

C H A P T E R

7

**Ensuring the accuracy and
completeness of Medicare
Advantage encounter data**

R E C O M M E N D A T I O N

- 7** The Congress should direct the Secretary to establish thresholds for the completeness and accuracy of Medicare Advantage (MA) encounter data and:
- rigorously evaluate MA organizations' submitted data and provide robust feedback;
 - concurrently apply a payment withhold and provide refunds to MA organizations that meet thresholds; and
 - institute a mechanism for direct submission of provider claims to Medicare Administrative Contractors
 - as a voluntary option for all MA organizations that prefer this method
 - starting in 2024, for MA organizations that fail to meet thresholds or for all MA organizations if program-wide thresholds are not achieved.

COMMISSIONER VOTES: YES 16 • NO 1 • NOT VOTING 0 • ABSENT 0

Ensuring the accuracy and completeness of Medicare Advantage encounter data

Chapter summary

Across all areas of the Medicare program, the Commission encounters situations in which data on Medicare Advantage (MA) plan practices could be used to assess or inform both fee-for-service (FFS) and MA payment policies. Analysis of MA encounter data could inform improvements to MA payment policy, provide a useful comparator with the FFS Medicare program, and generate new policy ideas that could be applied more broadly to the Medicare program.

Through rulemaking, CMS has enumerated 10 uses to which the agency can apply MA encounter data, such as determining the risk adjustment factors used to adjust payments to plans and conducting quality review and improvement activities. This chapter describes these uses and expands on how MA encounter data could be used to improve the administration of the MA program and inform potential refinements to the traditional FFS Medicare program. However, the ultimate utility of encounter data depends on their accuracy and completeness.

MA encounter data for 2012, 2013, and 2014 and preliminary data for 2015 were available in time to be included in this chapter. For 2014 and preliminary 2015 data, we assessed the face validity and completeness of the data by counting the number of unique MA plans and unique MA enrollees and comparing the MA encounter data with other Medicare data sets, including

In this chapter

- Introduction
- Encounter data history
- Encounter data submission and screening process
- Uses of MA encounter data
- MA encounter data validation
- Outlook for encounter data accuracy and completeness
- Ensuring the robustness of encounter data

those with information about MA plan offerings, enrollment, and utilization. We conclude, based on our evaluation of the 2014 and 2015 MA encounter data, that these data are a promising source of information and should continue to be collected. We believe there is significant value for policymakers and researchers in having complete, detailed encounter data about the one-third of Medicare beneficiaries enrolled in MA and the \$233 billion that Medicare spends on those services. CMS has released the preliminary 2015 encounter data to researchers for specified analyses. However, given the data errors and omissions that we found, the Commission does not currently support using the data to compare MA and FFS utilization.

Given the value of complete encounter data for the Medicare program and the significant gaps we found in the available encounter data, we propose a phased rollout to improve CMS's MA encounter data collection. Certain steps—included in the Commission's recommendation to the Congress—could be implemented immediately, such as the application of accuracy and completeness metrics that assess plans' compliance with these metrics and the use of payment incentives to drive better encounter data submissions. More specifically, these steps include:

- adding encounter data submission to CMS's MA plan performance metrics, providing robust feedback to plans, and implementing stricter penalties for plans with poor performance;
- implementing a payment withhold to introduce a direct financial incentive for plans to submit complete and accurate data; and
- requiring submission of providers' claims directly to Medicare Administrative Contractors (for some or all MA organizations).

Together these policy changes are designed to improve the completeness and accuracy of encounter data so that they can be used for program oversight; for performance comparisons across FFS, MA, and accountable care organizations; and for additional policy priorities. The recommendation would decrease Medicare spending by less than \$50 million per year and by less than \$1 billion over five years.

While these steps are underway, we envision additional analytic work on subsequent steps for assessing data completeness and accuracy where current comparison data-source gaps exist and for determining that incentives for improved reporting have their intended effect. ■

Introduction

The Medicare Advantage (MA) program gives Medicare beneficiaries the option of receiving benefits from private plans rather than through the traditional fee-for-service (FFS) Medicare program. The Commission strongly supports the inclusion of private plans in the Medicare program; beneficiaries should be able to choose between the traditional FFS Medicare program and alternative delivery systems that private plans can provide. Because Medicare pays private plans a risk-adjusted per person predetermined rate rather than paying for individual services, plans have greater incentives than FFS providers to innovate and use care-management techniques to deliver more efficient care. Plans often have flexibility in payment methods, including the ability to negotiate payment rates with individual providers, care-management techniques that fill potential gaps in care delivery (e.g., programs focused on preventing avoidable hospital readmissions), and robust information systems that can provide timely feedback to providers. Plans also can reward beneficiaries for seeking care from more efficient providers and give beneficiaries more predictable cost sharing.

To administer benefits through the MA program, CMS collects a large amount of information in many forms from plans, providers, and other sources to support particular program functions. MA plans submit detailed bid information based on their own health care encounter and expenditure data; diagnostic information for risk adjustment based on encounter data; and quality data summarized from encounters, medical record reviews (as part of the Healthcare Effectiveness Data and Information Set[®] (HEDIS[®])), and member surveys (as in the Consumer Assessment of Healthcare Providers and Systems[®] (CAHPS[®])).¹ In addition, FFS claims are used to develop MA risk adjustment models; “information-only” claims submitted by hospitals for MA enrollee inpatient stays are used to help calculate disproportionate share hospital (DSH) and medical education payments; and information-only claims from both hospitals and skilled nursing facilities (SNFs) are used to track limits on the Medicare benefit.

Currently, MA program policies rely on discrete sets of limited information often summarized from plans’ internal utilization data (e.g., spending information for bids, diagnosis codes for risk adjustment, and HEDIS data for quality measurement). These information sources are often summarized in a way that is specific to a particular

purpose such that CMS cannot link the data sources to generate a complete picture of how plans administer the Medicare benefit. For example, plans attest that diagnostic information meets risk adjustment rules, and CMS ensures that plan bids reflect patterns of prior spending in the aggregate, but robust encounter data could fulfill both functions while also offering an opportunity to address other program goals, such as calculating quality measures and tracking changes in care patterns. Complete and accurate encounter data could replace several data summarization and submission tasks currently conducted separately by each plan and would allow for more rigorous program oversight. Using encounter data would provide more consistency in the preparation of the submitted data and ensure that program rules are followed consistently and correctly. Most important, complete and accurate encounter data could be used to ensure that MA enrollees receive the full Medicare benefit as entitled and that the \$233 billion of taxpayer money paid to MA plans is spent appropriately. Detailed encounter data are the best vehicle for learning about how, and how much, care is provided to the one-third of Medicare beneficiaries who receive their benefit through an MA plan. In this chapter, we expand on how MA encounter data could be used to improve various program functions necessary for administering the MA program.

In addition to program administration and oversight uses, MA encounter data can be used to gather information about MA plan practices and utilization that can then be used to inform Medicare policies more broadly. Policymakers regularly highlight situations in which analysis of MA encounter data could inform improvements to MA payment policy, provide a useful comparator with the FFS Medicare program, or generate new policy ideas that could be applied across the entire Medicare program.

Encounter data history

The Balanced Budget Act of 1997 permitted CMS to collect encounter data from MA organizations on hospital inpatient stays and other service use—for example, in physician offices, hospital outpatient departments, SNFs, and home health agencies. In 1998, CMS began collecting encounter data and intended to use the diagnoses reported in the data to develop indicators of beneficiary health status for use in risk adjustment.

Plans argued that collecting and submitting encounter data for all items and services provided to MA enrollees would be an excessive burden and inconsistent with the goal of giving responsibility for the management of patients' care to plans. In response, CMS opted to reduce this burden by requiring plans to submit only the data elements necessary to run a risk adjustment model. These elements, known as the Risk Adjustment Processing System (RAPS) data, include a beneficiary identifier, diagnoses, provider type, and dates of service.

In our March 2008 report, the Commission discussed the value of resuming encounter data collection. Commissioners noted that encounter data could provide more detailed information than was currently available about the amount, cost, and quality of services delivered to plan enrollees. Later that year, CMS notified MA organizations of the requirement to submit detailed information about each encounter an enrollee has with a health care provider (Centers for Medicare & Medicaid Services 2008). The encounter data are now used for risk adjustment and other purposes and include many more data elements than found in RAPS: the specific provider of a service, date of service, diagnoses identified, procedures conducted and items provided, the cost of the services provided (when a capitated arrangement is not in place), and others. In 2012, CMS began collecting such data from most MA organizations through the Encounter Data System (EDS).

Encounter data submission and screening process

In general, MA organizations submit encounter data electronically to CMS weekly, biweekly, or monthly, depending on the number of enrollees in a plan. The data are submitted using a standard claim format and, with a few exceptions, include the same information as traditional Medicare's FFS claims. When encounter data are submitted, CMS performs automated front-end checks to verify data quality—such as missing elements, incorrect format, and inconsistent values—before accepting the encounter record. If there are errors or problems, the EDS may reject the submission. These checks focus on data quality for a submitted encounter record and do not evaluate whether all encounters are being submitted to the system (i.e., whether an encounter data record is submitted for all items and services provided to enrollees). If the

system rejects a data submission during these front-end checks, no record of the encounter will appear in the encounter data files unless the plan corrects and resubmits the data.

MA plans submit two types of records: (1) encounter records of health care items and services provided to enrollees and (2) chart review records for information collected during a review of a patient's medical record or chart. Plans can opt to change accepted encounter records at a later date. All encounter records that pass the front-end checks are preserved in the encounter data files, even if they are subsequently edited. The edit process allows plans to void existing records and, if necessary, submit a replacement record that includes corrected or updated information. The system uses unique control numbers to link records for a specific encounter. Chart review records often document additional diagnostic information for risk adjustment. A chart review record may be linked or unlinked to a specific encounter. Plans must keep track of the sequence of submissions, revisions, and linked chart review records to ensure that all records are ultimately accepted by CMS. CMS developed an algorithm over the past few years to assess the submission, deletion, replacement, and linking of records and to determine which record represents an encounter's "final action." Final encounter data files include all accepted encounter records and have an indicator to differentiate final action encounter records from records that were accepted but subsequently replaced by an updated encounter record. CMS finalized the algorithm that determines final action encounters and chart reviews and, in April 2018, sent plans updated versions of encounter data reports (called the MAO-004 report) for 2015 and subsequent years. These reports continue to be improved to address outstanding issues.

For the first few years that CMS collected encounter data, the agency asked plans to submit the data within 13 months of the end of the data collection year, the same deadline used for RAPS risk adjustment data submissions. To accommodate the revision of the final action algorithm and of the feedback reports that CMS sends to plans, the agency extended the deadlines for submitting encounter data for 2015 and 2016 dates of service multiple times to allow plans more time to reconcile their data submissions for those years. The extension gave plans until September 2018 to submit or edit 2015 and 2016 encounter data (Centers for Medicare & Medicaid Services 2019, Centers for Medicare & Medicaid Services 2018d, Centers for

Medicare & Medicaid Services 2018f). For 2017 dates of service, all risk adjustment data, both RAPS and encounter data, were required to be submitted within 13 months of the end of the data collection year, by January 31, 2019 (Centers for Medicare & Medicaid Services 2018a).

In addition to reports documenting plans' submission of encounter records at various points in the process (e.g., acceptance or rejection status after front-end edits, errors related to replacement or linking of records, and disposition of diagnostic data with respect to their use for risk adjustment), CMS provides each plan with a quarterly report card that documents a limited set of metrics, including:

- the total number of records submitted, by service category, with regional and national totals for FFS and MA plans in its region;
- the total number of records accepted, by service category, as well as a breakdown of rejection rates of all attempted submissions;
- one outcome measure comparing inpatient encounter records with information-only claims that hospitals submit to CMS for admissions of MA enrollees.²

Numbers of submitted and accepted records may show changes in plan submissions over time, but only the comparison of inpatient encounter records with hospitals' information-only claims uses an external data source to assess whether encounter data include all records that should be present.

In August 2018, CMS finalized a performance metric framework that includes seven encounter data performance metrics on which MA contracts will be assessed. CMS applied these metrics to encounter data reported for 2015 (Table 7-1, p. 210) (Centers for Medicare & Medicaid Services 2018e). CMS states that the threshold for each metric is designed to identify performance that is substantially below reasonable expectations for submissions, and plans falling below the threshold will be subject to compliance action (i.e., outreach, technical assistance, warning letters, and corrective action) on an annual basis.³ We estimate that about 730 contracts should have submitted encounter records for 2015 dates of service; however, some contracts are excluded from certain metrics listed in Table 7-1 (e.g., cost plans may not be required to submit inpatient encounters; the Program of All-Inclusive Care for the Elderly (PACE), cost, and

Medicare–Medicaid Plans are excluded from some low-volume metrics).

These performance metrics provide a very limited assessment of encounter data and do not assess data completeness. Some of these measures are nearly topped out (e.g., O1: Failure to complete end-to-end testing and certification, O2: Failure to submit any accepted records to the Encounter Data System). These measures may have been appropriate for use as a de minimis threshold in the first few years of the encounter data collection program, but they lack the rigor expected for assessing data collection in the program's sixth year. Other measures compare encounter data with plan-submitted RAPS data but set expected thresholds far too low to be of use: Established thresholds permit plans to report inpatient encounter data for just 41 percent of the enrollees for which they reported inpatient RAPS data and to report outpatient encounter data for just 71 percent of outpatient RAPS data. CMS sets a higher threshold for professional services, which nearly every Medicare beneficiary receives, but does not assess the number of services reported.

