HFS

Illinois Department of
Healthcare and Family Services

Fiscal Year 2022–2023 Encounter Data Validation Report

July 2023

HSAG HEALTH SERVICES ADVISORY GROUP

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HFS Illinois Department of Healthcare and Family Services

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1. Executive Summary

Purpose

A medical or clinical record is considered the "gold standard" for documenting Medicaid customers' access to and quality of healthcare services. These medical records contain information about customers' experience with a healthcare provider, such as documenting the date the encounter occurred, the diagnosis code, and if any procedures were performed. Additionally, accurate and complete encounter data are critical to assessing quality, monitoring program integrity, and making financial decisions. Since completeness and accuracy of these data are essential to the success of the Illinois Department of Healthcare and Family Services' (HFS') overall management and oversight, during fiscal year (FY) 2023, HFS contracted Health Services Advisory Group, Inc. (HSAG), to conduct a medical record review (MRR). The goal of the MRR was to:

Evaluate the extent to which HFS' encounter data are complete and accurate when compared to information contained in customers' medical records.

HSAG evaluated this purpose by examining four key data elements between the HFS submitted encounter data and the health plan procured medical records:

- Date of service
- Diagnosis code
- Procedure code
- Procedure code modifier

Methodology

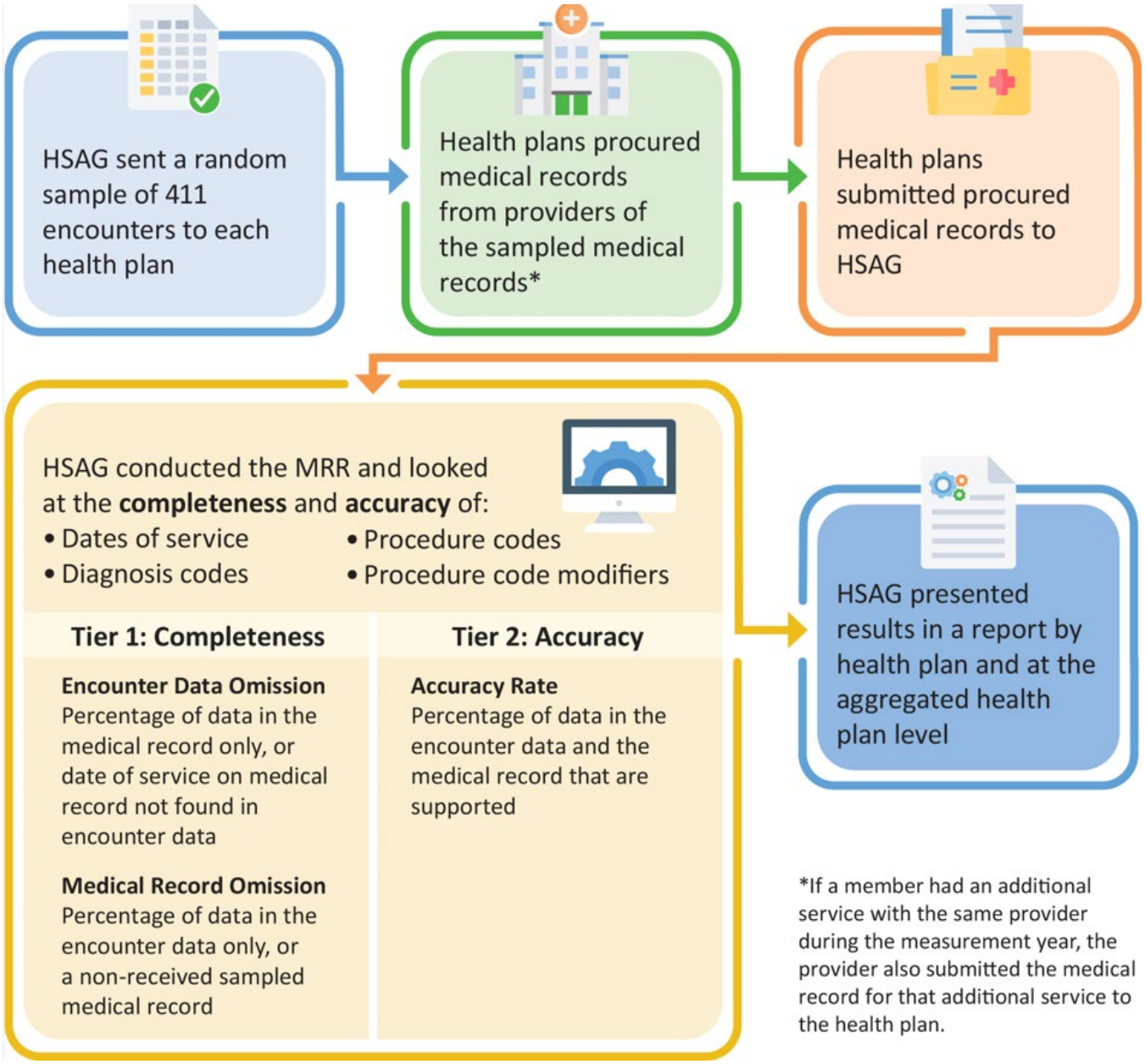
HSAG conducted the MRR for professional encounters for the following six health plans:

- Aetna Better Health of Illinois (Aetna)
- Blue Cross Blue Shield of Illinois (BCBSIL)
- CountyCare (CountyCare)[1]
- MeridianHealth (Meridian)
- Molina Healthcare of Illinois (Molina)
- YouthCare HealthChoice Illinois (YouthCare)

As described in Figure 1-1, HSAG randomly sampled eligible professional encounters rendered between July 1, 2020, and June 30, 2021, for eligible customers. Health plans worked with their contracted providers to procure the sampled medical records. Health plans submitted all documentation to HSAG, whose experienced medical record reviewers compared the information in the encounter data to information in the medical records. HSAG then calculated the rates of completeness and accuracy for the key data elements across all HFS HealthChoice managed care organizations.

[1] Serves Cook County only.

Figure 1-1—MRR Methodology



Findings and Recommendations

Medical Record Procurement

Overall, health plans experienced challenges with providers when trying to procure sampled medical records. These challenges had a direct impact on the results since a large portion of medical records were not submitted, resulting in higher medical record omission rates for plans that had lower procurement rates.

Table 1-1—Percentage of Submitted and Non-Submitted Medical Records

Health Plan	Percentage of Medical Records Submitted	Percentage of Medical Records Not Submitted Due to a Non-Responsive Provider	Percentage of Medical Records Not Submitted Due to Other Reasons
Aetna	56.9%	28.2%	14.8%
BCBSIL	98.8%	1.0%	0.2%
CountyCare	62.0%	37.0%	1.0%
Meridian	60.6%	37.2%	2.2%
Molina	85.4%	11.2%	3.4%
YouthCare	61.6%	34.8%	3.6%
All Health Plans	**70.9%**	**24.9%**	**4.2%**

Key Finding #1: **One in four sampled medical records was not submitted due to a non-responsive provider.** Across MRRs, the most common reason why medical records could not be procured was non-responsive providers, especially in recent years wherein the coronavirus disease 2019 (COVID-19) public health emergency (PHE) had a direct impact on provider operations. However, the rate of non-responsiveness is much higher in this analysis compared to other MRRs HSAG has conducted.

- **Recommendation**: HFS should work with health plans to help relay the importance of a MRR for encounter data validation (EDV) activities. Contracted providers should be held accountable in responding to medical record requests for auditing, inspection, and oversight. HSAG recommends that the health plans consider strengthening and/or enforcing their contract requirements with providers in providing the requested documentation to ensure future data requests can be met.

Encounter Data Completeness

High rates of non-submission contributed to the high rates of medical record omission for all key data elements, with greater than two-thirds of all medical record omissions being due to non-submitted medical records. For instances wherein the medical record was received, medical record omissions could

be due to the provider not correctly documenting the services performed in the medical record, even though an encounter was submitted indicating that the service occurred. Additionally, the provider may not have provided the service(s) found in the encounter data.

For both medical record omissions and encounter data omissions, a lower rate is better since it indicates that data were consistently found, and not omitted, from either the medical record or encounter data, respectively. Overall, the rate of encounter data omission was low across all health plans, with less than 11 percent of all key data elements in the medical record omitted from the encounter data. Encounter data omission could be due to the provider's billing office making a coding error or not submitting the procedure codes or modifiers, despite performing the services. Additionally, although HSAG expects a six-month lag between the date of service and submission of encounter data to HFS, it is possible that a longer lag occurred between when the service occurred and when the record was submitted to HFS. If a medical record was submitted to HFS prior to HFS submitting encounter data to HSAG, then the key data elements contained in that medical record would be considered an encounter data omission since HSAG did not have the corresponding encounter data.

Table 1-2—Encounter Data Completeness Summary

Key Data Elements	Medical Record Omission*			Encounter Data Omission*
	All Health Plans	Percent of Medical Record Omission Due to Non-Submitted Medical Records	Percent of Medical Record Omission Excluding Non-Submitted Medical Records	All Health Plans
Date of Service	24.5%	94.8%	1.7%	3.8%
Diagnosis Code	25.0%	88.1%	5.1%	2.2%
Procedure Code	30.6%	70.3%	12.6%	3.2%
Procedure Code Modifier	47.8%	66.8%	25.4%	5.3%

*Lower rates indicate better performance.

Key Finding #2: **Medical record omission rates were high due to high rates of medical record non-submission among four of six health plans.** However, over two-thirds of all medical record omissions across all key data elements were due to non-submission. Procedure code modifiers had the highest rate of medical record omission compared to the other key data elements.

- **Recommendation**: HFS should work with health plans to help providers understand the importance of correctly documenting and coding services that occurred. Medical records serve as the "gold standard" for documenting rendered services. If the medical record does not accurately reflect the encounter submitted to the health plan, then analyses using the encounter data may not accurately reflect a customer's level of care.

Key Finding #3: **Encounter data omission rates were generally low across all health plans, indicating that HFS and others using HFS' data can do so confidently.** However, there were high rates of encounter data omission in the procedure code modifiers, which were due to the medical record indicating a telehealth service while the encounter data did not.

- **Recommendation**: Although the COVID-19 PHE changed the way customers can meet with providers, HFS and health plans should work with providers to remind them of the importance of documenting the telehealth modifier on the submitted claim. Not doing so could have an impact on future analyses, such as network adequacy validation activities. Additionally, if the encounter data do not accurately reflect the services rendered, then analyses that use encounter data, such as performance measure calculations and rate setting, may not be accurate.

Encounter Data Accuracy

HSAG calculated the accuracy of key data elements for submitted medical records wherein the documented dates of service matched the encounter data. For the data elements that did not match, HSAG determined the error type. For example, did the data elements not match due to an incorrect code or a specificity error?

