



January 2017

MEDICARE ADVANTAGE

Limited Progress
Made to Validate
Encounter Data Used
to Ensure Proper
Payments

GAO Highlights

Highlights of [GAO-17-223](#), a report to congressional requesters

Why GAO Did This Study

CMS collects MA encounter data to help ensure the proper use of federal funds by improving risk adjustment in the MA program—the private health plan alternative to traditional Medicare—and for other potential purposes. CMS’s ability to make proper payments depends on the completeness and accuracy of MA encounter data. In July 2014, GAO reported that CMS had taken some, but not all, appropriate actions to validate the completeness and accuracy of encounter data and had not fully developed plans for using them.

GAO was asked to provide an update on its July 2014 findings. In this report, GAO identifies (1) steps CMS has taken to validate MA encounter data, and (2) CMS’s plans and time frames for using MA encounter data—as well as stakeholder perspectives on these steps and plans.

To do this work, GAO compared CMS activities with the agency’s protocol for validating Medicaid encounter data—comparable data collected and submitted by entities similar to MAOs—and federal internal control standards. In addition, GAO reviewed relevant agency documents and interviewed CMS officials on MA encounter data collection and reporting. GAO also reviewed comments in response to CMS’s 2014 proposed rule and reports from stakeholder organizations. GAO also interviewed a non-generalizable selection of 11 stakeholders including health insurance and provider trade associations and research organizations. HHS provided technical comments on this report that were incorporated as appropriate.

View [GAO-17-223](#). For more information, contact James Cosgrove at (202) 512-7114 or cosgrovej@gao.gov.

January 2017

MEDICARE ADVANTAGE

Limited Progress Made to Validate Encounter Data Used to Ensure Proper Payments

What GAO Found

Since GAO issued its July 2014 report, the Centers for Medicare & Medicaid Services (CMS) within the Department of Health and Human Services (HHS) has made limited progress to validate the completeness and accuracy of Medicare Advantage (MA) encounter data. CMS collects encounter data—detailed information about the care and health status of MA enrollees—to determine payments to MA organizations (MAO). These entities received approximately \$170 billion to provide coverage to nearly one-third of all Medicare beneficiaries in 2015. The agency uses a risk adjustment process to account for differences in enrollees’ expected health care costs relative to an average beneficiary. Without complete and accurate encounter data, CMS cannot appropriately risk adjust MAO payments. CMS has begun compiling basic statistics on the volume and consistency of data submissions and preparing automated summary reports for MAOs indicating diagnosis information used for risk adjustment. However, CMS has yet to undertake activities that fully address encounter data accuracy, such as reviewing medical records. (See figure.) Furthermore, some health insurance and provider trade associations GAO interviewed voiced concerns about CMS’s ability to properly identify diagnoses used for risk adjustment. CMS officials noted that they are working with MAOs to refine how the methodology used to obtain diagnoses data is applied. To the extent that CMS is making payments based on data that have not been fully validated for completeness and accuracy, the soundness of billions of dollars in Medicare expenditures remains unsubstantiated. Given the agency’s limited progress, GAO continues to believe that CMS should implement GAO’s July 2014 recommendation that CMS fully assess data quality before use.

Change in Status of the Centers for Medicare & Medicaid Services’ Actions to Validate Medicare Advantage (MA) Encounter Data, from July 2014 to October 2016

Activity	July 2014 status	October 2016 status
Establish requirements for collecting and submitting MA encounter data		
Review MA organizations’ capability to collect and submit encounter data		
Perform automated checks on submitted data for completeness and accuracy		
Conduct statistical analyses for completeness and accuracy		
Review medical records to verify encounter data		
Summarize findings on encounter data completeness and accuracy to provide recommendations to MA organizations		

Addressed
 Partially addressed
 Not addressed

Source: GAO. | GAO-17-223

Since the July 2014 report, CMS has made progress in developing plans to use MA encounter data for risk adjustment, but has not specified plans and time frames for most other purposes, such as conducting program evaluations and supporting public health initiatives. CMS began phasing in patient diagnosis information from encounter data in its risk adjustment process in 2015 and

intends to rely completely on those data by 2020. Because it has primarily focused on collecting comprehensive encounter information for risk adjustment purposes—which is key to ensuring proper payments—CMS officials told GAO that the agency has largely deferred planning for additional uses of the data. Some stakeholder organizations have objected to the risk adjustment transition time frame, asserting that it does not allow sufficient time for a successful transition. According to CMS, the multiyear transition time frame is reasonable. Some stakeholders also were concerned that releasing data to external entities could compromise the confidentiality of proprietary information, such as payments to providers. CMS officials said that they intend to use data protections similar to those used with other Medicare data. In the absence of planning for all of the authorized uses, the agency cannot be assured that the amount and types of data being collected are necessary and sufficient for specific purposes. Given the agency's limited progress, GAO continues to believe that CMS should implement GAO's July 2014 recommendation that CMS fully develop plans for the additional uses of encounter data.

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Abbreviations

CMS	Centers for Medicare & Medicaid Services
FFS	fee-for-service
HHS	Department of Health and Human Services
MA	Medicare Advantage
MAO	Medicare Advantage organization
RAPS	Risk Adjustment Processing System

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January 17, 2017

The Honorable Kevin Brady
House of Representatives

The Honorable Sander M. Levin
House of Representatives

The Honorable Fred Upton
House of Representatives

In the Medicare program, paying for care in a way that contains costs and maintains quality requires that the Centers for Medicare & Medicaid Services (CMS)—the agency that administers Medicare—develop sound data and payment methods. Whereas Medicare pays fee-for-service (FFS) providers who submit claims for reimbursement after services have been rendered, Medicare pays Medicare Advantage (MA) organizations (MAO) a predetermined, fixed monthly amount per enrollee.¹ This payment does not vary on the basis of the number or cost of health care services an enrollee uses. Instead, CMS uses a process known as risk adjustment to pay MAOs more for enrollees who are predicted to have higher medical costs and less for those predicted to have lower costs. The purpose of risk adjustment is to pay MAOs fairly and accurately, thereby decreasing incentives for MAOs to avoid enrolling sicker beneficiaries. MAOs can incur losses if aggregate costs exceed payments but can retain savings if aggregate costs are less than payments.