Furthermore, we evaluated whether RAPS data are an appropriate benchmark for encounter data completeness and concluded that the provider type indicator (i.e., identifying the encounter as an inpatient hospital, outpatient hospital, or physician/professional visit) does not accurately identify the provider type for an encounter (Medicare Payment Advisory Commission 2019a). Specifically, we found that of the 6.4 million inpatient stays reported in RAPS data, about 1.5 million indicated admission and discharge on the same date and had a physician or outpatient hospital encounter record that matched the date and beneficiary identifier of the RAPS record. We concluded that some of these records were likely to have been outpatient or professional visits that were inaccurately identified as inpatient stays in RAPS data. The inaccuracy of the provider type indicator in RAPS data causes a particular problem for the three performance metrics (C2, C3, and C4) that use RAPS data for a specific provider type as the comparison for encounter data completeness. For example, if 1.5 million of the 6.4 million inpatient stays reported in RAPS data are actually physician or outpatient visits, then the number of enrollees with an inpatient encounter record could never match the number of enrollees with an inpatient RAPS record, creating a downward bias in this comparison. Conversely, the number of enrollees with a professional or outpatient RAPS record would be too low, making the

**TABLE
7-1**

**CMS assessment of encounter data performance
for MA contracts, 2015 dates of service**

Performance metric	Performance threshold	Number of contracts not meeting performance threshold
O1: Failure to complete end-to-end testing and certification	Completed end-to-end testing and certification for a contract within four months of the beginning of operations.	1
O2: Failure to submit any accepted records to the Encounter Data System	Submitted and had at least one record accepted during the calendar year.	4
O3: Excessive submission of encounter data records at end of risk adjustment submission window	Less than 27 percent of encounter data and chart review records for the applicable calendar year were submitted in the last two months before the risk adjustment deadline (to ensure that CMS systems are not overloaded and that plans are regularly submitting data over time).	14
C1: Extremely low volume of overall encounter data records	Submitted a number of encounter data records per enrollee that is above the 80% confidence interval around the mean number of records per enrollee, within each peer group (MSAs, local or regional PPOs and HMOs, PFFS).	8
C2: Extremely low volume of inpatient encounter data records	The number of enrollees with an accepted inpatient record in EDS is at least 40% of the number of enrollees with an inpatient RAPS record (encounter record must be for same enrollee as RAPS record).	21
C3: Extremely low volume of professional encounter data records	The number of enrollees with an accepted professional record in EDS is at least 90% of the number of enrollees with a professional RAPS record (encounter record must be for same enrollee as RAPS record).	29
C4: Extremely low volume of outpatient encounter data records	The number of enrollees with an outpatient record in EDS is at least 70% of the number of enrollees with an outpatient RAPS record (encounter record must be for same enrollee as RAPS record).	17

Note: MA (Medicare Advantage), MSA (medical savings account), PPO (preferred provider organization), PFFS (private fee-for-service), EDS (Encounter Data System), RAPS (Risk Adjustment Processing System). Excludes cost plans, Program of All-Inclusive Care for the Elderly, and Medicare–Medicaid demonstration plans.

Source: MedPAC summary of CMS’s August 20, 2018, memorandum from the deputy director of the Medicare Plan Payment Group regarding CMS monitoring and compliance of encounter data.

comparison of encounter data for those provider types biased in the other direction.

Despite the flaws in comparing encounter data with RAPS data, these seven measures are not rigorous enough to ensure that the data collected are complete and accurate enough for their uses in a mature program. Together, the metrics used in the quarterly report cards and the seven performance metrics are insufficient for assessing the completeness and accuracy of reported encounter data.

Uses of MA encounter data

Through rulemaking from 2008 to 2018, CMS has clarified that it plans to use encounter data for specified purposes (Centers for Medicare & Medicaid Services 2008). In response to industry concerns about the agency’s authority to use encounter data for applications beyond risk adjustment, CMS announced in 2008 and 2014 that it would expressly limit the use of encounter

data to the following purposes (Centers for Medicare & Medicaid Services 2014, Centers for Medicare & Medicaid Services 2008):

- determine the risk adjustment factors used to adjust payments, as required;
- update risk adjustment models;
- calculate Medicare disproportionate share percentages;
- conduct quality review and improvement activities;
- determine Medicare coverage questions;
- conduct evaluations and other analyses to support the Medicare program (including demonstrations), public health initiatives, and other health care–related research;
- support activities related to Medicare program administration;
- support program integrity activities;
- support activities authorized by other applicable laws; and
- inform patient utilization scenarios, which help identify MA plan cost-sharing standards and thresholds that are not discriminatory (Centers for Medicare & Medicaid Services 2018c, Centers for Medicare & Medicaid Services 2012b).

MA encounter data for calculating enrollees' risk scores

Medicare payments to MA plans are adjusted to account for differences in expected spending among enrollees through the CMS hierarchical condition categories (CMS–HCC) model. The model uses enrollee health status (diagnostic data) and demographic characteristics (e.g., age, sex, Medicaid status, and whether the original reason for Medicare entitlement was disability) to calculate a risk score that predicts an individual beneficiary's health care expenditures relative to the average beneficiary. Higher risk scores indicate higher expected use of services and higher expenditures, and thus they generate higher payments to MA plans. To be used in calculating risk scores, diagnoses must result from an encounter with an eligible provider: in a hospital inpatient stay, hospital outpatient visit, or a face-to-face visit with a physician or other health care professional.⁴ Diagnoses supporting each

HCC need to be submitted only once per calendar year, but must also be supported by evidence in the patient's medical record. The diagnostic data used by the CMS–HCC model to calculate risk scores are identified by information that plans submit to CMS, currently through two systems. Between 2004 and 2014, CMS relied solely on RAPS data for risk adjustment diagnoses; starting in 2015, CMS also began using encounter data to identify HCCs for payments to plans.

Through RAPS, plans submit a limited set of data that includes only the minimum information and diagnoses needed to calculate risk scores.⁵ These data are essentially a subset of plans' internal utilization data that has been identified as meeting all criteria for risk adjustment (i.e., diagnoses must map to an HCC used in the risk model, must result from an encounter with an eligible provider, and must be supported by evidence in the patient's medical record). When plans submit RAPS data, plan officers attest that the submitted data are complete, accurate, and meet the risk adjustment criteria. Independent assessment of RAPS data accuracy has been extremely limited, and no such assessment is conducted before payment reconciliation is completed for the plan (see text box, pp. 212–213, on risk adjustment data validation (RADV) audits).

Plan officers also attest that encounter data are complete, accurate, and meet the risk adjustment criteria, but the EDS submission process differs from RAPS in that CMS has developed a system of error and duplicate checks to ensure that when updated records are submitted, individual encounters are counted only once and that data elements are in a valid format and are within a logical range of values. CMS is currently refining this process to address shortcomings identified by plans, the Government Accountability Office (GAO), and Office of Inspector General (OIG). (See text box (p. 219) on GAO and OIG evaluations of MA encounter data.) In addition, when using encounter data for risk adjustment, CMS ensures that diagnoses result from an encounter with an eligible provider before finalizing payment to a plan.

Medicare first used encounter data for payment in 2015 by adding all diagnoses from RAPS and encounter data together to generate a single risk score so HCCs could be identified by RAPS, EDS, or both data sources. For 2016 payment, CMS generated two risk scores, one based on RAPS data and one based on EDS data, and then combined the risk scores using a 10 percent EDS/90 percent RAPS blend. For 2017 payment, CMS increased the EDS portion of the blend to 25 percent and announced

Risk adjustment data validation audits

Risk adjustment data validation (RADV) audits are an independent review of risk adjustment data. Each beneficiary's risk score is made up of a demographic component, supported by data that CMS gathers, and a CMS-hierarchical condition category (CMS-HCC) component supported by the Risk Adjustment Processing System (RAPS) or encounter data submitted by plans. RADV audits address the diagnostic data underlying the HCC component of a risk score and do not address the data underlying the demographic components. RADV audits of all risk adjustment data (RAPS and encounter data) must check whether there is evidence of each diagnosis in a beneficiary's medical records. In addition, plans apply filtering logic to RAPS data to ensure that diagnostic data submitted came from an eligible provider. Plans attest that this filtering logic was applied correctly, but RADV audits of RAPS data must confirm that beneficiaries were diagnosed by an eligible provider. For encounter data, CMS applies the filtering logic ensuring that beneficiaries were diagnosed by an eligible provider, and therefore audits of encounter data need to check only whether diagnoses are documented in medical records.

For each payment year, CMS plans to audit approximately 5 percent of all Medicare Advantage (MA) contracts (contracts include one or more plans).⁶ However, RADV audits have been limited and have yet to be conducted on payment years that use encounter data for risk adjustment. Early audits of RAPS data found diagnoses that did not meet risk adjustment criteria, resulting in significant overpayments to plans. So far, CMS has completed audits of 2007 RAPS data for 37 MA contracts. For each of the 37 audited contracts, a sample of 201 beneficiaries with at least

one submitted HCC was drawn, including an equal number of enrollees with low, medium, and high risk scores. A total of 7,437 beneficiaries were included in the audit samples for contracts with a total enrollment of about 2.3 million beneficiaries. Figure 7-1 shows the share of HCC-based (or diagnosis-based) payments that were found to be invalid for risk adjustment, and therefore were considered an overpayment, for each contract in the 2007 RADV audit. Two contracts did not have a net overpayment because they submitted medical records supporting enough diagnoses not reported in RAPS data to offset any diagnoses reported in RAPS data that were not supported by medical records.⁷ For the other 35 contracts, the net overpayment rate for unsupported RAPS data was 2 percent for one contract, between 10 percent and 30 percent for 20 contracts, and between 30 percent and 80 percent for the remaining 14 contracts (Schulte 2016). For the 2007 payment year, CMS recouped overpayments of \$13.7 million for the sampled beneficiaries, or an average of about \$1,850 per sampled beneficiary.

For the 2011 to 2013 audits, CMS is proposing to recoup overpayments for the full enrollment of the contract by extrapolating payment error rates for the 201 sampled enrollees in the audit. For extrapolation, a contract's payment error rate would be set at the lower 99th percent confidence interval of beneficiary-level error rates in the sample. If the contract payment error rate is greater than zero, the overpayment recovery amount would be the payment error rate at the confidence interval multiplied by the total HCC-based payment for the contract. CMS estimates that completed audits of payment years 2011, 2012, and 2013 identified \$650 million in improper payments,

(continued next page)

plans to continue to increase the EDS portion until encounter data become the sole data source for payment in 2020.⁸ However, in 2018, CMS instead opted to decrease the EDS portion of the blend to 15 percent. In 2019, CMS combined EDS and RAPS inpatient diagnoses, even when there were no supporting encounter data, in one risk score weighted at 25 percent blended with a second

risk score based on all RAPS data weighted at 75 percent. For 2020, CMS will combine EDS and RAPS inpatient diagnoses in one risk score weighted at 50 percent and use a second risk score based on RAPS data weighted at 50 percent. The Commission's comment letter on the advance notice of MA plan payments for 2020 highlighted our analysis finding significant inaccuracies with the inpatient

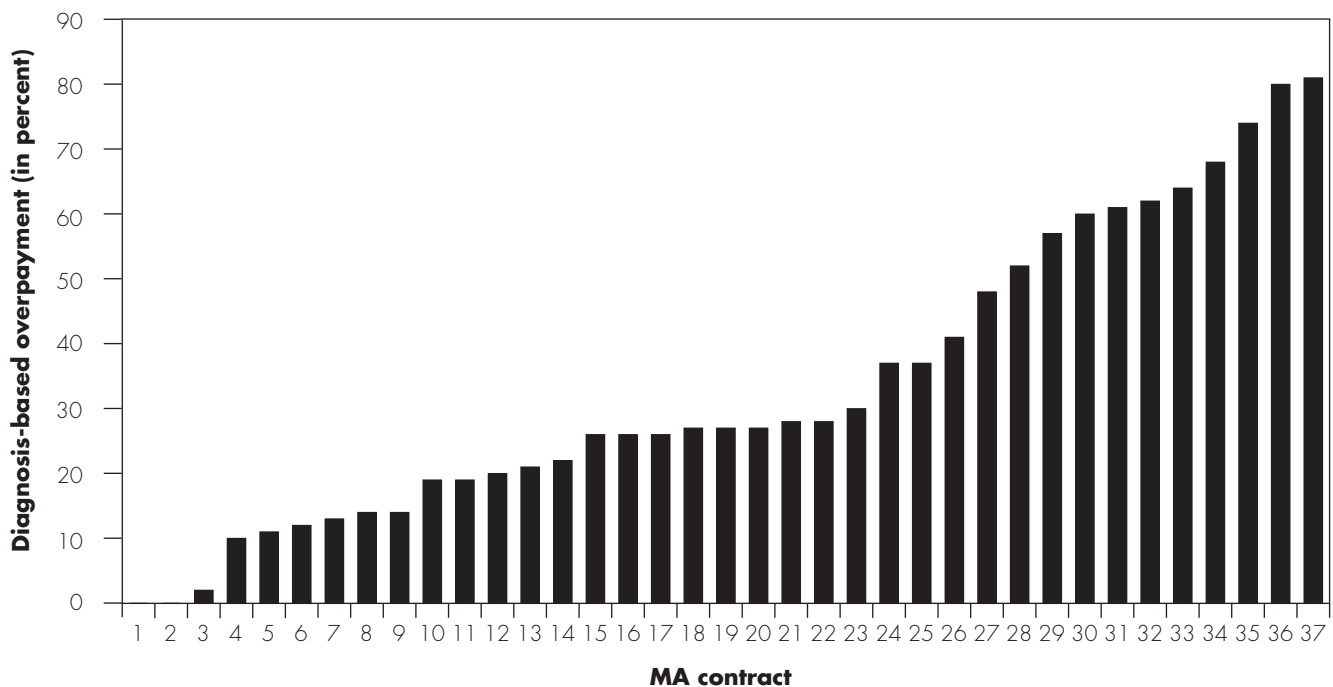
Risk adjustment data validation audits (cont.)

although the results of individual contracts are not publicly known (Centers for Medicare & Medicaid Services 2018b). Audits of payment years 2014 and 2015 are expected to begin in fiscal year 2019 (Department of Health and Human Services 2018). In reviewing the RADV audit process, the Government Accountability Office noted that RADV audits are

tasked with recouping billions of dollars in improper payments to MA plans based on RAPS data, but that significant improvements in the audit process are needed for the audits to actually identify and recoup those overpayments (Government Accountability Office 2016). ■

FIGURE 7-1

RADV audits found some MA contracts had a large share of diagnosis-based payments that were overpayments, 2007



Note: RADV (risk adjustment data validation), MA (Medicare Advantage). RADV audits address only the portion of a risk score based on diagnoses. The figure excludes the share of total payments based on demographic information.

