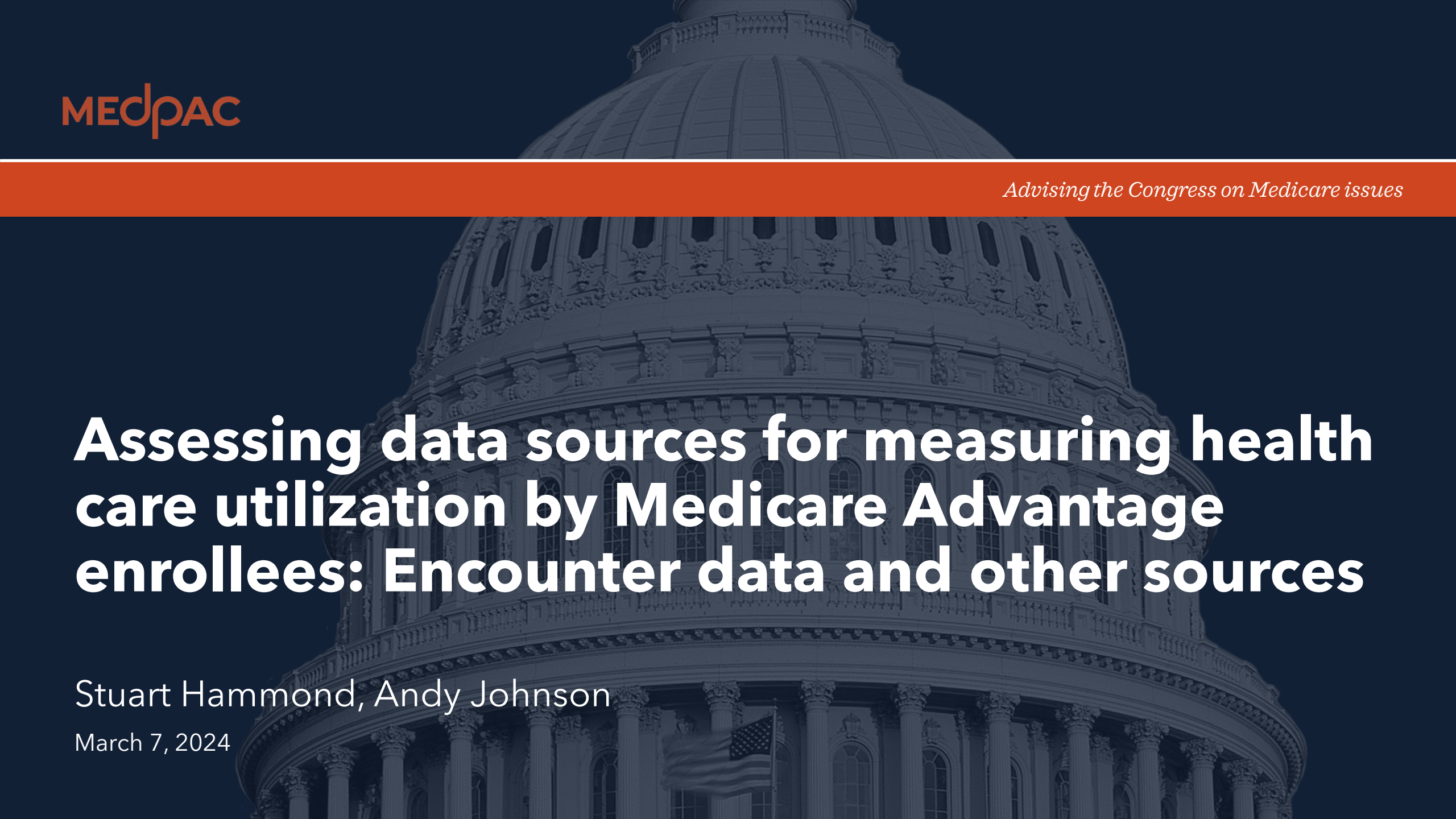

Assessing data sources for measuring health care utilization by Medicare Advantage enrollees: Encounter data and other sources

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Today's presentation

1. MA encounter data: Background, uses, and prior recommendation
2. Other data sources and methods for assessing data completeness
3. Data completeness results
4. Variation of data completeness within and across MA contracts
5. Implications
6. Discussion

Background

- Initial efforts to collect encounter data began with the Balanced Budget Act of 1997, but efforts were abandoned
- In 2008, CMS amended MA regulations to collect detailed encounter data for all Medicare services
- In 2012, CMS began collecting encounter data from plans
- CMS phased in the use of encounter data as a source of diagnostic information for MA risk scores from 2015 to 2022