CMS adjusts payments for the health status of an enrollee using a risk score, which indicates how costly the enrollee is expected to be relative to the national average beneficiary. CMS calculates the risk score on the basis of an enrollee’s demographic characteristics (such as age and sex) and health status (diagnoses). For example, an MAO receives a higher

¹The MA program is a private plan alternative to the Medicare FFS program. CMS contracts with MAOs to provide covered health care services to plan enrollees. MA plans must cover all Medicare Part A and Part B services except for hospice care. Part A includes inpatient care in hospitals and skilled nursing facilities and certain home health care services. Part B includes physician services, outpatient care, certain home health care services, and durable medical equipment. In addition, MA plans usually offer prescription drug coverage and may offer extra benefits, such as vision, hearing, and dental coverage. In 2015, Medicare paid approximately \$170 billion to MAOs to provide coverage for nearly 17 million beneficiaries, almost one-third of all Medicare beneficiaries.

risk-adjusted payment for an enrollee with diabetes or heart disease than for an otherwise identical enrollee without those conditions. CMS cannot accurately risk adjust MAO payments if they are based on diagnosis data that are incomplete and inaccurate.²

Since 2004, CMS has used an abbreviated set of MAO diagnostic data collected through the Risk Adjustment Processing System (RAPS) to calculate MA enrollee risk scores.³ The agency relies on diagnosis information in RAPS data along with FFS claims data to determine the relative cost for treating beneficiaries with various diagnoses. In 2012, CMS began collecting MA encounter data—data roughly equivalent to FFS claims data. Replacing RAPS with encounter data requires MAOs to submit more information about enrollees, providers, dates of service, diagnoses, treatments, and payments. CMS does not expect the diagnoses in MA encounter data to differ from those in RAPS.

In July 2014, we reported that CMS had taken some, but not all, appropriate actions to ensure the completeness and accuracy of MA encounter data.⁴ We compared CMS's activities to the principal activities identified in its protocol for validating—ensuring the completeness and accuracy of—Medicaid encounter data that states receive from managed care organizations, which are entities that provide Medicaid benefits in exchange for a fixed monthly payment. The protocol outlines a series of steps for validating encounter data from Medicaid managed care organizations.⁵ Because of the similarities in the type of data and the entities gathering the data—managed care entities—we referred to this

²Completeness refers to the data representing all encounters for all enrollees and accuracy refers to the data representing a correct record for all encounters that occurred.

³CMS calculates a risk score for every Medicare beneficiary, including those in the FFS program and those in MA. To identify a FFS beneficiary's diagnoses, CMS uses claims data received directly from providers. To identify an MA enrollee's diagnoses, CMS uses information transmitted by MAOs.

⁴GAO, *Medicare Advantage: CMS Should Fully Develop Plans for Encounter Data and Assess Data Quality before Use*, [GAO-14-571](#) (Washington, D.C.: July 31, 2014).

⁵Certain state Medicaid agencies that have relied on managed care organizations to provide Medicaid services have been collecting and using encounter data for many years. State Medicaid agencies that contract with managed care organizations generally must ensure that an independent external quality review organization reviews each managed care organization annually. CMS developed protocols for external quality review organizations, including one that can be used to evaluate encounter data submissions. Centers for Medicare & Medicaid Services, *EQR Protocol 4: Validation of Encounter Data Reported by the MCO* (Baltimore, Md.: September 2012).

protocol in assessing CMS's actions to validate MA encounter data.⁶ We found that CMS had

- established timeliness and frequency requirements for data submissions,
- certified nearly all MAOs to transmit encounter data, and
- performed automated checks to determine whether key data elements were completed and values were reasonable.

However, we also found that CMS had not

- developed requirements for data completeness and accuracy,
- performed statistical analyses to detect certain data validity issues,
- reviewed medical records to verify diagnoses and services listed in encounter data, or
- reported what it had learned about data quality to MAOs.

In addition, we found that CMS had not fully developed plans for using MA encounter data. While the agency had announced plans to use diagnoses from both RAPS and encounter data to risk adjust payments beginning in 2015, it had not established time frames or specific plans to use encounter data for other intended purposes as of July 2014.⁷ In light of these findings, in July 2014, we recommended that, to ensure that MA encounter data are of sufficient quality for their intended purposes, CMS

- complete all the steps necessary to validate the data before using them to risk adjust payments or for other intended purposes and

⁶Because the CMS encounter data protocol was developed for external quality review organizations reviewing the quality of Medicaid encounter data, we adapted it to assess activities that CMS could take to validate MA encounter data. Specifically, we modified the first step, "to review" requirements for collecting and submitting encounter data, to be "to establish" such requirements. We also divided the third step calling for analyzing electronic encounter data into two activities: performing automated checks and conducting statistical analyses. The Medicaid encounter data validation protocol is consistent with GAO's data validation standards.

⁷Centers for Medicare & Medicaid Services, Announcement of Calendar Year (CY) 2015 Medicare Advantage Capitation Rates and Medicare Advantage and Part D Payment Policies and Final Call Letter (Apr. 7, 2014), <https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Announcement2015.pdf>.

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- establish specific plans and time frames for using MA encounter data for all intended purposes in addition to risk adjusting payments to MAOs.