Source: MedPAC analysis of CMS data.

RAPS data and our opposition to combining EDS and inpatient RAPS diagnoses (Medicare Payment Advisory Commission 2019a).

Our analysis of risk score data based on preliminary encounter records (those submitted as of the original deadline, May 1, 2017) for 2015 dates of service shows

little difference from RAPS data based on the risk scores used for 2016 payments.⁹ We found that risk scores based on encounter data were about 2.3 percent lower on average than risk scores based on RAPS data. For 2016 dates of service (submitted as of the original deadline, February 1, 2018), we found that this difference decreased for 2017 payments; that is, encounter-based risk scores were about

1.7 percent lower than RAPS-based risk scores. However, we expect that both of these estimates of difference may shrink as more encounters are submitted before the final deadlines. Looking at individual risk scores used for 2017 payment, we found that 93.3 percent of MA enrollees had exactly the same RAPS-based and encounter-based risk score, while 5.4 percent had lower encounter-based scores and about 1.3 percent had higher encounter-based scores.

Given the differences in submission processes, one might expect larger differences between RAPS and encounter risk scores. However, in recent years, CMS has placed significant emphasis on deleting diagnoses from RAPS data that are ineligible for risk adjustment. Deleting such RAPS data may result from two actions. CMS has been ramping up work on RADV audits for payment years 2011 through 2014. In advance of gathering RAPS data to audit for each year, CMS has opened a window allowing plans to delete RAPS diagnoses for that audit period. CMS believes that RADV audits create a “sentinel” effect which, along with a requirement to report and repay overpayments to plans, has resulted in plans returning \$2 billion in overpayments for payment years 2006 through 2014 (Morse 2017).¹⁰ In addition, as CMS extended deadlines for encounter data submission for payment years 2016 and 2017, the agency also extended deadlines for deletions from RAPS data (RAPS submission deadlines were not extended). A large difference in HCCs reported through RAPS and encounter data would be a flag for CMS to investigate or audit; therefore, a similar sentinel effect may be acting to limit differences between data submitted through RAPS and EDS. Several plans told us that they compare RAPS risk scores with encounter risk scores to ensure consistency of payment across data sources. Given the amount of RAPS-based payments returned to CMS, one may conclude that the comparison with encounter data has encouraged the deletion of RAPS diagnoses that were found invalid for payment. Such invalid codes contribute to the differences in coding intensity between MA and FFS; therefore, the greater reliance on encounter data would narrow the coding intensity differences.

While current data reflect a relatively small difference between HCC scores derived from RAPS and encounter data, the Commission continues to support collecting encounter data from MA plans and using these data for risk adjusting plan payments. The use of encounter data allows CMS to ensure that each diagnosis results from an encounter with an eligible provider before payment adjustments are made to plans, provides an opportunity for

a more substantial check on the submission of inaccurate or erroneous data, and may already be improving the accuracy of RAPS data. Some have found shortcomings with CMS’s validation of encounter data, and—after reports that encounter data have yet to undergo complete validation, including RADV audits—suggest that CMS slow the transition from RAPS to encounter data. However, slowing that transition means continuing to rely more heavily on RAPS data. The problem is that RAPS data receive relatively little scrutiny because they undergo fewer front-end checks; contain a small number of data elements, which limits validation efforts; and are audited for only a small number of contracts. We believe CMS should increase the use of encounter data as expeditiously as possible until they are the sole source of diagnoses for risk adjustment. Furthermore, increasing the use of encounter data for plan payments is currently one of the only tools CMS has to encourage submission of encounter data. However, this incentive is limited to records that include new diagnosis codes for inpatient and outpatient hospital services and physician visits. In other words, increasing the use of encounter data for plan payments may increase the completeness of only the share of encounter data that contributes to higher plan payments. Given the lack of other incentives for complete submission, maintaining financial pressure on plans by using encounters as the basis for identifying diagnosis codes is an important step in ensuring that encounter data are submitted completely and accurately.

MA encounter data for estimating risk model coefficients

Under the CMS–HCC risk adjustment model, which uses plan-submitted diagnostic information to calculate each enrollee’s risk score, each demographic and diagnostic (that is, HCC) component in the model has a coefficient that represents expected medical expenditures associated with that component relative to the beneficiary with average spending. Each risk score is the sum of these coefficients for a given beneficiary.

Currently, CMS uses FFS Medicare claims data to estimate the size of the model coefficients, a process that is called “calibrating the model.” As a result, the model coefficients represent expected spending based on FFS costs and diagnostic coding patterns. Over the past several years, our analyses have shown that diagnoses are documented more completely through MA coding (used to calculate MA risk scores) than through FFS coding practices (used to calibrate the model). As a result, MA

risk scores, and the payments to plans based on those risk scores, are higher than intended. The impact on payment due to differences in MA and FFS coding is partially addressed with a coding intensity adjustment that reduces MA risk scores by 5.9 percent in 2019 (Medicare Payment Advisory Commission 2019b).

FFS claims are used to calibrate the risk model because FFS claims are the only complete source of diagnostic and spending information for Medicare beneficiaries. MA encounter data include diagnostic information, but spending information is included in encounter data only for services in which the plan pays the provider on a per service basis. MA encounter data do not contain spending information for services for which the plan pays the provider a capitated amount. In addition, included spending information for services paid on an FFS basis likely reflects contractual payment amounts that may not include non-service-based payments or adjustments, such as quality incentives, bonuses, or gain-sharing agreements. If MA encounter data were to be used to calibrate the risk model, it would be necessary to better understand what types of payments are included in the spending information in encounter data, and missing and inaccurate data would need to be addressed.¹¹ There are three ways to address the lack of spending data for encounters provided through a capitated arrangement, each of which has pros and cons: FFS prices could be attached to MA encounter data for all encounters; MA plans with capitated provider arrangements could be excluded; or CMS could provide guidance to plans about how to allocate all plan expenditures to individual enrollees (a process intended to be simpler than estimating spending for all capitated encounters, but serving the same purpose) (Medicare Payment Advisory Commission 2016).

Using MA encounter data to calibrate the risk model would generate risk scores that would more accurately predict MA plan spending. As CMS notes: “having the MA program’s relative cost patterns is essential to CMS in order to improve the accuracy of payment to MA plans: these program-specific cost patterns will allow CMS to reflect appropriate relative costs in the risk adjustment model by calculating MA-specific risk adjustment factors” (Centers for Medicare & Medicaid Services 2008). Using a risk model that is calibrated with MA encounter data would also alleviate the need for a coding intensity adjustment because a normalization factor would account for all year-to-year MA coding changes and would keep the average MA risk score stable over time. Instead, the model would be calibrated using the same data to

calculate risk scores, and there would be no differences in coding intensity between calibration and calculation in the model.¹² Implementation of MA encounter-calibrated risk scores would need to consider how to link them to benchmarks based on FFS spending.

A second issue regarding the use of MA encounter data to calibrate the risk model is that this computation could change the amount the program would spend on an individual beneficiary enrolling in MA relative to FFS. Under the current framework, which uses a risk model calibrated on FFS data, program policies are designed to pay MA plans an amount equal to the expected program spending if the beneficiary enrolled in FFS. However, MA risk scores from an MA encounter-calibrated risk model could result in program spending that is higher or lower than the expected FFS spending for that beneficiary. As a result, the program spending for a beneficiary could be higher or lower if the beneficiary enrolls in MA or FFS. In aggregate, these enrollment decisions could affect overall program spending.

Furthermore, whether to use FFS claims or MA encounter data depends on one’s view of how the risk adjustment system should balance payment accuracy with creating appropriate incentives for plans (Skopec et al. 2019). The Commission has long held that Medicare should not favor MA or FFS by paying more when a beneficiary enrolls in either program. This principle could be maintained if CMS implemented an MA encounter-calibrated risk model in a way that guarantees financial neutrality for the average-risk beneficiary. The Commission will continue to track this issue.

MA encounter data for calculating Medicare disproportionate share and indirect medical education payments

Hospitals that treat a disproportionate share of certain low-income patients receive additional payments intended to offset the higher costs such hospitals incur when treating these patients, all else being equal. Disproportionate share hospital (DSH) payments provide for a percentage increase in Medicare payment for hospitals that qualify under either of two statutory formulas designed to identify hospitals that serve a disproportionate share of low-income patients. For qualifying hospitals, the amount of this adjustment varies based on the outcome of the statutory calculation. Both formulas take into account the total number of inpatient days of care provided to Medicare patients eligible for Supplemental Security

Income benefits. CMS incorporates the number of hospital days for MA enrollees along with FFS beneficiaries in its calculation. The number of hospital days for MA enrollees is based on information-only claims that hospitals submit to CMS for each MA-enrolled inpatient. (Before the collection of encounter data, the agency generally did not receive information on individual services provided to MA enrollees, in contrast to FFS. DSH-related information is one exception.¹³)

CMS also uses information-only claims to make indirect medical education (IME) payments to teaching hospitals. IME payments to hospitals are made on a per stay basis with an amount added to Medicare's payment for every FFS discharge. To make IME payments for MA hospital patients, with the exception of a few states, CMS calculates the aggregate IME amount for MA discharges (using the information-only claims) and then carves out the aggregate IME amount from the payment to the MA plan and instead makes a lump sum payment directly to the hospital based on the number of MA patients treated. Medicare also makes a payment to teaching hospitals for graduate medical education (GME) that is affected by MA patient stay data.

The information-only claims are included in the Medicare Provider Analysis and Review (MedPAR) file, which consolidates inpatient hospital and SNF claims data from the National Claims History files into stay-level records. MA encounter data could be used to cross-check, supplement, or—eventually—replace the MedPAR information for MA enrollees.

MA encounter data for quality review and improvement activities

The Commission has suggested that Medicare use a small set of population-based measures to compare the quality of care across its three payment models—FFS Medicare, MA, and accountable care organizations—in a local market area (Medicare Payment Advisory Commission 2015, Medicare Payment Advisory Commission 2010). Medicare's use of the same set of measures across payment models could also promote multipayer alignment, which can reduce the burden providers face in tracking a number of diverse quality measures across payers.

In our March 2010 mandated report to the Congress (required under the Medicare Improvements for Patients and Providers Act of 2008), the Commission made a set of interconnected recommendations about how Medicare

could compare quality across FFS Medicare and MA in a defined geographic area. The report acknowledged that the lack of claims (or encounter) data for MA enrollees was a major limitation on calculating outcome measures such as potentially preventable admissions and readmission rates for MA plans. The Commission recommended that CMS move as quickly as feasible to gather the data needed to calculate a set of population-based outcome measures (Medicare Payment Advisory Commission 2010).

MA plans have been reporting encounter data to CMS since 2012. Once the data are complete, there will be opportunities for Medicare to calculate and compare quality results—for example, of low-value care—across MA plans and FFS in local areas. Some measures, however, may not be entirely comparable between the two sectors. For example, the vast majority of MA plans waive Medicare's three-day hospital stay requirement for SNF admissions, which can affect an FFS-to-MA comparison of hospital admission and readmission rates. In addition, for many measures, risk adjustment will be necessary. However, risk adjustment can be complicated by differences in coding practices between the two sectors. Despite these challenges, encounter data provide the most direct path for comparing quality across sectors, at a local level, and based on a small set of outcomes.