Table 1-3—Encounter Data Accuracy Summary

Key Data Elements	All Health Plan Rate	Error Type
Diagnosis Code	99.6%	Incorrect Code (95.5%) Specificity Error (4.5%)
Procedure Code	99.5%	Incorrect Code (82.1%) Higher Level of Service in Medical Records (0.0%) Lower Level of Service in Medical Records (17.9%)
Procedure Code Modifier	99.9%	—

"—" denotes that the error type analysis was not applicable to a given data element.

Key Finding #4: **Across all key data elements wherein the dates of service between the medical record and encounter data matched, the medical record strongly supported the encounter data.** Rates among all health plans for each data element were greater than 99 percent, indicating that providers are often documenting and submitting encounters appropriately.

Key Finding #5: **The overall all-element accuracy rate was 72.3 percent**. Although each individual data element had a high rate of accuracy, the all-element accuracy calculated the total number of times *all* data elements matched between the medical record and the encounter data when the dates of service between both files matched. Since there were higher rates of procedure code modifier encounter data omission, the all-element accuracy rates were lower than the individual element rates.

2. Overview and Methodology

Overview

Accurate and complete encounter data are critical to the success of a managed care program. Therefore, the Illinois Department of Healthcare and Family Services (HFS) requires its contracted HealthChoice managed care plans to submit high-quality encounter data. HFS relies on the quality of these encounter data submissions to accurately and effectively monitor and improve the program's quality of care, generate accurate and reliable reports, develop appropriate capitated rates, and obtain complete and accurate utilization information.

During fiscal year (FY) 2023, HFS contracted Health Services Advisory Group, Inc. (HSAG), to conduct an EDV study. HSAG's approach to conducting EDV studies is tailored to address the specific needs of its clients by customizing elements outlined in the Centers for Medicare & Medicaid Services (CMS) External Quality Review (EQR) Protocol *5, Validation of Encounter Data Reported by the Medicaid and CHIP [Children's Health Insurance Program] Managed Care Plan: An Optional EQR-Related Activity,* February 2023 (CMS EQR Protocol 5).[2] In alignment with CMS EQR Protocol 5, HSAG conducted a medical record review (MRR) to evaluate the extent to which HFS' encounter data are complete and accurate when compared to information contained in the customers' medical records.

HSAG conducted a MRR for professional encounters for the following six health plans:

- Aetna
- BCBSIL
- CountyCare[3]
- Meridian
- Molina
- YouthCare

Methodology

The MRR activity evaluated professional encounter data completeness and accuracy through a review of medical records for physician services rendered between July 1, 2020, and June 30, 2021, to answer the following question:

[2] Department of Health and Human Services, Centers for Medicare & Medicaid Services. *Protocol 5: Validation of Encounter Data Reported by the Medicaid and CHIP Managed Care Plan: An Optional EQR-Related Activity*, February 2023. Available at: https://www.medicaid.gov/medicaid/quality-of-care/downloads/2023-eqr-protocols.pdf. Accessed on: May 22, 2023.

[3] Serves Cook County only.

- Are the data elements in Table 2-1 found in the professional encounters complete and accurate when compared to information contained in corresponding medical records?

Table 2-1—Key Data Elements for MRR

Key Data Element	
Date of Service	Diagnosis Code
Procedure Code	Procedure Code Modifier

To answer the study question, HSAG:

- Identified the eligible population and generated random samples from data extracted from the HFS data warehouse.
- Provided technical assistance to health plans in procurement of medical records from providers, as appropriate.
- Compared key data elements between HFS' encounter data and submitted medical records and calculated health plan-specific and statewide rates.

Study Population

Eligible customers had to be continuously enrolled with the same health plan during the study period (i.e., July 1, 2020–June 30, 2021) and have at least one professional visit during the study period. Additionally, customers could not be enrolled with Medicare and/or have other insurance coverage since these customers may have received services that were documented in their medical record but not in HFS' encounter data. The criteria used to define a professional visit are defined in Table 2-2.

Table 2-2—Criteria for Defining Professional Physician Visits

Data Element	Criteria	
Claim Status	Claim Status = P to identify paid encounters	
Provider Type	10—Physicians 11—Dentists 12—Optometrists 13—Podiatrists 16—Nurse Practitioners 20—Registered Nurse 22—Physical Therapists 23—Occupational Therapists 24—Speech Therapists 25—Audiologists 27—Behavioral Health Clinic	51—Community Health Agencies—In-home 71—Medicare provider 75—Division of Alcoholism and Substance Abuse Provider 86—Clinical Social Worker (Encounter Only) 87—Psychologist (Encounter Only) 88—Other Behavior Health Professional 89—Physician Assistant Only (Encounter Only)

Data Element	Criteria	
	36—Community Mental Health Provider 40—Federally Qualified Health Centers 43—Encounter Rate Clinic 44—Healthy Kids (EPSDT) Screening Clinics 46—Ambulatory Surgical Treatment Centers 48—Rural Health Clinics 50—Home Health Agencies—In-home	90—Waiver Service Provider—Elderly (DOA) 92—Waiver Service Provider—Disability (DHS/DRS) 93—Waiver Service Provider—HIV/AIDS (DHS/DRS) 98—Waiver Service Provider—TBI (DHS/DRS)
Place of Service	02—Telehealth 11—Office 12—Home 13—Assisted Living Facility 14—Group Home 20—Urgent Care Facility	23—Emergency Room—Hospital 49—Independent Clinic 50—Federally Qualified Health Center 71—Public Health Clinic 72—Rural Health Clinic
Procedure Code	If all detail lines for a visit have the following procedure codes, the visit will be excluded from the study since these procedure codes are for services outside of the scope of work for this study (e.g., durable medical equipment [DME], dental, vision, and ancillary providers). • A procedure code starting with "B," "E," or "K" • Procedure codes between A0021 and A0999 (i.e., codes for transportation services) • Procedure codes between A4206 and A9999 (i.e., codes for medical and surgical supplies, miscellaneous, and investigational) • Procedure codes between T4521 and T4544 (i.e., codes for incontinence supplies) • Procedure codes between L0112 and L4631 (i.e., codes for orthotic devices and procedures) • Procedure codes between L5000 and L9900 (i.e., codes for prosthetic devices and procedures)	

EPSDT=Early and Periodic Screening, Diagnostic, and Treatment; DOA=Department of Aging; DHS/DRS=Department of Human Services/Division of Rehabilitation Services; HIV/AIDS=human immunodeficiency virus/acquired immunodeficiency syndrome; TBI=traumatic brain injury.

Sampling Strategy

HSAG used a two-stage sampling technique to select samples based on the customer enrollment and encounter data extracted from HFS' data warehouse. HSAG first identified all customers who met the

study population eligibility criteria and then used random sampling to select 411 customers[4] from the eligible population for each health plan. If a health plan had less than 411 cases that were eligible for the study, all eligible cases were included. For each sampled customer, HSAG randomly selected one professional visit[5] that occurred during the study period (i.e., July 1, 2020–June 30, 2021).

Additionally, to evaluate whether any dates of service were omitted from the HFS data warehouse, HSAG reviewed a second date of service rendered by the same provider during the review period. The second date of service was selected from the medical records of each sampled customer by the rendering provider. Providers were instructed to select the closest date of service to the original sampled date of service that was within the study period. If a sampled customer had no additional visits with the same provider practice during the review period, HSAG evaluated only one date of service for that customer. As such, HSAG reviewed between 411 and 822 medical records for each health plan.

Medical Record Procurement

HSAG provided a list of the randomly sampled professional encounters to each health plan. Health plans were responsible for procuring the sampled medical records from their contracted providers and submitting documentation to HSAG. To improve the procurement rate, HSAG conducted a technical assistance session with the health plans to review the EDV activity and the procurement protocols after distributing the sample lists. The health plans were instructed to submit medical records electronically via HSAG's Secure Access File Exchange (SAFE) site to ensure the protection of personal health information. During the procurement process, HSAG worked with the health plans to answer questions and monitor the number of medical records submitted. HSAG provided an initial submission update when 40 percent of the records were expected to be submitted and a final submission status update following completion of the procurement period.

HSAG maintained all electronic health records on a secure network, which allowed HSAG's trained reviewers to validate the cases from a centralized location under supervision and oversight. As with all MRR and research activities, HSAG has a thorough Health Insurance Portability and Accountability Act of 1996 (HIPAA) compliance and protection program in accordance with federal regulations that includes recurring training as well as policies and procedures that address physical security, electronic security, and day-to-day operations.

Review of Medical Records

HSAG's experienced medical record review team (MRRT) was responsible for abstracting the medical records in an HSAG-designed electronic data collection tool. The MRRT was involved during the tool design and testing phases to ensure that the abstracted data were complete and accurate. Tool validation included comparing sample cases to corresponding documentation in sample medical records. Based on

[4] The sample size of 411 is based on a 95 percent confidence level and a margin of error of 5 percent.

[5] To ensure that the MRR includes all services provided on the same date of service, encounters with the same date of service and same rendering provider will be consolidated into one visit for sampling.

the study methodology, clinical guidelines, and the tool design and testing results, the MRRT drafted an abstraction instruction document specific to the study for training. Concurrent with record procurement activities, the MRRT trained the review staff on study-specific protocols and conducted interrater reliability and rater-to-standard testing. All reviewers had to achieve a 95 percent accuracy rate during training before they could review medical records and collect data for the study. Reviewer accuracy was evaluated regularly throughout the MRR, and any issues raised or decisions made were documented in the abstraction instructions and communicated to all reviewers in a timely manner.

HSAG's trained reviewers verified whether the sampled date of service from the HFS encounter data could be found in the customers' medical record. If found, the reviewers documented in the tool whether the date of service was valid and reviewed all key data elements listed in Table 2-1. If the date of service was not found, the reviewers indicated that the date of service was a medical record omission. All reviewer findings were documented in the tool, ensuring data integrity throughout the MRR.

Study Indicators

Once the MRR was completed, HSAG analysts exported information collected from the tool, reviewed the data for accuracy, and conducted the analysis. Table 2-3 displays the study indicators used to report the MRR results.

Table 2-3—Study Indicators

Study Indicator Type	Study Indicator	Denominator	Numerator
Medical Record Procurement Status	**Medical Record Procurement Rate**: Percentage of medical records submitted and the reasons for missing medical records.	Total number of requested sample cases.	Number of requested sample cases with medical records submitted for the sampled date of service and/or the second date of service.
	Second Date of Service Submission Rate: Percentage of sample cases with a second date of service submitted in the medical records.	Number of sample cases with medical records submitted.	Number of sample cases with a second date of service submitted in the medical records.