Since our July 2014 report, CMS finalized its proposal to expand the allowable uses of encounter data from five to nine purposes, including risk adjustment, quality review and improvement activities, public health initiatives, and program integrity activities.⁸ CMS also finalized its proposal to allow external entities, such as other federal agencies and private research organizations, to use MA encounter data under specified conditions and consistent with the nine purposes.⁹ In the preamble to the final rule, CMS also summarized and responded to comments from numerous stakeholder organizations surrounding the agency's use and the release of MA encounter data.¹⁰

You asked us to provide an update on CMS's efforts to validate MA encounter data and its plans and time frames for using these data. In this report, we identify

1. CMS steps, if any, to validate MA encounter data taken since our July 2014 report, and describe related stakeholder perspectives, and
2. CMS plans and time frames, if any, for using MA encounter data developed since our July 2014 report, and describe related stakeholder perspectives.

To identify any CMS steps to validate MA encounter data taken since our July 2014 report, and describe related stakeholder perspectives, we compared the agency's activities to the principal activities identified in its Medicaid encounter data validation protocol, the same criteria we used for our July 2014 report.¹¹ We reviewed relevant agency documents and

⁸79 Fed. Reg. 49,854, 50,325-27 (Aug. 22, 2014).

⁹79 Fed. Reg. 49,854, 50,327-34 (Aug. 22, 2014).

¹⁰*Id.* at 50,324-34.

¹¹CMS's Medicaid encounter data validation protocol specifies certain steps for assessing the completeness and accuracy of encounter data that Medicaid managed care organizations are required to submit to state agencies. In the context of MA, these steps include (1) establishing requirements for collecting and submitting MA encounter data, (2) reviewing MAOs' capability to collect and submit encounter data, (3) performing automated checks on submitted data for completeness and accuracy, (4) conducting statistical analyses on encounter data for completeness and accuracy, (5) reviewing medical records to verify encounter data, and (6) summarizing findings on encounter data completeness and accuracy to provide recommendations to MAOs.

interviewed CMS officials regarding actions taken to ensure the completeness and accuracy of MA encounter data. Additionally, we interviewed 11 stakeholder organizations, including health insurance and provider trade associations, private research and consulting firms, and federal agencies.¹² We selected stakeholder organizations on the basis of their prominence in the MA program and the specificity of their written comments on a 2014 proposed rule that addressed MA encounter data. Our findings cannot be generalized to all stakeholder organizations. However, our approach allowed us to obtain the perspectives of a diverse group of stakeholder organizations with direct experience collecting and using MA encounter data or with interest in using the data in the future.

To identify any CMS plans and time frames for using MA encounter data developed since our July 2014 report, and describe related stakeholder perspectives, we reviewed relevant regulations, agency guidance to MAOs, and documents available on CMS's website, and interviewed agency officials. We assessed agency planning activities in light of relevant standards for internal control in the federal government.¹³ Finally, we interviewed stakeholder organizations, as described above, and reviewed stakeholder comments on CMS's 2014 proposed rule, public presentations, and reports related to MA encounter data.

We conducted this performance audit from June 2016 to January 2017 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

¹²The stakeholder organizations we interviewed were as follows: (1) American Hospital Association, (2) America's Health Insurance Plans, (3) Blue Cross Blue Shield Association, (4) CAPG (formerly the California Association of Physician Groups), (5) Case Mix Analysis, (6) Department of Health and Human Services' Office of Inspector General, (7) Alliance of Community Health Plans, (8) Inovalon, (9) Medicare Payment Advisory Commission, (10) Moran Company, and (11) SNP Alliance. Individual MAOs and providers participated in several of our interviews with trade associations.

¹³GAO, *Standards for Internal Control in the Federal Government*, [GAO/AIMD-00-21.3.1](#) (Washington, D.C.: November 1999); and GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: Sept. 10, 2014, effective fiscal year 2016). Internal control is a process effected by an entity's oversight body, management, and other personnel that provides reasonable assurance that the objectives of an entity will be achieved.

Background

Compared with RAPS data, MA encounter data contain more data elements, including data on diagnoses not used for risk adjustment. Specifically, MAOs may enter more diagnoses on each encounter data submission than on each RAPS data submission and may transmit encounter data more frequently than RAPS data. (See table 1.) Although there are a number of differences between RAPS data and encounter data, an important distinction is a shift in who is responsible for identifying diagnoses used for risk adjustment. Under RAPS data submissions, MAOs individually analyze all their claims data and only submit data with diagnoses that are relevant for risk adjustment. In contrast, for encounter data submissions, MAOs transmit data to CMS on all enrollee encounters, regardless of whether the encounter contains diagnoses used for risk adjustment.¹⁴

¹⁴For risk adjustment, CMS focuses on clinically significant, costly medical conditions likely to be treated if they are found. These include, for example, coronary artery disease, rheumatoid arthritis, and cancer. However, CMS excludes from the risk adjustment model other conditions—such as osteoarthritis and muscle strain—that are not considered medically significant, or may be subject to discretionary medical coding or enhanced rates of diagnosis through population screening.

Table 1: Key Characteristics of the Medicare Advantage (MA) Risk Adjustment Processing System (RAPS) Data and Encounter Data

Characteristics	RAPS data	Encounter data
Number of data elements	May contain between 24 and 86 data elements	May contain between 154 and 202 data elements ^a
Types of data elements	Diagnoses	Diagnoses, procedures, items provided to enrollees, and costs
Maximum number of diagnoses	May include up to 10 diagnosis groupings	May include up to 12 diagnoses for professional service encounters and 25 diagnoses for institutional service encounters
Process for identifying diagnoses for risk adjustment purposes	Identified and submitted by MA organizations, and used for risk adjustment	Identified by the Centers for Medicare & Medicaid Services, which requires MA organizations to submit all encounters regardless of whether they contain diagnoses used for risk adjustment
Types of providers submitting data	Collected from physicians and hospital inpatient and outpatient facilities	Collected from physicians, hospital inpatient facilities, hospital outpatient facilities, ambulance providers, clinical laboratories, durable medical equipment suppliers, home health providers, mental health providers, rehabilitation facilities, and skilled nursing facilities
Frequency of data submission	Submitted at least quarterly by MA organizations	Submitted every week, every other week, or every month by MA organizations, depending on their number of enrollees ^b

Source: GAO summary of Centers for Medicare & Medicaid Services information. | GAO-17-223

^aThe number of data elements are within this range if MA organizations choose to submit encounter data records using CMS's Minimum Data Elements, a subset of the total data elements used in the standard health care transaction claims format.