For 2020, CMS has proposed using encounter data as part of the calculation for certain quality measures. CMS evaluated the use of encounter data to establish the number of days an MA enrollee was an inpatient in a hospital or SNF in order to exclude those days from the Part D medication adherence star measures. CMS uses hospital and SNF stay information from the Common Working File (CWF) for the calculation and proposes to supplement CWF data with encounter data for future calculations. In addition, CMS has proposed using encounter data to identify diagnosis codes, which in turn are used to exclude certain groups from quality measurement. Specifically, CMS tested using encounter data to identify end-stage renal disease cases for exclusion from the diabetes and hypertension adherence measures. CMS found that the encounter data yielded similar results to the RAPS results for MA prescription drug plans and stated that the agency will continue to test using encounter data as the source of diagnoses for additional measures in Part D beyond the adherence measures.

The Commission is pursuing a redesign of the MA quality bonus program in which encounter data would be the basis for the primary set of outcome measures (e.g., hospital

admissions, hospital readmissions, preventable emergency department visits) (see Chapter 8 of this report). As part of this work, it will be important to consider the completeness and accuracy of each plan’s encounter data. For example, under this scenario, plans that did not submit complete and accurate encounter data would be ineligible to receive bonuses under the redesigned bonus program.

MA encounter data for Medicare coverage purposes

MA plans have a yearly limit on enrollees’ out-of-pocket (OOP) costs. CMS could use encounter data to track whether MA enrollees reach the maximum OOP cost-sharing limit each year. Beneficiaries in FFS Medicare who use inpatient hospital and SNF services are subject to different coinsurance amounts depending on the length of stay in a defined “benefit period.” Once all of the days in these benefit periods plus 60 “hospital lifetime reserve days” are used, Medicare beneficiaries pay all costs for continued days in the hospital or SNF. Many plans cover additional hospital inpatient days beyond the FFS benefit limit as a supplemental benefit, and therefore tracking how much the plan spends on Medicare-covered days versus supplemental-covered days is necessary for submitting accurate spending information on MA plan bids. Furthermore, information-only claims submitted by hospitals and SNFs must be complete to accurately track benefit limits for beneficiaries who switch among plans or FFS Medicare. Information-only claims from hospitals are used to calculate DSH and IME payments, which affect most hospitals, but such claims from SNFs are used only to track the Medicare benefit. CMS could use encounter data to track MA enrollees’ use of these benefits as it pertains to spending data for MA bids or the potential for a beneficiary to reach the lifetime days limit or benefit period limits based on coverage in multiple MA plans or Medicare FFS. Medicare also has a 190-day lifetime limit on inpatient psychiatric care, which applies whether a person is in MA or FFS. Beneficiaries moving among MA plans could have their inpatient psychiatric days tracked across plans and FFS through the encounter data.

Other potential uses for MA encounter data

CMS has noted that encounter data “will enable CMS to generate improved data analyses that could support Medicare program evaluations, demonstration designs, and CMS’ effective and efficient operational management of the Medicare program. Risk adjustment data also could be

useful to support public health initiatives by governmental entities and to advance health care–related research by universities and other research organizations” (Centers for Medicare & Medicaid Services 2014).

In rulemaking, CMS has also argued that encounter data could be useful in supporting the agency’s administration of MA (e.g., review of the validity of bid and medical loss ratio (MLR) data submitted by MA plans). The agency noted, “while we recognize that many MA organizations have alternative arrangements other than [FFS] payments, we believe that encounter data will be useful for understanding patterns of beneficiary utilization and aspects of MA organizations’ expenditures, as reported in bid and MLR submissions” (Centers for Medicare & Medicaid Services 2014). Currently, plan officials attest to the accuracy of bid and MLR data, but use of encounter data can enhance any independent evaluation of these key MA program components.

In addition, CMS has observed that risk adjustment data could be valuable for program integrity purposes, including audits, evaluations, and investigations by OIG as well as CMS’s own efforts. CMS noted that “encounter data could be used to compare MA and FFS billing to identify aberrant patterns, which may inform efforts to combat fraud, waste, and abuse” (Centers for Medicare & Medicaid Services 2014).

CMS plans to use encounter data to augment Medicare FFS data when reviewing MA plans’ proposed benefits and cost sharing to ensure that cost sharing is not discriminatory. The agency has issued guidance that cost sharing for services cannot exceed 50 percent of the total MA plan financial liability for the benefit to keep cost sharing for such services nondiscriminatory (Centers for Medicare & Medicaid Services 2012a). The addition of MA encounter data to support the creation of utilization scenarios will allow CMS “use of the most relevant and appropriate information in determining cost sharing standards and thresholds” (Centers for Medicare & Medicaid Services 2018c).

MA encounter data validation

To determine whether MA encounter data are ready for multiple planned uses, especially comparing MA and the FFS program, we first assessed the validity and completeness of encounter data by determining the share

of plans that successfully submitted encounter records for different types of providers and by comparing encounter data with other data sources that include enrollment and utilization information.

Data validation methodology

We applied data validation checks to MA encounter data for 2014 dates of service (based on plans' final submission deadline of January 31, 2016) and for 2015 dates of service (based on plans' preliminary deadline, those submitted as of May 1, 2017).¹⁴ (We expect to gain access to final 2015 and 2016 data in 2019.) We assessed the face validity and completeness of the data for plan types that are required to submit encounter data by performing several analyses. For the first, we checked whether MA contracts successfully submitted any records for each type of service:¹⁵

- inpatient hospital
- outpatient hospital
- physician/supplier Part B
- skilled nursing facility
- home health
- durable medical equipment

When plans submit encounter data, CMS's EDS performs automated front-end checks before accepting each record. Errors or problems cause the system to reject the submission, which means no record will appear in the encounter data files unless the plan resubmits the data. In other words, if encounters are not present in the data files, we are unable to tell whether that is a result of the plan not submitting or the system not accepting the record.

Next, we checked whether the encounter data's beneficiary identifier submitted by an MA contract matched Medicare's enrollment databases. In addition, we checked whether the plan identifier (MA contracts can offer one or more plans)—a data field completed by CMS rather than submitted by MA organizations—matched Medicare's enrollment databases. Finally, we compared encounter data for certain service types with external sources of MA service use:

- inpatient stays—MedPAR
- dialysis services—risk adjustment indicator

- home health services—Outcome and Assessment Information Set (OASIS)
- skilled nursing stays—Minimum Data Set (MDS) and MedPAR

This information is collected from sources other than MA plans. MedPAR data on inpatient stays are collected from information-only claims that hospitals and SNFs are required to submit for MA enrollee stays. The dialysis risk adjustment indicator is triggered by a dialysis facility submitting a medical evidence form to CMS when any patient begins dialysis. OASIS assessment data are collected for all Medicare beneficiaries and submitted to CMS by home health agencies at the start of an episode and at several points afterward. MDS assessment data are collected and submitted to CMS by SNFs within 14 days of admission for MA enrollees.¹⁶

While some of these data sources are themselves incomplete, and this incompleteness limits how comprehensively we can assess encounter data, it does not diminish findings that records are missing from encounter data. Each comparison data source provides some evidence of services that were provided to MA enrollees, and for these enrollees and services we expect to find an encounter record. In other words, we can identify records that appear in the comparison data and *should* be included in the encounter data but are not. To the extent that the comparison data source is itself incomplete (i.e., missing records that should be included), these records either may appear only in the encounter data or may be missing from both the encounter and comparison data. When comparing two incomplete data sets, one can identify lack of completeness in both that is a lower bound on the actual incompleteness of each. We are not able to determine whether encounter data are 100 percent complete because of the limitations in comparison data. Our comparisons test only whether there are encounter data corresponding to the MA services identified in external data sources. It is worth noting that we could not compare the majority of physician and outpatient hospital encounter data with an external data source because there is no available alternative source of physician and outpatient hospital utilization for MA enrollees.

We conducted a similar comparison analysis of inpatient stays, emergency department visits, and physician office visits using the Healthcare Effectiveness Data and Information Set[®] (HEDIS[®]). HEDIS consists of plan-generated data and is based on a plan's summarization of

Government Accountability Office and Office of Inspector General evaluations of Medicare Advantage encounter data

The Government Accountability Office (GAO) issued two reports, in 2014 and 2017, on Medicare Advantage (MA) encounter data, concluding that CMS needed to do more to ensure the data's validity (Government Accountability Office 2017, Government Accountability Office 2014). GAO compared CMS's MA encounter data validation efforts with those identified in its 2012 protocol for assessing the completeness and accuracy of encounter data that *Medicaid* managed care organizations must report to state agencies.¹⁷ In the more recent report, GAO found that CMS had not made progress in implementing several steps included in the protocol, including comparing encounter data with plan financial data and with a sample of medical records.

In January 2018, the Office of Inspector General (OIG) published an evaluation of MA encounter data for the

first quarter of 2014 (Office of Inspector General 2018). The study found that 28 percent of records "had at least 1 potential error related to the completeness or validity of a required data element or a potential duplication of services." These errors identify issues with data elements included in encounter data that we have yet to investigate, such as missing or invalid provider identifiers; duplicated services; and inappropriate codes for discharge status, procedures, and revenue. CMS informed OIG that the agency had taken steps to resolve these errors; OIG did not retest the data and has not evaluated data for more recent years. Their findings raise concerns about the accuracy of data elements included in encounter data that would be important for multiple intended uses, including comparisons of MA and FFS. We plan to investigate these concerns further once encounter data files are more complete. ■

its own encounter data. Because HEDIS is not based on an independent external data source, its relevance is in showing how uniformly MA contracts summarize their internal utilization data under HEDIS specifications and to what extent their reported encounter data are complete. Similarly, we compared inpatient stays reported in RAPS data with inpatient encounter data. RAPS data are plan generated and based on a plan's summarization of its own encounter data. The purpose of RAPS data is to identify diagnoses from inpatient hospital, outpatient hospital, and physician encounters, not to document all encounters in these three settings.

For all of the comparisons with external and HEDIS data sources, we began by determining whether the same enrollee appears in the encounter data and comparison data set. For some, we also matched by date of service. We took another step to account for the two types of encounter data: a provider's claims data, or "encounter records," and plans' chart or medical record reviews, which can report additional diagnostic data used for risk adjustment

that were not included in encounter records. Specifically, we differentiated our results for 2015 when comparing all encounter data (encounter records and chart review records) or only encounter records. These comparisons addressed first-order and second-order matching questions and were not an exhaustive comparison. Because of the results, we did not proceed to analyze subsequent questions, such as whether the records matched in terms of performing physician and procedure codes, among other included data elements. To ensure that encounter data are sufficiently complete and accurate to compare MA with FFS, a full validation analysis would need to assess additional important data elements. These elements would be important data validation questions to investigate once encounter data are complete enough that they compare favorably with comparison data in terms of individuals included and (approximate) dates of service. Other groups have undertaken these types of studies: OIG and GAO have raised concerns about the completeness and validity of encounter data (see text box on GAO and OIG evaluations of MA encounter data).

**TABLE
7-2**

Some contracts did not submit any encounter data for certain types of service, 2014–2015

Share of contracts with at least one data record

Encounter data file	2014	2015
Physician	97%	99%
Inpatient	96	98
Outpatient	95	98
Skilled nursing facility	89	95
Home health	78	82
Durable medical equipment	91	96
In each of the six settings	74	80

Note: Excludes contracts not required to submit encounter data.

Source: MedPAC analysis of CMS data.

On the basis of our data validation, the Commission concluded that encounter data are promising and their value to the program, once complete, will be significant; thus, they should continue to be collected. However, at their current level of completeness, we could not use the available data sets for comparing MA with FFS utilization given the data errors and omissions that we found. We assessed whether a subset of plans appeared to submit complete enough data to allow credible comparisons with FFS. Using the preliminary 2015 data, we conducted our comparative analyses at the contract level and assessed whether any contracts had positive results across all assessments.

In addition to our data analyses, we spoke with CMS’s encounter data group and the Office of the Actuary to get feedback on our validation approach and ideas for next steps. We also interviewed several MA plans to learn about their encounter data processing, the extent to which plans conducted their own assessments of data completeness, and their ideas of ways to improve the process and the collection of more complete data.

Data validation findings

Our validation analyses identified three broad categories of encounter data issues: Some MA contracts did not successfully submit encounters for all settings, MA encounter data include a few records that attribute

enrollees to the wrong plan, and encounter data differ substantially across some comparison data sources.

Some MA contracts did not successfully submit encounters for all settings

For both 2014 and 2015 dates of service, some contracts did not successfully submit any encounter data for certain settings or types of service. Table 7-2 shows the share of contracts that successfully submitted at least one record for each type of service. We found that most contracts submitted at least some encounter data for each service type, with the exception of skilled nursing and home health care, for which some contracts did not successfully submit any encounter data. The share of contracts submitting encounter records improved from 2014 to 2015 for all types of services, but only 80 percent of MA contracts submitted at least one record for all six service types in 2015.