Complete encounter data are critical to the Medicare program

- Provide program oversight for MA enrollees
  - 31.6 million beneficiaries are enrolled in MA (52% of eligible)
  - $455 billion in spending on MA in 2023:
    - Incomplete understanding of service use
    - $15 billion in quality bonus payments but quality data are not meaningful
    - Little visibility into the nearly $76 billion spent on extra benefits
- Simplify administration of the MA program
- Inform and generate new policies

Comparing MA and FFS utilization rates

- Utilization rates can be important for evaluating health care delivery in MA and FFS
  - Important differences between MA encounter data and FFS claims
- FFS claims are required for payment; generally considered to be a complete record of Medicare services provided
- MA encounter data submission is separate from provider payments
  - No formal assessment that all items and services provided are reported in encounter data

Current incentives unlikely to yield complete encounter data

- Plans have a strong incentive to submit the data that contribute to enrollee risk scores; weak incentive to submit other encounter data
- CMS provides limited feedback to plans about encounter data completeness and accuracy
  - Ability to submit any encounter data
  - Comparisons of encounters per enrollee regionally and nationally
- CMS does not assess internal consistency between plans' encounter data and other data that plans submit

Source: MedPAC. 2019. Report to the Congress: Medicare and the health care delivery system. Washington, DC: MedPAC. (Chapter 7)
MedPAC. 2020. Report to the Congress: Medicare payment policy. Washington, DC: MedPAC. (Chapter 13)
MedPAC. 2022. Medicare Advantage encounter data.
https://www.medpac.gov/wp-content/uploads/2021/10/Encounter-data-MedPAC-01-Sept-2022.pdf

The share of contracts submitting at least one record for all service categories increased from 80 percent in 2015 to 96 percent in 2020

	Share of contracts with at least one data record	
Encounter data file	**2015**	**2020**
Physician	99%	100%
Inpatient	98	100
Outpatient	98	100
Skilled nursing facility	95	98
Home health	82	98
Durable medical equipment	96	99
In all six settings	**80**	**96**

Note: Includes only health maintenance organization (HMO)/HMO point of service, local preferred provider organization (PPO), and regional PPO contracts. Contracts with 10 or fewer enrollees are excluded.

Source: MedPAC analysis of MA encounter data and CMS enrollment data.

Commission recommendation to improve encounter data (June 2019)

- Expand performance metric framework for assessing encounter data completeness and provide feedback to plans
- Apply a payment withhold to increase incentive to submit complete and accurate data
- Collect encounter data through Medicare Administrative Contractors, if necessary

Sources of information about MA enrollees' use of health care services

- Providers are required to submit certain claims or assessment data for MA enrollees directly to CMS
- Each data source provides evidence of services provided to MA enrollees
- We restrict our analyses to HMO and PPO plans and excluded chart reviews from our analysis