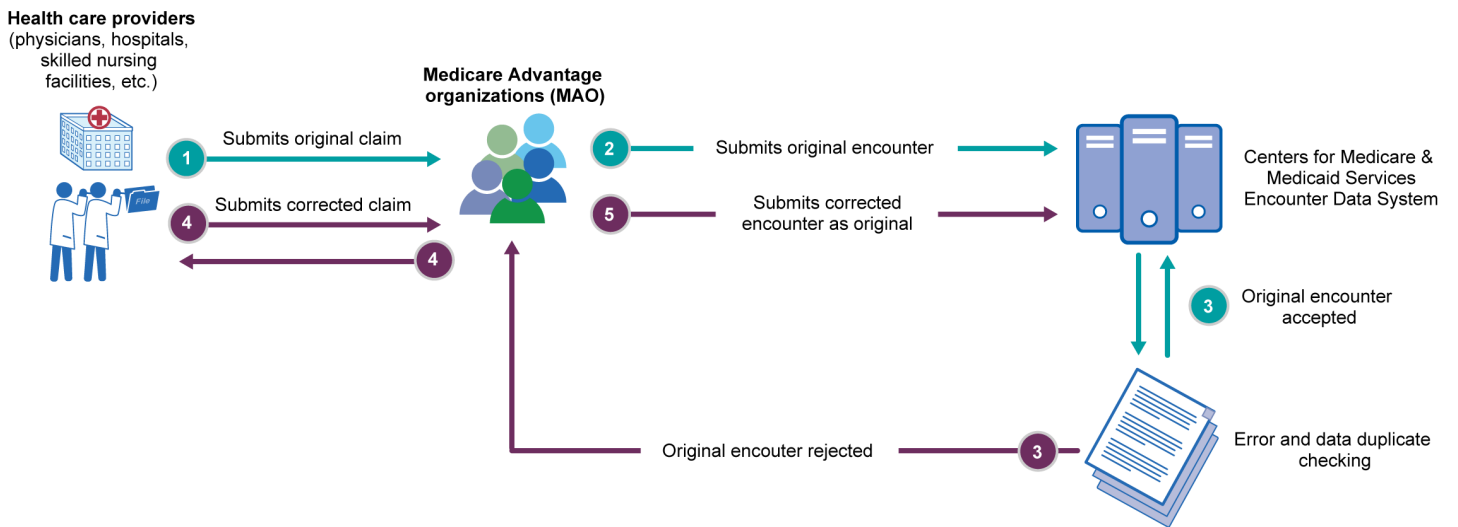
^bMA organizations with fewer than 50,000 enrollees submit encounter data monthly, those with between 50,000 and 100,000 enrollees submit the data every other week, and those with more than 100,000 enrollees submit the data weekly.

In addition, the encounter data submission process involves a number of steps and exchanges of information between providers, MAOs, and CMS. First, MAOs collect encounter data—originating from an enrollee’s medical record—from providers to manage and process reimbursement for health care services and supplies for enrollees. After collecting and reviewing these data, MAOs submit the data to CMS through the Encounter Data System.¹⁵ CMS then processes and checks the data for problems. CMS designed the system to reject and return problematic data to MAOs for corrections.¹⁶ MAOs are expected to work with providers to correct the encounter files and resubmit the data to CMS. (See fig. 1.)

¹⁵The Encounter Data System adopted the health insurance industry’s standard claims format so that CMS generally avoided placing a new requirement on MAOs. MAOs can choose to submit encounter data using the Minimum Data Elements, which is a subset of the total data elements that CMS created for the standard health care transaction claims format.

¹⁶CMS defines rejected claims as those that CMS is unable to process because of MAOs’ or other submitters’ formatting errors, invalid data, and invalid beneficiary information.

Figure 1: Centers for Medicare & Medicaid Services' Medicare Advantage Encounter Data Submission Process


















Source: GAO summary of Medicare Advantage encounter data submission process. | GAO-17-223

CMS Has Made Limited Progress since July 2014 to Validate MA Encounter Data; Stakeholder Organizations Questioned the Effectiveness of CMS Efforts

Since our July 2014 report, CMS has taken additional steps across several activities to ensure that MA encounter data are complete but has yet to fully address data accuracy. (See fig. 2)

Figure 2: Change in Status of the Centers for Medicare & Medicaid Services' Actions to Validate Medicare Advantage (MA) Encounter Data, from July 2014 to October 2016

Activity	July 2014 status	October 2016 status
Establish requirements for collecting and submitting MA encounter data		
Review MA organizations' capability to collect and submit encounter data		
Perform automated checks on submitted data for completeness and accuracy		
Conduct statistical analyses for completeness and accuracy		
Review medical records to verify encounter data		
Summarize findings on encounter data completeness and accuracy to provide recommendations to MA organizations		

-  Addressed
-  Partially addressed
-  Not addressed

Source: GAO. | GAO-17-223

The agency has taken the following steps, which address primarily the completeness of encounter data and provide feedback to MAOs on data submission:

- **Creating a report card with basic statistics on the completeness of encounter data for MAOs.** This step partially fulfills CMS's Medicaid data validation protocol activity to conduct statistical analyses to assess completeness and accuracy. Analyzing values in specific data elements and generating basic statistics on the volume and consistency of data elements can help detect data validity issues. Agency officials told us they are using the report cards to encourage MAOs to submit data more frequently and completely.¹⁷ The report cards contain the following information:
 - **quarterly performance indicators.** These indicators relate to submission frequency (such as the percentage of biweekly periods with submitted data), data volume (such as the numbers

¹⁷Agency officials told us they do not have a time frame of the frequency with which MAOs will receive these report cards but indicated that they are developing a schedule for routine dissemination of report cards.

of submitted encounters per 1,000 enrollees), and data quality (such as rejection rates of data submissions).