Study Indicator Type	Study Indicator	Denominator	Numerator
Encounter Data Completeness	**Medical Record Omission Rate**: Percentage of data elements (e.g., *Date of Service*) identified in HFS' data warehouse but not found in the customers' medical records. HSAG calculated the study indicator for each data element listed in Table 2-1.	Total number of data elements (e.g., *Date of Service*) identified in HFS' data warehouse (i.e., based on the sample dates of service and the second dates of service that are found in HFS' data warehouse).	Number of data elements (e.g., *Date of Service*) in the denominator but not found in the medical records.
	Encounter Data Omission Rate: Percentage of data elements (e.g., *Date of Service*) identified in customers' medical records but not found in HFS' data warehouse. HSAG calculated the study indicator for each data element listed in Table 2-1.	Total number of data elements (e.g., *Date of Service*) identified in customers' medical records (i.e., based on the medical records procured for the sample dates of service and second dates of service).	Number of data elements (e.g., *Date of Service*) in the denominator but not found in HFS' data warehouse.
Encounter Data Accuracy	**Diagnosis Code Accuracy**: Percentage of diagnosis codes supported by the medical records and the percentage of associated reasons for inaccuracy.	Total number of diagnosis codes that meet the following two criteria: • For dates of service (i.e., including both the sample dates of service and the second dates of service) that exist in both HFS' encounter data and the medical records. • Diagnosis codes present for both HFS' encounter data and the medical records.	Number of diagnosis codes supported by the medical records.

Study Indicator Type	Study Indicator	Denominator	Numerator
	Procedure Code Accuracy: Percentage of procedure codes supported by the medical records and the percentage of associated reasons for inaccuracy.	Total number of procedure codes that meet the following two criteria: • For dates of service (i.e., including both the sample dates of service and the second dates of service) that exist in both HFS' encounter data and the medical records. • Procedure codes present for both HFS' encounter data and the medical records.	Number of procedure codes supported by the medical records.
	Procedure Code Modifier Accuracy: Percentage of procedure code modifiers supported by the medical records and the percentage of associated reasons for inaccuracy.	Total number of procedure code modifiers that meet the following two criteria: • For dates of service (i.e., including both the sample dates of service and the second dates of service) that exist in both HFS' encounter data and the medical records. • Procedure code modifiers present for both HFS' encounter data and the medical records.	Number of procedure code modifiers supported by the medical records.
	All-Element Accuracy Rate: Percentage of dates of service present in both HFS' encounter data and the medical records with the same values for all data elements listed in Table 2-1.	Total number of dates of service (i.e., including both the sample dates of service and second dates of service) that are in both HFS' encounter data and the medical records.	The number of dates of service in the denominator with the same diagnosis codes, procedure codes, and procedure code modifiers for a given date of service.

3. Medical Record Review Results

Medical Record Procurement Status

As described in the "Overview and Methodology" section of this report, the final sample in the evaluation consisted of 411 cases randomly selected for each health plan. Additionally, to evaluate whether any dates of service were omitted from HFS' encounters, HSAG reviewed a second date of service rendered by the same provider during the review period. The providers were requested to submit medical record documentation pertaining to an additional date of service occurring closest to the sampled customers' selected date of service, if available. If a sampled customer had no second visit with the same provider during the review period, HSAG evaluated only one date of service for that customer. As such, the final number of cases reviewed were between 411 and 822 cases total for each health plan.

HFS-based encounters for which a corresponding medical record was not submitted were included in the analysis to underscore the impact that these omissions had on key data elements (i.e., *Diagnosis Code*, *Procedure Code*, and *Procedure Code Modifier*) associated with encounter data completeness. For example, when no medical record was submitted for an encounter based on the requested date of service, the subsequent diagnosis code(s), procedure code(s), and procedure code modifier(s) associated with the date of service were treated as medical record omissions. Therefore, a health plan with a lower medical record submission rate would be expected to have a higher (i.e., poorer) medical record omission rate for each key data element.

Table 3-1 shows the medical record procurement status (i.e., submitting medical records for either the sampled date of service or the second date of service) for each health plan, while Table 3-2 highlights the documented reasons why medical record documentation was not submitted.

Table 3-1—Summary of Medical Records Requested and Received

Health Plan	Number of Medical Records Submitted	Number of Medical Records Requested	Percentage of Records Submitted
Aetna	234	411	56.9%
BCBSIL	406	411	98.8%
CountyCare	255	411	62.0%
Meridian	249	411	60.6%
Molina	351	411	85.4%
YouthCare	253	411	61.6%
All Health Plans	**1,748**	**2,466**	**70.9%**

Table 3-2—Reasons Medical Records Were Not Submitted for Date of Service

	All Health Plans	
Non-Submission Reason	**Number**	**Percent**
Medical record was not located at this facility; location unknown.	19	2.6%
Customer was a patient of this facility; however, no documentation was available for the requested date of service.	45	6.3%
Customer was not a patient of the practice.	24	3.3%
Non-responsive provider or provider did not respond in a timely manner.	614	85.5%
Provider refused to release the medical record.	4	0.6%
Facility was permanently closed; unable to procure record.	1	0.1%
Other.	11	1.5%
Total*	**718**	**100.0%**

*The sum of rates from all non-submission reasons may not equal 100 percent due to rounding.

Key Findings: Table 3-1 and Table 3-2

- Across all health plans, 70.9 percent of all sampled medical records were procured.
- BCBSIL and Molina had the highest medical record procurement rates, with 98.8 percent and 85.4 percent of all medical records procured, respectively.
- Aetna, CountyCare, Meridian, and YouthCare all procured approximately 60 percent of the sampled medical records.
- Across all health plans, about 30 percent of medical records were not procured. Of these, 85.5 percent of non-procured records was due to a non-responsive provider.

Table 3-3 displays the number and percentage of cases with one additional date of service selected and submitted for the study. These are additional records the rendering provider of the sampled case submitted for additional services rendered to the sampled case in the measurement year. Not all customers may have had a second date of service with the same rendering provider during the study period, so the submission rate for the additional date of service is not expected to be 100 percent.

Table 3-3—Medical Record Submission Status for Second Date of Service

Health Plan	Number of Records With One Additional Date of Service	Number of Medical Records Submitted	Percent
Aetna	121	234	51.7%

Health Plan	Number of Records With One Additional Date of Service	Number of Medical Records Submitted	Percent
BCBSIL	123	406	30.3%
CountyCare	153	255	60.0%
Meridian	105	249	42.2%
Molina	202	351	57.5%
YouthCare	123	253	48.6%
All Health Plans	**827**	**1,748**	**47.3%**

Key Findings: **Table 3-3**

- Although it is not expected that all sampled cases will have an additional date of service within the study period submitted, about half of the 1,748 medical records that were submitted by all health plans also had an additional date of service record submitted.
- CountyCare and Molina had the largest percentages of rendering providers of the sampled medical records select and submit an additional date of service, with nearly 60 percent of sampled cases containing an additional date of service.
- BCBSIL had the lowest rate of selected additional dates of service submitted, with about 30 percent of sampled cases containing a submitted record for an additional date of service.

Encounter Data Completeness

HSAG evaluated encounter data completeness by identifying differences between key data elements identified in the HFS-based professional encounters and the corresponding customers' medical records submitted for the analysis. These data elements included *Date of Service*, *Diagnosis Code*, *Procedure Code*, and *Procedure Code Modifier*. Medical record omission and encounter data omission represent two aspects of encounter data completeness through their identification of vulnerabilities in the process of claims documentation and communication among providers, health plans, and HFS.

A medical record omission occurred when an encounter data element (i.e., *Date of Service*, *Diagnosis Code*, *Procedure Code*, or *Procedure Code Modifier*) was not supported by documentation in the medical record or the medical record was not submitted. Medical record omissions suggest opportunities for improvement within the provider's internal processes, such as billing processes and record documentation.

An encounter data omission occurred when an encounter data element (i.e., *Date of Service*, *Diagnosis Code*, *Procedure Code*, or *Procedure Code Modifier*) was documented in a customer's medical record but not present in the associated electronic encounter data. Encounter omissions also suggest

opportunities for improvement in the areas of submission of encounters and/or the transmission of medical service data between the providers, health plans, and HFS.

HSAG evaluated the medical record and encounter data omission rates for each health plan using the dates of service selected by HSAG and an additional date of service selected by the provider if one was available. **For both rates, lower values indicate better performance**.

To adjust for the variation in the number of customers enrolled within each health plan, HSAG calculated a weighted statewide rate for the All Health Plans result. HSAG weighted each health plan's raw rates based on the volume of professional visits among the eligible population for that health plan. This approach ensured that no health plan was over- or underrepresented in the statewide rates.

Date of Service Completeness

Table 3-4 displays the percentage of dates of service identified in the encounter data that were not supported by the customers' medical records (i.e., medical record omission) and the percentage of dates of service from customers' medical records that were not found in the encounter data (i.e., encounter data omission) for each health plan. For a medical record omission, the denominator is the number of sampled dates of service, and the numerator is the number of submitted medical records with dates of service that do not match the encounter data, as well as the number of medical records that were not submitted. For an encounter data omission, the denominator is the number of dates of service identified in the medical records, and the numerator is the number of dates of service with no evidence of submission in the encounter data. If no second date of service was available in the medical records, then no date of service would be contributed to the numerator.

Table 3-4—Medical Record Omission and Encounter Data Omission for Date of Service

	Medical Record Omission		Encounter Data Omission	
Health Plan	Date of Service Identified in Encounter Data	Percent Not Supported by Customers' Medical Records*	Date of Service Identified in Customers' Medical Records	Percent Not Found in Encounter Data*
Aetna	507	36.5%	333	3.3%
BCBSIL	523	4.8%	513	2.9%
CountyCare	542	29.7%	391	2.6%
Meridian	504	34.9%	336	2.4%
Molina	581	10.8%	542	4.4%
YouthCare	502	32.9%	363	7.2%
All Health Plans	**3,159**	**24.5%**	**2,478**	**3.8%**

*Lower rates indicate better performance.

Key Findings: **Table 3-4**

- Overall, nearly 25 percent of all dates of service in the encounter data were not supported by the submitted medical records (i.e., medical record omission), with health plan rates ranging from 4.8 percent (BCBSIL) to 36.5 percent (Aetna).
  - Aetna, CountyCare, Meridian, and YouthCare had the highest medical record omission rates for the date of service compared to other health plans, ranging from 29.7 percent (CountyCare) to 36.5 percent (Aetna). These results are consistent with the medical record submission rate, wherein each health plan submitted about 60 percent of sampled medical records. This resulted in a higher medical record omission rate for each key data element since each medical record not submitted counted toward a medical record omission.
- Overall, 3.8 percent of the dates of service in the medical records were not found in HFS' encounter data (i.e., encounter data omission), with health plan rates ranging from 2.4 percent (Meridian) to 7.2 percent (YouthCare).