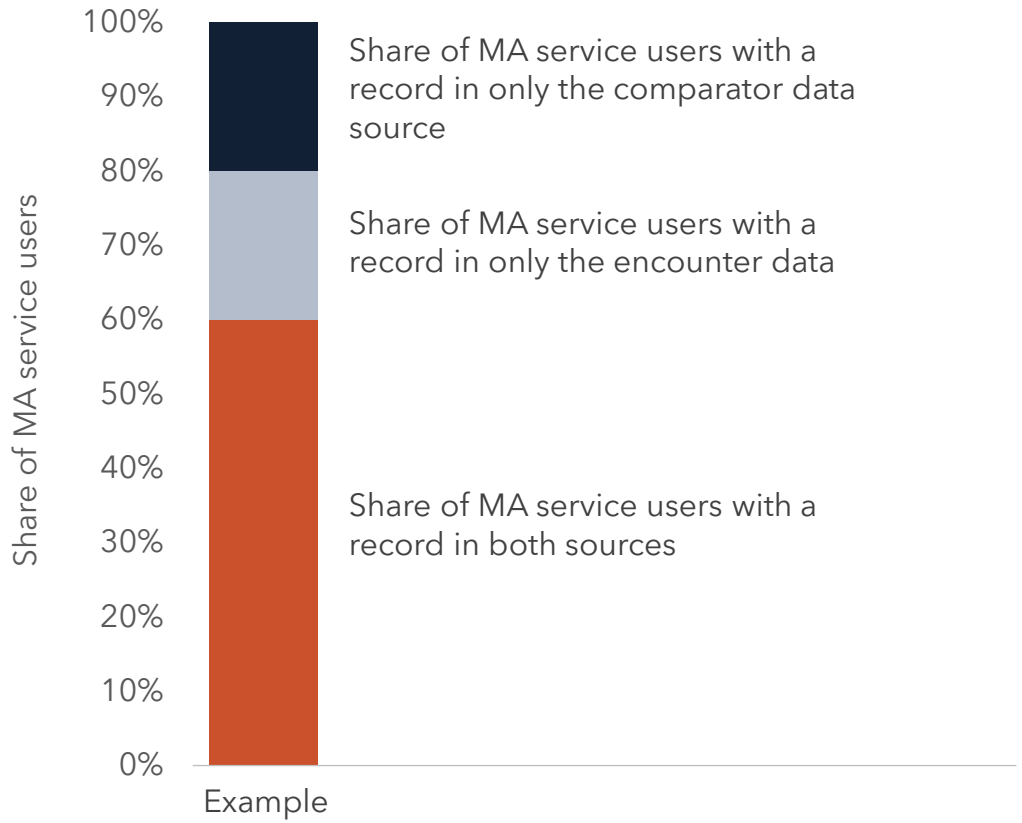
Beneficiary-level comparisons

Service category	Comparison source
Inpatient	MedPAR
Dialysis	Dialysis risk-adjustment indicator
Skilled nursing facility	MDS
Home health	OASIS

Stay-level comparisons

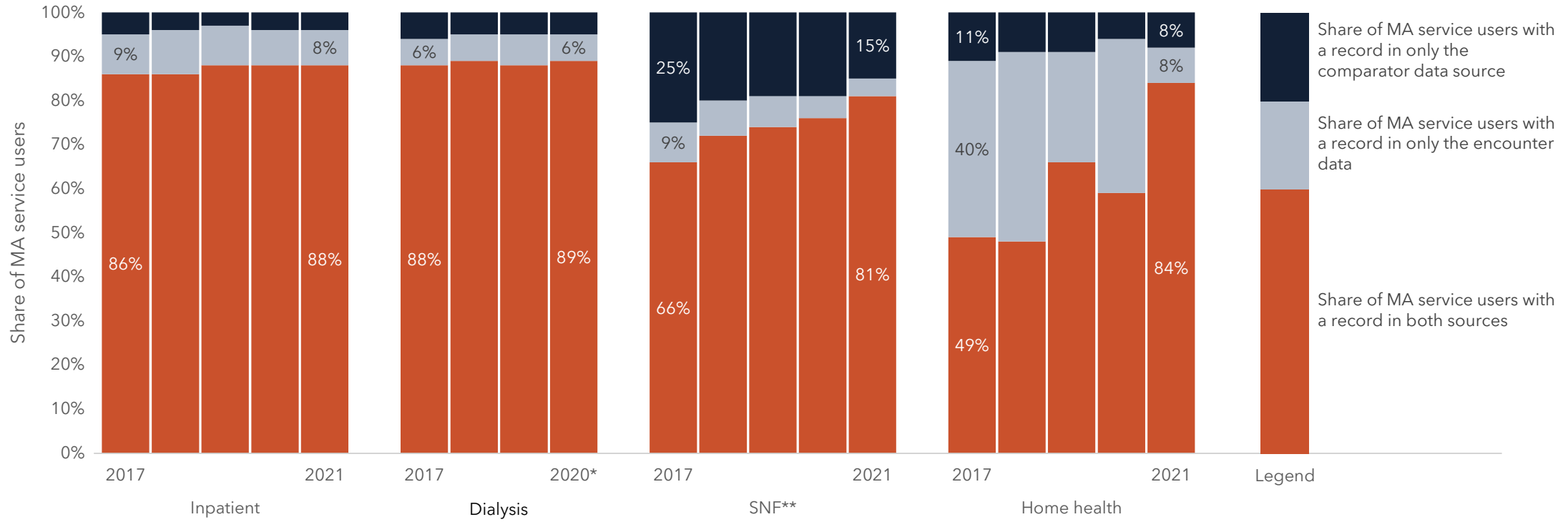
Service category	Comparison source
Inpatient	MedPAR

Comparing MA encounter data and other sources



- Some of the comparator data sources are themselves incomplete for MA enrollees
- Each data source provides evidence of services that were provided to MA enrollees
- Encounter data can include records for services where the claim was denied
- Encounter data might not include records for services provided out of a plan's network for which a plan did not receive a claim, but records of such services might be included in other data sources