MA encounter data include a few records that attribute enrollees to the wrong plan

Some encounter records attribute enrollees to the wrong plan because encounter data are not required to be revised when there are subsequent changes to enrollment. When MA plans submit data through the EDS, one of the system’s front-end edits is to confirm that CMS’s information on enrollment indicates that the beneficiary is in fact a plan member. However, Medicare sometimes changes a

**TABLE
7-3**

Not all MA inpatient stays and unique inpatient users were reported in encounter data, per comparison with MedPAR inpatient stay data, 2014-2015

Year	Unit of analysis	Encounter data*				
		MedPAR	Encounter records plus chart review records		Encounter records only	
		Number	Number	Share of MedPAR stays or enrollees with a matching record in encounter data	Number	Share of MedPAR stays or enrollees with a matching encounter record
2014	MA inpatient stays	3.5M	3.4M	73%	N/A	N/A
2015	MA inpatient stays	3.8M	4.1M	78	3.6M	72%
2014	Unique MA enrollees	2.3M	2.2M	84	N/A	N/A
2015	Unique MA enrollees	2.5M	2.5M	90	2.4M	84

Note: MA (Medicare Advantage), MedPAR (Medicare Provider Analysis and Review), M (million), N/A (not applicable). Inpatient stay is defined as unique beneficiary identification number (or identifier), admission date, and discharge date combination. Data exclude contracts not required to submit encounter data. Some units of analysis in the encounter data column do not match MedPAR data and are not included in the numerators used to calculate the share of MedPAR-recorded stays columns, which include only encounter records that had a match in MedPAR data.

*Encounter data include both encounter records and chart review records. Chart review records can either be associated with and provide additional information about an encounter record or be unlinked to any encounter records.

Source: MedPAC analysis of CMS data.

beneficiary’s enrollment retroactively for various reasons. The beneficiary can be moved between plans and contracts or back to traditional FFS Medicare. EDS does not have a process for modifying encounter records in these cases, and, therefore, final encounter data files do not reflect retroactive enrollment changes. In other words, a plan can submit a valid encounter record for an enrollee who is subsequently disenrolled from the plan, retroactively for the period including the date of the encounter, but whether the plan deletes the encounter record is unknown. When retroactive enrollment changes take place, Medicare enrollment data are modified and a payment reconciliation should take place, but EDS does not monitor or reconcile retroactive enrollment changes. These retroactive enrollment changes are rare and affect a small number of encounter data records, but unlike other issues with the encounter data, such as underreporting, this issue will not solve itself, even as plans gain more experience with reporting.

Encounter data differ substantially from some other data sources

We compared encounter data on inpatient stays with MedPAR and RAPS; on outpatient dialysis use with the dialysis risk adjustment indicator; on home health use with

OASIS assessments; on skilled nursing use with MDS assessments and MedPAR; and on office visits, emergency department visits, and inpatient admissions with HEDIS. We found that few MA contracts report relatively complete encounter data for multiple services.

Comparison of inpatient stay MedPAR and RAPS The MedPAR file contains information about inpatient hospital stays and is used to calculate DSH and GME payments. Hospitals are required to submit information-only claims records to Medicare Administrative Contractors (MACs) for all MA inpatient stays so CMS can include these records in the MedPAR file. Hospitals that receive these payments have a financial incentive to submit complete information about MA enrollees. The only incentive for other hospitals to submit information-only claims is to meet program requirements. Table 7-3 shows that, in 2014, slightly fewer inpatient stays were reported in encounter data than in MedPAR, but for 2015, more inpatient stays were reported in encounter data than were reported in MedPAR.

When comparing individual stays based on beneficiary identifier, admission date, and discharge date, we found that the proportion of MedPAR-recorded stays with a

**TABLE
7-4**

Inpatient stays reported in encounter, MedPAR, and RAPS data, 2015

Inpatient stays reported in:		MedPAR	Encounter data*	RAPS
All 3 data sets	MedPAR, encounter, and RAPS	2.9M	2.9M	2.9M
Only 2 data sets	MedPAR and encounter	0.1M	0.1M	
	MedPAR and RAPS	0.6M		0.6M
	Encounter and RAPS		0.8M	0.8M
Only 1 data set	Only MedPAR	0.3M		
	Only encounter		0.3M	
	Only RAPS			2.1M
Total		3.8M	4.1M	6.4M

Note: MedPAR (Medicare Provider Analysis and Review), RAPS (Risk Adjustment Processing System), M (million). An “inpatient stay” is defined as a unique beneficiary identification number, admission date, and discharge date combination. Excludes contracts not required to submit encounter data. Totals may not sum due to rounding.

*Encounter data include encounter records and chart review records. Chart review records can either be associated with and provide additional information about an encounter record or be unlinked to any encounter records.

Source: MedPAC analysis of CMS data.

matching record in encounter data was 73 percent in 2014 and 78 percent in 2015. Similarly, when we compared unique MA enrollees with any inpatient stay (assessing only whether a beneficiary identifier was found in both data sources), we found that the proportion of unique beneficiaries in MedPAR data with an encounter data match increased from 84 percent in 2014 to 90 percent in 2015.

Although we found improvement from 2014 to 2015, we also found that some inpatient stays are reported only in chart review records. Generally, we would expect to find an encounter record for the inpatient stay if a chart review record was submitted; however, we found that some inpatient stays were documented only in chart review records. Table 7-3 (p. 221) shows that for 2015, fewer inpatient stays and unique MA inpatient users were reported on encounter records (excluding chart review records) than in MedPAR data, such that match rates with MedPAR decreased from 78 percent to 72 percent for inpatient stays and from 90 percent to 84 percent for enrollee matching.

MA plans submit RAPS data to document diagnoses identified during inpatient hospital, outpatient hospital, and physician encounters. The purpose of RAPS data

is to identify diagnoses, not to document all encounters in these three settings. Using 2015 data, we compared inpatient stays (defined by unique combinations of beneficiary ID, admission date, and discharge date) across the three data sets to identify consistency and differences among them. Table 7-4 shows the number of inpatient stays found in all three data sets, only two of the data sets, or only one data set.

Overall, 6.4 million inpatient stays were reported in RAPS data, and about 5 million unique inpatient stays were found in either encounter or MedPAR data (i.e., the sum of stays reported in both encounter and MedPAR data and stays reported in only one of the data sources). In a separate analysis, we found that a large share of RAPS inpatient stays had the same admission and discharge date. To investigate this finding, we compared the 2.1 million inpatient stays reported only in RAPS with encounter data for outpatient hospital and physician visits and found about 1.5 million matches (data not shown), leading us to conclude that the RAPS data likely have the incorrect provider type indicated. MedPAR and encounter data include data elements similar to full claims data, making them less likely to be faulty or to represent encounters with other provider types. Assuming MedPAR and

**TABLE
7-5**

Not all unique MA dialysis users were reported in encounter data, per comparison with dialysis risk adjustment indicator, 2014–2015

Year	Unit of analysis	Number of MA enrollees with:		Share of MA enrollees with a dialysis indicator who also had a record in encounter data
		Dialysis risk adjustment indicator	Dialysis encounter data*	
2014	Unique MA enrollees	86,000	80,000	86%
2015	Unique MA enrollees	99,000	95,000	89%

Note: MA (Medicare Advantage). Utilization numbers are rounded to nearest thousand. Data exclude contracts not required to submit encounter data. Some units of analysis in the encounter data column do not match dialysis risk adjustment indicator data and are not included in the numerators used to calculate the share of MA enrollees with a dialysis indicator column, which includes only encounter records that had a match in dialysis risk adjustment indicator data.

*Encounter data include encounter records and chart review records. Chart review records can either be associated with and provide additional information about an encounter record or be unlinked to any encounter records. Excluding chart review records from 2015 encounter data did not affect 2015 results shown in the table.

Source: MedPAC analysis of CMS data.

encounter data together represent all MA inpatient stays, there were about 5 million inpatient stays provided to MA enrollees in 2015. If this figure is accurate, then encounter data are missing about 0.9 million inpatient stays, or about 18 percent of all MA inpatient stays.

Comparison of outpatient dialysis use with the dialysis risk adjustment indicator Dialysis facilities submit a medical evidence form to CMS when a patient with end-stage renal disease begins dialysis. The form triggers an indicator, which, for MA enrollees, results in Medicare’s payment being based on the dialysis risk adjustment model. We compared MA enrollees with the dialysis indicator during the year to MA enrollees with a dialysis encounter record during the calendar year. This analysis assesses only whether a beneficiary identifier was found in both data sources for the year. Table 7-5 shows that the proportion of MA enrollees with the dialysis indicator (i.e., a dialysis medical evidence form submitted to CMS) who also had at least one dialysis encounter grew between 2014 and 2015 from 86 percent to 89 percent, which is similar to the 2015 match rate of 91 percent (data not shown) found in FFS Medicare.

Comparison of home health use with OASIS assessments Home health agencies are required to submit an OASIS assessment for all Medicare beneficiaries at the start of a home health episode and at several points thereafter; however, submission of OASIS assessments to CMS generally does not affect payment from the MA plan. We compared MA enrollees with an OASIS assessment to

MA enrollees with a home health encounter record during the calendar year. This analysis assesses only whether a beneficiary identifier was found in both data sources for the year. Table 7-6 (p. 224) shows that for both years, a home health encounter record was missing for many MA enrollees who used home health services and received an OASIS assessment. In 2015, however, the number of enrollees with a home health encounter record increased by about 30 percent over 2014 and was much closer to the number of MA enrollees with an OASIS assessment. Consistent with the low number of enrollees with an encounter record, we found that the proportion of MA enrollees with an OASIS assessment who also had a home health encounter record was below 50 percent in both years. These results indicate that many home health encounter records are missing, although submission of these records improved.

Comparison of skilled nursing use with MDS assessments and MedPAR An MDS assessment is required for all Medicare beneficiaries within the first 14 days of a SNF stay and—for beneficiaries with SNF episodes that are of sufficient duration—quarterly and annual assessments are also required.¹⁸ However, submission of MDS assessments to CMS generally does not affect payment from the MA plan. We compared MA enrollees who had an MDS assessment with enrollees who had a SNF encounter record during the calendar year. This analysis assesses only whether a beneficiary identifier was found in both data sources for the year and excludes MA enrollees who are eligible for full Medicaid benefits.¹⁹ We would expect

**TABLE
7-6**

Less than half of unique MA home health users were reported in encounter data, per comparison with OASIS assessment data, 2014-2015

Year	Unit of analysis	Number of MA enrollees with:		Share of MA enrollees with an OASIS assessment who also had a record in encounter data
		OASIS assessment	Home health encounter data*	
2014	Unique MA enrollees	1.1M	0.6M	41%
2015	Unique MA enrollees	1.0M	0.8M	46%

Note: MA (Medicare Advantage), OASIS (Outcome and Assessment Information Set), M (million). Excludes contracts not required to submit encounter data. Some units of analysis in the encounter data column do not match OASIS assessment data and are not included in the numerators used to calculate the share of MA enrollees with an OASIS assessment column, which includes only encounter records that had a match in OASIS assessment data.

*Encounter data include encounter records and chart review records. Chart review records can either be associated with and provide additional information about an encounter record or be unlinked to any encounter records. Excluding chart review records from 2015 encounter data did not affect 2015 results shown in the table.

Source: MedPAC analysis of CMS data.

more enrollees to have a SNF encounter record than an MDS assessment because MA enrollees with a SNF stay of less than 14 days may not have an MDS assessment. However, Table 7-7 shows that many more MA enrollees had an MDS assessment than a SNF encounter record; of the enrollees with an MDS assessment, only 49 percent in both 2014 and 2015 also had a SNF encounter record

during the year. These findings suggest that many SNF encounter records are missing.

The MedPAR file contains information about SNF stays and is used to track the Medicare benefit limit on inpatient days. The only incentive for SNFs to submit information-only claims is to meet program requirements. SNFs are required to submit information-only claim records to CMS

**TABLE
7-7**

About half of unique MA skilled nursing users without full Medicaid eligibility were reported in encounter data, per comparison with MDS assessment data, 2014-2015

Year	Unit of analysis	Encounter data*				
		MDS assessment	Encounter records plus chart review records		Encounter records only	
		Number	Number	Share of MA enrollees with an MDS assessment who also have a record in encounter data	Number	Share of MA enrollees with an MDS assessment who also have an encounter record
2014	Unique MA enrollees	524,000	299,000	49%	N/A	N/A
2015	Unique MA enrollees	564,000	318,000	49	300,000	48%

Note: MA (Medicare Advantage), MDS (Minimum Data Set), N/A (not applicable). Utilization numbers rounded to nearest thousand. Excludes contracts not required to submit encounter data and MA enrollees eligible for full Medicaid benefits. Some units of analysis in the encounter data column do not match MDS assessment data and are not included in the numerators used to calculate the share of MA enrollees with an MDS assessment columns, which include only encounter records that had a match in MDS assessment data.

*Encounter data include encounter records and chart review records. Chart review records can either be associated with and provide additional information about an encounter record or be unlinked to any encounter records.

Source: MedPAC analysis of CMS data.

**TABLE
7-8**

About half of unique MA skilled nursing users were reported in encounter data, per comparison with MedPAR SNF stay data, 2015

Year	Unit of analysis	Encounter data*				
		MedPAR	Encounter records plus chart review records		Encounter records only	
		Number	Number	Share of MA enrollees with a MedPAR SNF stay who also have a record in encounter data	Number	Share of MA enrollees with a MedPAR SNF stay who also have an encounter record
2015	Unique MA enrollees	231,000	443,000	51%	423,000	50%

Note: MA (Medicare Advantage), MedPAR (Medicare Provider Analysis and Review), SNF (skilled nursing facility). Utilization numbers are rounded to nearest thousand. Excludes contracts not required to submit encounter data. Some units of analysis in the encounter data column do not match MedPAR SNF data and are not included in the numerators used to calculate the share of MedPAR-recorded SNF stays columns, which include only encounter records that had a match in MedPAR SNF data.