Diagnosis Code Completeness

Table 3-5 displays the percentage of diagnosis codes identified in the encounter data that had no supporting documentation in the customers' medical records (i.e., medical record omission) and the percentage of diagnosis codes from customers' medical records that were not found in the encounter data (i.e., encounter data omission) for each health plan.

Table 3-5—Medical Record Omission and Encounter Data Omission for Diagnosis Code

	Medical Record Omission		Encounter Data Omission	
Health Plan	Number of Diagnosis Codes Identified in Encounter Data	Percent Not Documented in Customers' Medical Records*	Number of Diagnosis Codes Identified in Customers' Medical Records	Percent Not Found in Encounter Data*
Aetna	1,153	34.8%	768	2.1%
BCBSIL	1,192	7.6%	1,122	1.8%
CountyCare	1,209	29.4%	865	1.4%
Meridian	1,111	35.5%	728	1.5%
Molina	1,293	11.8%	1,168	2.3%
YouthCare	1,050	34.3%	720	4.2%
All Health Plans	**7,008**	**25.0%**	**5,371**	**2.2%**

*Lower rates indicate better performance.

Key Findings: Table 3-5

- Overall, 25.0 percent of the diagnosis codes in the encounter data had no supporting documentation in the customers' medical records (i.e., medical record omission), with health plan rates ranging from 7.6 percent (BCBSIL) to 35.5 percent (Meridian).
  - The medical record omission for diagnosis codes was partially influenced by medical record non-submission and medical record omission for the *Date of Service* data element. When no medical records were submitted for a sampled date of service, all diagnosis codes associated with that date of service were treated as medical record omissions.
  - Among records wherein diagnosis codes were considered medical record omissions, approximately 88 percent were due to HSAG not receiving medical records or the medical records not supporting the sampled date of service. In general, lower medical record omission rates for diagnosis codes were observed for health plans with higher rates of medical record submission.
  - For cases with medical records to validate the date of service, diagnosis codes frequently included in the encounter data but not supported in the customers' medical records included:
    - Z6852—Body mass index (BMI) pediatric, 5th percentile to less than 85th percentile for age (frequency = 21)
    - Z23—Encounter for immunization (frequency = 15)
    - Z7182—Exercise counseling (frequency = 12)
- Overall, 2.2 percent of the diagnosis codes identified in the medical records were not found in the encounter data (i.e., encounter data omission), with rates ranging from 1.4 percent (CountyCare) to 4.2 percent (YouthCare).
  - The overall encounter data omission rate for the *Diagnosis Code* data element (2.2 percent) was slightly lower than the overall encounter data omission rate for the *Date of Service* data element (3.8 percent), indicating that the omission of dates of service from the encounter data was not the primary factor contributing to the diagnosis code encounter data omission. Other potential contributing factors included:
    - Coding errors from provider billing offices.
    - Differences related to HFS-specific billing and reimbursement guidelines.
  - For cases with medical records to validate the date of service, diagnosis codes frequently included in the customers' medical records but not found in HFS' encounters included:
    - Z23—Encounter for immunization (frequency = 19).
    - Z00129—Encounter for routine child health examination without abnormal findings (frequency = 9).

Procedure Code Completeness

Table 3-6 displays the percentage of procedure codes identified in the encounter data that had no supporting documents in the customers' medical records (i.e., medical record omission) and the percentage of procedure codes from customers' medical records that were not found in the encounter data (i.e., encounter data omission) for each health plan.

Table 3-6—Medical Record Omission and Encounter Data Omission for Procedure Code

	Medical Record Omission		Encounter Data Omission	
Health Plan	Number of Procedure Codes Identified in Encounter Data	Percent Not Documented in Customers' Medical Records*	Number of Procedure Codes Identified in Customers' Medical Records	Percent Not Found in Encounter Data*
Aetna	1,222	39.2%	759	2.1%
BCBSIL	1,271	13.9%	1,128	3.0%
CountyCare	1,511	34.3%	1,045	5.0%
Meridian	1,279	44.6%	721	1.7%
Molina	1,217	14.3%	1,080	3.4%
YouthCare	1,155	36.8%	756	3.4%
All Health Plans	**7,655**	**30.6%**	**5,489**	**3.2%**

*Lower rates indicate better performance.

Key Findings: Table 3-6

- Overall, 30.6 percent of the procedure codes identified in the encounter data were not supported by the customers' medical records (i.e., medical record omission), with rates ranging from 13.9 percent (BCBSIL) to 44.6 percent (Meridian).
  - In the analysis, when no medical records were submitted for the sampled date of service, all procedure codes associated with that date of service were treated as medical record omissions. This aligns with the high rate of medical record omissions for Aetna, CountyCare, Molina, and YouthCare, all of which submitted around 60 percent of sampled medical records.
  - Among records wherein procedure codes were considered medical record omissions, approximately 70.3 percent were due to HSAG not receiving medical records or the medical records not supporting the sampled date of service.
  - For cases with medical records to validate the date of service, procedure codes that were frequently omitted from the customers' medical records included:
    - T1015—Clinic visit/encounter, all-inclusive (frequency = 68).
    - 1126F—Pain severity quantified; no pain present (COA [care for older adults]) (ONC [oncology]) (frequency = 47).

    - 3074F—Most recent systolic blood pressure less than 130 mm Hg (DM [diabetes mellitus), (HTN [hypertension], CKD [chronic kidney disease], CAD [coronary artery disease]) (frequency = 34).
  - Other potential contributors for the procedure code medical record omission included:
    - Provider did not document the services performed in the medical record, despite submitting the procedure code to the health plan.
    - Provider did not perform the service that was submitted to the health plan.
- Overall, 3.2 percent of the procedure codes identified in the medical records were not found in the encounter data (i.e., encounter data omission), with rates ranging from 1.7 percent (Meridian) to 5.0 percent (CountyCare).
  - The overall encounter data omission rate for the *Procedure Code* data element (3.2 percent) was slightly lower than the overall encounter data omission rate for the *Date of Service* data element (3.8 percent), indicating that the omission of dates of service from the encounter data was not the primary factor contributing to the procedure code encounter data omission. Other potential contributing factors included:
    - Coding errors from provider billing offices.
    - Differences related to HFS-specific billing and reimbursement guidelines.
  - For cases with medical records to validate the date of service, procedure codes frequently included in the customers' medical records but not found in HFS' encounters included:
    - 99213—Office or other outpatient visit for the evaluation and management of an established patient (frequency = 18).
    - 91301—Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (COVID-19) vaccine, mRNA-LNP, spike protein, preservative free, 100 mcg/0.5mL dosage, for intramuscular use (frequency = 9).
    - G0009—Administration of pneumococcal vaccine (frequency = 9).

Procedure Code Modifier Completeness

Table 3-7 displays the percentage of procedure code modifiers identified in the encounter data that had no supporting documents in the customers' medical records (i.e., medical record omission) and the percentage of procedure code modifiers from customers' medical records that were not found in the encounter data (i.e., encounter data omission) for each health plan. HSAG conducted the analyses at the procedure code modifier level.

Table 3-7—Medical Record Omission and Encounter Data Omission for Procedure Code Modifier

	Medical Record Omission		Encounter Data Omission	
Health Plan	Number of Procedure Code Modifiers Identified in Encounter Data	Percent Not Documented in Customers' Medical Records*	Number of Procedure Code Modifiers Identified in Customers' Medical Records	Percent Not Found in Encounter Data*
Aetna	498	60.6%	206	4.9%
BCBSIL	552	37.0%	359	3.1%
CountyCare	395	49.6%	216	7.9%
Meridian	384	63.0%	148	4.1%
Molina	428	37.9%	270	1.5%
YouthCare	420	41.2%	277	10.8%
All Health Plans	**2,677**	**47.8%**	**1,476**	**5.3%**

*Lower rates indicate better performance.

Key Findings: Table 3-7

- Overall, 47.8 percent of the procedure code modifiers identified in the encounter data were not supported by the customers' medical records (i.e., medical record omission). All health plans, regardless of the percentage of sampled medical records submitted, had a high rate of medical record submission, ranging from 37.0 percent (BCBSIL) to 63.0 percent (Meridian).
  - The overall medical record omission rate for the *Procedure Code Modifier* data element could have been attributed to several factors, including medical record non-submission for which subsequent procedure codes and procedure code modifiers were treated as medical record omissions; omitted procedure codes for which associated procedure code modifiers were also omitted; and providers not documenting the evidence related to the modifiers in the medical records despite submitting the modifiers to the health plans.
  - Among records wherein procedure codes modifiers were considered medical record omissions, approximately 67 percent were due to HSAG not receiving medical records or the medical records not supporting the sampled date of service.
  - For cases with medical records to validate the date of service, procedure code modifiers that were frequently omitted from the customers' medical records included:
    - ET—Emergency services (frequency = 132).
    - 26—Describes the professional component is outlined as a physician's service, which may include technician supervision, interpretation of results, and a written report (frequency = 83).
    - 25—Significant, separately identifiable evaluation and management service by the same physician or other qualified healthcare professional on the same day of the procedure or other service (frequency = 59).

- Overall, 5.3 percent of the procedure code modifiers identified in the medical records were not found in HFS' encounter data (i.e., encounter data omission), with rates ranging from 1.5 percent (Molina) to 10.8 percent (YouthCare).
  - Potential contributors for the procedure code modifier encounter data omissions included the following:
    - The dates of service from the medical record did not match the encounter data; therefore, all procedure code modifiers associated with those dates of service were treated as encounter data omissions.
    - Procedure codes were omitted from the encounter data; therefore, all procedure code modifiers corresponding to those procedure codes were treated as encounter data omissions.
    - The provider made a coding error or did not submit the procedure code modifiers despite providing the specific services.
  - For cases with medical records to validate the date of service, procedure code modifiers frequently included in the customers' medical records but not found in HFS' encounters included:
    - 95—Synchronous telemedicine service (frequency = 54).
    - GT—Via interactive audio and video telecommunications systems (frequency = 10)

Encounter Data Accuracy

Encounter data accuracy was evaluated for dates of service found in both HFS' encounter data and the submitted medical records, with values present in both data sources for the evaluated data element. HSAG considered the encounter data elements (i.e., *Diagnosis Code*, *Procedure Code*, and *Procedure Code Modifier*) accurate if documentation in the medical record supported the values contained in the electronic encounter data. **Higher accuracy rates for each data element indicate better performance**.

Diagnosis Code Accuracy

Table 3-8 presents the percentage of diagnosis codes associated with validated dates of service from the encounter data that were correctly coded based on the customers' medical records. Errors found in the diagnosis coding are separated into two categories: inaccurate coding and specificity error. Inaccurate coding occurred when the diagnosis code submitted by the provider should have been selected from a different family of codes based on the documentation in the medical record (e.g., R51 [headache] versus the documentation supporting G43 [migraine]). A specificity error occurred when the documentation supported a more specific code than was listed in HFS' encounter data (e.g., unspecified abdominal pain [R10.9] when the provider noted during the exam that the abdominal pain was in the right lower quadrant [R10.31]). Specificity errors also include diagnosis codes that do not have the required fourth or fifth digit.