- **comparisons with other MAOs.** These MAO-specific comparisons display an MAO's volume of encounters—overall and by service type (professional, inpatient, outpatient, and durable medical equipment)—alongside the regional and national averages for both MA encounter data submissions and Medicare FFS claims for each of the past 3 years.
- **Developing an automated report for MAOs on diagnoses used for risk adjustment.** This step partially fulfills the data validation protocol activity to summarize findings on encounter data completeness and accuracy to provide recommendations to MAOs. The automated report identifies diagnoses from MAO encounter data submissions that CMS will use to calculate risk scores for the next payment year. The report is primarily intended to help MAOs ascertain the basis of enrollee risk scores, though representatives from health insurance trade associations told us that they have also used the automated reports to prepare internal financial projections and compare patient diagnoses between encounter data and RAPS data submissions. MAOs first received these reports in December 2015, and since then, CMS has modified the report layout in response to MAO feedback. According to agency officials, CMS has finalized the initial version of the automated report and is distributing the automated reports to MAOs on a monthly basis. Further, the agency intends to make technical changes as necessary in the future.

According to agency officials, they finalized the protocol for validating MA encounter data in November 2016 and have begun implementing several parts of it.¹⁸ In September 2016, CMS awarded a contract to update the protocol and report annually on the implementation and outcomes of protocol activities.¹⁹

The stakeholder organizations we interviewed raised several issues with CMS's recent actions to ensure the completeness of MA encounter data.

¹⁸According to agency officials, the MA encounter data protocol is similar to the CMS developed Medicaid encounter data protocol.

¹⁹Other activities in this contract include conducting various operational analyses, including an assessment of encounter data completeness and quality using geographic, organizational, and other comparisons. The contractor is also expected to identify or develop key performance metrics, such as volume of submissions by type of service.

The main issues mentioned by several stakeholder organizations included the following:

- **Errors in identifying diagnoses used for risk adjustment.** Representatives from health insurance trade associations we interviewed criticized CMS’s process for identifying diagnoses that are relevant for risk adjustment. First, they stated that MAOs question the integrity of CMS’s data processing. They noted, for example, that the automated reports MAOs receive had missing procedure codes for some encounters where the original data submissions had included them. CMS told us that they are working with MAOs to make needed corrections to these reports. Second, representatives said that MAOs have been unable to replicate CMS’s analyses because CMS has made adjustments to how it identifies diagnoses eligible for risk adjustment using encounter data. As a result, they say, MAOs are unsure whether CMS is properly distinguishing diagnoses that are used for risk adjustment from those that are not used.²⁰ When asked about this concern, CMS officials noted that they publicly announced how the agency intends to implement the risk adjustment transition in December 2015, and the methodology has not changed.²¹
- **Inclusion of encounter data elements considered irrelevant.** Representatives we interviewed from some health insurance and provider trade associations questioned CMS’s inclusion and checks of data elements the agency does not use for risk adjustment and which they contend are irrelevant for the purposes enumerated in the August 2014 final rulemaking.²² CMS’s Encounter Data System is designed to

²⁰Stakeholders asserted that until CMS has finalized its approach for culling diagnoses from encounter data, the data should not be used for risk adjustment because doing so may result in substantial financial harm. Health insurance industry representatives cited a June 2016 analysis conducted by Inovalon, a data analytics company, which examined the implications of transitioning from RAPS data to encounter data. The analysis compared RAPS return files—which showed which data were rejected and accepted—with CMS’s automated reports on diagnoses used for risk adjustment. It showed that the expanded use of encounter data decreased risk scores, partially because of “incomplete” encounter data submissions.

²¹See Centers for Medicare & Medicaid Services, Final Encounter Data Diagnosis Filtering Logic, memorandum from Director, Medicare Plan Payment Group, to All Medicare Advantage Organizations (MAO), PACE Organizations, Medicare-Medicaid Plans, Section 1833 Cost Contractors and Section 1876 Cost Contractors, and certain Demonstrations.

²²These data elements include, for example, an ambulance’s pick-up and drop-off locations and the distance an ambulance travels, which trade association representatives told us are not routinely collected for standard billing purposes.

reject erroneous information by applying a subset of the edits used to process FFS claims, which are not all relevant to MA encounter data, according to CMS officials. CMS requires MAOs to make corrections and resubmit the data for all rejected encounters. Representatives stated that both MAOs and providers must dedicate significant resources to meet CMS requirements. In particular, they said MAOs must alter their data systems and submit numerous requests to providers for data corrections and medical record reviews. When asked about this comment, CMS officials noted that the agency wants encounter data elements to be comparable to FFS claims data. Although not all of the encounter data elements are used for risk adjustment purposes, CMS noted that they should be reliable, comprehensive, and complete in the event they are used for any authorized purposes.

- **Technical problems with encounter data submission.** Representatives we interviewed from several health insurance and provider trade associations reported that MAOs have experienced difficulties with certain data submissions. They cited, for example, difficulty with submitting encounters for recurring services, such as physical therapy. While MAOs and providers typically record such services as a single encounter, they must submit multiple separate encounters to CMS for recurring services. Agency officials told us they had not heard about this problem from MAOs. In addition, stakeholder representatives mentioned challenges resulting from frequent, randomly scheduled changes to data submission requirements, which they say generate costs and confusion.²³ CMS stated that technical changes occur quarterly, which is typical for other CMS data collection efforts. Agency officials pointed out that CMS has worked with some of the larger MAOs to address data submission issues.
- **Inadequate CMS communication with individual MAOs.** Although some researchers praised CMS officials for their assistance and support, representatives from several health insurance trade associations told us that their members are dissatisfied with CMS's communication efforts. Representatives noted that CMS's webinars are not designed to facilitate a conversation between the agency and MAOs, and that the email address CMS set up to handle questions from MAOs does not produce responses that can be shared across

²³MAO trade associations we interviewed said that they would like the ability to view and verify their data submissions throughout the validation process so that they can monitor their data and alert CMS if there are any inaccuracies.