*Encounter data include encounter records and chart review records. Chart review records can either be associated with and provide additional information about an encounter record or be unlinked to any encounter records.

Source: MedPAC analysis of CMS data.

for all MA inpatient stays. Table 7-8 shows that in 2015, more SNF stays were reported in encounter data than in MedPAR, but only 51 percent of the enrollees with a SNF stay reported in MedPAR also had a record in SNF encounter data.

Comparison of encounter and HEDIS data For HEDIS, most MA contracts are required to submit beneficiary-level counts of certain types of utilization, including office visits, emergency department visits, and inpatient admissions.²⁰ It is reasonable to expect that plans summarize their internal utilization data for these calculations, so we consider comparisons of HEDIS and encounter data an assessment of whether HEDIS specifications are followed uniformly across contracts. The comparisons may also indicate whether contracts are able to successfully submit all encounter records for utilization data that are likely to be the basis for their HEDIS data. We compared 2015 HEDIS data with our summary of the encounter data using HEDIS specifications.

Of the contracts for which we expected to find HEDIS data, about 78 contracts did not submit beneficiary-level HEDIS data for physician office visits in 2015. For contracts that submitted both HEDIS and encounter data, we aggregated the count of office visits and found

significant variation between the two data sources. Table 7-9 (p. 226) shows that, through HEDIS, less than half (46 percent) of contracts submitted a total count of office visits for all enrollees that was within 10 percent of the number of visits reported in encounter data. Of the remaining contracts, about half reported more than 10 percent too many office visits, and the other half reported more than 10 percent too few office visits in HEDIS data (data not shown). Finally, we compared counts of office visits for individual beneficiaries and found that only 56 percent had a count of office visits through HEDIS that was within one of the number reported in encounter data.

Table 7-9 shows a similar analysis for counts of emergency department visits and inpatient admissions and found that 78 and 81 contracts, respectively, did not submit HEDIS data. Only 10 percent of contracts had a total count of emergency department visits in HEDIS data that was within 10 percent of the number reported in encounter data. For inpatient admissions, we found that 27 percent of contracts had aggregate counts within 10 percent in these data sets. Finally, the share of beneficiaries who had the same utilization counts in HEDIS and encounter data was much higher (63 percent for emergency department visits, 60 percent for inpatient admissions) than for office

**TABLE
7-9**

MA plan HEDIS® data poorly match counts of physician office visits, emergency department visits, and inpatient admissions reported in encounter data, 2015

Unit of analysis	Number of contracts not submitting HEDIS data	Share of contracts with aggregate HEDIS count within 10 percent of aggregate encounter data count	Share of service users with HEDIS count equal to encounter data count*
Physician office visits	78	46%	56%
Emergency department visits	78	10	63
Inpatient admissions	81	27	60

Note: MA (Medicare Advantage), HEDIS® (Healthcare Effectiveness Data and Information Set®). Excludes contracts not required to submit encounter data. Encounter data include encounter records and chart review records.

*Comparison of counts for beneficiaries using each service is considered equal if exactly equal to emergency department visits and inpatient admissions, or within 1 for office visits. Excludes contracts that did not submit HEDIS data, regardless of whether submission was expected based on submission requirements.

Source: MedPAC analysis of CMS data.

visits; however, the majority of beneficiaries do not have an emergency department visit or inpatient admission in any given year.

Overall, there appear to be significant differences in the utilization counts reported through HEDIS and encounter data for many MA contracts. At a minimum, these results demonstrate the potential for CMS to use encounter data to calculate utilization counts more uniformly relative to the utilization counts reported by contracts in HEDIS data.

Few MA contracts report relatively complete encounter data for multiple services Because we found missing encounter data for some types of services, we conducted similar comparisons of encounter data with MedPAR, dialysis risk adjustment indicator, MDS, and OASIS data at the contract level to see whether a subset of MA contracts submitted complete data across all comparisons. We limited our analysis to contracts with 2,500 or more enrollees in 2015 and contracts with a MedPAR inpatient stay match rate of at least 90 percent. Fifty-two contracts with an aggregate enrollment of about 2 million enrollees met these criteria.

Of the 52 contracts, average match rates for the dialysis risk adjustment indicator were 94 percent, but only 65 percent for home health and 68 percent for SNF. Only seven contracts had match rates of at least 90 percent for all four data sets. We conclude, based on these findings, that for the preliminary 2015 data we analyzed, using a subset of contracts to assess MA utilization would severely

limit the generalizability of any findings. Specifically, the 7 contracts with high match rates were all sponsored by health systems, had an aggregate enrollment of about 200,000 enrollees, and operated in a small number of health care markets. We plan to continue assessing the possibility of analyzing a subset of MA contracts as we gain access to more-current data.

Outlook for encounter data accuracy and completeness

The preliminary 2015 encounter data (the version that CMS publicly released) include more records than the 2014 data and align somewhat better with other measures of service use, but are not complete enough—meaning that there are not records in the data set to reflect all encounters that should be documented—for comparing MA with FFS utilization. CMS and MA plans report that they are continuing to learn and improve the data collection process. Several stakeholders contend that more recent encounter data files are more complete and accurate.

We anticipate gaining access to final 2015 and 2016 encounter data files in 2019. We expect, based on the trend from 2014 to 2015 and stakeholder feedback, that the 2016 encounter data will be more complete than in prior years.²¹ However, given the current incentives to submit encounter data and the limited assessment of completeness, we

anticipate that encounter data will continue to improve only incrementally. In other words, incomplete encounter data are a problem that may not resolve on its own without changes to current processes.

Our outlook differs from that of some stakeholders because we focus on assessing data completeness—whether records of all encounters that took place are present in the data. We found evidence that encounter data are incomplete—sometimes substantially so—based on our validation analysis that focused on comparisons with external data sources for inpatient stays (MedPAR data), any dialysis use (risk adjustment data), skilled nursing stays (MDS), and home health use (OASIS), as well as comparisons with plan-generated HEDIS data for inpatient stays, emergency department visits, and physician office visits. In contrast, CMS uses far fewer metrics that assess completeness. Only one measure is similar to the comparisons in our study—the quarterly report cards that include a comparison of inpatient encounter records with hospital-reported inpatient stays reported in MedPAR data. Other report card information addresses the number of submitted and accepted encounters. Although the number of encounter records and the acceptance rates may be increasing, only the inpatient stay metric assesses completeness of the data. Similarly, the performance metrics CMS adopted in August 2018 address whether encounter records are consistent with other plan-generated RAPS data, but these also do not assess completeness relative to an external data source. The only way to know whether encounter data submissions are becoming more complete is to adopt new measures of completeness.

CMS’s feedback to plans based on metrics that are not designed to assess completeness gives plans only a nominal assessment of their performance relative to the prior period, but not a real sense of how their submissions compare with the number of records that should be submitted. Many plans do not use comparisons with external data sources to assess their own completeness, but rely instead on the report card and performance assessment provided by CMS. Learning that a greater proportion of their submitted encounter data records are accepted by the EDS system and that their total number of submissions and rate of acceptance has improved each year can leave plans with the sense that their encounter data submissions have improved; however, this information is not designed to assess whether encounter data are complete.

We are eager for MA encounter data to achieve sufficient completeness to evaluate MA care delivery and service

use relative to FFS Medicare and inform policy options to improve the Medicare program. Observed improvement in the completeness of encounter data has been slow, and we note that current incentives to submit encounter data do not span all services.

Ensuring the robustness of encounter data

Existing incentives for plans to submit complete encounter data are largely limited to their use for risk adjustment. In general, the use of encounter data for this purpose has been increasing, and it is expected that encounter data will ultimately replace RAPS data for identifying diagnoses. To strengthen the incentive to submit encounter data for risk adjustment, CMS should reestablish a time line for increasing the use of encounter data so that these data are the sole source of diagnostic data within a few years.

The only other established incentive for encounter data submission is based on performance measures that CMS recently finalized. However, these measures are currently designed only to identify the lowest performing contracts for future compliance action and do not focus on assessing encounter data completeness.

Assessing completeness and accuracy of encounter data

To ensure that encounter data are sufficiently complete and accurate for their intended uses, CMS should expand upon current metrics to include additional measures comparing the data with external and plan-generated data sources.

External data sources

CMS should adopt additional metrics to compare encounter data with external data sources similar to the ones applied in our study. Our validation analyses focused on comparisons with external data sources for inpatient stays (MedPAR data), any dialysis use (risk adjustment data), skilled nursing stays (MDS), and home health use (OASIS). In future analyses, we plan to include as external data sources the Inpatient Rehabilitation Facility–Patient Assessment Instrument (IRF–PAI) for IRFs and the Continuity Assessment Record and Evaluation (CARE) for long-term care hospitals.

Given that Medicare encounter data should provide accurate total counts of encounters and descriptions of key characteristics of those encounters, several metrics

of completeness and accuracy should be adopted for comparison with encounter data. For example:

- Does each MA enrollee who has a record in the external data source have an encounter record for that service type during the year?
- Does the number of utilization units (e.g., admissions, stays, days) for a particular MA enrollee in the external data source match the number reported in encounter data?
- Do the dates of service for a particular MA enrollee identified in external data source match the dates reported on the encounter record for that enrollee and service?

For consistency, generally similar metrics of completeness and accuracy could be adopted for comparison with each external data source. CMS could assess these metrics across the entire MA program and by MA contract. Notably, these metrics assess only first-order and second-order dimensions of the data. To ensure that encounter data are sufficiently complete and accurate for comparisons between MA and FFS Medicare, a full validation analysis would need to assess additional important data elements (e.g., performing physician, procedures). These additional data elements should be addressed by metrics of completeness and accuracy that are unique to provider types and associated comparison data in situations where these data sources offer more opportunities for comparison than are available for the metrics that are similar across data sources. In addition, the development of an external data source for assessing the completeness of all physician visits, outpatient hospital services, and certain other Part B services would improve our overall assessment of completeness. The best currently available comparison with plan-generated data comes from HEDIS, which addresses some of these services. This shortcoming is of significant concern because these services comprise a substantial share of typical medical services, and any differences in their relative utilization would contribute greatly to our understanding of how MA plans' incentives may shift their enrollees' care between different types of providers.

Plan-generated data sources

Comparing MA encounter data with other plan-generated data sources does not provide an independent assessment of data completeness and accuracy, but these comparisons can help flag potential underreporting and assess whether

a plan's data processing is internally consistent. The plan-generated data sources that include utilization information are HEDIS, RAPS, and bid data. If highlighting inconsistencies between encounter data and these other data sources causes plans to develop internally consistent data processes, it is likely that the completeness and accuracy of all data will improve, and then, in some cases, encounter data could replace other plan-generated data sources.

As reported in our findings, some utilization information from HEDIS—physician office visits, emergency department visits, and inpatient stays—indicate that some plans are underreporting encounter data for these services, and a roughly equal number of contracts are reporting more visits and stays in encounter data than in HEDIS. Although these differences may be due to missing encounter data or variation in how contracts implement HEDIS specifications, the fact of any difference demonstrates incompleteness or inaccuracy, given that both data sets originate from the plan. While CMS is finalizing a mechanism that is independent of plan-generated data for assessing the completeness and accuracy of physician visits, outpatient hospital services, and certain other Part B services, the agency should compare HEDIS and encounter data for each utilization measure that is included in encounter data. Over the longer term, CMS itself could apply HEDIS specifications to encounter data submitted by plans, thereby ensuring that the specifications were applied uniformly.

RAPS data, which are used for risk adjustment by identifying diagnoses for individual beneficiaries, also note the date of the encounter that produced the diagnosis and the type of provider (inpatient hospital, outpatient hospital, or physician) reporting the diagnosis. CMS has compared these data elements (i.e., beneficiary identifier, date of service, and type of provider) from RAPS data with encounter data separately for each provider type but currently sets a threshold of accuracy (40 percent to 90 percent) intended to identify only contracts with encounter data submissions that are substantially below reasonable expectations. A plan with internal data consistency and successful reporting should have an exact match between encounters reported in RAPS and encounter data. Given our conclusion that the provider type indicator does not accurately specify whether the encounter was an inpatient hospital, outpatient hospital, or physician visit, CMS should evaluate whether the date information in RAPS data is valid. If dates and beneficiary identifiers are valid, CMS could pool RAPS data and encounter data from all

three provider types for this comparison. As long as RAPS data are collected and used to calculate risk scores, CMS could hold plans accountable for reporting encounter data that match encounter information reported in RAPS.

Each MA plan submits an annual bid for providing Medicare services. The information submitted on the bid form includes actual utilization and spending data that summarize the number of services provided and amount spent across service categories in the base year (e.g., in 2019, plans will submit bids for 2020 using actual data from 2018 as a basis for their bid). For most plans, the utilization information on their bid should match their encounter data.²² CMS could compare utilization numbers for each service category in bid data with encounter data; however, because bids are prepared and submitted 6 months after the base year ends and the encounter data submission deadline is usually 13 months after the base year ends, this comparison would be retrospective. Spending information submitted on bids cannot currently be compared with spending information in encounter data because the reported information can differ from actual spending in significant ways (e.g., encounter data can indicate payments to providers made on a capitated basis as \$0). Given the timing discrepancy and the lack of complete spending information in encounter data, it seems unlikely that a plan's bid could be based entirely on encounter data.