Inaccurate coding and specificity errors in medical records were collectively considered as the denominator for the error type rates in Table 3-8.

Table 3-8—Accuracy Results and Inaccuracy Reason for Diagnosis Code

	Accuracy Results		Error Type Rate	
Health Plan	Number of Diagnoses Present in Both Sources	Accuracy Rate	Percent From Inaccurate Coding	Percent From Specificity Error
Aetna	752	99.7%	100.0%	0.0%
BCBSIL	1,102	99.7%	100.0%	0.0%
CountyCare	853	99.5%	100.0%	0.0%
Meridian	717	99.4%	75.0%	25.0%
Molina	1,141	99.3%	100.0%	0.0%
YouthCare	690	99.9%	100.0%	0.0%
All Health Plans	**5,255**	**99.6%**	**95.5%**	**4.5%**

Key Findings: Table 3-8

- Overall, 99.6 percent of the diagnosis cods were accurate when they were present in both the encounter data and the medical records, with each health plan having rates of at least 99.3 percent.
- For diagnosis coding accuracy, 100.0 percent of the errors were due to discrepancies between submitted codes and the National Correct Coding Initiative (NCCI) coding standards rather than discrepancies associated with specificity errors for all plans except Meridian. For Meridian, 75 percent of all diagnosis codes were due to inaccurate coding, whereas 25 percent were due to a specificity error.

Procedure Code Accuracy

Table 3-9 presents the percentage of procedure codes associated with validated dates of service from the encounter data that were correctly coded based on the customers' medical records. In addition, errors found in the procedure coding were separated into three categories:

- Higher level of service in the medical record: Evaluation and management (E&M) codes documented in the medical record reflected a higher level of service performed by the provider than the E&M codes submitted in the encounter data. For example, a patient was seen by a physician for a follow-up appointment for a worsening earache wherein the physician noted all key elements in the patient's medical record. The physician also changed the patient's medication during this visit. The encounter submitted showed a procedure code of 99212 (established patient self-limited or minor problem); however, with all key elements documented indicating a worsening condition, this visit should have been coded with a higher level of service, such as 99213 (established patient low-to-moderate severity).
- Lower level of service in the medical record: E&M codes documented in the medical record reflected a lower level of service than the E&M codes submitted in the encounter data. For example,

a provider's notes omitted critical documentation elements of the E&M service, or the problem treated did not warrant a high-level visit. This would apply to a patient follow-up visit for an earache that was improving, required no further treatment, and for which no further problems were noted. The encounter submitted showed a procedure code of 99213 (established patient low-to-moderate severity); however, with an improving condition, the medical record describes a lower level of service, or 99212 (established patient self-limited or minor problem).

- Inaccurate coding: The documentation in the medical records did not support the procedure codes billed, or an incorrect procedure code was used in the encounter for scenarios other than the two mentioned above.

Table 3-9—Accuracy Results and Inaccuracy Reason for Procedure Code

	Accuracy Results		Error Type Rate		
Health Plan	Number of Procedure Codes Present in Both Sources	Accuracy Rate	Percent From Inaccurate Coding	Percent From Higher Levels of Service in Medical Records	Percent From Lower Levels of Service in Medical Records
Aetna	743	99.6%	100.0%	0.0%	0.0%
BCBSIL	1,094	99.5%	83.3%	0.0%	16.7%
CountyCare	993	99.2%	87.5%	0.0%	12.5%
Meridian	709	99.6%	66.7%	0.0%	33.3%
Molina	1,043	99.6%	100.0%	0.0%	0.0%
YouthCare	730	99.5%	50.0%	0.0%	50.0%
All Health Plans	**5,312**	**99.5%**	**82.1%**	**0.0%**	**17.9%**

Key Findings: Table 3-9

- Among the health plans, 99.5 percent of the procedure codes were accurate when present in both HFS' encounter data and the medical records. The health plan's rates were similar, with at least 99.2 percent accuracy.
- For the procedure coding accuracy, 82.1 percent of the identified errors were associated with the use of inaccurate codes. Secondly, 17.9 percent of the identified errors resulted from providers submitting codes for a higher level of service than was supported and documented in the medical records (i.e., procedure code was considered in error due to lower level of service having been documented in the medical record). Lastly, 0.0 percent of the identified errors were associated with providers submitting codes for a lower level of service than was documented in customers' medical records (i.e., the procedure code was considered an error due to a higher-level procedure code having been documented in the medical record).

Procedure Code Modifier Accuracy

Table 3-10 displays the percentage of procedure code modifiers associated with validated dates of service from the encounter data that were correctly coded based on customers' medical records. The errors for this data element could not be separated into subcategories and therefore are not presented in Table 3-10. Example errors for this data element include instances wherein the procedure code modifier left (LT) was used instead of right (RT) to indicate the side of the body on which a service or procedure was performed, or modifier 95 or modifier GT (i.e., services were delivered via an interactive audio and video telecommunications systems) was present, but the documentation did not support telemedicine services.

Table 3-10—Accuracy Results for Procedure Code Modifier

Health Plan	Number of Procedure Code Modifiers Present in Both Sources	Accuracy Rate
Aetna	196	100.0%
BCBSIL	348	100.0%
CountyCare	199	100.0%
Meridian	142	100.0%
Molina	266	100.0%
YouthCare	247	99.6%
All Health Plans	**1,398**	**99.9%**

Key Findings: Table 3-10

- Overall, 99.9 percent of the procedure code modifiers were accurate when the procedure code modifiers were present in both HFS' encounter data and the submitted medical record. All health plans had high levels of accuracy for the procedure code modifiers, with health plan rates of at least 99.6 percent. In fact, five of six health plans demonstrated a 100 percent accuracy rate.

All-Element Accuracy

Table 3-11 displays the percentage of dates of service present in both HFS' encounter data and the medical records with the same values for all key data elements listed in Table 2-1. The denominator is the total number of dates of service that matched in both data sources. The numerator is the total number of dates of service with matching values for all key data elements. Higher all-element accuracy rates indicate greater overall completeness and accuracy of HFS' encounter data when compared to the medical records.

It is important to note that the denominator for the individual element accuracy rate for each data element was defined differently from the denominator for the aggregated all-element accuracy rate. Therefore, the all-element accuracy rate could not be derived from the accuracy rate from each data element. Using diagnosis code as an example, each diagnosis code was assigned to one of the four mutually exclusive categories: medical record omission, encounter data omission, accurate, or inaccurate. When evaluating the element accuracy for each key data element, the denominator is the number of values in the accurate and inaccurate categories. However, for the all-element accuracy rate, the denominator is the total number of dates of service that matched between the medical records and the encounter data, and the numerator is the total number of dates of service with the same values for all key data elements. Therefore, for each date of service, if any of the data elements were in the medical record omission, encounter data omission, or inaccurate categories, the date of service was not counted in the numerator for the all-element accuracy rate.

Table 3-11—All-Element Accuracy

Health Plan	Number of Dates of Service Present in Both Sources	All Element Accuracy Rate*
Aetna	322	74.2%
BCBSIL	498	70.5%
CountyCare	381	64.3%
Meridian	328	68.3%
Molina	518	79.0%
YouthCare	337	75.7%
All Health Plans	**2,384**	**72.3%**

* The denominator for the element accuracy rate for each data element was defined differently from the denominator for the all-element accuracy rate. Therefore, the all-element accuracy rate could not be derived from the accuracy rate from each data element.

Key Findings: Table 3-11

- Overall, 72.3 percent of the dates of service present in both data sources (i.e., encounter data and medical records) contained accurate values for all key data elements (i.e., *Diagnosis Code*, *Procedure Code*, and *Procedure Code Modifier*), with health plan rates ranging from 64.3 percent (CountyCare) to 79.0 percent (Molina).

4. Discussion

Conclusions

The MRR activity evaluated encounter data completeness and accuracy through a review of medical records for physician services rendered from July 1, 2020, to June 30, 2021, for four key data elements:

- Date of service
- Diagnosis code
- Procedure code
- Procedure code modifier

For each data element, HSAG evaluated the encounter data for completeness and accuracy. Medical record omissions determine the percentage of data elements contained in the encounter data that are not documented in the medical record. Conversely, encounter data omissions evaluate the percentage of data elements documented in the medical record that are not contained in the encounter data. For data elements contained in both sources wherein there was a matching date of service, HSAG evaluated the accuracy of the data elements. For data elements that were not supported, HSAG determined the associated error type.

Encounter Data Completeness

Table 4-1 displays the medical record and encounter data omission rates for each key data element.

Table 4-1—Encounter Data Completeness Summary

Key Data Elements	Medical Record Omission*		Encounter Data Omission*	
	All Health Plans	Health Plan Range	All Health Plans	Health Plan Range
Date of Service	24.5%	4.8%–36.5%	3.8%	2.4%–7.2%
Diagnosis Code	25.0%	7.6%–35.5%	2.2%	1.4%–4.2%
Procedure Code	30.6%	13.9%–44.6%	3.2%	1.7%–5.0%
Procedure Code Modifier	47.8%	37.0%–63.0%	5.3%	1.5%–10.8%

*Lower rates indicate better performance.

The final sample cases included in the evaluation consisted of 411 cases randomly selected per health plan, along with any submitted second dates of service for each sampled customer. This totaled to 1,748 submitted medical records.

Overall, the medical record omission rates were higher than the encounter data omission rates for all of the key data elements, which is likely due to the high non-submission rate from four of the six health plans (i.e., Aetna, CountyCare, Meridian, and YouthCare). The medical records generally supported the

encounter data, with the encounter data omission rates ranging from 2.2 percent (*Diagnosis Code*) to 5.3 percent (*Procedure Code Modifier*).

The health plan variations were extreme for the medical record omission rates, with the ranges between health plans consistently exceeding 20 percentage points. This is likely due to the high non-submission rate from health plans.

As determined during the review, some common reasons for medical record omission included:

- The medical record was not submitted for the study.
- The provider did not document the services performed in the medical record despite submitting claims or encounters.
- The provider did not provide the service(s) found in the encounter data.

The encounter data omission rates reveal that all key data elements, when found in the medical records, were well supported by the encounter data extracted from HFS' data warehouse. As displayed in Table 4-1, all data elements had omission rates of around 5.0 percent or less. Additionally, the health plan range for encounter data omissions contained less variation when compared to the medical record omission rates, with the largest range in *Procedure Code Modifier* at around 9 percentage points. The modifiers with the highest frequency of omission from the encounter data were due to telehealth services.