MAOs in a timely fashion.²⁴ CMS officials told us that its response time for emailed questions on MA encounter data largely depends on the complexity of the issue. They said that the agency has not been able to provide individualized assistance because of resource limitations, but has recently contracted with an external organization to provide on-site assistance to MAOs to improve their data submission processes.

Although CMS has taken several steps to ensure the completeness of MA encounter data, as of October 2016, the agency had yet to take a number of other important steps identified in the agency's Medicaid protocol. Steps CMS has not taken include the following:

- **establish benchmarks for completeness and accuracy.** This step would address the data validation protocol activity to establish requirements for collecting and submitting MA encounter data. Without benchmarks, CMS has no objective standards against which it could hold MAOs accountable for complete and accurate data reporting.
- **conduct analyses to compare against established benchmarks.** This step would address the data validation protocol activity to conduct statistical analyses to ensure accuracy and completeness. Without such analyses, CMS is limited in its ability to detect potentially inaccurate or unreliable data.
- **determine sampling methodology for medical record review and obtain medical records.** This step would address the data validation protocol activity to review medical records to ensure the accuracy of encounter data. Without medical record reviews, CMS cannot substantiate the information in MAO encounter data submissions and lacks evidence for determining the accuracy of encounter data.²⁵

²⁴Representatives suggested that CMS offer more training opportunities for MAOs, convene technical workgroups where CMS staff could work directly with MAOs, and host interactive question and answer sessions with knowledgeable CMS staff.

²⁵CMS has indicated that it plans to subject the diagnoses in encounter data to the same risk adjustment data validation process as the diagnoses in RAPS data. In conducting risk adjustment validation audits for RAPS data, it reviews a sample of medical records. However, in an earlier report, we recommended that the Department of Health and Human Services (HHS) improve its processes for selecting contracts to include in the audits, and enhance the timeliness of the audits, among other things. See GAO, *Medicare Advantage: Fundamental Improvements Needed in CMS's Effort to Recover Substantial Amounts of Improper Payments*, [GAO-16-76](#) (Washington, D.C.: Apr. 8, 2016).

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- **summarize analyses to highlight individual MAO issues.** This step would address the data validation protocol activity to provide recommendations to MAOs for improving the completeness and accuracy of encounter data. Without actionable and specific recommendations from CMS, MAOs might not know how to improve their encounter data submissions.

To the extent that CMS is making payments based on data that have not been fully validated for completeness and accuracy, the soundness of billions of dollars in Medicare expenditures remains unsubstantiated. Given the limited progress CMS has made, we continue to believe that the agency should complete all the steps necessary to validate the data before using them to risk adjust payments or for other intended purposes, as we recommended in our July 2014 report.²⁶

²⁶See [GAO-14-571](#).

CMS Has Detailed Plans for Using MA Encounter Data for Risk Adjustment but Not for Other Purposes, Creating Unease among Some Stakeholder Organizations

CMS Plans to Fully Transition to Using MA Encounter Data for Risk Adjustment Purposes by 2020, Generating Mixed Reactions from Some Stakeholder Organizations

Since our July 2014 report, CMS has made progress in defining its objectives for using MA encounter data for risk adjustment purposes and in communicating its plans and time frames to MAOs.²⁷ Although additional work is needed, CMS has improved its ability to manage a key aspect of the MA program.

In April 2014, CMS announced that it would begin incorporating patient diagnoses from MA encounter data submissions into risk score calculations. For 2015 MAO payments, CMS used encounter data diagnoses as an additional source of diagnoses to compute risk scores.²⁸ CMS supplemented the diagnoses from each enrollee's RAPS data file

²⁷As discussed in our July 2014 report, CMS had not fully developed plans for using MA encounter data. While the agency had announced plans to use diagnoses from both RAPS and encounter data for risk adjustment purposes beginning in 2015, it had not established time frames or specific plans to use encounter data for other potential purposes. In light of these findings, we recommended that CMS establish specific plans and time frames for using MA encounter data for all intended purposes in addition to risk adjusting payments to MAOs. See [GAO-14-571](#).

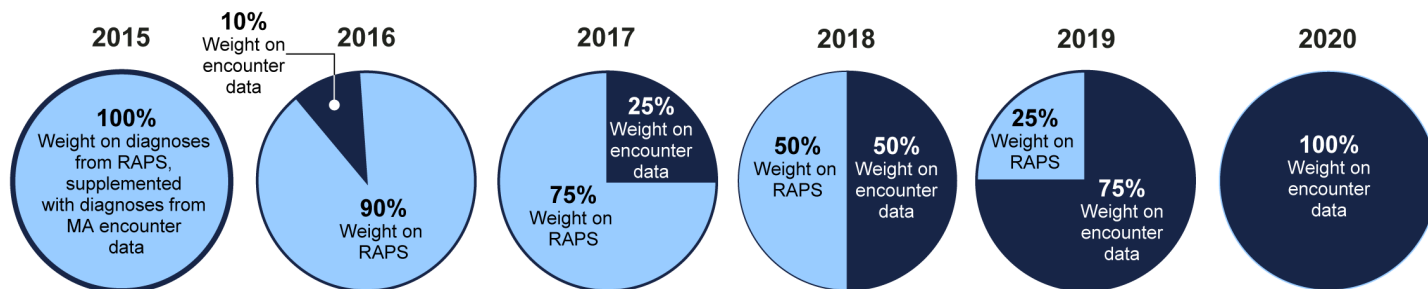
²⁸Risk scores that CMS uses to adjust MA payments are based on diagnosis data from services provided the previous year. For example, MAO payments made in 2015 reflect risk scores calculated using diagnoses rendered during 2014. 42 CFR § 422.310(g)

with the diagnoses from each enrollee’s MA encounter data file.²⁹ For 2016, CMS used a different process that increased the importance of encounter data in computing risk scores. Specifically, CMS calculated risk scores as follows:

- CMS determined two separate risk scores for each enrollee. CMS based one risk score on the diagnoses from each enrollee’s RAPS data file and the other risk score on the diagnoses from each enrollee’s encounter data file.
- CMS combined the two risk scores, weighting the RAPS risk score by 90 percent and the encounter data risk score by 10 percent.