Increasing incentives to submit complete and accurate encounter data

Concurrent with adopting more effective metrics to assess encounter data completeness and accuracy, CMS should implement additional mechanisms for improving completeness and accuracy based on the results of the metrics. For example, CMS could provide greater incentives for data submission by linking plan performance to the agency's performance metric framework, its oversight and enforcement framework, or an encounter data submission withhold. In addition, CMS should reestablish a time line for increasing the use of encounter data in place of RAPS data so that encounter data are the sole source of diagnostic data for risk adjustment.

Improving performance assessment and feedback

As seen in Table 7-1 (p. 210), CMS has already developed a framework for assessing MA contracts' submission of encounter data. In particular, each contract's performance on the measures is shared with the MA organization, and

oversight is specified for contracts that fall below the thresholds: outreach to plans, technical assistance, warning letters, and corrective action plans (Centers for Medicare & Medicaid Services 2018e). (CMS notes that additional information about the compliance schedule and process will be provided in the future.) However, to provide a real incentive for plans, this framework needs improvement:

- The comparisons we discussed in this chapter (e.g., comparisons with external data sources, consistency with plan-generated data sources) would be good candidates for new measures in the agency's review.
- For the performance measures monitored, thresholds could increase over time to encourage accurate submission.
- Public reporting for each performance measure could be expanded beyond the number of contracts in noncompliance (e.g., how many inpatient stays were reported in RAPS and encounter data, what share of RAPS stays had a match in encounter data, how well the average contract performed).
- The path of reform for contracts performing below thresholds could include financial penalties.

Requiring a corrective action plan is the highest level of penalty imposed on organizations with submissions that are substantially below expectations. This level of penalty is reactive to poor performance and lacks the weight needed to incentivize organizations to submit complete encounter data. The Medicare Part C and Part D Oversight and Enforcement Group (MOEG) at CMS conducts a three-year cycle of audits, including a portion of MA and MA prescription drug plan contracts in each year, and assesses civil monetary penalties and suspensions of payment, marketing, and enrollment for contracts found to be in noncompliance with program requirements.²³ These penalties are fairly severe and are imposed on only those contracts with serious instances of noncompliance. Such penalties could be applied to contracts failing to submit encounter records for all items and services provided to MA enrollees; however, these targeted penalties, on their own, would not address incomplete encounter data, a problem that spans almost all MA contracts.

Establishing a payment incentive to submit complete encounter data

Under a withhold option, CMS would withhold some amount from MA plans' monthly payment—an amount

that would be returned in full to plans that performed well on data submission requirements. The amount of repayment would be based on plans' performance on established metrics (e.g., comparisons with external data sources and consistency with plan-generated data sources), and repayment would occur after the encounter data submission deadline for the year. The withhold policy would be desirable in two ways. First, it would provide a financial incentive to submit complete and accurate encounter data for specified services and it could be applied to all MA contracts, unlike the audit and enforcement framework, which targets only subsets of plans. Furthermore, the policy could be designed to impose penalties that are proportional to the degree of incompleteness and inaccuracy of the submitted data.

The schedule determining the amount of repayment to each plan could be more generous in the first year and become stricter over time. To do so, CMS could calculate plans' performance on metrics using past data and repay the full withhold for plans with metric results that are better than the average in the first year (or some other, generous threshold); this first step would establish a schedule of increasing repayment thresholds for subsequent years. Ultimately, the encounter data withhold could be phased out if the majority of MA plans submitted sufficiently complete and accurate data. If data submission problems became an issue for only a small group of plans, CMS could use a more targeted policy, such as the audit and enforcement framework.

Basing the amount withheld on a percent of monthly payments to MA plans would be a simple way to implement the withhold, and it would mean that the withhold size corresponded with plan enrollment. Currently, CMS conducts a payment reconciliation for final risk scores after all risk adjustment data, as well as encounter and RAPS data, are submitted. After the submission deadline, CMS calculates final risk scores and determines the difference between initial payment and the amount that should have been paid. During this period, CMS could also calculate encounter data performance metrics for each plan and determine withhold repayment amounts so that encounter data withhold and risk score reconciliation could occur simultaneously.

The options under discussion—increasing use of encounter data for risk adjustment, implementing stricter penalties for plans with poor performance on these measures, and requiring a withhold with repayment based

on performance metrics—are not either-or options but could all work in concert.

Collecting encounter data through Medicare Administrative Contractors

A final option for improving encounter data submissions would set the encounter data submission process on an alternate path by using MACs to collect data directly from providers rather than continuing to have poor-performing MA organizations go on collecting data from providers and submitting them to Medicare. This option could be considered a fallback if other options proved unsuccessful. For example, the Congress could require CMS to implement additional completeness metrics and incentives. For MA organizations not achieving 95 percent completeness and accuracy within five years—when the Congressional Budget Office projects that MA enrollment will be about 40 percent of all Medicare enrollment—the MAC option would automatically go into effect (Congressional Budget Office 2018). Including this fallback among the Commission's recommendations to improve encounter data submissions is intended to provide an additional incentive for plans to comply with completeness and accuracy requirements.

The current encounter data review process is largely modeled on FFS MAC operations. CMS originally considered using one or more MACs, but ultimately decided to build a front-end system that performs essentially the same MAC process through the EDS. In fact, one of the FFS MACs serves as the EDS contractor. Both MA plan sponsors and providers have experience working with MACs.

In FFS Medicare, MACs receive claims for Medicare beneficiaries directly from providers and process those claims for payment. In addition, MACs forward FFS claims data to third parties, such as Medigap plans and Medicaid entities (state agencies or managed care plans) that have an obligation to pay cost sharing on behalf of Medicare beneficiaries. The MA encounter submission process could be changed so that providers submit claims for MA enrollees directly to the MAC assigned to their geographic region or to a MAC focused exclusively on MA claims. The MAC would apply the same edits and checks as those applied to FFS claims for Medicare-covered services and would then forward the records to the relevant MA plan. On receipt of forwarded records, MA plans could process payments to the provider. The usual MAC turnaround time is up to three or four days to

process clean claims (those passing claim edits and not requiring corrections) and one additional day to forward records to the MA plan.²⁴ For supplemental services that MA plans offer, MACs could simply forward records to the MA plan without applying the FFS edits that are particular to FFS claims processing, as they do for other third-party claims. In this process of using a MAC to receive and forward claims records for MA enrollees, the MAC would retain a copy of the records, process them in encounter data format, and forward them to CMS.

There are two options for implementing a MAC-based encounter data collection process as a fallback. First, CMS could require this process to be used for all MA organizations if the fallback was triggered. This option would have the advantage of clarity for providers: The submission to the MAC of their Medicare claims under FFS and MA would be uniform. The other option would apply the same thresholds for completion as the other option but at the MA organization or contract level. It would allow plans to conduct their own encounter data submission if that is their preference, as long as they continued to meet the new standards for completeness and accuracy. MA organizations that failed to submit complete encounter data would be required to have their encounter data collected from providers by MACs, and MA organizations that preferred to use MACs could elect to do so.

Using MACs would be a significant change in encounter data processing, but it would provide all plans with a uniform system of data checks and validation before plans processed and paid claims. Currently, many plans hire contractors to process and submit their encounter records to CMS. Although we did not explore the cost of using such a contractor, we believe the administrative cost of processing claims through MACs would be far less. Similarly, we expect that the cost of converting claims to the appropriate format for encounter data submission to CMS would be lower. A few of the plan officials we interviewed said their plans processed and submitted encounter data themselves. Because they had already developed and paid for the necessary infrastructure, these plans would likely prefer not to have MACs take their place. Also, some of the plan officials interviewed did not like the idea of having a third party be an intermediary in their data exchange with providers and felt that it would limit the type of relationship they had with providers.

We also spoke with several provider organizations about the MAC-processing idea. They indicated that providers

commonly employ clearinghouses to submit their claims to both MA organizations and MACs for FFS Medicare. They indicated that payers require a variety of front-end edits for claims that change over time. These edits enforce requirements for basic claim data formatting and for payment adjudication. Contracted clearinghouses or in-house billing departments routinely track changes to the edits and update specifications in their claims submission practices for each payer. Some provider organizations thought there would be no significant differences in their experience if MA claims were submitted directly to a MAC since the clearinghouse would continue to address payer-specific front-end edits. However, they expressed concern that adding MACs as an additional (rather than replacement) step in the sequence of claims processing could add delays to the process. Other provider organizations thought that submitting MA claims directly to a MAC could make the front-end edits more consistent and improve the timeliness and quality of feedback for rejected claims. These organizations found the variation in front-end edits and quality of feedback from MA plans added significant burden and delays in their claims processing relative to submitting claims to MACs.

Based on our review, if the MAC option were triggered and providers were required to submit claims directly to MACs rather than to MA organizations, we believe providers would experience no greater burden than they do under the current practice of submitting claims to MA plans or to MACs on behalf of FFS beneficiaries. Providers might even experience significant simplification in submitting claims, particularly if claims for all Medicare beneficiaries, in traditional FFS or in MA, regardless of plan, were submitted to MACs.

All options for increasing incentives for plans to submit complete encounter data require the addition of performance metrics that compare encounter data with external data sources and possibly with plan-generated data sources. Yet not all services can be evaluated equally for completeness and accuracy (e.g., physician and outpatient hospital service assessment is lacking), but a phased rollout would expedite adoption of available metrics and data while developing additional tools that can be added to the program once finalized. Using all available data sources would be a significant improvement over the current level of assessment. With an assessment framework in place, it would be possible to implement all options for increasing data submission incentives: CMS could use its audit and enforcement framework to target

contracts with submissions that are substantially below expectations and program requirements. An encounter data withhold would provide a broad incentive for all contracts to submit complete and accurate data, and CMS could assess penalties proportional to performance. Over time, either the completeness and accuracy metrics would show that a majority of MA organizations were compliant and the withhold was no longer needed or the metrics would indicate poor performance—either program-wide or for particular MA organizations—thus triggering the requirement for providers to submit claims directly to MACs, with encounter data collected through this alternate pathway.

Ensuring that encounter data are complete and accurate

To improve the robustness of MA plans' encounter data using the options under discussion, CMS could consider phasing in the rollout of an improved framework as follows:

- First, CMS could adopt performance metrics that compare encounter data with external data sources and plan-generated data sources where external data sources are lacking. Informing plans about the performance metrics and their calculation methods could occur in the advance notice and announcement of MA payment rates for 2021.
- Next, CMS could calculate plans' performance on these metrics and provide detailed, timely feedback to MA organizations on their results, as well as feedback to the public on the completeness and accuracy of encounter data across the MA program. CMS could calculate plans' performance for the most recent year or two to establish a baseline level of performance, while giving feedback to plans on an ongoing basis once performance metrics were established.
- Then CMS could establish a payment withhold policy that retains a percentage of payment to MA plans and returns a portion of that withhold at the end of the encounter data collection period. The returned portion could be based on plans' performance during the most recent year or two on established standards, with the intention of increasing incentives to improve encounter data completeness and accuracy. The withhold policy and performance standards could be announced for 2022, after plans received feedback about their baseline performance.

- Finally, CMS could institute a mechanism for providers serving MA enrollees to submit claims directly to MACs—applicable to MA plans that preferred this method of submitting encounter data to CMS. This mechanism could be made available sometime in the next few years. Also, CMS could establish a set date (e.g., 2024) and threshold (or a schedule of dates and increasing thresholds) that would trigger a program-wide requirement for providers serving MA enrollees to submit claims directly to MACs. A program-wide trigger could incentivize improvement across all MA organizations. In addition, CMS could establish a separate compliance threshold for individual MA organizations that would trigger the requirement for these organizations' providers to submit their claims directly to MACs. This trigger would help ensure that the lowest performing MA plans had a continuous incentive to improve their submission of encounter data. Under any of these circumstances in which claims are submitted directly to MACs, the MA organizations should reimburse the MACs for the cost of claims processing and forwarding, a cost that MA organizations already bear.

Concurrent with these steps, we encourage CMS to seek out or develop comparison data sources where these are lacking (e.g., assessments of physician and outpatient hospital services) and improve existing data sources that exhibit shortcomings (e.g., instruments used to assess post-acute care) for use to corroborate encounter data submissions. Our intent is to ensure completeness of the encounter data to the greatest extent possible. The extent of incompleteness in the comparison data used for assessment is not known (e.g., while MedPAR attempts to capture all inpatient and SNF utilization, there are missing records and there is no comparison data set for physician and outpatient hospital services). Improvements in the completeness of the comparison data would improve the ability to assess the completeness of encounter data as part of CMS's effort to achieve 100 percent encounter data completeness. Given the amount of time already passed in encounter data collection efforts (CMS began the current round of collection in 2012) and the importance of the uses of encounter data, CMS should immediately take any steps it can, using available data sources while working to add data for comparison where gaps exist.