The potential reasons for encounter data omissions included the following:

- The provider's billing office made a coding error or did not submit the procedure codes or modifiers despite performing the specific services.
- Differences related to HFS-specific billing and reimbursement guidelines.
- A lag occurred between the provider's performance of the service and the submission of the encounter to the health plan and/or HFS.

Encounter Data Accuracy

Table 4-2 displays the element accuracy rates for each key data element and the all-element accuracy rates.

Table 4-2—Encounter Data Accuracy Summary

Key Data Elements	All Health Plan Rate	Health Plan Range	Error Type
Diagnosis Code	99.6%	99.3%–99.9%	Incorrect Code (95.5%) Specificity Error (4.5%)

Key Data Elements	All Health Plan Rate	Health Plan Range	Error Type
Procedure Code	99.5%	99.2%–99.6%	Incorrect Code (82.1%) Higher Level of Service in Medical Records (0.0%) Lower Level of Service in Medical Records (17.9%)
Procedure Code Modifier	99.9%	99.6%–100%	—
All-Element Accuracy*	72.3%	64.3%–79.0%	—

* The denominator for the element accuracy rate for each data element was defined differently from the denominator for the all-element accuracy rate. Therefore, the all-element accuracy rate could not be derived from the accuracy rate from each data element.

"—" denotes that the error type analysis was not applicable to a given data element.

In general, when key data elements were present in both HFS' encounter data and the medical records, and were evaluated independently, the data elements were found to be accurate. As displayed in Table 4-2, 99.6 percent of diagnosis codes, 99.5 percent of procedure codes, and 99.9 percent of procedure code modifiers were accurate when found in both sources.

The accuracy rate for the *Diagnosis Code* and *Procedure Code* data elements can be affected by different types of errors. The errors affecting the *Diagnosis Code* data element were mostly due to discrepancies between submitted codes and the NCCI coding standards (95.5 percent) rather than discrepancies associated with specificity errors (4.5 percent). For the *Procedure Code* data element, 82.1 percent of the identified errors were associated with the use of inaccurate codes not supported by NCCI coding standards, and 17.9 percent involved providers submitting higher-level service codes than those supported in the customers' medical records.

About 72.0 percent of the dates of service present in both data sources accurately represented all three data elements (i.e., *Diagnosis Code*, *Procedure Code*, and *Procedure Code Modifier*) when compared to the customers' medical records. At the health plan level, the all-element accuracy rate ranged from 64.3 percent (CountyCare) to 79.0 percent (Molina).

Recommendations

To improve the quality of encounter data submissions from the health plans, HSAG offers the following recommendations to assist HFS and the health plans in addressing opportunities for improvement:

- MRR results indicated that the physician visit encounters submitted by the health plans and maintained in HFS' data warehouse were relatively complete and accurate when compared to the customers' medical records, with few exceptions. As such, HSAG recommends that HFS continue its current efforts in monitoring encounter data submissions and addressing any identified data issues with the health plan's encounter data submissions.

- Of the requested medical records, one in four was not procured due to a provider not responding or not responding in a timely manner. Since medical records serve as the "gold standard" for documenting rendered services, if the medical record does not accurately reflect the encounter submitted to the health plan, then analyses using the encounter data may not accurately reflect a customer's level of care. HFS should work with health plans to help relay the importance of a MRR for EDV activities. Contracted providers should be held accountable in responding to medical record requests for auditing, inspection, and oversight. HSAG recommends that the health plans consider strengthening and/or enforcing their contract requirements with providers in providing the requested documentation.

Study Limitations

When evaluating the findings presented in this report, it is important to understand the following limitations associated with this study:

- Accurate evaluation of the completeness and accuracy of HFS' encounter data depends on the health plans' ability to procure customers' complete and accurate medical records. Therefore, validation results may have been affected by a health plan's inability to successfully obtain medical records from its provider network (e.g., non-responsive provider) or if the submitted medical records were incomplete (e.g., submission of a visit summary instead of the complete medical record).
- Study findings of the MRR relied solely on the documentation contained in customers' medical records; therefore, results are dependent on the overall quality of physicians' medical records. For example, a physician may have performed a service but may not have documented it in the customer's medical record. As such, HSAG would have counted this occurrence as a negative finding. This study was unable to distinguish cases in which a service was not performed versus those in which a service was performed but not documented in the medical record.
- The findings from this study are associated with encounters with dates of service from July 1, 2020, to June 30, 2021. Therefore, the results may not reflect the current quality of HFS' encounter data.
- The findings from this study are associated with professional physician visits and may not be applicable to other claim types.

Appendix A. Results for Aetna Better Health of Illinois

This appendix contains detailed MRR results, strengths, weaknesses, and recommendations for Aetna Better Health of Illinois (Aetna).

Medical Record Review Results

Table A-1—Medical Record Procurement Status

Health Plan	Number of Medical Records Submitted	Number of Medical Records Requested	Percentage of Records Submitted
Aetna	234	411	56.9%

Table A-2—Reasons Medical Records Not Submitted

Non-Submission Reason	Number	Percent
Medical record was not located at this facility; location unknown.	14	7.9%
Customer was a patient of this facility; however, no documentation was available for the requested date of service.	20	11.3%
Customer was not a patient of the practice.	17	9.6%
Non-responsive provider or provider did not respond in a timely manner.	116	65.5%
Provider refused to release the medical record.	2	1.1%
Facility was permanently closed; unable to procure record.	0	0.0%
Other.	8	4.5%
Total*	**177**	**100.0%**

*The sum of rates from all non-submission reasons may not equal 100 percent due to rounding.

Table A-3—MRR Encounter Data Completeness

	Medical Record Omission		Encounter Data Omission	
Data Element	Denominator	Percent*	Denominator	Percent*
Date of Service	507	36.5%	333	3.3%
Diagnosis Code	1,153	34.8%	768	2.1%
Procedure Code	1,222	39.2%	759	2.1%
Procedure Code Modifier	498	60.6%	206	4.9%

*Lower rates indicate better performance.

Table A-4—MRR Encounter Data Accuracy

Data Element	Denominator	Percent	Error Type Percentages
Diagnosis Code	752	99.7%	Incorrect Code (100.0%) Specificity Error (0.0%)
Procedure Code	743	99.6%	Incorrect Code (100.0%) Higher Levels of Service in Medical Records (0.0%) Lower Levels of Service in Medical Records (0.0%)
Procedure Code Modifier	196	100.0%	—
All-Element Accuracy*	322	74.2%	—

* The denominator for the element accuracy rate for each data element was defined differently from the denominator for the all-element accuracy rate. Therefore, the all-element accuracy rate could not be derived from the accuracy rate from each data element.

"—" denotes that the error type analysis was not applicable to a given data element.

Conclusions

Based on MRR results, HSAG identified the areas of strength and opportunities for improvement that may pertain to the domains of quality, timeliness, and access to services furnished by the health plan. Along with each opportunity for improvement, HSAG has also provided a recommendation to help target improvement efforts. Table A-5 highlights Aetna's strengths, weaknesses, and recommendations, as applicable, that were identified from the MRR.

Strengths and Weaknesses

Table A-5—Strengths, Weaknesses, and Recommendations: Aetna

Strength/ Weakness	Description
+	**Strength:** Encounter data omission rates were low across all key data elements, ranging from 2.1 percent (diagnosis code and procedure code) to 4.9 percent (procedure code modifier). This finding indicates that the encounter data are supported by the medical records and that future analyses using these data can be performed with confidence.
+	**Strength:** When key data elements were present in both the encounter data and the customers' medical records and were evaluated independently, the data element values were found to be accurate, with rates of at least 99 percent each.
−	**Weakness:** Aetna submitted less than two-thirds of sampled medical records. Of the medical records not submitted, nearly 66 percent were not submitted due to non-responsive providers. **Why the weakness exists:** Across MRRs, the most common reason why medical records are not being procured is non-responsive providers, especially in recent years wherein the COVID-19 PHE had a direct impact on provider operations. However, there could be a multitude of other reasons why providers are not responding to Aetna's request for medical records.

Strength/ Weakness	Description
	Recommendations: Aetna should relay the importance of a MRR for EDV activities to contracted providers. Contracted providers should be held accountable in responding to medical record requests for auditing, inspection, and oversight. HSAG recommends that the health plans consider strengthening and/or enforcing their contract requirements with providers in providing the requested documentation to ensure future data requests can be met.
−	**Weakness:** Aetna had a high rate of non-submitted medical records (43.1 percent), which caused a high rate of medical record omissions across all analyses. However, over two-thirds of all medical record omissions across all key data elements were due to non-submission. Of all diagnosis codes in the encounter data, 34.8 percent were not documented in the medical record. This number increased to 39.2 percent for procedure codes and almost 61 percent for procedure code modifiers. **Why the weakness exists:** Non-submitted medical records contribute toward a medical record omission since the expected data in the medical record cannot be compared to the encounter data. However, other factors can contribute toward medical record omissions, such as providers not correctly documenting the services performed in the medical record, even though an encounter was submitted indicating that the service occurred; or, the provider may not have provided the service(s) found in the encounter data. **Recommendations:** For instances wherein there was a medical record omission for a submitted medical record, Aetna should investigate the root cause for the omissions and consider performing periodic MRRs of submitted claims to verify appropriate coding and data completeness, where appropriate. Any findings from these reviews would then be provided to providers through periodic education and training regarding encounter data submissions, medical record documentation, and coding practices.

Appendix B. Results for Blue Cross Blue Shield of Illinois

This appendix contains detailed MRR results, strengths, weaknesses, and recommendations for Blue Cross Blue Shield of Illinois (BCBSIL).

Medical Record Review Results

Table B-1—Medical Record Procurement Status

Health Plan	Number of Medical Records Submitted	Number of Medical Records Requested	Percentage of Records Submitted
BCBSIL	406	411	98.8%

Table B-2—Reasons Medical Records Not Submitted

Non-Submission Reason	Number	Percent
Medical record was not located at this facility; location unknown.	0	0.0%
Customer was a patient of this facility; however, no documentation was available for the requested date of service.	0	0.0%
Customer was not a patient of the practice.	0	0.0%
Non-responsive provider or provider did not respond in a timely manner.	4	80.0%
Provider refused to release the medical record.	0	0.0%
Facility was permanently closed; unable to procure record.	0	0.0%
Other.	1	20.0%
Total*	**5**	**100.0%**

*The sum of rates from all non-submission reasons may not equal 100 percent due to rounding.

Table B-3—MRR Encounter Data Completeness

	Medical Record Omission		Encounter Data Omission	
Data Element	Denominator	Percent*	Denominator	Percent*
Date of Service	523	4.8%	513	2.9%
Diagnosis Code	1,192	7.6%	1,122	1.8%
Procedure Code	1,271	13.9%	1,128	3.0%
Procedure Code Modifier	552	37.0%	359	3.1%

*Lower rates indicate better performance.