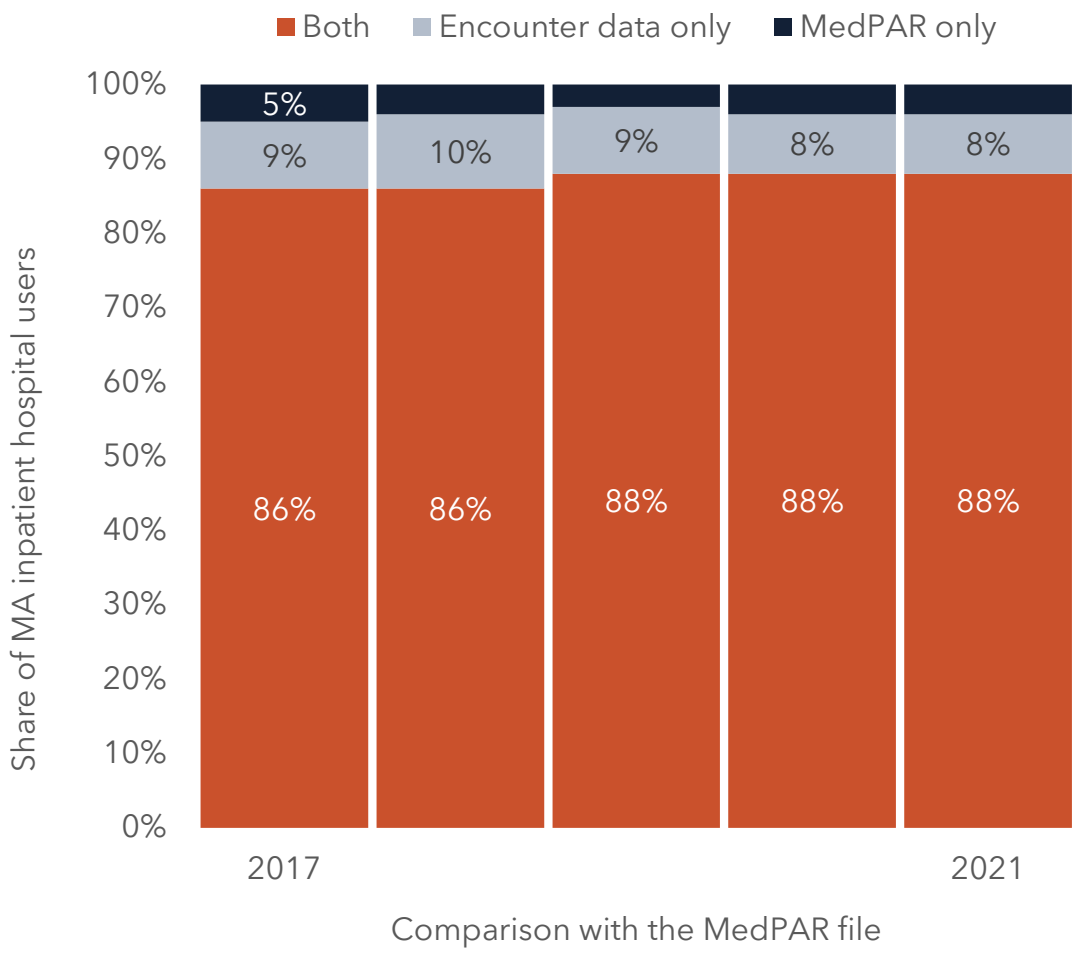
Encounter data and other sources have no data for some MA service users



Note: MA (Medicare Advantage), SNF (skilled nursing facility), OASIS (Outcome and Assessment Information Set), MDS (Minimum Data Set), MedPAR (Medicare Provider Analysis and Review). Includes only data for health maintenance organization (HMO)/HMO point of service, local preferred provider organization (PPO), and regional PPO contracts. *Outpatient encounter data for 2021 were not available at the time of analysis. **Excludes MA enrollees who were dually eligible for full Medicaid benefits during the calendar year.

Source: MedPAC analysis of MA encounter data and MedPAR, risk-adjustment, MDS, and OASIS data.

MA inpatient hospital users: The share with both a MedPAR and an encounter record remained steady