Given the urgency of signaling immediate next steps to CMS and the Congress and the identification of

opportunities to begin addressing data completeness and accuracy issues, the Commission thinks it makes sense to act on the recommendation now. We also plan to continue exploring options for subsequent steps designed to ensure that these incentives and performance metrics are having their intended effect (e.g., comparing encounter data with plan bid supporting information and expanding or tailoring audit activities to assess aspects of encounter data).

RECOMMENDATION 7

The Congress should direct the Secretary to establish thresholds for the completeness and accuracy of Medicare Advantage (MA) encounter data and:

- **rigorously evaluate MA organizations' submitted data and provide robust feedback;**
- **concurrently apply a payment withhold and provide refunds to MA organizations that meet thresholds; and**
- **institute a mechanism for direct submission of provider claims to Medicare Administrative Contractors**
 - **as a voluntary option for all MA organizations that prefer this method**
 - **starting in 2024, for MA organizations that fail to meet thresholds or for all MA organizations if program-wide thresholds are not achieved.**

RATIONALE 7

Complete and accurate encounter data would be valuable to the Medicare program for a multitude of reasons. However, encounter data currently lack completeness across providers and MA contracts, and the current system of feedback and incentives for improved encounter data submissions has shortcomings. Given the urgency of signaling immediate next steps to CMS and the Congress, we suggest a phased rollout so that the completeness and accuracy of MA encounter data are improved as soon as possible.

Encounter data performance metrics currently focus on the timing of encounter submissions, and comparisons are made only with plan-generated risk adjustment (i.e., RAPS) data. CMS should expand performance metrics to include comparisons with external and plan-generated data sources. Evidence of MA service use from external data sources—such as information-only claims and patient assessments submitted by providers—offer the most robust assessment of encounter data completeness. Existing independent data sources tend to cover inpatient and post-acute services but leave a gap

in the assessment of physician, outpatient hospital, and certain other Part B services. Data generated by plans can be used to fill in these gaps; however, comparisons with plan-generated data assess whether a plan's data processing is internally consistent. Such comparisons can identify missing encounter records, but they do not fully evaluate completeness. The specificity of comparisons with independent data sources could be tailored based on the robustness of the comparison data source. For example, information-only claims from hospitals are used to calculate DSH and IME payments and are relatively robust. Comparisons with information-only claims could be more rigorous and could use the following data elements in a match: beneficiary number, admission date, discharge date, provider number, and procedure information. Certain patient assessments are collected for MA enrollees but do not affect Medicare payments. Comparisons with these data could be less specific, requiring only that beneficiaries are included in both encounter and comparison data sources. Additionally, CMS could provide MA plans with some feedback, such as the total dollars included in encounter data submissions, on an information-only basis. (However, using reports of total dollar amounts may need to take into consideration the limitation that encounter data may include zero or other amounts for payment fields that do not match actual amounts paid to providers.) Finally, providing feedback to plans about their performance on metrics and publicly reporting aggregate performance for all plans would encourage complete and accurate submissions and would inform policymakers and researchers about encounter data completeness.

CMS could publicly report aggregate performance statistics for the MA program on all metrics, and feedback to plans could be more detailed, including information about each instance of missing encounter data. New completeness metrics could be established and implemented through the advance notice and announcement of MA payment rates for 2021. Feedback about the completeness and accuracy of prior years' encounter data could be provided to plans and the public soon after metrics are established.

Compliance with the current performance metric framework uses a single threshold designed to identify outlier plans with very low encounter data submission. However, the use of this threshold does not address the scope of incomplete encounter data. Our analysis found incompleteness to be a broad issue, with nearly all plans

needing at least some improvement. A payment withhold tied to performance metrics that assess encounter data completeness would appropriately address the scope of encounter data problems and would offer a financial incentive for MA organizations to improve their encounter data submissions. To implement the policy, a percentage of each plan's monthly payment would be withheld, making the size of the withhold correlate with a plan's enrollment and the number of expected encounter records to be submitted. The portion of the withhold to be returned to the plan would be based on a plan's performance and a range of standards. For example, plans with excellent performance could receive their full withhold in return, plans with good performance could receive most of their withhold in return, and so on, such that the amount of withhold returned would be proportional to each plan's performance. Standards could be set such that overall withhold return rates could start at a generous level, with a high rate of return being easy to attain, and then become more strict over time. If, collectively, MA plans met the standards for submitting complete and accurate encounter data, the withhold policy could be phased out. After plans received feedback about their performance on the completeness metrics for prior years, a withhold policy and standards for withhold return could be implemented in the following payment year.

It is imperative for encounter data to be complete and accurate. If payment penalties are not sufficient to ensure the submission of complete encounter data, CMS should institute a complementary approach by which providers contracted with MA organizations submit claims directly to MACs. Providers currently submit all Medicare FFS claims to MACs, as they do information-only claims for MA enrollees using inpatient hospital and skilled nursing services. In addition, MACs currently forward FFS claims to third parties that have cost-sharing obligations, such as Medigap plans and Medicaid agencies. To use this process in MA, MACs could apply FFS data edits to Part A and Part B services to ensure that submitted records are complete before forwarding them to MA plans for payment processing. For supplemental services, MACs could forward records directly to MA plans without any processing. MACs would retain a copy of each claim and supplemental service record that passes through the MAC, and CMS would save all claims and records in the encounter data file.

To implement this policy, CMS would institute a mechanism for providers serving MA enrollees to submit

claims directly to MACs for MA plans that preferred this method of submitting encounter data to CMS. Under any of these circumstances in which claims are submitted directly to MACs, the MA organizations would be required to reimburse the MACs for the cost of claims processing and forwarding, a cost that MA organizations already bear. This mechanism could be made available sometime in the next few years. At the same time, CMS would establish a set date (e.g., 2024) and threshold (or a schedule of dates and increasing thresholds) that would potentially trigger a program-wide requirement for providers to submit claims directly to MACs. Such a trigger would incentivize all MA organizations to improve data submission. In addition, CMS would establish a separate completeness and accuracy threshold for individual MA organizations that would trigger a requirement for providers to submit their claims directly to MACs. This trigger would help ensure that the lowest performing MA plans had a continuous incentive to improve their encounter data submissions. The purpose of using both an organization-level and a program-wide threshold is to ensure that complete encounter data are collected by CMS no matter the extent to which individual MA organizations' performance improves. Ideally, the payment withhold and MAC threshold would provide sufficient incentive to plans to improve their encounter data submission such that very few, if any, MA organizations would fail to meet thresholds and thus trigger the requirement that they use MACs. The program-wide threshold could be designed to consider the size of MA organizations and their contribution to the aggregate encounter data set, for example by enrollment weighting. If organizations representing the majority of the MA program improve their encounter data completeness year after year, we would expect that the MAC portion of the recommendation would affect only the individual organizations that fail to improve encounter data submission processes. However, if organizations representing the majority of the MA program fail to improve the submission of their encounter data year after year, such that it becomes apparent that complete MA encounter data will not be achieved through plan submissions, the Commission then recommends requiring the use of MACs for the entire program. The Commission believes that complete encounter data are valuable enough that completeness must be achieved through plan submission, or through the use of MACs if necessary. The Commission's recommendation is intended to apply all three policies in concert.

Spending

- This recommendation is expected to reduce program spending relative to current policy by less than \$50 million over one year and by less than \$1 billion over five years. Specifically, if the performance of some plans results in less than the full withhold amount being returned to the plan, there would be a reduction in program spending. Although the withhold policy is not designed to save the program money, as the policy increased plan incentives to submit complete and accurate encounter data, it could reduce payments to plans that fail to do so.

Beneficiary and provider

- The recommendation would not have any direct effect on beneficiaries. To the extent that encounter data for MA enrollees become available through CMS’s Blue Button 2.0 program (which currently provides beneficiaries in traditional fee-for-service Medicare

access to their claims data) and MA enrollees access their encounter information, the recommendation will improve the completeness and accuracy of that encounter information.

- The impact on plans and providers would vary depending on each entity’s current method for processing claims or submitting encounter data. Specifically, for plans that used MACs to process their providers’ claims, the change relative to current processes could offer some benefits, such as increased standardization in claims submission for providers, and slight drawbacks, such as the potential to add a few days to the complete claims submission process for certain providers. Finally, we note that a small set of providers that do not submit traditional claims, such as some staff-model HMO plans or medical groups that have a full capitation contract exclusively with one MA organization, could face greater difficulty if they used a MAC for claims submission. ■

Endnotes

- 1 HEDIS is a registered trademark of the National Committee for Quality Assurance. CAHPS is a registered trademark of the Agency for Healthcare Research and Quality, a U.S. government agency.
- 2 See the MA encounter data validation section for our analysis comparing inpatient encounter records and inpatient information-only claims for MA enrollees contained in the Medicare Provider Analysis and Review file (pp. 221–222).
- 3 CMS will monitor the Program of All-Inclusive Care for the Elderly and Medicare–Medicaid demonstration plans, but these plans are excluded from compliance actions.
- 4 Other possible sources of diagnostic information—such as encounters for home health, skilled nursing, ambulatory surgery, durable medical equipment, and hospice services—are not used to determine payment through the risk adjustment model, either because adding diagnoses from these sources does not improve the model’s ability to predict medical expenditures or because there are concerns about the reliability and manipulability of the diagnoses. The filtering logic used to identify physician visits that are eligible for risk adjustment is different for RAPS data (based on physician specialty) and encounter data (based on procedure codes). The use of procedure codes provides more specificity in identifying whether physician visits are face-to-face and eligible for risk adjustment or not.
- 5 The data elements submitted are beneficiary health insurance claim number; diagnoses; provider type; and date(s) of service for services provided by hospital inpatient facilities, hospital outpatient facilities, and clinicians. The demographic data that are also needed to calculate risk scores come from CMS administrative data.
- 6 The Improper Payments Information Act of 2002 (IPIA) (Public Law 107–300), as amended by the Improper Payments Elimination and Recovery Act of 2010 (IPERA) (Public Law 111–204), requires government agencies to identify, report, and reduce erroneous payments in government programs and activities. In the process of implementing IPIA/IPERA requirements, CMS has reported a Part C composite payment error estimate since fiscal year 2008.
- 7 CMS offsets unsupported diagnoses with unreported diagnoses in one of the five medical records a plan submits in support of the diagnosis under audit.
- 8 The proposed encounter data schedule was 50 percent in 2018, 75 percent in 2019, and finally 100 percent in 2020.
- 9 In October 2017, CMS made an “initial final” payment reconciliation of payments to plans for 2016 based on diagnoses submitted to RAPS as of January 31, 2017, and diagnoses submitted to the EDS as of May 1, 2017.
- 10 The “report and repay” requirement is under appeal after being overruled by the U.S. District Court for the District of Columbia. See opinion in *United HealthCare Insurance Company et al. v. Alex M. Azar II*, September 7, 2018.
- 11 In addition, quality incentives or other bonus payments to providers are not captured in encounter data. Depending on how these payments are structured, one might argue that they should also be included in the model calibration.
- 12 There would still be variation in coding intensity across MA contracts.
- 13 Facilities submit information-only claims to CMS for MA enrollees to support the calculation of DSH, indirect medical education, and graduate medical education payments to facilities.
- 14 An extension was allowed for submission of encounter data for 2015 dates of service. The preliminary file represents data submitted as of the original deadline, March 1, 2017.
- 15 For this analysis, we excluded Medicare–Medicaid Plans because many were just starting during this period and undergoing passive and voluntary enrollment, and cost plans because they are required to submit encounter data only for services included in their cost report.
- 16 MDS assessment data are collected within 14 days of admission and at other points for traditional FFS Medicare beneficiaries.
- 17 State Medicaid agencies that contract with managed care organizations generally must ensure that an independent external quality review organization (EQRO) performs a review of each managed care organization on an annual basis. CMS developed protocols for EQROs, including one that can be used to evaluate encounter data submissions. See <https://www.medicaid.gov/medicaid/quality-of-care/downloads/eqr-protocol-4.pdf>.
- 18 Additional MDS assessments are required for beneficiaries enrolled in FFS Medicare.
- 19 MDS assessments are also required for Medicaid-covered nursing home stays. By excluding MA enrollees who are eligible for full Medicaid benefits from the analysis, we could

- be reasonably certain that non-Medicaid MA enrollees with an MDS assessment would also have a SNF encounter record.
- 20 We excluded MA contracts with fewer than 1,000 enrollees because they were not required to submit HEDIS data before 2015. This requirement changed to 500 enrollees starting in 2015.
 - 21 We do not expect significant differences in the final 2015 data, based on prior within-year file updates.
 - 22 Plans that went through contract consolidation or had certain changes in their service area between the base year and the bid year may submit utilization and spending information for the base year that is adjusted or subset on their bid, which would not match encounter data for the plan configuration that existed in the base year.
 - 23 In addition to audits conducted as part of the three-year cycle, MOEG audits individual contracts identified through complaints to assess each contract's compliance with Medicare guidelines, including those focused on sales and marketing, utilization management, quality improvement, claims administration, appeals and grievances, licensing and credentialing, bid preparation, provider network management, and so forth.
 - 24 In Medicare FFS, MACs are required by statute to enforce a payment floor of at least 14 days before releasing processed claims for payment, but clean claims generally take less time to process.

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