Table B-4—MRR Encounter Data Accuracy

Data Element	Denominator	Percent	Error Type Percentages
Diagnosis Code	1,102	99.7%	Incorrect Code (100.0%) Specificity Error (0.0%)
Procedure Code	1,094	99.5%	Incorrect Code (83.3%) Higher Levels of Service in Medical Records (0.0%) Lower Levels of Service in Medical Records (16.7%)
Procedure Code Modifier	348	100.0%	—
All-Element Accuracy	498	70.5%	—

* The denominator for the element accuracy rate for each data element was defined differently from the denominator for the all-element accuracy rate. Therefore, the all-element accuracy rate could not be derived from the accuracy rate from each data element.

"—" denotes that the error type analysis was not applicable to a given data element.

Conclusions

Based on MRR results, HSAG identified the areas of strength and opportunities for improvement that may pertain to the domains of quality, timeliness, and access to services furnished by the health plan. Along with each opportunity for improvement, HSAG has also provided a recommendation to help target improvement efforts. Table B-5 highlights BCBSIL's strengths, weaknesses, and recommendations, as applicable, that were identified from the MRR.

Strengths and Weaknesses

Table B-5—Strengths, Weaknesses, and Recommendations: BCBSIL

Strength/ Weakness	Description
+	**Strength:** A high percentage of dates of service and diagnosis codes within the encounter data were supported by the customers' medical records, as evidenced by the low medical record omission rates of 4.8 percent and 7.6 percent, respectively. This indicates that providers are accurately documenting and submitting encounters to BCBSIL.
+	**Strength:** Encounter data omission rates were low across all key data elements, ranging from 1.8 percent (diagnosis code) to 3.1 percent (procedure code modifier). This finding indicates that the encounter data are supported by the medical records and that future analyses using these data can be performed with confidence.
+	**Strength:** When key data elements were present in both the encounter data and the customers' medical records and were evaluated independently, the data element values were found to be accurate, with rates of at least 99 percent each.

Strength/ Weakness	Description
−	**Weakness:** Of all procedure code modifiers found in the encounter data, 37 percent were not supported by the customers' medical records. **Why the weakness exists:** Factors contributing to procedure code modifiers not being supported by the customers' medical records may have been due to providers not documenting the services in the medical records despite submitting a claim or encounter. Additionally, the provider may not have provided the service(s) found in the encounter data. **Recommendations:** BCBSIL should investigate the root cause for the omissions and consider performing periodic MRRs of submitted claims to verify appropriate coding and data completeness, where appropriate. Any findings from these reviews would then be provided to providers through periodic education and training regarding encounter data submissions, medical record documentation, and coding practices.

Appendix C. Results for CountyCare

This appendix contains detailed MRR results, strengths, weaknesses, and recommendations for CountyCare (CountyCare).[6]

Medical Record Review Results

Table C-1—Medical Record Procurement Status

Health Plan	Number of Medical Records Submitted	Number of Medical Records Requested	Percentage of Records Submitted
CountyCare	255	411	62.0%

Table C-2—Reasons Medical Records Not Submitted

Non-Submission Reason	Number	Percent
Medical record was not located at this facility; location unknown.	0	0.0%
Customer was a patient of this facility; however, no documentation was available for the requested date of service.	1	0.6%
Customer was not a patient of the practice.	1	0.6%
Non-responsive provider or provider did not respond in a timely manner.	152	97.4%
Provider refused to release the medical record.	0	0.0%
Facility was permanently closed; unable to procure record.	0	0.0%
Other.	2	1.3%
Total*	**156**	**100.0%**

*The sum of rates from all non-submission reasons may not equal 100 percent due to rounding.

Table C-3—MRR Encounter Data Completeness

	Medical Record Omission		Encounter Data Omission	
Data Element	Denominator	Percent*	Denominator	Percent*
Date of Service	542	29.7%	391	2.6%
Diagnosis Code	1,209	29.4%	865	1.4%
Procedure Code	1,511	34.3%	1,045	5.0%

[6] Serves Cook County only.

	Medical Record Omission		Encounter Data Omission	
Data Element	Denominator	Percent*	Denominator	Percent*
Procedure Code Modifier	395	49.6%	216	7.9%

*Lower rates indicate better performance.

Table C-4—MRR Encounter Data Accuracy

Data Element	Denominator	Percent	Error Type Percentages
Diagnosis Code	853	99.5%	Incorrect Code (100.0%) Specificity Error (0.0%)
Procedure Code	993	99.2%	Incorrect Code (87.5%) Higher Levels of Service in Medical Records (0.0%) Lower Levels of Service in Medical Records (12.5%)
Procedure Code Modifier	199	100.0%	—
All-Element Accuracy	381	64.3%	—

* The denominator for the element accuracy rate for each data element was defined differently from the denominator for the all-element accuracy rate. Therefore, the all-element accuracy rate could not be derived from the accuracy rate from each data element.

"—" denotes that the error type analysis was not applicable to a given data element.

Conclusions

Based on MRR results, HSAG identified the areas of strength and opportunities for improvement that may pertain to the domains of quality, timeliness, and access to services furnished by the health plan. Along with each opportunity for improvement, HSAG has also provided a recommendation to help target improvement efforts. Table C-5 highlights CountyCare's strengths, weaknesses, and recommendations, as applicable, that were identified from the MRR.

Strengths and Weaknesses

Table C-5—Strengths, Weaknesses, and Recommendations: CountyCare

Strength/ Weakness	Description
+	**Strength:** Encounter data omission rates were generally low across all key data elements, ranging from 1.4 percent (diagnosis code) to 7.9 percent (procedure code modifier). This finding indicates that the encounter data are supported by the medical records and that future analyses using these data can be performed with confidence.

Strength/ Weakness	Description
+	**Strength:** When key data elements were present in both the encounter data and the customers' medical records and were evaluated independently, the data element values were found to be accurate, with rates of at least 99 percent each.
−	**Weakness:** CountyCare submitted less than two-thirds of sampled medical records. Of the medical records not submitted, about 97 percent were not submitted due to non-responsive providers. **Why the weakness exists:** Across MRRs, the most common reason why medical records are not being procured is non-responsive providers, especially in recent years where the COVID-19 PHE had a direct impact on provider operations. However, there could be a multitude of other reasons why providers are not responding to CountyCare's request for medical records. **Recommendations:** CountyCare should relay the importance of a MRR for EDV activities to contracted providers. Contracted providers should be held accountable in responding to medical record requests for auditing, inspection, and oversight. HSAG recommends that the health plans consider strengthening and/or enforcing their contract requirements with providers in providing the requested documentation to ensure future data requests can be met.
−	**Weakness:** CountyCare had a high rate of non-submitted medical records (38 percent), which caused a high rate of medical record omissions across all analyses. However, over two-thirds of all medical record omissions across all key data elements were due to non-submission. Of all diagnosis codes in the encounter data, 29.4 percent were not documented in the medical record. This number increased to 34.3 percent for procedure codes and to 49.6 percent for procedure code modifiers. **Why the weakness exists:** Non-submitted medical records contribute toward a medical record omission since the expected data in the medical record cannot be compared to the encounter data. However, other factors can contribute toward medical record omissions, such as providers not correctly documenting the services performed in the medical record, even though an encounter was submitted indicating that the service occurred; or, the provider may not have provided the service(s) found in the encounter data. **Recommendations:** For instances wherein there was a medical record omission for a submitted medical record, CountyCare should investigate the root cause for the omissions and consider performing periodic MRRs of submitted claims to verify appropriate coding and data completeness, where appropriate. Any findings from these reviews would then be provided to providers through periodic education and training regarding encounter data submissions, medical record documentation, and coding practices.

Appendix D. Results for MeridianHealth

This appendix contains detailed MRR results, strengths, weaknesses, and recommendations for MeridianHealth (Meridian).

Medical Record Review Results

Table D-1—Medical Record Procurement Status

Health Plan	Number of Medical Records Submitted	Number of Medical Records Requested	Percentage of Records Submitted
Meridian	249	411	60.6%

Table D-2—Reasons Medical Records Not Submitted

Non-Submission Reason	Number	Percent
Medical record was not located at this facility; location unknown.	1	0.6%
Customer was a patient of this facility; however, no documentation was available for requested date of service.	6	3.7%
Customer was not a patient of the practice.	2	1.2%
Non-responsive provider or provider did not respond in a timely manner.	153	94.4%
Provider refused to release the medical record.	0	0.0%
Facility was permanently closed; unable to procure record.	0	0.0%
Other.	0	0.0%
Total*	**162**	**100.0%**

*The sum of rates from all non-submission reasons may not equal 100 percent due to rounding.

Table D-3—MRR Encounter Data Completeness

	Medical Record Omission		Encounter Data Omission	
Data Element	Denominator	Percent*	Denominator	Percent*
Date of Service	504	34.9%	336	2.4%
Diagnosis Code	1,111	35.5%	728	1.5%
Procedure Code	1,279	44.6%	721	1.7%
Procedure Code Modifier	384	63.0%	148	4.1%

*Lower rates indicate better performance.

Table D-4—MRR Encounter Data Accuracy

Data Element	Denominator	Percent	Error Type Percentages
Diagnosis Code	717	99.4%	Incorrect Code (75.0%) Specificity Error (25.0%)
Procedure Code	709	99.6%	Incorrect Code (66.7%) Higher Levels of Service in Medical Records (0.0%) Lower Levels of Service in Medical Records (33.3%)
Procedure Code Modifier	142	100.0%	—
All-Element Accuracy	328	68.3%	—

* The denominator for the element accuracy rate for each data element was defined differently from the denominator for the all-element accuracy rate. Therefore, the all-element accuracy rate could not be derived from the accuracy rate from each data element.

"—" denotes that the error type analysis was not applicable to a given data element.

Conclusions

Based on MRR results, HSAG identified the areas of strength and opportunities for improvement that may pertain to the domains of quality, timeliness, and access to services furnished by the health plan. Along with each opportunity for improvement, HSAG has also provided a recommendation to help target improvement efforts. Table D-5 highlights Meridian's strengths, weaknesses, and recommendations, as applicable, that were identified from the MRR.