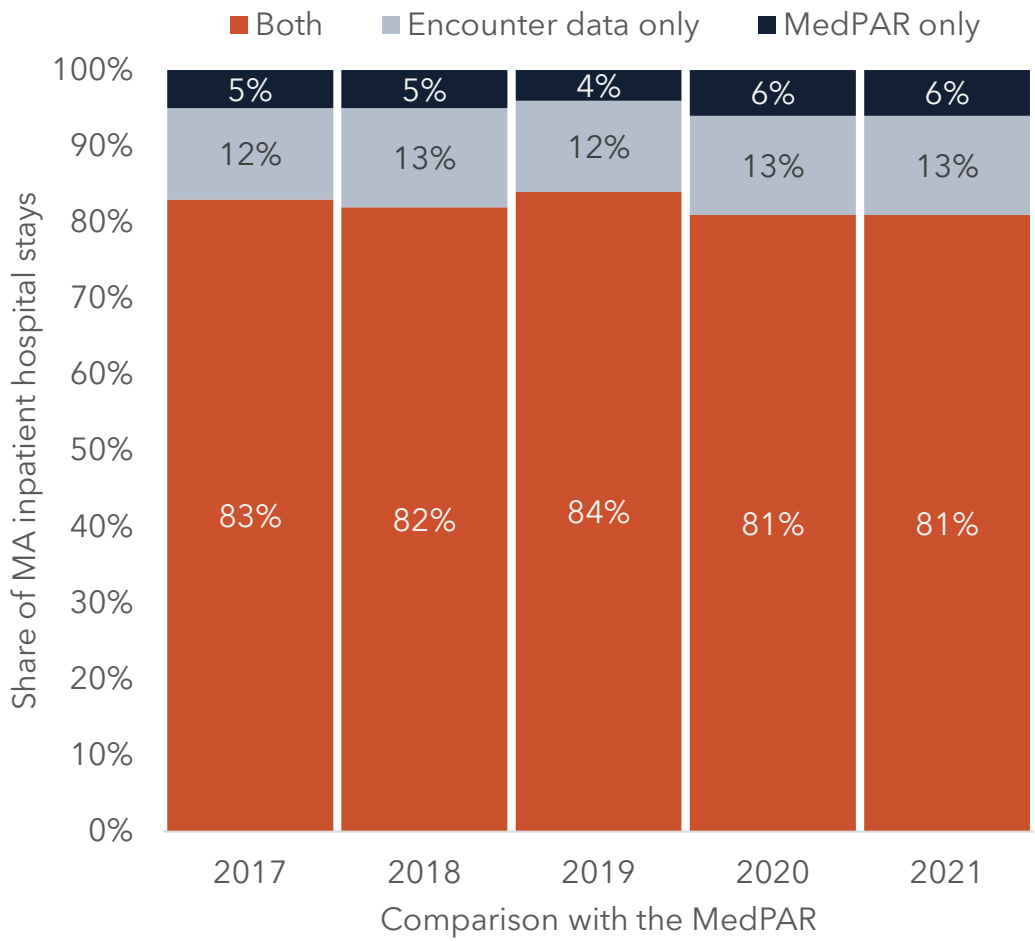


- Hospitals submit "information only" claims to CMS for MA enrollees
  - Information about FFS and MA hospitalizations is combined in the Medicare Provider Analysis and Review (MedPAR) file
  - CMS uses the information to make payments to teaching and disproportionate share hospitals
- Of all beneficiaries with an inpatient stay reported in either the MedPAR data or the encounter data, 88% appeared in both sources

Note: MA (Medicare Advantage), MedPAR (Medicare Provider Analysis and Review). Includes only data for HMO/HMOPOS and PPO contracts.
Source: MedPAC analysis of MA encounter and MedPAR data.

MA inpatient hospital stays: Roughly 80 percent were reported in both the MedPAR and the encounter data