CMS intends to increase the weight of encounter data in the risk score calculation in the next 4 years so that encounter data will be the sole source of diagnoses by 2020. (See fig. 3.)

Figure 3: Centers for Medicare & Medicaid Services’ Transition from Risk Adjustment Processing System (RAPS) Data to Medicare Advantage (MA) Encounter Data for Risk Score Calculation



Source: Centers for Medicare & Medicaid Services. | GAO-17-223

While some stakeholder organizations we interviewed supported CMS’s time frame for transitioning from RAPS data to encounter data for risk score calculation, others raised objections to CMS’s planned timeline. Representatives from several stakeholder organizations we interviewed—

²⁹Under CMS’s data submission requirements for payment purposes, MAOs have until the final risk adjustment data submission deadline, as determined by CMS, to submit their encounter data for a payment year. See 42 C.F.R. § 422.310(g). After this deadline, CMS recalculates beneficiary risk scores and determines if adjustments to MA payments are necessary. For example, for 2015 payments adjusted with risk scores from 2014 dates of services, MAOs had until February 1, 2016 to submit encounter data records for 2014 dates of services. Additionally, the agency plans to re-run the risk adjustment methodology with all MAOs for risk scores developed in 2015 and 2016 to account for changes in how CMS incorporates encounter data in risk score development.

primarily research firms and a health insurance trade association—said that CMS’s time frame was appropriate and that MAOs had adequate time to adjust their data submission processes. However, representatives from several health insurance and provider trade associations we interviewed said that many MAOs and providers are apprehensive about CMS’s time frame because it does not allow sufficient time for a successful transition. They told us that many MAOs and providers are still configuring their encounter data systems. In a December 2015 memo to all MAOs, CMS noted that, since 2016 will be the fourth year of collecting encounter data, the transition time frame is a reasonable, modest step toward ultimately relying exclusively on encounter data as the source of diagnosis information in risk adjustment.³⁰ The agency noted that it has worked with MAOs to correct issues with how the agency applies the methodology for identifying diagnoses for risk adjustment is applied.

CMS’s Plans and Time Frames for Using MA Encounter Data for Other Authorized Purposes Remain Undeveloped, Creating Unease among Some Stakeholder Organizations

Although the agency has formulated general ideas of how to use MA encounter data for some purposes besides risk adjustment, CMS has not determined specific plans and time frames for most of the additional purposes for which the data may be used, namely (1) to update risk adjustment models; (2) to calculate Medicare disproportionate share hospital percentages; (3) to conduct quality review and improvement activities; (4) for Medicare coverage purposes; (5) to conduct evaluations and other analysis to support the Medicare program (including demonstrations) and to support public health initiatives and other health care-related research; (6) for activities to support the administration of the Medicare program; (7) for activities to support program integrity; and (8) for purposes authorized by other applicable laws.³¹ CMS officials explained that their main priority to date has been to use MA encounter data for calculating risk scores and that they plan to use the data for other purposes at a future time. However, this is inconsistent with federal internal control standards relating to risk assessment and information and communication that call for clearly defining objectives and communicating those objectives to key external organizations.³²

³⁰Centers for Medicare & Medicaid Services, Final Encounter Data Diagnosis Filtering Logic.

³¹42 C.F.R. § 422.310(f)(1) (2016).

³²[GAO-14-704G](#).

In addition to articulating plans for using encounter data for risk adjustment, CMS has indicated its interest in using MA encounter data for additional purposes. As of October 2016, CMS has begun planning for two of the eight remaining authorized uses:

- **quality review and improvement activities.** In April 2016, CMS awarded a contract to develop quality metrics that represent care coordination using encounter data.³³ As of September 2016, the contractor had developed some plans for using encounter data to develop the metrics but testing and analyzing the data are ongoing.
- **program integrity activities.** CMS officials told us they anticipate including MA encounter data in the Fraud Prevention System to help identify abusive billing practices, but have yet to fully develop plans for this proposed use. To date, CMS officials reported that the Center for Program Integrity has begun using encounter data to determine improper payments to providers. It conducted a study of the number of services both paid as FFS claims and submitted as MA encounters. Additionally, it used encounter data to identify MA providers that were not enrolled in Medicare.

For the remaining authorized uses of encounter data, CMS reportedly has developed general ideas, but not specific plans and time frames. For example, CMS officials told us the CMS Innovation Center has plans to use MA encounter data to evaluate three demonstration models.³⁴ Because these efforts are in their infancy, the officials could not provide details or specific time frames for these applications of encounter data. In addition, CMS has released MA encounter data to the Medicare Payment Advisory Commission and the Department of Health and Human Services' Office of Inspector General for research purposes using standard protocols for releasing FFS data to those agencies. However,

³³The care coordination measures are designed to provide comparative information on care coordination services—like communication across providers and service follow-up—provided to Medicare beneficiaries enrolled in MA plans. CMS officials told us that the contractor is testing and validating care coordination measures using the encounter data and intends to complete this by September 28, 2017.

³⁴The CMS Innovation Center supports the development and testing of innovative health care payment and service delivery models. Demonstration models that will use MA encounter data for evaluation purposes include the Medicare Advantage Value-Based Insurance Design Model, the Medicare-Medicaid Financial Alignment Model, and the Accountable Health Communities Model.