Strengths and Weaknesses

Table D-5—Strengths, Weaknesses, and Recommendations: Meridian

Strength/ Weakness	Description
+	**Strength:** Encounter data omission rates were low across all key data elements, ranging from 1.5 percent (diagnosis code) to 4.1 percent (procedure code modifier). This finding indicates that the encounter data are supported by the medical records and that future analyses using these data can be performed with confidence.
+	**Strength:** When key data elements were present in both the encounter data and the customers' medical records and were evaluated independently, the data element values were found to be accurate, with rates of at least 99 percent each.
−	**Weakness:** Meridian submitted less than two-thirds of sampled medical records. Of the medical records not submitted, nearly 95 percent were not submitted due to non-responsive providers. **Why the weakness exists:** Across MRRs, the most common reason why medical records are not being procured is non-responsive providers, especially in recent years wherein the COVID-19

Strength/ Weakness	Description
	PHE had a direct impact on provider operations. However, there could be a multitude of other reasons why providers are not responding to Meridian's request for medical records. **Recommendations:** Meridian should relay the importance of a MRR for EDV activities to contracted providers. Contracted providers should be held accountable in responding to medical record requests for auditing, inspection, and oversight. HSAG recommends that the health plans consider strengthening and/or enforcing their contract requirements with providers in providing the requested documentation to ensure future data requests can be met.
	**Weakness:** Meridian had a high rate of non-submitted medical records (39.4 percent), which caused a high rate of medical record omissions across all analyses. However, over two-thirds of all medical record omissions across all key data elements were due to non-submission. Of all diagnosis codes in the encounter data, 35.5 percent were not documented in the medical record. This number increased to 44.6 percent for procedure codes and 63.0 percent for procedure code modifiers. **Why the weakness exists:** Non-submitted medical records contribute toward a medical record omission since the expected data in the medical record cannot be compared to the encounter data. However, other factors can contribute toward medical record omissions, such as providers not correctly documenting the services performed in the medical record, even though an encounter was submitted indicating that the service occurred; or, the provider may not have provided the service(s) found in the encounter data. **Recommendations:** For instances wherein there was a medical record omission for a submitted medical record, Meridian should investigate the root cause for the omissions and consider performing periodic MRRs of submitted claims to verify appropriate coding and data completeness, where appropriate. Any findings from these reviews would then be provided to providers through periodic education and training regarding encounter data submissions, medical record documentation, and coding practices.

Appendix E. Results for Molina Healthcare of Illinois

This appendix contains detailed MRR results, strengths, weaknesses, and recommendations for Molina Healthcare of Illinois (Molina).

Medical Record Review Results

Table E-1—Medical Record Procurement Status

Health Plan	Number of Medical Records Submitted	Number of Medical Records Requested	Percentage of Records Submitted
Molina	351	411	85.4%

Table E-2—Reasons Medical Records Not Submitted

Non-Submission Reason	Number	Percent
Medical record was not located at this facility; location unknown.	1	1.7%
Customer was a patient of this facility; however, no documentation was available for the requested date of service.	10	16.7%
Customer was not a patient of the practice.	0	0.0%
Non-responsive provider or provider did not respond in a timely manner.	46	76.7%
Provider refused to release the medical record.	2	3.3%
Facility was permanently closed; unable to procure record.	1	1.7%
Other	0	0.0%
Total*	**60**	**100.0%**

*The sum of rates from all non-submission reasons may not equal 100 percent due to rounding.

Table E-3—MRR Encounter Data Completeness

	Medical Record Omission		Encounter Data Omission	
Data Element	Denominator	Percent*	Denominator	Percent*
Date of Service	581	10.8%	542	4.4%
Diagnosis Code	1,293	11.8%	1,168	2.3%
Procedure Code	1,217	14.3%	1,080	3.4%
Procedure Code Modifier	428	37.9%	270	1.5%

*Lower rates indicate better performance.

Table E-4—MRR Encounter Data Accuracy

Data Element	Denominator	Percent	Error Type Percentages
Diagnosis Code	1,141	99.3%	Incorrect Code (100.0%) Specificity Error (0.0%)
Procedure Code	1,043	99.6%	Incorrect Code (100.0%) Higher Levels of Service in Medical Records (0.0%) Lower Levels of Service in Medical Records (0.0%)
Procedure Code Modifier	266	100.0%	—
All-Element Accuracy	518	79.0%	—

* The denominator for the element accuracy rate for each data element was defined differently from the denominator for the all-element accuracy rate. Therefore, the all-element accuracy rate could not be derived from the accuracy rate from each data element.

"—" denotes that the error type analysis was not applicable to a given data element.

Conclusions

Based on MRR results, HSAG identified the areas of strength and opportunities for improvement that may pertain to the domains of quality, timeliness, and access to services furnished by the health plan. Along with each opportunity for improvement, HSAG has also provided a recommendation to help target improvement efforts. Table E-5 highlights Molina's strengths, weaknesses, and recommendations, as applicable, that were identified from the MRR.

Strengths and Weaknesses

Table E-5—Strengths, Weaknesses, and Recommendations: Molina

Strength/ Weakness	Description
+	**Strength:** A moderately high percentage of dates of service and diagnosis codes within the encounter data were supported by the customers' medical records, as evidenced by the low medical record omission rates of 10.8 percent and 11.8 percent, respectively. This indicates that providers are accurately documenting and submitting encounters to Molina.
+	**Strength:** Encounter data omission rates were low across all key data elements, ranging from 1.5 percent (procedure code modifier) to 3.4 percent (procedure code). This finding indicates that the encounter data are supported by the medical records and that future analyses using these data can be performed with confidence.
+	**Strength:** When key data elements were present in both the encounter data and the customers' medical records and were evaluated independently, the data element values were found to be accurate, with rates of at least 99 percent each.

Strength/ Weakness	Description
−	**Weakness:** Of all procedure code modifiers found in the encounter data, 37.9 percent were not supported by the customers' medical records. **Why the weakness exists:** Factors contributing to procedure code modifiers not being supported by the customers' medical records may have been due to providers not documenting the services in the medical records despite submitting a claim or encounter. Additionally, the provider may not have provided the service(s) found in the encounter data. **Recommendations:** Molina should investigate the root cause for the omissions and consider performing periodic MRRs of submitted claims to verify appropriate coding and data completeness, where appropriate. Any findings from these reviews would then be provided to providers through periodic education and training regarding encounter data submissions, medical record documentation, and coding practices.

Appendix F. Results for YouthCare HealthChoice Illinois

This appendix contains detailed MRR results, strengths, weaknesses, and recommendations for YouthCare HealthChoice Illinois (YouthCare).

Medical Record Review Results

Table F-1—Medical Record Procurement Status

Health Plan	Number of Medical Records Submitted	Number of Medical Records Requested	Percentage of Records Submitted
YouthCare	253	411	61.6%

Table F-2—Reasons Medical Records Not Submitted

Non-Submission Reason	Number	Percent
Medical record was not located at this facility; location unknown.	3	1.9%
Customer was a patient of this facility; however, no documentation was available for the requested date of service.	8	5.1%
Customer was not a patient of the practice.	4	2.5%
Non-responsive provider or provider did not respond in a timely manner.	143	90.5%
Provider refused to release the medical record.	0	0.0%
Facility was permanently closed; unable to procure record.	0	0.0%
Other.	0	0.0%
Total*	**158**	**100.0%**

*The sum of rates from all non-submission reasons may not equal 100 percent due to rounding.

Table F-3—MRR Encounter Data Completeness

	Medical Record Omission		Encounter Data Omission	
Data Element	Denominator	Percent*	Denominator	Percent*
Date of Service	502	32.9%	363	7.2%
Diagnosis Code	1,050	34.3%	720	4.2%
Procedure Code	1,155	36.8%	756	3.4%
Procedure Code Modifier	420	41.2%	277	10.8%

*Lower rates indicate better performance.

Table F-4—MRR Encounter Data Accuracy

Data Element	Denominator	Percent	Error Type Percentages
Diagnosis Code	690	99.9%	Incorrect Code (100.0%) Specificity Error (0.0%)
Procedure Code	730	99.5%	Incorrect Code (50.0%) Higher Levels of Service in Medical Records (0.0%) Lower Levels of Service in Medical Records (50.0%)
Procedure Code Modifier	247	99.6%	—
All-Element Accuracy	337	75.7%	—

* The denominator for the element accuracy rate for each data element was defined differently from the denominator for the all-element accuracy rate. Therefore, the all-element accuracy rate could not be derived from the accuracy rate from each data element.

"—" denotes that the error type analysis was not applicable to a given data element.

Conclusions

Based on MRR results, HSAG identified the areas of strength and opportunities for improvement that may pertain to the domains of quality, timeliness, and access to services furnished by the health plan. Along with each opportunity for improvement, HSAG has also provided a recommendation to help target improvement efforts. Table F-5 highlights YouthCare's strengths, weaknesses, and recommendations, as applicable, that were identified from the MRR.

Strengths and Weaknesses

Table F-5—Strengths, Weaknesses, and Recommendations: YouthCare

Strength/ Weakness	Description
+	**Strength:** Encounter data omission rates were generally low across all key data elements, ranging from 3.4 percent (procedure code) to 10.8 percent (procedure code modifier). This finding indicates that the encounter data are supported by the medical records and that future analyses using these data can be performed with confidence.
+	**Strength:** When key data elements were present in both the encounter data and the customers' medical records and were evaluated independently, the data element values were found to be accurate, with rates of at least 99 percent each.
−	**Weakness:** YouthCare submitted less than two-thirds of sampled medical records. Of the medical records not submitted, nearly 91 percent were not submitted due to non-responsive providers. **Why the weakness exists:** Across MRRs, the most common reason why medical records are not being procured is non-responsive providers, especially in recent years wherein the COVID-19

Strength/ Weakness	Description
	PHE had a direct impact on provider operations. However, there could be a multitude of other reasons why providers are not responding to YouthCare's request for medical records. **Recommendations:** YouthCare should relay the importance of a MRR for EDV activities to contracted providers. Contracted providers should be held accountable in responding to medical record requests for auditing, inspection, and oversight. HSAG recommends that the health plans consider strengthening and/or enforcing their contract requirements with providers in providing the requested documentation to ensure future data requests can be met.
−	**Weakness:** YouthCare had a high rate of non-submitted medical records (38.4 percent), which caused a high rate of medical record omissions across all analyses. However, over two-thirds of all medical record omissions across all key data elements were due to non-submission. Of all diagnosis codes in the encounter data, 34.3 percent were not documented in the medical record. This number increased to 36.8 percent for procedure codes and 41.2 percent for procedure code modifiers. **Why the weakness exists:** Non-submitted medical records contribute toward a medical record omission since the expected data in the medical record cannot be compared to the encounter data. However, other factors can contribute toward medical record omissions, such as providers not correctly documenting the services performed in the medical record, even though an encounter was submitted indicating that the service occurred; or, the provider may not have provided the service(s) found in the encounter data. **Recommendations:** For instances wherein there was a medical record omission for a submitted medical record, YouthCare should investigate the root cause for the omissions and consider performing periodic MRRs of submitted claims to verify appropriate coding and data completeness, where appropriate. Any findings from these reviews would then be provided to providers through periodic education and training regarding encounter data submissions, medical record documentation, and coding practices.