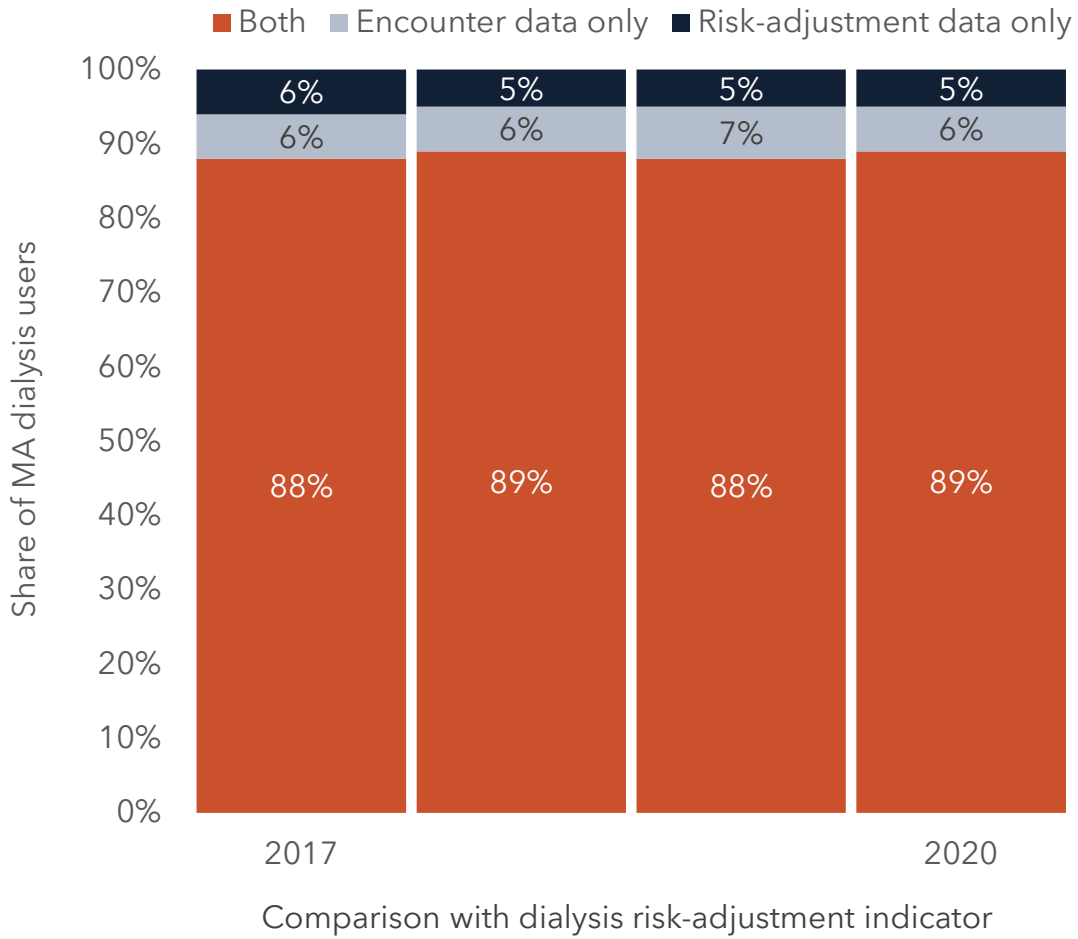
- We used dates of service to match hospitalizations in the MedPAR and inpatient encounter data
- Roughly 80% of MA hospitalizations had a record in both sources
  - We matched an additional 3% of records using alternative matching criteria
- Neither source has complete records



Note: MA (Medicare Advantage), MedPAR (Medicare Provider Analysis and Review). Includes only data for HMO/HMOPOS and PPO contracts.

Source: MedPAC analysis of MA encounter and MedPAR data.

MA dialysis users: Nearly 90 percent had a record in both the risk-adjustment and the encounter data