CMS has not yet released the data to other organizations or finalized protocols for doing so.³⁵

Stakeholder organizations we interviewed acknowledged that the agency has the authority to collect MA encounter data, but some indicated unease about CMS's expansion of allowable uses of the data. In addition, some were concerned about the potential for future expansions because CMS has not fully defined its plans and time frames for other applications. In contrast, representatives from both health insurance and provider trade associations and research organizations noted that the authorized purposes are within CMS's purview and that the agency already uses FFS data for similar purposes. CMS officials told us that some of the authorized uses are purposefully broad because they want to have some flexibility to expand their uses of encounter data in the future.

A common point made by all of the stakeholder organizations we interviewed was the importance of privacy protections for releasing MA encounter data to researchers and other interested parties. Many organizations were concerned that CMS might release commercially sensitive information to external entities.³⁶ A few also highlighted the importance of protecting patient privacy.³⁷ To protect proprietary information and patient privacy, stakeholder organizations offered the following suggestions:

³⁵CMS officials told us that they anticipate using the same processes researchers currently use to access FFS data, such as data use agreements and submitting a request to the Research Data Assistance Center—a CMS contractor that provides free assistance to academic and non-profit researchers using Medicare FFS data for research purposes—to ensure that external entities use encounter data appropriately.

³⁶In the May 2014 proposed rule, CMS proposed aggregating payment data to protect commercially sensitive data before any release to external entities. See 79 Fed. Reg. 27,978, 28,283 (proposed May 15, 2014). That protection was clarified and finalized in the August 2014 final rule. See 79 Fed. Reg. 49,854, 50,327-34 (Aug. 22, 2014) (codified at 42 C.F.R. § 422.310(f)(2)(iv) (2016)).

³⁷The August 2014 rule finalized a prohibition against any public disclosure of beneficiary identifying information. See 79 Fed. Reg. 49,854, 50,328 (Aug. 22, 2014) (codified at 42 C.F.R. § 422.310(f)(2)(iii)(A) (2016)). CMS also told us that public data releases will not contain any individually identifying information about Medicare beneficiaries, but will instead be de-identified to ensure compliance with the Health Insurance Portability and Accountability Act. Additionally, regulations only permit the release of beneficiary information to authorized external entities under certain circumstances. See 42 C.F.R. § 422.310(f)(2) (2016).

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- **Aggregate the data.** Representatives from some health insurance trade associations said aggregating the data on a geographic level, such as the county or state level, would generally allow MAOs to remain anonymous. One MAO stated that aggregating the data at the physician group level would be appropriate. In the preamble to its final rule, CMS clarified that payment data released to external entities would be aggregated at the level necessary to protect commercially sensitive information, such as proprietary payment rates between plans and providers.³⁸
 - **Deny or delay the release of certain data.** Representatives from health insurance and provider trade associations were opposed to releasing encounter data elements—such as payment or utilization data—that could be used for anti-competitive behavior. They proposed delaying the release of encounter data by several years to protect proprietary information. In the preamble to its final rule, CMS stated that such delays in releasing the data to external entities would defeat the purposes of improving transparency in the Medicare program.³⁹
 - **Limit data access.** Representatives from health insurance and provider trade associations and research organizations emphasized that CMS should implement appropriate safeguards for releasing MA encounter data to external entities similar to those protections used for Medicare FFS data. Representatives from three trade associations argued that encounter data should not be made available to researchers and other interested parties until the data quality is assured. In the preamble to its final rule, CMS stated that making encounter data available to researchers using a process similar to that applied to FFS data would enhance transparency in the MA program.⁴⁰

To the extent that specific plans for using the MA encounter data remain undeveloped, CMS is unable to communicate a set of well-defined

³⁸See 79 Fed. Reg. 49,854, 50,328-29 (Aug. 22, 2014).

³⁹CMS will not release risk adjustment data until the risk adjustment reconciliation period has been completed for that payment year, except under extraordinary circumstances. See 42 C.F.R. 422.310(f)(3) (2016). According to the preamble to the final rule, CMS has indicated that the reconciliation period provides MAOs an opportunity to identify and correct errors in data they have submitted for that data collection year and ensures that the risk adjustment data is complete and accurate. See 79 Fed. Reg. 49,854, 50,331 (Aug. 22, 2014).

⁴⁰79 Fed. Reg. 49,854, 50,329-30 (Aug. 22, 2014).

objectives to stakeholders. Furthermore, in the absence of planning for all of the authorized uses, the agency cannot be assured that the amount and types of data being collected are necessary and sufficient for specific purposes. Given the agency's limited progress on developing plans for additional uses of encounter data, we continue to believe that CMS should establish specific plans and time frames for using the data for all intended purposes, in addition to risk adjusting payments to MAOs, as we recommended in our July 2014 report.⁴¹

Agency Comments

We provided a draft of this report to the Department of Health and Human Services (HHS) for comment. HHS provided technical comments, which we incorporated as appropriate.

⁴¹[GAO-14-571](#).

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies to the appropriate congressional committees and the Secretary of Health and Human Services. In addition, the report will be available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staffs have any questions about this report, please contact me at (202) 512-7114 or cosgrovej@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Major contributors to this report are listed in appendix I.

A handwritten signature in black ink, appearing to read 'James Cosgrove', written in a cursive style.

James Cosgrove
Director, Health Care

Appendix I: GAO Contact and Staff Acknowledgments

GAO Contact

James Cosgrove, (202) 512-7114 or cosgrovej@gao.gov

Staff Acknowledgments

In addition to the contact named above, Rosamond Katz (Assistant Director), Manuel Buentello, David Grossman, and Jessica Lin made key contributions to this report. Also contributing were Muriel Brown, Christine Davis, Elizabeth Morrison, and Jennifer Rudisill.

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