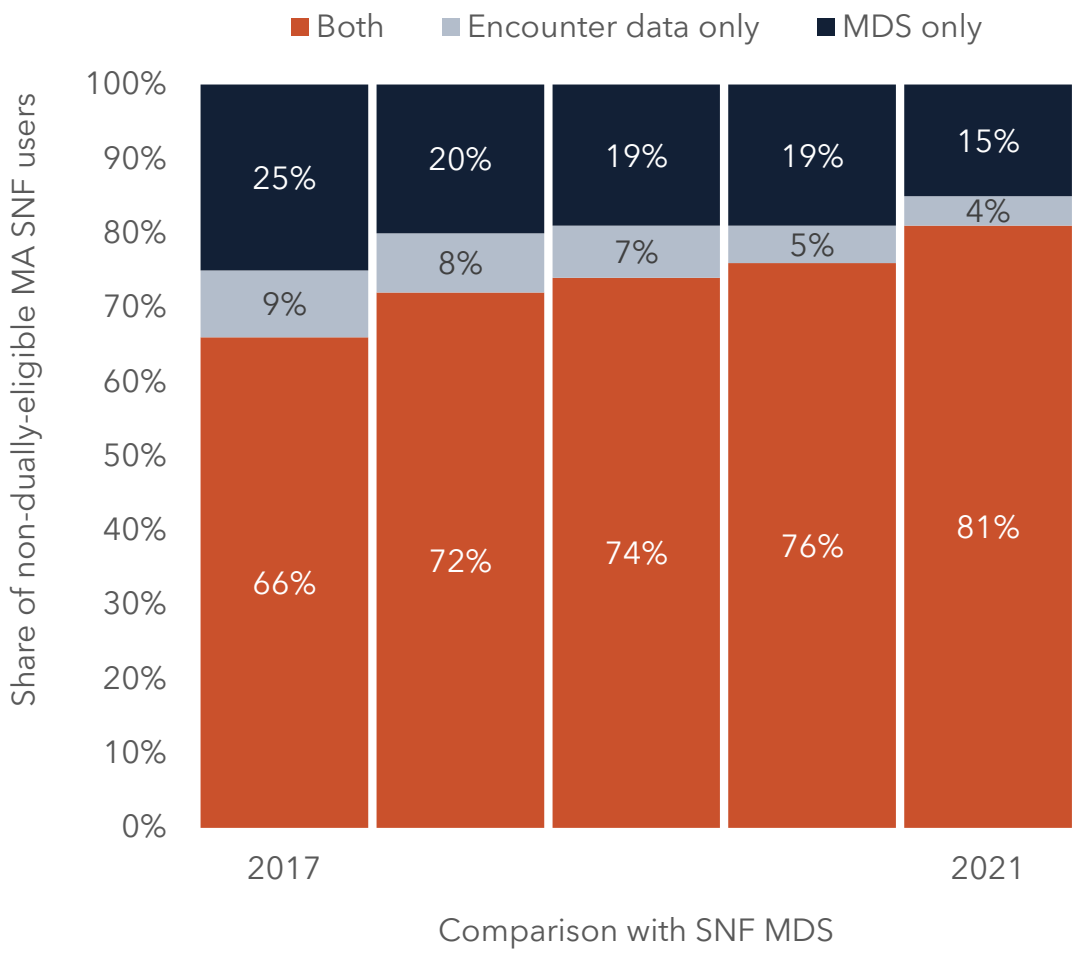


- Dialysis facilities notify CMS when a patient with ESRD begins dialysis
  - CMS records the change using an indicator in risk-adjustment data; Medicare payment to the MA plan is then based on the dialysis risk-adjustment model
- We found that roughly 90% of MA beneficiaries with the dialysis risk-adjustment indicator also had an outpatient dialysis encounter record during the year

Note: MA (Medicare Advantage), MedPAR (Medicare Provider Analysis and Review). Includes only data for HMO/HMOPOS and PPO contracts. Excludes encounters for acute kidney injury.

Source: MedPAC analysis of MA encounter and risk-adjustment data.

MA SNF users: Data has become more complete since 2017

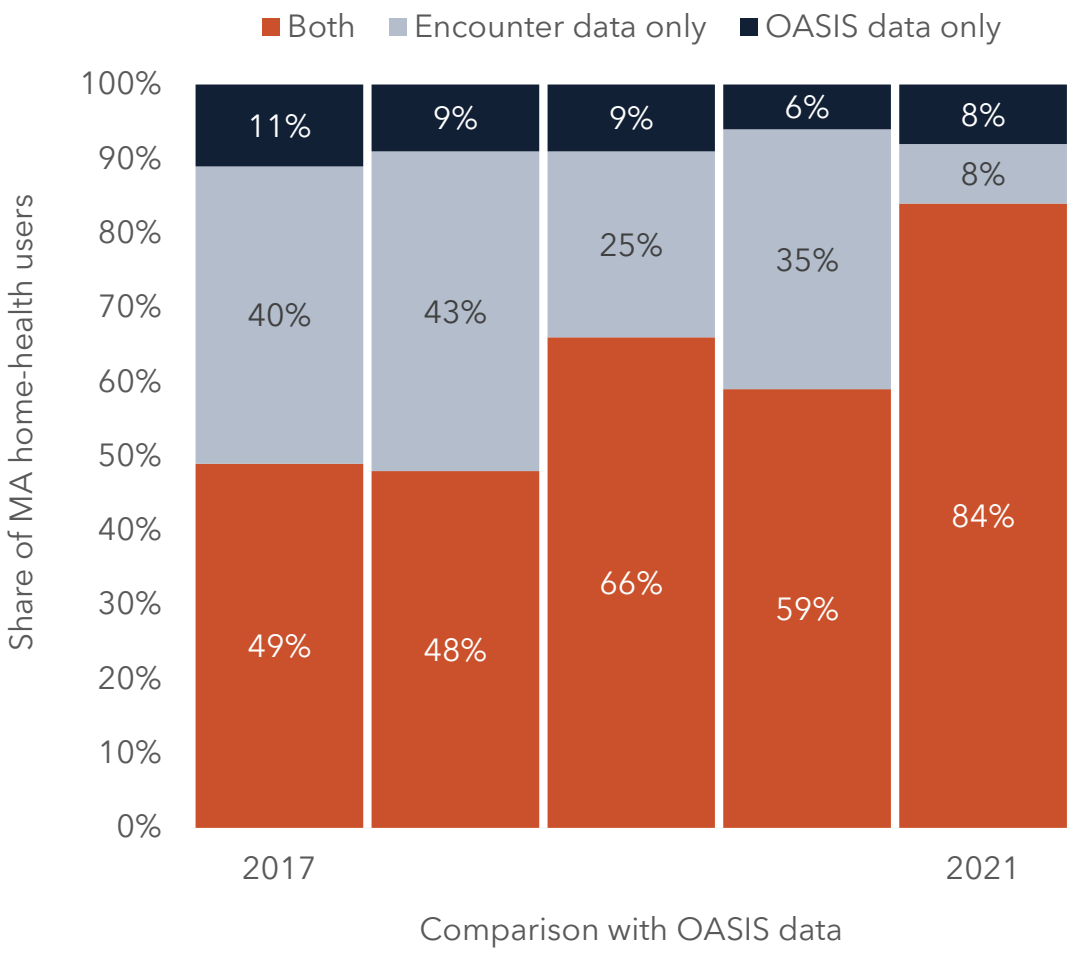


- An MDS assessment is required for all residents in Medicare- or Medicaid-certified nursing facilities
- We excluded MDS records for enrollees eligible for full Medicaid benefits to avoid counting assessments for services not covered by Medicare
- The share of MA SNF users with a record in both sources improved from 66% to 81% between 2017 and 2021

Note: MA (Medicare Advantage), MDS (Minimum data set), SNF (skilled-nursing facility). Includes only data for HMO/HMOPOS and PPO contracts. Excludes dually-eligible enrollees.

Source: MedPAC analysis of MA encounter and MDS data.

MA home health users: Data has become more complete since 2017



- Home health agencies are required to submit an OASIS assessment for all Medicare beneficiaries
- From 2017 to 2020, many MA enrollees appeared only in the encounter records and were missing from the OASIS data
- The share of MA enrollees appearing in both sources improved significantly over the period

Note: OASIS (Outcome and Assessment Information Set). Includes only data for HMO/HMOPOS and PPO contracts.

Source: MedPAC analysis of MA encounter and OASIS data.

Implications of incomplete data for measuring MA enrollees' use of health care services

- Researchers have used the data sources we analyzed to assess MA enrollees' use of services and compare with FFS enrollees' use
- Many studies have relied on only one data source per service category and may therefore be affected by missing data
- Some researchers have attempted to account for missing data by:
  - Limiting the provider types included in the study
  - Supplementing data from HEDIS®
  - Jung and colleagues (2022) selected contracts for which:
    - At least 90% of inpatient stays reported in either the MedPAR or encounter data were reported in the encounter data
    - The difference between the number of ambulatory and emergency department visits reported in the encounter data and HEDIS® data was less than 10% (in either direction)

Note: HEDIS (Healthcare Effectiveness Data and Information Set®)
Source: Jung, J., C. Carlin, and R. Feldman. 2022. Measuring resource use in Medicare Advantage using Encounter data. Health Services Research 57, no. 1 (February): 172-181.

Relatively high data completeness in one service category is not a marker of complete data across all service categories

Share of MedPAR records with a matching encounter record*	Share of records in comparison dataset with a matching encounter record: Inpatient stays (MedPAR)	Home health users (OASIS)	Skilled nursing users (MDS)	Dialysis users (risk indicator)
Higher than 90 percent	Mean (min., max.)			
311 contracts	97% (90, >99.5%)	88% (1, 99%)	84% (1, 100%)	94% (66, 100%)
80-90 percent				
15 contracts	85% (80, 90%)	85% (64, 98%)	69% (12, 98%)	93% (77, 100%)
Less than 80 percent				
28 contracts	21% (1, 79%)	85% (60, 98%)	75% (15, 100%)	94% (79, 100%)

Note: MA (Medicare Advantage), MedPAR (Medicare Provider Analysis and Review), OASIS (Outcome and Assessment Information Set), MDS **(**Minimum Data Set). Includes only health maintenance organization (HMO)/HMO point of service, local preferred provider organization (PPO), and regional PPO contracts. Contracts with fewer than 2,500 enrollees and fewer than ten records in any of the service categories are excluded.*Matching is based on the number of hospital stays with matching service end dates for the same beneficiary.

Source: MedPAC analysis of MA encounter data, OASIS, MDS, risk-adjustment, MedPAR, and CMS enrollment data.

Summary: Current state of encounter data

- Data on MA enrollees' use of services are incomplete but incrementally improving
- Combining encounter data with other sources may improve problems stemming from missing data
- Data validation is limited for physician and outpatient encounters
- MedPAC's 2019 recommendation would address many issues with the encounter data

Discussion

- Questions about the analysis and current state of encounter data
- Suggestions for future analyses
- Other feedback